SELF-ASSESSMENT REPORT (SAR)

For Accreditation of

MASTER OF COMPUTER APPLICATION (MCA)

Submitted to

NATIONAL BOARD OF ACCREDITATION

New Delhi

BY

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,

(Deemed to be University under section 3 of the UGC Act, 1956)

Kumaracoil-629 180, Thuckalay, Kanyakumari District, Tamil Nadu. India

JANUARY 2026

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PART A

Institutional Information

PART A: Institutional Information

1. **Name and Address of the Institution:**

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,
(Deemed to be University under section 3 of the UGC Act, 1956)
Kumaracoil-629 180, Thuckalay, Kanyakumari District, Tamil Nadu. India

2. **Type of the Institution: (Tick the applicable choice)**

Type of the Institution:

University	☐
Deemed University	√
Autonomous	☐
Affiliated	☐
Any other (Please specify)	☐

Provide Details:

3. **Year of Establishment of the Institution: 1989**

4. **Ownership Status: (Tick the applicable choice)**

Central Government	☐
State Government	☐
Grant –in Aid	☐
Self-Financing	☐
Trust	☐
Society	✓
Section 25 Company	☐
Any Other (Please specify)	☐

Provide Details:

5. **Name and Address of the Affiliating University(if any): NA**

6. **Other Academic Institutions of the Trust/Society/etc., if any: Nil**

S. No.	Name of the Institution(s)	Year of Establishment	Programs of Study	Location
1	..	..	..	..

Table No. A6. List of all Institutions running under the same trust/society.

7. **Details of all the Programs being offered by the Institution:**

S. No.	Program Name	Year of start	Sanctioned Intake	Increase/ decrease in intake,if any	Year of increase/ decrease	AICTE/ Approval details	Accreditation Status*
1.	B.E. Aeronautical Engineering	2009	**60**	30	**2021**	F.No. Southern/1-44640180195/2025/EOA	Not eligible for accreditation
2.	B.E. Aerospace Engineering	2011	**60**	30	**2021**		Not eligible for accreditation
3.	B.E. Aircraft Maintenance Engineering	2013	**60**	60	-		Not eligible for accreditation
4.	B.E. Automobile Engineering	2009	**60**	30	**2021**		Not eligible for accreditation
5.	B.E. Mechanical Engineering	1995	**60**	60	**2024**		Not Eligible for Accreditation
6.	B.Tech. Fire Technology and Safety Engineering	2011	**60**	60	-		Not Eligible for Accreditation
7.	B.E Biomedical Engineering	2009	**60**	60	-		Not Eligible for Accreditation
8.	B.Tech. Nano Technology	2009	**60**	30	**2020**		Not Eligible for Accreditation
9.	B.E. Electronics and Communication Engineering	1989	**30**	30	-	F.No. Southern/1-44640180195/2025/EOA	Not Eligible for Accreditation
10.	B.E. Electrical and Electronics Engineering.	1993	**60**	30	**2021**		Not Eligible for Accreditation

S. No.	Program Name	Year of start	Sanctioned Intake	Increase/ decrease in intake,if any	Year of increase/ decrease	AICTE/ Approval details	Accreditation Status*
11.	B.E. Electronics and Instrumentation Engineering	1997	**60**	30	**2019**		Not Eligible for Accreditation
12.	B.E. Civil Engineering	2007	**60**	30	**2021**		Not Eligible for Accreditation
13.	B.E. Computer Science and Engineering	1989	**30**	60	**2021**		Eligible
14.	B.Tech. Information Technology	1998	**30**	90	**2025**		Eligible
15.	B.E. Computer Science and Engineering (Artificial Intelligence)	2025	**60**	60	-		Not Eligible for Accreditation
16.	B.E Artificial Intelligence and Machine Learning	2025	**60**	60	-		Not Eligible for Accreditation
17.	B.E. Marine Engineering.	2008	**60**	30	**2021**	F.No. Southern/1-4464018019 5/2025/EOA	Not Eligible for Accreditation
18.	B.E Artificial Intelligence and Data Science	2020	**30**	60	**2025**		Not Eligible for Accreditation
19.	MBA Logistics and Supply Chain Management	2024	**30**	30	-		Not Eligible for Accreditation
20.	B.E. Computer Engineering (Software Engineering)	2025	**30**	30	-		Not Eligible for Accreditation
21.	M.E. Applied Electronics	2007	**18**	9	**2019**	F.No. Southern/1-44640180195/2025/EOA	Not Eligible for Accreditation
22.	M.E. Communication Systems	2007	**25**	12	**2021**		Not Eligible for Accreditation
23.	M.E. Control and	2007	**18**	12	**2021**		Not Eligible for Accreditation

S. No.	Program Name	Year of start	Sanctioned Intake	Increase/ decrease in intake,if any	Year of increase/ decrease	AICTE/ Approval details	Accreditation Status*
	Instrumentation Engineering						
24.	M.E. Aeronautical Engineering	2011	**18**	9	**2019**		Not Eligible for Accreditation
25.	M.E. Structural Engineering	2013	**18**	12	**2025**		Not Eligible for Accreditation
26.	M.E. Computer Science and Engineering	2009	**25**	12	**2021**		Not Eligible for Accreditation
27.	MCA-Master of Computer Applications	1995	**20**	60	**2021**		Eligible
28.	M.E. Cyber Security	2013	**12**	12	**-**		Not Eligible for Accreditation
29.	M.E. Automobile Engineering	2014	**18**	12	**2021**		Not Eligible for Accreditation
30.	M.E. Computer Integrated Manufacturing	2007	**18**	9	**2019**		Not Eligible for Accreditation
31.	M.E. Thermal Engineering	2007	**18**	9	**2019**		Not Eligible for Accreditation
32.	M.Tech. Nano Technology	2009	**18**	9	**2019**	F.No. Southern/1-4464018019 5/2025/EOA	Not Eligible for Accreditation
33.	Master of Business Administration (M.B.A.)	1994	**60**	90	**2025**		Eligible
34.	MBA- Aviation and Airport Management	2024	**12**	30	**2025**		Not Eligible for Accreditation

Table No. A7. Details of all the Programs being offered by the Institution.

Annexure 1.1 : AICTE Extension of Approval 2025-2026

***Write applicable one:**

- Applying first time

Note: Add rows as needed.

8. **Programs to be considered for Accreditation vide this application:**

S. No.	Name of the Department	Name of the Program
1.	Computer Applications	MCA

Table No. A8. List of programs to be considered for accreditation.

9. **Vision of the Institution:**

To be a globally recognized institution of excellence in higher education and research, dedicated to fostering innovation and to equip students with the skills, expertise and global competence necessary to thrive in an ever-evolving technological landscape, contributing to the nation's progress.

Mission of the Institution:

To impart holistic development of our students with high standards of discipline, ethics and integrity and nurture enlightened individuals dedicated to serve humanity with focused research in cutting-edge areas of science and technology, thereby contributing meaningfully to societal progress.

10. **Contact Information of the Head of the Institution and NBA Coordinator, if designated:**

i. Head of the Institution

- Name : Dr. Tessy Thomas
- Designation : Vice Chancellor
- Mobile Number : 9363797458
- Email id : vc@niuniv.com

ii. NBA Coordinator, if designated:

- Name : Dr.A.Shajin Nargunam
- Designation : Pro Vice-Chancellor(Academics)
- Mobile Number : 9486856113
- Email id : shajin@niuniv.com

PART B

PROGRAM LEVEL CRITERIA

PART B: Criteria Summary

Name of the program: MCA – MASTER OF COMPUTER APPLICATION

Criteria No.	Criteria Name	Mark/Weightage
	Program Level Criteria	
1.	Vision, Mission and Program Educational Objectives	60
2.	Program Curriculum and Teaching –Learning Processes	130
3.	Course Outcomes and Program Outcomes	100
4.	Students' Performance	180
5.	Faculty Information and Contributions	200
6.	Facilities and Technical Support	80
7.	Continuous Improvement	50
	Institute Level Criteria	
8.	Student Support Systems	80
9.	Governance, Institutional Support and Financial Resources	120
	Total	**1000**

NOTE: If the Institute follows Annual system then in the document wherever word 'Semester' has been used, same shall be read as annual or else semester. The Institutions may use appropriately whichever is applicable

CRITERION 1

VISION, MISSION AND

PROGRAM EDUCATIONAL OBJECTIVES

CRITERION 1	Vision, Mission and Program Educational Objectives	60

1. Vision, Mission and Program Educational Objectives (60)

1.1. State the Vision and Mission (5)

Vision of the Institution

To be a globally recognized institution of excellence in higher education and research, dedicated to fostering innovation and to equip students with the skills, expertise and global competence necessary to thrive in an ever-evolving technological landscape, contributing to the nation's progress.

Mission of the Institution

To impart holistic development of our students with high standards of discipline, ethics and integrity and nurture enlightened individuals dedicated to serve humanity with focused research in cutting-edge areas of science and technology, thereby contributing meaningfully to societal progress.

Vision of the Department

The department of Computer Applications aims to prepare the students technically competent, **be industry-ready and achieve academic excellence by continuous learning** to meet the current challenges of computing industry.

Mission of the Department

M1 : To provide quality education to meet the global needs and challenges of profession and society.

M2 : To provide necessitate based quality training in the field of computer applications.

M3 : To provide technical solution to the real time application requirement for the local society.

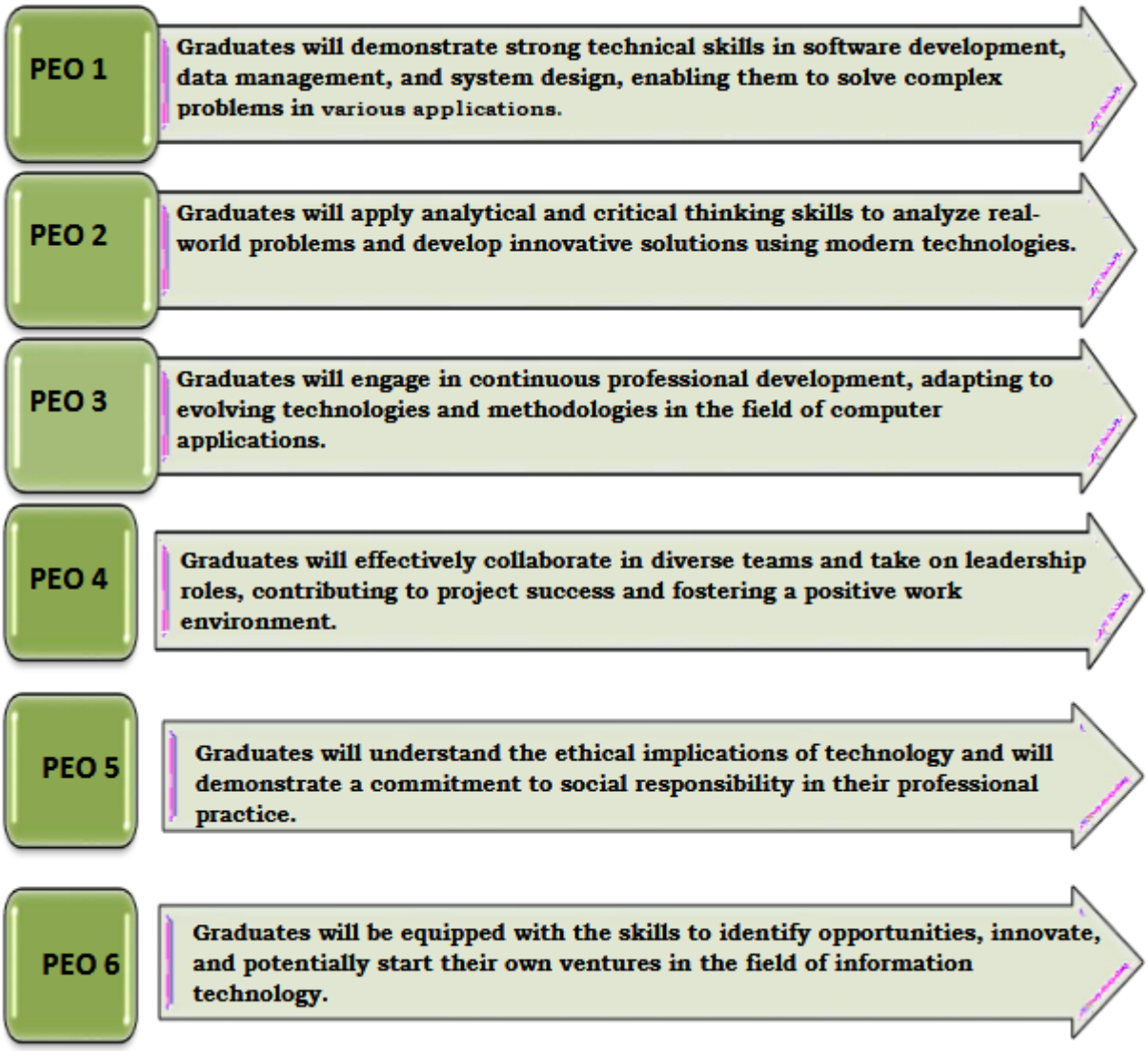
M4 : To provide theoretical and practical knowledge across recent developments in computer science in software development.

1.2. State the Program Educational Objectives (PEOs) (5)

(State the Program Educational Objectives (3 to 5) of the program seeking accreditation)

The Computer Applications graduates will acquire technical and aptitude skills to provide optimal solutions to industrial and societal challenges.

Programme Educational Objectives - PEO



1.3. Indicate where and how the Vision, Mission and PEOs are Published and Disseminated among the Stakeholders (15)

The Vision, Mission and PEOs of the department are framed by the advisory board which comprises of the internal and external stakeholders as members. The Department advisory board is composed of the Head of the department, senior faculties, Management representative, alumni, industrial representative, parents and students. The Department advisory board frames the Vision,

Mission and PEOs after a careful consideration of feedbacks received from the internal and external stakeholders.

The Vision, Mission and Programme Educational Objectives (PEOs) of the MCA programme of the Department of Computer Applications are published in various venues inside the Department of Computer Applications at Noorul Islam Centre for Higher Education.

1. **HOD's cabin**
2. **Staff Room**
3. **Laboratory**
4. **Class Rooms**
5. **Smart Room**

The Vision, Mission and PEOs of the MCA program of the Department of Computer Applications are also disseminated through

1. **Record of Academic Work**
2. **Laboratory Manuals**
3. **Department Magazine**
4. **University Website**
5. **Event Brochures**
6. **Board of Studies meeting**

The Internal Stakeholders are

1. **Faculty Members**
2. **Student Representatives**
3. **Representatives from the Management**

The External Stakeholders are

1. **Industry Experts**
2. **BOS experts**
3. **Alumni**
4. **Recruiters**
5. **Parents**

Evidence of the dissemination of the Vision, Mission and PEO statements are presented as the images below.



Figure 1.3.A Dissemination in HOD Room

The dissemination of the Vision, Mission and PEO statements help the various stakeholders to realize their responsibilities and to give their support towards achieving the vision of Computer Applications. The extent of dissemination of the Vision, Mission and PEOs of the MCA programme of the Department of Computer Applications are evaluated using feedback forms.

1.4. State the Process for Defining the Vision & Mission and PEOs of the Program (20)

The process of defining vision and mission is carried out in two stages:

- **Consultative process**
- **Deliberative process**

Consultative process

During the consultative process, the department head consults with various stakeholders including the University administrators, Student representatives, Faculty members, Industry experts, BOS Experts, Alumni and Parents about the proposed new vision and mission. Hence, the requirements of the industry focus, faculty expertise, alumni interests and administrative are

augmented and analyzed.

Deliberative process

With the analyzed report, the department proposes the draft Vision and Mission statements. The draft document will be subjected to the deliberative process composing members from the Academic council and Board of Management. The deliberated Vision and Mission are then released for follow up. The process of defining the Vision and Mission of the department is depicted in Figure 1.4.A.

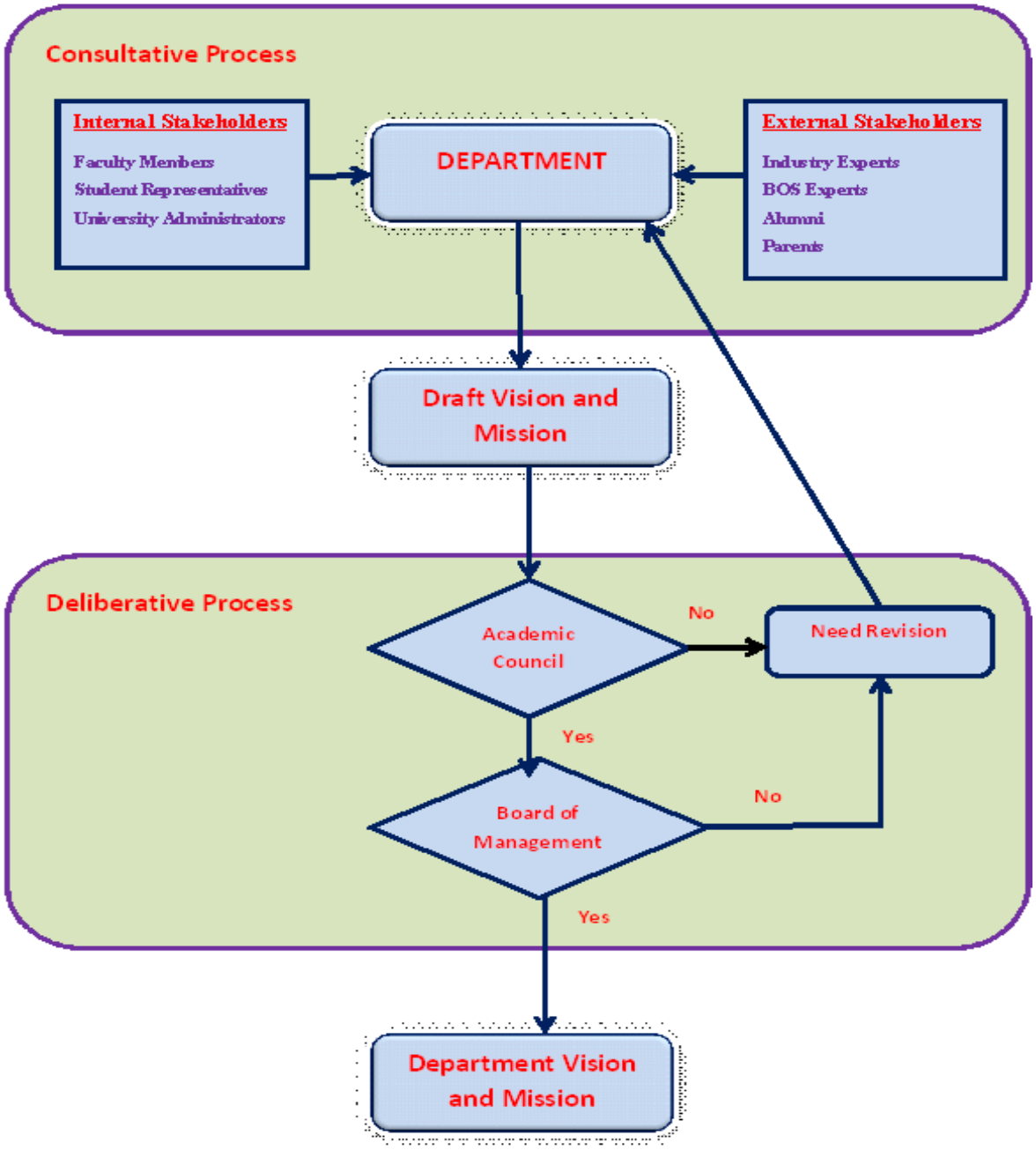


Figure 1.4.A Process of defining the Vision and Mission of the Department

Process of defining PEOs of the Program:

Definition of PEOs of the Program is carried out in two stages: viz. Consultative process, Deliberative process. Figure 1.4.B depicts the process of defining the PEO. During the consultative process, the department head consults with various stakeholders including the Parents, Student representatives, Recruiters, Industry experts, Faculty, Alumni.

With the data received from the stakeholders, the department proposes the draft PEOs of the Program. The draft document will be subjected to the deliberative process composed of members from the Program Advisory Board, Board of Studies, Academic Council and Board of Management. The deliberated PEOs are then released for follow up. The process of defining the Program Educational Objectives (PEOs) of the programme is depicted in Figure 1.4.B.

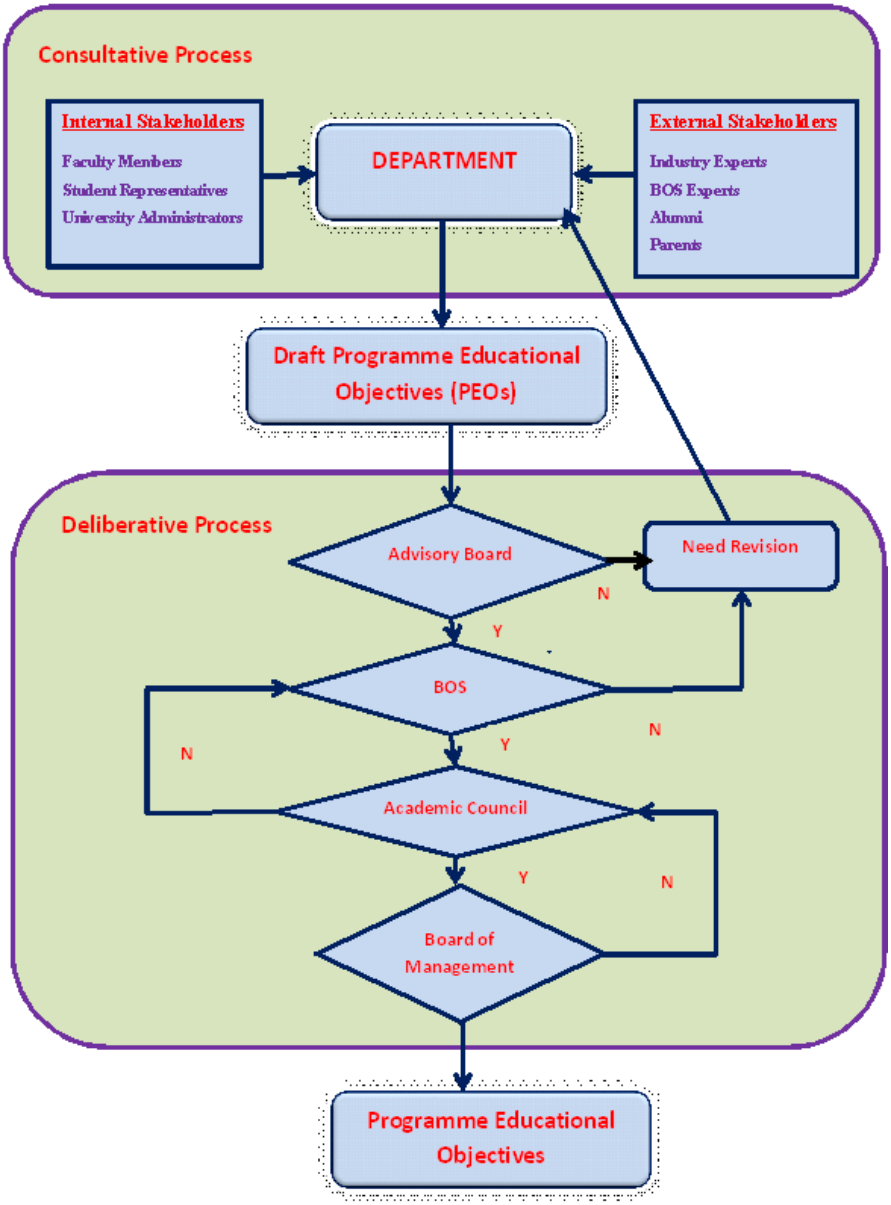


Figure 1.4.B Process of defining PEOs of the Programme

1.5. Establish Consistency of PEOs with Mission of the Department (15)

The Program Educational Objectives (PEOs) of MCA programme are listed here:

PEO 1: Graduates will demonstrate strong technical skills in software development, data management, and system design, enabling them to solve complex problems in various domains.

PEO 2: Graduates will apply analytical and critical thinking skills to analyze real-world problems and develop innovative solutions using modern technologies.

PEO 3: Graduates will engage in continuous professional development, adapting to evolving technologies and methodologies in the field of computer applications.

PEO 4: Graduates will effectively collaborate in diverse teams and take on leadership roles, contributing to project success and fostering a positive work environment.

PEO 5: Graduates will understand the ethical implications of technology and will demonstrate a commitment to social responsibility in their professional practice.

PEO 6 : Graduates will be equipped with the skills to identify opportunities, innovate, and potentially start their own ventures in the field of information technology.

The consistency of PEOs with Mission of the Department is arrived based on the mapping. The mapping is illustrated in Table 1.5.A

PEOs	Simplified Statement	M1	M2	M3	M4
PEO 1	To be Successful Professionals	3	2	3	2
PEO 2	To Enhance their Career Productivity	3	3	2	2
PEO 3	To Develop Software Solutions	2	2	3	3
PEO 4	To Create Technical Documents	1	3	3	2
PEO 5	To pursue life-long learning	3	1	2	3
PEO 6	To Innovation	3	2	1	2

Table 1.5.A: Mapping of the components of PEOs with Mission

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

The justification of mapping PEOs with Mission of the Department is described in Table 1.5.B

PEO	Justification of Mapping
PEO 1	• The department features highly skilled faculty members who provide students with in-depth subject knowledge through creative teaching methods. • Workshops and seminars are conducted for knowledge enrichment and skill development of the students with support from subject experts serving in industry.
PEO 2	• The students are provided with in-house courses, industry-tied courses, courses with virtual exchange programs and online courses, which help them to achieve problem solving skills and equip them to provide sustainable solutions • The students are trained effectively to participate in campus placements. They are also well-informed and encouraged to participate in placement campus drives.
PEO 3	• Courses such as Project and other courses embedded with mini projects and pedagogical approach of research-paper based learning help the students to demonstrate technical proficiency during their career
PEO 4	• The students are encouraged to take up courses of their choice offered by other universities and online certification-based courses offered by various MOOC platforms which help them to acquire interest in learning from their experiences.
PEO 5	• The students are provided with courses such as professional ethics which enable them to become graduates, serving as entrepreneurs and industry professionals with high ethical value.
PEO 6	• Capacity to think creatively and develop new IT solutions. • Skills to identify opportunities and turn ideas into viable businesses. Ability to create and manage technology-based ventures.

Table 1.5.B: Justification of Mapping PEOs with Mission of the Department

ANNEXURE 1.1

All India Council for Technical Education

(A Statutory body under Ministry of Education, Govt. of India)

Nelson Mandela Marg,Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org

APPROVAL PROCESS 2025-26

Extension of Approval (EoA)

F.No. Southern/1-44640180195/2025/EOA

Date of Approval: 10-Apr-2025

To,

The Principal Secretary
(Higher Education) Govt. of Tamil Nadu,
N. K. M. Bld. 6th Floor Secretariat,
Chennai-600009

Sub: Extension of Approval for the Academic Year 2025-26

Ref: Online application of the Institution submitted for Extension of Approval for the Academic Year 2025-26

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Education), Powers delegated in AICTE ACT 1987, (No 52 of 1987) chapter II - u/s 2(g) to regulate Technical and subsequent Regulations of AICTE, I am directed to convey the approval to:

Permanent Id	1-10525271	**Application Id**	1-44640180195
Name of the Institution	NOORUL ISLAM CENTRE FOR HIGHER EDUCATION	**Name of the Society/Trust**	NOORUL ISLAM EDUCATIONAL TRUST
Institution Address	NOORUL ISLAM COLLEGE OF ENGINEERING KUMARACOIL TEMPLE ROAD KALKULAM VILLAGE THUCKALAY KANYAKUMARI DISTRICT, THUCKALAY, KANYAKUMARI, Tamil Nadu, 629180	**Society/Trust Address**	,THUCKALAY,KANYAKUMARI,Tamil Nadu,629175
Institution Type	Institution Deemed to be University(Pvt)	**Region**	Southern
Year of Establishment	1989		

Opted for Change in the Institution Name	Yes	**Change of Name Approved or Not**	Approved
New Name After Institution Name Change Approved	NOORUL ISLAM CENTRE FOR HIGHER EDUCATION		

Old Name of Institution:	NOORUL ISLAM COLLEGE OF ENGINEERING

To conduct following Programs/Courses with the Intake indicated below for the Academic Year 2025-26

Level	Program	Course	Affiliating Body (University /Body)	Intake Approved for 2024-25	Intake Approved for 2025-26	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	AERO SPACE ENGINEERING	Noorul Islam Centre for Higher Education	30	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	AERONAUTICAL ENGINEERING	Noorul Islam Centre for Higher Education	30	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	AIRCRAFT MAINTENANCE ENGINEERING	Noorul Islam Centre for Higher Education	60	60	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ARTIFICIAL INTELLIGENCE AND DATA SCIENCE	Noorul Islam Centre for Higher Education	30	60	No	No
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING	Noorul Islam Centre for Higher Education	0	60##	No	No
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	AUTOMOBILE ENGINEERING	Noorul Islam Centre for Higher Education	30	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	BIOMEDICAL ENGINEERING	Noorul Islam Centre for Higher Education	60	60	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	CIVIL ENGINEERING	Noorul Islam Centre for Higher Education	30	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	COMPUTER ENGINEERING (SOFTWARE ENGINEERING)	Noorul Islam Centre for Higher Education	0	30##	No	No
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	COMPUTER SCIENCE AND ENGINEERING	Noorul Islam Centre for Higher Education	60	60	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE)	Noorul Islam Centre for Higher Education	0	60##	No	No

Level	Program	Course	Affiliating Body (University /Body)	Intake Approved for 2024-25	Intake Approved for 2025-26	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ELECTRICAL AND ELECTRONICS ENGINEERING	Noorul Islam Centre for Higher Education	30	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ELECTRONICS & COMMUNICATION ENGG	Noorul Islam Centre for Higher Education	30	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ELECTRONICS AND INSTRUMENTATION ENGINEERING	Noorul Islam Centre for Higher Education	30	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	FIRE TECHNOLOGY AND SAFETY	Noorul Islam Centre for Higher Education	60	60	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	INFORMATION TECHNOLOGY	Noorul Islam Centre for Higher Education	60	90	No	No
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	MARINE ENGINEERING	Noorul Islam Centre for Higher Education	30	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	MECHANICAL ENGINEERING	Noorul Islam Centre for Higher Education	60	60	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	NANO TECHNOLOGY	Noorul Islam Centre for Higher Education	30	30	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	CYBER SECURITY	Noorul Islam Centre for Higher Education	12	12	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	AUTOMOBILE ENGINEERING	Noorul Islam Centre for Higher Education	12	12	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	APPLIED ELECTRONICS	Noorul Islam Centre for Higher Education	9	9	NA	NA

Level	Program	Course	Affiliating Body (University /Body)	Intake Approved for 2024-25	Intake Approved for 2025-26	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
POST GRADUATE	ENGINEERING AND TECHNOLOGY	COMPUTER SCIENCE AND ENGINEERING	Noorul Islam Centre for Higher Education	12	12	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	COMMUNICATION SYSTEMS	Noorul Islam Centre for Higher Education	12	12	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	CONTROL AND INSTRUMENTATION	Noorul Islam Centre for Higher Education	12	12	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	NANO TECHNOLOGY	Noorul Islam Centre for Higher Education	9	9	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	AERONAUTICAL ENGINEERING	Noorul Islam Centre for Higher Education	9	9	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	COMPUTER INTEGRATED MANUFACTURING	Noorul Islam Centre for Higher Education	9	9	NA	NA
POST GRADUATE	ENGINEERING AND TECHNOLOGY	THERMAL ENGINEERING	Noorul Islam Centre for Higher Education	9	9	NA	NA
POST GRADUATE	COMPUTER APPLICATIONS	MASTERS IN COMPUTER APPLICATIONS	Noorul Islam Centre for Higher Education	60	60	NA	NA
POST GRADUATE	MANAGEMENT	MBA	Noorul Islam Centre for Higher Education	60	90	No	No
POST GRADUATE	ENGINEERING AND TECHNOLOGY	STRUCTURAL ENGINEERING	Noorul Islam Centre for Higher Education	18	12	No	No
POST GRADUATE	MANAGEMENT	MBA(LOGISTICS AND SUPPLY CHAIN MANAGEMENT)	Noorul Islam Centre for Higher Education	30	30	NA	NA

Level	Program	Course	Affiliating Body (University /Body)	Intake Approved for 2024-25	Intake Approved for 2025-26	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
POST GRADUATE	MANAGEMENT	MBA (AVIATION AND AIRPORT MANAGEMENT)	Noorul Islam Centre for Higher Education	12	30	No	No

Approved New Course(s)

To conduct following Programs/Courses with the Intake indicated below for the Academic Year 2025-26

Level	Program	Course	Affiliating Body (University /Body)	Intake Approved for 2025-26	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
UNDER GRADUATE	COMPUTER APPLICATIONS	BCA	Noorul Islam Centre for Higher Education	60	NA	NA
UNDER GRADUATE	MANAGEMENT	BBA	Noorul Islam Centre for Higher Education	120	No	No

Note:

A) The approval of BBA/BCA/BMS courses is on "as is where is basis" Intake Approved for BBA/BCA/BMS Course is Subject to the approval of the Concern University.

B) From next year onwards, the EOA will be issued as per the AICTE norms and not on 'As is where is basis'

Course(s) Applied for Closure by the Institution for the Academic Year 2025-26

Level	Program	Course	Affiliating Body (Univ/Body)	Course Closure Status	Intake Approved for 2025-26
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ROBOTICS AND AUTOMATION	Noorul Islam Centre for Higher Education	Approved	0

All AICTE approved Institutions are empowered to nurture ecosystems for Skilling (through Vocational courses) via making effective use of existing infrastructure facilities and human resources.

It is mandatory to comply with all the essential requirements as given in APH 2024-27 (Chapter-VI)

Important Instructions

1. As per mandatory Disclosure of APH 2024-27(Annexure-18, page180) Institutions must disclose the following information submitted to Council at the Prominent location on its website.
   i. Department wise availability of Infrastructure along with approved courses and intake approved by the Council.
   ii. Faculty details: Department wise: Name& Designation of the faculty members/teaching staff along with their qualification, tenure of service in your organization, total experience, Institution should also disclose Student Faculty Ratio, Cadre Ratio.
   iii. Additionally Audited Financial Statements for last 3 Financial years.
2. Reservation Policy of the Central Government (Including EWS) / Respective State Government/ UT as the case shall be applicable to all the Programmes. The concerned State Government/ UT Admission authority shall decide Modalities of Admission.
3. The Institution offering courses earlier in the Regular Shift, First Shift, Second Shift/Part Time are now amalgamated as total intake and shall have to fulfil all facilities such as Infrastructure, Faculty and other requirements as per the norms specified in the Approval Process Handbook 2024-25 to 2027 for the Total Approved Intake.
4. In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the **Executive Council / General Council as available on the record of AICTE shall be final and binding.**
5. All AICTE institutions are highly encouraged to get NBA/NAAC accreditation. All eligible AICTE institutions are thoroughly encouraged to participate in NIRF ranking process.
6. Deemed to be University: Institutions Deemed to be Universities (Running Technical Education Programmes), it is mandatory to have AICTE approval from the Academic Year 2018-19 in compliance of the Hon'ble Supreme Court Order dated 03-11-2017 passed in CA No.17869- 17870 /2017.
7. AICTE Approved Institutes are encouraged to utilize SWAYAM PLUS Courses up-to 40%
8. Internship is mandatory for all admitted students.
9. AICTE Approved Institutes are encouraged to make efficient use of the flagship schemes like:
   a. Parakh: Student Gap analysis portal bases services.
   b. Students Scholarship schemes like Pragati, Saksham, Swanath, ADF, etc.
   c. Course in Indian Languages.
   d. ATAL FDPs: Faculty training for Emerging areas and cutting edge Technologies.
   e. Augmenting Utilization of Research Assets (AURA).
   f. Smart India Hackathon: World's largest Open Innovation Platform.

Prof.Rajive Kumar
Member Secretary, AICTE

Copy to:

1. **The Director Of Technical Education**, Tamil Nadu**
2. **The Registrar**,**
   Noorul Islam Centre For Higher Education
3. **The Principal / Director,**
   NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
   Noorul Islam College Of Engineering

Kumaracoil Temple Road
Kalkulam Village
Thuckalay
Kanyakumari District,
Thuckalay,Kanyakumari,
Tamil Nadu,629180

4. **The Secretary / Chairman,**

THUCKALAY,KANYAKUMARI
Tamil Nadu,629175

5. **Guard File(AICTE)**

Note: Validity of the Course details may be verified at http://www.aicte-india.org/

** Individual Approval letter copy will not be communicated through Post/Email. However, a consolidated list of Approved Institutions(bulk) may be downloaded from the respective login id's.

This is a computer generated Statement. No signature Required

CRITERION 2

Program Curriculum and Teaching – Learning Processes

CRITERION 2	Program Curriculum and Teaching Learning Process	130

2. Program Curriculum and Teaching Learning Process (130)

2.1 Program Curriculum (50) (40 for affiliated institutions)

In the case of autonomous institutions, the following sub-criteria and marks will be applicable to the program curriculum (50)

2.1.1 State the Process for Designing the Program Curriculum (15)

(Describe the process that periodically documents and demonstrates how the program curriculum is evolved or give the process of gap analysis, whichever is applicable, considering POs)

- The Master of Computer Applications curriculum is designed based on the Model curriculum prescribed by AICTE.
- Curriculum design follows a systematic process in the design and development of the curriculum as per Elective System (ES) / Choice Based Credit System (CBCS), which involves high level of participation, discussion and critical inquiry involving all the stakeholders contributing to the introduction, innovation, and revision of the syllabus.
- The curricula design and development process was initiated by the brainstorming session by involving industry experts, faculty members from the department and board chairman. During this brainstorming session, the members are actively engaging in discussions about the current needs and trends of the industry. This discussion may involve:
    - Reviewing feedback from employers, alumni, and industry partners to understand what skills and knowledge are most in demand.
    - Identifying emerging trends or technologies that may necessitate updates to the curricula.
    - Assessing the effectiveness of current teaching methodologies and learning outcomes in preparing students for real-world challenges.
    - Discussing any regulatory changes or advancements in the field that may impact the content of the curricula.
- Following the syllabus preparation by the faculties, the next step involved conducting a Board of Studies (BOS) meeting. During this meeting, the syllabus was thoroughly discussed and refined. Subsequently, the approved syllabus was presented to the Academic Council for approval. Once approved by the Academic Council, the syllabus was forwarded to the Board of Management (BOM) for final approval.

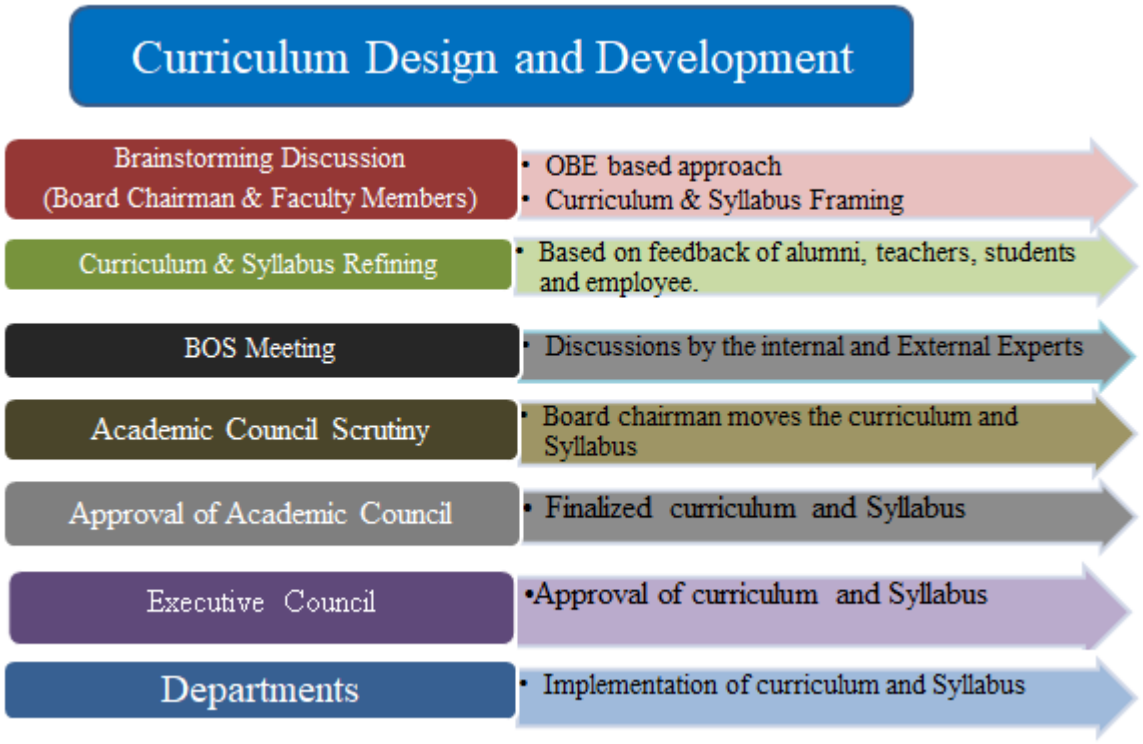


Figure 2.1.1 A Curriculum Design and Development

The following is the process used to identify extent of compliance of curriculum for attaining the PO's and PEO's.

- Identify Course Outcomes for each subject.
- Map each Course Outcome with POs.
- Programme attainment calculated based on the above mapping

Attached Annexure 2.1

1. **2.1 BOS 2023**
2. **2.1 BOS 2024**
3. **2.1 BOS 2025**
4. **2.1 Academic Council minutes**
5. **2.1 Feedback forms 23-24**
6. **2.1Sample Feedback forms 24-25**
7. **2.1 student feedback report 23-24**
8. **2.1 Student feedback analysis 24-25**
9. **2.1 faculty feedback analysis 24-25**
10. **2.1 Alumni feedback analysis 24-25**
11. **2.1 Expert feedback analysis 24-25**
12. **2.1 Action taken report 2023**

2.1.2 State the Components of the Program Curriculum (10)

(Program curriculum grouping based on course components)

Regulation – 2020

Total – 23 Subjects **Total Credits: 88**

Course Component	Curriculum Content (% of total no. of credits of the program)	Total no. of contact hours	Total no. of credits
Program Core	**39.8**	**36**	**35**

Program Electives	**13.6**	**12**	**12**
Open Elective	**3.4**	**3**	**3**
Mathematics	**4.5**	**4**	**4**
Skill Enhancement Courses	**11.4**	**15**	**10**
Project work	**27.3**	**48**	**24**

Table No. 2.1.2.A. various components of the program curriculum

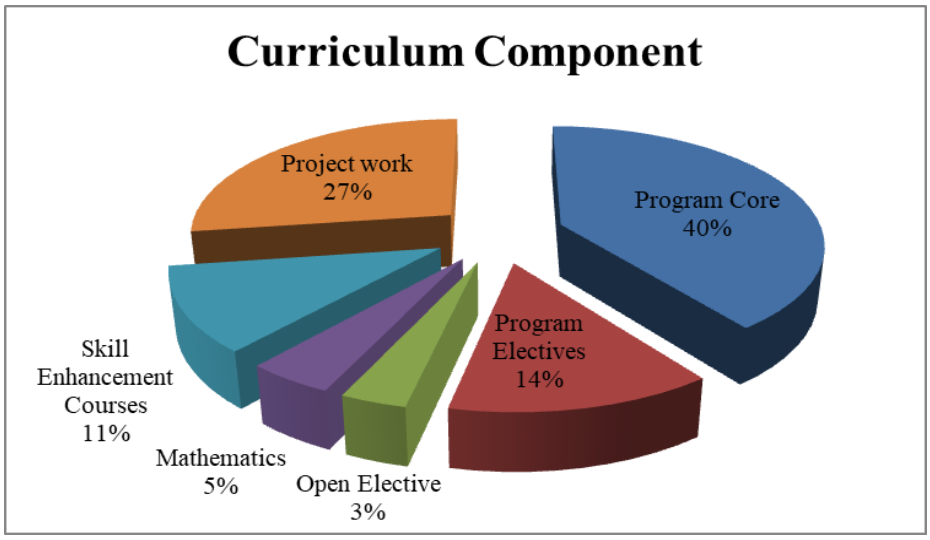


Figure 2.1.2 A Percentage of Curriculum Content (Regulation 2020)

Regulation – 2023

Table No. 2.1.2.B. Various components of the program curriculum Regulation 2023

Total – 24 Subjects Total Credits: 89

Course Component	Curriculum Content (% of total no. of credits of the program)	Total no. of contact hours	Total no. of credits
Program Core	33.7	36	30
Program Electives	13.5	12	12
Mathematics	4.5	4	4
Skill Enhancement Courses	11.2	15	10
Project work	27	48	24
Management	7.9	7	7
Communication	2.2	4	2

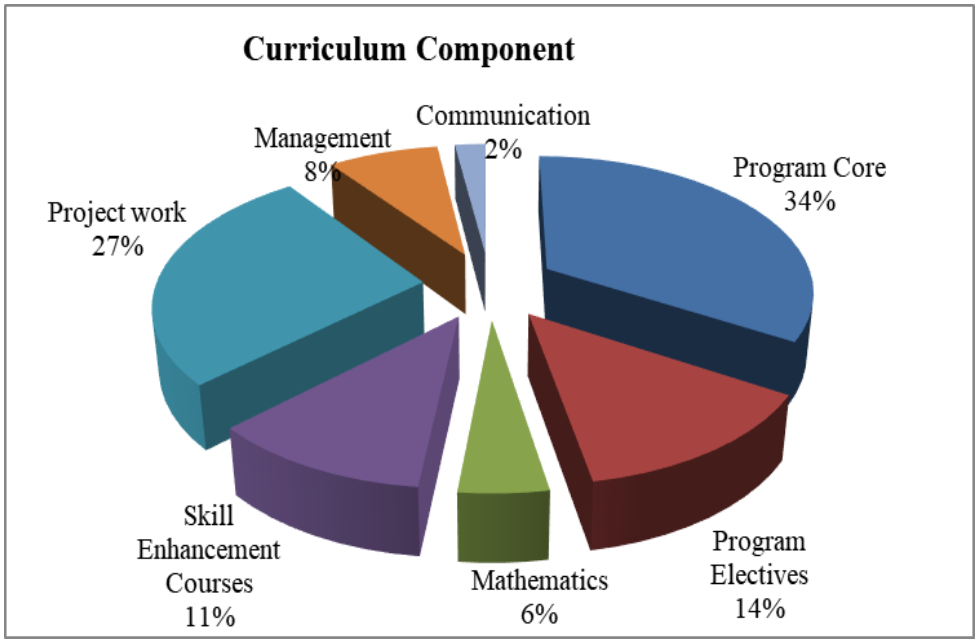


Figure 2.1.2 B Percentage of Curriculum Content (Regulation 2023)

Regulation 2025

Table No. 2.1.2.C. various components of the program curriculum Regulation 2025

Total – 27 Subjects **Total Credits: 87**

Course Component	Curriculum Content (% of total no. of credits of the program)	Total no. of contact hours	Total no. of credits
Program Core Courses	29.9	17	26
Ability Enhancement Courses	2.3	2	2
Research Enhancement Courses	3.4	3	3
Value added Courses	2.3	4	2
Value Education Course	2.3	2	2
Vocational and Skill Enhancement courses	19.5	36	17
Program Elective	10.3	9	9
Internship/ On-Job Training	23.0	34	20
Basic Sciences	4.6	4	4
Blended Learning Courses	2.3		2

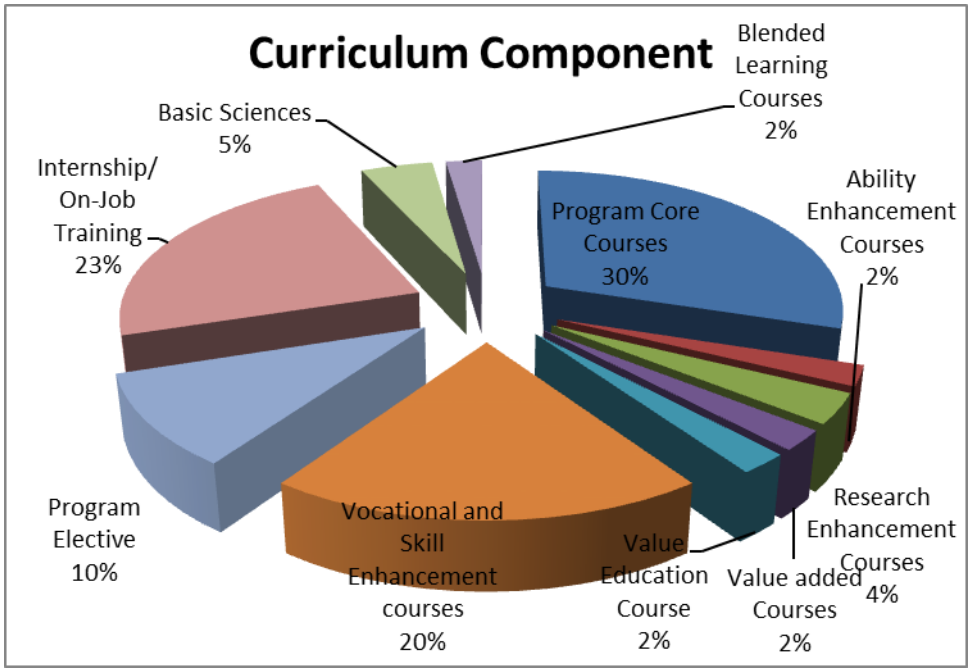


Figure 2.1.2 C Percentage of Curriculum Content (Regulation 2025)

2.1.3 Program Curriculum Structure (10)

Seminar/Project work/Internship/Industrial trainings/Visits may be considered as practical.

Regulation 2020

Table No. 2.1.3.A Curriculum for semester I Regulation 2020

SEMESTER-I

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA3501	Digital Logic and Computer Organization	3	0	0	3	3
CA3502	Operating System and System Software	3	0	0	3	3
CA3503	Database Management System	3	0	0	3	3
CA3504	Data Structures Using C Programming	3	1	0	4	4
MA3505	Operations Research	3	1	0	4	4
CA3571	Database Management Systems Laboratory	0	1	2	3	2
CA3572	Data Structures Using C Laboratory	0	1	2	3	2
Total		15	4	4	23	**21**

Table No. 2.1.3.B Curriculum for semester II Regulation 2020

SEMESTER II

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA3505	Data Communication and Networks Programming	3	1	0	4	4
CA3506	Object Oriented Programming Using Java	3	1	0	4	4
CA3507	Problem Solving Using Python	3	0	0	3	3
CA3508	Software Engineering	3	0	0	3	3
E-I	Elective-1	3	0	0	3	3
E-II	Elective–2	3	0	0	3	3
CA3573	Python Programming Laboratory	0	1	2	3	2
CA3574	Java Programming and Networks Laboratory	0	1	2	3	2
Total		18	4	4	26	**24**

Table No. 2.1.3.C Curriculum for semester III Regulation 2020

SEMESTER-III

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA3509	Data Science and Cloud Computing	3	1	0	4	4
CA3510	Visual Programming	3	1	0	4	4
E-III	Elective–3	3	0	0	3	3
E-IV	Elective–4	3	0	0	3	3
E-V	Elective–5(Open Elective)	3	0	0	3	3
CA3575	Visual Programming Laboratory	0	1	2	3	2
CA35P1	Project Work –Phase I	0	0	12	12	6
Total		15	3	14	32	**25**

Table No. 2.1.3.D Curriculum for semester IV Regulation 2020

SEMESTER IV

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA35P2	Project Work –Phase II	0	0	36	36	18
Total		0	0	36	36	**18**

Table No. 2.1.3.E Credit distribution in Regulation 2020

CREDIT DISTRIBUTION:

Semester 1	21 Credits
Semester 2	24 Credits
Semester 3	25 Credits
Semester 4	18 Credits
Total Credits	88

Table No. 2.1.3.F List of Electives in Regulation 2020

LIST OF ELECTIVES

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
ODD SEMESTER ELECTIVES						
CA35A1	Software Reuse	3	0	0	3	3
CA35A2	Software Reliability and Metrics	3	0	0	3	3
CA35A3	Human Resource Management	3	0	0	3	3
CA35A4	Advanced Soft Computing	3	0	0	3	3
CA35A5	Knowledge Engineering	3	0	0	3	3
CA35A6	Digital Image Processing	3	0	0	3	3
CA35A7	Software Testing	3	0	0	3	3
CA35A8	User Interface Design	3	0	0	3	3
CA35A9	Service Oriented Architecture	3	0	0	3	3
CA35B1	Information Storage Management	3	0	0	3	3
CA35B2	System Software Internals	3	0	0	3	3
CA35B3	Bio Informatics	3	0	0	3	3
CA35B4	Management Information System	3	0	0	3	3
CA35B5	Software Risk Management and Maintenance	3	0	0	3	3
CA35B6	Wireless Networks	3	0	0	3	3
CA35B7	Virtualization Techniques	3	0	0	3	3
CA35B8	Big Data Analytics	3	0	0	3	3

EVEN SEMESTER ELECTIVES						
CA35B9	Ad-Hoc Networks	3	0	0	3	3
CA35C1	Machine Learning Techniques	3	0	0	3	3
CA35C2	Multimedia Databases	3	0	0	3	3
CA35C3	Artificial Intelligence Techniques	3	0	0	3	3
CA35C4	Software Requirements Management	3	0	0	3	3
CA35C5	Cyber Forensics	3	0	0	3	3
CA35C6	Mobile Communication Techniques	3	0	0	3	3
CA35C7	Principles of Compiler Design	3	0	0	3	3
CA35C8	Information System Security	3	0	0	3	3
CA35C9	Internet of Things	3	0	0	3	3
CA35D1	Cryptography And Network Security	3	0	0	3	3
CA35D2	Software Project Management	3	0	0	3	3
CA35D3	Data Mining and Data Warehousing	3	0	0	3	3

Regulation 2023

Duration of the program: 2 Years
Total credits: 89

Table No. 2.1.3.G Curriculum for semester I Regulation 2023

SEMESTER – I

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA4501	Problem Solving Techniques and Programming in C	3	1	0	4	4
CA4502	Data Structures and Algorithms	3	1	0	4	4
CA4503	Relational Database Management System	3	1	0	4	4
MS45D1	Fundamentals of Accounting	4	0	0	4	4
MA4503	Applied Probabilistic and Statistics	3	1	0	4	4
CA4571	Relational Database Management System Laboratory	0	1	2	3	2
CA4572	Data Structures and Algorithms Using C Laboratory	0	1	2	3	2
EG4571	Communication Skill Lab –I	0	1	1	2	1`
Total		15	4	4	28	**25**

Table No. 2.1.3.H Curriculum for semester II Regulation 2023

SEMESTER – II

COURSE CODE	COURSE TITLE	Total Number of Contact Hours	Credit

		Lecture	Tutorial	Practical	Total	
CA4504	Advanced Python Programming	3	1	0	4	4
CA4505	Full Stack Web Development	3	1	0	4	4
CA4506	Data Science and Cloud Computing	3	0	0	3	3
CA45**	Elective – I	3	0	0	3	3
CA45**	Elective – II	3	0	0	3	3
CA4573	Python Programming Laboratory	0	1	2	3	2
CA4574	Full Stack Web Development Laboratory	0	1	2	3	2
EG4572	Communication Skill lab - II	0	1	1	2	1
Total		15	5	3	25	**22**

Table No. 2.1.3.I Curriculum for semester III Regulation 2023

SEMESTER – III

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA4507	Internet of Things	3	1	0	4	4
CA4508	Machine Learning	3	0	0	3	3
CA45**	Elective - III	3	0	0	3	3
CA45**	Elective - IV	3	0	0	3	3
CA45**	Elective - V	3	0	0	3	3
CA4575	Internet of Things Laboratory	0	1	2	3	2
CA45P1	Project Work – Phase I	0	0	12	12	6
Total		15	5	3	30	**24**

Table No. 2.1.3.J Curriculum for semester IV Regulation 2023

SEMESTER IV

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA45P2	Project Work –Phase II	0	0	36	36	18
Total		0	0	36	36	**18**

Table No. 2.1.3.K Curriculum for Elective I Regulation 2023

ELECTIVE – I

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	

		e	al	l		
CA45A1	Software Project Management	3	0	0	3	3
CA45A2	Professional Ethics in IT	3	0	0	3	3
CA45A3	Software Quality and Testing	3	0	0	3	3
CA45A4	Software Reuse	3	0	0	3	3
CA45A5	Agile Methodologies	3	0	0	3	3

Table No. 2.1.3.L Curriculum for Elective II Regulation 2023

ELECTIVE - II

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA45A6	Advances in Networking	3	0	0	3	3
CA45A7	Wireless Networking	3	0	0	3	3
CA45A8	Network Programming	3	0	0	3	3
CA45A9	Cryptography and Network Security	3	0	0	3	3
CA45B1	Mobile Communication Techniques	3	0	0	3	3

Table No. 2.1.3.M Curriculum for Elective III Regulation 2023

ELECTIVE – III

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA45B2	Digital Image Processing	3	0	0	3	3
CA45B3	Digital Forensics	3	0	0	3	3
CA45B4	Soft Computing	3	0	0	3	3
CA45B5	Artificial Intelligence	3	0	0	3	3
CA45B6	Block Chain Technology	3	0	0	3	3

Table No. 2.1.3.N Curriculum for Elective IV Regulation 2023

ELECTIVE – IV

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA45B7	Information Retrieval Techniques	3	0	0	3	3
CA45B8	Data Mining and Data Warehousing	3	0	0	3	3

CA45B9	Data Visualization	3	0	0	3	3
CA45C1	Big Data Analytics	3	0	0	3	3
CA45C2	Knowledge Engineering	3	0	0	3	3

Table No. 2.1.3.O Curriculum for Elective V Regulation 2023

ELECTIVE – V

COURSE CODE	COURSE TITLE	Total Number of Contact Hours				Credit
		Lecture	Tutorial	Practical	Total	
CA45C3	Management Information System	3	0	0	3	3
CA45C4	Digital Marketing	3	0	0	3	3
CA45C5	Organizational Behavior	3	0	0	3	3
CA45C6	Information System Security	3	0	0	3	3
CA45C7	Ethical Management	3	0	0	3	3

Table No. 2.1.3.P Credit Distribution in Regulation 2023

CREDIT DISTRIBUTION

Semester 1	25 Credits
Semester 2	22 Credits
Semester 3	24 Credits
Semester 4	18 Credits
Total Credits	89

Regulation 2025

Duration of the program: 2 Years
Total credits: 89

Table No. 2.1.3.Q Curriculum for Semester I Regulation 2025

SEMESTER – I

						23 credits
Course Code	Course Name	**Teaching Scheme (Contact Hours)**			**Total Credits**	**Category**
		Theory(L)	**Tutorial(T)**	**Practical(P)**		
MA5504	Applied probability and statistics	3	1	--	4	BS
CA5501	Programming in C	2	1	--	3	PC

CA5502	Relational Database Management System	2	1	--	3	PC
GE5501	Research Methodology	3	--	--	3	RE
CA55xx	Elective-1	3	--	--	3	PE
EG5501	Communication Skill	--	2	--	2	AE
CAS5501	Technical Presentation	--	--	2	1	VSE
CA5571	Programming in C lab	--	--	4	2	VSE
CA5572	Relational Database Management System Lab	--	--	4	2	VSE

Table No. 2.1.3.R Curriculum for Semester II Regulation 2025

SEMESTER II						**23 credits**
Course Code	**Course Name**	**Teaching Scheme (Contact Hours)**			**Total Credits**	**Category**
		Theory(L)	**Tutorial(T)**	**Practical(P)**		
CA5503	Advanced Python Programming	2	1	--	3	PC
CA5504	Data structures and Algorithms	2	1	--	3	PC
CA5505	Artificial Intelligence	3	--	2	4	PC
CA55xx	Elective-2	3	--	--	3	PE
GE5504	Human Rights	2	--	--	2	VE
EG5502	Personality development	2	--	--	2	VSE
CAB5501	MOOC / NPTEL / SWAYAM Course	--	--	--	2!	BL
CA5573	Python Programming Lab	--	--	4	2	VSE
CA5574	Data Structures and Algorithms Lab	--	--	4	2	VSE
	Total	**16**		**10**	**23**	

! Credits transferred from MOOC courses

Exit option: PG Diploma 50 Credits (with additional 4 credits of IN/OJT(8 Weeks))

Exit Criteria after First Year of MCA Programme

Table No. 2.1.3.S Curriculum for Exit criteria after First year Regulation 2025

Post Graduate Diploma in Computer Applications (PGDCA)						**23 credits**
Course Code	**Course Name**	**Teaching Scheme (Contact Hours)**			**Total Credits**	**Category**
		Theory(L)	**Tutorial(T)**	**Practical(P)**		
CAX5501	Internship/On Job Training	3	1	--	4	IN/OJT
	Total	**3**	1	**--**	**4**	

Table No. 2.1.3.T Curriculum for Semester III Regulation 2025

SEMESTER III						21 credits
Course Code	Course Name	Teaching Scheme (Contact Hours)				
		Theory(L)	Tutorial(T)	Practical(P)	Total Credits	Category
CA5506	Advanced Java Programming	3	--	--	3	PC
CA5507	Introduction to Data Science	3	--	2	4	PC
CA5508	Full Stack Web Development	3	--	--	3	PC
CA55xx	Elective-3	3	--	--	3	PE
CAS5502	PC Assembly and Troubleshooting	--	--	4	2	VA
CAS5503	Soft skill/Aptitude/Reasoning	2	--	--	2	VSE
CA5575	Java Programming Lab	--	--	4	2	VSE
CA5576	Full Stack Web Development Lab	--	--	4	2	VSE
	Total	**17**		**10**	**21**	

Table No. 2.1.3.U Curriculum for Semester IV Regulation 2025

SEMESTER IV						20 Credits
Course Code	Course Name	Teaching Scheme (Contact Hours)				
		Theory(L)	Tutorial(T)	Practical(P)	Total Credits	Category
CA55P1	Research Project Work/ Field Project Work (with research paper /patent)	--	--	34	20	IN/OJT
	Total	**17**		**10**	**20**	

Vertical I: Intelligent Systems and Machine Learning

Table No. 2.1.3.V Curriculum for Vertical I Regulation 2025

Course Code	Course Name	Teaching Scheme (Contact Hours)				
		Theory(L)	Tutorial(T)	Practical(P)	Total Credits	Category
CA55A1	Computer Vision	3	--	--	3	Elective
CA55A2	Deep Learning	3	--	-	3	Elective
CA55A3	Natural Language Processing	3	--	--	3	Elective

Vertical II: Advanced Computing Systems and Architectures

Table No. 2.1.3.W Curriculum for Vertical II Regulation 2025

Course Code	Course Name	Teaching Scheme (Contact Hours)				
		Theory(L)	Tutorial(T)	Practical(P)	Total Credits	Category
CA55B1	Cloud Computing	3	--	--	3	Elective
CA55B2	Internet of Things (IoT)	3	--	-	3	Elective
CA55B3	Edge and Fog Computing	3	--	--	3	Elective

Vertical III: Software Engineering and Application Domains

Table No. 2.1.3.X Curriculum for Vertical III Regulation 2025

Course Code	Course Name	Teaching Scheme (Contact Hours)				
		Theory	Tutorial	Practical	Total Credits	Category
CA55C1	Software Testing and Quality Assurance	3	--	--	3	Elective
CA55C2	Block chain Technologies	3	--	-	3	Elective
CA55C3	DevOps and Agile Methodologies	3	--	-	3	Elective

Key NEP 2020 Integration Highlights

- Flexibility in electives
- Outcome-Based Education (OBE) framework
- Mandatory research component and innovation
- Skill-based courses and internships
- Use of online platforms (SWAYAM/NPTEL) for credit transfer
- Continuous Internal Evaluation (CIE) and holistic assessment methods

2.1.4 Overall Quality and Level of Program Curriculum (10)

Curriculum design

The program outcomes in the curriculum formed the foundation for choosing the courses, their content, and the required number of credits. Additionally, a thorough analysis of stakeholder feedback offered valuable insights that were integrated into the curriculum. On-going interactions with stakeholders and regular reviews of the curriculum have ensured its relevance to the industry and its continuous improvement. Feedback on the proposed curriculum is consistently gathered from various stakeholders, including academicians, industry experts, alumni, parents, and faculty. The curriculum is updated every four years based on this feedback. The overall quality of the MBA program curriculum is ensured through:

The MCA program curriculum offers numerous opportunities for student learning. It enables students from various cultures and backgrounds to develop essential skills for managing diverse workgroups in their future careers. The comprehensive curriculum at NICHE equips students with the necessary knowledge, skills, and attitudes, effectively preparing them for career advancement.

The content is designed to include effective teaching and learning methods such as audio-visual presentations, field visits, course projects, and a main project, in addition to conventional approaches. The focus is on preparing students to meet the demands of a competitive world. This is further enhanced with practical sessions, guest lectures, value-added courses, and workshops, whenever possible.

Our curriculum development and / or its revision have been consistent with the following principles:

- The curriculum is outcomes-based and learner-centered, with content, learning resources, activities, assessment, and evaluation all derived from and aligned with program and course outcomes.
- Course outcomes represent the culminating demonstrations of learning and achievement.
- Course outcomes define the skills and knowledge that students are expected to demonstrate upon completing a course or program of study.
- All course outcomes within the program complement and facilitate the attainment of the program an outcome, ensuring the curriculum is purposeful and promotes the holistic development of the individual.
- The curriculum is current and relevant, adhering to provincial program standards and descriptions while meeting employability needs.
- The curriculum is designed based on Bloom's taxonomy.
- It provides active learning opportunities to maximize student engagement.
- Active learning involves the process of acquiring new ideas, skills, and knowledge through doing, performing, and taking action.
- The curriculum acknowledges the diversity of students and fosters a respectful learning environment.
- It aligns content, learning resources, and authentic assessments with learning outcomes.
- The curriculum is consistent with the mission and vision of both the department and the university.

- Curriculum is appropriate to the qualification level at which it is offered.

2.1.5 New Initiatives towards Education Policy at the Programme Level

In alignment with the National Education Policy (NEP) 2020, the Regulation 2025 framework for the Post Graduate Diploma in Computer Applications (PGDCA) and Master of Computer Applications (MCA) programmes introduces several transformative initiatives aimed at enhancing academic flexibility, skill orientation, research capability, and holistic student development.

A key initiative at the programme level is the flexible curricular structure with clearly defined exit options. Students completing 50 credits, including a mandatory 8-week Internship / On-the-Job Training (IN/OJT) component, are eligible for the PGDCA exit award, while those completing the full 87 credits earn the MCA degree. This provision supports multiple learning pathways and promotes lifelong learning, as envisioned in NEP 2020.

The programmes adopt an Outcome-Based Education (OBE) framework, ensuring that course outcomes, programme outcomes, and programme-specific outcomes are well aligned with graduate attributes. The emphasis is on measurable learning outcomes, competency development, and continuous improvement through systematic assessment practices.

To strengthen research culture and innovation, Research Enhancement Courses are introduced at the programme level. These courses encourage analytical thinking, problem identification, and solution development, preparing students for higher studies, research careers, and innovation-driven roles.

In line with NEP 2020's focus on employability, the curriculum integrates Vocational and Skill Enhancement Courses, hands-on laboratories, and mandatory internships. The inclusion of industry-relevant skills, practical exposure, and real-world problem solving ensures that graduates are industry-ready and adaptable to evolving technological landscapes.

The programmes also promote blended learning and digital integration through the use of SWAYAM and NPTEL platforms for credit transfer. This initiative enables students to access high-quality online courses from premier institutions, supports self-paced learning, and enhances academic flexibility.

A Continuous Internal Evaluation (CIE) system and holistic assessment methods have been adopted to evaluate students' cognitive, professional, and ethical competencies. This approach moves beyond traditional end-semester examinations and ensures continuous feedback and learner progression.

Further, the inclusion of Value Education Courses and Ability Enhancement Courses reflects NEP 2020's emphasis on ethical values, communication skills, and overall personality development. These courses contribute to producing socially responsible and professionally competent graduates.

Overall, the Regulation 2025 programme structure represents a comprehensive and forward-looking implementation of NEP 2020 at the programme level, balancing academic rigor, flexibility, skill development, research orientation, and holistic education.

CREDIT DISTRIBUTION – Regulation 2020 based on NEP 2020:

Table No. 2.1.5.A Credit distribution Regulation 2020

Semester 1	21 Credits
Semester 2	24 Credits
Semester 3	25 Credits
Semester 4	18 Credits
Total Credits	88

CREDIT DISTRIBUTION - Regulation 2023 based on NEP 2020:

Table No. 2.1.5.B Credit distribution Regulation 2023

Semester 1	25 Credits
Semester 2	22 Credits
Semester 3	24 Credits
Semester 4	18 Credits
Total Credits	89

CREDIT DISTRIBUTION Regulation 2025 (flexible as per NEP 2020)

Table No. 2.1.5.C Credit distribution Regulation 2025

Semester 1	23 Credits
Semester 2	23 Credits
Semester 3	231 Credits

Semester 4	20 Credits
Total Credits	87

Key NEP 2020 Integration Highlights in Regulation 2025

- Flexibility in electives
- Outcome-Based Education (OBE) framework
- Mandatory research component and innovation
- Skill-based courses and internships
- Use of online platforms (SWAYAM/NPTEL) for credit transfer
- Continuous Internal Evaluation (CIE) and holistic assessment methods

Category-wise distribution

Regulation – 2020

Total – 23 Subjects Total Credits: 88

Course Component	**Curriculum Content (% of total no. of credits of the program)**	**Total no. of contact hours**	**Total no. of credits**
Program Core	**39.8**	**36**	**35**
Program Electives	**13.6**	**12**	**12**
Open Elective	**3.4**	**3**	**3**
Mathematics	**4.5**	**4**	**4**
Skill Enhancement Courses	**11.4**	**15**	**10**
Project work	**27.3**	**48**	**24**

Table No. 2.1.5.D. Category Wise distribution Regulation 2020

Regulation – 2023

Total – 24 Subjects Total Credits: 89

Course Component	**Curriculum Content (% of total no. of credits of the program)**	**Total no. of contact hours**	**Total no. of credits**
Program Core	33.7	36	30
Program Electives	13.5	12	12
Mathematics	4.5	4	4
Skill Enhancement Courses	11.2	15	10
Project work	27	48	24
Management	7.9	7	7
Communication	2.2	4	2

Table No. 2.1.5.E. Category Wise distribution Regulation 2023

Exit option: PG Diploma (46+4) 50 Credits (with additional 4 credits of IN/OJT(8 Weeks))

Category - Description	Post Graduate Diploma in Computer Applications (PGDCA)	Master of Computer Applications (MCA)
Program Core Courses	16	26
Ability Enhancement Courses	2	2
Research Enhancement Courses	3	3
Basic Sciences	4	4
Value added Courses		2
Value Education Course	2	2
Vocational and Skill Enhancement courses	11	17
Program Elective	6	9
IN/OJT: Internship/ On-Job Training	-	20
Blended Learning Course	2	2
Additional Credits	4 (Internship/On Job Training)	--
Total	**50**	**87**

Table No. 2.1.5.F Category Wise distribution Regulation 2025

2.2 Teaching Learning Process (80) (90 for affiliated colleges)

Teaching and learning within the department prioritize a student-centered approach, utilizing experiential, participatory, problem-solving, and constructivist methodologies. Activities are integrated to increase students' confidence and public speaking skills. Faculty performance is objectively evaluated at regular intervals.

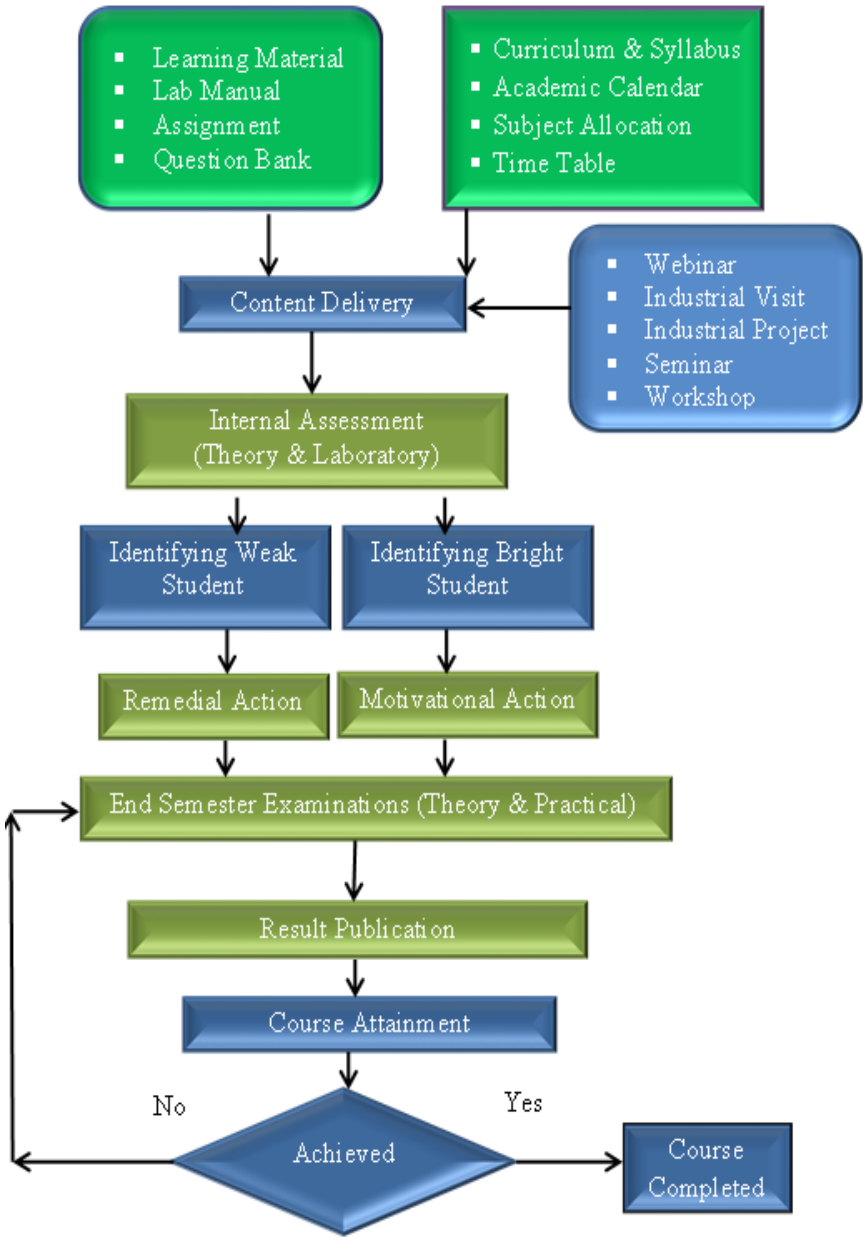


Figure 2.2.A Teaching Learning Process

2.2.1 Initiatives in Teaching and Learning Process (15) (20)

(Implemented teaching-learning process and Initiatives in improving instruction methods, using real world examples, modern tools, collaborative learning, the quality of laboratory experiments with regard to conduct, record observations, analysis, tutorial classes. Feedback collection process; collection, analysis and action taken etc. encouraging bright students, assisting weak students, etc. The initiatives, implementation details and impact analysis need to be documented)

- Academic Schedule

As part of Academic Planning and Delivery, the academic schedule of the University is prepared in a systematic and chronological manner by the Director of Academic Affairs. The

schedule ensures effective curriculum implementation and includes timely completion of the syllabus, scheduling of internal assessment tests, feedback collection and analysis, conduct of Programme Committee, Course Committee, and Class Committee meetings, exam fee payment timelines, commencement of theory and practical examinations, and the reopening date of the subsequent semester.

Attached Annexure 2.2

2.2 2025-26 calender S4,S6 Classes

2.2 Academic Schedule 24-25 EVEN

2.2 Academic Schedule S1 24-25 odd

2.2 Academic Schedule S2 23-24 Even

2.2 AcademicSchedule 24-25Even S2

2.2 S3 Academic Schedule 25-26 ODD

- Use of various instructional methods and pedagogical initiatives

`Members of faculty in the department prepare subject hand-outs containing Notes, question bank and teaching with the aid of smart class rooms, LCD projectors i.e. ICT Facilities, live demonstration of the subject contents is shown in the laboratory.

Methodologies applied based on the performance of Academic Performance Analysis

- Students are categorized as either bright or weak depending on their performance in the internal assessment test.
- Special coaching classes and counselling sessions by the mentor are conducted to enhance the performance of weak students.
- Students are encouraged to present technical papers at seminars and conferences, publish their work in journals, and participate in competitive exams.

Theory courses

- Smart classrooms are employed to enhance the teaching-learning process.
- The classrooms are equipped with adequate seating capacity, proper ventilation, and sufficient lighting, which collectively ensure a safe and conducive learning environment for effective teaching–learning processes.
- Faculty members arrive punctually to classrooms, begin by reviewing previous class material, and then engage students with questions from the previous day's lessons before proceeding with new topics.
- As part of the internal assessment process, three internal tests are conducted, and the best two scores are considered for the calculation of internal assessment marks

- The first internal test covers the first one and a half units of the syllabus.
- The second internal test covers the remaining half of the second unit and the third unit.
- The third internal test covers the last two units of the syllabus.

Practical Courses

- All laboratory manuals are prepared well in advance of the semester in compliance with the University syllabus, ensuring uniformity, clarity of experiments, and effective attainment of course outcomes.
- Each student is allotted an individual computer system to carry out practical work, ensuring hands-on learning and effective skill development.
- The laboratory is equipped with an LCD projector, enabling faculty to train students using visual aids and live demonstrations.
- Students complete the prescribed experiments in the laboratory and maintain observation notes and record notebooks, which are evaluated as part of both internal and external practical examinations.
- The list of practical programs is divided into two sets, and two internal practical examinations are conducted to assess continuous practical performance.
- Submission of duly completed record work is mandatory during practical examinations.

Project Work Evaluation

- The primary objective of the student project is to enhance students' ability to apply theoretical knowledge in the design and development of computer applications, thereby enabling them to address real-world problem scenarios.
- Each student is assigned a dedicated project guide to provide continuous mentoring and technical guidance throughout the project duration.
- Students are required to submit their project titles and participate in review meetings as scheduled by the Project Coordinator.
- A Project Review Panel, comprising two to three faculty members from diverse areas of specialization, evaluates the proposed topics. Upon approval of the project title, guidelines and a tentative project completion schedule are communicated to the students.
- A total of four structured project reviews are conducted during the project development phase to monitor progress, ensure quality, and facilitate timely completion.

Zeroth Review

- The Evaluation Committee directs students whose mini-project proposals are not approved to resubmit a revised proposal with the consent and approval of the Project Guide.
- The revised proposal submitted to the Evaluation Committee, duly endorsed by the Project Guide, shall include the following details:
    - Project Title
    - Abstract
    - Selected Platform / Technology Stack

First Review

- During the first review, emphasis is placed on evaluating the problem analysis and system design of the application. A presentation approved by the Project Guide is submitted to the Evaluation Committee.
- Students are required to incorporate and present the suggestions and recommendations provided by the Review Committee in the revised presentation during the second review.

Second Review

The second review focuses on the partial implementation of the project.

- The evaluation committee will check the progress of the work with the project schedule.
- A document describing the tools and techniques, required for implementation and a logical description of the implemented modules should be submitted to the evaluation committee.

Third Review

- The final review focuses on the complete implementation of the system, including a live demonstration of the developed application.
- Students are required to submit the project report for review and correction as part of the evaluation process.
- The project report comprehensively documents all aspects of the work, clearly describing the approaches, methodologies, and techniques adopted to address the identified problem.
- The report provides detailed evidence of the work carried out by the student, reflecting individual contribution, implementation details, and outcomes achieved.

Attached Annexure 2.3 : Project Review Attendance

Programme Committee

- Programme committee is formed with faculty members and the student representatives from the MCA Programme

- Committee members meetings are arranged based on the academic schedule.
- Programme Committee meetings are conducted before each internal test to discuss the difficulty level of courses, with active participation from students and course faculty, ensuring appropriate academic rigor and continuous improvement in teaching–learning processes.
- During these meetings, the details of syllabus coverage and portions completed are reviewed and analyzed to ensure adherence to the academic plan.
- A formal report of the Programme Committee meeting is prepared in the prescribed format and submitted to the higher authorities for review and necessary action.

Class Committee

- A Class Committee is constituted for each class of the MCA Programme, comprising faculty members and student representatives.
- Class Committee meetings are scheduled in accordance with the academic calendar.
- The Class Committee meets after every series (internal) test to analyze students' performance in the assessments.
- During the meetings, the difficulty level of the question papers and students' feedback and responses are reviewed and analyzed.
- A formal report of each Class Committee meeting is prepared in the prescribed format and submitted to the higher authorities for review and follow-up action.

Course Committee

- A Course Committee is constituted for the final year of the MCA Programme, comprising faculty members and student representatives.
- Course Committee meetings are scheduled in accordance with the academic calendar.
- The Course Committee meeting for the project course is conducted to allot project guides to students and to prepare a tentative schedule for the execution of project work.
- During the meeting, the internal assessment mark calculation methodology for the project course is discussed and finalized.
- A formal report of the Course Committee meeting is prepared in the prescribed format and submitted to the higher authorities for review and necessary action.

Attached Annexure 2.4

Course Committee Minutes

Class Committee Minutes

Student feedback on teaching learning and Action taken

Student feedback on teaching and learning encompasses their input and evaluation regarding various aspects of their educational experience. Feedback form is circulated to every student and the feedback is collected from the students. The feedback form includes the following as components

- Assessments of teaching methods and effectiveness.
- Comments on course content relevance and clarity.
- Evaluation of classroom atmosphere and engagement.

Student feedback is evaluated and the result is given to the corresponding faculty member. The problems identified in the feedback analysis are discussed with the corresponding faculty member and the remedial action is taken by the HOD.

NOORUL ISLAMCENTRE FOR HIGHER EDUCATION
STUDENT'S EVALUATION OF TEACHING STAFF
Master of Computer Applications
II Semester - Academic Year 2023-2024 (EVEN)

		CA4504	CA4505	CA4506	CA45A5	CA45A9
1. Knowledge of Teacher in the subject	Excellent	22	23	24	20	24
	Good	2	2	1	4	1
	Fair	1	0	0	1	0
	Poor	0	0	0	0	0
2. Clarity and understandability of teachers explanations	Excellent	23	24	20	24	22
	Good	2	1	4	1	2
	Fair	0	0	1	0	1
	Poor	0	0	0	0	0
3. Teachers willingness to help	Excellent	20	24	24	20	23
	Good	4	1	1	4	2
	Fair	1	0	0	1	0
	Poor	0	0	0	0	0
4. Regularity in engaging classes	Regular	24	25	24	25	24
	Irregular	1	0	1	0	1
5. Whether the Teacher dictates notes without explanation	Yes	25	24	25	24	25
	No	0	1	0	1	0
6. Teacher's ability to organize lectures.	Excellent	20	24	22	23	24
	Satisfactory	4	1	2	2	1
	poor	1	0	1	0	0
7. Speed of presentation	Just right	20	24	24	24	20
	Too fast	4	1	1	1	4
	Too slow	1	0	0	0	1
8. Does the teacher encourage Questioning?	Yes	25	24	25	24	25
	No	0	1	0	1	0
9. Behavior of the teacher	Pleasant	22	23	24	20	24
	Indifferent	2	2	1	4	1
	Unpleasant	1	0	0	1	0
10. Use of Black board	Effective	24	22	23	24	20
	Rarely uses	1	2	2	1	4
	Not at all uses	0	1	0	0	1
11. Sincerity of the teacher	Sincere	24	22	23	24	24
	Not sincere	1	3	2	1	1
12. Norms of valuation of tests and assignments.	Too Strict	20	24	22	23	24
	Too liberal	4	1	2	2	1
	Just right	1	0	1	0	0
13. Promptness in valuing tests and assignments.	Quite prompt	24	22	23	24	25
	Not prompt	1	3	2	1	0
14. Overall teaching effectiveness of the teacher.	Excellent	22	23	24	20	24
	Good	2	2	1	4	1
	Fair	1	0	0	1	0
	Poor	0	0	0	0	0

Subject Name	Code	Staff Name
Advanced Phython Programming	CA4504	Ms.M.Merlin Johnsy
Fullstack Web Development	CA4505	Ms.M.Tharanya
DataScience and cloud computing	CA4506	Ms.Sheela Kumari C.R
Agile Methodologies	CA45A5	Dr.S.Beulah
Cryptography and Network security	CA45A9	Dr.M.Shafeen Nagoor

Signature of the Staff
(M. Tharanya)

HOD
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil-629 180, Thuckalay
Kanyakumari District, Tamil Nadu, India.

Figure 2.2.1.F Student feedback on teaching learning Sample 1 (2023-2024 Even)

NOORUL ISLAMCENTRE FOR HIGHER EDUCATION
STUDENT'S EVALUATION OF TEACHING STAFF
Bachelor of Computer Applications
Evaluation
II Semester - Academic Year 2023-2024 (EVEN)

		MS36T1/M1/H1	EG3602	MA3606	CA3603	CA3604	GE3602
1. Knowledge of Teacher in the subject	Excellent	15	18	19	15	19	15
	Good	10	12	11	10	11	10
	Fair	4	0	0	4	0	4
	Poor	1	0	0	1	0	1
2. Clarity and understandability of teachers explanations	Excellent	18	19	15	19	15	15
	Good	12	11	10	11	10	10
	Fair	0	0	4	0	4	4
	Poor	0	0	1	0	1	1
3. Teachers willingness to help	Excellent	19	15	15	18	19	15
	Good	11	10	10	12	11	10
	Fair	0	4	4	0	0	4
	Poor	0	1	1	0	0	1
4. Regularity in engaging classes	Regular	23	24	24	24	24	24
	Irregular	1	0	0	0	0	0
5. Whether the Teacher dictates notes without explanation	Yes	19	20	20	19	19	20
	No	11	10	10	11	11	10
6. Teacher's ability to organize lectures.	Excellent	18	19	15	19	15	15
	Satisfactory	12	11	10	11	10	10
	poor	0	0	4	0	4	4
7. Speed of presentation	Just right	19	15	15	18	19	15
	Too fast	11	10	10	12	11	10
	Too slow	0	4	4	0	0	4
8. Does the teacher encourage Questioning?	Yes	19	20	20	19	19	20
	No	11	10	10	11	11	10
9. Behavior of the teacher	Pleasant	18	19	15	19	15	15
	Indifferent	12	11	10	11	10	10
	Unpleasant	0	0	4	0	4	4
10. Use of Black board	Effective	15	18	19	19	19	16
	Rarely uses	10	12	11	10	11	10
	Not at all uses	5	0	0	1	0	4
11. Sincerity of the teacher	Sincere	25	20	20	19	19	20
	Not sincere	5	10	10	11	11	10
12. Norms of valuation of tests and assignments.	Too Strict	15	18	19	15	19	15
	Too liberal	10	12	11	10	11	10
	Just right	4	0	0	4	0	4
13. Promptness in valuing tests and assignments.	Quite prompt	19	20	20	19	19	20
	Not prompt	11	10	10	11	11	10
14. Overall teaching effectiveness of the teacher.	Excellent	15	18	19	15	19	15
	Good	10	12	11	10	11	10
	Fair	4	0	0	4	0	4
	Poor	1	0	0	1	0	1

Subject Name	Code	Staff Name
Tamil/Malayalam/Hindi	MS36T1/M1/H1	Dr.Danesh
English II	EG3602	Mr.Jinu Sam
Mathematical foundations of computer science	MA3606	Dr.P.Jeba Sheeja
Object Oriented Programming Using C++	CA3603	Dr.M.Shafeen Nagoor
Computer Architecture	CA3602	Ms. M.Tharanya
Environmental Studies	GE3602	Sheelakumari C R

Staff In charge (M. Tharanya)

HOD
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Figure 2.2.1.G Student feedback on teaching learning Sample 2 (2023-2024 Even)

NOORUL ISLAMCENTRE FOR HIGHER EDUCATION
STUDENT'S EVALUATION OF TEACHING STAFF
Bachelor of Computer Applications
First Evaluation
I Semester - Academic Year 2023-2024 (ODD)

		MS36T1/M1/H1	EG3601	MA3605	CA3601	CA3602	GE3603
1. Knowledge of Teacher in the subject	Excellent	15	18	19	15	19	15
	Good	10	12	11	10	11	10
	Fair	4	0	0	4	0	4
	Poor	1	0	0	1	0	1
2. Clarity and understandability of teachers explanations	Excellent	18	19	15	19	15	15
	Good	12	11	10	11	10	10
	Fair	0	0	4	0	4	4
	Poor	0	0	1	0	1	1
3. Teachers willingness to help	Excellent	19	15	15	18	19	15
	Good	11	10	10	12	11	10
	Fair	0	4	4	0	0	4
	Poor	0	1	1	0	0	1
4. Regularity in engaging classes	Regular	23	24	24	24	24	24
	Irregular	1	0	0	0	0	0
5. Whether the Teacher dictates notes without explanation	Yes	19	20	20	19	19	20
	No	11	10	10	11	11	10
6. Teacher's ability to organize lectures.	Excellent	18	19	15	19	15	15
	Satisfactory	12	11	10	11	10	10
	poor	0	0	4	0	4	4
7. Speed of presentation	Just right	19	15	15	18	19	15
	Too fast	11	10	10	12	11	10
	Too slow	0	4	4	0	0	4
8. Does the teacher encourage Questioning?	Yes	19	20	20	19	19	20
	No	11	10	10	11	11	10
9. Behavior of the teacher	Pleasant	18	19	15	19	15	15
	Indifferent	12	11	10	11	10	10
	Unpleasant	0	0	4	0	4	4
10. Use of Black board	Effective	15	18	19	19	19	16
	Rarely uses	10	12	11	10	11	10
	Not at all uses	5	0	0	1	0	4
11. Sincerity of the teacher	Sincere	25	20	20	19	19	20
	Not sincere	5	10	10	11	11	10
12. Norms of valuation of tests and assignments.	Too Strict	15	18	19	15	19	15
	Too liberal	10	12	11	10	11	10
	Just right	4	0	0	4	0	4
13. Promptness in valuing tests and assignments.	Quite prompt	19	20	20	19	19	20
	Not prompt	11	10	10	11	11	10
14. Overall teaching effectiveness of the teacher.	Excellent	15	18	19	15	19	15
	Good	10	12	11	10	11	10
	Fair	4	0	0	4	0	4
	Poor	1	0	0	1	0	1

Subject Name	**Code**	**Staff Name**
Tamil/Malayalam/Hindi	MS36T1/M1/H1	Dr.Danesh
English	EG3601	Mr.A.Ajin Monish
Discrete Mathematics	MA3605	Mr.G.Victor Jeyachandra
Programming in C	CA3601	Ms. M.Merlin Johnsy
Digital Electronica	CA3602	Ms. R.Sujitha
Value based Education	GE3603	Sheelakumari C R

Staff Incharge
(M. Thara Devi)

HOD
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education

Figure 2.2.1.H Student feedback on teaching learning Sample (2023-2024 Odd)

NOORUL ISLAMCENTRE FOR HIGHER EDUCATION
STUDENT'S EVALUATION OF TEACHING STAFF
Master of Computer Applications
First Evaluation
I Semester - Academic Year 2023-2024 (ODD)

		CA4501	CA4502	CA4503	CA3601	MS45D1	MA4504
1. Knowledge of Teacher in the subject	Excellent	20	23	23	22	20	22
	Good	5	2	3	4	5	4
	Fair	1	1	0	0	1	0
	Poor	0	0	0	0	0	0
2. Clarity and understandability of teachers explanations	Excellent	24	23	25	23	24	23
	Good	2	3	1	3	2	3
	Fair	0	0	0	0	0	0
	Poor	0	0	0	0	0	0
3. Teachers willingness to help	Excellent	20	23	23	22	20	22
	Good	5	2	3	4	5	4
	Fair	1	1	0	0	1	0
	Poor	0	0	0	0	0	0
4. Regularity in engaging classes	Regular	23	24	24	24	24	24
	Irregular	1	0	0	0	0	0
5. Whether the Teacher dictates notes without explanation	Yes	19	20	20	19	19	19
	No	11	10	10	11	11	11
6. Teacher's ability to organize lectures.	Excellent	18	19	15	19	15	19
	Satisfactory	12	11	10	11	10	11
	poor	0	0	4	0	4	0
7. Speed of presentation	Just right	19	15	15	18	19	18
	Too fast	11	10	10	12	11	12
	Too slow	0	4	4	0	0	0
8. Does the teacher encourage Questioning?	Yes	19	20	20	19	19	19
	No	11	10	10	11	11	11
9. Behavior of the teacher	Pleasant	18	19	15	19	15	19
	Indifferent	12	11	10	11	10	11
	Unpleasant	0	0	4	0	4	0
10. Use of Black board	Effective	15	18	19	19	19	19
	Rarely uses	10	12	11	10	11	10
	Not at all uses	5	0	0	1	0	1
11. Sincerity of the teacher	Sincere	25	20	20	19	19	19
	Not sincere	5	10	10	11	11	11
12. Norms of valuation of tests and assignments.	Too Strict	15	18	19	15	19	15
	Too liberal	10	12	11	10	11	10
	Just right	4	0	0	4	0	4
13. Promptness in valuing tests and assignments.	Quite prompt	19	20	20	19	19	19
	Not prompt	11	10	10	11	11	11
14. Overall teaching effectiveness of the teacher.	Excellent	15	18	19	15	19	15
	Good	10	12	11	10	11	10
	Fair	4	0	0	4	0	4
	Poor	1	0	0	1	0	1

Subject Name	**Code**	**Staff Name**
Problem solving techniques and programming in c	CA4501	Dr.Jeba J R
Data Structures and Algorithms	CA4502	Ms.R,Sujitha
Relational Database Management System	CA4503	Dr.S.Beulah
Fundamentals of Accounting	MS45D1	Dr.J.R.Inba Saharan
Applied Probability and Statistics	MA4504	Dr.M.Sudha

Staff Incharge
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Figure 2.2.1.I Student feedback on teaching learning Sample (2023-2024 odd)

2.2.2 Quality of Internal Semester Question Papers, Assignments and Evaluation (20)

(Mention the initiatives, implementation details, evaluation rubrics and impact analysis related to quality assurance of internal question papers, assignments that encourage and empower the students to develop skills and higher orders of learning and evaluation)

Process for internal semester question paper setting and evaluation and effective process implementation.

- Based on the academic schedule three internal assessment test are conducted for every theory course and two internal assessment test are conducted for every practical course
- For the conduct of internal examinations, the Internal Examination In-Charge prepares and issues a formal notice announcing the commencement of internal examinations, along with the detailed timetable, which is communicated and circulated to all students.
- Faculty members are instructed to prepare question papers in accordance with Bloom's Taxonomy, ensuring adequate coverage of the prescribed syllabus and alignment with the defined Course Outcomes (COs).
- The quality of the question paper is ensured by the exam in-charge with the help of Head of the Department and any question paper needs revision is informed to the corresponding faculty member for resubmission of question paper.
- After conducting the examination the faculty member evaluate it with in three working days and it will be distributed to the students. Then the marks are uploaded in the university automation system.

Steps to ensure questions with learning outcomes and levels

- The quality and relevance of internal assessment question papers, with respect to syllabus coverage, are reviewed and approved by the Head of the Department (HoD).
- The Head of the Department evaluates the distribution of marks to ensure appropriate coverage of the prescribed syllabus and alignment with the defined Course Outcomes (COs) for each internal assessment test.
- Documented evidence of Course Outcome (CO) coverage in Internal Assessment Tests and Model Examinations is maintained for verification and audit purposes.
- All questions in the internal assessment question papers are mapped to the corresponding Course Outcomes, and this CO mapping is verified by the Internal Examination In-Charge.
- The format of question paper for the internal exam and its corresponding Cos are shown

below for regulation 2023 and 2025

Internal Assessment Test – I					
Mapping Questions with CO					
Qn. No	CO1	CO2	CO3	CO4	CO5
Part A (9 * 2 = 18 Marks)					
1.	√				
2.	√				
3.	√				
4.	√				
5.	√				
6.		√			
7.		√			
8.		√			
9.		√			
Part B (2 * 16 = 32 Marks)					
10 A)	√				
OR					
10 B)	√				
11 A)		√			
OR					
11 B)		√			

Table 2.2.2.A question paper pattern for Internal Assessment I (Regulation 2021)

Internal Assessment Test – II					
Mapping Questions with CO					
Qn. No	CO1	CO2	CO3	CO4	CO5
Part A (9 * 2 = 18 Marks)					
1.		√			
2.		√			
3.		√			
4.		√			
5.			√		
6.			√		
7.			√		
8.			√		
9.			√		
Part B (2 * 16 = 32 Marks)					
10 A)		√			
OR					
10 B)		√			
11 A)			√		
OR					
11 B)			√		

Table 2.2.2.B question paper pattern for Internal Assessment II (Regulation 2021)

Internal Assessment Test – III					
Mapping Questions with CO					
Qn. No	CO1	CO2	CO3	CO4	CO5
Part A (9 * 2 = 18 Marks)					
1.				√	

2.				√	
3.				√	
4.				√	
5.				√	
6.					√
7.					√
8.					√
9.					√
Part B (2 * 16 = 32 Marks)					
10 A)				√	
OR					
10 B)				√	
11 A)					√
OR					
11 B)					√

Table 2.2.2.C question paper pattern for Internal Assessment III (Regulation 2021)

University Examination					
Mapping Questions with CO					
Qn. No	CO1	CO2	CO3	CO4	CO5
Part A (9 * 2 = 18 Marks)					
1.	√				
2.	√				
3.		√			
4.		√			
5.			√		
6.			√		
7.				√	
8.				√	
9.					√
10.					√
Part B (2 * 16 = 32 Marks)					
11 A)	√				
OR					
11 B)	√				
12 A)		√			
OR					
12 B)		√			
13 A)			√		
OR					
13 B)			√		
14 A)				√	
OR					
14 B)				√	
15 A)					√
OR					
15 B)					√

Table 2.2.2.D question paper pattern for University Examination (Regulation 2021)

The format of question paper for the internal exam and its corresponding Cos are shown below for regulation 2025

Semester : First

Continuous Assessment – I					
Mapping Questions with CO					
Qn. No	CO1	CO2	CO3	CO4	CO5
Part A (6 * 1 = 6 Marks)					
1.	√				
2.	√				
3.	√				
4.		√			
5.		√			
6.		√			
Part B (8 * 2 = 16 Marks)					
7.	√				
8.	√				
9.	√				
10.	√				
11.		√			
12.		√			
13.		√			
14.		√			
PART C - (2 x 4 = 8 Marks) Answer **ALL** questions choosing either (a) or (b)					
15 A)	√				
OR					
15 B)	√				
16 A)		√			
OR					
16 B)		√			
Part D - (2 X 10 = 20 Marks) Answer **ALL** questions choosing either (a) or (b)					
17 A)	√				
OR					
17 B)	√				
18 A)		√			
OR					
18 B)		√			

Table 2.2.2.E Question paper pattern for CAI

Semester : First					
Continuous Assessment – II					
Mapping Questions with CO					
Qn. No	CO1	CO2	CO3	CO4	CO5
Part A (6 * 1 = 6 Marks)					
1.			√		
2.			√		
3.			√		
4.				√	
5.				√	
6.				√	
Part B (8 * 2 = 16 Marks)					
7.			√		
8.			√		

9.			√		
10.			√		
11.				√	
12.				√	
13.				√	
14.				√	
PART C - (2 x 4 = 8 Marks) Answer **ALL** questions choosing either (a) or (b)					
15 A)			√		
OR					
15 B)			√		
16 A)				√	
OR					
16 B)				√	
Part D - (2 X 10 = 20 Marks) Answer **ALL** questions choosing either (a) or (b)					
17 A)			√		
OR					
17 B)			√		
18 A)				√	
OR					
18 B)				√	

Table 2.2.2.F Question paper pattern for CAII

Semester : First					
Model Exam					
Mapping Questions with CO					
Qn. No	CO1	CO2	CO3	CO4	CO5
Part A (10 * 1 = 10 Marks)					
1.	√				
2.	√				
3.		√			
4.		√			
5.			√		
6.			√		
7.				√	
8.				√	
9.					√
10.					√
Part B (10 * 2 = 20 Marks)					
11.	√				
12.	√				
13.		√			
14.		√			
15.			√		
16.			√		
17.				√	
18.				√	
19.					√
20.					√
PART C - (5 x 4 = 20 Marks)					

Answer **ALL** questions choosing either (a) or (b)					
21 A)	√				
OR					
21 B)	√				
22 A)		√			
OR					
22 B)		√			
23 A)			√		
OR					
23 B)			√		
24 A)				√	
OR					
24 B)				√	
25 A)					√
OR					
25 B)					√
Part D - (5 X 10 = 50 Marks) Answer **ALL** questions choosing either (a) or (b)					
26 A)	√				
OR					
26 B)	√				
27 A)		√			
OR					
27 B)		√			
28 A)			√		
OR					
28 B)			√		
29 A)				√	
OR					
29 B)				√	
30 A)					√
OR					
30 B)					√

Table 2.2.2.E Question paper pattern for Model Exam

Evaluation Scheme for the courses (Regulation 2020 & 2023)

Sl. No	Course Type	Assessment tool	Weightage
1.	Theory Course	Continuous Internal Assessment(CIA) (Best two marks from three internal assessment marks)	20%
		Assignment / Seminar	10%
		Attendance	10%
		End Semester Assessment(ESA)	60%
2.	Practical Course	Internal Assessment Test(CIA) (Marks from two internal assessment marks)	20%
		Assignment / Seminar	10%
		Attendance	10%
		End Semester Assessment (ESA)	60%
3.	Project Course	Internal Assessment Test(CIA) (Marks of Three Reviews)(5+5+10)	20%

		Report Preparation	10%
		Attendance	10%
		University Viva Voce Examination	60%

Table 2.2.2.F Evaluation Scheme for regulation 2020 and 2023

Evaluation Procedure

The evaluation of the internal exam answer sheets are done by the faculty handling the course. The evaluated answer scripts will be distributed to the students in order to ensure transparency and to make them learn from errors. In case, if the student wishes to reevaluate the answer sheet, the student can raise the same through the course teacher with appropriate ratifications from the academic coordinator.

The marks will be uploaded into NICHE portal within three working days of completion of the examination. Based on the assessment plan, the CO attainment for every student will be recorded. Results and analysis will be discussed in the class committee meetings as well as in the parent teachers meetings for further follow up.

Performance of each Registered Student in a Course shall be evaluated based on

- Continuous Internal Assessment (CIA) throughout the semester
- End Semester Assessment (ESA) through end semester University examination at the end of the semester.

Each Course, both Theory and Practical including Project Work, Seminar, etc shall be evaluated for a maximum of 100 marks For each Course, the continuous internal assessment (CIA) will carry 40 marks while the end semester assessment (ESA) in end semester University examination will carry 60 marks.

Procedure for awarding marks in continuous internal assessment (CIA):

For all Theory and Practical Courses in each program the continuous internal assessment (CIA) shall be for a maximum of 40 marks, consisting of 20 marks for tests/Laboratory experiments/model examinations, 10 marks for assignments/presentations and 10 marks for attendance. CIA marks shall be awarded as per the procedure given below

a**. Theory Course:**

Three internal tests are conducted, and the best two scores are considered for the calculation of internal assessment marks put together out of 200 marks shall be reduced for 20 marks and rounded to the nearest integer

b**. Practical Course:**

Every Practical exercise/experiment shall be evaluated based on the exercise/ experiment prescribed as per the syllabus and the Laboratory records maintained on the Work done. There shall be one mid-term test for fifty marks in 3 hours duration immediately after 40 Working days and model test for 100 marks in 3 hours duration covering the full syllabus at the end of the semester The total marks obtained in the mid-term test and model examination put together out of 150 marks, shall be reduced for 20 marks and rounded to the nearest integer

c. **Theory Courses:**

For theory courses with an associated laboratory component, three internal tests are conducted. The first two tests, each of 50 marks with a duration of one and a half hours, cover the theory portions of the first one and a half units. The third test, also of 50 marks and one and a half hours duration, covers the fourth and fifth units of the syllabus. The total marks obtained in the best two out of the three theory tests, aggregated out of 100 marks, are scaled down to 20 marks and rounded off to the nearest integer.

In addition, for all such courses, two assignments and one presentation are prescribed as part of continuous assessment. The assignments are administered by the Course Teacher, while the presentation is delivered on a topic selected by the student, distinct from the assignment topics, at appropriate intervals. Each assignment and the presentation carry 50 marks each. The cumulative marks obtained out of 150 are scaled down to 10 marks and rounded off to the nearest integer.

d. **Project Work:**

The evaluation of the Project Course is carried out through a structured assessment framework comprising Continuous Internal Assessment (CIA) and University-level evaluation. The Continuous Internal Assessment accounts for 40% of the total weightage and includes three periodic project reviews, which together carry 20% weightage, with marks distributed as 5%, 5%, and 10% respectively. These reviews assess the student's progress, individual contribution, problem analysis, design, and implementation stages of the project.

In addition, report preparation carries a weightage of 10%, evaluating the quality of documentation, clarity of methodology, technical depth, and adherence to prescribed guidelines. Attendance contributes a further 10%, ensuring consistent student engagement and regular interaction with the project guide.

The remaining 60% of the total evaluation is allotted to the University Viva Voce Examination, which assesses the student's overall understanding of the project, technical competence, problem-solving ability, and individual contribution through oral examination and demonstration before an external examiner.

e. **Awarding marks for attendance:**

Ten marks for attendance shall be awarded as follows.

Less than 65% of attendance	-	0 mark
65% to 74% of attendance	-	6 marks
75% to 79% of attendance	-	7 marks
80% to 89% of attendance	-	8 marks
90% to 95% of attendance	-	9 marks
96% to 100% of attendance	-	10 marks

NICHE

Noorul Islam Centre For Higher Education

Kumaracoil, Thuckalay, K.K.Dist, Pin-629 180

Course : CA45 Semester : 1

Result For First Series Test,Second Series Test,Model Test,ReTest Mark,Assignment Mark,Attendance Mark,Internal Mark - 01-02-2024

Reg No.	Name	CA4501							CA4502						CA4503						CA4571					CA4572					EG4571					MA4504					MS45D1					
		1	2	3	4	As.	At.	In.	1	2	3	As.	At.	In.	1	2	3	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	3	As.	At.	In.	1	2	3	As.	At.	In.
1123507002	Amritha S	66	72	59	A	10	9	32.8	66	92	64	10	9	34.8	83	83	73	10	9	35.6	96	86	10	9	37.2	90	62	10	9	34.2	97	95	10	9	38.2	50	80	60	10	9	33	80	82	66	10	9	35.2
1123507003	Amrutha A	96	88	77	A	10	10	38.4	74	96	A	10	10	37	91	94	80	10	10	38.5	100	100	10	10	40	100	98	10	10	39.8	98	98	10	10	39.6	84	90	74	10	10	37.4	96	96	78	10	10	39.2
1123507004	Anoop S	94	48	45	A	9	8	31.2	56	58	15	8	8	27.4	69	69	16	10	8	31.8	88	80	9	8	33.8	85	98	8	8	34.3	84	65	9	8	31.9	74	77	53	9	8	32.1	50	52	50	10	8	28.2
1123507005	Anto Jorgin S	96	54	50	A	9	6	30	58	A	30	8	6	22.8	45	61	29	10	6	26.6	70	72	9	6	29.2	85	86	8	6	31.1	62	74	9	6	28.6	67	A	51	10	6	27.8	72	22	76	10	6	30.8
1123507006	Athersh S P	74	4	43	A	9	6	26.7	A	52	48	7	6	23	32	50	50	10	6	26	80	70	9	6	30	85	76	7	6	29.1	85	50	9	6	28.5	36	50	50	9	6	25	62	1	68	10	6	29
1123507007	Donio D S	52	26	33	50	9	6	25.2	A	58	26	10	6	24.4	19	50	42	10	6	25.2	40	60	9	6	25	80	80	8	6	30	75	64	9	6	28.9	18	50	57	9	6	25.7	54	42	47	10	6	26.1
1123507008	Fathima Afra A	96	82	73	A	10	8	35.8	84	98	47	10	8	36.2	86	90	77	10	8	35.6	94	100	10	8	37.4	100	82	9	8	35.2	98	99	10	8	37.7	88	97	84	10	8	36.5	96	88	90	10	8	36.6
1123507009	Hosea K	50	28	60	A	9	8	28	56	60	44	9	8	28.6	50	57	35	10	8	28.7	60	90	9	8	32	98	88	9	8	35.6	92	74	9	8	33.6	28	53	65	10	8	29.8	74	32	62	10	8	31.6
1123507010	Jithu Mon S A	30	31	52	A	9	8	25.3	30	50	21	9	8	25	42	62	16	10	8	28.4	52	72	9	8	29.4	98	85	8	8	34.3	75	63	9	8	30.8	20	50	57	9	8	27.7	59	28	54	10	8	29.3
1123507011	Krishna Veni S	84	68	57	A	10	8	33.2	66	94	55	10	8	34	69	60	43	10	8	30.9	88	90	10	8	35.8	100	90	10	8	37	90	80	10	8	35	63	83	42	10	8	32.6	90	78	69	10	8	34.8
1123507012	Libi V D	92	74	51	A	10	9	35.6	72	82	55	10	9	34.4	78	78	45	10	9	34.6	90	95	10	9	37.5	98	92	9	9	37	86	87	10	9	36.3	79	86	52	10	9	35.5	96	82	74	10	9	36.8
1123507013	Mini T	86	60	55	A	10	9	33.6	56	74	55	10	9	32	78	72	71	10	9	34	98	94	10	9	38.2	98	94	10	9	38.2	95	93	10	9	37.8	75	84	75	10	9	34.9	92	72	78	10	9	36
1123507014	Nanthini S	94	80	64	A	10	10	37.4	76	96	60	10	10	37.2	88	84	79	10	10	37.2	100	94	10	10	39.4	96	96	9	10	38.2	94	92	10	10	38.6	98	96	94	10	10	39.4	94	90	82	10	10	38.4
1123507015	Reshme Anana S	68	66	56	A	10	9	32.4	82	82	54	10	9	35.4	69	76	50	10	9	33.5	98	2	10	9	29	98	93	9	9	37.1	92	97	10	9	37.9	83	69	80	10	9	35.3	84	90	76	10	9	36.4
1123507016	Sahaya Sharmily S	78	46	62	A	10	9	33	64	84	A	10	9	33.8	38	76	50	10	9	31.6	98	84	10	9	37.2	96	90	9	9	36.6	88	86	10	9	36.4	89	92	52	10	9	37.1	94	86	63	10	9	37
1123507017	Shajin Jero J F	56	A	30	A	9	8	25.6	36	52	A	9	8	25.8	29	34	50	10	8	26.4	60	70	9	8	30	85	75	7	8	31	78	59	10	8	31.7	A	50	67	10	8	29.7	68	50	67	9	8	30.5
1123507018	Shajitha S	92	80	70	A	10	10	37.2	84	96	64	10	10	38	88	91	66	10	10	37.9	92	98	10	10	39	98	92	9	10	38	92	88	10	10	38	86	99	67	10	10	38.5	96	94	72	10	10	39
1123507019	Shanthini G S	90	72	80	A	10	9	36	90	96	62	10	9	37.6	90	85	78	10	9	36.5	98	100	10	9	38.8	98	93	10	9	38.1	97	94	10	9	38.1	93	99	92	10	9	38.2	92	84	85	10	9	36.7
1123507020	Shifna Wilfred	58	30	36	A	10	10	29.4	58	74	30	10	10	33.2	50	69	44	10	10	31.9	92	98	10	10	39	80	95	9	10	36.5	84	84	10	10	36.8	61	83	A	10	10	34.4	84	62	50	10	10	34.6
1123507021	Sivaram M S	64	46	50	A	9	8	28.4	54	70	32	8	8	28.4	58	53	55	10	8	29.3	92	90	9	8	35.2	80	83	8	8	32.3	82	77	10	8	33.9	66	84	72	10	8	33.6	78	58	57	10	8	31.6
1123507022	Sowfik Fazil N	50	14	40	50	9	6	25	50	50	25	8	6	24	26	57	43	10	6	26	60	80	9	6	29	80	83	8	6	30.3	75	73	9	6	29.8	58	53	64	10	6	28.2	46	50	60	10	6	27
1123507023	Sreethu S S	62	50	50	A	10	9	30.2	64	68	A	10	9	32.2	26	67	44	10	9	30.1	96	96	10	9	38.2	80	80	9	9	34	90	83	10	9	36.3	50	55	65	10	9	31	88	60	65	10	9	34.3
1123507024	Sri Harish S	76	44	57	A	9	7	29.3	56	60	10	9	7	27.6	48	76	53	10	7	29.9	84	90	9	7	33.4	100	81	8	7	33.1	70	83	9	7	31.3	63	A	60	10	7	29.3	74	62	70	10	7	31.4
1123507025	Varsha S	82	66	47	A	10	10	34.8	62	90	45	10	10	35.2	60	78	54	10	10	33.8	96	98	10	10	39.4	98	93	10	10	39.1	90	85	10	10	37.5	91	92	55	10	10	38.3	88	78	69	10	10	36.6
1123507026	Vasuntharadevi K	82	A	53	A	10	9	32.5	72	A	43	10	9	30.5	60	A	56	10	9	30.6	92	96	10	9	37.8	100	94	10	9	38.4	92	91	10	9	37.3	60	92	68	10	9	35	90	64	94	10	9	37.4
1123507027	Veena V S	94	76	63	A	10	10	37	84	94	A	10	10	37.8	82	95	69	10	10	37.7	96	100	10	10	39.6	98	98	10	10	39.6	98	96	10	10	39.4	97	99	70	10	10	39.6	96	94	73	10	10	39
1123507028	Viswasharan R	66	22	39	A	9	6	25.5	50	A	37	9	6	23.7	25	55	42	10	6	25.7	72	80	9	6	30.2	94	78	8	6	31.2	79	72	10	6	31.1	69	9	54	10	6	28.3	78	62	54	7	6	27
1123507029	Waffa U F	88	70	A	A	9	6	30.8	82	98	A	10	6	34	58	80	A	10	6	29.8	98	A	10	6	25.8	98	A	8	6	23.8	99	A	10	6	25.9	62	96	A	10	6	31.8	94	90	0	10	6	34.4
	Staff Signature																																														

Sub Code	Subject Name	Name of the Staff	Signature
CA4501	Problem Solving Techniques and Programming In C	Dr. G.R.Jeba	
CA4502	Data Structures and Algorithms	Ms.M.Merlin Jebarey	
CA4503	Relational Database Management System	Dr.S.Beulah	
CA4571	Relational Database Management System Laboratory	Dr S.Beulah	
CA4572	Data Structures and Algorithms Using C Laboratory	Ms.M.Dharanya	
EG4571	Communication Skill Lab I	Mr.Ajin Manuel	
MA4504	Applied Probability and Statistics	Dr.Sudha	
MS45D1	Fundamentals of Accounting	Dr.Rahasekhar	

05.02.24

Signature of HOD

Head of the Department
Dept. of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil, Thuckalay - 629 180

Figure 2.2.2.A Sample Internal Assessment Marks for 2023-2024 odd

NICHE

Noorul Islam Centre For Higher Education

Kumaracoil, Thuckalay, K.K.Dist, Pin-629 180

Course : CA45 Semester : 1

Result For First Series Test,Second Series Test,Model Test,ReTest Mark,Assignment Mark,Attendance Mark,Internal Mark - 05-02-2025

Reg No.	Name	CA4501							CA4502							CA4503							CA4571							CA4572							EG4571							MA4504							MS45D1						
		1	2	3	4	As.	At.	In.	1	2	3	As.	At.	In.	1	2	3	4	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	3	As.	At.	In.	1	2	3	As.	At.	In.
1124507001	Abin J	80	52	48	A	10	8	31.2	64	66	8	10	8	31	50	50	6	60	10	8	29	84	100	10	8	36.4	90	90	10	8	36	90	88	9	8	34.8	69	74	4	10	8	32.3	74	100	28	10	8	35.4
1124507002	Abin Saji	66	72	42	A	10	8	31.8	50	65	60	10	8	30.6	41	42	50	72	10	8	30.2	52	80	10	8	31.2	100	100	10	8	38	90	90	9	8	35	57	28	76	10	8	31.3	56	95	12	10	8	33.2
1124507003	Abinesh R	4	0	76	A	10	8	26	A	18	72	10	8	27	0	50	0	0	10	8	23	74	98	10	8	35.2	100	100	10	8	38	87	84	9	8	34.1	50	52	52	10	8	28.4	56	100	A	10	8	33.6
1124507004	Abishek S J	72	44	4	A	10	8	29.6	50	24	64	10	8	29.4	8	30	19	70	10	8	28	72	76	10	8	32.8	90	90	10	8	36	76	70	8	8	30.6	35	50	52	10	8	28.2	84	95	56	9	8	35
1124507005	Anusha M	70	86	50	A	10	9	34.6	98	100	96	10	9	38.8	86	85	82	0	10	9	36.2	88	100	10	9	37.8	100	100	10	9	39	95	84	9	9	35.9	98	83	94	10	9	38.2	88	100	100	10	9	39
1124507006	Archana A L	68	64	58	A	10	9	32.2	62	24	80	10	9	33.2	69	64	40	0	10	9	32.3	82	90	10	9	36.2	100	100	10	9	39	94	90	10	9	37.4	69	50	4	10	9	30.9	84	93	76	10	9	37.2
1124507007	Athira A N	62	74	24	A	10	9	32.6	60	A	80	10	9	33	50	58	21	0	10	9	29.8	82	85	10	9	35.7	100	96	10	9	38.6	88	84	9	9	35.2	54	50	4	10	9	29.4	76	85	50	9	9	34.2
1124507008	Dhanush T H	14	52	42	50	10	7	27.2	30	28	72	10	7	27.2	13	14	66	54	10	7	29	80	88	10	7	33.8	90	80	10	7	34	72	72	8	7	29.4	50	54	16	10	7	27.4	54	60	2	9	7	27.4
1124507009	Dhinya Dhas P	82	82	34	A	10	9	35.6	80	84	A	10	9	35.4	56	73	A	0	10	9	31.9	88	85	10	9	36.3	100	80	10	9	37	97	94	10	9	38.1	29	58	52	10	9	30	82	93	80	10	9	37.1
1124507010	Jaya Bharathi A	76	76	80	A	10	10	35.6	90	96	96	10	10	39.2	63	65	74	0	10	10	33.9	88	96	10	10	38.4	100	100	10	10	40	93	90	9	10	37.3	95	92	65	10	10	38.7	94	95	100	10	10	39.5
1124507011	Karthik Rishi R K	A	A	28	A	5	0	7.8	A	A	A	9	0	9	0	A	2	0	10	0	10.2	A	A	0	0	0	A	A	10	0	10	A	A	6	0	6	A	A	80	10	0	18	A	A	22	0	0	2.2
1124507012	Mani Shankar S	A	A	20	A	5	0	7	A	A	76	9	0	16.6	0	A	2	0	10	0	10.2	A	A	0	0	0	A	A	10	0	10	A	A	6	0	6	A	A	80	10	0	18	A	A	40	0	0	4
1124507013	Masma G	52	66	58	A	10	10	32.4	50	54	80	10	10	33.4	43	50	54	0	10	10	30.4	80	80	10	10	36	90	100	10	10	39	95	80	9	10	36.5	50	59	78	10	10	33.7	50	84	62	10	10	34.6
1124507014	Mohaideen Raseen S	54	52	54	A	10	7	28.8	54	10	60	10	7	28.4	18	26	0	64	10	7	26	74	80	10	7	32.4	96	80	10	7	34.6	86	64	8	7	30	37	74	A	10	7	28.1	42	84	A	8	7	27.6
1124507015	Monesh J R	62	28	48	A	10	8	29	54	5	86	10	8	32	3	38	63	0	10	8	28.1	76	80	10	8	33.6	90	90	10	8	36	77	76	8	8	31.3	36	75	50	10	8	30.5	62	70	4	8	8	29.2
1124507016	Newsha M R	60	A	84	A	10	8	32.4	52	26	84	10	8	31.6	61	50	25	0	10	8	29.1	80	84	10	8	34.4	100	80	10	8	36	95	90	9	8	35.5	50	45	60	10	8	29	68	95	34	10	8	34.4
1124507017	Nibitha A	70	A	58	A	10	7	30.8	62	90	64	10	7	32.4	61	67	31	0	10	7	29.8	74	80	10	7	32.4	100	100	10	7	37	95	90	9	7	34.5	60	82	A	10	7	31.2	64	77	88	10	7	33.5
1124507018	Padmanabhan P S	A	A	22	A	5	6	13.2	A	A	50	9	6	20	0	A	2	0	10	6	16.2	A	A	0	6	6	A	A	10	6	16	A	A	6	6	12	A	A	80	10	6	24	A	A	30	0	6	9
1124507019	Sairam N A	84	96	74	A	10	9	37	94	94	88	10	9	37.8	73	76	85	0	10	9	35.1	86	96	10	9	37.2	96	100	10	9	38.6	89	84	10	9	36.3	75	91	86	10	9	36.7	80	92	68	10	9	36.2
1124507020	Sharbin Jeno P	60	63	52	A	10	9	31.3	70	76	84	10	9	35	61	84	59	0	10	9	33.5	90	96	10	9	37.6	92	100	10	9	38.2	86	92	10	9	36.8	50	78	A	10	9	31.8	90	93	84	10	9	37
1124507021	Sheik Mohamed Shalam S	90	84	96	A	10	10	38.6	68	80	100	10	10	38	91	94	90	0	10	10	38.5	100	98	10	10	39.8	94	100	10	10	39.4	91	96	10	10	38.7	68	82	80	10	10	36.2	100	100	92	10	10	40
1124507022	Sherin Fathima S	80	80	82	A	10	9	35.2	98	A	84	10	9	37.2	82	82	58	0	10	9	35.4	94	100	10	9	38.4	100	100	10	9	39	95	94	10	9	37.9	100	95	A	10	9	38.5	96	100	96	10	9	38.6
1124507023	Sriram R V	66	56	46	A	10	8	30.2	66	50	32	10	8	29.6	56	76	39	0	10	8	31.2	80	84	10	8	34.4	90	80	10	8	35	87	80	8	8	32.7	62	64	34	10	8	30.6	78	85	A	10	8	34.4
1124507024	Vijesh Mon K R	12	44	38	76	10	6	28	50	50	A	10	6	26	6	34	17	66	10	6	26	50	70	10	6	28	A	90	10	6	25	78	76	9	6	30.4	50	59	40	10	6	26.9	52	80	3	9	6	28.2
1124507025	Vrindha J B	68	70	50	A	10	9	32.8	56	26	64	10	8	31	0	36	50	61	10	9	30.1	80	84	10	9	35.4	100	96	10	9	38.6	94	84	10	9	36.8	32	89	80	10	9	35.9	52	94	74	10	9	35.8
1124507026	Yahoof K	40	32	28	62	10	8	28.2	30	10	74	10	8	28.4	28	42	4	71	10	8	29.3	72	80	10	8	33.2	100	90	10	8	37	80	82	9	8	33.2	29	56	50	10	8	28.6	70	86	A	10	8	33.6
1124507027	Syed Mohamed Hasan S Y	18	54	30	68	10	8	30.2	32	50	68	10	8	29.8	7	32	28	70	10	8	28.2	50	70	10	8	30	90	100	10	8	37	79	88	10	8	34.7	50	63	A	10	8	29.3	88	70	A	7	8	30.8
	Staff Signature																																																				

Sub Code	Subject Name	Faculty Name	Signature
CA4501	Problem Solving Techniques and Programming in C	Dr. J. R. Jeba	
CA4502	Data Structures and Algorithms	Juliet Jemila. C	
CA4503	Relational Database Management System	Dr. S. Beulah	
CA4571	Relational Database Management System Laboratory	Dr. S. Beulah	
CA4572	Data Structures and Algorithms Using C Laboratory	Juliet Jemila. C	
EG4571	Communication Skill Lab I	Mr. Allin Monish	
MA4504	Applied Probability and Statistics	Dr. Sudha	
MS45D1	Fundamentals of Accounting	Dr. Pobarabaran	

05.02.2025

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Figure 2.2.2.B Sample Internal Assessment Marks for 2024-2025 odd

Revised question paper pattern – Regulation 2025

Revised Question paper Pattern implemented to:	Revised Pattern of Question paper	Description of the question
1. First Semester UG/PG Students **(Except B.ASLP)** 2. Third Semester UG/PG students **(Except B.ASLP)**	PART A : One mark questions **(10 questions, two from each unit, 1 mark each, Total: 10 marks, No choice)**	MCQ, Fill in the blanks, True/False/One word etc.
	PART B : Two mark questions **(10 questions, two from each unit, 2 marks each, Total: 20 marks, No choice)**	Short Answer Type
	PART C : Four mark questions **(5 questions, one from each unit, 4 Marks each, Total: 20 marks, either or choice)**	Descriptive/Analytical Type
	PART D :Ten Mark questions **(5 questions, one from each unit, 10 Marks each, Total: 50 marks, either or choice)**	Long Answer/Essay Type

Figure 2.2.2.C Question pattern for regulation 2025

Evaluation Scheme for the courses (Regulation 2025)

System of Examination

The system of examination for each course is designed to provide a balanced evaluation through a combination of Continuous Internal Assessment (CIA) and End Semester Assessment (ESA). The CIA carries a weightage of 40 percent and is conducted throughout the semester to encourage consistent academic engagement and sustained learning. It comprises three Continuous Assessment Tests (CATs), supplemented by assignments, seminars, and attendance components, thereby ensuring that students are evaluated not only on their performance in written tests but also on their active participation and overall commitment to the course.

The ESA, carrying a weightage of 60 percent, is conducted by the University at the end of each semester. It covers the entire syllabus prescribed for the course and serves as a comprehensive summative evaluation of the student's understanding and mastery of the subject matter. This dual structure of continuous and end-semester evaluation ensures that students are assessed holistically, with due emphasis on regular academic effort, conceptual clarity, and the ability to apply knowledge effectively.

Procedure for Awarding CIA Marks

The CIA marks are awarded based on a structured assessment strategy that includes Continuous Assessment Tests (CATs), assignments, and attendance. The following details the evaluation process for different course types:

a Theory Courses

For theory-based courses, the Continuous Internal Assessment (CIA) is primarily based on three Continuous Assessment Tests (CATS), which are designed to assess the student's understanding and progression at different stages of the semester
CAT-1 (Early Formative Assessment) is conducted after the completion of Units I and II. It is a

written examination carrying 50 marks, which is subsequently converted to 100 marks for uniformity. The question paper is structured to include four one word type questions (4x1=4 marks), eight short answer questions (8 x 2=16 marks), two medium answer questions (2 x4=8 marks), and two long answer questions (2 x 10=20 marks), making a total of 50 marks

CAT-II (Mid-Course Check) is conducted after the completion of Units III and IV. The structure and evaluation scheme remain the same as CAT-1, with a maximum of 50 marks converted to 100 marks.

CAT-III (Summative Assessment) is comprehensive in nature and covers all five units of the syllabus. This test carries a maximum of 100 marks, with the question paper comprising five one-word questions (5x1=5 marks), ten short answer questions (10x2=20 marks), live medium answer questions (5x 4=20 marks), and five long answer questions (5 x 10=50 marks), amounting so a total of 100 marks

The marks second in the three CATs are averaged and scaled down to a maximum of 20 marks for inclusion in the CIA component of the course This multi stage assessment strategy ensures continuous monitoring of performance, provides opportunities for improvement, and prepares students for the End Semester Assessment (ESA)

1. **Assignments:**

Assignments form an integral part of the Continuous Internal Assessment for theory courses, intended to promote self-learning, creativity, and the application of knowledge beyond the classroom. Each course shall have five assignments, one corresponding to each unit of the syllabus. The assignments are structured to provide variety in assignments methods and to evaluate different dimensions of student learning. The distribution of assignments is as follows: Unit 1- Case Study, Unit II Quiz, Unit III Problem Solving, Unit IV Report/Analysis, and Unit V Creative/Project-based task. Each assignment is evaluated for a maximum of 10 marks, leading to a cumulative score of 50 marks. This total is then appropriately scaled down to 10 marks for inclusion in the CIA component

2. **Attendance:**

Attendance is also a component of the Continuous Internal Assessment, intended to recognize the value of consistent participation in classroom learning. A maximum of 10 marks is allotted for attendance in each theory course, awarded according to the following criteria students securing 96-100% attendance are awarded 10 marks: 90-95%-9 marks, 80-89%-8 marks: 75-79%-7 marks; and 65-742-6 marks. Students with attendance below 65% shall not be awarded any marks under tha category

Thus, the total CIA marks for theory courses are distributed as follows: 20 marks from Continuous Assessment Tests (CATs), 10 marks from assignments and 10 marks from attendance, amounting to a total of 40 marks. This structured distribution ensures a balanced evaluation of student performance across written tests, learning activities, and classroom engagement

b Practical Courses

For laboratory and practical courses, the Continuous Internal Assessment (CIA) is designed to evaluate both the technical proficiency and the consistency of student performance. The assessment comprises periodic tests, assignments and attendance, thereby ensuring that students are assessed on practical execution as well as associated theoretical understanding.

A Midterm Practical Test, conducted for duration of three hours, carries a maximum of 50 marks and is intended to evaluate the student's laboratory skills and understanding of the underlying principles. In addition, a Model Practical Test, conducted towards the end of the semester, simulates the Semester Assessment (ESA) and is evaluated for 100 marks. The combined marks from these two tests (150 marks) are proportionately scaled down to a maximum of 20 marks for inclusion in the CIA.

Assignments related to laboratory exercises or tutorials are also included in the CIA and carry a weightage of 10 marks, encouraging students to engage actively with experimental work, record keeping, and analysis. Attendance in practical sessions is recognized as an essential element of laboratory learning. And a maximum of 10 marks is awarded based on the attendance criteria prescribed for theory courses.

Thus, the total CIA marks for practical courses amount to 40 marks, distributed as follows: 20 marks from the Midterm and Model Practical Tests, 10 marks from assignments, and 10 marks from attendance. This framework ensures that students are evaluated continuously on their laboratory engagement, experimental accuracy, and ability to apply theoretical knowledge in practical contexts.

c) Projects/Internships

For projects and internships, the Continuous Internal Assessment (CLA) is structured to evaluate both the technical quality of the work and the professional competencies developed by the student during the course of the activity. The assessment is conducted in three phases, ensuring that progress is monitored continuously throughout the semester.

Each assessment is evaluated out of 100 marks and is based on three key components: the written report (40 marks), which reflects the technical documentation and analytical depth of the work, the presentation (30 marks), which assesses the clarity, organization, and communication skills of the student; and the viva voce (30 marks), which measures the student's conceptual understanding, problem-solving ability, and level of involvement in the project or internship. The average of the three assessments is calculated and proportionately scaled down to a maximum of 30 marks for inclusion in the CIA

In addition, attendance is considered an important factor in projects and internships, as regular participation and interaction with supervisors are critical for successful completion. A maximum of 10 marks is awarded for attendance, following the same criteria prescribed for theory and laboratory courses.

Thus, the total CIA marks for projects and internships amount to 40 marks, distributed as 30 marks for periodic assessments and 10 marks for attendance, this framework ensures a comprehensive evaluation of technical competence, professional skills, and consistent engagement throughout the duration of the project or internship
End Semester Assessment (ESA)

The End Semester Assessment (ESA) is conducted at the conclusion of each semester and serves as the summative evaluation of a student's performance in every course. The ESA is of three hours" duration and is designed to cover the entire syllabus prescribed for the course. Each ESA carries a maximum of 100 marks, which is subsequently scaled down to 60 marks to align with the prescribed 60% weightage in the overall assessment framework.

For theory courses, the ESA is evaluated by an external examiner and takes the form of a comprehensive written examination. The question paper is structured to include a balanced mix of one word, short answer, medium-answer, and long answer type questions, similar in format to the Continuous Assessment Test-III (CAT-III). This structure ensures adequate coverage of all units in the syllabus and provides an equitable opportunity for students to demonstrate both depth and breadth of understanding

For practical courses, the ESA is conducted jointly by an internal examiner and an external examiner. The evaluation is based on multiple components, namely, the laboratory record or report (15 marks), visa voce (20 marks), and the demonstration of practical skills and experimental execution (65 marks). The combined score of 100 marks is scaled down to 60 marks for the final ESA component

For project courses, the ESA is carried out by a panel comprising both internal and external examiners to ensure fairness and objectivity in evaluation The assessment is divided into two components the project report (55 marks), which reflects the quality of technical documentation, analysis, and innovation, and the viva voce with presentation (45 marks), which assesses conceptual understanding, originality, and the ability to articulate and defend the work carried out. The total score of 100 marks is scaled to 60 marks for inclusion in the final course assessment.

This structured ESA system ensures that students are evaluated holistically on theoretical knowledge, practical competence, and professional skills, thereby providing a comprehensive measure of academic achievement in line with the objectives of the programme.

Requirements for Appearing in ESA

In order to be eligible to appear for the End Semester Assessment (ESA) in any course, a student must have secured a minimum of 75% attendance in that course during the semester. This requirement is in line with the attendance criteria prescribed for Continuous Internal Assessment (CIA) and underscores the independence of content participation to academic activities. Students who fail to meres the maintain attendance requirement shall not be permitted to appear for the ESA in that come and will be required to re-register in the equivalent semester when the course is offered.

All students are required to register for every course in a semester including both theory and practical courses, through the official university examination portal within the prescribed timelines. Registration is a mandatory for eligibility to appear in the corresponding ESA, Failure to complete the registration process shall automatically disqualify the student from taking the examination in that course

Transparency and Fairness

The assessment framework at NICHE is designed to uphold the principles of transparency, impartiality, and accountability in all stages of evaluation. To ensure clarity and continuous improvement, students are provided with regular feedback on their performance. After the completion of each Continuous Assessment Test (CAT), the evaluated answer scripts are returned to students for review, and faculty members are required to explain the marking scheme and provide constructive feedback. Similarly, assignments are evaluated using predefined format, which are communicated to students at the beginning of the semester, ensuring objectivity and uniformity in grading.

The Controller of Examinations (COE) oversees the conduct of the End Semester Assessment (ESA) to ensure that the process is carried out with strict impartiality. External examiners are appointed for both theory and practical courses to bring in an biased perspective and to maintain uniform academic standards. This dual evaluation mechanism reinforces fairness while ensuring that assessment outcomes reflect true academic performance.

In cases where students have concerns or grievances related to the assessment process, they may seek redressal through the Grievance Redressal Cell of the University. This structured mechanism provides a avenue for addressing complaints and ensures that all issues are resolved in a timely and equitable manner. By integrating continuous feedback, transparent rubrics, external evaluation, and grievance redressal, the University affirms its commitment to conducting assessments with the highest levels of fairness and accountability

Alignment with NEP 2020

The system of examination and assessment at NICHE has been carefully structured to reflect the principles of the National Education Policy (NEP) 2020, with a strong focus on continuous and comprehensive evaluation. In keeping with NEP's emphasis on learner-centric education, the framework integrates multiple modes of assessment that go beyond traditional written examinations The inclusion of diverse assignment formats such as case studies, quizzes, problem-solving exercises, analytical reports, and creative or project-hashed tasks in intended to foster higher-order thinking skills, creativity, innovation, and the practical application of knowledge

The balanced weightage of 40% for Continuous

The balanced weightage of 40% for Continuous Internal Assessment (CIA) and 60% for End Semester Assessment (ESA) ensures a holistic evaluation of student performance. While the CIA emphasizes formative assessment through consistent endangerment, feedback, and improvement during the semester, the ESA provides a summative evaluation of the student's

overall mastery of the course content. Together, these components create a comprehensive mechanist that values both process and outcome in learning

By aligning the assessment strategy with the vision of NEP 2020, the University reinforces its commitment to competency-based education that equips students with the skills, adaptability, and confidence required to face real-world challenges. This integrated approach ensures that graduates are not only academically proficient but also prepared to contribute meaningfully to industry, research, entrepreneurship, and society at large.

2.2.3 Quality of Students Projects

Identification of Projects and allocation methodology to faculty members

- For the project work students are encouraged to identify the project based on their interested field.
- The guides are allocated based on their specialization or interest by the project coordinator and Head of the department.
- Each student is assigned a project guide.
- Students are instructed to submit their project title and attend review meetings scheduled by the project coordinator.
- A review panel is formed, comprising two to three faculty members from different areas of interest. Once the topic is accepted, instructions are provided to students along with a tentative schedule for completing the project work.

- Four reviews are conducted throughout the project development period.
  - **Zeroth Review**

    The evaluation committee directs students whose mini project proposals are rejected to submit a new proposal with the consent of their Project Guide. The document to be submitted to the evaluation committee includes the following details, along with the Project Guide's approval:

    - ✓ Project title
    - ✓ Abstract
    - ✓ Selected platform
  - **First Review**

During the first review, the focus is on evaluating the analysis and design of the application. The presentation, approved by the Project Guide, must be submitted to the evaluation committee.

- ✓ The suggestions given by the review committee must be incorporated in the presentation during the second review.

- **Second Review**

The second review focuses on the partial implementation of the project.

- ✓ The evaluation committee will check the progress of the work with the project schedule.
- ✓ A document describing the tools and techniques, required for implementation and a logical description of the implemented modules should be submitted to the evaluation committee.

- **Third Review**

The final review focuses on the complete implementation of the system with demonstration

- ✓ Report of the project must submitted by the student for correction
- ✓ The report shall record all aspects of the work, highlighting all the approaches/methods used in the problems.
- ✓ Report shall give details of the work carried out by the student.
- ✓ The good quality projects works are encouraged to present/ publish in the national/ international conferences and journals.

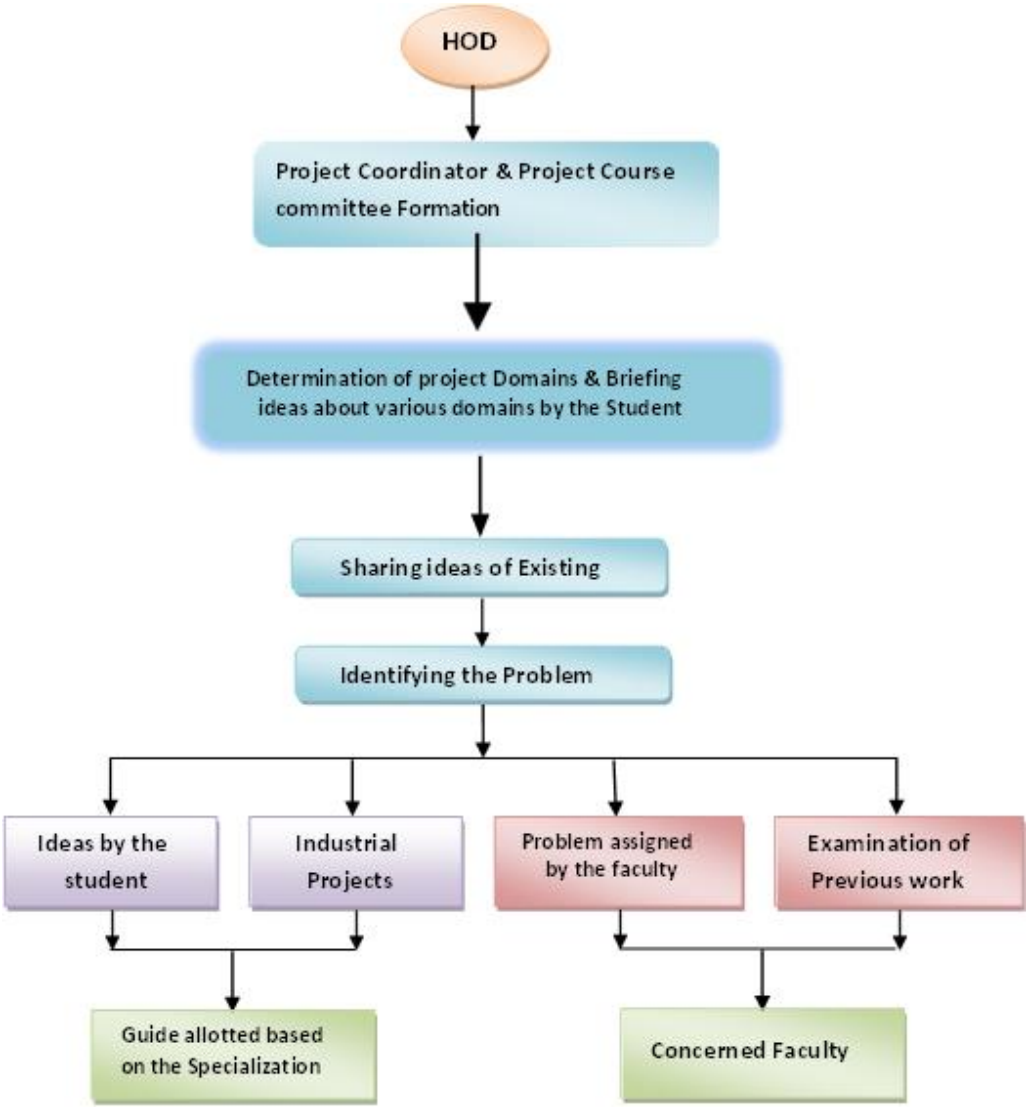

Figure 2.2.3.K Identification of projects and allocation methodology toFaculty

- **Types and relevance of the projects**

  Based upon the functional area of the projects, they are categorized as follows:

  - Application oriented
  - Research Oriented
  - Solution to the industrial problems

- **Process to assess the project student performance**

  The performance of the individual team member of the project is assessed at thetime of presentation in reviews by considering the following criterions:

  - Communication
  - Confidence in the project work
  - Overall contribution for the project

  The performance of the project is assessed by considering the following criterions:

  - Knowledge of the student contribution towards the project
  - Coordination in consolidating work
  - Time management
  - Final output of the project

- **Evidences of papers published/ awards received by projects**

  The students are encouraged to publish their innovative works in to the national and international conferences, Journals etc.

Project Titles (Batch 2023-2024)

Register No.	Name of the candidate	Project Title
1122507001	Rejin D	Graphical password authentication using image processing techniques
1122507002	Abi A	Human Body Performance Rating with ML
1122507003	Abin K	College Management System
1122507004	Abinesh K	Detecting Stress in IT employees
1122507006	Anfal Fathima M	Mental Health Tracker
1122507007	Anish S	Student Registration for Placement
1122507008	Asib Rahman H	Traffic management
1122507009	Aswin H	Method for managing the entire data lifecycle including secure detection at the end of data retention periods
1122507010	Aswini M	University exam mark analysis
1122507011	Bazeena A	Dimensional reduction for large scale data

1122507012	Delbin Jose J S	Disaster management system
1122507013	Esakkidurai M	Students feedback analysis system
1122507014	Farhanah S	Article recommendation system
1122507015	Ganesh K	Weather prediction using machine learning algorithm
1122507016	Hasan Jazeera M	Credit card fraud
1122507018	Jenish R	Event management system
1122507019	Jercy L	Train food booking and travel
1122507020	Kadsun Karloos R	Insurance management system
1122507022	Mohamed Saheem M	Online shopping
1122507023	Mohamed Salman Khan S	Travel and tourism management system
1122507025	Raghul Sankar A	Hospitality management system
1122507027	Simson David A	Class timetable preparation for department
1122507028	Siva Sakthi G	Multiple disease prediction using machine learning
1122507029	Suji J	Online product action system
1122507032	Suthi S	Biometric student attendance management
1122507034	Vineeth V N	Development and implementation of digital library portal

Table 2.2.3.A Student Project title list for 2024

Project Titles (Batch 2024-2025)

Register No.	Name of the candidate	Project Title
1122507901	Jegadeesh A	Disaster management System
1123507002	Amritha S	Car Pooling System
1123507003	Amrutha A	Analysis and Modelling of speech-to-text synthesis based on Speech Recognition
1123507004	Anoop S	Physical fitness evaluation
1123507005	Anto Jorgin S	Visual kinship verification
1123507007	Donio D S	QR code based smart vehicle parking management system
1123507008	Fathima Afra A	Secure health data access using multiple attribute based encryption
1123507009	Hosea K	Face recognition with Python
1123507010	Jithu Mon S A	Detective Agency System
1123507012	Libi V D	Customer privacy based on IP address verification
1123507013	Mini T	Patronizing System
1123507014	Nanthini S	Pharmacy Management System
1123507015	Reshme Anana S	Data analysis and Knowledge discovery in web retment using clustering algorithm
1123507016	Sahaya Sharmily S	Towards optimizing task scheduling process using task scheduling algorithm

1123507018	Shajitha S	Asset Management System
1123507019	Shanthini G S	Determined BSS based on audio processing system
1123507020	Shifna Wilfred	Patient self controllable and multilevel privacy-preserving co operative authentication in distributed m-healthcare
1123507021	Sivaram M S	Applying AI and Semantic Analysis to identify harmful online comments
1123507022	Sowfik Fazil N	Combining climate models, hydrological and machine learning for compensive risk prediction
1123507024	Sri Harish S	Robust image forgery detection against transmission over online social networks
1123507025	Varsha S	Collaborating to build the software that tender policies need
1123507026	Vasuntharadevi K	Analysing of institute profiles on data mining
1123507027	Veena V S	Identify image pattern for data retrieval
1123507028	Viswasharan R	ORC IOT software maintenance module API
1123507029	Waffa U F	Selective image mapping matrix for authenticating human actions
1124507901	Dinesh Kumar P	Crop yield prediction using machine learning algorithm

Table 2.2.3.A Student Project title list for 2025

Sample papers published by students in the international conference

ISBN No. 978-81-972950-6-5

ENHANCING SMART TV SECURITY: AI-BASED THREAT DETECTION AND BLOCKCHAIN SOLUTIONS

Amritha. S
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Noorul Islam Centre for Higher Education Tamil Nadu, India
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Dr. M. Shafeen Nagoor
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Department of Computer Applications
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shafeennagoor@niuniv.com

Abstract

Smart TVs have transformed home entertainment by integrating internet connectivity, streaming services, and voice assistants. These advancements provide users with enhanced accessibility and a more immersive experience. However, the increased connectivity also introduces significant cybersecurity risks. Smart TVs can be targeted by hackers who exploit vulnerabilities to gain unauthorized access, steal personal data, or deploy malware. Additionally, third-party applications and unsecured streaming services further expose users to threats such as phishing attacks and ransomware. This paper provides an in-depth analysis of the security vulnerabilities associated with smart TVs, common attack vectors, and the latest advancements in cybersecurity measures, including artificial intelligence (AI) and blockchain technology. By understanding these risks and implementing best security practices, users can safeguard their devices and personal information from cyber threats.

I.Introduction

The growing adoption of smart TVs has transformed traditional television into an interactive multimedia experience. Unlike conventional TVs, smart TVs integrate advanced computing capabilities, enabling users to stream content, browse the internet, and use voice commands through built-in virtual assistants like Google Assistant and Alexa. These devices also support third-party applications, gaming, and even smart-home integration making them a central component of modern digital lifestyles.

However, this increased functionality comes with inherent risks. Smart TVs require an active internet connection to deliver content and updates, which can be exploited by cybercriminals to gain unauthorized access. Many smart TVs also feature cameras and microphones for video conferencing and voice recognition, creating potential vulnerabilities that could be used for surveillance or data theft. Weak security settings, lack of firmware updates, and insecure third-party applications further exacerbate these risks.

Additionally, the rise of Internet of Things (IoT) ecosystems has made smart TVs interconnected with other home devices, such as smart speakers, security cameras, and thermostats. As cyber threats continue to evolve, understanding and

Figure 2.2.3.L Paper published in Conference by Student1

ISBN No. 978-81-972950-6-5

INTELLIGENT HOME AUTOMATION WITH IoT AND AI VOICE ASSISTANTS

Shanthini G.S
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Dr. M Shafeen Nagoor
Assistant Professor
Department of Computer Applications
Noorul Islam Centre for Higher Education, TamilNadu, India.
shafeennagoor@niuniv.com

Abstract

The Internet of Things (IoT) is a smart technology that connects everyday devices to the internet. These devices, like smart watches, home appliances, and sensors, can talk to each other and share information without needing people to control them all the time. IoT enhances automation and efficiency across various sectors, including healthcare, agriculture, transportation, and smart homes. In smart home environments, IoT enables real-time monitoring, automated control, and seamless interaction through voice assistants like Google Assistant and Alexa For example, in healthcare, smart watches track heart rates and health conditions. In smart cities, IoT helps manage traffic, garbage collection, and energy usage. In factories, IoT improves machines' performance and saves time. Despite its advantages, IoT faces challenges such as data security vulnerabilities, privacy concerns, and interoperability issues among devices from different manufacturers". Because many devices share private information, there is a higher risk of hacking. However, new technologies like artificial intelligence, block chain, and 5G networks are helping IoT become safer and better. In the future, IoT will create smarter cities, automated industries, and a more comfortable lifestyle.

Introduction

The Internet of Things (IoT) is a revolutionary technology that connects physical devices to the internet, enabling seamless communication and data exchange between them. These devices, embedded with sensors, software, and network capabilities, range from household appliances and wearable gadgets to industrial machines and smart vehicles. IoT allows devices to collect and share real-time data without human intervention, creating smart environments that enhance convenience and efficiency. For example, smart homes use IoT devices to control lighting, temperature and security systems automatically. In industries, IoT helps monitor equipment performance and optimize production processes, improving productivity and reducing costs.

Despite its numerous advantages, IoT presents several challenges, especially

Figure 2.2.3.L Paper published in Conference by Student2

2.2.4 Initiatives Related to Industry Interaction

- The industrial experts are invited for guest lecturers they enlightened our students on recent developments relevant to their field of study. It gives them concurrent updated knowledge to keeps them abreast of latest technology and motivates them to excellent in industrial trends.
- The industrial institutional interaction develops the student's skill to work on live projects related to the industrial issues; it exposes them to different

opportunities to the students. The following are the initiatives taken by the Department.

Seminar Organized by the Department

S. NO	CHIEF GUEST NAME	ORGANIZATION	TOPIC	DATE
1.	Mr. John Rex Thangadurai	True Tech Solutions, Chennai	Applications of AI	22/03/2024
2.	Praveen Mahimainathan	GOADEM EdTech Solutions Pvt Ltd.,	Qualities for a Successful Career	25/03/2024
3.	Ms. J. Wincy	Network Systems, Nagercoil	Ethical Hacking	24/07/2024
4.	Mr. Sridhar Chakravarthi Mulakaluri	ICT Academy	Life Skills	09/01/2025
5.	Mr. Vibin Raj. S	Infosys limited, TVM	Cloud Computing	21/08/2025
6.	Mr. A. Aiyyaban	JClick Solutions, Nagercoil	Java with database Connectivity	17/09/2025
7.	Mr. R. Johit Jones	G-Tec Education, Azhagiyamandapam	MongoDB	18/11/2025

Table 2.2.4 A List of Seminars organized

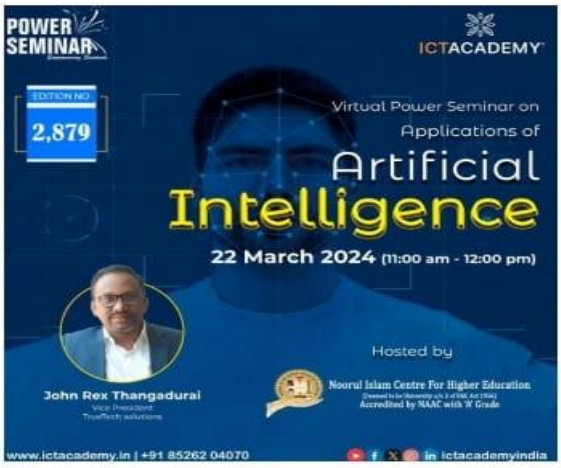










Figure 2.2.4.A Seminar on “Applications of AI”



Figure 2.2.4.B Seminar on “Successful Carrier”



Figure 2.2.4.C Seminar on “Ethical Hacking”



Figure 2.2.4.D Seminar on “Life Skills”

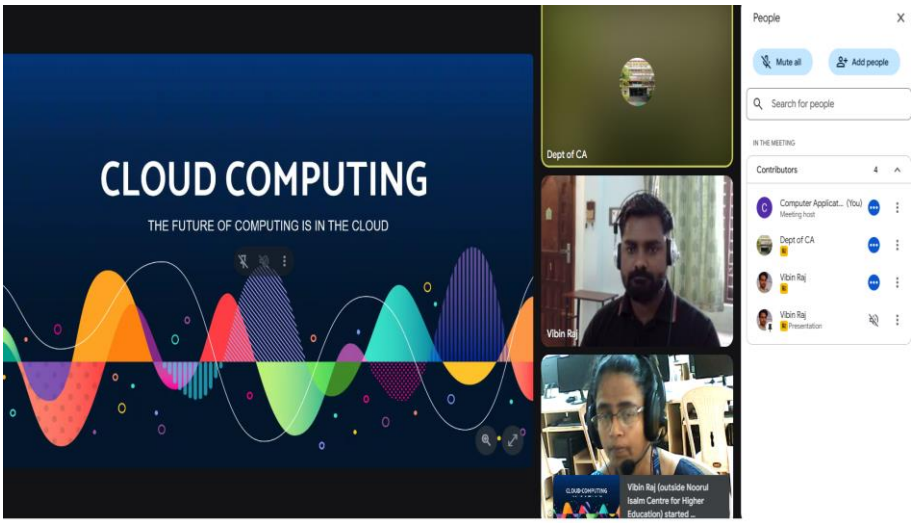


Figure 2.2.4.E Seminar on “Cloud Computing”



Figure 2.2.4.F Seminar on “Java with database Connectivity”



Figure 2.2.4.G Seminar on "MongoDB"

- **Industry involvement in the program design and curriculum**

The participation of industry experts in curriculum development is crucial for gaining up-to-date knowledge in current IT trends. Table 2.2.18 displays the extent of involvement of industrial experts in designing the Master of Computer Applications (MCA) curriculum from 2020 to 2024.

S. NO	BOS Expert Member Name	Designation & Address	DATE
1.	Ms. Sindhu Vijayan	Technical Lead, Allianz Technology Pvt. Ltd., Technopark, Trivandrum	15/06/2023
2.			06/06/2024
3.			26/05/2025

Table 2.2.4.B Industry involvement in the program design and curriculum

Workshops conducted By Industry Experts

Workshops are typically conducted to provide insight on technologies to the students. The department of Computer Applications conducts workshops periodically and the details are tabulated below and Sample Proofs were shown below

S. NO	FACULTY NAME	ORGANIZATION	Workshop Conducted	DATE
1.	Mr. Jerry Jenith & Mrs. Reshma	Inbox Info Solutions,	Laravel Mastery and Database Migration Strategies	15/04/2024, 16/04/2024

		Nagercoil		
2.	Mr. Praveen Kumar, Ms. R. Asha, Mr. S. Venkadasalam	Get Innovative, Azhagiamandapam	Future of UI/UX Designing	27/01/2025 & 28/01/2025

Table 2.2.4.C Workshops conducted by Industry experts

.



Figure 2.2.4.H Workshop on “Laravel Mastery and Database Migration Strategies”.



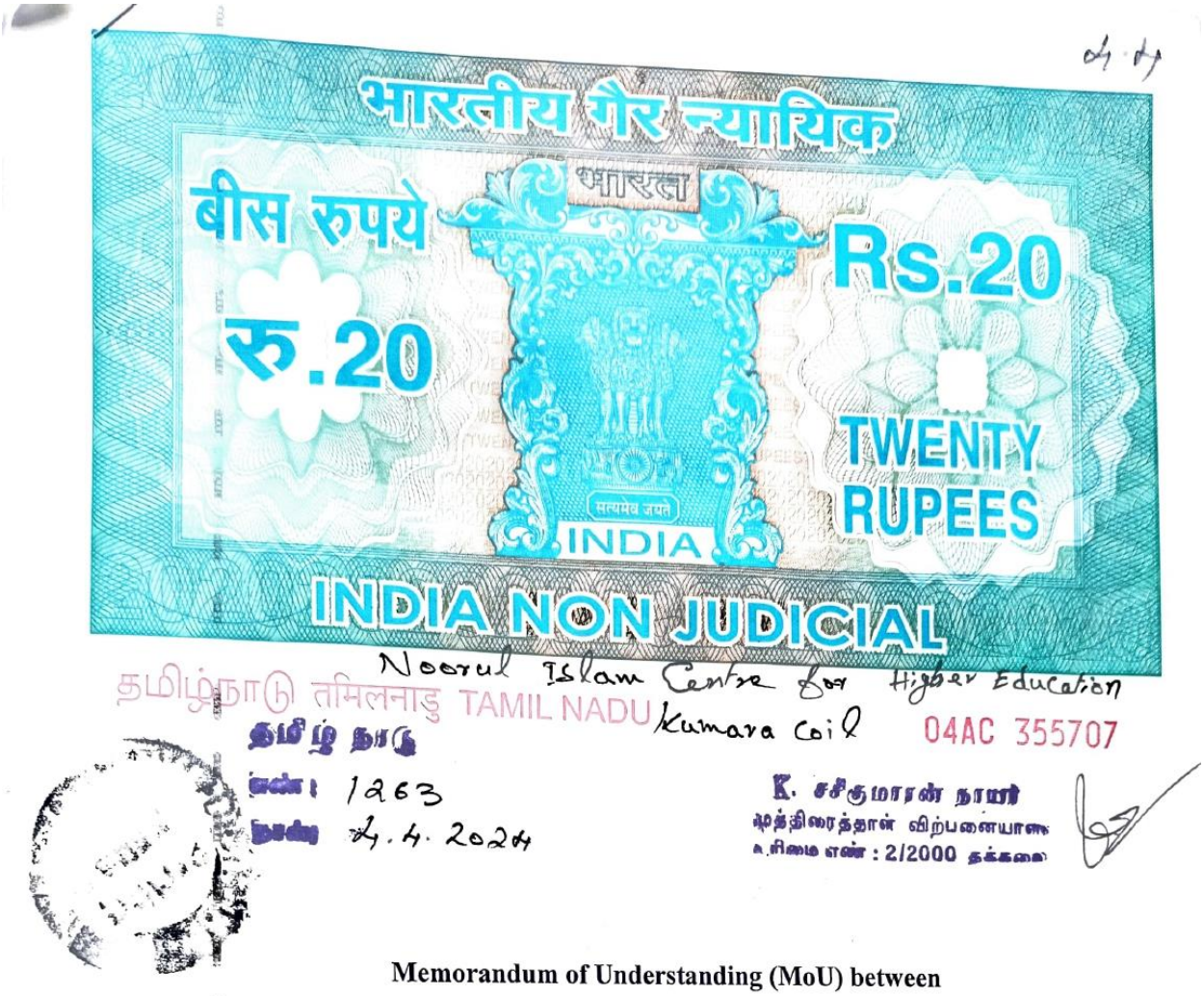


Figure 2.2.4.I Workshop on “The Future of UI/UX Designing” Workshop

Industrial MoUs

The following MOUs are placed between the following industries to enhance educational outcomes, fostering research and development, facilitating internships or placements, and promoting knowledge exchange

1. Agileinfo Techytern Solutions LLP, Trivandrum on 08/05/2024
2. Kiruba Educational and Charitable Trust, Kulasekharam on 08/05/2024
3. ASK Training Solutions, Kuthiraippanthivilai, Attoor on 27/08/2024
4. MongoDB Software India Private Limited (“MongoDB”) on 20-09-2024
5. G-TEC COMPUTER EDUCATION,Azhagiyamandapam on 31/10/25



Memorandum of Understanding (MoU) between

Noorul Islam Centre for Higher Education

(Deemed to University under section 3 of the UGC Act 1956)

Accredited by NAAC (Second cycle) & Approved by UGC, AICTE& RCI, New Delhi, Member-International Association of Universities (IAU) & Association of Indian Universities (AIU) Kumaracoil – 629180, Thuckalay, Kanyakumari District Tamil nadu, India.(Partner-one)

and

Agileinfo Techytern Solutions LLP, Divya mension Aristo Junction, Thampanoor, Trivandrum-**695014**.(Partner-two)

The Department of Computer Applications of **Noorul Islam Centre for Higher Education**, is here by entering into a Memorandum of Understanding (MoU) with **Agileinfo Techytern Solutions LLP**, Divya mension Aristo Junction, Thampanoor, Trivandrum on 08.05.2024.

The Parties agree as follows:

Figure 2.2.4.J MOU with Agileinfo Techytern Solutions LLP, Trivandrum



Memorandum of Understanding (MoU) between

Noorul Islam Centre for Higher Education
(Deemed to University under section 3 of the UGC Act 1956)
Accredited by NAAC (Second cycle) & Approved by UGC, AICTE& RCI, New Delhi, Member- International Association of Universities (IAU) & Association of Indian Universities (AIU) Kumaracoil – 629180, Thuckalay, Kanyakumari District Tamilnadu, India.(Partner-one)
and

Kiruba Educational and Charitable Trust, Kulasekharam, Kanyakumari District, Tamil Nadu (Partner-two)

The Department of Computer Applications of **Noorul Islam Centre for Higher Education**, is here by entering into a Memorandum of Understanding (MoU) with **Kiruba Educational and Charitable Trust, Kulasekharam**, Kanyakumari District, Tamil Nadu on 08.05.2024.

Figure 2.2.4.K MOU with Kiruba Educational and Charitable Trust, Kulasekharam

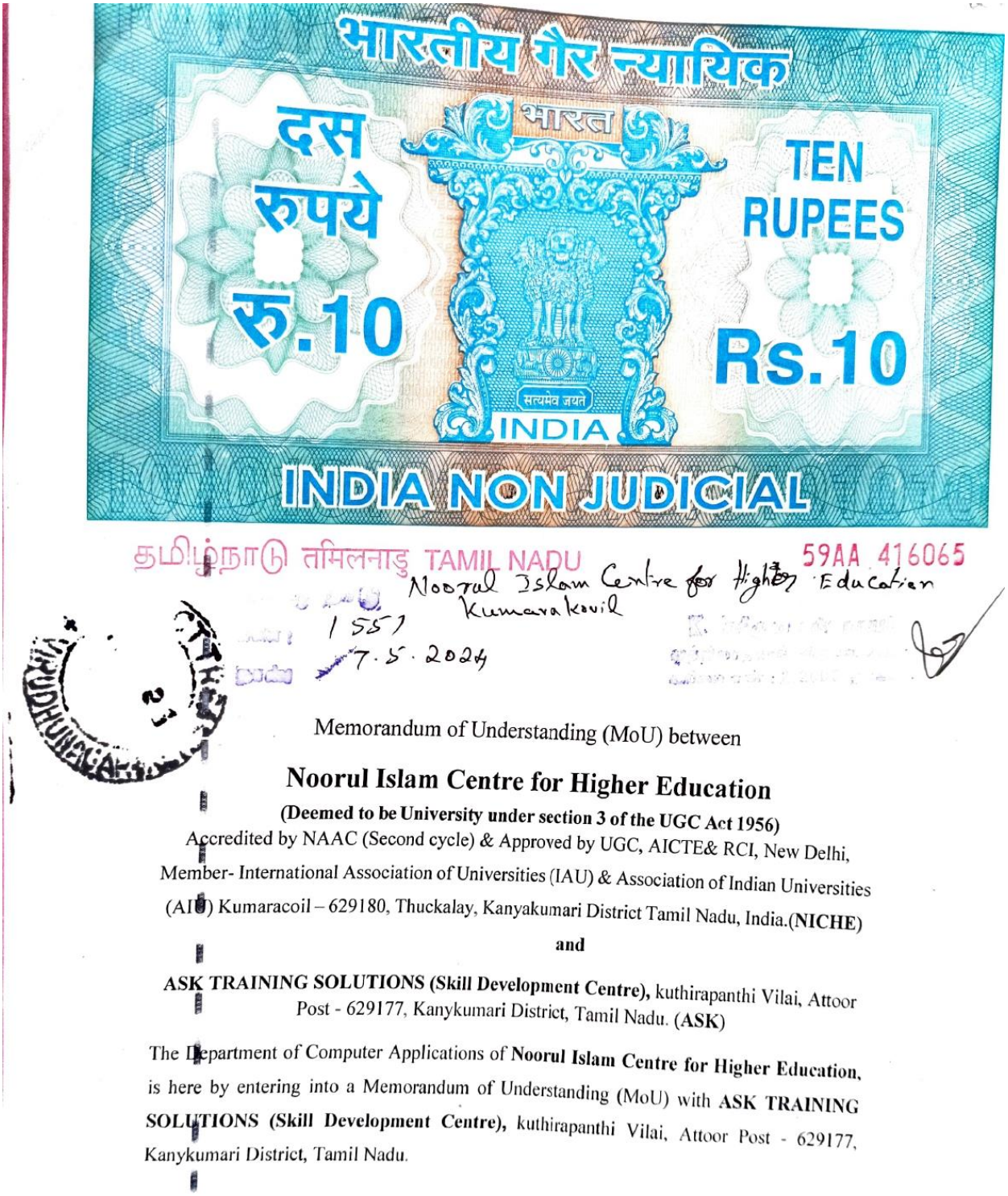


Figure 2.2.4.L MOU with ASK Training Solutions, Kuthiraippanthivilai, Attoor

MEMORANDUM OF UNDERSTANDING ("MOU") REGARDING MongoDB for ACADEMIA PROGRAM

Between the Parties:

Noorul Islam Centre For Higher Education

AND

MongoDB Software India Private Limited ("MongoDB")

OPERATIVE PROVISIONS:

1. Scope of Collaboration

This MOU sets out the intentions of the Parties with respect to collaborating on enhancing the education of students on MongoDB and NoSQL / non-relational databases. The scope of collaboration is detailed in **Appendix A**.

This MOU contains all of the terms and conditions agreed upon by the Parties. No other understandings, oral or otherwise, regarding the subject matter of this MOU shall be deemed to exist or be binding upon the Parties unless otherwise agreed in writing.

This MOU is not intended to confer any right upon any private person or third party, or to be construed as requiring that the Parties enter into any other or further agreements. Any other agreements beyond the scope of this MOU will be agreed in writing by the Parties.

2. Representative

The Parties shall each appoint a representative to manage and oversee the collaboration requirements set out in Appendix A. The agreed representatives are as follows:

Noorul Islam Centre For Higher Education	**MongoDB**
Dr. Jeba. J.R HOD CA jeba@niuniv.com	Basavadarshan G N Academia Partnership Manager (India) Basavadarshan.gn@mongodb.com

3. Term and Termination

This MOU will commence on [20-09-2024] and end on [19-09-2026]. This MOU shall automatically renew for an additional twelve (12) month term, unless either party provides the other with written notice of its intent not to renew at least thirty (30) days before the end date. Either Party may terminate this MOU at any time on thirty (30) days prior written notice to the other Party, with or without cause, and without liability of any kind to either Party. On termination of this MOU, each Party agrees to return all properties (e.g. content, technology, software, documentation) owned or provided by the other Party pursuant to this MOU, and

Figure 2.2.4.M MOU with MongoDB Software India Private Limited ("MongoDB")

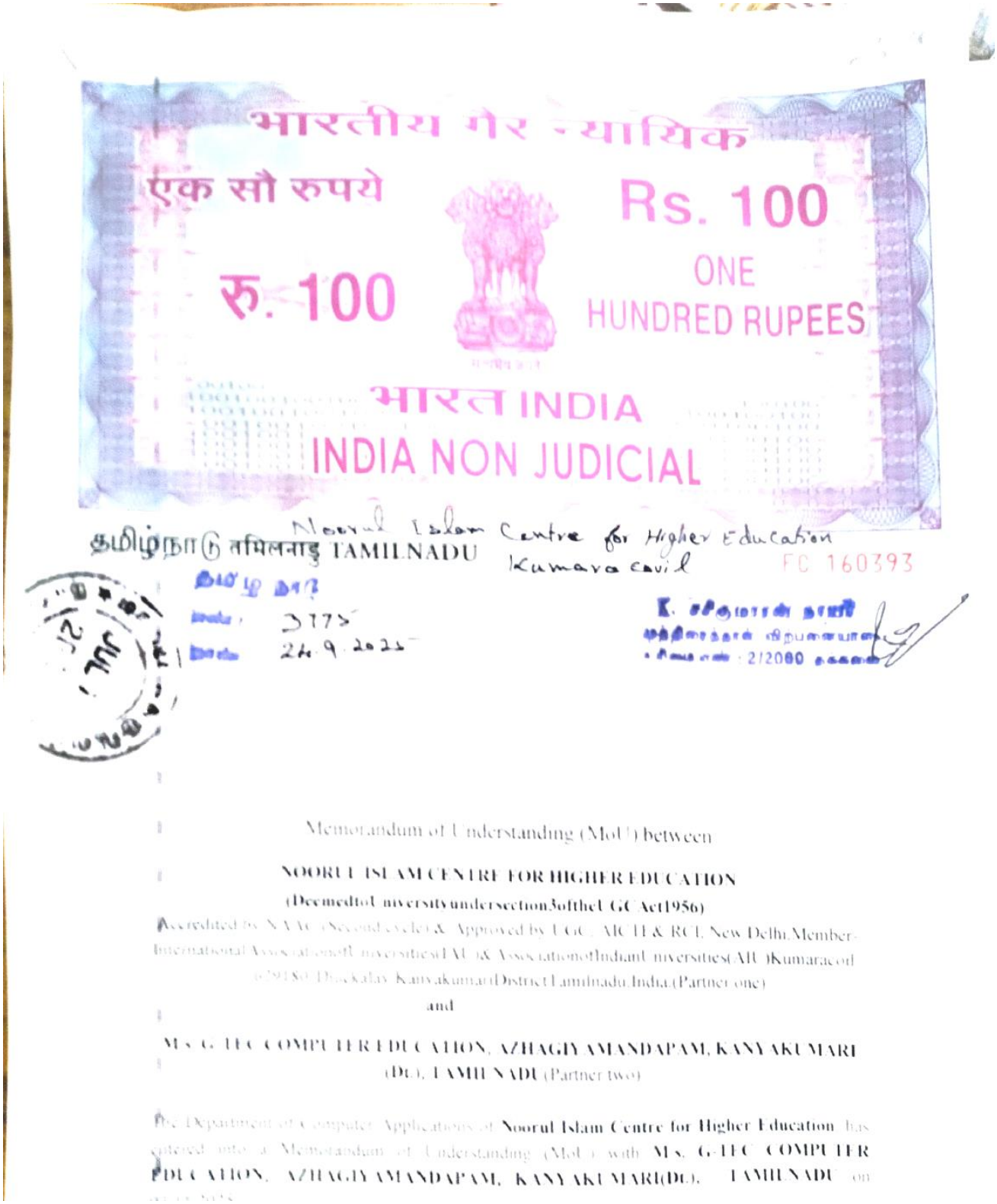


Figure 2.2.4.N MOU with G-TEC COMPUTER EDUCATION, Azhagiyamandapam

Impact on Student Projects

- For the project work students are encouraged to identify the project based on their interested field.
- Students are allowed to do the project in industry during the fourth semester with the guidance of the external industry people and the internal guide.
- The students must attend the review meetings during the project course to present the status of the project work.
- Students will receive the project completion certificate after the completion of their work in the company.
- The following tables shows the details of students done their project in the last three years with company details.

List of students undertaking field projects 2023-2024

Register No	Student Name	Title of the Project	Place of Work
1122507001	Rejin D	Graphical password authentication using image processing techniques	GET Innovative, Azhagiyamandapam
1122507002	Abi A	Human Body Performance Rating with ML	Dexpro Innovations, Trivandrum
1122507003	Abin K	College Management System	Besant Technologies, Chennai
1122507004	Abinesh K	Detecting Stress in IT employees	Glade Software Solution, Marthandam
1122507006	AnfalFathima M	Mental Health Tracker	Dexpro Innovations, Trivandrum
1122507008	AsibRahman H	Traffic management	Glade Software Solution, Marthandam
1122507009	Aswin H	Method for managing the entire data lifecycle including secure detection at the end of data retention periods	Glade Software Solution, Marthandam
1122507011	Bazeena A	Dimensional reduction for large scale data	Click Solutions, Nagercoil
1122507012	Delbin Jose J S	Disaster management system	Sristi Innovative Computer Systems Pvt. Ltd., Trivandrum
1122507014	Farhanah S	Article recommendation system	Click Solutions, Nagercoil
1122507015	Ganesh K	Weather prediction using machine learning algorithm	Glade Software Solution, Marthandam
1122507016	Hasan Jazeera M	Credit card fraud	Click Solutions, Nagercoil
1122507019	Jercy L	Train food booking and travel	Agile Info Techytern Solutions LLP
1122507020	KadsunKarloos R	Insurance management system	Besant Technologies, Chennai
1122507022	Mohamed Saheem M	Online shopping	iNoesis Technology Pvt Limited, Chennai
1122507023	Mohamed Salman Khan S	Travel and tourism management system	Agile Info Techytern Solutions LLP

1122507025	RaghulSankar A	Hospitality management system	Andjessys Technologies Private Limited
1122507028	Siva Sakthi G	Multiple disease prediction using machine learning	NU Technologies,

Table 2.2.4.B Student Interaction with Company through project List 2024

Students project List with Company Details (2024-2025)



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
Kumaracoil - 629 180, Kanyakumari District, Tamil Nadu, India
www.niuniv.com info@niuniv.com
+91-9486856101, 04651-250566

PROJECT TITLES 2024-2025

Subject Name : Project Work-II
Subject Code : CA45P2

Register No.	Name of the candidate	Project Title	Company Name
1122507901	Jegadeesh A	Disaster management System	Agile Info Techsytern Solutions, Tvm
1123507002	Amritha S	Car Pooling System	YUVATECH Solutions Pvt Ltd
1123507003	Amrutha A	Analysis and Modelling of speech-to-text synthesis based on Speech Recognition	Get Stack Technologies, Azagiyamandapam, KK Dist
1123507004	Anoop S	Physical fitness evaluation	Ospyn Technologies limited
1123507005	AntoJorgin S	Visual kinship verification	i-Tech Software Academy, Nagercoil
1123507007	Donio D S	QR code based smart vehicle parking management system	i-Tech Software Academy, Nagercoil
1123507008	FathimaAfra A	Secure health data access using multiple attribute based encryption	Get Stack Technologies, Azagiyamandapam, KK Dist
1123507009	Hosea K	Face recognition with Python	SKAD IT Solutions, Bangalore
1123507010	Jithu Mon S A	Detective Agency Systam	Get Innovative, Azagiyamandapam, KK Dist
1123507012	Libi V D	Customer privacy based on IP address verification	Get Stack Technologies, Azagiyamandapam, KK Dist
1123507013	Mini T	Patronizing System	VCODEZ Innovating Ideas, Chennai
1123507014	Nanthini S	Pharmacy Management System	Get Stack Technologies, Azagiyamandapam, KK Dist
1123507015	ReshmeAnana S	Data analysis and Knowledge discovery in web retment using clustering algorithm	Get Stack Technologies, Azagiyamandapam, KK Dist
1123507016	SahayaSharmily S	Towards optimizing task scheduling process using task scheduling algorithm	URBAN Earthlight LLP, Nambali
1123507018	Shajitha S	Asset Management System	Get Stack Technologies, Azagiyamandapam, KK

			Dist
1123507019	Shanthini G S	Determined BSS based on audio processing system	i-Tech Software Academy, Nagercoil
1123507020	Shifna Wilfred	Patient self controllable and multilevel privacy-preserving co operative authentication in distributed m-hralthcare	VCODEZ Innovating Ideas, Chennai
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1123507029	Waffa U F	Selective image mapping matrix for authenticating human actions	Agile Info Techytern Solutions, Tvm
1124507901	Dinesh Kumar P	Crop yield prediction using machine learning algorithm	YUVATECH Solutions Pvt Ltd

Table 2.2.4.C Student Interaction with Company through project List 2025

Impact of Trainings by IBM to faculties:

- Periodic training on Industrial courses is provided to the faculties of NICHE. This enhances the domain specific knowledge for the faculties.
- The training given by IBM was attended by our faculty member

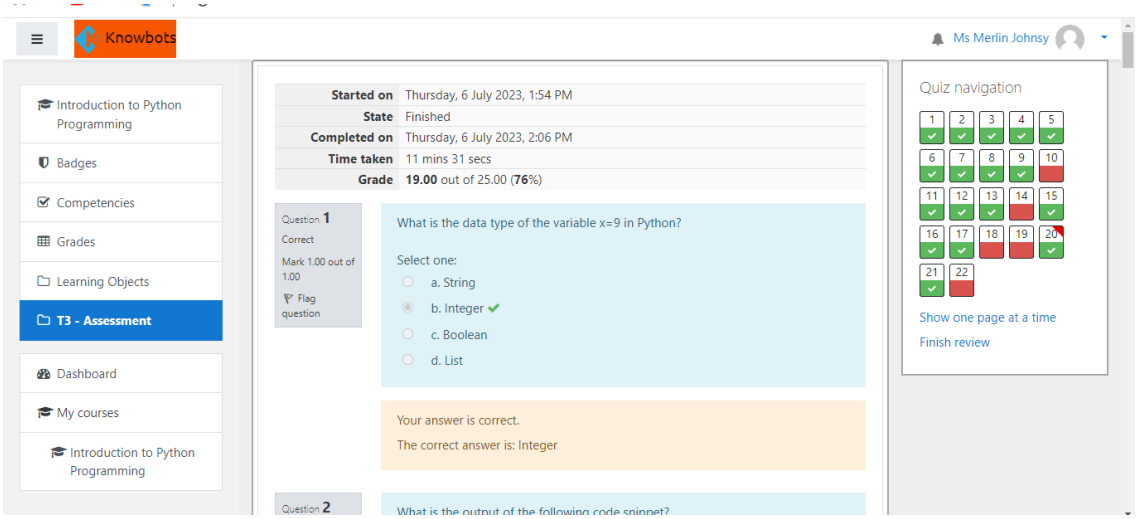

Figure 2.2.4 X Faculty attended IBM training on "Python Programming" during assessment

2.2.5 Initiatives Related to Industry Internship/ Training (15) (15)

The institution has introduced industry-attached projects as a component in the final semester to bridge the gap between academic learning and real-world industrial practices.

- For the project work students are encouraged to identify the project based on their interested field.
- Students are allowed to do the project in industry during the fourth semester with the guidance of the external industry people and the internal guide.
- The students are allowed to take live projects or any project or modules assigned by the industry.
- The student confirms the project title with the external and internal guides.
- After confirmation of title the student are instructed to submit the project confirmation letter from the industry.
- The attendance was taken from the date of confirmation of project title.
- The students must attend the review meetings during the project course to present the status of the project work to the review committee.
- Students will receive the project completion certificate after the completion of their work in the company.
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1122507014	Farhanah S	Article recommendation system	Click Solutions, Nagercoil
1122507015	Ganesh K	Weather prediction using machine learning algorithm	Glade Software Solution, Marthandam
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1122507023	Mohamed Salman Khan S	Travel and tourism management system	Agile Info Techytern Solutions LLP
1122507025	RaghulSankar A	Hospitality management system	Andjessys Technologies Private Limited
1122507028	Siva Sakthi G	Multiple disease prediction using machine learning	NU Technologies,

Table 2.2.5.A Student Interaction with Company through project List 2024

Students project List with Company Details (2024-2025)

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
Kumaracoil - 629 180, Kanyakumari District, Tamil Nadu, India
www.niuniv.com info@niuniv.com
+91-9486856101, 04651-250566

PROJECT TITLES 2024-2025

Subject Name : Project Work-II
Subject Code : CA45P2

Register No.	Name of the candidate	Project Title	Company Name
1122507901	Jegadeesh A	Disaster management System	Agile Info Techsytern Solutions, Tvm
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1123507008	FathimaAfra A	Secure health data access using multiple attribute based encryption	Get Stack Technologies, Azagiyamandapam, KK Dist
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1123507018	Shajitha S	Asset Management System	Get Stack Technologies, Azagiyamandapam, KK Dist
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1123507020	Shifna Wilfred	Patient self controllable and multilevel privacy-preserving	VCODEZ Innovating Ideas, Chennai

		co operative authentication in distributed m-hralthcare	
1123507021	Sivaram M S	Applying AI and Semantic Analysis to identify harmful online comments	VCODEZ Innovating Ideas, Chennai
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1124507901	Dinesh Kumar P	Crop yield prediction using machine learning algorithm	YUVATECH Solutions Pvt Ltd

Table 2.2.5.B Student Interaction with Company through project List 2025

Attached Annexure 2.5 (Students Project Completion Certificate)

Project completion Certificate 2024.pdf

Project completion Certificate 2025.pdf

Annexure 2.1

1. **2.1.1 BOS 2023**
2. **2.1 BOS 2024**
3. **2.1 BOS 2025**
4. **2.1 Academic Council minutes**
5. **2.1 Feedback forms 23-24**
6. **2.1 Sample Feedback forms 24-25**
7. **2.1 student feedback report 23-24**
8. **2.1 Student feedback analysis 24-25**
9. **2.1 faculty feedback analysis 24-25**
10. **2.1 Alumni feedback analysis 24-25**
11. **2.1 Expert feedback analysis 24-25**
12. **2.1 Action taken report 2023**

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

DEPARTMENT OF COMPUTER APPLICATIONS

MINUTES OF BOARD OF STUDIES

15.06.2023

Date : 15.06.2023

Time : 10.30 AM

Members Present:

Dr.S.P.Victor	Expert Member
Ms. Sindhu Vijayan	Expert Member
Dr. A. Shajin Nargunam	Internal Member
Dr. M. K. Jeyakumar	Internal Member
Dr. S. Beulah	Internal Member
Dr. A. C. Subhajini	Internal Member
Ms. C. R. Sheela Kumari	Internal Member
Ms. M. Merlin Johnsy	Internal Member

Agenda:

1. Curriculum design for the MCA Programme.
2. Syllabus preparation for first two semesters for MCA, theory and practical courses.
3. Syllabus preparation for third and fourth semesters for BCA, theory and practical courses
4. Other related matters.

The meeting of the Board of Studies of Computer Applications was convened by the board Chairman Dr. J. R. Jeba, HOD, Department of Computer Applications; NICHE on 15thJune 2023 at 10:30 a.m. The Chairman welcomed the Members for attending the Board of Studies.

Discussed about agenda and made the following decisions were taken based on the suggestions given by the members of BOS.

Board of Studies Meeting in our department was held on 15.06.2023. The following points were discussed in the meeting.

1. Curriculum design for the MCA Programme.
2. Syllabus preparation for first two semesters for MCA, theory and practical courses.
3. Syllabus preparation for third and fourth semesters for BCA, theory and practical courses
4. Other related matters.

The Chairman narrated the feedback given by the staff and student.

The chairman discussed about the feedback received from the stakeholders. All the responses received from them are discussed and decision taken. The following are considered for discussion.

Discussions and decisions regarding MCA programme curriculum and syllabus:

- External BOS members appreciated the proposed curriculum and suggested to implement with maximum practical exposure.
- The feedback from various stack holders are collected, analyzed and their suggestions are implemented in the curriculum.
- The proposed syllabus for first year MCA incorporate 80% of syllabus change compared with 2020 regulation syllabus.
- Dr. Victor. S. P suggested to change the course title for Programming in C as "Problem solving techniques and Programming in C" is accepted and it is changed in the proposed curriculum.
- Dr. Victor. S. P suggested to include the syllabus for problem solving techniques as first unit and also gave suggestion to include exception concept in the programming is incorporated in the syllabus.
- The board chairman Dr. J. R. Jeba gave suggestion for introducing the new course "Full Stack Web Development" and "Full Stack Web Development Laboratory" in the curriculum is accepted and included in the second semester.

- Dr. S. Beulah gave suggestion for introducing the new course "Machine Learning" and "Machine Learning Laboratory" in the curriculum is accepted and included in the third semester.
- Dr. Victor. S. P suggested removing the syllabus related to graphics from "Problem solving techniques and Programming in C" syllabus.
- Ms. Sindhu Vijayan gave suggestion for introducing the new course "Digital Marketing" , "Digital Forensics", "Data Visualization" and "Ethical Management" in the curriculum is accepted and included in the elective course list.
- Dr.A.C.Subhajini gave suggestion for introducing the new course "Professional Ethics in IT" and "Block Chain Technology" in elective
- Dr. Victor. S. P gave suggestion for introducing the new course "Fundamentals of Accounting" in the curriculum to get accounting knowledge is accepted and included in the first semester.
- Ms. M. Merlin Johnsy gave suggestion for introducing the new course "Agile Methodologies" in the curriculum is accepted and included in the elective.
- Ms. C. R. Sheela Kumari suggested to include the lab course for Internet of things accepted by the committee and included the same in the third semester as "Internet of things Laboratory"
- Experts suggested to change the course title for "Data Structures Using C Laboratory" as "Data Structures and Algorithms Laboratory" and suggested to include programs related to algorithms in the syllabus is accepted and it is incorporated in the proposed curriculum and syllabus.
- Experts suggested to change the syllabus of Data Structures and Algorithms as first three units for data structures and two units as algorithms.
- Dr. Victor. S. P and Ms. Sindhu Vijayan suggested to change the course title for DBMS as "RDBMS" is accepted and it is incorporated in the proposed curriculum.
- Dr. Victor. S. P and Ms. Sindhu Vijayan also suggested to change the course title for DBMS Laboratory as "Relational DBMS Laboratory" is accepted and it is changed in the proposed curriculum after discussion.
- Ms. Sindhu Vijayan also suggested to include stored procedure concept in RDBMS laboratory is accepted and it is included in the proposed syllabus.

- Dr. Victor. S. P suggested to change the course title for Python programming as "Advanced Python programming" is accepted and it is changed in the proposed curriculum.
- Dr. Victor. S. P suggested to include the course "Machine learning" and "Machine learning Laboratory" is accepted and it is included in the third semester of proposed curriculum.
- The suggested .Net programming removed from the curriculum after discussion.

Discussions and decisions regarding BCA programme Syllabus:

- Dr. Victor. S. P suggested including the course machine learning. The suggestion given by the expert member is accepted and suggested to include this paper with artificial intelligence in the fifth semester.
- Ms. Sindhu Vijayan gave suggestions to change some experiments in Web designing lab course is accepted and included in the syllabus.
- Dr. Victor. S. P suggested to include the experiments related to thread concept in java programming laboratory is accepted and incorporated in the syllabus.
- Dr. Victor. S. P suggested moving the operating system to the fourth semester to balance the load for the students is accepted and incorporated in the syllabus.
- Dr. Victor. S. P suggested including the graph traversal and linear search in the experiments list and remove the third experiment from the list is accepted and included in the syllabus after discussion.
- Ms. Sindhu Vijayan gave suggestions to include the topic work life balance in the elective course is accepted and included in the syllabus.

The meeting came to an end at 12:30 PM.

Dr. J. R. Jeba

Chairman, BOS

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu, India.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

BOARD OF STUDIES - DEPARTMENT OF COMPUTER APPLICATIONS

15.06.2023

Members of Board of Studies

Sl.No	Name	Designation		Signature
1.	Dr.J.R.Jeba	Associate. Prof & Head, NICHE, Kumaracoil	Chairman	
2.	Dr.S.P.Victor Expert Member	Associate Professor, Dean of Science, Dept of Computer Science, St.Xaviers College(Autonomous), Palayamkottai- 627002 Mobile No : 9486041594 Email : victorsp@rediffmail.com	Expert Member	
3.	Ms.Sindhu Vijayan	Technical Lead, Allianz Technology Pvt Ltd., Technopark,Trivandrum.	Expert Member	
4.	Dr.A.Shajin Nargunam	Dean- Faculty of Information and Communication Engineering & Director- Academic Affairs.	Internal Member	
5.	Dr.M.K.Jeyakumar	Professor & Addl.COE, Dean-Faculty of Computer Science.	Internal Member	
6.	Dr.S.Beulah	Associate Professor	Internal Member	
7.	Dr.A.C.Subhajini	Associate Professor	Internal Member	
8.	Ms.C.R.Sheela Kumari	Assistant Professor	Internal Member	
9.	Ms. M.Merlin Johnsy	Assistant Professor	Internal Member	

Signature of Chairman

Dr.J.R.Jeba

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DEPARTMENT OF COMPUTER APPLICATIONS

MINUTES OF BOARD OF STUDIES

Date : 06.06.2024

Time : 10.30 AM

Members Present:

Dr.S.P.Victor	Expert Member
Ms. Sindhu Vijayan	Expert Member
Dr. A. Shajin Nargunam	Internal Member
Dr. M. K. Jeyakumar	Internal Member
Dr. S. Beulah	Internal Member
Ms. C. R. Sheela Kumari	Internal Member
Ms. M. Merlin Johnsy	Internal Member
Dr. M. Safeen Nagoor	Internal Member

Agenda:

1. Syllabus introduction for fifth and sixth semesters for BCA, theory and practical courses
2. Syllabus Revision for Third and Fourth semesters for MCA, theory and practical courses.
3. Framing new curriculum for BCA (2024) and Syllabus introduction for first and second semester
4. Other related matters.

The meeting of the Board of Studies of Computer Applications was convened by the board Chairman Dr. J. R. Jeba, HOD, Department of Computer Applications; NICHE on 06th June 2024 at 10:30 AM. The Chairman welcomed the Members for attending the Board of Studies.

Discussed the agenda and decided on the following items based on recommendations from the BOS members.

Board of Studies Meeting in our department was held on 06.06.2024. The following points were discussed in the meeting.

1. Changes in the existing Curriculum design for the BCA Programme (Only for third year) and syllabus introduction for fifth and sixth semesters for BCA, theory and practical courses
2. Syllabus Revision for Third and Fourth semesters for MCA, theory and practical courses.
3. Framing new curriculum for BCA (2024) and Syllabus introduction for first and second semester
4. Other related matters.

The Chairman narrated the feedback given by the staff and student.

The chairman discussed about the feedback received from the stakeholders. All the responses received from them are discussed and decision taken. The following are considered for discussion.

Discussions and decisions regarding Syllabus introduction for fifth and sixth semesters for BCA programme

Syllabus was introduced for the fifth and sixth semesters of BCA. The syllabus for the seven core courses, two elective courses, three laboratory courses, and one project work was introduced in this Board of Studies meeting for discussion and improvement.

- The feedback from various stakeholders was collected, analyzed, and their suggestions were implemented in the curriculum.

- The board chairman, **Dr. J. R. Jeba**, gave feedback and suggestions for introducing the new courses "VB.NET Programming" and "VB.NET Programming Lab" in the curriculum, which were accepted and included in the fifth semester. This will be useful for the students during their project work.

- **Dr. S. Beulah** suggested including "Robotic Process Automation" as an elective paper for BCA. It was accepted and added to the sixth-semester elective.

- **Dr. Victor S. P.** suggested removing "ASP.NET" from the title of the fifth unit in the *ASP.NET Programming* course, which was accepted and corrected.

- **Ms. Sindhu Vijayan** suggested changing the course title to "Fundamentals of Artificial Intelligence" instead of "Artificial Intelligence." Discussions were held on the proposed syllabus. After discussion, she explained the difficulty level of the proposed syllabus for BCA students and recommended reducing the advanced topics. This was accepted, and the changes will be made by **Dr. Shafeen Nagoor**.

- **Dr. Victor S. P.** suggested changing the title of the second unit to "Association Rule Mining" in the "Data Mining and Data Warehousing" course. He also suggested changing the course title to "Introduction to Data Mining," which was accepted. He further suggested reducing the syllabus content in the fourth unit. **Ms. M. Merlin Johnsy** done the corrections in the syllabus.

- **Dr. Victor S. P.** suggested modifying the first unit of the "Cloud Computing" syllabus in the proposed syllabus. It also needed elaboration to reduce the difficulty level of the subject. After discussion, it was accepted, and **Ms. C. R. Sheela Kumari** done the corrections based on the textbook.

- **Ms. Sindhu Vijayan** suggested revising the proposed syllabus in the BOS based on the second textbook. It was accepted by the members, and **Ms. M. Merlin Johnsy** made the corrections.

- **Dr. Victor S. P.** suggested reducing the syllabus content in the fourth unit and changing the title of the fifth unit to "Introduction to Automation Testing," which was accepted, and **Ms. C. R. Sheela Kumari** updated the syllabus.

- **Dr. S. Beulah** suggested including "Introduction to Big Data" as a core paper for BCA students. After discussion, it was added to the sixth semester.

- **Dr. Victor S. P.** suggested expanding the syllabus content in *Professional Ethics*. This was accepted, and **Ms. C. R. Sheela Kumari** done the corrections.

- **Ms. Sindhu Vijayan** suggested adding a few more experiments in the *PHP Programming Lab*, which was updated by **Ms. M. Merlin Johnsy**.

- **Dr. Victor S. P.** suggested changing the titles of Unit II and Unit III of "Client Server Computing," and the changes were made in the syllabus.
- **Dr. Victor S. P.** suggested expanding the syllabus in Unit II and Unit IV, which was accepted, and **Ms. C. R. Sheela Kumari** done the corrections.
- The board chairman, **Dr. J. R. Jeba**, discussed the internship for BCA. **Dr. Victor S. P.** suggested including the internship during the summer vacation after the fourth semester, which was accepted. He recommended that two credits be allotted for the internship, with evaluations at the start of the fifth semester.
- **Dr. Victor S. P.** suggested including a skill-based elective in the sixth semester for BCA, if possible.

The following subjects are introduced for third year BCA

Sl. No	Subject Name	Core / elective
1.	VB.NET Programming	Core
2.	VB.NET Programming Lab	Core
3.	Artificial Intelligence	Core
4.	Cyber Security	Core
5.	VB.Net Programming Lab	Core
6.	DBMS Lab	Core
7.	Internship	Core
8.	PHP Programming	Core
9.	Introduction to Big data	Core
10.	Professional Ethics	Core
11.	PHP Programming Lab	Core
12.	Project Work	Core
13.	Introduction to Data Mining	Elective
14.	Cloud Computing	Elective
15.	Wireless Networks	Elective
16.	Software Testing	Elective
17.	Robotic Process Automation	Elective
18.	Client Server Computing	Elective
19.	Enterprise Resource Planning	Elective
20.	Distributed Computing	Elective

Discussions and decisions regarding MCA programme syllabus

The second-year MCA programme curriculum is modified. The syllabus for the two core courses, three elective courses, one laboratory course, and two project works was introduced in this Board of Studies meeting for discussion and improvement.

- Experts advised comparing the curriculum content with reference materials and, if feasible, condensing it into the first unit.
- The suggestion made by **Ms. Sindhu Vijayan** to broaden the syllabus in Unit V of *Machine Learning Techniques* was accepted, and **Dr. Shafeen Nagoor** done the necessary revisions.
- **Ms. Sindhu Vijayan's** recommendation to expand the Unit I syllabus for *Soft Computing* was approved, and **Dr. Shafeen Nagoor** done the required corrections.
- It was recommended that **Dr. Victor S. P.** and **Ms. Sindhu Vijayan** examine the difficulty level of the *Artificial Intelligence* syllabus. It was agreed that **Dr. Shafeen Nagoor** revised the syllabus accordingly.
- Changes to the *Blockchain Technology* syllabus were approved after **Dr. Victor S. P.** and **Ms. Sindhu Vijayan** proposed adding more content. The BOS also approved the *Information Retrieval Techniques* syllabus and advised cross-referencing it with the textbook. **Dr. Shafeen Nagoor** verify the syllabus based on the book and required changed done.
- **Dr. Victor S. P.** recommended renaming the second unit in the *Data Mining and Data Warehousing* syllabus to "Classification." This was immediately corrected in the syllabus.
- **Dr. Victor S. P.** recommended expanding the third unit of *Knowledge Engineering*, and the decision was made to revise the syllabus.
- **Dr. Victor S. P.** suggested expanding the content of Unit V in *Digital Marketing*, and **Ms. C. R. Sheela Kumari** done the necessary corrections.

- **Dr. Victor S. P.** and **Ms. Sindhu Vijayan** suggested including *Organizational Behavior* instead of *Human Resource Management*. This was accepted, and **Ms. C. R. Sheela Kumari** updated the syllabus based on the suggestion.

- **Dr. Victor S. P.** suggested changing the course title to *Information System Management* instead of *Information System Security*. The BOS members agreed, and it was decided to update the curriculum with the revised course title. To confirm the syllabus, **Dr. Shafeen Nagoor** consented to verify it with the textbook.

Discussions and decisions regarding new BCA regulation (2024) and syllabus for first and second semester

New regulation for BCA is introduced during 2024. The syllabus for the first two semesters is discussed. There are seven core courses, and four practical subjects are introduced in this Board of Studies meeting for discussion and improvement.

The proposed curriculum and syllabus are discussed and accepted.

- Dr. Victor. S. P suggested expanding the content of Digital logic fundematals are accepted and incorporated in the syllabus.
- Ms. Sindhu Vijayan's recommendation to change few topics in the second unit and third unit of Environmental Science are accepted and incorporated in the syllabus.

The meeting came to an end at 12:30 PM.

06.06.24

Dr. J. R. Jeba

Chairman, BOS

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu, India.

Seal/ Signature of the Registrar

Dr. P. THIRUMALVALAVAN,
Registrar,
Noorul Islam Centre for Higher Education,
Kumaracoil - 629 180, Thuckalay,
Kanyakumari District.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

BOARD OF STUDIES - DEPARTMENT OF COMPUTER APPLICATIONS June 2024

06.06.2024

Members of Board of Studies

Sl.No	Name	Designation		Signature
1.	Dr.J.R.Jeba	Associate. Prof & Head, Department of Computer Applications	Chairman	
2.	Dr.S.P.Victor Expert Member	Associate Professor, Dean of Science, Dept of Computer Science, St.Xaviers College(Autonomous), Palayamkottai- 627002 Mobile No : 9486041594 Email : victorsp@rediffmail.com	Expert Member	
3.	Ms.Sindhu Vijayan	Technical Lead, Allianz Technology Pvt Ltd., Technopark,Trivandrum.	Expert Member	
4.	Dr.A.Shajin Nargunam	Dean- Faculty of Information and Communication Engineering & Director- Academic Affairs.	Internal Member	
5.	Dr.M.K.Jeyakumar	Professor & Addl.COE, Dean-Faculty of Computer Science.	Internal Member	
6.	Dr.S.Beulah	Associate Professor, Department of Computer Applications	Internal Member	
7.	Ms.C.R.Sheela Kumari	Assistant Professor, Department of Computer Applications	Internal Member	
8.	Ms. M.Merlin Johnsy	Assistant Professorm Department of Computer Applications	Internal Member	
9.	Dr.M.Shafeen Nagoor	Assistant Professor, Department of Computer Applications	Internal Member	

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DEPARTMENT OF COMPUTER APPLICATIONS

TWENTY SIXTH MINUTES OF BOARD OF STUDIES

Date : 26.05.2025 **Venue:** Smart Class Room (X201)

Time : 10.30 AM

Agenda:

1. Review and approval of the 2nd Year (Semester III & IV) curriculum for BCA under Regulation 2024, Evaluation of theory and practical course structure and credits including the approval of Elective-I options for Semester IV.
2. Approval of curriculum structure and credit allocation semester-wise for MCA Program under NEP 2020.
3. Approval of Bridge Course for Non-CS/IT students.
4. Introduction of thematic verticals and MOOC integrations for MCA programme.
5. Approval of exit criteria after first year of MCA Programme
6. Approval of Lateral entry and Re-entry Criteria into Second Year (Third Semester) of MCA.
7. Approval of curriculum structure and credit allocation semester-wise for BCA Program under NEP 2020.
8. Introduction of Multiple Exit and Re-entry Options for BCA
9. Introduction of thematic verticals and MOOC integrations for BCA programme.
10. Introduction of New courses in BCA and MCA Programmes.
11. Introduction of Indian Knowledge System (IKS) courses
12. Introduction of Value Added Courses in BCA and MCA programme
13. Introduction of Value Education Courses in BCA and MCA programme
14. Introduction of Skill Enhanced Courses Assessment Patterns in BCA and MCA programme
15. Review of Feedback collected from stake holders
16. Assessment Patterns
17. Other related matters

The meeting of the Board of Studies of Computer Applications was convened by the board Chairman Dr. J. R. Jeba, HOD, Department of Computer Applications,NICHE on 26th May 2025 at 10:30 AM. The Chairman welcomed the members to the Board of Studies meeting. The agenda was reviewed, and the following decisions were made based on the recommendations of the BOS members.

Item 1: Review and approval of the 2nd Year (Semester III & IV) curriculum for BCA under Regulation 2024, Evaluation of theory and practical course structure and credits including the approval of Elective-I options for Semester IV.

- The Board reviewed the Semester III curriculum and approved the following courses with a total of **22.**
- The Semester IV course structure was presented and approved with a total of **22 credits.**
- The external expert Dr. Victor. S. P. suggested to include the Organization Behaviour as an management elective for S4 BCA is incorporated and discussed that the financial management subject may not be required for UG students, so it is decided to remove Financial Management from elective.

Item 2: Approval of curriculum structure and credit allocation semester-wise for MCA Program under NEP 2020 (Regulation 2025)

- The Chairperson initiated a discussion on aligning the MCA program with the National Education Policy (NEP) 2020, highlighting the policy's focus on multidisciplinary education, flexible curriculum structures, blended learning, and research orientation.
- The proposed curriculum structure and credit allocation was reviewed and approved

Semester	Core Courses	Ability Enhancement Courses	Multi-Disciplinary course	Research	Value Education	Value added Courses	Skill Enhancement courses	Discipline Specific Elective	IN/OJT: Internship/ On-Job Training	Blended	Total
I	10	2	4	3			1	3	-	-	23
II	14	-		-	2	-	1	3	-	2	22
III	15	0		0		2	2	3	-		22
IV	-	0		2		0	2	-	16		20
Total	39	2	4	5	2	2	6	9	**16**	**2**	**87**

Approved Key Features of the Program:

- The program consists of a total of **87 credits** spread over **eight semesters.**
- **Blended learning** has been adopted through the integration of **MOOCs** (SWAYAM/NPTEL) with provisions for **credit transfer.**
- **Skill Enhancement Courses** and **Value Added courses** have been incorporated to promote holistic development.
- **Ability Enhancement Courses** have been included to strengthen foundational competencies and communication skills.
- A dedicated focus on **Research** has been introduced to nurture innovation and inquiry-based learning.
- **Discipline Specific Elective Courses** are offered to allow students to specialize in areas of interest within the field.

- An **Internship/On-the-Job Training** component has been added to provide students with hands-on industry experience.

Item 3: Approval of Bridge Course for Non-CS/IT students

- A mandatory Bridge Course "Fundamentals of Computers with 4 credits Core Course" for students from non-CS/IT backgrounds joining MCA was discussed and approved.

Item 4: Introduction of thematic verticals and MOOC integrations for MCA programme

Three program-specific verticals have been introduced in the MCA curriculum to offer elective choices aligned with students' interests and evolving industry demands.

- Vertical I: Intelligent Systems and Machine Learning
- Vertical II: Advanced Computing Systems and Architectures
- Vertical III: Software Engineering and Application Domains

Item 5: Approval of exit criteria after first year of MCA Programme

The Board deliberated on the exit criteria for the **Master of Computer Applications (MCA)** programme in alignment with the National Education Policy (NEP) 2020 framework.
It was resolved that:

- **Students enrolled in the MCA programme will have the option to exit** after the successful completion of the **first year**. Such students will be **awarded a Post Graduate Diploma in Computer Applications (PGDCA).**
- To be eligible for this diploma, students must complete:
    - The regular first-year MCA curriculum, and
    - An **additional MOOC / NPTEL / SWAYAM course/Internship** carrying **4 credits** in any relevant domain approved by the department

Item 6: Re-entry Criteria into Second Year (Third Semester) of MCA

The Board also approved the re-entry provision for students entering the MCA programme via vertical integration:

- **Students who have completed a BCA/B. Sc CS/B. Sc IT(4 Years) (Honours or Honours with Research)** degree **/PGDCA from recognised university** may be **admitted directly into the second year (Third Semester) of the MCA Programme,** provided they have earned the requisite credits.

Item 7: Approval of curriculum structure and credit allocation semester-wise for BCA Program under NEP 2020 (Regulation 2025)

The board reviewed and unanimously approved the revised BCA curriculum in alignment with NEP 2020. The program will be offered with flexibility of multiple entries and exits, as per the guidelines.

Semester	Program Core Courses	Ability Enhancement Courses	Basic Sciences	Open Elective-Multi-Disciplinary course	Value Education Courses	Language Courses	Vocational and Skill Enhancement courses	Program Elective	Indian Knowledge System	Co-Curricular Course	Total
I	7	3	3	-	1	3	-	-	2	1	20
II	8	3	3	-	2	3		-		1	20
III	11	1	3	-	2	-	3	-	2		22
IV	11	1	-	3	-	-	4	3	-	-	22
V	3	1	-	-	-	--	8	9	-	-	21
VI	-	1	-	1	3	-	9	6	-	-	20
		BCA									**125**
BCA (Honours)											
VII	5	-	-	3	-	-	4	8	-	-	20
VIII	-	-	-	-	-	-	8	12	-		20
BCA(Honours with Research)											
VII	12	-	-	-	-	-	-	8	-	-	20
VIII	-	-	-	-	-	-	20	-	-	-	20

Approved key features:

- **Ability Enhancement Courses** have been introduced to develop essential skills for academic and career success.
- **Multi-Disciplinary Courses** provide students the flexibility to explore subjects beyond the core domain, promoting a broad-based, holistic education aligned with the NEP 2020 framework.
- **Value Education Courses** are included to supplement the core curriculum with industry-relevant skills helping students stay current with emerging technologies and professional trends.
- **Skill Enhancement Courses** focus on hands-on, practical learning aimed at improving technical proficiency, problem-solving ability, and job readiness.

Item 8: Introduction of Multiple Exit and Re-entry Options for BCA

The Board approved the structured exit and re-entry options:

- UG Certificate after Year 1 (with additional 4 credits via skill- based/NPTEL/internship/ community engagement)
- UG Diploma after Year 2 (with additional 4 credits via capstone/internship/etc.)
- BCA Degree after Year 3
- Re-entry after exit will be permitted upon completion of requisite credits and compliance with University norms.

Item 9: Introduction of thematic verticals and MOOC integrations for BCA Programme

Two program-specific verticals have been introduced in the BCA curriculum to offer elective choices aligned with students' interests and evolving industry demands.

- Vertical I: Data Science
- Vertical II: Artificial Intelligence and Machine Learning

Integration of NPTEL/MOOC Courses in exit option during end of first year: As part of the BCA program, students are required to complete an **8-week NPTEL/MOOC course** in **Computer Science subjects** if the student exit after the completion of first year.

Item 10: Introduction of New courses in BCA and MCA Programmes.

New courses introduced in **BCA revised 2024 Curriculum second Year**

- Organizational Behaviour

New courses introduced in **BCA NEP2020 Curriculum First Year**

- Computer Fundamentals
- Heritage of Tamil
- Yoga and Wellness

New courses introduced in **MCA NEP2020 Curriculum First Year**

- Research Methodology
- Technical Presentation
- Human Rights
- Personality Development
- MOOC/SWAYAM Courses

Item 11: Introduction of Indian Knowledge System (IKS) courses

As per NEP 2020 policy the Indian Knowledge Systems- IKS - Tamil Heritage with two credits in the first semester and Health and Well ness in the third semester with two credits are introduced in the curriculum. It was approved to make the students to understand India's vast and rich heritage.

Item 12: Introduction of Value Added Courses in BCA and MCA programme

To enhance students' employability and keep them updated with emerging trends in the industry, **Value Added Courses** are conducted **in addition to the regular curriculum**. It is decided to conduct one value added course for BCA and MCA students per semester. These courses aim to equip students with specialized knowledge, practical skills, and certifications in areas that complement their academic learning.

Item 13: Introduction of Value Education Courses in BCA and MCA programme

To promote holistic development and instil ethical and moral values among students, **Value Education** has been introduced as an integral component of the BCA curriculum. It is decided to include Yoga and Wellness, Professional Ethics, Environmental Science and Entrepreneurship & Start up Eco System in BCA Curriculum.

Item 14: Introduction of Skill Enhanced Courses Assessment Patterns in BCA and MCA programme

The **Skill Enhancement Courses** are designed to provide **practical knowledge, technical proficiency, and job-oriented skills** that are essential in the field of computer

applications. It was decided to include Web Development Basics (HTML,CSS, JavaScript), Digital marketing & E Commerce, Python Programming lab, Internship/Capstone Project, Poster and Presentation Skills, PHP Programming Lab and Major Project in BCA curriculum is approved

Item 15: Review of Feedback collected from stake holders

Feedback on the existing curriculum was collected and analyzed. The Chairman of the Board noted that the feedback received represents the views of the stakeholders.

The feedback provided by faculty member Ms. M. Merlin Johnsy to include Internet concepts in the Java Programming course for BCA Regulation 2024 was accepted and incorporated into the revised syllabus.

The feedback provided by faculty member Ms. C. R. Sheela Kumari to revise the Web Technology course into "Web Application Development" for the BCA 2024 regulation was accepted and incorporated into the syllabus. Approximately 35% of the syllabus was revised as part of this update.

The feedback provided by faculty member Ms. M. Tharanya to include the course "Life Issues and Entrepreneurial Skills" in the Java Programming curriculum for BCA Regulation 2024 was accepted and incorporated into the revised syllabus.

The external expert Suggested to include the Organizational Behaviour for BCA in the revised curriculum was accepted and incorporated in the syllabus.

Item 16: Assessment Patterns

Detailed assessment structure for theory, practical, and project courses was discussed. The BoS approved the split between Continuous Assessment (CA), End Semester Exams (ESE), and Internal Evaluations for practical courses and project-based courses.

Item 17: Addition of new elective for Final year BCA regulation 2020

Based on the feedback given by the faculty Dr. S. Beulah the cloud computing fundamentals included as elective for fifth semester BCA was accepted and incorporated in the syllabus

Resolutions Passed

- The Board unanimously approved the 2nd Year BCA curriculum for Semester III and IV under the 2024 regulation.
- All electives, course structures, and credit allocations were formally ratified.
- The revised MCA curriculum structure and credits under NEP 2020 were unanimously approved.
- The Bridge Course was approved as mandatory for non-IT/CS students.
- Industry-relevant verticals and electives were adopted.

- Internships and Research Projects are integral and mandatory in the final semester.
- The Board unanimously resolved to implement the revised BCA curriculum from the Academic Year [2025-2026] subject to approval by the Academic Council.

Enclosures: Annexure

Annexure 1: Approved Curriculum and Syllabi for Semester III and Semester IV for BCA

Annexure 2: Approved Curriculum and Syllabi for first year BCA based on NEP 2025

Annexure 3: Approved Curriculum and Syllabi for first year MCA based on NEP 2025

Members of Board of Studies

Sl.No	Name	Designation		Signature
1.	Dr.J.R.Jeba	Associate. Prof & Head, NICHE, Kumaracoil	Chairman	
2.	Dr.S.P.Victor Expert Member	Associate Professor, Dean of Science, Dept of Computer Science, St.Xaviers College(Autonomous), Palayamkottai- 627002 Mobile No : 9486041594 Email : victorsp@rediffmail.com	Expert Member	
3.	Ms.Sindhu Vijayan	Technical Lead, Allianz Technology Pvt Ltd., Technopark,Trivandrum. sindhumanek@gmail.com 9946590656	Expert Member	
4.	Dr.A.Shajin Nargunam	Pro Vice Chancellor(Academic) Dean- Faculty of Information and Communication Engineering & Director-Academic Affairs.	Internal Member	
5.	Dr.M.K.Jeyakumar	Professor & COE, Dean-Faculty of Computer Science.	Internal Member	
6.	Dr.S.Beulah	Associate Professor	Internal Member	
7.	Ms.C.R.Sheela Kumari	Assistant Professor	Internal Member	
8.	Ms.M.Merlin Johnsy	Assistant Professor	Internal Member	
9.	Dr.M.Shafeen Nagoor	Assistant Professor	Internal Member	

16.06.25

Chairperson, Board of Studies

Department of Computer Science & Applications

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, Tamilnadu, India.

Registrar

Dr. P. THIRUMALVALAVAN,
Registrar,
Noorul Islam Centre for Higher Edu
Kumaracoil - 629 180, Thuckalay,
Kanyakumari District.

MINUTES OF THE TWENTY THIRD MEETING OF THE ACADEMIC COUNCIL HELD ON 27.6.2023

VENUE: CONFERENCE HALL (A-118)
(ADMINISTRATIVE BLOCK)

Date: 27.6.2023
DAY: Monday
TIME: 11.00 a.m.

1. **Dr. A. K. Kumaraguru,** Vice-Chancellor, Noorul Islam Centre for Higher Education and the Chairman of the Academic Council presided over the meeting.

   Members present:

1.	Dr.K.A.Janardhanan	Pro Vice-Chancellor (Administration) and Director – H.R.M., Dean – Faculty of Management Studies
2.	Dr.A.Shajin Nargunam	Pro Vice-Chancellor (Academic), Director-Academic Affairs & Dean-Faculty of Information and Computer Engineering
3.	Dr.P.Thirumalvalavan	Registrar (Secretary)
4.	Dr.M. Dev Anand	Director - Research
5.	Dr. J. Charles	Director – Student Affairs
6.	Dr. B. Bindhu	Dean – Faculty of Science & Humanities
7.	Dr. R. S. Vinod Kumar	Dean – Faculty of Electrical and Electronics Engineering
8.	Dr. M. Murugan	Dean – Faculty of Technology
9.	Dr. S. John Leon	Dean – Faculty of Marine Engg.
10.	Dr. M. Sankara Narayana Pillai	Dean – Faculty of Allied Health Sciences
11.	Dr. T. Annil Kumar	HOD – Aeronautical
12.	Dr. J. Saji Soundararaj	HOD i/c – Aerospace

13. Mr. S. Harikumar	HOD i/c – Aircraft Maintenance Engineering
14. Dr. J. Edwin Raja Dhas	HOD – Automobile Engg.
15. Dr. M. Murugan	HOD - Biomedical Engineering
16. Dr. J. Joseph	Professor and HOD - Chemistry
17. Dr.V.G. Ranjith	HOD-Computer Science and Engineering
18. Dr. Y. Stalin Jose	HOD – Civil Engg.
19. Dr.T. Gopalakrishnan	HOD – Electronics and Communication Engineering
20. Dr. J. Arul Linsely	HOD- Electrical and Electronics Engineering
21. Dr.S.S.Kumar	HOD-Electronics and Instrumentation Engineering
22. Mr.A.Khaleel Rahuman	HOD – English
23. Mr. I. James Dhinakar Williams	HOD - Fire Technology & Safety Engineering
24. Dr.R. Mathusoothana S.Kumar	HOD – Information Technology,
25. Dr.R.Rajesh	HOD – Mechanical Engineering
26. Dr.D. Kinslin	HOD – Faculty of Management Studies
27. Dr. J. R. Jeba	HOD – Master of Computer Applications
28. Dr.S. John Leon	HOD – Marine Engineering
29. Dr. P. K. Praseetha	HOD - Nanotechnology
30. Dr. M. Immaculate Mary	HOD - Mathematics
31. Dr. B. Bindhu	HOD – Physics
32. Dr. J. Joseph	HOD - Chemistry
33. Dr.J.P.Jayan	HOD – Software Engineering
34. Dr.P.B.Sarasija	Professor – Mathematics
35. Dr. A. R. S. Iyer	Professor – Dept. of Information Technology
36. Dr. R. Subramania Pillai	Professor, Department of English

37. Dr. P. Sujatha Therese	Professor, Dept. of EEE
38. Dr. S. Balamurugan	Professor, Dept.of Nanotechnology
39. Dr.N. Ramasamy	Associate Professor – Mechanical Engineering
40. Dr. J. Benita	Assistant Professor, Dept. of AME
41. Dr.P.V.Samuel Blessed Nayagam	Deputy Director – Academic Affairs
42. Mr. T. Elangovan	Former Director, NCTPR, Executive Director, Kerala Road Safety Authority, Trivandrum

1. Welcome: The Vice-Chancellor welcomed all the members of the Academic Council and made the following introductory remarks.

2. VICE-CHANCELLOR'S INTRODUCTORY REMARKS:

VICE-CHANCELLOR'S INTRODUCTORY REMARKS

"Education is not the learning of facts, but the training of the mind to think." - Albert Einstein

On behalf of the Noorul Islam Centre for Higher Education (NICHE), I extend a warm welcome to the Pro-Chancellor (Academic), Pro-Vice-Chancellors Administration, and Academic, Registrar and the Controller of Examinations, all the honourable external and internal members and the special invitees to the 23rd Meeting of the Academic Council. Since the 22nd Meeting of the Academic Council held on 31-3-2023, many important events have taken place and I am glad to report the same briefly. (The reading version is as below)

NICHE has a good placement record in the academic year 2022-23. During this period, 17 companies visited NICHE, and 957 students attended placement interviews. The students of NICHE received 158 job offers and 136 students were placed with an average salary of Rs. 2.3 lakhs p.a. As a part of the corporate social responsibility, NICHE has also placed 175 outside students from other Institutions. A Mega Campus Placement Drive was conducted at NICHE on 10th June 2023.Twenty three companies participated in this event. More than 1000 students registered and participated and 182 job offers were given.

Sustained efforts over the years have improved the quantity and the quality of our research publications. Since the last academic council meeting, publications listed in the SCOPUS Database have increased considerably pushing up the total number of publications to 2,907, the 'h index' to 53, with 16,276 citations, as on 25-6-2023.

As on date, 130 patent applications have been filed, of which so far 14 patents have been granted, 30 applications have been examined, 48 applications were published and the remaining 38 are in process.

As on date 51 students and faculty members have registered for 88 SWAYAM and NPTEL courses.

Funded research projects to the tune of **Rs. 83.31 lakhs** are in operation. The teaching-learning process is supplemented by intensive research.

The Ph.D. Programme of NICHE is offered in strict compliance with the UGC Regulations. In total **515** scholars are currently pursuing their research work under **114** guides.

Two scholars are recipients of the DST-INSPIRE fellowship and One scholar has received Savitribai Jyotirao Phule Fellowship for Single Girl Child (SJPSGC). Other eligible full-time scholars are paid monthly stipends by NICHE.

Students of Computer Science and Engineering have participated in various events and won prizes. Ms. Sneha Pradeep of S4 M.E CSE has won the Best Paper Award for her paper "Cascade of MobileNetV2 for Iris Liveness Detection" presented in the International Conference on Smart Engineering for Renewable Energy Technologies-2023 (ICSERET-2023) organized by the Department of Electrical and Electronics Engineering, Ramco Institute of Technology, Rajapalayam on 24th and 25th March 2023.

The CSE Department organized a National conference on "Innovative Research in Advanced Computing" (NCIRAC'23) on 11th April, 2023 and another International Conference on "Emerging Technologies in Engineering and Applied Sciences" (ICETEAS - 2023) on 12th &13th April 2023.

The Placement and Training Cell conducted a seminar on "Opportunities in Indian Armed Forces" at the Hill Top Auditorium on 12th April 2023.

On 18th April a one day Symposium “VIMAANZ UTSAV 2023” was organized by the AME Department.

Department of Allied Health Sciences in association with IIC, NICHE organized a program on “World Creativity and Innovation Day” on 20th April, 2023.

An International Seminar on “Spacecraft Autonomy” was conducted at the Hill-Top Auditorium on 20th April 2023 by the Departments of Aeronautical Engineering, Aerospace Engineering, and Aircraft Maintenance Engineering. Dr. P. Krishna Dev Kumar, Professor of Space Systems Engineering, Director of Artificial Intelligence for Aerospace Systems (AIAS) Laboratory, and Department of Aerospace Engineering from the Toronto Metropolitan University, Canada, was the Chief Guest of this event.

Gandhi Peace Club and NSS with UBA of NICHE jointly organized a field visit to Gandhi Memorial, Kanyakumari, on 20th April 2023.

The Department of Civil Engineering conducted a National Conference on “Innovative and Emerging Technologies in Engineering” at the AC Auditorium on 24th April 2023.

The Department of Mathematics conducted an International Conference on “Emerging Trends in Mathematical Sciences and Applications” on 26th April 2023.

The EIE department organized an International Conference on “Control Instrumentation, Communication, and Computational Technologies” on 27th April 2023 and 28-04-2023. Dr.Branesh Madhavan Pillai, Research Professor from Mahidol University, Thailand, was the Chief Guest.

On 28th April 2023, NICHE got recognized as an Elite Enabler by AIC RAISE, a mission driven organization that supports startups building technology to solve social and environmental issues.

NICHE was selected as the nodal centre for the Smart Minds hackathon organised for college students. Dr.R.S. Rimal Isaac received the award on behalf of NICHE during a ceremony.

Dr.Aneesh Nair, Assistant Professor of the Department of AHS has received a grant of Rs. 7.84 lakhs from the Chief Conservator for Forests, Chennai, for his project

on “Integrated Rhizosphere Microbiomics and phytopharmacology based fingerprinting approach towards mangrove conservation in Tamil Nadu”.

Dr.M. Murugan got an Indian Patent granted for his “Smart Food Feeder for Stroke/Coma/Elderly Bedridden Patients”. Dr.Murugan has also received an International patent for his “IOT based wearable medical monitoring system”.

A patent for “Structural Behaviour of Reinforced Concrete Beam containing Nano silica” has been filed by Dr.Roselin and Dr.Stalin Jose of the Department of Civil Engineering.

Dr.J. Joseph was granted one Indian Design patent related to water purification system and to his credit two patents have been published.

Dr.Anitha of the CSE Department received “Outstanding Faculty Award” from R.K. Foundation, R.K. Publishers, Vellore, on 30th April 2023.

The Department of Marine Engineering conducted a National level technical Symposium HORIZON 2K23 on 02nd May 2023 at the AC Auditorium. Captain. P. Bennet Singh, Pilot, VOC Port Authority, Tuticorin, was the chief Guest.

The Departments of Automobile Engineering and Fire Technology & Safety Engineering organized an International Conference on “Emerging Trends in Technology and Sciences” (2K23) on the 3rd and 4th of May 2023. Mr. Nzeyimana Bahati Shaban from Rwanda Africa was the chief guest.

An International Conference on “Networking and Computer Applications” (ICNCA’23) was organized by the Department of Computer Applications on 5th May 2023.

The Department of Chemistry hosted an International Seminar on “Science and Technologies for Sustainable Development” at the CSE Smart Classroom on 10th May 2023. Dr.Ponnudurai Ramasami, Professor and Head, Dept of Chemistry, University of Mauritius, delivered a lecture on “Computational chemistry for drug design and discovery”.

On 18th May 2023, the Board of Research, Development, and Consultancy & the Research Development Cell hosted a one-day workshop on "Research Proposal Writing: Strategies to Secure Research Grants."

The BRDC then organized a two-day workshop on "Art of Writing and Publishing Research Papers in Scholarly Journals" on 19th and 20th May 2023.

The BRDC also organized a Two Weeks Workshop on “Research Methodology, Publication, and Ethics for Ph.D. Scholars” from 22nd May to 03rd June 2023.

An awareness program on gender sensitization was conducted by the Internal Complaints Committee on 23rd May 2023. Advocate Ms. Susheela Devi from Nagercoil District Court was the resource person.

The NCC Annual Training Camp was conducted by the 11 TN BN NCC, of Nagercoil, at NICHE from 26th May 2023 to 02nd June 2023.

The camp commandant Col. C.P. Unnikrishnan, inaugurated the camp and inspired the cadets through his opening address.

The Department of Mechanical Engineering was awarded three patents. The faculty members have published 5 SCI - indexed papers and 4 Scopus - indexed papers.

Mr.K. Satheesh Babu of the Department of Marine Engineering has successfully completed the Vertical Integration Course for Trainers (VICT) conducted during 15th May 2023 to 25th May 2023 in the Naval Maritime Academy West, at Mumbai.

Dr.J.P. Jayan, Dr.S. Jerine, Dr.R.I. Heaven Rose, and Dr.V. Alan Gowri Phivin, of Software Engineering Department have filed a Patent for “IoT based Food Processing Techniques.”

The World Environment Day was celebrated at NICHE on 05th June, 2023. Mr.M.S. Faizal Khan, Pro Chancellor of NICHE, graced the occasion with his esteemed presence. Mrs. Shabnam Shafeek, Managing Trustee of NICHE, also joined the event, and the both dignitaries planted tree saplings on that day.

NICHE Unnat Bharat Abhiyan and the NSS successfully organized a medical camp on 14th June 2023, at the e-seva Building, Karavilai, near Kumaracoil. 122 persons from the public availed the opportunity and got benefitted.

International yoga day was celebrated in a grand manner on 21-6-23

Every month one MoU signing ceremony is held and under the able guidance and direction of our Honouralble Pro-Chancellor Mr. M.S. Faizal Khan so far 42

companies, including the CSIR - National Institute for Interdisciplinary Science & Technology (CSIR-NIIST), have signed MoUs with NICHE. (The print version is below)

In the **Aeronautical Engineering Department** research colloquiums are conducted once in a month. Since 28-04-2023, four colloquiums have been conducted. A batch of Second year & Third year students have undergone Internship during the month of December at Vaayusastra Aerospace Private Limited, IIT Madras Research Park, Chennai & Jet Aerospace, Palakad. During the month of January a guest lecture on “The history of aircrafts and the elements of aircraft and their functions in detail” was held at the Aeronautical department Class Room conducted by Mr.Manoj, CEO, R.C Market city. Also a one-day workshop was conducted in the department on Unmanned Aerial Vehicle (UAV) flying model, fabricated on 27.1.2023. The students from the Departments of Aeronautical & Aerospace Engineering have applied their knowledge and skill to make their UAV flying model and made it fly to a particular range successfully. During the month of March, an alumni interaction meeting was conducted with Mr.Prince Raj Lawrence on 24-3-2023 and another alumni interaction meeting was conducted with Mr.S.Dhanush on 30.3.2023.

In **Aerospace Engineering Department** Six second year students have attended the In-plant Training in Sky Aerospace, Bangalore from 14.06.2023 to 23.06.2023. The Department students are effectively participating in all the co curricular activities like sports, cultural events, NCC and NSS. The Faculty members are acting as question paper setters, scrutinizing committee members and external invigilators for other nearby academic institutions.

The **Department of Automobile Engineering conducted** an International Workshop on “Development and Characterization of Natural Fibre Composites” by Dr.S. Padmanaban, Professor in Automobile Engineering by Veltech Rangarajan Dr.Sagundala R&D Institute of Science and Technology, Chennai, on 2nd March 2023 to Pre final and Final Year B.E. Automobile Engineering Students. The Department has conducted a Webinar by Dr.A. Immanuel Selwinraj, Professor in Mechanical Sciences, VIT, who delivered a lecture on “Energy Analysis of Gas turbine” on 19th April 2023 to the Pre-final and Final Year B.E. Automobile Engineering Students. Further a Seminar was conducted by Mr. Anish, Trainer in CAD Centre, Nagercoil, in which a lecture was delivered on “Modeling of Automotive Components using Alias” on 24th April 2023 to the Pre-final and Final Year B.E. Automobile Engineering Students. Alumni Interaction

was conducted on 10th March 2023 and a Parents Teachers Meeting was conducted on 17th March 2023. Three Research Colloquiums were conducted in the Department's Smart Class room. Faculty members have published 8 papers in reputed Journals and also published 5 Conference papers. The Department organized an International Conference on "Emerging Trends in Technology and Sciences ICETS 2k23", with the International Chief Guest Prof. Bhatia, from Rwanda, Africa, on 3rd May 2023.

The **Aircraft Maintenance Engineering D**epartment has organised a ten-days workshop on Aircraft Technical publication training from 27-03-2023 to 01-04-2023. Mr.A.V. Arun general manager, Crynofist was the resource person. On 18th April a one day Symposium "VIMAANZ UTSAV 2023" was organized by the Department. Students have completed DGCA license module Exam (cleared by 18 students (S4&S6&S8)).

The **Department of Allied Health Sciences** in association with IIC, NICHE organized a program on World Creativity and Innovation Day on 20th April 2023. Students presented their innovative ideas at the end of the program. As a part of World Blood Donors Day, the Department organized a seminar on 15th June 2023. Ms.Nimya Joseph and Ms.Melvin Praisy, Assistant Professors won first prize in badminton at NICHE sports meet. Dr.Aneesh Nair, Assistant Professor was granted with Rs 7.84lakhs by the Chief Conservator for Forests, Chennai, for this project entitled "Integrated Rhizosphere Microbiomics and phytopharmacology based fingerprinting approach towards mangrove conservation in Tamil Nadu". Four Research Papers have been published in International Journals by the faculty members of the AHS Department. Dr.J.Raja Brindha and Dr.N.C.J. PackiaLekshmi, Assistant Professors completed Internship in Research and Training organized by MSME technology development centre, Agra from 31st March 2023 to 4th May 2023.

In the **Department of Biomedical Engineering** Industry Institute Interaction on "Significance of Biomedical Engineer in the Current Scenario" was held on 27-07-2022. Ms.Reshma, a Certified Special Events Professional (CSEP) from Cyrix Healthcare Pvt. Ltd. presided over the technical session and interacted with the students. A MoU was entered into with Tejas Translational Technologies Private Limited, on 24-4-2023. Dr.S. Albert Jerome and Dr.I. Sowmy published a paper in ICETEAS 2023. Ms.Lisha Daniel presented a paper in the 2nd International conference on Advancements in Automotive Technology conducted by Bannari Amman Institute of Technology on 5th and 6th April 2023. Ms.Lisha Daniel participated in the Webinar "BCI & Neurotechnology Spring

School 2023" held during 17th to 26th April 2023 conducted by G.tech medical engineering, UK. Six students from S8 BME have attended and presented papers in the 2nd International conference on Advancements in Automotive Technology conducted by Bannari Amman Institute of Technology on 5th and 6th April 2023. Hures health care, Chennai, selected seven biomedical engineers. Dr.M. Murugan got an Indian Patent on "SMART FOOD FEEDER FOR STROKE/COMA/ELDERLY BEDRIDDEN PATIENTS" and he also received one International patent for IOT based wearable medical monitoring system.

The **Department of Civil Engineering** organized a National Conference on "Innovative and Emerging Technologies in Engineering" on 24th April 2023. Around 120 students participated. Mr.A.V. Sathish, Scientific officer and officer-in-charge, Nuclear Information Centre, Kudankulam, Nuclear Power Plant, briefed the students about the advancements in pre-stressed concrete. The Professional Development Program for the staff and students was conducted on the topic "Leadership and Communication" on 18th May 2023. Ph.D *Viva-Voce* examination was conducted for Mr.G. Vaisakh, scholar of Dr.M.S. Ravi Kumar on 08/05/2023. A patent titled "Structural Behaviour of Reinforced Concrete beam containing Nano silica" was submitted by Dr.Roselin, Dr.Y. Stalin Jose, Mrs.J. Divya Johns, Mrs.Y. Abisha, and Mrs.B. Soniya. A patent titled, "A composition for a water-permeable block to increase water permeability and durability by using ferronickel slag as an aggregate" has been submitted by Dr.R. Roselin. Mr.D. Allwin and Dr.Y. stalin Jose published a paper titled "Mechanical Performance of Low Fine Concrete" in the Indian Journal of Research Foundation.

The **Department of Computer Applications** organised a workshop on "Agile Methodology and Web Application Development" on 24th and 25th February 2023 in the Department's Smart Class room. The workshop meant for students, faculties and research scholars focused on which career path is most suited based on their skill sets. Alumni interaction with students was conducted by the Department in association with Noorul Islam Alumni Association on 24th Feb. 2023 at the Audio Visual Hall, NICHE. The alumnus Mr. Irshad Kalam, Assistant manager, Software development, RRD, Chennai, interacted with the students and shared his experience in the company and gave advice to the students to achieve their goals.

The **Department of Chemistry** faculty members are actively engaged in research and have published 22 research papers in reputed peer reviewed Journals

and conference proceedings. The Dr.J. Joseph was granted one Indian Design patent related to water purification system to his credit two patents were published. Ms. A. Krishnendu, a Ph.D. research scholar from the Department of Chemistry, has been awarded DST-INSPIRE Fellowship under the INSPIRE program division, DST, Govt. of India, New Delhi. The candidate under INSPIRE Fellowship scheme was selected through a very rigorous selection process conducted at the national level. The department regularly organizes International Conferences on Science and Technology for Sustainable Development under G20 by eminent scientists/researchers from various universities/research institutes within India. Dr.T. M. Sharmila and Dr.E.H. Edinsha Gladis have participated in various Online Webinars, in FDP, STP and conferences. Dr.J. Joseph has submitted research proposals to different funding agencies.

The **Department of Computer Science and Engineering** organized a National Conference on “Innovative Research in Advanced Computing (NCIRAC’23)” on 11/04/2023. Best papers were given the award of excellence. The Department organized a webinar on “Digital Marketing” on 19/04/2023. The faculty members of the department have attended various faculty development programs and workshops by both online and offline mode. Dr.V.G. Ranjith, Head/CSE and Dr.G. Venifa mini AP/CSE, attended one week FDP on the topic Cloud Practitioner (AWS) conducted by the ICT ACADEMY in the month of March. Ms.S. Safrin AP/CSE attended a one day workshop on Research Proposal Writing: Strategies to Secure Research fundig. Mr.G. JelinTaric and Ms.C.R. Jothy have attended a two day FDP on "Art of writing and publishing research papers in scholarly journals" organized by NICHE. Four faculty members have attended five days National level Faculty Development program on Intellectual Property Rights in the month of March.

The faculty members have published 5 papers in various reputed indexed journals in the month of April 2023 and May 2023.They have also participated and presented papers in various National and International Conferences. The Department organizes research colloquiums every month. Dr. A. Anitha has received the Outstanding Faculty Award from R.K. Foundation, R.K. Publishers, Vellore, on 30th April 2023. Students have participated in various events and won prizes. Ms.Sneha Pradeep of S4 M.E CSE has won Best Paper Award for the paper “Cascade of MobileNetV2 for Iris Liveness Detection” in the International Conference on Smart Engineering for Renewable Energy Technologies-2023 (ICSERET-2023) organized by the Department of Electrical and Electronics Engineering, Ramco Institute of

Technology, Rajapalayam on 24th and 25th March 2023. Mr.M. Yuvanesh of S8 B.E CSE has received Best Paper Award for the paper “Blind Person Walking Stick with Obstacle Detection and Voice Feedback” in the National Conference on Innovative Research in Advanced Computing (NCIRAC’23) organized by the Department of Computer Science Engineering, NICHE on 11th April 2023.

The **Department of Electronics and Communication Engineering** faculty members have published 1 research paper in SCI International Journal and 24 papers in International conference proceedings. Three Research Colloquiums were conducted in the department during this period. A cash award of Rs.25,000/- was received by the Department of ECE as an incentive for Research publications from, Shri.M.S. Faizal Khan, Pro Chancellor, NICHE. Dr.R.S. Vinod Kumar has attended two Doctoral Committee meetings. Dr.S. Amalashanthi has attended two Doctoral Committee meetings and Dr.N. Santhi has attended two Doctoral Committee meetings in Anna University, Chennai. International Conference on Emerging Technologies in Engineering and Applied Sciences (ICETEAS - 2023) was conducted on 12th &13th April 2023. A seminar on ‘Recent Advancements in IOT’ was conducted on 24th April 2023. Three Ph.D. scholars completed their Public *Viva-Voce* Examinations successfully in this period.

The **Department of Electrical and Electronics Engineering** received a cash award of Rs.25,000/- as a token of appreciation from our Pro Chancellor Shri. M.S. Faizal Khan towards Research publications. A consultancy amount of Rs.10,000 was received for sewage treatment plant. Three Research colloquiums were conducted. Dr.H. Vennila, Associate Professor has submitted an article titled “**Recent trends in computer applications**” for the magazine introduced by ICT academy. Dr.V.A Tibbie Pon Symon attended an FDP on smart grids. Dr.K. Muthuvel acted as an external DC member under Anna university during this period.

In the **Department of English** Dr. Princee, Assistant Professor, Department of English, St. Xavier’s College, Palayamkottai, Tirunelvli, Tamil Nadu, delivered a Guest Lecture on the topic ‘The Voice of Women in English Poetry’ on 03/03/2023. Intercollegiate Competitions – March 2023, with attractive Cash Awards to winners in Competitions, was organized by the Department on 29/03/2023 for the Arts and Science, and Engineering Colleges of Kanyakumari District. Dr.P. Deepa, Dr.J. Sheila, and Mrs.J. MathiVathani, attended a One Day Workshop on Research Proposal

Writing organized by NICHE on 18/05/2023. Faculty members O.M. Mohammed Yaseen, S.J. Jinu Sam and A. Ajin Monish, attended a Two Day Workshop on 'Art of Writing and Publishing Research Papers' on 19th and 20th May 2023 organized by NICHE. Dr.J. Chitra, Assistant Professor, Department of English, Scott Christian College (Autonomous) , Nagercoil, Kanyakumari District, delivered a Guest Lecture on the topic 'Etiquettes of Life' in the Department of English on 31/05/2023.

Electronics and Instrumentation Engineering department organised a National Level Technical Symposium "Inztrivo-2023" on 10-04-2023 and 11-04-2023. The department organized an International Conference on Control Instrumentation, Communication and Computational Technologies–ICCICCT2023 on 27-04-2023 and 28-04-2023. Dr.Branesh Madhavan Pillai, Research Professor, Centre for Biomedical and Robotics Technology (BART LAB), Faculty of Engineering, Mahidol University was the Chief guest. The faculty members of the department have attended four FDPs, one training programme, three workshops and four webinar programs. The faculty members have published 26 papers in international journals and conference proceedings.

The **Department of Fire Technology and Safety Engineering** celebrated National Safety Week under the theme **"**OUR AIM ZERO HARM" from 4th to 10th March 2023. The event was inaugurated by Dr.R. Perumalsamy, Pro-Chancellor & Dr.P. Thirumalvalavan, Registrar. As a part of National Safety Week, the Department of Fire Technology and Safety Engineering organised a Hands-on workshop– "Emergency Life Support" on 6th March 2023 in the department' smart class room. The workshop was headed by Mr.Y. Shalin Gijo, Department of Medical Surgical Nursing of NIMS Medicity. The main objective of the workshop was to provide an exposure about First Aid skills. Prof. I. James Dhinakaran Williams, Completed UK Grade Certification course "Safety Data sheet Awareness" conducted by The Knights of Safety™ Academy and the International Association of Chemical Safety UK. Dr.B. Bavanish, Associate Professor, FTSE has submitted a project proposal to DST- SERB Scheme under the title "Performance evaluation of Vertical flow Helical Turbine for rural electrification".

The following are the publications of the faculty members:

I. James Dhinakaran Williams, SaiMadhav, Athul, Alfin.S, "Design of Clean Agent Suppression System in Specific Confined Area", International Conference on Emerging Trends and Sciences, 2023, ISBN No.: 978-81-945891-4-3.

T. Jegan, P.S Sherlin Paul, Sai Ram S, Shanif T P, Stebin Anto A, Sivaprakash S "Occupational Health and Safety Management System", International Conference on Emerging Trends and Sciences, 2023, ISBN No.: 978-81-945891-4-3.

V. Mago Stalany, Akash Pratheep, Deepu Krishnan K, Adarsh S, Sudhikuttan S, Abhijit Geo Ajoi" Safety And Health Management In Chemical Industry" , International Conference on Emerging Trends and Sciences, 2023, ISBN No.: 978-81-945891-4-3.

V. SureshBabu, B. Gopalakrishnan, Joshua James Roy, Harikrishnan, S. Devan "Implementation of Behaviour Based Safety in an Organization", International Conference on Emerging Trends and Sciences, 2023, ISBN No.: 978-81-945891-4-3

Dr. B. Bavanish, Askin S Frank, AswinUnni, Deepan R "Risk Assessment In Construction Site", International Conference on Emerging Trends and Sciences, 2023, ISBN No.: 978-81-945891-4-3.

P. Albert Seldon, P.S Sherlin Paul, Aibin Sam Roy, Ashwin Suresh, Muhammed Yaseen J. Vishnu Ravindran, Vysakh B Vijayan "Assessment of Landslip Hazard and Risk for a Natural Gas Pipeline Venture", International Conference on Emerging Trends and Sciences, 2023, ISBN No.: 978-81-945891-4-3.

R.Rajesh, Arun Kumar S, J. Ram Kumar M, Vignesh Mukesh T Ravichandran" Hazard Identification and Risk Assessment in Construction Site", International Conference on Emerging Trends and Sciences, 2023, ISBN No.: 978-81-945891-4-3.

S.JenkinsHexleyDhas, Manoj Kumar, S.Aravind, R.Godwin, AbineshKrishnan, Thowfeek Ali "Hazard Identification And Risk Assessments in Construction Industry", International Conference on Emerging Trends and Sciences, 2023, ISBN No.: 978-81-945891-4-3.

Three Students have been nominated to conduct Safety Audit and Inspection at MTC Polymers and Packages (Process Industry), Sivakasi on 18.03.2023. The students received an appreciation certificate from the Managing Director of the Industry. 15 Students from the department participated in the National Level workshop on "Safety Building Envelope" on 17.03.2023 at L & T Construction, Chennai. This workshop provided an excellent exposure about National Building Codes and Construction Safety.

Totally 25 students and two faculty members have undergone one day Industrial Training at Nuclear Power Corporation of India Ltd (NPCIL) on 05th APRIL 2023. It

provided an excellent exposure about Nuclear Engineering Operation & Safety.Totally 12 students have undergone Industrial Training at Tuticorin Thermal Power Station (TTPS) from 24th to 28th April 2023 (5 Days). It provided an excellent exposure to our students for safety in Thermal Power Plant. The Department of Fire Technology and Safety Engineering & Automobile Engineering organized an international conference under the title “Emerging Trends in Technology and Sciences on 3rd& 4th May 2023 at our green campus. The Function was Inaugurated by Shri. Nzeyimena Bhahati Shaban, an Industrial Safety Expert, Rwanda, Africa. A special guest address was delivered by Shri. J. Danish Paulin, Director, OnYX Green motors, Nagercoil. The Chief Guest Shri. Nzeyimena Bhahati Shaban, Rwanda delivered the keynote address under the title “Fundamentals of Industrial Safety” to the participants. More than 100 participants from research, academic institutions and PG Scholars presented their research findings through this platform.

The **Information Technology Department** has ten faculty members with most of them having completed their research. They have published two Scopus indexed and one SCI indexed journal publications and also 5 publications in international and national conferences during this period Research Colloquium is conducted once in a month, where every faculty member is given a chance to present their research contribution. The Department organized a Seminar on National Education Policy on 28-03-2023 in the IT Smart Classroom. Dr.E. James Reynold Daniel, Former Principal, Scott Christian College, Nagercoil, graced the occasion. The Department organized a Guest Lecture on Machine Learning Diabetes Prediction on 18-04-2023 in the IT Smart Classroom. Mr.S.N. Sujith, AI Expert, Networkz Systems, Nagercoil, graced the occasion. The Department in association with Noorul Islam Alumni Association (NIAA) organized an Alumni Interaction event on 18-04-2023 in the IT Smart Classroom. Alumnus, Mr.D. Toms Edison, (student of IT, 2000 – 2004 Batch), currently employed as Director, Zitraar Technologies, Tenkasi graced the occasion.

The **Department of Mechanical Engineering** organised 7 Guest lecturers and two workshops in this period inviting experts from various reputed institutions. In order to improve the research, six research colloquiums were organized. The faculty members had undergone 8 FDPs organised by various reputed organization. Three patents have been granted to the staff members. The faculty have published 5 SCI indexed papers and 4 Scopus indexed papers. The department has produced 3 Ph.Ds during this period. One International conference was conducted during this period.

Placement drive was arranged to our students and 61 students were placed in reputed companies like JBM auto ltd, TVS Sundram Fasteners, V drat, Tech Mahindra. During this academic year full revision in PG syllabus was done including competent latest technology used in industries. The Department has signed 2 MOUs. One faculty has been nominated as an advisory member for mechanical department in Baselios Mathew-II College of Engineering, Kollam. In order to expose the hidden talents of the students, a mega carnival on “Mechotorque -2k23” was conducted on 11/01/23 and 12/01/23. The department conducted one professional development program for the faculty members.

The **Department of Mathematics** conducted an International Conference on Emerging Trends in Mathematical Sciences and Applications on 26-04-2023. The department has organized three guest lectures and three colloquiums. Faculty members have attended one FDP and published one research publication during the period.

The **Faculty of Management Studies (FMS)** had a productive academic year from June 2022 to May 2023, enriched with various activities to foster a well-rounded educational experience for students. The academic year commenced with a Societal Connect Programme on June 24, 2022, at Providence Home, Perumchellampu, emphasizing the link between academia and society. Celebrations for Teacher's Day and Onam took place on September 5, 2022, along with a Marketing Campaign on 2nd and 3rd September, which broadened students' understanding of the subject. Students were offered culinary and cultural experiences during the Food Fest hosted by the MBA Department on October 21, 2022. An insightful Alumni Interaction was conducted in the MBA Smart Classroom on November 21, 2022, followed by a lecture on 'Trends in Marketing' by Mahesh Kutralam, Assistant Professor at MS University, Thirunelveli, on December 15, 2022. Outbound Training at the NICHE Campus was provided by Mr. Rajkumar, CEO of Seiger Groups, and his team from December 6 to 8, 2022. A second Societal Connect Programme, held on December 23, 2022, at Providence Home, Perumchellampu, reaffirmed the department's commitment to community engagement. The new year began with a Managerial Competency Programme and Digital Interactive Board Inauguration on January 11, 2023. Insight into global logistics was given by Jimojose Joseph A.M., Executive Officer at Maresk, on February 9, 2023, and a debate on 'Experiential Learning vs. Classroom Learning' was held on February 23, 2023, moderated by motivational speaker and professor, Pagai Kannadasan. March saw a talk by Glenn Roger Carr, Co-Founder and Director at Finmark Trainers India Pvt. Ltd,

on careers in the capital market on March 15, 2023, and a discussion on Entrepreneurial Development by Dr. V.R. Planivelu, a Professor at Periyar University, on March 10, 2023. April featured a two-day session on Design Thinking and an Alumni Interaction led by Dr. A. Manoj, Head of ICT Academy, from April 18 to 19, 2023, and an industrial visit to VVVD & Sons Edible Oils Limited, Virudhunagar, on April 10, 2023. The academic year concluded with a two-day Faculty Development Programme on 'Research Publications & Citation Promotion' on May 30th and 31st, 2023, facilitated by Dr. M. Chandra Sekaran, a Professor at Nadar Mahajana Sangam S Vellaichamy Nadar College, and Dr. C.P. Aramasivan, President at IARA. These activities created a comprehensive educational experience, combining academic rigor with practical exposure and cultural enrichment.

The **Department of Marine Engineering** celebrated the Maritime Day on 5th April 2023, with the events Flag Hoisting Parade in Marine Ground, Quiz competition, Elocution competition and Badminton matches. As Extracurricular Activity, six Students were selected & they Participated in AMET University, Chennai, for Presenting Papers and participating in various events in Marine Traffic 2023 on 25th & 26th April 2023. The Department conducted a National level technical Symposium HORIZON 2K23 on 02-05-2023 at the AC Auditorium. The Event Started with Flag Hoisting by the Chief Guest Captain. P. Bennet Singh, Pilot, VOC Port Authority, Tuticorin, with the events Technical Paper Presentation, Inter College Quiz, and Marine Treasure Hunt. Two PTA Meetings were conducted on 5th May & 15th May 2023. Two Guest Lectures were conducted, on 15th May 2023 by Mr.E. Jonie Stevans, Marine Environmental Technician, Carnival Cruise Line and on 8th June 2023 by Razak Yusuff, Second Officer, Managing Director, Sumaiya Shipping Services, Chennai.

The Department Faculty members published two research papers in SCI Journals, one by Dr.S. John Leon, and another by Dr.K.S. Jai Aultrin. The Department Presented 16 International Conference publications of which 14 papers are by faculties and 2 by Marine students. Two Faculty members acted as conference Judges in International Conferences on 3rd& 4th May 2023. The Department Faculty members attended online Faculty Development Program, Webinars & Short-Term courses (Total: 3+6+1 = 10). Mr.K. Satheesh Babu has successfully completed the Vertical Integration Course for Trainers (VICT) during 15-05-2023 to 25-05-2023 in the Naval Maritime

Academy West, Mumbai. The department conducted Research Colloquium every month and altogether 3 Research Colloquiums were conducted.

The **Department of Nano-Technology organized a** two days Workshop on Nanotecnology and Its Applications in Biological Sciences on 9th & 10th March 2023 and a One day workshop on UV-Visible and Raman Spectroscopy, on 15th March 3023. The following Guest Lectures were delivered by the faculty members Dr.M. Prabu, Guest Lecture at Noorul Islam Arts and Science College, Kumaracoil, with a title "Applications of Carbon Based Materials in Biology; Dr. R. S. Rimal Isaac, Guest Lecture at Sree Ayyappa College, Nagercoil on the topic "Tableau for Data Analytics" on 18th April 2023; Dr.R.S. Rimal Isaac, Guest Lecture at Holy Cross College, Nagercoil, on the topic "Intellectual Property Rights (IPRs) and IP Management for Startup" on 18th April 2023; Dr.R.S. Rimal Isaac, Chief Guest and Keynote Speech at the International Conference on Emerging Trends in Materials, Energy, Electronics and Information at PSN Institute of Technology and Science, Tirunelveli on 21 April 2023; Dr.S. Gobalakrishnan, Session Chair at the International Conference on Emerging Trends in Materials, Energy, Electronics and Information at PSN Institute of Technology and Science, Tirunelveli on 20 April 2023; Dr.R.S. Rimal Isaac, Career Guidance Talk at Malankara Catholic College, Chenkavila on 15 April 2023.

The faculty members have published the following research papers:

R.S. Rimal Isaac, Synthesis and characterization of copper doped nickel ferrite nanoparticles effect on magnetic properties and visible light catalysis for rhodamine dye degradation mechanism, Journal of Alloys and Compounds, T.K. Sreeja, MagnetodielectricNanocomposite Antenna for Triple Band Including 5G, Wireless Personal Communications,

S. Gobalakrishnan, Tailoring Ultraviolet Band Absorption and Emission Features of ZnO Nanoparticles Through the Crystallite Size and Lattice Strain Modulation: Role of Yttrium Ions, Physica Status Solidi B Basic Research, S. Balamurugan, Micro-structural, thermal, and optical properties of nanostructured $CaMoO_4$ materials screened under different processes, Results in Chemistry, SCI

S. Balamurugan, Comparison of the synthesis of s, p, d, and f block simple oxides of MgO, SnO2, NiO, and CeO2 nanostructured materials, Results in Chemistry, SCI

S. Balamurugan, Combustion Synthesis of Copper-Doped Perovskite δ Nanomaterials and its Potential Application on Hydroxylation of Anisole, a Biomass Model Component, Materials Today Sustainability

S. Balamurugan, Molybdenum Incorporated Strontium-Iron and Strontium-Cobalt Perovskites: Preparation and Their Application on Oxidation of Iso-Eugenol into Vanillin, European Journal of Inorganic Chemistry

Praseetha P.K, Sustainable Environmental-Based ZnO Nanoparticles Derived from Pisoniagrandis for Future Biological and Environmental Applications, Sustainability Journal of the Korean Ceramic Society,

Praseetha P.K Porous chitosan-infused graphitic carbon nitride nanosheets for potential microbicidal and photo-catalytic efficacies, International Journal of Biological Macromolecules, ,

M. Prabu, Tuning the physical properties of Sb-doped ZnOnanopowders toward elevated photosensing and photocatalytic activity, Journal of the Korean Ceramic Society,

M. Prabu, Amalgamation of rare-earth neodymium ions with ZnO nanoparticles: extensive investigations into the microstructure and optical properties, Semiconductor. Science and Technology,

S. Gobalakrishnan, Influence of molybdenum doping on the magnetic properties of ZnSnanocrystals. Applied Physics A,

S. Gobalakrishnan Synthesis and characterizations of GCN (Graphitic Carbon Nitride) and ZnO modified GCN, INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES IN ENGINEERINAND APPLIED SCIENCES (ICETEAS 2023), Proceedings S. Gobalakrishnan Graphene Oxide as a Novel Absorbent for Industrial Pollutant, INTERNATIONAL CONFERENCE ON EMERGING TECHNOLOGIES IN ENGINEERING AND APPLIED SCIENCES (ICETEAS 2023), Proceedings.

The faculty members have applied for 5 research projects and attended eight conferences and FDPSs.

The **Department of Physics** organised a CSIR sponsored National Conference on Materials Science and Green Technology (NCMSGT-23) during 9th and 10th March 2023. A total of 90 abstracts were received from participants across the country. There were a total of 118 participants. Dr.Renjith S, Scientist 'B' of Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum, delivered the key note address on the topic Ionic liquids and their biomedical applications. Dr.Reena VL, Research Officer in Central Council for Research in Siddha delivered a technical talk on characterization tools for nanomaterials. Dr.Sharu B.K., Assistant Professor, NIT Calicut delivered a talk on Turning CO_2 into 3D-printed Concrete absorption using 3D. Oral and poster

presentations were conducted. A Gender Sensitization program was conducted on 23rd May 2023 by the Internal Complaints Committee. Advocate Ms.Susheeladevi from Nagercoil District court, was the resource person. This program was to sensitize the students, scholars and employees to make them aware of the provision of sexual harassment of women at workplace (Prevention, Prohibition and Redressal) Act, 2013. A total of 81 participants were benefitted by the program..

Four project proposals were submitted to CSIR-ASPIRE and DST-SERB by Dr. B. Bindhu, Prof.& Head, and Dr.V.N. Meena Devi, Assoc. Professor. The department has published 2 articles in Scopus and one article in SCI indexed journal and 9 conference proceedings during the period. The department has produced three Ph.Ds. during this period. The department initiated signing MOUs with Monotech Systems Limited, solution providers to 3D printing and Biomeitez Research and Development private Limited. Dr. B. Bindhu, served as an external expert in the BOS meeting and external DC member at Sadakathullah Appa College, Tirunelveli. Two of our students Ms. M. Aiswarya and Ms. D. V. Vidhya Krishna received placement offer letter from Tech Mahindra Ltd. Chennai. Five of first year M.Sc. Physics students underwent one week Skill development and training programme on “Solar Energy Technologies: Fundamentals to Device Fabrication from 12-16 June 2023 at CSIR- CECRI Karaikudi. Six students of S4 M.Sc. Physics, participated in the National Seminar on Recent Trends in Physics (NSRTP-2023), organized by Department of Physics of Lekshmipuram College of Arts & Science, Neyyoor on 11-04-2023. Five of first year M.Sc. Physics Students attended a one day workshop on Introduction to IPR on 26-05-2023, organized by Institutions Innovation Council in collaboration with IQAC of NICHE.

Mrs.Smitha H, Assistant Professor, Department of Physiology, SreeGokulam Medical College and Reasearch Foundation, Thiruvananthapuram delivered a talk on “Science of MRI: Exploring the Physics and Clinical Applications” on 24-04-2023. Dr.P. Libin Raj, AP/ Physics, M.S University, Tirunelveli delivered a talk on Exploring Shadows on 13-05-2023. All faculty members of Physics department attended an International Faculty Development Program on “Advanced Materials for Technological Applications” organized by the Department of Physics, Sathyabama Institute of Science and Technology in Online mode (ZOOM) from 24th March to 4th April 2023 for a period of 10 days. An extension activity- Beach cleaning drive was conducted on 20-04-2023 at Sanguthurai Beach. Dr.V.N. Meena Devi / ASP, Dr. C. Sagi Rani / AP, Dr. N. Y. Sugirtha Suni / AP and Mrs. P. Asha / TA attended a one day workshop on “Research

Proposal Writing: Strategies to Secure Research Grants" organized by the Board of Research Development and Consultancy and Research Development Cell of NICHE on 18th May 2023. They also attended two days 'Workshop on Art of Writing and Publishing Research Papers in Scholarly Journals', organized by the Board of Research Development and Consultancy and Research Development Cell of NICHE on 19th and 20th May 2023. Mrs. P. Asha, TA attended a 12 days Workshop on Research methodology, Publication and Ethics for Ph.D research scholars, Organized by the Board of Research Development and Consultancy and Research Development Cell of NICHE from 22th May to 3rd June 2023.

In the **Department of Software Engineering** Dr.J.P. Jayan, Associate Professor & Head, Dr. S. Jerine, Dr. R. I. Heaven Rose, Dr. V. Alan Gowri Phivin, Associate Professor Software Engineering filed a Patent "IoT based Food Processing Techniques" on 14-3-2023 with Application No: 202331041409**.**

Dr.J.P. Jayan, acted as the Chief Guest for the National Level Technical Symposium TechCA23 at the Department of Computer Science, Muslim Arts College, Thiruvidancode on the 24th February 2023.

Dr.J.P. Jayan, and Dr.S. Jerine attended 5 days online FDP on "Innovative Applications with advanced computing" at Dr. MGR University, from 24-04-2023 to 29-04-2023.

Dr.J.P. Jayan, Dr.S. Jerine, Dr.R.I. Heaven Rose, Dr.V. Alan Gowri Phivin attended 5 days FDP on Cloud Practitioner, conducted by the Department of CA, NICHE jointly with ICT academy Tamilnadu on 27 March 23 to 31 March 23.

Dr.J.P. Jayan, Dr.S. Jerine, and Dr.R.I. Heaven Rose, published 12 research articles in National / International conference proceedings conducted at NICHE. The Department of Software Engineering conducted "IoT home automation" project based workshop on 13th February 2023 in the department smart class room.

On this occasion, I thank our Honourable Chancellor Dr. A. P. Majeed Khan, for his guidance and support all along. Further, I wish to thank on your behalf and on my own behalf, the Honourable Pro-Chancellor Mr. M.S. Faizal Khan for his continued interest and help in all our endeavors. Now may I request the Honourable members to take up the agenda one by one and participate in the deliberations.

Business brought forward by the Boards of Studies:

1. On behalf of the Board of Studies in Mathematics, the meeting of which was held on **19.06.2023**, the Chairman of the Board **Prof. Dr. M. Imaculate Mary** moved the Revised Curriculum and Syllabi of First and Second semesters **ME/MTech, MBA, MCA Programmes** for the students admitted in 2023-24 Vide **Appendix FYP-MA** .

   The Board of Studies Meeting was conducted on 19th June 2023.

   Dr. M. Imaculate Mary observed that

   The syllabus of Optimization Techniques and Operations Research for Management for MBA Programme was changed. The syllabus of Mathematics subjects for M.E. (2 year) Programme and the syllabus of Mathematics paper for MCA Programmes were modified. The curriculum and syllabi of B.Sc. (Hons.) (4 year) programme was framed.

   Regarding MBA Programme, the suggestion to introduce the new topics in Quantitative Techniques and Operations Research for Management was accepted.

   Based on the feedback the units First and Second Order Partial Differential Equations & Finite Element Analysis were added in the course Advanced Numerical methods.

   As per the suggestions, the course Applied Probability and Statistics was introduced instead of Operations Research was included in M.E. Computer science.

   Regarding M.E. Applied Electronics, M.E. Communication Systems, M.E. Control and Instrumentation and M.E. Nanotechnology Programmes, the suggestion to introduce Linear Algebra in the course Advanced Mathematics. Was accepted

   Regarding M.E. Structural Engineering, as per the feedback, Application of Transforms and Simulation were added in the course, Advanced Mathematics for Structural Engineering which was renamed as Mathematical Methods for Structural Engineering.

Dr. P. B. Sarasija seconded the motion and the above items were approved.

2. On behalf of the Board of Studies in Mechanical Engineering, the meeting of which was held on **30.05.2023**, the Chairman of the Board **Prof. Dr. R. Rajesh** moved the Revised Curriculum and Syllabi of fifth and sixth semesters **B.E. Mechanical Engineering Programme** for the students admitted in 2021-22 vide **Appendix ECU-M.E.** and the Revised Curriculum and Syllabi of first and second semesters **M.E. Computer Integrated Manufacturing** and **M.E. Thermal Engineering** for the students admitted in 2023-24 Vide **Appendix PSY-ME**.

   The Board of Studies meeting of Mechanical Engineering was held on 30-5-2023 **Dr. R. Rajesh observed that** the following changes were made:

B.E. Mechanical Engineering

Semester V

Unit-I

In unit I, the heading "Dynamic Force Analysis and Flywheel Members" was changed as "Dynamic Force Analysis and Flywheel"

ME32XX Energy Conservation Technology

In this subject, title "Energy Conservation Technology" was changed as "Energy Conversion Technology".

Unit IV

The title "New Energy Conversion Technologies" was changed as "Unconventional Energy Technologies".

Semester VI

ME32XX Mechanical Measurement and Metrology

Unit I

The title "Introduction about precision and accuracy" was changed as "Introduction to Metrology".

ME32XX Heat and Mass Transfer

Unit I

Introduction to conduction topic was removed.

ME32XX Design of Machine Elements.

Unit I

Title “Steady stresses and variable stresses in machine members” was changed as “Steady and variable Stresses in Machine Elements”.

Unit IV

The word punching was removed.

M.E. Computer Integrated Manufacturing

Semester I

The subject name “Advanced Mathematical Optimization” was changed as “Optimization Techniques”.

The subject “Solid Free Manufacturing Process” was removed and the subject “CAD/CAM” was added.

The subject CIM was added.

Semester II

The subject name “Manufacturing planning and Control System” was changed as “Manufacturing Planning and Control Optimization”.

The subject name “Advanced Metrology” was changed as “Computerized Metrology”.

The name Advanced Metrology Laboratory was changed as Computerized Production Planning Metrology Lab.

Semester III

The subject “Design for Manufacturing and assembly Systems” was added and the subject “Advances in Manufacturing Technology” was removed.

M.E. Thermal Engineering

Semester I

The subject name “Experimental Methods in Thermal Engineering” was changed as “Instrumentation for Thermal Engineering”.

Semester II

The subject name “Industrial Heat and Mass Transfer” was changed as “Advanced Heat and Mass Transfer”.

Semester III

The subject name “Recent Trends in Energy Conversion Technology” was changed as “Advanced Energy Conversion Technology”.

The subject “Audit Course” was changed as “Audit Course-Industrial Internship”.

Mr. I. James Dhinakaran Williams seconded the motion and the above items were approved.

3. On behalf of the Board of Studies in Civil Engineering, the meeting of which was held on **12.06.2023**, the Chairman of the Board **Prof. Dr. Y. Stalin Jose** moved the Revised Curriculum and Syllabi of fifth and sixth semesters **B.E. Civil Engineering Programme** for the students admitted in 2021-22 vide **Appendix ECU-CV** and the Revised Curriculum and Syllabi of first and second semesters **M.E. Structural Engineering Programme** for the students admitted in 2023-24 Vide **Appendix PSY-CV** be approved.

The Board of Studies meeting of Civil Engineering was held on 12-6-23 and
Dr. Y. Stalin Jose observed that the following changes were made:

In the Subject “Advanced design of structures” “Different Types of retaining wall-Proportioning the retaining walls and determining the Lateral earth pressure on Retaining walls**”** was added in unit –I and the topic Design of base slab and side wall.” in unit-II was added. The topic Durability Requirements and Triangular slabs from Unit-III was removed.

In the subject **"**Design of Reinforced Cement Concrete elements " the topic "Concept of working stress method, ultimate load design and limit state design methods for RCC-Properties of concrete and reinforcing steel" in unit-I, "Design of RC members for combined bending" in Unit –II, "Design of rectangular, square and circular columns" in Unit – III and "Design of square footing" in Unit- V. were added. The topic "Flanged beams" in Unit – II was removed.

In the subject Design of Steel Structures "Introduction to steel and steel structures" in unit-I and "Tension members" in Unit – II, "simple and compound beams" in Unit- IV and "design of roof trusses- types" in Unit- V. were added.

In the subject "Estimation and quantity surveying" the topic "culverts – estimating of irrigation works" from the unit-II. was removed**.**

In the subject" Irrigation Engineering" "Role of Irrigation, Irrigation Development".'" Subsurface drip irrigation" in unit-II . 'Causes of failure of dams and its remedies ' in Unit –III. 'canal automation for irrigation system' in Unit IV. 'Remote sensing technologies to enhance water management'in Unit – V. were added.and the topic 'Lift irrigation' in Unit –II and "weirs on pervious foundations" in Unit –III.were removed.

In the subject "Geographical Information System" 'Machine Learning. In unit one ' 'Uncertainty in spatial data' unit III, "Strengthening Rural Areas and control" in unit IV "CAD/GIS integration - Use Python in Arc GIS applications" in unit V. were added and the topic "Cost and path analysis – Expert Systems" in unit II, "Social Resources" in Unit –IV. "Multi criteria Techniques" in Unit – V were removed.

One laboratory subject (Practical Training in the Third semester), and Two main Subjects in the Second Semester (Experimental Techniques and Instrumentation and Advanced Concrete Technology) were added

The followingl Elective subjects were added in the M.E- Structural Engineering Curriculum

a. Design of Shell And Spatial Structures
b. Design of Composite Construction
c. Offshore Structures

d. Smart Structures and Smart Materials

e. Theory of Plates

*Textbooks and Reference books were updated with latest editions.

Dr. R. Subramania Pillai seconded the motion and the above items were approved.

4. On behalf of the Board of Studies in **Electrical and Electronics Engineering**, the meeting of which was held on **15.06.2023**, the Chairman of the Board **Prof. Dr. J. Arul Linsely** moved the Revised Curriculum and Syllabi of Fifth and Sixth semesters **B.E. Electrical and Electronics Engineering Programme** for the students admitted in 2021-22 vide **Appendix ECU-EE** and the Revised Curriculum and Syllabi of First and Second semesters **M.E. Applied Electronics Programme** for the students admitted in 2023-2024 Vide **Appendix PSY-EE**.

The Board of Studies Meeting was conducted on 15th June 2023

Dr. J. Arul Linsely observed that the following course –wise changes were made as per the feedback.

4.1. Protection and switch gear (sem -5)

i. UNIT-I title was renamed as “PROTECTION SCHEMES’ and the last two topics “Protection schemes-Representation of power system protection layout with all protection schemes” were removed and the new topics “Types of Protection schemes - Power system Grounding and Methods of Grounding” were added.

ii. UNIT-II title was renamed as “BASICS OF RELAYS” and the new topics “Universal torque equation - R-X diagram –Electromagnetic Relays” were added as the second topic and the topics “frequency relays– static relays-Earth fault relay-Introduction to numerical relay” removed and in UNIT-IV the topic “Negative sequence and under frequency relays” was added.

iii. The title of UNIT-III was renamed as “OVERVIEW OF EQUIPMENT PROTECTION”, The last topic “CTs and PTs and their applications in protection schemes” were changed as the first topic and the first topic “Equipment protection: transformer, generator, motor, bus bars and transmission lines” was changed as the last topic.

iv) UNIT-V. The contents of IV unit was merged with UNIT V in the sequential order.

4.2. Control systems ((sem -5)

i) UNIT-II title was renamed as “TIME DOMAIN ANALYSIS” and the contents of UNIT-IV “ and . UNIT-III be combined and titled as “FREQUENCY DOMAIN ANALYSIS”. The last topic. “Correlation between frequency domain and time domain specifications” was removed and the topic “Effect of adding lag and lead compensators” was added.

ii) UNIT-IV “STATE VARIABLE ANALYSIS” was introduced as a new unit with the topics “State variable formulation – Non uniqueness of state space model – State transition matrix –Eigen values – Eigen vectors - Free and forced responses for Time Invariant and Time Varying Systems –Controllability — Observability”

iii) UNIT-V was renamed as “DESIGN OF FEED BACK CONTROL SYSTEM” and the topics “PID controller - PID control in State Feedback form” were included.

4.3. Power system-i (sem-5)

The new course “POWER SYSTEM-I” was introduced in Regulation 2021.

i. In UNIT-I “Overview and modeling of power system”

ii. UNIT-II h “Importance and different methods used in power flow analysis”.

iii. In UNIT-III “Importance of short circuit analysis-Balanced Fault”.

iv UNIT-IV. “Unbalanced Fault for different line conditions”

v. UNIT-V “ Power system stability and methods for improving stability”

4.4. Control system laboratory(sem-5)

Experiment no.9 “Study of stepper motor” and Experiment no.10 “.Study of speed control system” were added.

4.5. Power system laboratory - I (sem-5)

Power system laboratory-I is modified as follows.

“POWER SYSTEM SIMULATION LAB “ was modified and renamed as “POWER SYSTEM-I LABORATORY” and introduced new experiments as below:

Experiment No.7 “Performance analysis of impedance relay” ,

Experiment No.8 “Testing of CT, PT, and Insulator string”,

Experiment no.9 “Relay Coordination in Radial Feeder ProtectionScheme”,

Experiment no.10 “Digital Over Current Relay Setting and Relay Coordination Using Suitable software packages”,
Experiment No.11 “Co-ordination of over-current and distance relays foradial line protection”.

4.6. Measurement and instrumentation (sem-6)

“ELECTRICAL MEASUREMENTS AND INSTRUMENATION” subject was renamed as “MEASUREMENT AND INSTRUMENATION” in Regulation 2021.

The course was modified as follows.

All the five units were entirely modified and renamed with different titles as below:.

UNIT-I “CONCEPTS OF MEASUREMENTS”,
UNIT-II “MEASUREMENT OF PARAMETERS IN ELECTRICAL SYSTEMS”,
UNIT-III “AC/DC BRIDGES AND INSTRUMENTATION AMPLIFIERS”,
UNIT-IV“TRANSDUCERS FOR MEASUREMENT OF NON- ELECTRICAL PARAMETERS” and
UNIT-V “DIGITAL INSTRUMENTATION”

4.7. Power system-II (sem-6)

The new course “POWER SYSTEM-II” is introduced in Regulation 2021.

The course content is as below.

i. In UNIT-I “INTRODUCTION”

ii. UNIT-II “POWER FLOW ANALYSIS”.

iii. In UNIT-III “OPTIMAL POWER FLOW”.

iv. UNIT-IV “SHORT CIRCUIT ANALYSIS”

v. UNIT-V “TRANSIENT STABILITY ANALYSIS”.

4.8. Solid state drives (sem-6)

“SOLID STATE DRIVES AND CONTROL” subject was renamed as “SOLID STATE DRIVES” in Regulation 2021.
The modified course content is as below.
UNIT-I “PERFORMANCE OF ELECTRIC DRIVES”,

UNIT-II “PHASE CONTROLLED DC DRIVES”,
UNIT-III “CHOPPER CONTROLLED DC DRIVES”,
UNIT-IV“INDUCTION MOTOR DRIVES” and
UNIT-V “SYNCHRONOUS MOTOR AND SPECIAL MACHINE DRIVES ”

4.9. Electrical measurements and instrumentation (sem-6)

“ELECTRICAL MEASUREMENTS AND INSTRUMENATION LABORATORY” was renamed as “MEASUREMENT AND INSTRUMENATION LAB” in Regulation 2021 and the course was modified as below:
In Experiment No.8 “Schering bridge and Anderson bridge” was removed.
Experiment No.10 “Schering bridge” was added.
Experiment No.11 “Measurement of power using two wattmeter method”.

4.10. Power system laboratory – II (sem-6)

“POWER SYSTEM-II Lab” was introduced.

Lab experiments were integrated with Unit commitment problem, Economic Dispatch, Automatic Generation control, Soft Computing Techniques, Solar PV & Wind Simulation, Power grid etc..

4.11. Electronic Design Laboratory (sem-6)
Added Experiments:
Experiment no.3 “Wien Bridge Oscillator”
Experiment no.5. “Colpitts Oscillator”,
Removed experiments
“Double and Stagger tuned Amplifiers “,
”Schmitt Trigger circuit with Predictable hysteresis”,
“Analysis of power Amplifiers”.

4.2. PROGRAM ELECTIVES:

4.2.1. Special electrical machines

This course was modified as follows compared with regulation 2017.
UNIT-I “STEPPER MOTOR"
UNIT-II “SWITCHED RELUCTANCE MOTORS “
UNIT-III “PERMANENT MAGNET BRUSHLESS D.C. MOTORS”
UNIT-IV “PERMANENT MAGNET SYNCHRONOUS MOTORS”
UNIT-V “STUDY OF OTHER SPECIAL ELECTRICAL MACHINES”.

4.2.2 Biomedical instrumentation

A new Elective subject “BIOMEDICAL INSTRUMENTATION” was introduced.

4.2.3. High voltage direct current transmission

This course was modified as compared to regulation 2017.

Dr. P. Sujatha Therese seconded the motion and the above items were approved.

5. On behalf of the Board of Studies in **Computer Science and Engineering**, the meeting of which was held on **17.06.2023**, the Chairman of the Board **Prof. Dr. V.G. Ranjith** moved the Revised Curriculum and Syllabi of Fifth and Sixth semester **B.E. Computer Science and Engineering Programme, B.E. Artificial Intelligence and Data Science** for the students admitted in 2021-22 vide **Appendix ECU-AI**, the Curriculum and Syllabi of Seventh and Eighth semesters **B.E. Artificial Intelligence and Data Science** for the students admitted in 2020-21 vide **Appendix ECU-AI** , and moved the Revised Curriculum and Syllabi of First and Second semesters **ME Computer Science and Engineering Programme** for the students admitted in 2023-24 Vide **Appendix PSY-CS**.

The Board of Studies Meeting was conducted on 17th June 2023 and **Dr. V.G. Ranjith** observed that the following changes were made.

CHANGES OR MODIFICATIONS INCORPORATED

R2017 B.E Artificial Intelligence and Data Science Semester 7 & 8

- The seventh and eight Semesters of B.E Artificial Intelligence and Data Science for the Regulation R2017 was framed.
- Syllabus was finalized for the following subjects in S7 B.E AI & DS.
    - Ethics in AI
- Syllabus was finalized for the following electives in S7 B.E AI & DS.
    - Virtual and Augmented Reality
    - Embedded Systems and IOT
    - Cryptocurrency and Blockchain Technologies
    - Optimization Techniques
    - Health Care Analytics

- Digital and Mobile Forensics.

- The elective Internet of Things of S8 B.E CSE R2017 was also included as an elective for S8 AI & DS of R2017,
- The syllabus was finalized for other subjects of R2017,
    - Data Exploration and Visualization
    - Virtualization
    - Robotic Process Automation
    - Genetic Algorithms
    - Security and Privacy in Cloud

R2023 M.E Computer Science and Engineering

- The curriculum and syllabus for the new regulation R2023 of M.E Computer Science and Engineering was framed.
- The syllabus for the following subjects were revised for S1 M.E CSE of R2023,
    - Advanced Operating System
    - Advanced Data Structures and Algorithms Laboratory.
- The following list of electives of S1 M.E CSE of R2023 were revised,
    - Digital Image Processing
    - Bio Informatics
    - Embedded Systems
    - Data Mining Techniques
    - Software Quality Assurance
    - Parallel Algorithms
- The following laboratory included in S2 M.E CSE of R2023 was revised.
    - Cloud computing Laboratory

R2021 B.E Computer Science and Engineering Semester 5 & 6

- Based on the agenda the syllabus for the fifth and sixth Semesters of B.E **Computer Science and Engineering** for the new Regulation R2021 was framed.
- Syllabus was finalized for the following subjects in S5 B.E CSE.
    - Block Chain Technologies
    - Artificial Intelligence and Applications
    - Web Technologies
    - Microprocessors and Microcontrollers.

- Syllabus was finalized for the following laboratories in S5 B.E CSE.
    - Web Technologies Laboratory
    - Microprocessors and Microcontrollers Laboratory
- Syllabus was revised and finalized for the following subjects in S6 B.E CSE.
    - Compiler Design
    - Cloud Computing Techniques
- Syllabus was finalized for the following laboratories in S6 B.E CSE.
    - Compiler Design Laboratory
    - Cloud Computing Laboratory
- Syllabus was finalized for the following electives in S5 B.E CSE.
    - Datawarehousing and Data Mining
    - Exploratory Data Analysis
    - Recommender System
    - Foundations of Data Science
    - Image and Video Analytics
- The subject Principles of Programming Languages is replaced with the subject Optimization Techniques in the elective list of R2021 S5 B.E CSE.
- Syllabus was finalized for the following electives in S6 B.E CSE.
    - Neural Networks and Deep learning
    - App Development
    - Software Testing and Automation
    - DevOps
    - Parallel Computing
    - Virtual and Augmented Reality
    - Multimedia and Animation
    - Video Creation and Editing
    - Computer Vision
    - Optimization Techniques

R2021 B.E Artificial Intelligence and Data Science Semester 5 & 6

- The syllabus for the fifth and six Semesters of B.E **Artificial Intelligence and Data Science** the new Regulation R2021 was framed.
- Based on the feedback from the expert and faculty, syllabus was finalized for S5 B.E AI & DS.

- The subjects Artificial Intelligence and Applications, Web Technologies and Web Technologies Laboratory are similar for both S5 B.E CSE and S5 B.E AI & DS.
- The syllabus was finalized for the following subjects in S5 B.E AI & DS.
    - Data Science
    - Scalable Systems for Data Science
- The syllabus was finalized for the Data Science Laboratory in R2021 of S5 B.E AI & DS.
- The list of electives included for S5B.E AI & DS were,
    - Knowledge Engineering
    - Agile Methodologies
    - Soft Computing
    - Business Analytics
    - Data Warehousing
- The subject Data Science Applications of NLP was renamed as Applications of NLP in Data Science.
- The subjects Cloud Computing Techniques, NLP Laboratory, Cloud Computing Laboratory are similar for both S6 B.E CSE and S6 B.E AI & DS.
- The subject Principles of Programming Languages is replaced with Text and Speech Analysis.
- The list of electives included for S6 B.E AI & DS are:
    - ANN and Deep Learning
    - Artificial Intelligence and Robotics
    - Embedded Systems and IOT
    - Text and Speech Analysis
    - Web Services and API
    - Game Theory for AI and Data Science
    - UI and UX Design
    - Bio-Inspired Optimization Techniques
    - Probabilistic Graphical Models
    - Visual Effects
- The list of subjects considered as Open Elective for S6,S7 and S8 B.E CSE and AI & DS are:
    - Fundamentals of Artificial Intelligence
    - Space Science

- Introduction to Industrial Engineering
- Food Nutrition and Health
- Environment and Social Impact Assessment
- Renewable Energy System
- Drone technologies.
- IT in Agricultural System
- Geographical Information System
- Industrial Hygiene
- Project Report Writing
- Medical Informatics

Dr. A. Shajin Nargunam seconded the motion and the above items were approved.

6. On behalf of the Board of Studies in **Electronics and Communication Engineering**, the meeting of which was held on **17.06.2023**, the Chairman of the Board **Prof. Dr. T. Gopalakrishnan** moved the Revised Curriculum and Syllabi of Fifth and Sixth semesters **B.E. Electronics and Communication Engineering Programme** for the students admitted in 2021-22 vide **Appendix ECU-EC** and the Revised Curriculum and Syllabi of First and Second semesters **M.E. Communication Systems Programme** for the students admitted in 2023-24 Vide **Appendix PSY-EC**.

The Board of Studies Meeting was conducted on 17th June 2023.

Dr. T. Gopalakrishnan observed that the following new courses were introduced in the curriculum of Regulation 2023 for M.E Communication System.

S.No.	Name of the Course
1	Millimeter wave communication
2	VLSI for Wireless Communication
3	Information Theory and Coding
4	Smart Antennas
5	Wireless Adhoc and Sensor Networks
6	RADAR Signal Processing
7	Internet of Things
8	Co-Operative Communications
9	Machine learning and Deep Learning Techniques

New courses introduced in the B.E (ECE) curriculum of 2021 were,

SI NO.	Name of the Course
1	Computer Architecture and Microprocessor
2	Embedded Systems and IoT Applications
3	ARM Based Embedded System Design
4	Satellite Communication
5	Wireless Adhoc and Sensor Networks
6	Robotics Engineering

New open elective courses were introduced in the B.E (ECE) curriculum of 2021.

SI NO.	Name of the Open Elective Course
1	Fundamentals of Image Processing
2	Wireless Communication Techniques
3	Embedded System Design With ARM

In the new regulation 2023, the following changes were made in R2021 as per suggestions:

Advanced Radiation Systems

Advanced Digital Signal Processing

High Performance Communication Networks (HPCN)

Advanced Digital Image Processing

Microwave Integrated Circuits

Satellite Communication And Applications

Software Defined Radio

Optical Communication Network

Millimeter Wave Communication

VLSI For Wireless Communication

Information Theory and Coding

Smart Antennas

Wireless Adhoc and Sensor Networks

Radar Signal Processing

Internet of Things

Cooperative Communications

Machine Learning and Deep Learning Techniques

Computer Architecture and Microprocessor

Control System Engineering
Digital Communication
Linear Integrated Circuits
Electronics Circuits –II
Embedded Systems and IOT Applications
Optical Communication
Mobile Communication
Wireless Communication and Networks
Antenna and Wave Propagation
VLSI Technology
Satellite Communication
Nano Electronics
Digital Image Processing
Remote Sensing
Electronic Measurements and Instrumentation
Robotics Engineering
Computer Communication
Medical Electronics

Dr. R. S. Vinod Kumar seconded the motion and the above items were approved.

7. On behalf of the Board of Studies in Electronics and Instrumentation Engineering, the meeting of which was held on **27.05.2023**, the Chairman of the Board **Prof. Dr. S.S. Kumar** moved the Revised Curriculum and Syllabi of Fifth and Sixth Semester **B.E. Electronics and Instrumentation Engineering programme** for the students admitted in 2021-22 Vide **Appendix ECU-EI,** the Curriculum and Syllabi of Fifth and Sixth semesters **B.E. Robotics and Automation Engineering programme** for the students admitted in 2021-22 Vide **Appendix ECU-RO** and the Revised Curriculum and Syllabi of First and Second ssemesters **ME Control and Instrumentation Engineering** for the students admitted in 2023-24 Vide **Appendix PSY-EI**.

The Board of Studies Meeting was conducted on 27th May 2022. **Dr. S.S. Kumar** observed that

7.1. The syllabus for fifth and sixth semesters subjects of regulation 2021, B.E. Electronics and Instrumentation Engineering was framed after discussion with all the members, taking in to consideration the industrial needs, current technological advancements, job opportunities and the feedback from faculty, alumni, and experts.

7.2. In the syllabus of Industrial Instrumentation EI2211, Unit II and Unit III was replaced with topics related to temperature measurement and pressure measurement respectively. Unit V was divided into Unit III and Unit IV. In Unit V, measurement of viscosity and humidity was introduced.

7.3. In the subject Control Systems EI2208 of reg. 2017, the syllabus was modified as per the discussions of BOS experts, feedback from alumni and faculty. The experts suggested including classification of control system in Unit I. The title of Unit II and Unit III was renamed as Time Domain Analysis and Frequency Domain Analysis respectively. The topic Standard test signals was included in Unit II, error coefficients and generalized error series were removed, Unit III and Unit IV are interchanged, Unit V was newly framed under the title State Variable Analysis.

7.4. In the subject Analytical Instrumentation (EI2209) of reg.2017, the committee recommended to include introduction and elements of analytical instrumentation in Unit I, PEMS and various analytical sensors in Unit III and biosensors in Unit IV.

7.5. As per the feedback of alumni and experts, the subject Embedded Instrumentation System (EI2213) of reg. 2017 was modified as Embedded Instrumentation Systems and IoT. The expert committee recommended framing the syllabus focusing on current trends like Internet of Things and its applications in embedded system. Hence in Unit I, topics related to 8086 microcontroller was removed, topics related to 8051 microcontroller was moved from Unit II to Unit I. In addition, Unit I also covers CISC, RISC architecture and PIC controller. Unit II includes introduction to ARM processor and embedded software development tools. Unit IV and Unit V focuses on introduction to IoT and its applications in embedded system.

7.6. In Industrial Instrumentation Lab (EI2277) of reg. 2017, the experiment measurement of temperature using IC sensor was added as per the suggestion of BOS expert committee.

7.7. As per the feedback of alumni and industrial expert, in the lab Embedded Instrumentation System lab (EI2280) of reg. 2017, experiments on 8086 microcontroller were removed. Instead, experiments using PIC controller and IoT were added for reg.2021 with the lab being named as Embedded Instrumentation Systems and IoT Lab.

7.8. In the subject Virtual Instrumentation EI2207 of reg. 2017, the experts suggested to add basics of Lab view software and related topics in Unit II, data acquisition in VI is shifted to Unit III from Unit II. Topics related to instrument interfaces was shifted to Unit IV from Unit III. In Unit IV, topics like image acquisition and processing, motion control, ADC, DAC, DIO, DMM, waveform generator were added. The committee suggested to add topics related to applications of VI in Unit V.

7.9. In the subject Process Control EI2212 of reg. 2017, the experts suggested to include components of process control, Interacting and non-interacting systems in Unit I. In Unit II, topics control valve terminology and modeling of pneumatically actuated control valve were removed whereas topics I/P and P/I converters, linearization of equal percentage control valve were added. In Unit III, characteristic of ON/OFF controller was replaced by Discrete and continuous mode, composite control action. Also topic auto/manual mode transfer was removed. In Unit IV, damped oscillation method was removed. In Unit V, the experts suggested to include dynamic matrix and self tuning controller along with other controllers.

7.10. The syllabus of Digital Signal Processing Techniques (EI2214) of reg.2017 was modified based on the suggestions of the experts. The experts recommended including periodic and non-periodic signals, even and odd signals in Unit I. They also suggested adding latest processors and their applications in Unit V.

7.11. The experts recommended to include additional experiments like Real time humidity control, developing a simulation of level measurement using Lab view in Virtual Instrumentation Lab (EI2276).

7.12. As per the feedback of industrial expert, in Process control Lab (EI2278),

additional experiment, study of AC and DC drives and Multi-input Multi-output system (MIMO system) was added.

7.13. The syllabus of Robotics and Automation (EI22A1) of reg.2017 was modified based on the feedback of alumni. The topics related to the determination of the HP of motor and gearing ratio, variable speed arrangements, and micro machines in robotics while removing selection criteria for actuators, direct drives were included in Unit II. The experts suggested adding multiple robots - machine interface, robot cell design - selection of robot in Unit V. Robots in manufacturing and non- manufacturing applications, Micro & Nanorobots, were removed.

7.14. The syllabus of Fiber Optics and Laser Instrumentation (EI22A2) of reg.2017 was modified based on the suggestions of the feedback from faculty. The topics related to Optical filters – Prism and Monochromators, were removed from Unit I. The experts recommended including Gas lasers, solid lasers, liquid lasers and semiconductor lasers, lasers & vertical-cavity surface-emitting lasers (VCSEL) in Unit III.

7.15. The syllabus of Instrumentation System Design (EI22A3) of reg.2017 was modified based on the feedback of alumni and faculty. The topics Op-Amp circuits in instrumentation- design specifications of ADC, DAC – sample, and hold circuit were included. The topics related to hardware and software approached were removed in Unit I. Thermocouple based Temperature Transmitter was removed and design of cold junction compensation circuit for thermocouple based temperature transmitter was included in Unit II. Also, the topics of Electromagnetic flow meter, Ultrasonic flow meter, Coriolis flow meter, design of actuators, and positioners were added in Unit IV.

7.16. The syllabus of Machine Vision (EI22A4) of reg.2017 was modified based on the suggestions of the experts. The experts recommended including Human Vision – Machine vision and Computer Vision – Benefits of Machine Vision – Block Diagram and Function of the Machine Vision System in Unit I. Optimization techniques was added in Unit IV.

7.17. The syllabus of Nuclear Instrumentation (EI22A5) of reg.2017 was modified based on the feedback from students and alumni. The topic Types of Scintillation Counter from Unit II was removed. Also the topic. The Nuclear Medical Imaging block diagram was removed from Unit IV.

7.18. The syllabus of Thermal Power Plant Instrumentation (EI22A6) of reg.2017 was modified based on the suggestions of the experts. The experts recommended including Speed, vibration measurement, - condenser vacuum control - steam exhaust pressure control - lubricating oil temperature control - start-up and shut-down, and thermal stress control in Unit V.

7.19. The syllabus of Artificial Intelligence for Robotics (EI22A7) of reg.2017 was modified based on the suggestions of the experts. Unit II was newly framed under the title Problem-Solving. Genetic algorithm was added in Unit III.

7.20. The syllabus of Applied Soft Computing (EI22A9) of reg.2017 was modified based on the suggestions of the experts. Unit II was newly framed under the title Statistical Learning Models with topics related to Bayes classification, decision trees and SVM. Unit V was newly framed under the title Soft Computing for Control Applications.

7.21. The syllabus of Industrial Data Networks (EI22B4) of reg.2017 was modified based on the suggestions of the experts. The topics USB and CAN were added in Unit II based on the feedback of alumni and industrial experts. Also, the topics IEEE 802.11 - IEEE 802.15.4 were added in Unit V based on the feedback of alumni and industrial experts.

7.22. The committee resolved to introduce advanced elective like Digital Twin and Industry 5.0, Electric and Hybrid Vehicle Technology, SCADA System and Applications in the BE EIE Syllabus of R2021. Also the committee resolved to introduce open electives like Introduction to PLC Programming, Introduction to Industrial Automation Systems for other students.

7.23. The elective subject Digital Twin and Industry 5.0 was newly framed based on the feedback of alumni and industrial expert. It was framed that includes Introduction, Digital Twin in a Discrete Industry, and Digital Twin in a Process Industry, Industry 5.0, and Advantages of Digital Twin.

7.24. The elective subject Electric and Hybrid Vehicles was newly framed based on the feedback of alumni and industrial expert. It was framed that includes Need for Alternative System, Design Considerations for Electric Vehicles, Energy Sources, Motors, Power Converters and Controllers, Hybrid and Electric Vehicles based on the suggestions from alumni and experts.

7.25. The elective subject SCADA System and Applications was newly framed based on the feedback of alumni and industrial experts. It was framed with topics related to Introduction to SCADA, SCADA System Components, SCADA Communication, SCADA Monitoring and Control, SCADA Applications.

7.26. The open elective subject Introduction to PLC Programming was newly framed based on the feedback of alumni and industrial expert. It was framed with topics related to Introduction, Instructions, PLC Programming and Case Studies.

7.27. The open elective Subject Introduction to Industrial Automation Systems was newly framed based on the feedback of alumni and industrial expert. It was with topics related to Introduction, Automation Components, SCADA, Programmable Logic Controllers, and Distributed Control System.

7.28. The curriculum for regulation 2023 M.E. Control and Instrumentation Engineering was framed after discussion with all the members, taking in to consideration the industrial needs, current technological advancements and research scope, the feedback from faculty, alumni and other experts.

7.29. The curriculum and syllabus of first and second semester subjects of M.E., Control and Instrumentation Engineering, reg. 2023 was finalized after discussion with the members based on the feedback from alumni, faculty and experts.

7.30. The subject Transducers and Smart Instruments was newly introduced as smarts instruments are used in modern industries. The syllabus was framed with topics like overview of conventional transducers and their characteristics, Measurement error and uncertainty analysis, Smart sensors, Micro sensors and actuators, recent trends in sensor technologies.

7.31. In the subject Advanced Process Control (EI3501) of reg. 2021, the experts suggested to add Ziegler Nichols, Cohen Coon tuning methods in Unit II.

7.32. In the subject Control System Design (EI3502) the experts suggested to introduce Root Locus Design as Unit II and Unit II was moved as Unit III.

7.33. As per the feedback of industrial expert, in Advanced Process Control Lab (EI3571) of reg.2021, additional experiments are included like Determination of characteristics of a Pneumatically Actuated Control valve (with and without Positioner).

7.34. The syllabus of Dynamic Control System (EI3504) of reg.2021 was modified based on the feedback of faculty. UNIT III was newly framed under the title of Modal Analysis.

7.35. The syllabus of Process Instrument Design (EI3505) of reg.2021 was modified based on the suggestions of the alumni and experts. The topics Orifice meter design of orifice for given flow condition, design of Rota meter, Design of actuators and positioners, valve characteristics were added in Unit IV.

7.36. The syllabus of Applied Industrial Instrumentation (EI3506) of reg.2021 was modified based on the suggestions of the experts. The Units I and Unit III were newly framed under the title Selection Installation of Instruments and Instrument Air Supply System.

7.37. The syllabus of Industrial Automation (EI3507) of reg.2021 was modified based on the suggestions of the experts. Unit IV is moved to Unit V. Unit V is shifted to Unit IV.

7.38. As per the feedback of alumni and industrial expert, in the lab Automation Laboratory (EI3572) of reg. 2021, experiments on Programming jump-to-subroutine & return operations in PLC, Simulation of traffic light control using ladder logic were added. The experiments Control of thermal process using embedded controller, Design and implementation of advanced control scheme on the skid mounted pilot plant were removed.

7.39. For the B.E. program Robotics and Automation Engineering, the curriculum and syllabus of 5th and 6th semester was finalized. The syllabus of Power Electronics and Drives was finalized with topics related Power Semiconductor Devices and Characteristics, Controlled Rectifiers and Ac Controllers, Dc To Dc Converters, Inverters and Drives and Control.

7.40. The subject Principles of Robotics was framed with topics related to Introduction to Robotics, Direct and Inverse Kinematics, Manipulator Differential Motion and Statics, Path Planning, Dynamics and Control.

7.41. The subject CNC Machine and Metrology was framed with Introduction to CNC Machine Tools, Drives and Work Holding Devices, CNC Programming, Linear and Angular Measurements and Advances in Metrology. The CNC and Metrology Laboratory was also newly framed.

7.42. The subject Robot Path Planning and Programming was frames with topics like Trajectory Planning Approaches, Trajectory Planning of Manipulator, Path Planning of Mobile Robot, Path Planning Algorithms and ROS Programming.

7.43. The subject Design of Robot Elements was finalized with Fundamentals of Mechanical Design, Design of Links and Joints, Fundamentals of Computer Graphics, Curves and Modelling and Design of Grippers.

7.44. Robotics laboratory was newly framed with experiments related to understanding the component of robots.

7.45. New elective subjects Robotics and Automation, Machine Vision, Artificial Intelligence for Robotics, Field and Service Robotics, Medical Robotics, Robot Operating Systems, Computer Vision and Deep Learning, Optimization Techniques, Agricultural Robotics and Automation, Robots and Systems in Smart Manufacturing, and Embedded Systems and Programming was framed.

7.46. The latest version of text books and reference books for all subjects were included.

Dr. R. S. Vinod Kumar seconded the motion and the above items were approved.

8. On behalf of the Board of Studies in Aeronautical Engineering, the meeting of which was held on **07.06.2023**, the Chairman of the Board **Prof. Dr. T. Anil Kumar** the Revised Curriculum and Syllabi of Fifth and Sixth semesters **B.E Aeronautical Engineering Programme** for the students admitted in 2021-22 Vide **Appendix ECU-AE** and the Revised Curriculum and Syllabi of First and Second semesters **ME Aeronautical Engineering Programme** for the students admitted in 2023-24 Vide **Appendix PSY-AE**.

The Board of Studies Meeting was conducted on 20th May 2022. **Dr. T. Anil Kumar** observed that

8.1. The main agenda was effectively discussed regarding framing and finalizing third year B.E. syllabi (Regulation-2021) and first year M.E. (Regulation – 2023).

8.2. The Subject "**Aircraft Composite Materials and Structures**" the title "**Mechanical properties and Testing"** was changed as **"Mechanical properties and Characterization"** in unit-V and included the topic **"Failure criteria of composites"** in

the unit IV. The topic, **"Thermal effects"** was included in place of **"Hardness test, Impact test, Fatigue and creep test"** in the Unit-V. The latest text book of "Mechanics of composite materials" authorized by Jones R.M. was added.

8.3. Two new core subjects were introduced in the semester V. They were:

1. **Air Breathing Propulsion**
2. **High Speed Aerodynamics**

A new Subject **"Air Breathing Propulsion"** was introduced instead of **"Propulsion – I"** In this subject. " A review of thermodynamic cycles" in the unit I was added. Also the unit II, "Subsonic and Supersonic Inlets" and unit IV, "Nozzles" from existing **"Propulsion – I"** subject, were combined as "Intakes and Exhaust Nozzles" as unit II and "Aircraft anti-icing and De-icing" was added in the unit. Also a new unit, "Jet Engine Turbines" was introduced as unit V in the **"Air-Breathing Propulsion"**.

8.4. The new Subject **"High Speed Aerodynamics"** was introduced instead of **"Aerodynamics - II"** subject, which covers supersonic wind tunnels along with flow visualization techniques in unit V.

8.5. In the **"Flight Dynamics"** subject, the unit I **"Drag on Airplane"** was modified as **"Cruising Flight Performance"** and Unit II **"Aircraft Performance"** was modified as **"Maneuvering Flight Performance"**. Also the latest text book **"Aircraft Performance and Design"** authored by Anderson J.D., was included.

8.6. The Lab subject, **"Aircraft Component Design and Drafting**" was modified as **"Part Design and Assembly".**

8.7. In the **"Finite Element Analysis for Aircraft Structures"** subject, the topic, "Gauss Seidel" was replaced by "Gaussian co-ordinates" in unit-I. Also the topic "Frame elements" was removed from unit-II and "higher-noded iso-parametric elements" and "solution techniques" were added in unit-IV. Then the unit- V **"Field Problem"** was modified as **"Heat transfer and vibration problems"**.

8.8. In the sixth semester, a new Subject **"Advanced Propulsion Systems"** was introduced instead of **"Propulsion – II"** subject and the text book "Understanding Aerospace Chemical Propulsion" authored by HS Mukundan was added.

8.9. In the **"FEA Lab"**, experiments "Stress analysis of beam with different end conditions and constant strength beam" were included. Then "thermal analysis" experiment was replaced by "thermo structural analysis".

8.10. In the fifth semester, the new lab, "UAV & Aero Modeling Lab" was introduced.

8.11. In B.E., 6 new department elective courses were introduced. They were:

1. **Renewable Energy Technologies**
2. **Design of Gas Turbine Engine Components**
3. **Non Destructive Testing and Evaluation**
4. **Rocket Propulsion**
5. **Aerodynamics of Drones**
6. **Theory of Vibration**

8.12. In B.E., 9 new open elective courses were introduced. They were:

1. **Reverse Engineering**
2. **Sustainable Manufacturing**
3. **Electric and Hybrid Vehicles**
4. **Air Traffic Control**
5. **Additive Manufacturing**
6. **Smart Materials and Structures**
7. **Aerospace Materials**
8. **Advanced Vehicle Engineering**
9. **Intellectual Property Rights**

8.13. In the **"Rockets and Missiles"** subject, the topic review of solid, liquid and hybrid rockets were included.

8.14. In the **"Computer Integrated Manufacturing"** subject, in the unit V, "Open system and Database for CIM" was replaced by "CNC Programming".

8.15. In the **"Theory of Elasticity"** subject, "Introduction to theory of plates and shells" was added in the unit V in place of "Assumption of Elasticity".

8.16. In the **"Heat Transfer in space Applications"** subject, "Heat Exchangers" was replaced by "Numerical methods in heat transfer".

8.17. In the **"Wind tunnel Techniques"** subject, "Temperature measuring techniques" was included in unit III.

8.18. In the **"Aircraft Design"** subject, the topics, "Climbing flight, time to climb, takeoff and landing performance derivation of range and endurance" were added in the unit II and "Introduction to stability - Static and dynamic stability detailed study" were added in the unit III. Also "Airplane structural design and materials" was included in place of "Structural design" in the unit V.

8.19. In **"Avionics"** Subject, "Flight Decks and Cockpits" was replaced by "Introduction to navigation systems" in the unit IV and "Introduction to avionics systems" was replaced by "Air Data systems and Auto pilot" in the unit V.

8.20. In M.E. course, in the first semester, a new subject, **"Experimental Stress Analysis"** was introduced in place of **"Advanced Heat Transfer".**

8.21. In the first semester, the subject **"Experimental Aerodynamics"** was replaced by **"Aircraft Aerodynamics"**.

8.22. The name of the **"Aerospace Propulsion"** was modified as **"Aircraft and Rocket Propulsion"**. In this subject, "Review of Thermodynamic cycles" was included in Unit I. The "combined blade element and momentum theory and negative thrust" were replaced by "pitch thrust" in unit II., The topics "Reaction principle, Comparison between solid, liquid and hybrid rockets and thrust equation" were replaced by "chemical equilibrium analysis" in the unit V. The latest edition text book "Rocket Propulsion" authored H.S.Muhunda was included.

8.23. The text book "Viscous Flow" authored by Anderson J.D. was introduced in the subject, **"Aircraft Aerodynamics".**

8.24. In the subject, "Aircraft Structural Mechanics", the topic, "the flight envelop" was replaced by "V-N diagram" and "Introduction to aero elasticity and shells" was removed from unit – V.

8.25. In M.E. course, in the second semester, there were four new core subjects were introduced. The subject **"Flight Dynamics"** was replaced by **"Advanced Flight Dynamics"** and **"Computational Fluid Dynamics"** was replaced by **"Advanced Computational Fluid Dynamics"** and **"Finite Element Methods"** was replaced by **"Advanced Finite Element Methods".** Also the subject, **"High Speed Aerodynamics**" was replaced by **"Analysis of Composite Structures"**. The core subject **"Aero Elasticity"** was removed and new elective subject was included.

8.26. In the subject, **"Advanced Computational Fluid Dynamics",** in the unit III, "Numerical solution of unsteady state heat conduction problem using SLOR method" was removed. In the unit IV, the topics, "Application and Methodology involved in implementing panel methods, Source panel method and its implementation, Solution methods for solving a set of large number of algebraic equations and their applications for panel methods, solution example of flow over a circular cylinder" were included. In the unit-V, the topics, "CFD for kinetic heating analysis, coupling of CFD code with heat conduction code, computational aero elasticity, coupling of CFD with structural model and aero elasticity of airfoil geometry, introduction to commercial CFD software for aerospace applications, high performance computing for CFD applications, Parallelization of codes and domain decomposition" were removed and "commercial CFD, CFD ++ and Fluent Software" were added in the unit – V.

8.27. In M.E., 10 new department elective courses were introduced. They were:

1. **Rocketry and Space Mechanics**
2. **High Speed Jet Flows**
3. **Theory of Vibration**
4. **Airworthiness and Air Regulations**
5. **Aircraft Systems Engineering**
6. **Aero Elasticity**
7. **Theory of boundary layers**
8. **Smart Materials and Structural Health Monitoring**
9. **Component Design of Aircraft Engine**
10. **Gas Dynamics**

8.28. In M.E., 3 new open elective courses introduced. They were:

1. **Control Engineering**
2. **Artificial Intelligence & Machine learning**
3. **Research Methodology and Intellectual property Rights**

8.29. In the “Experimental Stress Analysis” subject, “Other techniques” was replaced by “strain-gage circuits & instrumentation”.

8.30. In the subject, “Aircraft Design” offered to M.E. course, “Introduction to aircraft concept design” was replaced by “Preliminary Concepts” in unit I.

8.31. In the **“Experimental Methods in Fluid Mechanics”** subject, “Measurement of heat flux, Foil type heat flux gauge, Transient analysis of foil gauge, Thin film sensors and Slug type heat flux sensor were included in the unit IV and “Statistical analysis of experimental data, Regression analysis, Uncertainty calculation, Uses of uncertainty analysis” were included in the unit V.

Mr. S. Hari Kumar seconded the motion and the above items were approved.

9. On behalf of the Board of Studies in Automobile Engineering, the meeting of which was held on **10.06.2023**, the Chairman **Prof. Dr. J. Edwin Raja Dhas** moved the Revised Curriculum and Syllabi of Fifth and Sixth semesters **B.E Automobile Engineering Programme** for the students admitted in 2021-22 Vide **Appendix ECU-AM** and the Revised Curriculum and Syllabi of First and Second ssemesters **ME Automobile Engineering Programme** for the students admitted in 2023-24 Vide **Appendix PSY-AM**.

The Board of Studies Meeting was conducted on 10th June 2023. **Dr. J. Edwin Raja Dhas** observed that

Chairman of the BoS presented the proposed structure of the curriculum and detailed syllabus of Basic Sciences, Humanities, Engineering Sciences and Professional Core for the 2021 regulation.

Based on the feedback received from the faculties, the discussion was made to incorporate or modify the contents in the syllabus for Semester V.

- The subject Materials Science and Engineering Subsystems was introduced incorporating the latest trend of Design and developing of vehicle materials .
- The incorporation of the elective Autotronics was discussed and implemented.
- In Sixth Semester for Theory Subject Automotive Emission and Control in Unit 4 Recent titles Evaporative emission control, Fumigation, Use of unleaded petrol are added.

Based on the feedback received from the students, the following discussions are made.

- Based on the feedback from industrial expert, the elective Electric Vehicle technology– A new elective was added.
- Theory Subject Applied Hydraulics and Pneumatics in Vth Semester and was revised with new topics like Forklift applications mobile hydraulics; Design of Pneumatic circuits for metal working, handling, clamping counter and timer circuits. Design of Pneumatic circuits for Pick and Place applications and tool handling in CNC Machine tools - IOT in Hydraulics and pneumatics.

Thiru. T. Elangovan suggested to include in semester VI, to automobile exhaust and environmental pollution, Alternate Fuels and Electrical Power Vehicle Systems. The Chairman BoS told that they were already included.

Dr. R. Rajesh seconded the motion and the above items were approved.

10. On behalf of the Board of Studies in **Biomedical Engineering**, the meeting of which was held on **05.06.2023**, the Chairman of the Board **Prof. Dr. M. Murugan** moved the Revised Curriculum and Syllabi of Fifth and Sixth Semesters

B.E Biomedical Engineering Programme for the students admitted in 2021-22 Vide **Appendix ECU-BM**.

The Board of Studies Meeting was conducted on 5th June 2023. **Dr. M. Murugan** observed that

The discussion on the Syllabus for S5 and S6 semesters of B.E. Biomedical Engineering were made effectively for the Regulation 2021. The suggestions are as follows

1. X- ray experiments in Medical Imaging Equipment Laboratory was added. The experiments such as Study of X-ray machine and Study of portable X-Ray machine are included.
2. Filter experiments in the Linear Integrated Circuits Laboratory was removed and experiments such as AM modulator, FSK Modulator, A/D Convertor and D/A Convertor were included.
3. Rapid Prototyping and Biomechanics as openelectives papers were included.
4. In the subject Medical Imaging Equipment in UNIT V Thermal Imaging System was added by removing the Ultrasonic Imaging System.
5. In the subject Diagnostic and Therapeutic Equipment the topics ICU/CCU Equipment in UNIT I, Cath Lab andHeart-Lung machine in UNIT II were added. The topic Thermography from the Unit III.
6. In the subject Diagnostic and Therapeutic Equipment Laboratory the experiments such as Cath Lab and Ultrasonography were added and the experiments were also included.
7. The contents of the following subjects Bio-materials and Implants, Communication Engineering for Biomedical, Bio-Signal Processing, Bio-Signal Processing Laboratory, Medical Informatics, Soft Computing Techniques, Rapid Prototyping and Biomechanics were modified.

Dr. J. Joseph seconded the motion and the above items were approved.

11. On behalf of the Board of Studies in Information Technology, the meeting of which was held on **16.06.2023**, the Chairman of the Board **Prof. Dr. R. Mathu Soothana S. Kumar** moved the Revised Curriculum and Syllabi Fifth and Sixth

semesters **B.Tech. Information Technology Programme** for the students admitted in 2021-22 Vide **Appendix ECU-IT** and the Revised Curriculum and Syllabi of First and Second semesters **M.E Cyber Security Programme** for the students admitted in 2023-2024 Vide **Appendix PSY-IT and the Revised Curriculum and Syllabi of Third and Fourth Semesters B.Sc. Cyber Forensic Programme** for the students admitted in 2021-22 Vide **Appendix PSY-IT**

The Board of Studies Meeting was conducted on 1st June 2022. **Dr. R. Mathu Soothana S. Kumar** observed that

1. The feedback about the curriculum and the syllabi from the faculty members are collected through feedback form and analyzed and the valid changes are incorporated in the curriculum and Syllabi for the fifth and sixth semesters B.Tech. IT-with specialization in Cyber Security and Forensics, curriculum and Syllabi for M.E Cyber Security regulation 2023 and curriculum and Syllabi for the third and fourth semesters of B.Sc Cyber Forensics. The curriculum and syllabi of other leading institutions were also considered while framing the curriculum and syllabi.

2. Every year in the BOS meeting, the curriculum and syllabi are analyzed, based on the most cutting edge, emerging and enduring fields, required for the Information Technology graduates to meet the global challenges in the next 10 to 20 years. Based on the suggestion of BOS members the syllabus of every course is modified.

Suggested Modifications

1. B.Tech. IT (Specialization in Cyber Security and Forensic Science)

SEMESTER – V

1. INFORMATION SECURITY BASICS

- Since this subject forms part of core list, it is better to select Applied Cryptography in electives list to have an in-depth coverage.
- Recent books on this topic should be added in references section.
- Cryptography basics and hashing should be added in the syllabus.
- SDLC topic should be removed from Unit 1 and basics of cryptographic algorithms and hashing techniques should be added.
- Critical Infrastructure should be added to unit 2
- SIEM Technology should be added to unit 4

- Unit V is mistakenly given as Unit IV. It should be corrected.

2. EMBEDDED SYSTEMS AND IOT

- This subject can be framed in two ways as below:
  i. This subject can be followed as it is
  ii. It was changed to "IOT" with the following modifications:
  -There should be one unit for cloud offerings in which topics on Data Analytics should be included.

- First choice is the best to follow.

3. OBJECT ORIENTED ANALYSIS AND DESIGN

- No change is required.

4. FUNDAMENTALS OF JAVA PROGRAMMING

- "Advanced Java Programming" was included in electives list.
- Renamed first unit as "Java Basics"
- Lambda feature can be added in any of the units.
- Latest edition books should be added.

5. EMBEDDED SYSTEMS AND IOT LABORATORY

- Exercises 9 and 11 removed from the list.

6. OBJECT ORIENTED ANALYSIS AND DESIGN LABORATORY

- Rational Rose (licensed) or StarUML (opensource) tools be used for implementation, based on the choice of the student.

- Removed "using Java Applications" from 9th exercise, to avoid language specificity.

7. JAVA PROGRAMMING LABORATORY

- No change is required.

SEMESTER VI

1. CYBER FORENSICS BASICS

- Unit II and Unit III were interchanged
- Unit 5 title changed as "Analysis and Reporting" and reporting related topics were added to this unit.

- Unit 4 title was changed as "Windows and Linux Systems" and Linux related topics should be added to it.

- For the same books, update should be made for recent edition.

2. WEB PROGRAMMING

- No change is required.

3. FULL STACK WEB DEVELOPMENT

- No change is required.

4. CYBER SECURITY LABORATORY

- Along with cryptographic algorithms, few exercises on scenario based usages of these algorithms be added.

5. WEB PROGRAMMING LABORATORY

- No change is required

6. FULL STACK WEB DEVELOPMENT LAB

- No change is required

PROFESSIONAL ELECTIVE COURSES

1. CYBER FORENSICS AND INCIDENT RESPONSE

- Change Unit 2 title as Pre-incident preparation and incident response
- Change Unit 5 title as Data analysis and reporting
- CERT-IN topics should be added somewhere.

2. CYBER LAW AND CYBER CRIME INVESTIGATION

- Change unit 1 title to “Cyber crime and emerging trends” and topics for this title have to be added.
- Unit 1 becomes unit 2
- Unit 2 becomes unit 3
- Unit 4 and 5 remains to be the same
- In unit 4 add the topic “ Crypto currency and related issues”

3. ETHICAL HACKING

- Topics based on CEH manual be added

4. INTRUSION DETECTION AND PREVENTION SYSTEM

- SIEM topic be added in the relevant unit.

5. BIG DATA ANALYTICS AND DATA SECURITY

- Title was changed as BIG DATA ANALYTICS.

6. RISK ASSESSMENT AND SECURITY AUDIT

- CERT-IN based security audit topics be added to unit 4.

7. BIOMETRIC IMAGE PROCESSING

- No change is required

8. OS FORENSICS

- Topics for latest windows edition, Windows 11, should be added Books can be referred for concepts but for latest OS version related topics, research papers should be referred.
- Unit 5 be retained.
- Registry analysis and related topics of unit 2 be moved to unit 3
- Unit2 is not needed but instead add IOS based topics for unit 2.
- Title be changed to OS Forensics

9. FILE SYSTEM FORENSICS ANALYSIS

- In unit 5 add the topic “ext4”
- First text book is a good one but check for its latest edition

10. CRYPTOGRAPHY AND NETWORK SECURITY

- No change is required

11. SOFTWARE TESTING PRINCIPLES

- No change is required

12. DATA WAREHOUSING AND DATA MINING

- No change is required

13. C# AND .NET PROGRAMMING

- No change is required

14. FREE AND OPEN SOURCE SOFTWARE

- No change is required

15. MACHINE LEARNING

- No change is required.

<u>OPEN ELECTIVE COURSES</u>

1. FUNDAMENTALS OF CYBER SECURITY

- No change is required.

2. FOUNDATIONS OF DATA SCIENCE

- No change is required.

II. BSC CYBER FORENSICS

SEMESTER III

1. SOFTWARE ENGINEERING

- No change is required.

2. PHP PROGRAMMING

- In objectives, change the word basic to basics.
- In unit 1, “server side scripting” should be added as the first topic.

3. CYBER FORENSICS BASICS

- Unit II and Unit III should be interchanged
- Unit 5 title should be changed as “Analysis and Reporting” and reporting related topics should be added to this unit.
- Unit 4 title should be changed as “Windows and Linux Systems” and Linux related topics should be added to it.
- For the same books, update should be made for recent edition

4. CYBER FORENSICS LAB

- Instead of FTK, Autopsy which is an open source tool can be used.

5. PHP PROGRAMMING LAB

- All spelling mistakes should be corrected.
- Ensure correctness of the term “theyb”

SEMSTER IV

1. NETWORKS AND INFORMATION SECURITY

- Add essential topics of Applied Cryptography like Private key and public key cryptography to this subject and drop out Applied Cryptography subject.

2. FILE SYSTEM FORENSIC ANALYSIS

- First text book is a good one but check for its latest edition

3. ETHICAL HACKING

- No change is required.

4. OS FORENSICS

- Topics for latest windows edition, Windows 11, be added
- Books can be referred for concepts but for latest OS version related topics research papers should be referred.
- Unit 5 be retained.
- Registry analysis and related topics of unit 2 should be moved to unit 3
- Unit2 is not needed but instead add IOS based topics for unit 2.

5. WEB TECHNOLOGY

- "Session Management" topic be added to unit 4.
- 1999 books be updated for latest edition

6. COMPUTER SECURITY LAB

- Experiment list should match with "Networks and Information Security" theory topics.

7. WEB TECHNOLOGY LAB

- An exercise for session management should be added.
- Lab exercises and related theory topics should match and hence reduce java script related exercises and instead add another type of exercises.

II. M.E. CYBER SECURITY

SEMESTER – I

1. ADVANCED DATA STRUCTURES AND ALGOROTHMS

- No change is required in the syllabus

2. ADVANCED OPERATING SYSTEM AND SECURITY

- Entire syllabus must be revamped such that first 3 units cover advanced OS topics and remaining two units cover security based topics.
- Advanced OS topics should include distributed OS, Mobile OS etc.
- Unit 1 should start with small introduction to OS and then cover advanced topics like distributed OS
- Add an unit from Pfleeger and Pfleeger book on "Security in Computing"
-

3. CRYPTOGRAPHY AND CYBER SECURITY

- No change is required in the syllabus

4. ADVANCED OPERATING SYSTEM AND DATA STRUCTURES LABORATORY

- No change is required in the syllabus

SEMESTER – II

1. CYBERCRIME INVESTIGATIONS AND DIGITAL FORENSICS

- No change is required in the syllabus

2. DATABASE DESIGN AND SECURITY

- No change is required in the syllabus

3. CYBER LAW AND SECURITY POLICIES

- More topics on security policies should be added to unit 2.

- Unit 3 title should be changed to “Information Processing and Security Policies”

- Add more topics from Orange book and Red book.

4. ADVANCED NETWORK SECURITY

- “Network storage devices” and “Security devices like firewalls, SIEM” should be added and accordingly other topics should be rearranged.

5. DATABASE AND CYBER SECURITY LABORATORY

- No change is required in the syllabus

SEMESTER – III

1. CYBER CRIME INVESTIGATIONS LABORATORY

- No change is required in the syllabus

PROFESSIONAL CORE ELECTIVES

1. ETHICAL HACKING

- Topics based on CEH manual should be added

2. BIOMETRIC SECURITY

- No change is required in the syllabus

3. FORENSICS AND INCIDENT RESPONSE

- No change is required in the syllabus

4. IOT SECURITY

- No change is required in the syllabus

5. CYBER FORENSICS

- Title of unit 4 should be changed to “Analysis and Reporting” and reporting topics should be added to this unit.

- Add SAS based topics to unit 3

6. MALWARE FORENSICS

- No change is required

7. WINDOWS AND LINUX FORENSICS

- Add IOS based topics
- Title should be changed to OS Forensics

8. VIRTUAL FORENSICS

- Forensics and Security topics are missing. Add those topics and revamp the entire syllabus

9. SECURITY POLICIES AND GOVERNANCE

- No change is required

10. INTRUSION DETECTION AND PREVENTION SYSTEM

- This subject should be revamped to be based on SIEM

11. CYBER WARFARE

- No change is required in the syllabus

Dr. J. Charles seconded the motion and the above items were approved.

12. On behalf of the Board of Studies in Nanotechnology, the meeting of which was held on **12.06.2023**, the Chairman of the Board **Dr. T. K. Sreeja (HoD i/c)** moved the Revised Curriculum and Syllabi of fifth and sixth semesters **B.Tech. Nanotechnology programme** for the students admitted in 2021- 22 Vide **Appendix ECU- NT** and the Revised Curriculum and Syllabi of first and second semesters **M.Tech. Nanotechnology Programme** for the students admitted in 2023-24 Vide **Appendix PSY-NT**.

The Board of Studies Meeting was conducted on 12th June 2023. **Dr. T. K. Sreeja (HoD i/c)** observed that

12.1.1. The curriculum and syllabi for the semesters were framed by the faculty, scrutinized by the HOD and further sent to the experts for review. This was strictly done based upon the feedback received from the earlier batch of students. But the comments on the syllabus, the modifications and the possible impact of the subject on the students and society are clearly discussed by the external members with the faculty and then a decision is made on the same. The finalized syllabus is once again submitted to the experts through email for approval. This is submitted for academic council only after following all the procedures.

12.1.2. Analysis of feedback collected from the students and alumni was carefully done. Accordingly S5 and S6 B. Tech (2021) and S1 to S4 M. Tech (2023) syllabi were scrutinized by the experts.

12.1.3. The new regulation was framed as Humanities and Social Science courses (HSMC), Basic Science courses (BSC), Engineering Science Courses (ESC), Professional Core courses (PCC), Professional Elective courses (PEC), Mandatory Courses (MC), Open Electives (OE) and Projects (PROJ). A total of 160-165 credits are to be fixed for the total curriculum. There are four Open electives and 7 department electives.

12.2.1. B. Tech Semester V: According to the new regulations of AICTE, the fifth semester B.Tech NT includes four theory papers and three practical papers. An internship and elective paper has been included to the list too. 20% revision of the syllabus is done for all the subjects included. The core theory papers include Nanomedicine, Nanomaterials for Energy Conversion and Storage Devices and solid State and Surface Science. The practical courses include Advanced Microscopy Laboratory, Simulation Laboratory and Sensor lab. On the whole the credits come to a total of 22 for the first semester. Values and Ethics is a must paper during the induction program.

12.2.2. B. Tech Semester VI: The sixth semester of the B.Tech program includes three theory papers, two department electives and one open elective. The theory papers introduced for this semester are Nanobiomaterials, Carbon Based Materials and Lithography and Nanofabrication. There are two practicals and one project included for this semester. The project work phase I offers three credits. All the subjects have undergone 20 % modification for the total syllabus. On the whole the credits come to a total of 25 for the sixth semester.

12.2.3. There are 12 Department Elective subjects offered each with three credits. They are Entrepreneurship in Nanotechnology, Intellectual Property Rights, Concepts in Nanomagnetism and Its Applications, Piezoelectric Materials for Nanotechnology, Nanoscale Devices, Nanorobotics, Imaging Techniques for Nanotechnology, Microelectronics and VLSI, Toxicology and Healthcare, Drug Delivery Systems, Industrial Nanotechnology and Polymer Nanocomposites. Among the elective subjects, four papers are entirely new and the rest of them have 20% subject modification.

12.3.1. M. Tech NT: The subjects for all the four semesters of M. Tech Nanotechnology were also confirmed during the Board of Studies meeting. The total credits fixed for the course was 70 as AICTE has instructed the credit range between 70 and 75. The first semester contains six theory subjects and one lab with a credit of 21 on a total. The six theories are composed of one BSC paper, Applied Mathematics, three PCC subjects, Quantum Mechanics sin Nanostructures, Fundamentals of Nanoscience and Technology and Synthesis of Nanomaterials. There are two Department elective papers also. The lab is a department, core lab, PCC- Synthesis and Preparation of Nanomaterials Laboratory. The essential core papers have undergone a 20% revision for each of the subjects. Semester II makes up a total credit of 22 which includes four PCC papers (Instrumental methods of analysis, Nanoelectronics and Sensors, Advanced Engineering Materials and Biological Nanostructures) with two Department

electives (PEC- I and II). An internship has been included to the second semester and the syllabus for Biological Nanostructures is entirely new (100%). Other three core papers have undergone 20 % modification of the entire paper..Semester III includes one Department elective, one Open Elective and one Audit paper that has no credit. A minor project work with 6 electives is also inclusive. On the whole, the semester counts 12 credits totally. Semester IV is completely dedicated for project work that carries 16 credits on the whole. The list of Department electives and Open electives are included in the list. 12 New Department Elective courses that can meet the needs of today have been included to the syllabus. Among them Research Methodology and IPR, Nanomaterials for Energy and environment, Nanotechnology in Healthcare, Advanced Drug Delivery systems and Internet of things and Cloud Computing are entirely new. The other papers are Carbon Based Nanostructures, Introduction to Optics, Lasers and Photonics, Polymer nanocomposites, Lithography and MEMS, Semiconductor Based Electronic Devices, Advanced Nanoelectronic Based Devices and Circuits have underwent 20 % modification.

12.3.2. Discussion on the general corrections and teaching methodologies to be included in the syllabus for the next academic year. As the meeting was online, there were few minor issues related to network and connection. The meeting was extended for about one hour. No other issues were raised and the meeting was concluded. No other issues were raised and the meeting was concluded.

Dr. B. Bindhu seconded the motion and the above items were approved.

13. On behalf of the Board of Studies in Fire Technology and Safety, the meeting of which was held on **30.05.2023**, the Chairman of the Board **Prof. Mr. I. James Dhinakaran Williams** moved the Revised Curriculum and Syllabi of fifth and sixth semesters **B.Tech. Fire Technology and Safety Engineering Programme** for the students admitted in 2021-22 Vide **Appendix ECU-FT**.

The Board of Studies Meeting was conducted on 30th June 2023. **Mr. I. James Dhinakaran Williams** observed that

The Chairman of BoS presented the modified structure of the curriculum for the 2021 regulation.

Modifications suggested in the curriculum structure and Syllabus:

1. Program Outcomes have to address Graduate Attributes and it is generally common for all Programmes.
2. The course outcomes off all the subjects require fine-tuning to reflect the course objectives.
3. Only the higher order of cognitive skill is to be mentioned for each course outcome.
4. In Mapping of program outcomes and course outcomes, "**Not Relevant"** can be replaced with dashes in the table.
5. In semester III, the publishing year of text and reference books for the subject Machine Drawing be included.
6. In semester III, the practical subject "Safety Engineering Laboratory", the exercises 12 and 13, the exercise will be carried out without AUTOCAD software.
7. In semester IV, the subject "Basics of Emergency Life Support" be renamed as "**Management of Disaster and Emergency".** Relevant book of managing the disaster be added. In the IV unit, the title "Algorithms for Basic Life Support" be changed as **"Protocols for Basic Life Support"**.
8. In semester IV, unit I in the subject "Applied Thermodynamics and Fluid Mechanics", mention the types of cycles instead of using engines. Change the title of Unit - IV as "**Dimensional Analysis"** and remove the topic "model studies" in it. Also add the topics "Specifications of pumps - applications" in Unit – V.
9. The members recommended to add a subject "Electrical Safety" as a core subject in the curriculum.
10. The members recommended to add a subject "Safety in Automation System" in the list of Electives.
11. In semester VI, the elective course "Principles of Safety Management" was added as core course and the core course "Principles of Health and Safety Management" was added as core elective and were swapped.
12. The members suggested to add open elective courses in Fire Technology and Safety Engineering so that other branches can opt those courses.
13. The members suggested to add list of relevant NPTEL courses and get it approved by the board.

Thiru. T. Elangovan suggested to include fire and vehicle accidents. And the chairman BoS told that i. Hazard and Risk Analysis ii. Fire Dynamics (Elective) iii.

Equipment and Handling Techniques and iv. Instrumentation Control and Safety Management were already included.

Dr. J. Edwin Raja Dhas seconded the motion and the above items were approved.

14. On behalf of the Board of Studies in **Aircraft Maintenance Engineering**, the meeting of which was held on **05.06.2023**, the Chairman of the Board **Mr. S. Hari Kumar** moved the Revised Curriculum and Syllabi of Fifth and Sixth semesters **B.E. Aircraft Maintenance Engineering Programme** for the students admitted in 2021-22 Vide **Appendix ECU- AC**.

The Board of Studies Meeting was conducted on 5th June 2023. **Mr. S. Hari Kumar** observed that

The following new elective subjects and practicals were identified and included in the curriculum in S5 &S6

1. S5- Gas turbine engine-I/Aircraft aerodynamics ,structures and systems-I
2. S5-Aircraft Engine and systems lab-I
3. S6- Airframe Maintenance /Propulsion

- Members suggested including specific details in the syllabus with regard to basic about concept of gas turbine engine, airframe maintenance, propulsion. etc..

Dr. R. S. Vinod Kumar seconded the motion and the above items were approved.

15. On behalf of the Board of Studies in **Aerospace Engineering**, the meeting of which was held on **30.05.2023**, the Chairman of the Board **Prof. Dr. J. Saji Soundara Raj** moved the Revised Curriculum and Syllabi of Fifth and Sixth Semesters **B.E. Aerospace Engineering Programme** for the students admitted in 2021-22 Vide **Appendix ECU-AS**.

The Board of Studies Meeting was conducted on 30th May 2023. **Dr. J. Saji Soundara Raj** observed that

I The Chairman of the BoS briefed about the proposed syllabus and curriculum of S_5, S_6 and curriculum structure and subjects offered from semester S1 to S8

including the elective subjects. He requested the members to come out with useful suggestions.

II. New department elective subjects"UAV Design" for fifth semester&"Experimental Stress Analysis", "Experimental Aerodynamics" for sixth semester in the curriculum of Aerospace Engineering were introduced

III. On par with the theory subject "UAV Design", the practical subject "CAD modeling and Analysis Laboratory" was also offered in the semester S_5 of Aerospace Engineering.

IV. A new open elective subject named "Fundamentals of Artificial Intelligence" was introduced & the practical subject "Navigation & Guidance Laboratory" was offered with that subject in the semester S_6 of Aerospace Engineering.

V. The subject "Aerodynamics II" in S_5 Aerospace Engineering was introduced.

VI. "Professional and Business Ethics" Subject was includedin S_5 of B.E. Aerospace Engineering as open elective.

Dr. T. Annil Kumar seconded the motion and the above items were approved.

16. On behalf of the Board of Studies in Management Studies, the meeting of which was held on **23.06.2023**, the Chairman of the Board **Prof. Dr. D. Kinslin** moved the Revised Curriculum and Syllabi of First and Second Semesters **MBA Programme** for the students admitted in 2023-24 Vide **Appendix PSY-MS.** The Board of Studies Meeting was conducted on 23rd June 2023. **Dr. D. Kinslin** observed that

Item I: The minutes of the twenty-second BOS meeting were reviewed and approved.

Item II: Discuss and approve the revised curriculum and syllabi of the First and Second Semester MBA program.

During the discussion on the curriculum and syllabi of the First and Second Semesters MBA program, The committee decided to include case studies as essay questions for the final exams based on the relevance and requirements of each subject. "people

supply chain" in the second-semester Human Resource Management syllabus was included as an emerging area of HR.
Transportation management as a chapter was included in the course on supply chain management

Item III: Approved the new core course titles: 'Social Media Marketing, Banking System and Technology, Digital Finance and Corporate Strategy.

Dr. K. A. Janardhanan seconded the motion and the above items were approved.

17. On behalf of the Board of Studies in Management Studies, the meeting of which was held on **23.06.2023,** the Chairman of the Board **Prof. Dr. D. Kinslin** moved the Revised Curriculum and Syllabi of Fifth and Sixth semesters **BBA Programme** for the students admitted in 2021-22 Vide **Appendix USY-BA** and the Revised Curriculum and Syllabi of Fifth and Sixth semesters **B.Com. Programme** for the students admitted in 2021-22 Vide **Appendix USY-CM**.

The Board of Studies Meeting was conducted on 23rd June 2023. **Dr. D. Kinslin** observed that
Item I: The minutes of the twenty-second BOS meeting were reviewed and approved.

Item II: Discuss and approve the revised curriculum and syllabi of the First and Second Semester MBA program.

During the discussion on the curriculum and syllabi of the First and Second Semesters MBA program, The committee decided to include case studies as essay questions for the final exams based on the relevance and requirements of each subject. "people supply chain" in the second-semester Human Resource Management syllabus was included as an emerging area of HR.
Transportation management as a chapter was included in the course on supply chain management

Item III: Approved the new core course titles: 'Social Media Marketing, Banking System and Technology, Digital Finance and Corporate Strategy.

Item IV: Discuss and approve the syllabi for the third-year BBA and third-year B. Com programs:

The board reviewed the syllabi of the B.Com and BBA programs. Following a brief discussion, the revised syllabi for the fifth and sixth semesters BBA and B. Com were approved and recommended to the Academic Council for approval. Necessary additions and deletions were made in the syllabi.

Item V: Skill-oriented courses:

The Board acknowledged the pressing need to offer skill-oriented courses to MBA students in alignment with their respective specializations. Recognizing that equipping students with relevant skills is crucial for enhancing their employability, the Board conducted a comprehensive and detailed deliberation on this matter.

Including skill-oriented courses will not only enhance the students' employability but also broaden their horizons by equipping them with a diverse set of skills highly valued in the professional world. These courses aim to bridge the gap between theoretical knowledge and practical application, allowing students to gain hands-on experience and develop valuable skills that will set them apart in the competitive job market.

The Board's meticulous efforts in identifying and recommending these skill-oriented courses. The recommended skill-oriented courses were forwarded to the Academic Council for further review and approval, ensuring that they align with the academic standards and requirements of the institution.

Dr. K. A. Janardhanan seconded the motion and the above items were approved.

18. On behalf of the Board of Studies in Computer Applications, the meeting of which was held on **15.06.2023**, the Chairman of the Board **Dr. J.R. Jeba** moved the Revised curriculum and syllabi of first and second semesters **MCA Programme** for the students admitted in 2023-24 Vide **Appendix PSY-CA** and the Revised curriculum and syllabi of Third and Fourth semesters **BCA Programme** for the students admitted in 2022-23 Vide **Appendix US –CA.**

The Board of Studies Meeting was conducted on 15th June 2023. **Dr. J.R. Jeba** observed that

- The proposed syllabus for first year MCA incorporates 80% of syllabus change compared with 2020 regulation syllabus.

- The course title for Programming in C was changed as “Problem solving techniques and Programming in C”.
- The syllabus for problem solving techniques was included as first unit and also exception concept in the programming was included in the syllabus.
- New courses “Full Stack Web Development” and “Full Stack Web Development Laboratory” were included in the second semester curriculum.
- New courses “Machine Learning” and “Machine Learning Laboratory” were included included in the third semester curriculum.
- The topic related to graphics was removed from “Problem solving techniques and Programming in C” syllabus.
- New courses “Digital Marketing” , “Digital Forensics”, ”Data Visualization” and “Ethical Management” were included in the elective course list of the curriculum .
- New courses “Professional Ethics in IT” and “Block Chain Technology” were included as electives.
- A new course “Fundamentals of Accounting” was included in the curriculum to get accounting knowledge.
- A new course “Agile Methodologies” was included in the elective list of the curriculum.
- A new lab course as “Internet of things Laboratory” was included in the third semester
- The course title r “Data Structures Using C Laboratory” was changed as “Data Structures and Algorithms Laboratory” and programs related to algorithms was included in the syllabus.
- The syllabus of Data Structures and Algorithms was changed as first three units for data structures and and the remaining two units as algorithms.
- The course title for DBMS was changed as “RDBMS” in the proposed curriculum.
- The course title for DBMS Laboratory was changed as “Relational DBMS Laboratory” in the proposed curriculum.
- The stored procedure concept in RDBMS laboratory was included in the proposed syllabus.
- The course title for Python programming was changed as “Advanced Python programming” in the proposed curriculum.
- The courses “Machine learning” and “Machine learning Laboratory” were included in the third semester of proposed curriculum.

- The course machine learning was included along with artificial intelligence in the fifth semester.
- The changes suggested in some experiments in Web designing lab course were accepted and included in the syllabus.
- The experiments related to thread concept in java programming laboratory was included in the syllabus.
- The course operating system was moved to the fourth semester to balance the load for the students and incorporated in the syllabus.
- The graph traversal and linear search were included in the experiments list and the third experiment was removed from the experiments in the syllabus.
- A new course work life balance was included in the elective course list in the syllabus.

Dr. M. K. Jeyakumar seconded the motion and the above items were approved.

19. On behalf of the Board of Studies in M.Sc. Software Engineering, the meeting of which was held on **17.06.2023**, the Chairman of the Board **Prof. Dr. J. P. Jayan** moved the Curriculum and Syllabi of Fifth and Sixth semesters **B.Sc. Computer Science for the students admitted in 2021-2022** Vide **Appendix USY- SE.**

The Board of Studies Meeting was conducted on 17th June 2023. **Dr. J. P. Jayan** observed that

- Syllabus should meet the requirements of GATE exam.
- As per UGC instruction, at least one elective paper can be given as online course.
- Syllabus should be structured using a standard framework. It includes objectives, outcomes, text books, reference books.
- To add the recent technologies in IT industries,after the discussion “Internet of Things” was added.
- To add the new elective “Big Data and Analytics”. After analysis of the curriculum it was decided that related paper “Open Source Computing” to this in the elective.

Changes in the curriculum and syllabi for Vth and VIth semesters B.Sc. Computer Science was finalized and it will be incorporated in this regulation.

Dr. M. K. Jeyakumar seconded the motion and the above items were approved.

20. On behalf of the Board of Studies in English, the meeting of which was held on **23.06.2023,** the Chairman of the Board **Prof. A. Khaleel Rahuman** moved the Revised Curriculum and Syllabi of First and Second semesters **MA English Programme** for the students admitted in 2023-24 Vide **Appendix PSY-ENG.**

The Board of Studies Meeting was conducted on 23rd June 2023. **Prof. A. Khaleel Rahuman** observed that;

It is proposed to introduce a Four Year B. A. English Literature Programme on the guidelines of National Educational Policy (NEP) 2020. As a preliminary to the programme, the curriculum and syllabi for the First year of the four year integrated programme should be framed. This proposed four year B. A. English Literature programme can be introduced in the current or the next academic year. Subsequently, the board took up the revision work and discussions were carried out on the 1st and 2nd semester M. A. English Literature curriculum and syllabi.

Revision of Curriculum – I and II Semester M. A. English

It was resolved to have five subjects in the 1st semester with one paper being an Elective Paper containing two subject papers.

The first and second semesters existing curricula were retained largely with the deletion of one elective paper, introduction of a new elective [paper in the place of the deleted one] and modification of Chaucer and the Elizabethan Literature as “The Elizabethan Literature”.

It was resolved to have 5 papers in the second semester with one Non–Literature paper title Journalism and Mass Communication.

Syllabi Discussed and Resolutions Taken

1. M. A. ENGLISH

Semester-I

EG3701–Chaucer and the Elizabethan Literature

It was resolved to modify the subject name as *The Elizabethan Literature* with the text from Chaucer’s Prologue to the Canterbury Tales included in Unit-I.

It was resolved, to remove George Herbert and his text Affliction in Unit –I and instead add Henry Vaughan and his text Retreat in his place .On the suggestion of Dr. K.

Balasubramanian, External Expert, Thomas Wyatt's sonnet Unstable Dream and Henry Howards Love that doth reign were removed. Two more Shakespeare sonnets 2. No, Time, thou shalt not boast that I do change and 3. Since brass, nor stone, nor earth, nor boundless sea were added in Unit-II. In Unit – III prose, two more essays from Francis Bacon 1. Of Ambition 2. Of Death were added.

EG3702–The Neo Classical Literature

In Unit –I, *Paradise Lost Book –IX* was replaced with *Paradise Lost Book –I* and Sheridan's *Rivals* was replaced with The School for Scandal.

EG 3703 –The Romantic and Victorian Literature

It was resolved to replace, in Unit-I, Keats's *Ode to a Nightingale* with *Ode on a Grecian Urn* Wordsworth's *Ode on Immortality* with *Michael*, and *Lines Written in Early Spring*, Robert Browning's Fra Lippo Lippi with Andrea Del Sarto in Unit-II, and to introduce Thomas Gray's *Elegy Written in a Country Churchyard* in Unit-II.

In Unit – III, it was resolved to remove John Ruskin's *Sesame and Lilies* and introduce William

Hazlitt's *My First Acquaintance with Poets*

In Unit – V, to replace Thomas Hardy's *Far From the Madding Crowd* with *Tess of the D'Urbervilles* and George Eliot's *Silas Marner* with *Middle March*. Walter Scott 's *Ivanhoe* was removed.

EG3704–Twentieth Century Literature

In Unit – II, Thom Gunn's *On the Move* was removed and replaced with the poems *Lament, and Street Song.* Ted Hughes's Hawk Roosting was replaced with *Thrushes* and The *Thought-Fox*. Dylan Thomas's Fern Hill was replaced with *Do Not Go Gentle into that Goodnight* and *And death shall have no dominion.*

C. P. Snow 's *Two Cultures* was removed E. M. Foster's *Notes on the English Character* was

introduced. George Bernard Shaw's *Pygmalion* was replaced with *The Apple Cart*.

EG 37A1- Translation

Semester-II

EG3705–Indian Writing in English

In Unit –I Kamala Das's My Grandmother's House was removed and replaced with Summer at Calcutta. Mamta Kalia's Tribute to Papa was removed. Keki N. Daruwalla's Crossing of Rivers and Toru Dutt 's The Lotus were introduced.

In Unit – III, Asif Karim Boy 's (one act play) Refugee was removed.

In Unity-IV , R. K. Narayan's The Guide was replaced with The Bachelor of Arts and Mulk Raj Anand's Coolie was replaced with The Sword and the Sickle.In Unit-V, Kamala Markandaya's Nectar in a Sieve was removed. Instead, Amitav Ghosh's The Glass Palace was introduced. Sashi Deshpande's Dark Holds No Terrors was replaced with That Long Silence.

EG3706-American Literature

In Unit-I, Ezra Pound's The Return was introduced. In Unit-II , e. e. Cummings's Cambridge Ladies was replaced with somewhere i have never travelled, gladly beyond and Sylvia Plath's Daddy replaced with Lady Lazarus. And Amiri Baraka's An Agony. As Now. replaced with The Liar. W. H. Auden's The Unknown Citizen was introduced as anew text.

1. In Unit-IV, Arthur Miller's Death of a Salesman was removed. In its place. Eugene O'Neil's The Hairy Ape was introduced. Tennessee Williams's The Glass Menagerie was replaced with A Street Car Named Desire
   In Unit-V, Mark Twain's The Adventures of Tom Sawyer was removed. Saul Bellow's: Seize the Day was replaced with Herzog.

EG3707- New Literatures in English

In Unit-I, Gabriel Okara's Once Upon a Time was replaced with two new poems, namely, The Call of the River Nun, Were I To Choose and Chinua Achebe's Refuge Mother and Child with Love Cycle and Vultures. A Wake for Okigbo

In Unit-II V. S. Naipaul's A House for Mr. Biswas was replaced with Half a Life.

In Unit-III, Chinua Achebe's Arrow of God was replaced with Things Fall Apart

EG3708-Canadian Literature

In Unit-I, Robert William Service's A Hero and Lucy Maud Montgomery's When the Dark Comes Down were introduced.

In Unit-III , Miriam Toews's Women Talking was introduced.

In Unit– V : Short Story,

Alice Munro's Too Much Happiness was replaced with Dear Life . Pauline Johnson's A Red Girl's Reasoning was retained. Lucy Maud Montgomery's The Waking Of Helen and Ruby Slippejack's Blueberry Days (from Honour the Sun) were included as new short stories.

EG 3709-Journalism and Mass Communication

In Unit- I, Influence of AI and Machine Learning was introduced as a fourth topic. Under the Elective Paper in the Ist semester, one of the Elective papers named EG37A2 – Classics in Translation was removed. Instead a new paper from one of the emerging areas of L;inguistics Titled Neuro Linguistic Programming was introduced to keep the students abreast with new knowledge and latest teaching learning technology.

The proposed curricula and syllabi for the First and second semesters of the four year B.A. English Literature integrated programme were approved by the board members with modifications.

Dr. R. Subramania Pillai seconded the motion and the above items were approved.

21. On behalf of the Board of Studies in Physics, the meeting of which was held on **10.06.2023**, the Chairman of the Board **Dr. B. Bindhu** moved the Revised Curriculum and Syllabi of First and Second Semesters **M.Sc Physics Programme** for the students admitted in 2023-24 Vide **Appendix PSY-PHY.**

The Board of Studies Meeting was conducted on 10th June 2023. **Dr. B. Bindhu** observed that;

The proposed curriculum for M.Sc. Physics in compliance with the UGC model curriculum and TANSCHE. The members had through discussion on the draft curriculum and suggested to have minimum 90 credits for the M.Sc. Physics.

It was resolved that the elective courses offered are advanced core courses and hence recommended a credit value of 4, based on the CBCS regulations. The Board has decided to offer one elective course per semester to provide students with a diverse range of specialized subjects. The curriculum incorporates core practical component, professional competency course, skill enhancement courses and ability enhancement compulsory courses allowing students to gain hands-on-experience and develop their practical skills.

Semester I – Core Paper I, II, III and Core Practical - I, Elective – I – Professional Competency Course and Ability Enhancement Compulsory Course

Semester II – Core Paper IV, V, VI and Core Practical – II, Elective – II – Skill Enhancement Course I and Ability Enhancement Compulsory Course

Semester III - Core Paper VII, VIII, IX and Core Practical III, Elective – III – Skill Enhancement Course II, Ability Enhancement Compulsory Course

Semester IV - Core Paper X, Core Paper XI, Core Practical IV, Core Paper XII, Elective IV, Skill Enhancement Course III, Ability Enhancement Compulsory Course and Electives.

Dr. J. Joseph seconded the motion and the above items were approved.

22. On behalf of the Board of Studies in Chemistry, the meeting of which was held on **09.06.2023,** the Chairman of the Board **Dr. J. Joseph** moved the Revised Curriculum and Syllabi of first and second semester **M.Sc. Chemistry Programme** for the students admitted in 2023-24 Vide **Appendix PSY-CHY.**

The Board of Studies Meeting was conducted on 9th June 2023. **Dr. J. Joseph** observed that;

It was resolved to revise the existing syllabus according the needs of industry, other stakeholders and feedback reports. The members discussed the changes to be made in the existing syllabus. After discussion members felt that minor changes in the existing syllabus may be made. New elective papers were included. The revised syllabus with skill oriented courses was framed for the benefit of students.

It was resolved to add two certificate courses (non credit course) in the second and third semesters.

It was resolved to start a one year PG Diploma Course in Sanitary Inspector / Health Inspector in the department.

It was resolved to start B.Sc. Chemistry course as per the NEP, subject to the approval of the management. The Curriculum and Syllabi would be framed after getting the approval of the management.

Students and staff members are to be encouraged to enroll in Swayam course.

Dr. M. Sankaranarayana Pillai seconded the motion and the above items were approved.

23. On behalf of the Board of Studies in Mathematics, the meeting of which was held on **19.06.2023**, the Chairman of the Board **Prof. Dr. M. Immaculate Mary**

moved the Revised Curriculum and Syllabi of First and Second semesters **M.Sc. Mathematics** for the students admitted in 2023-24 Vide **Appendix PSY-MA.**

Dr. M. Immaculate Mary observed that;

The syllabus for M.Sc. (2 year) programme was modified. According to the suggestions of the external expert Dr. R. Kala, M.Sc., Mathematics curriculum and syllabus should be based on the recommended curriculum and syllabus of Tamil Nadu State Council for Higher Education (TNSCHE). Hence 95% of the curriculum was changed.

Ability Enhancement course and Skill Enhancement courses were introduced. Internship programme was introduced in the third semester.

Extension activity was introduced in the fourth semester. Ability Enhancement course and skill enhancement course are extended professional components is a part of internal component only, not to be included in the external theory examination but end semester evaluation is done by the external examiners. Examination components may consist of presentation, group discussion, practical, etc.)

Dr. P. B. Sarasija seconded the motion and the above items were approved.

24. On behalf of the Board of Studies in **Allied Health Sciences**, the meeting of which was held on **16.06.2023**, the Chairman of the Board **Dr. G. Arockia Selva Saroja** moved the Curriculum and Syllabi of Fifth and Sixth semesters **B.Sc. Human Genetics and Molecular Biology Programmes** for the students admitted in 2021-22 Vide **Appendix USY-AH-HG**.

The Board of Studies Meeting was conducted on 16th June 2023 **Dr. G. Arockia Selva Saroja** observed that;

- New elective courses were added in the the fifth semester and sixth semesters and they have been included in the new curriculum. The elective courses included were Cancer Genetics, Behavioral Genetics, Techniques of Nanobiology, Metabolomics And Metabolic Engineering, Nutrigenomics, Epigenetics, Invitro Fertilization, Bioethics, Biosafety And Intellectual Property Rights.

- The topics in Mammalian cell culture and techniques courses were rearranged in the new syllabus

Further

- The new curriculum for entire course and the new syllabus proposed for 5th and 6th semesters B.Sc., Human Genetics and Molecular Biology and first and second semesters M. Sc Human Genetics and Molecular Biology to the Board Members for the academic year 2023- 24 were explained.
- In the courses Mammalian Cell Culture and Techniques (HG3617) and Cancer Genetics (HG3619) the contents were uniformly distributed for all five units.
- In the course Cancer Genetics (HG3619) the topics radiotherapy and alternative therapy in unit V were added..
- Twenty percentage of revision has been done in all the courses offered in the first and second semesters of M. Sc Human Genetics nad Molecular Biology .
- The syllabus for 5st& 6th Semesters proposed for B.Sc.,Human Genetics & Molecular Biology is given in Annexure – V

New Curriculum & Syllabus for 1st& 2nd Semesters proposed for M.Sc.,Human Genetics & Molecular Biology is given in Annexure – VI(BoS)

25. On behalf of the Board of Studies in **Allied Health Sciences**, the meeting of which was held on **14.06.2023**, the Chairman of the Board **Dr. G. Arockia Selva Saroja** moved the Curriculum and Syllabi of Fifth and Sixth semesters **B.Sc. Forensic Science Programme** for the students admitted in 2021-22 Vide **Appendix USY-AH- FS**.

The Board of Studies Meeting was conducted on 14th June 2023 **Dr. G. Arockia Selva Saroja** observed that;

- Adding the elective papers during the fifth semester and sixth semesters and it has been included in the new syllabus.

  List of electives during fifth semester

  1. Wildlife Forensics & Forensic Entomology
  2. Human physiology & anatomy

  List of electives during sixth semester

  1. Accident investigation & Forensic photography
  2. Artificial intelligence

3. Environmental science

- To include internship during the sixth semester and it has been included.
- In respect of adding course Statistics and Research Methodology in Forensics and it has been included.

  Further

- The course DNA Fingerprinting Laborartory (FS3680) was renamed as Basics of DNA fingerprinting laboratory.
- The suggestion to add sample preservation for DNA typing topic in course DNA Finger Printing(FS3616) and expert opinion in questioned document topic in Questioned document examination(FS3614) course were accepted..
- The syllabus for 5st& 6th Semesters proposed for B.Sc., Forensic Science is given in Annexure –IV

26. On behalf of the Board of Studies in **Allied Health Sciences**, the meeting of which was held on **23.06.2023**, the Chairman of the Board **Dr. G. Arockia Selva Saroja** moved the Curriculum and Syllabi of First and Second semesters **BASLP Programme** for the students admitted in 2023-24 Vide **Appendix USY-AH- BASLP.**

The Board of Studies Meeting was conducted on 23rd June 2023 **Dr. G. Arockia Selva Saroja** observed that;

- The suggestion to divede the subjects into different categories when the final marksheet is provided was accepted. Thus, the decision was taken to divide the subject as the following categories
  1. Group 1: Language (Subjects : General and Basic Tamil)
  2. Group 2: Core Subjects (Otolaryngology, neurology, speech language pathology and Audiology)
  3. Group 3: Foundational Course (Constitution of India and Professional Ethics)
- The suggestion to tally the total hours given in the RCI curriculum to meet with the hours of the semester when additional subjects are added was accepted.
- The suggestion to add the topic Human values in unit 3 of Professional ethics to make awareness about the importance of the same while dealing with everyday clinicals and thus the suggestion was taken into consideration and needed changes were added.

- The suggestion to include vocabulary related to Audiology and Speech Language Pathology and thus this suggestion was taken into consideration and the vocabulary subtopics were modified including these words
- Syllabus for 1th& 2nd Semesters proposed for BASLP is given in Annexure – VII (BoS)

27. On behalf of the Board of Studies in **Allied Health Sciences**, the meeting of which was held on **23.06.2023**, the Chairman of the Board **Dr. G. Arockia Selva Saroja** moved the Curriculum and Syllabi of Fifth and Sixth semesters **B.Sc. Perfusion Technology, B.Sc. Cardiac Care Technology, B.Sc. Renal Dialysis Technology Programmes** for the students admitted in 2021-22 Vide **Appendix USY-AH.**

The Board of Studies Meeting was conducted on 23rd June 2023 **Dr. G. Arockia Selva Saroja** observed that;

- The feedback to include the topics abnormal electrocardiograms, Angina Pectoris, Cor Pulmonale, Aneurysm and types of catheters in Cardiac Evaluation and Therapies III in the course fifth Semester of B. Sc., CT and has been included in the new syllabus.
- The suggestionto include Bio telemetry system , Nano robots and robotic surgery, ICCU patient monitoring system and remove the topic cardiac pacemaker in the course Biomedical Engineering Devices in the fifth semester of B.Sc CT. B.Sc PT and RD.She also the suggestion to include Heart- Lung machine in the course Biomedical Engineering Devices for Perfusion Technology in the fifth semester of B.Sc PT.were accepted.
- The suggestion to remove the topic patient education and consent process from unit 5 and include management of complications-acute stent thrombosis, dissection and perforation in the course Cardiac Evaluation and Therapies II in fifth Semester of B.Sc., CT and the same has been included in the new syllabus.
- The suggestion to add the topic malignant hyperthermia in the course Myocardial Protection and various drugs used in the fifth semester of B.Sc., PT. were accepted.

Further

- The suggested changes in the syllabus of Haemodialysis III, to add few topics like ISO RO water standard for haemodialysis, wearable artificial kidney, online haemodialation, online haemofilteration, online haemodialysis, extra corporeal

therapies in special situations are added in the course Haemodialysis III of fifth semester of B.Sc., RD. were accepted.

- The suggested changes in the syllabus of B.Sc., Cardiac Care Technology. to include the topic Intracardiac pressure and approach to shock management in Advanced Cardiac Care Technology I in the sixth semester was accepted.
- The suggestion to include the topic EC CO_2 removal therapy in the course Advance Perfusion Technology in semester 6 and remove the topic CPB in pregnancy for B.Sc., PT was accepted.
- The members suggested no other changes in the existing syllabus.
- The syllabus for 5st& 6th Semesters proposed for B.Sc., Cardiac Care Technology is given in Annexure – 1.(BoS)
- The syllabus for 5st& 6th Semesters proposed for B.Sc.,Perfusion Technology is given in Annexure – II(BoS)
- The syllabus for 5st& 6th Semesters proposed for B.Sc.,Renal Dialysis Technology is given in Annexure – III .(BoS)

Dr. G. Arockia Selva Saroja replied that I understand that you have noticed our specialized courses in forensic science and audiology. After completing these courses, students may have concerns about their employability.

On the query of employment opportunities Dr. G. Arockia Selva Saroja told that Upon completion of our specialized courses in forensic science and audiology, around 70% of our students have successfully secured employment opportunities in Australia, Europe, and Western countries.

Thiru. T. Elangovan suggested to offer postgraduate education and research, to expand their horizons and make more informed decisions about their career paths. That suggestion was accepted.

Dr. M. Sankaranarayana Pillai seconded the motion and the above items were approved.

Dr. P. Thirumalvalavan, Registrar proposed the vote of thanks and the meeting ended smoothly.

Kumaracoil,
08-7-2023.

Dr. P. Thirumalvalavan
Registrar

Teachers feed back.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

TEACHERS FEEDBACK ON CURRICULUM

NAME OF THE TEACHER : Dr. J.R. Jeba -

DESIGNATION & DEPARTMENT : Asso. prof & HOD | Computer Applications

ACADEMIC YEAR : 2023-2024.

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	Rate the structure of the curriculum framed for the entire program.	✓				
2	Rate the appropriateness of the sequences of the course provided in the curriculum.		✓			
3	Rate the depth of the syllabus for the course in relation to the competencies expected by industry current global sceneries.		✓			
4	Rate the sequences of the units in the course.		✓			
5	Rate the distribution of credits to the course.		✓			
6	Rate the adequateness of text book and reference book maintained for the course.	✓				
7	Rate the potential of the student in understanding the course objectives.		✓			
8	Rate the syllabus content in terms of the load to the student.		✓			
9	Rate the experiment list is stimulating the interest of the student in the subject.		✓			
10	Suggestions for Improvement	Good				

SIGNATURE OF TEACHER 29.06.24

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu, India.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

TEACHERS FEEDBACK ON CURRICULUM

NAME OF THE TEACHER : Dr. S. Beulah

DESIGNATION & DEPARTMENT : Associate Professor, Computer Applications

ACADEMIC YEAR : 2023-2024

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	Rate the structure of the curriculum framed for the entire program.	✓				
2	Rate the appropriateness of the sequences of the course provided in the curriculum.	✓				
3	Rate the depth of the syllabus for the course in relation to the competencies expected by industry current global sceneries.	✓				
4	Rate the sequences of the units in the course.	✓				
5	Rate the distribution of credits to the course.	✓				
6	Rate the adequateness of text book and reference book maintained for the course.		✓			
7	Rate the potential of the student in understanding the course objectives.	✓				
8	Rate the syllabus content in terms of the load to the student.	✓				
9	Rate the experiment list is stimulating the interest of the student in the subject.	✓				
10	Suggestions for Improvement	If possible add course related to robotics to BCA students Also give importance to Big data analytics also in BCA curriculum				

SIGNATURE OF TEACHER

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

STUDENTS FEEDBACK ON CURRICULUM

NAME OF THE STUDENT : Jency L

ACADEMIC YEAR : 2018 - 2020

CLASS/ SEMESTER : MCA / III

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	Overall opinion about the curriculum.	✓				
2	Sequence of courses(subjects) in the curriculum.	✓				
3	The syllabus covered the broader area of specialized streams.		✓			
4	Effectiveness of the syllabus offered in relation to the technological advancements.		✓			
5	Contribution of the curriculum in getting placements.			✓		
6	The effectiveness of the curriculum helping you to write competitive exams (GATE/CAT/NET Etc.) for higher studies.		✓			
7	Suggestions for improvement	—				

SIGNATURE OF STUDENT

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

STUDENTS FEEDBACK ON CURRICULUM

NAME OF THE STUDENT : Arafal fathima M

ACADEMIC YEAR : 2023-2024

CLASS/ SEMESTER : MCA / 3rd.

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	Overall opinion about the curriculum.	✓				
2	Sequence of courses(subjects) in the curriculum.		✓			
3	The syllabus covered the broader area of specialized streams.		✓			
4	Effectiveness of the syllabus offered in relation to the technological advancements.	✓				
5	Contribution of the curriculum in getting placements.		✓			
6	The effectiveness of the curriculum helping you to write competitive exams (GATE/CAT/NET Etc.) for higher studies.	✓				
7	Suggestions for Improvement	None				

SIGNATURE OF STUDENT

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ALUMNI FEEDBACK ON CURRICULUM

NAME OF THE ALUMNI : J. Ashigha

ACADEMIC YEAR : 2023-2024

DEPARTMENT : MCA

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	The syllabus enabled to obtain sufficient technical knowledge in theory and practical.		✓	✓		
2	The curriculum was helpful and relevant to the present status/higher education.	✓				
3	The cooperation of faculties to achieve knowledge.		✓			
4	The curriculum ensures overall development of student	✓				
5	Infrastructure and lab facilities.	✓				
6	The academic initiatives taken by the college to bridge the gap between industry & academia		✓			
7	Rate the design of the courses in terms of extra learning or self-learning	✓				
8	Rate the flexibility in choosing the electives in relation to technology advancement			✓		
9	Rate the percentage of the courses offering LAB comments	✓				
10	Rate the compositions of the courses in terms of basic science , engineering science, humanity, discipline core, discipline elective, open elective, project etc.,		✓			
11	How do you rate the objectives stated for each of the course.	✓				
12	Suggestions for Improvement					

SIGNATURE OF ALUMNI

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ALUMNI FEEDBACK ON CURRICULUM

NAME OF THE ALUMNI : Anugopan . R. J

ACADEMIC YEAR : 2023 - 2024

DEPARTMENT : MCA

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	The syllabus enabled to obtain sufficient technical knowledge in theory and practical.		✓			
2	The curriculum was helpful and relevant to the present status/higher education.	✓				
3	The cooperation of faculties to achieve knowledge.		✓			
4	The curriculum ensures overall development of student			✓		
5	Infrastructure and lab facilities.	✓				
6	The academic initiatives taken by the college to bridge the gap between industry & academia	✓				
7	Rate the design of the courses in terms of extra learning or self-learning		✓			
8	Rate the flexibility in choosing the electives in relation to technology advancement	✓				
9	Rate the percentage of the courses offering LAB comments			✓		
10	Rate the compositions of the courses in terms of basic science , engineering science, humanity, discipline core, discipline elective, open elective, project etc.,	✓				
11	How do you rate the objectives stated for each of the course.		✓			
12	Suggestions for Improvement	-				

SIGNATURE OF ALUMNI

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ALUMNI FEEDBACK ON CURRICULUM

NAME OF THE ALUMNI : T. ABI

ACADEMIC YEAR : 2023-2024

DEPARTMENT : MCA

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	The syllabus enabled to obtain sufficient technical knowledge in theory and practical.			✓		
2	The curriculum was helpful and relevant to the present status/higher education.	✓				
3	The cooperation of faculties to achieve knowledge.	✓				
4	The curriculum ensures overall development of student			✓		
5	Infrastructure and lab facilities.	✓				
6	The academic initiatives taken by the college to bridge the gap between industry & academia		✓			
7	Rate the design of the courses in terms of extra learning or self-learning	✓				
8	Rate the flexibility in choosing the electives in relation to technology advancement		✓			
9	Rate the percentage of the courses offering LAB comments	✓				
10	Rate the compositions of the courses in terms of basic science , engineering science, humanity, discipline core, discipline elective, open elective, project etc.,			✓		
11	How do you rate the objectives stated for each of the course.	✓				
12	Suggestions for Improvement					

SIGNATURE OF ALUMNI

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ALUMNI FEEDBACK ON CURRICULUM

NAME OF THE ALUMNI : J. Jhonika

ACADEMIC YEAR : 2023 - 24

DEPARTMENT : MCA

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	The syllabus enabled to obtain sufficient technical knowledge in theory and practical.			✓		
2	The curriculum was helpful and relevant to the present status/higher education.	✓				
3	The cooperation of faculties to achieve knowledge.		✓			
4	The curriculum ensures overall development of student			✓		
5	Infrastructure and lab facilities.	✓				
6	The academic initiatives taken by the college to bridge the gap between industry & academia	✓				
7	Rate the design of the courses in terms of extra learning or self-learning	✓				
8	Rate the flexibility in choosing the electives in relation to technology advancement		✓			
9	Rate the percentage of the courses offering LAB comments		✓			
10	Rate the compositions of the courses in terms of basic science , engineering science, humanity, discipline core, discipline elective, open elective, project etc.,	✓				
11	How do you rate the objectives stated for each of the course.		✓			
12	Suggestions for Improvement	-				

Jhonika

SIGNATURE OF ALUMNI

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ALUMNI FEEDBACK ON CURRICULUM

NAME OF THE ALUMNI : Shyjan KJ

ACADEMIC YEAR : 2023-24

DEPARTMENT : MCA

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	The syllabus enabled to obtain sufficient technical knowledge in theory and practical.	✓				
2	The curriculum was helpful and relevant to the present status/higher education.		✓			
3	The cooperation of faculties to achieve knowledge.		✓			
4	The curriculum ensures overall development of student	✓				
5	Infrastructure and lab facilities.		✓			
6	The academic initiatives taken by the college to bridge the gap between industry & academia	✓				
7	Rate the design of the courses in terms of extra learning or self-learning		✓			
8	Rate the flexibility in choosing the electives in relation to technology advancement			✓		
9	Rate the percentage of the courses offering LAB comments	✓				
10	Rate the compositions of the courses in terms of basic science , engineering science, humanity, discipline core, discipline elective, open elective, project etc.,	✓				
11	How do you rate the objectives stated for each of the course.		✓			
12	Suggestions for Improvement	—				

SIGNATURE OF ALUMNI

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

STUDENTS FEEDBACK ON CURRICULUM

NAME OF THE STUDENT : Amritha. S

ACADEMIC YEAR : 2024-2025

CLASS/ SEMESTER : S3 MCA

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	Overall opinion about the curriculum.	✓				
2	Sequence of courses(subjects) in the curriculum.	✓				
3	The syllabus covered the broader area of specialized streams.	✓				
4	Effectiveness of the syllabus offered in relation to the technological advancements.	✓				
5	Contribution of the curriculum in getting placements.	✓				
6	The effectiveness of the curriculum helping you to write competitive exams (GATE/CAT/NET Etc.) for higher studies.		✓			
7	Suggestions for Improvement	The overall curriculum is good and effective in our accademics.				

SIGNATURE OF STUDENT

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

STUDENTS FEEDBACK ON CURRICULUM

NAME OF THE STUDENT : VEENA VS

ACADEMIC YEAR : 2024-25

CLASS/ SEMESTER : S3MCA

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	Overall opinion about the curriculum.	✓				
2	Sequence of courses(subjects) in the curriculum.	✓				
3	The syllabus covered the broader area of specialized streams.	✓				
4	Effectiveness of the syllabus offered in relation to the technological advancements.	✓				
5	Contribution of the curriculum in getting placements.		✓			
6	The effectiveness of the curriculum helping you to write competitive exams (GATE/CAT/NET Etc.) for higher studies.	✓				
7	Suggestions for Improvement	Provide Improvement in placement drive ⇒Add more housin value added course (Initial days of Academy)				

Veena

SIGNATURE OF STUDENT

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ALUMNI FEEDBACK ON CURRICULUM

NAME OF THE ALUMNI : Abi. A

ACADEMIC YEAR : 2022 - 2024

DEPARTMENT : Master of Computer Applications

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	The syllabus enabled to obtain sufficient technical knowledge in theory and practical.		✓			
2	The curriculum was helpful and relevant to the present status/higher education.		✓			
3	The cooperation of faculties to achieve knowledge.		✓			
4	The curriculum ensures overall development of student	✓				
5	Infrastructure and lab facilities.	✓				
6	The academic initiatives taken by the college to bridge the gap between industry & academia		✓			
7	Rate the design of the courses in terms of extra learning or self-learning		✓			
8	Rate the flexibility in choosing the electives in relation to technology advancement		✓			
9	Rate the percentage of the courses offering LAB comments		✓			
10	Rate the compositions of the courses in terms of basic science , engineering science, humanity, discipline core, discipline elective, open elective, project etc.,		✓			
11	How do you rate the objectives stated for each of the course.		✓			
12	Suggestions for Improvement	Offer free Workshops on Startup strategies.				

Abi. A

SIGNATURE OF ALUMNI

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION,KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ALUMNI FEEDBACK ON CURRICULUM

NAME OF THE ALUMNI : SIMSON DAVID A

ACADEMIC YEAR : 2022 - 2024

DEPARTMENT : MCA

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	The syllabus enabled to obtain sufficient technical knowledge in theory and practical.		✓			
2	The curriculum was helpful and relevant to the present status/higher education.		✓			
3	The cooperation of faculties to achieve knowledge.	✓				
4	The curriculum ensures overall development of student		✓			
5	Infrastructure and lab facilities.	✓				
6	The academic initiatives taken by the college to bridge the gap between industry & academia		✓			
7	Rate the design of the courses in terms of extra learning or self-learning		✓			
8	Rate the flexibility in choosing the electives in relation to technology advancement		✓			
9	Rate the percentage of the courses offering LAB comments	✓				
10	Rate the compositions of the courses in terms of basic science, engineering science, humanity, discipline core, discipline elective, open elective, project etc.,		✓			
11	How do you rate the objectives stated for each of the course.		✓			
12	Suggestions for Improvement	Add more subjects like AI & Networking Practical Classes & firewall				

A. Simson

SIGNATURE OF ALUMNI

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DEPARTMENT OF COMPUTER APPLICATIONS

FACULTY FEEDBACK ON CURRICULUM

NAME OF THE FACULTY : Dr. JEBA J.R.
DESIGNATION & DEPARTMENT : Asp & HOD, Dept of Computer Applications
ACADEMIC YEAR : 2024 - 2025.

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	Rate the structure of the curriculum framed for the entire program.	✓				
2	Rate the appropriateness of the sequences of the course provided in the curriculum.	✓				
3	Rate the depth of the syllabus for the course in relation to the competencies expected by industry current global sceneries.		✓			
4	Rate the sequences of the units in the course.	✓				
5	Rate the distribution of credits to the course.	✓				
6	Rate the adequateness of text book and reference book maintained for the course.	✓				
7	Rate the potential of the student in understanding the course objectives.		✓			
8	Rate the syllabus content in terms of the load to the student.		✓			
9	Rate the experiment list is stimulating the interest of the student in the subject.		✓			
10	Suggestions for Improvement	Include Vb.net programming & Lab into BCA syllabus.				

10/12-25

SIGNATURE OF TEACHER

(HOD/CA)

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DEPARTMENT OF COMPUTER APPLICATIONS

FACULTY FEEDBACK ON CURRICULUM

NAME OF THE FACULTY : S. Beulah
DESIGNATION & DEPARTMENT : Assoc. Prof. Computer Application
ACADEMIC YEAR : 2024-2025

Sl. No	Evaluation Criteria	Excellent	Very Good	Good	Average	Poor
1	Rate the structure of the curriculum framed for the entire program.	✓				
2	Rate the appropriateness of the sequences of the course provided in the curriculum.	✓				
3	Rate the depth of the syllabus for the course in relation to the competencies expected by industry current global sceneries.	✓				
4	Rate the sequences of the units in the course.	✓				
5	Rate the distribution of credits to the course.	✓				
6	Rate the adequateness of text book and reference book maintained for the course.	✓				
7	Rate the potential of the student in understanding the course objectives.	✓				
8	Rate the syllabus content in terms of the load to the student.	✓				
9	Rate the experiment list is stimulating the interest of the student in the subject.	✓				
10	Suggestions for Improvement	Basic concepts of bigdata required in the syllabus. Include Robotics Related elective paper may be introduced				

S Beulah
SIGNATURE OF TEACHER

NICHE KANYAKUMARI
DEEMED TO BE UNIVERSITY
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DEPARTMENT OF COMPUTER APPLICATIONS

EXPERTS FEEDBACK ON CURRICULUM

Name of the expert: Dr. S. P. VICTOR

Designation: Associate Professor

Official Address: Dept. of Computer Science
St-Xaviers College, Palayamkottai - 627001.

Qn. No	Questions	Excellent	Very Good	Good	Average	Poor
1.	Alignment of syllabus with the programme objectives	✓				
2.	Coverage of advanced topics and emerging technologies in syllabus		✓			
3.	Relevance of the electives offered in the curriculum	✓				
4.	Weightage given to employability in the design and development of syllabus	✓				
5.	Effectiveness of the syllabus meeting the expectations of industry		✓			
6.	Enhancement of industry specific skills of the students	✓				
7.	Syllabus promote higher-order thinking (analysis, design, problem-solving)	✓				
	Suggestions for improvement (if any)					

Signature

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DEPARTMENT OF COMPUTER APPLICATIONS

EXPERTS FEEDBACK ON CURRICULUM

Name of the expert: SINDHU VIJAYAN

Designation: TECHNICAL LEAD

Official Address: ALLIANZ TECHNOLOGY, EMBASSY TAURUS BUILDING, TECHNOPARK PHASE III, TRIVANDRUM

Qn. No	Questions	Excellent	Very Good	Good	Average	Poor
1.	Alignment of syllabus with the programme objectives	✓				
2.	Coverage of advanced topics and emerging technologies in syllabus	✓				
3.	Relevance of the electives offered in the curriculum	✓				
4.	Weightage given to employability in the design and development of syllabus	✓				
5.	Effectiveness of the syllabus meeting the expectations of industry	✓				
6.	Enhancement of industry specific skills of the students	✓				
7.	Syllabus promote higher-order thinking (analysis, design, problem-solving)	✓				
	Suggestions for improvement (if any)					

Signature

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DEPARTMENT OF COMPUTER APPLICATIONS

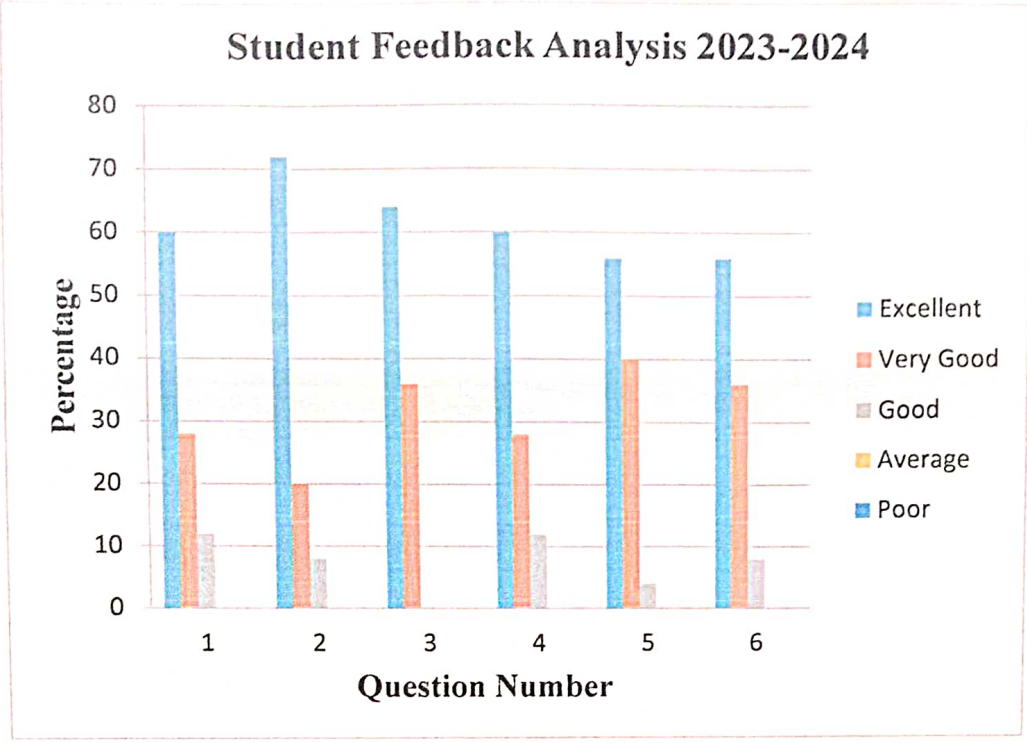
REPORT OF ANALYSIS OF FEEDBACK ON CURRICULUM 2023-2024

Students Feedback on Curriculum

16/05/2024

A survey has been conducted to understand the students' opinion towards the programmes offered by the department of Computer Applications.The analysis of the students' feedback revealed that the present curriculum and syllabi is designed according to their needs.The survey recorded to a count of 25 responses which were analysed and evaluated based on the following criteria:

S. No	Evaluation Criteria	Response in %				
		Excellent	Very Good	Good	Average	Poor
1	Overall opinion about the curriculum	60	28	12	0	0
2	Sequence of courses(subjects) in the curriculum	72	20	8	0	0
3	The syllabus covered the broader area of specialized streams	64	36	0	0	0
4	Effectiveness of the syllabus offered in relation to the technological advancements	60	28	12	0	0
5	Contribution of the curriculum in getting placements	56	40	4	0	0
6	The effectiveness of the curriculum helping you to write competitive exams (GATE/CAT/NET Etc.) for higher Studies	56	36	8	0	0



Staff In charge

(M. Tharanya)

Head of the Department

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

DEPARTMENT OF COMPUTER APPLICATIONS

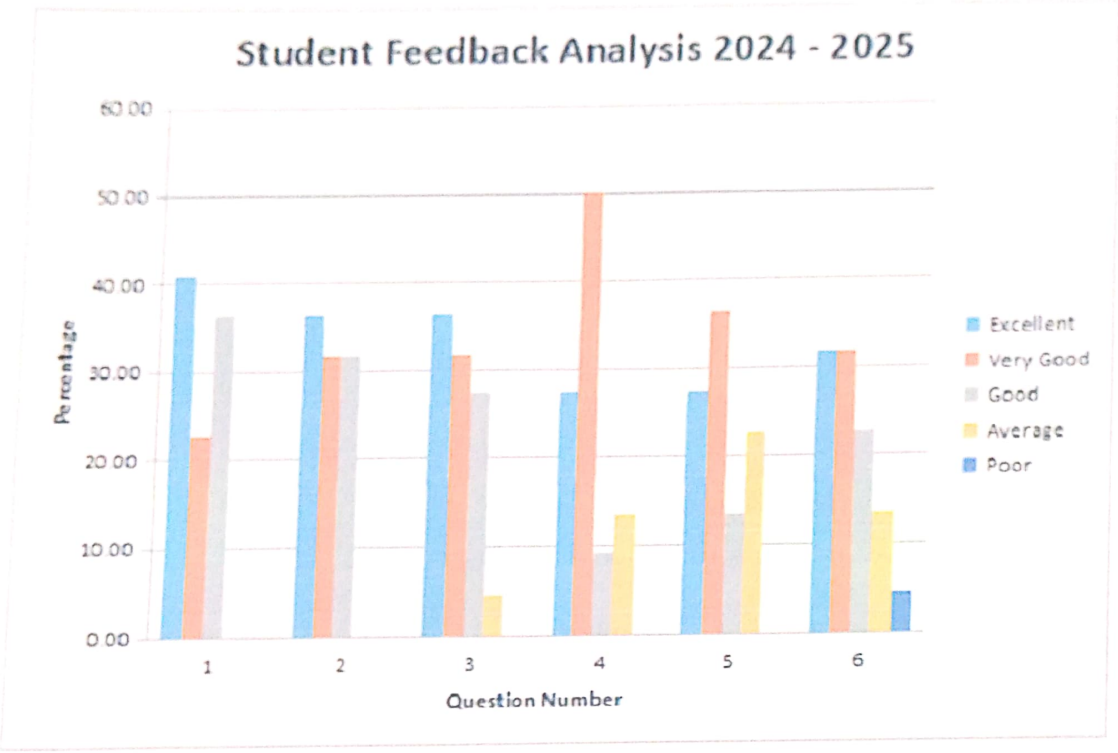
REPORT OF ANALYSIS OF FEEDBACK ON CURRICULUM 2024-2025

Students Feedback on Curriculum

16/04/2025

A survey has been conducted to understand the students' opinion towards the programmes offered by the department of Computer Applications. The analysis of the students' feedback revealed that the present curriculum and syllabi is designed according to their needs. The survey recorded to a count of 22 responses which were analysed and evaluated based on the following criteria:

S. No	Evaluation Criteria	Response in %				
		Excellent	Very Good	Good	Average	Poor
1	Overall opinion about the curriculum	40.91	22.73	36.36	0	0
2	Sequence of courses(subjects) in the curriculum	36.36	31.82	31.82	0	0
3	The syllabus covered the broader area of specialized streams	40.91	31.82	27.27	0	0
4	Effectiveness of the syllabus offered in relation to the technological advancements	37.27	53.64	9.09	0	0
5	Contribution of the curriculum in getting placements	37.27	36.36	16.37	0	0
6	The effectiveness of the curriculum helping you to write competitive exams (GATE/CAT/NET Etc.) for higher Studies	36.37	41.82	26.37	0	0



16/4/25

Staff In charge

(M. Tharanya)

18.04.25

Head of the Department

Head of the Department
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Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu, India.

Registrar

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Registrar,
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Kanyakumari District.

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DEPARTMENT OF COMPUTER APPLICATIONS

REPORT OF ANALYSIS OF FEEDBACK ON CURRICULUM 2024-2025

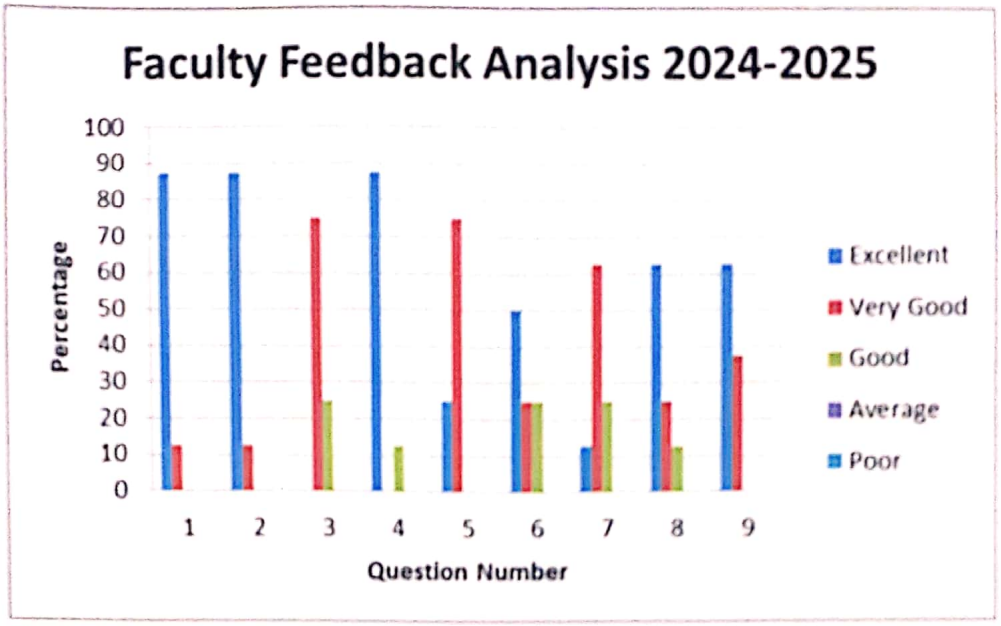
Faculty Feedback on Curriculum

16/04/2025

Faculty being the important pillars of the institution, a survey has been conducted to get the opinion of the faculty towards the programmes offered by the Department of Computer Applications. The survey recorded to a count of 8 responses which were analysed and evaluated based on the following criteria:

Sl.no	Description	Response %				
		Excellent	Very Good	Good	Average	Poor
1	Rate the structure of the curriculum framed for the entire program.	87.5	12.5	0	0	0
2	Rate the appropriateness of the sequences of the course provided in the curriculum.	87.5	12.5	0	0	0
3	Rate the depth of the syllabus for the course in relation to the competencies expected by industry current global sceneries.	0	75	25	0	0
4	Rate the sequences of the units in the course.	87.5	0	12.5	0	0
5	Rate the distribution of credits to the course.	25	75	0	0	0
6	Rate the adequateness of text book and reference book maintained for the course.	50	25	25	0	0
7	Rate the potential of the student in understanding the course objectives.	12.5	62.5	25	0	0
8	Rate the syllabus content in terms of the load to the student.	62.5	25	12.5	0	0
9	Rate the experiment list is stimulating the interest of the student in the subject.	62.5	37.5	0	0	0

CamScanner



Staff In charge

(M. Tharanya)

16.04.25

Head of the Department

Head of the Department
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Registrar

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CamScanner

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DEPARTMENT OF COMPUTER APPLICATIONS

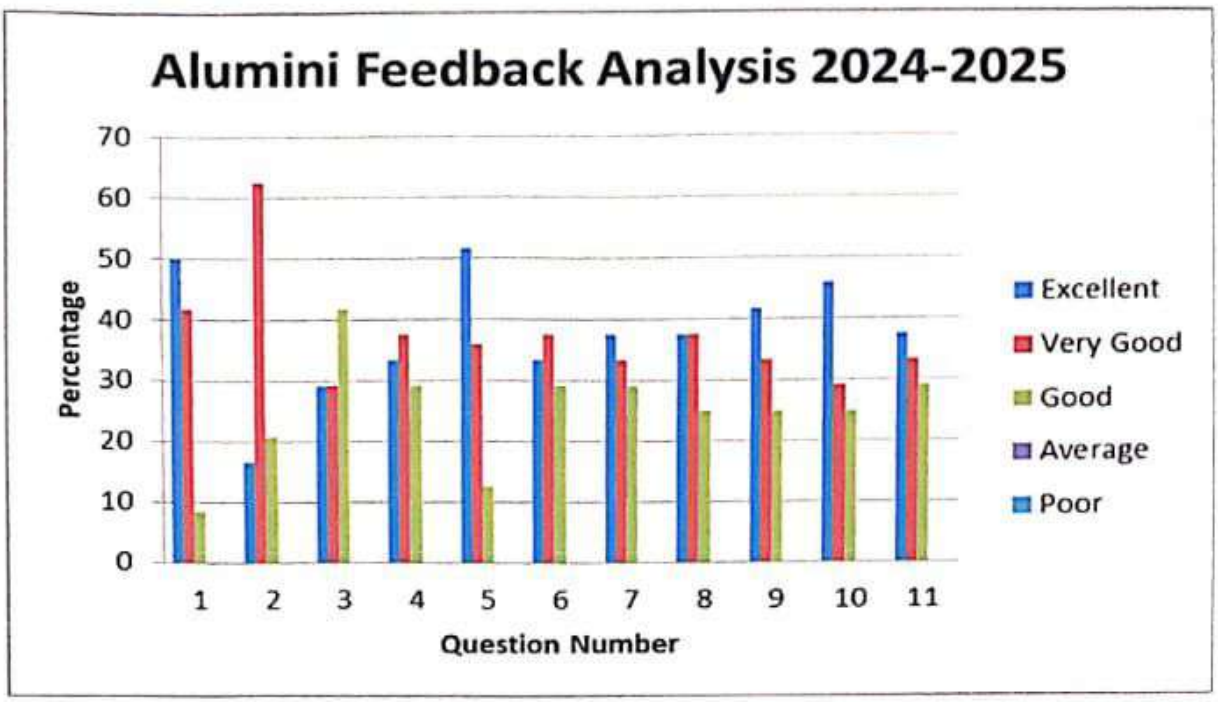
REPORT OF ANALYSIS OF FEEDBACK ON CURRICULUM 2024-2025

Alumni Feedback on Curriculum

16/04/2025

The main asset of the institution is its alumni. Alumni stand an important part in feedback to meet the expectations of the current and upcoming students. In the sense, a survey has been conducted to get the feedback and improvements of alumni towards the programmes offered by the department of Computer Applications. The survey 24 responses were analysed and evaluated based on the following criteria:

Sl. No	Description	Response %				
		Excellent	Very Good	Good	Average	Poor
1.	How do you rate the syllabus of the course in relation to the competencies expected out of the course?	49.83	41.83	8.33	0	0
2.	How do you rate the appropriateness of the sequence of the courses provided in the curriculum?	16.66	62.5	20.83	0	0
3.	Rate the depth of the syllabus of the courses in relation to the competencies expected by industry / current global scenarios	29.17	29.17	41.67	0	0
4.	Rate the sequence of the unit / modules in the courses	33.34	37.5	29.17	0	0
5.	Rate the adequateness the text book and the reference books maintain for the course	51.67	35.83	12.5	0	0
6.	Rate the syllabus content in terms of the load to the student	33.33	37.5	29.17	0	0
7.	Rate the design of the courses in terms of extra learning or self-learning	37.5	33.33	29.17	0	0
8.	Rate the flexibility in choosing the electives in relation to technology advancement	37.5	37.5	25	0	0
9.	Rate the percentage of the courses offering LAB comments	41.66	33.33	25	0	0
10.	Rate the compositions of the courses in terms of basic science , engineering science, humanity, discipline core, discipline elective, open elective, project etc.,	45.83	29.17	25	0	0
11.	How do you rate the objectives stated for each of the course,	37.5	33.33	29.17	0	0



16/4/25
Staff In charge
(M. Tharanya)

16.04.25
Head of the Department

Head of the Department
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DEPARTMENT OF COMPUTER APPICATIONS

REPORT OF ANALYSIS OF FEEDBACK ON CURRICULAM 2024-2025

EXPERTS FEEDBACK ON CURRICULUM

16/04/2025

The expertise of subject specialists and industry professionals plays a vital role in strengthening the academic quality of an institution. Experts provide valuable insights to ensure that the curriculum remains relevant, updated, and aligned with industry and academic requirements. In this regard, an Expert Feedback Survey was conducted to obtain constructive suggestions and recommendations on the programmes offered by the Department of Computer Applications. The survey 2 responses were analysed and evaluated based on the following criteria:

Sl. No	Description	Response %				
		Excellent	Very Good	Good	Average	Poor
1	Alignment of syllabus with the programme objectives	100	0	0	0	0
2	Coverage of advanced topics and emerging technologies in syllabus	50	50	0	0	0
3	Relevance of the electives offered in the curriculum	100	0	0	0	0
4	Weightage given to employability in the design and development of syllabus	100	0	0	0	0
5	Effectiveness of the syllabus meeting the expectations of industry	50	50	0	0	0
6	Enhancement of industry specific skills of the students	100	0	0	0	0
7	Syllabus promote higher-order thinking (analysis, design, problem-solving)	100	0	0	0	0

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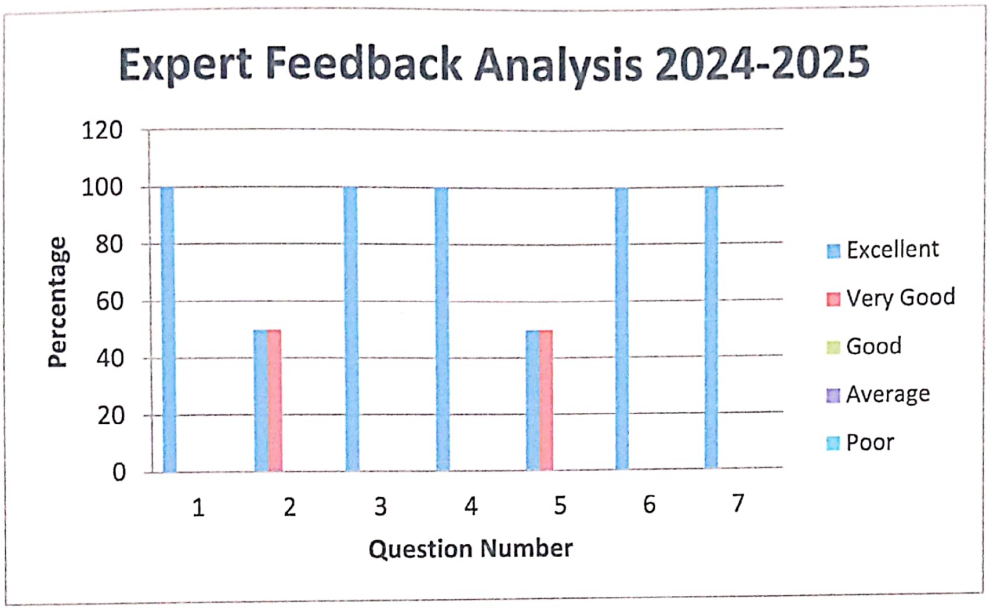

Staff In Charge
(M. Tharanya)

16.04.25

Head of the Department

Head of the Department
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Annexure 2.2

2.2 2025-26 calender S4,S6 Classes

2.2 Academic Schedule 24-25 EVEN

2.2 Academic Schedule S1 24-25 odd

2.2 Academic Schedule S2 23-24 Even

2.2 AcademicSchedule 24-25Even S2

2.2 S3 Academic Schedule 25-26 ODD

Academic Planner 2025-2026 (S4, S6 Classes)

JAN 2026

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5 FWD 1	6 2	7 3	8 4	9 5	10
11	12 6	13 7	14	15	16	17
18	19 8	20 9	21 10	22 11	23 12	24
25	26	27 13	28 14	29 15	30 16	31

Date	Activity
01-01-2026	New Year 2026
05-01-2025	**Instruction Begins for S4 and S6 Classes.**
07-01-2025	Formation of Class /Programme / Course Committees .
08-01-2025	First Class Committee Meeting for informing the Regulations and Course Committee Meeting to decide the scheme of evaluation
14-01-2026 to 18-01-2026	Pongal Holidays
26-01-2026	Republic Day

FEB 2025

SUN	MON	TUE	WED	THU	FRI	SAT
1	2 17	3 18	4 19	5 20	6 21	7
8	9 22	10 23	11 24	12 25	13 26	14
15	16 27	17 28	18 29	19 30	20 31	21
22	23 32	24 33	25 34	26 35	27 36	28

Date	Activity
05-02-2026	First Programme Committee Meeting to review the syllabus coverage details
09-02-2026	Commencement of First Series Test for S4, S6 UG/PG Classes.
18-02-2026	Review of First Series Test and submitting the report.
23-02-2026	Internal Practical Test -I

Academic Planner 2025-2026 (S4, S6 Classes)

March 2026

SUN	MON	TUE	WED	THU	FRI	SAT
1	2 37	3 38	4 39	5 40	6 41	7
8	9 42	10 43	11 44	12 45	13 46	14
15	16 47	17 48	18 49	19 50	20	21
22	23 51	24 52	25 53	26 54	27 55	28
29	30 56	31	1	2	3	4

April 2026

SUN	MON	TUE	WED	THU	FRI	SAT
29	30	31	1 57	2 58	3	4
5	6 59	7 60	8 61	9 62	10 63	11
12	13 64	14	15 65	16 66	17 67	18
19	20 68	21 69	22 70	23 71	24 72	25
26	27 73	28 74	29 75	30 76 LWD	1	2

Date	Activity
02-03-2026 to 08-03-2026	Payment of Odd Semester Examination Fee
09-03-2026 to 13-03-2026	Payment of Odd Semester Examination Fee with fine
12-03-2026	Second Programme Committee Meeting to review the syllabus coverage details
16-03-2026	Series Test -II
20-03-2026	Telegu New Year
21-03-2026	Ramzan
27-03-2026	Review of Second Series Test Performance and Submitting the report.
31-03-2026	Mahaveer Jayanthi

Date	Activity
03-04-2026	**Good Friday**
10-04-2026	Internal Practical Test – II
14-04-2026	Tamil New Year, Dr. Ambedkar's Birthday
20-04-2026	Third Programme Committee Meeting to review syllabus coverage details.
30-04-2026	Review of Model Examination Performance Series Test – III / Model Exam
30-04-2026	LWD

Academic Planner 2025-2026 (S4, S6 Classes)

May 2026

SUN	MON	TUE	WED	THU	FRI	SAT
26	27	28	29	30	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

June 2026

SUN	MON	TUE	WED	THU	FRI	SAT
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	1	2	3	4

Date	Activity
04-05-2026	Commencement of End Semester University Examination



PVC-Academics

NICHE KANYAKUMARI DEEMED-TO-BE UNIVERSITY
NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
Kumaracoil - 629 180, Kanyakumari District, Tamil Nadu, India
www.niuniv.com info@niuniv.com
+91-9486856101, 04651-250566

Academic Year 2024-25 (Even Semesters)
Academic Schedule – S4, S6 UG & PG Classes

Academic Activities

Instruction begins for S4, S6 UG & PG Classes	6th January 2025, Monday
Formation of Class /Programme / Course Committees and forwarding the committee members list to the Academic Affairs office	Before 8th January 2025, Wednesday
First Class Committee Meeting for informing the Regulations and Course Committee Meeting to decide the scheme of evaluation	Before 10th January 2025, Friday
First Programme Committee Meeting to review the syllabus coverage details	10th February 2025, Monday
Forwarding the syllabus coverage details to the concerned Authorities	10th February 2025, Monday
Commencement of First Series Test for S4, S6 UG & PG Classes Classes	12th February, 2025 Wednesday
Review of First Series Test Performance of Students and reporting academically poor students to the Student Mentor (Class Committee & Course Committee Meetings)	20th February 2025, Thursday
Forwarding the academic performance of students and attendance details to the University Authorities by class committee chairman	20th February 2025, Thursday
Commencement of First Internal Practical Test	26th February 2025, Wednesday
Payment of Even Semester Examination Fee	10th March 2025 to 14th March, 2025
Payment of Even Semester Examination Fee with fine	17th March 2025 to 21st March 2025
Second Programme Committee Meeting to review the syllabus coverage details	13th March 2025, Thursday
Forwarding the syllabus coverage details to the concerned Authorities	14th March 2025, Friday
Commencement of Second Series Test for S4, S6 UG, PG , Classes	17th March 2025, Monday
Review of Second Series Test Performance of Students and reporting academically poor students to the Student Mentor (Class Committee & Course Committee Meetings)	26th March 2025, Wednesday
Forwarding the academic performance of students and attendance details to the University Authorities by class committee chairman	26th March 2025, Wednesday
Commencement of Second Internal Practical Test	23rd April 2025, Wednesday
Third Programme Committee Meeting to review syllabus coverage details	5th May 2025, Monday
Forwarding the syllabus coverage details to the concerned Authorities	5th May 2025, Monday
Commencement of Third Series/Model Test for S4&S6 UG & PG Classes	7th May 2025, Wednesday
Review of Third Series/Model Test Performance of Students (Class Committee & Course Committee Meetings)	15th May 2025, Thursday
Last day of Instruction for S4&S6 UG & PG Classes	15th May 2025, Thursday
Commencement of End Semester University Examination	19th May, 2025, Monday
Commencement of Odd Semester Classes	2nd July, 2025, Wednesday

Pro-Vice-Chancellor (Academic)
Dr. ASHAJIN NARGUNAM M.E (CSE), PH.D
Pro Vice-Chancellor - Academics
Noorul Islam Centre for Higher Education
Kumaracoil, Thuckalay
Kanyakumari District, Tamilnadu, India.

To:

1. All HODs, Deans and Directors

Copy To:

1. PA to Chancellor
2. PA to Pro – Chancellor
3. PA to Pro – Chancellor (Academics)
4. PA to Vice-Chancellor
5. Pro-Vice-Chancellor (Admin)
6. The Registrar
7. The Controller of Examinations
8. File copy

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Academic Year 2024-25 (ODD Semesters)
Academic Schedule – All S1 UG/PG Classes

Academic Activities

Academic Activities	**Date**
First day of Instruction (Student Induction Program)	4th September 2024 Wednesday,
Commencement of Regular Classes	10th September 2024,Tuesday
Formation of Class /Programme / Course Committees and forwarding the committee members list to the Academic Affairs office	23rd September 2024,Monday
First Class Committee Meeting for informing the Regulations and Course Committee Meeting to finalize the scheme of evaluation	23rd September 2024,Monday
First Programme Committee Meeting to review the syllabus coverage details	24th October 2024, Thursday
Forwarding the syllabus coverage details to the concerned Authorities	24th October 2024, Thursday
Commencement of First Series Test	28th October 2024, Monday
Review of First Series Test Performance of Students and reporting academically poor students to the Student Mentor (Class Committee & Course Committee Meetings)	6th November 2024,Wednesday
Forwarding the academic performance of students and attendance details to the concerned Authorities by class committee chairman	6th November 2024,Wednesday
Commencement of First Internal Practical Test	11th November 2024,Monday
Second Programme Committee Meeting to review the syllabus coverage details	2nd December 2024, Monday
Forwarding the syllabus coverage details to the concerned Authorities	2nd December 2024, Monday
Commencement of Second Series Test	4th December 2024, Wednesday
Review of Second Series Test Performance of Students and reporting academically poor students to the Student Mentor (Class Committee & Course Committee Meetings)	12th December 2024, Thursday
Forwarding the academic performance of students and attendance details to the concerned Authorities by class committee chairman	12th December 2024, Thursday
Payment of Odd Semester Examinations Fee	9th December 2024 to 14th December 2024
Payment of Odd Semesters Examination Fee with fine	16th December 2024 to 20th December 2024
Commencement of Second Internal Practical Test	6th January 2025 Monday
Third Programme Committee Meeting to review syllabus coverage details	17th January 2025, Friday
Forwarding the syllabus coverage details to the concerned Authorities	17th January 2025, Friday
Commencement of Third Series Test /Model Exam	20th January 2025, Monday
Review of Third Series Test/ Model Exam Performance of Students (Class Committee & Course Committee Meetings)	24th January 2025, Friday
Last day of Instruction	27th January 2025, Monday
Commencement of End Semester Practical Examination	29th January 2025, Wednesday
Commencement of Even Semester Classes	24th February 2025, Monday

Pro Vice-Chancellor (Academic)

To:

1. All HODs, Deans and Directors

Copy To:

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3. PA to Pro – Chancellor (Academics)
4. PA to Vice-Chancellor
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Academic Year 2023-24 (Even Semesters)
Academic Schedule – S2 UG & PG Classes

Academic Activities

Instruction begins for S2 UG & PG Classes	14th February 2024, Wednesday
Formation of Class /Programme / Course Committees and forwarding the committee members list to the Academic Affairs office	Before 16th February 2024, Friday
First Class Committee Meeting for informing the Regulations and Course Committee Meeting to decide the scheme of evaluation	Before 20th February 2024, Tuesday
First Programme Committee Meeting to review the syllabus coverage details	11th March 2024, Monday
Forwarding the syllabus coverage details to the concerned Authorities	12th March 2024, Tuesday
Commencement of First Series Test for S2 UG & PG Classes	13th March, 2024, Wednesday
Review of First Series Test Performance of Students and reporting academically poor students to the Student Mentor (Class Committee & Course Committee Meetings)	22nd March 2024, Friday
Forwarding the academic performance of students and attendance details to the University Authorities by class committee chairman	22nd March 2024, Friday
Commencement of First Internal Practical Test	27th March 2024, Wednesday
Payment of Even Semester Examination Fee	15th April 2024 to 19th April, 2024
Payment of Even Semester Examination Fee with fine	22nd April 2024 to 26th April 2024
Second Programme Committee Meeting to review the syllabus coverage details	18th April 2024, Thursday
Forwarding the syllabus coverage details to the concerned Authorities	19th April 2024, Friday
Commencement of Second Series Test for S2 UG & PG Classes	22nd April 2024, Monday
Review of Second Series Test Performance of Students and reporting academically poor students to the Student Mentor (Class Committee & Course Committee Meetings)	2nd May 2024, Thursday
Forwarding the academic performance of students and attendance details to the University Authorities by class committee chairman	2nd May 2024, Thursday
Commencement of Second Internal Practical Test	20th May 2024, Monday
Third Programme Committee Meeting to review syllabus coverage details	3rd June 2024, Wednesday
Forwarding the syllabus coverage details to the concerned Authorities	4th June 2024, Tuesday
Commencement of Third Series Test/ Model Examination for S2 UG & PG Classes	5th June 2024, Monday
Review of Third Series Test/ Model Examination Performance of Students (Class Committee & Course Committee Meetings)	12th June 2024, Wednesday
Last day of Instruction for S2 UG & PG Classes	12th June 2024, Wednesday
Commencement of Odd Semester Classes	22nd July, 2024, Monday

6/2/24

Pro-Vice-Chancellor (Academic)

To:

1. All HODs, Deans and Directors

Copy To:

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Dr. A. SHAJIN NARGUNAM M.E (CSE), Ph.D.
Pro Vice-Chancellor - Academics
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Academic Year 2024-25 (Even Semesters)
Academic Schedule – S2 UG & PG Classes

Academic Activities

Instruction begins for S2 UG & PG Classes	24th February 2025, Monday
Formation of Class /Programme / Course Committees and forwarding the committee members list to the Academic Affairs office	Before 26th February 2025, Wednesday
First Class Committee Meeting for informing the Regulations and Course Committee Meeting to decide the scheme of evaluation	Before 28th February 2025, Friday
First Programme Committee Meeting to review the syllabus coverage details	20th March 2025, Thursday
Forwarding the syllabus coverage details to the concerned Authorities	21st March 2025, Friday
Commencement of First Series Test for S2 UG & PG Classes	24th March, 2025, Monday
Review of First Series Test Performance of Students and reporting academically poor students to the Student Mentor (Class Committee & Course Committee Meetings)	3rd April 2025, Thursday
Forwarding the academic performance of students and attendance details to the University Authorities by class committee chairman	4th April 2025, Friday
Commencement of First Internal Practical Test	15th April 2025, Tuesday
Payment of Even Semester Examination Fee	21st April 2025 to 25th April, 2025
Payment of Even Semester Examination Fee with fine	28th April 2025 to 2nd May 2025
Second Programme Committee Meeting to review the syllabus coverage details	28th April 2025, Monday
Forwarding the syllabus coverage details to the concerned Authorities	29th April 2025, Tuesday
Commencement of Second Series Test for S2 UG & PG Classes	30th April 2025, Wednesday
Review of Second Series Test Performance of Students and reporting academically poor students to the Student Mentor (Class Committee & Course Committee Meetings)	12nd May 2025, Monday
Forwarding the academic performance of students and attendance details to the University Authorities by class committee chairman	12nd May 2025, Monday
Commencement of Second Internal Practical Test	2nd June 2025, Monday
Third Programme Committee Meeting to review syllabus coverage details	9th June 2025, Monday
Forwarding the syllabus coverage details to the concerned Authorities	9th June 2025, Monday
Commencement of Third Series Test/ Model Examination for S2 UG & PG Classes	11th June 2025, Wednesday
Review of Third Series Test/ Model Examination Performance of Students (Class Committee & Course Committee Meetings)	19th June 2025, Thursday
Last day of Instruction for S2 UG & PG Classes	20th June 2025, Friday
Commencement of End Semester Examinations	25th June 2025, Wednesday
Commencement of Odd Semester Classes	23rd July 2025, Wednesday

Pro-Vice-Chancellor (Academic)
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Kanyakumari District, Tamilnadu, India.

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Academic Planner 2025-2026 (S3 Classes)

JUL 2025

SUN	MON	TUE	WED	THU	FRI	SAT
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23 FWD 1	24	25 2	26
27	28 3	29 4	30 5	31 6		

Date	Activity
23-07-2025	**Instruction Begins for S3 Classes.**
28-07-2025	Formation of Class /Programme / Course Committees
29-07-2025	First Class Committee Meeting for informing the Regulations and Course Committee Meeting to decide the scheme of evaluation
24-07-2025	Aadi Amavasai –Local Holiday

AUG 2025

SUN	MON	TUE	WED	THU	FRI	SAT
					1 7	2
3	4 8	5 9	6 10	7 11	8 12	9
10	11 13	12 14	13 15	14 16	15	16
17	18 17	19 18	20 19	21 20	22 21	23
24	25 22	26 23	27	28 24	29 25	30
31						

Date	Activity
15-08-2025	Independence Day
16-08-2025	Krishna Jeyanthi
22-08-2025	First Programme Committee Meeting to review the syllabus coverage details
25-08-2025	Commencement of Series Test- I
27-08-2025	Vinayakar Chathurthi

NICHE – Academic Schedule 2025-2026 ODD Semester

Academic Planner 2025-2026 (S3 Classes)

SEP 2025

SUN	MON	TUES	WED	THU	FRI	SATU
	1 26	2 27	3	4	5	6
7	8	9	10 28	11 29	12 30	13
14	15 31	16 32	17 33	18 34	19 35	20
2	22 36	23 37	24 38	25 39	26 40	27
2	29 41	30 42				

Date	Activity
03-09-2025 to 09-09-2025	OH (3-9)– Onam Holidays, 05-Miladi Nabi
10-09-2025	Review of First Series Test Performance and Submitting the report.
17-09-2025	Internal Practical Test –I
29-09-2025	Second Programme Committee Meeting to review the syllabus coverage details

OCT 2025

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6 ST2 43	7 44	8 45	9 46	10 47	11
12	13 48	14 49	15 50	16 51	17 52	18
19	20	21	22 53	23 54	24 55	25
26	27 56	28 57	29 58	30 59	31 60	

Date	Activity
01-10-2025	Saraswathi Pooja Holiday
02-10-2025	Gandhi Jeyanthi
03-10-2025	Holiday
06-10-2025	Series Test -II
06-10-2025 to 10-10-2025	Payment of Odd Semester Examination Fee
15-10-2025	Review of Second Series Test Performance and Submitting the report
13-10-2025 to 17-10-2025	Payment of Odd Semester Examination Fee with fine
20-10-2025 21-10-2025	Deepavali

Academic Planner 2025-2026 (S3 Classes)

NOV 2025

SUN	MON	TUE	WED	THU	FRI	SA
						1
2	3 61	4 62	5 63	6 64	7 65	8
9	10 66	11 67	12 IPT2 68	13 69	14 70	15
16	17 71	18 72	19 73	20 74	21 ST3 75	22
23	24 ST3 76	25 ST3 77	26 ST3 78	27 LWD 79	28 80	29
30						

Date	Activity
01-11-2025	Formation of K.K. Dist
12-11-2025	Internal Practical Test – II
20-11-2025	Third Programme Committee Meeting to review syllabus coverage details.
21-11-2025	Series Test – III / Model Exam
27-11-2025	Review of Model Examination Performance
27-11-2025	Last Day of Instruction

DEC 2025

SUN	MON	TUE	WE	THU	FRI	SAT
	1 81	2 82	3	4 83	5 84	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Date	Activity
01-12-2025	Commencement of End Semester University Examination
03-12-2025	St. Xavier Church Festival (LH)
From 24-12-2025	Semester Holidays

22/7/25

Pro Vice-Chancellor (Academics)

Dr. A. SHAJIN NARGUNAM M.E (CSE), Ph.D.
Pro Vice-Chancellor - Academics
Noorul Islam Centre for Higher Education
Kumaracoil, Thuckalay
Kanyakumari District. Tamilnadu. India.

Annexure 2.3

Project Review Attendance

Attached Annexure 2.4

Course Committee Minutes

Class Committee Minutes

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

Department of Computer Applications

Course Committee Members for 2023-2024 ODD Semester

31/07/2023

S.No	Name& Designation	Roll in Committee
1.	Dr. J. R. Jeba , Associate Prof & Head	Chairman
2.	Dr. Beulah. S, Associate Prof	Member
3.	Ms. C.R. Sheela Kumari, Asst. Prof	Member
4.	Ms. M. Merlin Johnsy, Asst. Prof	Member
5.	Ms. T. Tharanya, Teach. Asst.,	Member
6.	Ms. M. Aswini.,S3 MCA Student	Member
7.	Mr. D. Rejin, S3 MCA Student	Member

31/7/23

Staff in Charge

Dr. S. Beulah

27.07.'23

Head of the Department

Dr. J. R. Jeba

Noorul Islam Centre for Higher Education, Kumaracoil

Department of Computer Applications

Tentative schedule for Project Work - Phase I

(2023-2024) odd Semester

Title, Abstract submission & Software requirement	: 04-08-2023
Problem Definition, Objectives with Explanation	: 09-08-2023
Requirement collection and problem analysis	: 16-08-2023
Design:	
DFD, Screen layout, ER Diagrams (other necessary diagrams)	: 19-08-2023
Development of design in the software (Screen & database)	: 06-09-2023
Development (Completion of coding)	: 25-10-2023
Testing and implementation	: 30-10-2023

Project Review Tentative Schedule

0th Review	- 10th Aug 2023
First Review	- 11th Sep 2023
Second Review	- 19th Oct 2023
Third Review	- 16th Nov 2023

Report Submission Schedule

Rough report submission	-2nd Nov 2023
Final Report Submission	-17th Nov2023

Staff In Charge

Head of the Department

Head of the Department
Dept. of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil, Thuckalay - 629 180

2/08/2023

Sl.No	Univ. Reg. No	Student Name	Supervisor
1.	1122507006	Anfal Fathima M	ACS
2.	1122507014	Farhanah S	ACS
3.	1122507017	Jegadeesh A	ACS
4.	1122507013	Esakkidurai M	ACS
5.	1122507012	Delbin Jose J S	ACS
6.	1122507005	Aisha Beevi A	CRS
7.	1122507032	Suthi S	CRS
8.	1122507034	Vineeth V N	CRS
9.	1122507015	Ganesh K	CRS
10.	1122507029	Suji J	CRS
11.	1122507010	Aswini M	JRJ
12.	1122507016	Hasan Jazeera M	JRJ
13.	1122507022	Mohamed Saheem M	JRJ
14.	1122507003	Abin K	JRJ
15.	1122507007	Anish S	JRJ
16.	1122507019	Jercy L	MMJ
17.	1122507009	Aswin H	MMJ
18.	1122507027	Simson David A	MMJ
19.	1122507001	Rejin D	MMJ
20.	1122507020	Kadsun Karloos R	MMJ
21.	1122507025	Reghul Sankar A	MTA
22.	1122507002	Abi A	MTA
23.	1122507023	Mohamed Salman Khan S	MTA
24.	1122507037	Anish J	MTA
25.	1122507011	Bazeena A	SBH
26.	1122507028	Siva Sakthi G	SBH
27.	1122507008	Asib Rahman H	SBH
28.	1122507004	Abinesh K	SBH
29.	1122507018	Jenish R	SBH

Staff in charge

12.08.23

Head of the Department
Dept. of Computer Applicati
Noorul Islam Centre for Higher Edu
Kumaracoil, Thuckalay - 629 1

02/08/2023

Noorul Islam Centre for Higher Education

Department of Computer Applications

Project course Committee (2023-2024)

The course committee meeting was conducted on 01/08/2023 and discussed the following.

- The scheme of evaluation for the internal assessment was discussed. The marks are awarded in the review meetings as per the following

1. Review – 1

Slides preparation	: 20 Marks
Clarity of presentation	: 20 Marks
Understanding ability	: 10 Marks
Total	**: 50 marks**

2. Review – 2

Slides preparation	: 20 Marks
Modules Explanation	: 20 Marks
Clarity in presentation	: 10 Marks
Total	**: 50 marks**

3. Review – 3

Slides preparation	: 20 Marks
Modules Explanation	: 20 Marks
Clarity in presentation	: 20 Marks
Rough Report Preparation	: 20 Marks
Project Execution	: 20 Marks
Total	**: 100 marks**

First Internal Exam Mark: First Review Mark + Second Review Mark
Second Internal Exam Mark: Third Review Mark

- Instruct the students to get signature from the supervisor before entering every lab session.
- Instruct the students to meet their guides before every review.
- Instruct the students to get signature from their guide in the observation note before every review after correction of presentation.
- Discussed about the tentative schedule and it is given to the students.
- Discussed about the Guide allotment for the students and it is circulated to the students
- The guide allotment and tentative schedule for the students are attached with this.

The following members were present in the meeting

Sl. No	Name	Signature
1.	Dr. J. R. Jeba , Associate Prof & Head	
2.	Dr. Beulah. S, Associate Prof	
3.	Ms. C.R. Sheela Kumari, Asst. Prof	
4.	Ms. M. Merlin Johnsy, Asst. Prof	
5.	Ms. T. Tharanya, Teach. Asst.,	
6.	Ms. M. Aswini.,S3 MCA Student	
7.	Mr. D. Rejin, S3 MCA Student	

Project Coordinator
Dr. S. Beulah

Head of the Department
Dr. J. R. Jeba

Head of the Department
Dept. of Computer Applications
Noorul Islam Centre for Higher Ed
Kumaracoil, Thuckalay - 629 1

Kumaracoil
16.12.2023

Noorul IslamCentre for Higher Education,Kumaracoil

Department of Computer Applications

TENTATIVE SCHEDULE

Subject Code : CA35P2
Subject Name : Project Work - Phase II
Review Time:9.30 A.M.

Project Title Submission

Students are directed to submit the project title(s) with explanation to their guides on or before04th Jan 2024.

0th Review:

09-01-2024 { Last date to submit the Conformation letter from the Organization.
Last Date to finalize the Project Title, Software used, etc
The finalized title must be explained by the student during 0th review.

Confirmation letter Submission **On or before 11-01-2024** , Again 22.01.24
First Review: Date:05-02-2024

Ten minutes presentation with necessary Power point slides - which include Project Title, Abstract, objectives & Motivation of the problem, existing and proposed work,S/W used, Description of the Problem and List of moduleswith explanation.

Second Review: Date:04-03-2024

15 minutes presentation with necessary Power point slides. This includes the explanation about the completed modules of the project work with output.

Third Review: Date:15-04-2024

20 minutes presentation for full project with necessary Power point slides.

Rough Report Submission Date: 22-04-2024
Attendance and completion certificate submission: 30-04-2024
Last date to submit the 3 copies of the project work report (fair Copy):03-05-2024.

Note: Students are directed to attend the review meeting after getting the approval of their guide in the scheduled date and time with out fail. Also they have to present theprogress of the project work till that date before the review committee with necessary slides.

Project Convener : Dr. S. Beulah
Committee Members: Dr. J. R. Jeba ,Dr. A. C. Subhajini,Ms. C. N. Sheela Kumari, Ms. M. Merlin Johsy,Ms. M. Tharanya

Enclosure: Guide Allotment list, Guidelines to the students

Convener

HOD,
Dept. of Computer Applications

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

Kumaracoil-629180

Department of Computer Applications

Project Guide Allotment Even(2023-2024)

Subject Name : Project Work Phase-II
Subject Code : CA35P2

16.12.2023

Register No.	Name of the candidate	Supervisor NAme
1122507001	Rejin D	Ms.M.Tharanya
1122507002	Abi A	Ms.C.R.Sheela Kumari
1122507003	Abin K	Ms.M.Merlin Johnsy
1122507004	Abinesh K	Ms.M.Merlin Johnsy
1122507006	Anfal Fathima M	Dr.S.Beulah
1122507007	Anish S	Dr.J.R.Jeba
1122507008	Asib Rahman H	Ms.C.R.Sheela Kumari
1122507009	Aswin H	Dr.S.Beulah
1122507010	Aswini M	Dr.J.R.Jeba
1122507011	Bazeena A	Ms.C.R.Sheela Kumari
1122507012	Delbin Jose J S	Ms.M.Merlin Johnsy
1122507013	Esakkidurai M	Dr.S.Beulah
1122507014	Farhanah S	Ms.M.Tharanya
1122507015	Ganesh K	Ms.M.Tharanya
1122507016	Hasan Jazeera M	Ms.M.Merlin Johnsy
1122507018	Jenish R	Ms.C.R.Sheela Kumari
1122507019	Jercy L	Dr.S.Beulah
1122507020	Kadsun Karloos R	Ms.M.Tharanya
1122507022	Mohamed Saheem M	Ms.M.Merlin Johnsy
1122507023	Mohamed Salman Khan S	Ms.M.Tharanya
1122507025	Raghul Sankar A	Dr.J.R.Jeba
1122507027	Simson David A	Dr.J.R.Jeba
1122507028	Siva Sakthi G	Dr.S.Beulah
1122507029	Suji J	Ms.M.Tharanya
1122507032	Suthi S	Ms.C.R.Sheela Kumari
1122507034	Vineeth V N	Dr.J.R.Jeba

Staff in charge

Head of the Department

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Noorul Islam Centre for Higher Education, Kumaracoil

Department of Computer Applications

CA45P1

Tentative schedule for Project Work - Phase I

(2024-2025) odd Semester

Title, Abstract submission & Software requirement	: 26-07-2024
Problem Definition, Objectives with Explanation	: 05-08-2024
Requirement collection and problem analysis	: 12-08-2024
Design:	
DFD, Screen layout, ER Diagrams (other necessary diagrams)	: 21-08-2024
Development of design in the software (Screen & database)	: 08-09-2024
Development (Completion of coding)	: 25-10-2024
Testing and implementation	: 30-10-2024

Project Review Tentative Schedule

0th Review	- 29th July 2024
First Review	- 21st Aug2024
Second Review	- 07th Oct 2024
Third Review	- 11th Nov 2024

Report Submission Schedule

Rough report submission	-2nd Nov 2024
Final Report Submission	-18th Nov2024

Staff In Charge

26.07.24

Head of the Department

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

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DEPARTMENT OF COMPUTER APPLICATIONS

Project Guide Allotment Odd (2024-2025)

25-07-2024

Subject Name;:Project Work – I
Sub Code : CA45P1

Guide Dr. J. R. Jeba	
1.	Amrutha A
2.	Varsha S
3.	Vasunthradevi K
4.	Sreethu S S
Guide Dr. S. Beulah	
1.	Veena V.S
2.	Libi V D
3.	Reshme Anana S
4.	Dinesh Kumar P
5.	Jegadeesh
Guide Ms. C. R. Sheela Kumari	
1.	Shajitha. S
2.	Krishna Veni S
3.	Waffa U.F
4.	Sri harish S
5.	Viswasharan. R

Guide Ms. M. Merlin Johnsy	
1.	Shanthini G. S
2.	Mini T
3.	Sivaram M S
4.	Sowfik Fazil N
5.	Jithu Mon S A
Guide Dr. Shafeen Nagoor	
1.	Nanthini S
2.	Sahaya Sharmily S
3.	Anoop S
4.	Anto Jorgin S
5.	Donio D S
Guide Ms. M. Tharanys	
1.	Fathima Afra A
2.	Amritha S
3.	Shifna Wilfred
4.	Hosea K
5.	Shajin Jero J. F

Course In Charge : Dr. Shafeen Nagoor

Staff In Charge

Head of the Department 25.07.24

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu, India.

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Department of Computer Applications

Course Committee Members for 2024-2025

26/07/2024

S.No	Name& Designation	Roll in Committee
1.	Dr.J.R.Jeba , Associate Prof& Head	Chairman
2.	Dr. Beulah. S, Associate Prof	Member
3.	Ms. C.R. SheelaKumari, Asst. Prof	Member
4.	Ms. M. Merlin Johnsy, Asst. Prof	Member
5.	Dr. M. ShafeenNagoor	Member
6.	Ms. T. Tharanya, Teach. Asst.,	Member
7.	Ms. Amrutha. A, MCA Student	Member
8.	Mr. Hosea. K, MCA Student	Member

Staff in Charge

Dr. S. Beulah

Head of the Department

Dr. J. R. Jeba

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

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26/07/2024

Noorul Islam Centre for Higher Education

Department of Computer Applications

Project course Committee (2024-2025)

The course committee meeting conducted on 26/07/2024and discussed the following.

- The scheme of evaluation for the internal assessment was discussed. The marks are awarded in the review meetings as per the following

1. Review – 1

Slides preparation	: 20 Marks
Clarity of presentation	: 20 Marks
Understanding ability	: 10 Marks
Total	**: 50 marks**

2. Review – 2

Slides preparation	: 20 Marks
Modules Explanation	: 20 Marks
Clarity in presentation	: 10 Marks
Total	**: 50 marks**

3. Review – 3

Slides preparation	: 20 Marks
Modules Explanation	: 20 Marks
Clarity in presentation	: 20 Marks
Rough Report Preparation	: 20 Marks
Project Execution	: 20 Marks
Total	**: 100 marks**

First Internal Exam Mark: First Review Mark + Second Review Mark
Second Internal Exam Mark: Third Review Mark

- Instruct the students to get signature from the supervisor before entering every lab session.
- Instruct the students to meet their guides before every review.
- Instruct the students to get signature from their guide in the observation note before every review after correction of presentation.
- Discussed about the tentative schedule and it is given to the students.
- Discussed about the Guide allotment for the students and it is circulated to the students
- The guide allotment and tentative schedule for the students are attached with this.

The following members were present in the meeting

Sl. No	Name	Signature
1.	Dr.J.R.Jeba , Associate Prof& Head	
2.	Dr. Beulah. S, Associate Prof	
3.	Ms. C.R. SheelaKumari, Asst. Prof	
4.	Ms. M. Merlin Johnsy, Asst. Prof	
5.	Dr. M. ShafeenNagoor	
6.	Ms. T. Tharanya, Teach. Asst.,	
7.	Ms. Amrutha. A, MCA Student	
8.	Mr. Hosea. K, MCA Student	

28/7/24

Project Coordinator
Dr. S. Beulah

28.7.24

Head of the Department
Dr. J. R. Jeba

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

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Kumaracoil
06.01.2025

Noorul IslamCentre for Higher Education,Kumaracoil

Department of Computer Applications

TENTATIVE SCHEDULE

Subject Code :CA45P2
Subject Name : Project Work -Phase II
Review Time:9.30 A.M.

All the students must present from 9.30 A.M to the end of review in their review dates without fail

Project Title Submission

Students are directed to submit the project title(s) with explanation to their guides on or before**06th Jan 2025.**

0th Review:
06-01-2025 { Last date to submit the Conformation letter from the Organization.
Last Date to finalize the Project Title, Software used,etc.
The finalized title must be explained by the student during 0th review.
Confirmation letter Submission **On or before 10-01-2025**
First Review: Date:**10-02-2025**

Ten minutes presentation with necessary Power point slides - which include Project Title, Abstract, objectives & Motivation of the problem, existing and proposed work,S/W used, Description of the Problem and List of moduleswith explanation.

Second Review: Date:**10-03-2025**
15 minutes presentation with necessary Power point slides. This includes the explanation about the completed modules of the project work with output.

Third Review:Date:23-04-2025
20 minutes presentation for full project with necessary Power point slides.

Rough Report Submission Date: 25-04-2025
Attendance and completion certificate submission: 25-04-2025
Last date to submit the 3 copies of the project work report (fair Copy):05-05-2025.

Note:Students are directed to attend the review meeting after getting the approval of their guide in the scheduled date and time without fail. Also they have to present theprogress of the project work till that date before the review committee with necessary slides.

Project Convener : Dr. S. Beulah
Committee Members: DrJ.R.Jeba ,MsC. R. SheelaKumari, MsM. Merlin Johnsy,
Dr. M. ShafeenNagoor, Ms. C. Juliet Jemila, Ms. M. Tharanya

6/1/25
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Staff Incharge

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Department of Computer Applications

Project Guide allotment (2024-2025 Even) for S4 MCA

06.01.2025

Roll. No	Reg. No	Name	Supervisor
1	1123507002	Amritha S	Dr. M. ShafeenNagoor
2	1123507003	Amrutha A	Dr. J. R. Jeba
3	1123507004	Anoop S	Ms. C. R. SheelaKumari
4	1123507005	AntoJorgin S	Dr. S. Beulah
5	1123507007	Donio D S	Dr. M. ShafeenNagoor
6	1123507008	FathimaAfra A	Ms. C. R. SheelaKumari
7	1123507009	Hosea K	Ms. M. Tharanya
8	1123507010	Jithu Mon S A	Ms. C. R. SheelaKumari
9	1123507011	Krishna Veni S	Ms. M. Merlin Johnsy
10	1123507012	Libi V D	Dr. J. R. Jeba
11	1123507013	Mini T	Dr. S. Beulah
12	1123507014	Nanthini S	Ms. M. Tharanya
13	1123507015	ReshmeAnana S	Dr. J. R. Jeba
14	1123507016	SahayaSharmily S	Ms. C. R. SheelaKumari
16	1123507018	Shajitha S	Dr. S. Beulah
17	1123507019	Shanthini G S	Dr. M. ShafeenNagoor
18	1123507020	Shifna Wilfred	Ms. C. Juliet Jemila
19	1123507021	Sivaram M S	Dr. S. Beulah
20	1123507022	SowfikFazil N	Ms. M. Merlin Johnsy
21	1123507023	Sreethu S S	Dr. M. ShafeenNagoor
22	1123507024	Sri Harish S	Ms. M. Merlin Johnsy
23	1123507025	Varsha S	Ms. C. Juliet Jemila
24	1123507026	Vasuntharadevi K	Ms. C. Juliet Jemila
25	1123507027	Veena V S	Ms. M. Merlin Johnsy
26	1123507028	Viswasharan R	Dr. J. R. Jeba
27	1123507029	Waffa U F	Ms. M. Tharanya
28	1124507901	Dinesh Kumar P	Ms. C. Juliet Jemila
29	1122507901	Jegadeesh A	Ms. M. Tharanya

Staff In charge 06/01/25

HOD 6/1/25

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ACADEMIC YEAR 2025-26 ODD SEMESTER

CLASS COMMITTEE IV

26/11/2025

Circular

This is to inform that the Fourth class committee meeting for S3 MCA will be conducted on 27/11/2025on Smart Class Room at 12.30 P.M.The Class Committee members are requested to attend the meeting.

Class Committee Members

Sl.No	Name	Designation	Signature
1.	Ms.M.Tharanya	Chair Person	
2.	Ms.M.Merlin Johnsy	Course Teacher	
3.	Ms. Priya J	Course Teacher	
4.	Ms.Juliet Jemila C	Course Teacher	
5.	Dr. Shafeen Nagoor M	Course Teacher	
6.	Ms. Sheela Kumari C R	Course Teacher	
7.	Mr. Sheik Mohamed Shalam S	Student Member	
8.	Abin J	Student Member	
9.	Ms. Newsha M R	Student Member	
10.	Sherin Fathima S	Student Member	

Staff In Charge

Ms. C.Juliet Jemila

HOD 15.12.25

Dr.J.R.Jeba

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil-629180, Thuckalay
Kanyakumari District, TamilNadu, India.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ACADEMIC YEAR 2025-26 ODD SEMESTER

CLASS COMMITEE IV

Minutes of Meeting

Date: 28.11.2025

Class: S3 MCA

Chairperson: Ms.M.Tharanya.

The Fourth class committee meeting for S3 MCA was held on 27/11/2025 at 12.30 P.M. in the Department Smart Class Room. The following members were present.

Sl.No	Name	Designation	Signature
1.	Ms.M.Tharanya	Chair Person	
2.	Ms.M.Merlin Johnsy	Course Teacher	
3.	Ms. Priya J	Course Teacher	
4.	Ms.Juliet Jemila C	Course Teacher	
5.	Dr. Shafeen Nagoor M	Course Teacher	
6.	Ms. Sheela Kumari C R	Course Teacher	
7.	Mr. Sheik Mohamed Shalam S	Student Member	
8.	Abin J	Student Member	
9.	Ms. Newsha M R	Student Member	
10.	Sherin Fathima S	Student Member	

The following are the outcomes of the meeting:

1. The results of the Model Examination were discussed.
2. The schedule for the University Laboratory and Theory Examinations was announced.
3. The students were instructed to complete their laboratory records.
4. The students were advised to prepare well for the end-semester examinations.
5. The subject-wise analysis of the Model Examination was prepared and shared with the students.

Result Analysis-Model examination

Subject-wise Pass/Fail/Absent Summary

Subject Code	Subject Name	Pass	Fail	Absent	Total	Pass %
CA4507	Advanced Java Programming	21	5	2	28	75%
CA4508	Machine Learning Techniques	20	6	2	28	71%
CA45B2	Digital Image Processing	18	8	2	28	64%
CA45C2	Knowledge Engineering	26	1	1	28	93%
CA45C3	Management Information System	20	6	2	28	71%

Overall Analysis

- Total Students Appeared: 28
- Total Absentees: 1–2 per subject (≈7%)
- Theory Average Pass Rate: 74%

Observations

- The overall performance in the Model Examination was satisfactory with some improvements compared to earlier series tests.
- Subjects such as Digital Image Processing (64%) and Machine Learning Techniques (71%) require additional focus.
- Minimal absenteeism indicates increased student engagement.
- Remedial coaching, lab practice, and project guidance contributed positively to the performance.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ACADEMIC YEAR 2023-24 ODD SEMESTER

CLASS COMMITTEE I

16.09.2023

Circular

This is to inform the class committee members of S1 MCA that the first class committee meeting for S1 MCA is scheduled on the 18/09/2023 in Smart classroom at 12.30 p.m. Kindly attend the class committee meeting.

Chair person: Ms C. R. Sheela Kumari

SI.No	Name	Designation	Signature
1.	Dr. S. Beulah	Course Teacher	
2.	Dr. J. R. Jeba	Course Teacher	
3.	Ms.R.Sujitha	Course Teacher	
4.	Dr.J.R.Inba Saharan	Course Teacher	
5.	Dr.M.Sudha	Course Teacher	
6.	Mr.A.Ajin Monish	Course Teacher	
7.	Mr.Hosea K	Student Member	
8.	Nanthini S	Student Member	

Staff In Charge

(M. Tharun)

HOD

HOD

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ACADEMIC YEAR 2023-24 ODD SEMESTER

CLASS COMMITEE I

Minutes of Meeting

Date:18.09.2023

Class:S1 MCA

ChairPerson: C.R.Sheela Kumari

The first class committee meeting for S1 MCA was held on 18/09/2023 at 12.30 P.M. in the Department Smart Class Room. The following members were present.

SI.No	Name	Designation	Signature
1.	Dr. S. Beulah	Chair Person / Course Teacher	
2.	Dr. J. R. Jeba	Course Teacher	
3.	Ms.R.Sujitha	Course Teacher	
4.	Dr.J.R.Inba Saharan	Course Teacher	
5.	Dr.M.Sudha	Course Teacher	
6.	Mr.A.Ajin Monish	Course Teacher	
7.	Mr.Hosea K	Student Member	

The following are the Outcomes of the meeting.

1.The Credits of the subject was discussed.

2.The regulations of MCA are clearly explained to the students.

3.The students are asked to attend the class regularly.

4.The tentative schedule for first series test is announced .

5.The students are asked to submit the leave form to the class mentors properly.

6.The students are informed to prepare well for the internal assessment exams.

Staff In Charge

HOD

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Attached Annexure 2.5

(Students Project Completion Certificate)

Project completion Certificate 2024.pdf

Project completion Certificate 2025.pdf

GET INNOVATIVE

Date: 09-05-2024

This is to certify that **Mr.Rejin.D,** final year MCA Student from **Noorul Islam Centre for Higher Education**, **Kumarakovil** with **Reg. No. 1122507001** has successfully completed the Project work entitled **"Graphical Password Authentication using Image Processing Techniques"** in our company during the period **January 2024 to May 2024.**

His attendance performance and conduct were found good during this period. We wish him all the best in his future endeavors.

GET INNOVATIVE K.K. DIST. 629167 AZHAGIYAMANDAPAM

MANAGING DIRECTOR

GET INNOVATIVE

04651208803
+91 8248198475

www.getinnovatives.com
support@getinnovatives.com

1st floor,Mani complex,
Azhagiyamandapam,
Tamil Nadu - 629 167

HR DEPARTMENT
Ref:DexIn/2023-24/DOC-259

dexpro INNOVATIONS

4th MAY 2024

CERTIFICATE

This is to certify that **Ms.ABI A,** (Reg.No: 1122507002) final year student of MCA **Noorul Islam Centre for Higher Eductaion,Kumaracoil** has been Successfully completed project work entitled **"HUMAN BODY PERFORMANCE RATING"** in our company during the period February 2nd, 2024, to April 30th 2024.

Her Attendance performance is found good during the above period, and project work was evaluated and examined at every stage in learning during the project work training.

Thanking You

For Dexpro Innovations Pvt Ltd

Muhammad Anas NS

HR-Department

Dexpro Innovations Pvt. Ltd. Trivandrum

Dexpro Innovations Pvt Ltd, CIN: U72500KL2017PTC051225, First Floor, 25/1002(2), Aristo Junction, Thampanoor, Trivandrum, Kerala, India – 695001, Email: Info@dexpro.in Contact : 91-9746 211 123

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119, No.8, 11th Main Rd, Vijaya Nagar, Velachery, Chennai, Tamil Nadu 600042
Mobile No : 7305039307
Email – info@besanttech.com
http://www.besanttechnologies.com

CERTIFICATE

This is to certify **Mr. K. Abin, (Reg.No: 1122507003)** final year **MCA** at **Noorul Islam Centre for Higher Education, Kumaracoil,** has been successfully completed the project work entitled "**College Management System**" in our company during the period **Febraury 2024** to **April 2024**.

His attendance performance is found good during the above period. He has envinced keen interest in learning during the project work training.

We wish him all success in his future endeavors.

BESANT TECHNOLOGIES CHENNAI 42

Date : 29-04-2024

Karthick Kannan A

BESANT TECHNOLOGIES

Reg.No.20/2014

Glade Software Solution

Near Standard Auditorium, North Street, Marthandam-629 165

Tel: +91 4651-295618
Website: www.gladesoftwaresolution.in

Date: 09-05-2024

CERTIFICATE

This is to certify **Mr. ABINESH K, (Reg.No: 1122507004)** final year MCA Student from **Noorul islam centre for higher education, kumarakovil** has been successfully completed the project work entitled **"Detection of stress in it employees"** in our company during the period **January 2024 to May 2024**.

His attendance performance is found good during the above period. He has evinced keen interest in learning during the project work training.

We wish him all success in his future endeavors.

Regards,

Mr. M. Suresh Babu M.B.A., B.E
Project Manager
Glade Software Solution

GLADE SOFTWARE SOLUTION GSS

HR DEPARTMENT
Ref:DexIn/2023-24/DOC-260

dexpro INNOVATIONS

4th MAY 2024

CERTIFICATE

This is to certify that **Ms. ANFAL FATHIMA M ,** (Reg.No: 1122507006) final year student of MCA **Noorul Islam Centre for Higher Eductaion,Kumaracoil** has been Successfully completed project work entitled **"MENTAL HEALTH TRACKER"** in our company during the period February 2nd, 2024, to April 30th 2024.

Her Attendance performance is found good during the above period, and project work was evaluated and examined at every stage in learning during the project work training.

Thanking You

For Dexpro Innovations Pvt Ltd

Muhammad Anas NS

HR-Department

Dexpro Innovations Pvt. Ltd. Trivandrum

Dexpro Innovations Pvt Ltd, CIN: U72500KL2017PTC051225, First Floor, 25/1002(2), Aristo Junction, Thampanoor, Trivandrum, Kerala, India – 695001, Email: Info@dexpro.in Contact : 91-9746 211 123

Glade Software Solution
Reg.No.20/2014
Near Standard Auditorium, North Street, Marthandam-629 165

Tel: +91 4651-295618
Website: www.gladesoftwaresolution.in

Date: 09-05-2024

CERTIFICATE

This is to certify **Mr. Asib Rahman H, (Reg.No: 1122507008)** final year MCA Student from **Noorul islam centre for higher education, kumarakovil** has been successfully completed the project work entitled **"Traffic Management System"** in our company during the period **January 2024 to May 2024**.

His attendance performance is found good during the above period. He has evinced keen interest in learning during the project work training.

We wish him all success in his future endeavors.

Regards,

Mr. M. Suresh Babu M.B.A., B.E
Project Manager
Glade Software Solution

GLADE SOFTWARE SOLUTION GSS

Glade Software Solution
Reg.No.20/2014
Near Standard Auditorium, North Street, Marthandam-629 165

Tel: +91 4651-295618
Website: www.gladesoftwaresolution.in

Date: 09-05-2024

CERTIFICATE

This is to certify **Mr. ASWIN.H, (Reg.No: 1122507009)** final year MCA Student from **Noorul islam centre for higher education, kumarakovil** has been successfully completed the project work entitled "**Method for managing the entire data lifecycle, including secure deletion at the end of data retention periods**" in our company during the period **January 2024 to May 2024**.

His attendance performance is found good during the above period. He has evinced keen interest in learning during the project work training.

We wish him all success in his future endeavors.

Regards,

Mr. M. Suresh Babu M.B.A., B.E
Project Manager
Glade Software Solution

GLADE SOFTWARE SOLUTION
GSS

Click Solutions

4th Floor, Xavier Building,
Veppamoodu Junction,
Nagercoil-629001.
04652-240210
info@jclicksolutions.com
www.jclicksolutions.com

Dated : 09-05-2024

Project Completion Certificate

This is to certify that A . Bazeena , MCA Student from Noorul Islam Centre For Higher Education, Thuckalay , Kumaracoil , Tamil Nadu , has done her project Work titled **" Dimensional reduction approaches for crime data analysis using machine learning "** in **Jclicksolutions** from **Jan 17, 2024 to May 05 , 2024** as part of curriculum . We have noticed that , during the period , she has shown keen interest in his assignments and we also regular in attendance.

Project Manager

JCLICKSOLUTIONS
Veppamoodu Jn.
Nagercoil - 629 001
Ph: 9791790210

Srishti Innovative Computer Systems Pvt. Ltd.
Reg. No.: U72200KL2008PTC021755
1C, 1st Floor, Carnival Technopark, Technopark Campus,
Kazhakkoottam, Thiruvananthapuram- 695581

Certificate

This is to certify that the ***Python Full Stack*** *Project work entitled* ***"Disaster Management System"*** *submitted by* ***Mr. Delbin Jose J S (Reg No: 1122507012)*** *of* ***Nesamony Memorial Christian College Marthandam,*** *is in partial fulfillment for the award of the Masters in Computer Application in the year 2024 is a bonafide record of work done at* ***"Srishti Innovative Computer Systems", Trivandrum****. He was along with our development team for doing the project.*

28th April 2024
Trivandrum

Monisha H Chandran
Manager

IT Service Company
Tel:+91-471-406-2181
Email:support@srishtis.com

Click Solutions

4th Floor, Xavier Building,
Veppamoodu Junction,
Nagercoil-629001.
04652-240210
info@jclicksolutions.com
www.jclicksolutions.com

Dated : 09-05-2024

Project Completion Certificate

This is to certify that S . Farhanah , MCA Student from Noorul Islam Centre For Higher Education, Thuckalay , Kumaracoil , Tamil Nadu , has done her project Work titled " **Article Recommendation System** " in **Jclicksolutions** from **Jan 19, 2024 to May 05 , 2024** as part of curriculum . We have noticed that , during the period , she has shown keen interest in his assignments and we also regular in attendance.

Project Manager

JCLICKSOLUTIONS Veppamoodu Jn Nagercoil - 629 001 Ph: 9791790210

Srishti Innovative Computer Systems Pvt. Ltd.
Reg. No.: U72200KL2008PTC021755
1C, 1st Floor, Carnival Technopark, Technopark Campus,
Kazhakkoottam, Thiruvananthapuram- 695581

Certificate

This is to certify that ***Mr. Delbin Jose J S*** *(Reg. No. 1122507012) who is undergoing his* ***Masters in Computer Application*** *from* ***Noorul Islam Centre For Higher Education,*** *Kumarakovil, Thuckalay, Kanyakumari District Tamil Nadu, India. Has successfully completed his project work entitled* ***"Disaster Management System"*** *in the technology* ***Python*** *is a work done as a partial fulfillment for the award of the Degree in the year 2024 during the period from 3rd Jan 2024 to 25th April 2024 is a bonafide record of work done at* ***"Srishti Innovative Computer Systems", Trivandrum.***

He was along with our development team for doing the project development. Throughout this period, he consistently demonstrated a keen interest in his assignments and maintained regular attendance, achieving an outstanding attendance rate of 92%



22-May-24

Trivandrum

Monisha H Chandran

Centre Manager

ClickSolutions

4th Floor, Xavier Building,
Veppamoodu Junction,
Nagercoil-629001.
04652-240210
info@jclicksolutions.com
www.jclicksolutions.com

Dated : 09-05-2024

Project Completion Certificate

This is to certify that M. Hasan Jazeera , MCA Student from Noorul Islam Centre For Higher Education, Thuckalay , Kumaracoil , Tamil Nadu , has done her project Work titled " **Credit card Fraud Detection System Using Machine Learning Concept** " in **Jclicksolutions** from **Jan 17, 2024 to May 05 , 2024** as part of curriculum . We have noticed that , during the period , she has shown keen interest in his assignments and we also regular in attendance.

Project Manager



Agileinfo
Where Dreams Meet Solutions

Dated:07-05-2024

Project Completion Certificate

This is to certify that Jercy L, Reg no: 1122507019, , MCA student from Noorul Islam Centre For Higher Education,Thuckalay, Kumaracoil, Tamil Nadu, has done her Project Work titled **"Train, Food Booking and Travel"** in **Agileinfo Techytern Solutions LLP** from January 22, 2024 το May 06, 2024 as part of curriculum. We have noticed that, during the period, she has shown keen interest in his assignments and was also regular in attendance.

Project Manager

AGILEINFO TECHYTERN SOLUTIONS LLP

Agileinfo
Where Dreams Meet Solutions

Dated:07-05-2024

Project Completion Certificate

This is to certify that Jercy Lawrence, MCA student from Noorul Islam Centre For Higher Education,Thuckalay, Kumaracoil, Tamil Nadu, has done her Project Work titled **"Train, Food Booking and Travel"** in **Agileinfo Techytern Solutions LLP** from January 22, 2024 to May 06, 2024 as part of curriculum. We have noticed that, during the period, she has shown keen interest in his assignments and was also regular in attendance.

Project Manager

AGILEINFO TECHYTERN SOLUTIONS LLP

www.agileinfoz.com md@agileinfoz.com 7907255115, 7907259007

Besant Technologies
Stay Hungry.. Stay Foolish..

Besant Technologies,
119, No.8, 11th Main Rd, Vijaya Nagar, Velachery, Chennai, Tamil Nadu 600042
Mobile No : 7305039307
Email – info@besanttech.com
http://www.besanttechnologies.com

CERTIFICATE

This is to certify **Mr. R. Kadsun Karloos, (Reg.No: 1122507020)** final year **MCA** at **Noorul Islam Centre for Higher Education, Kumaracoil,** has been successfully completed the project work entitled **"Insurance Management System"** in our company during the period **Febraury 2024** to **April 2024**.

His attendance performance is found good during the above period. He has envinced keen interest in learning during the project work training.

We wish him all success in his future endeavors.

BESANT TECHNOLOGIES CHENNAI-42

Date : 29-04-2024

Karthick Kannan A

BESANT TECHNOLOGIES

Besant Technologies

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Besant Technologies,
119, No.8, 11th Main Rd, Vijaya Nagar, Velachery, Chennai, Tamil Nadu 600042
Mobile No : 7305039307
Email – info@besanttech.com
http://www.besanttechnologies.com

I hereby certify that **Kadsun Karloos R** a bonafide student of **Besant Technologies**. This certificate is issued for the purpose of Undergoing **Fullstack Developer Internship** Course. A Student of final year **MCA (Master of Computer Applications)** from **"Noorul Islam Centre for Higher Education Kumaracoil "** will be going to act as a project Trainee under the Technology of **Fullstack With Python.**

Project Title : **"Insurance Management System"**

Timing Details: (Weekdays class)

For Weekdays Morning : 07:00 AM to 12:00 PM

Duration: 2 Months (From Feb 2024 to Apr 2024)

BESANT TECHNOLOGIES CHENNAI-42

8/2/24

08/02/2024
Date

Karthick Kannan A

BESANT TECHNOLOGIES

Place: Chennai

Date: 10-04-2024

CERTIFICATE

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Mohamed Saheem, (Reg No: 1122507022),** final year **MCA.,** student of Noorul Islam Centre for Higher Education, Kumaracoil, Thuckalay has completed her project entitled **"Online Shopping"** with us from 19-01-2024 to 10-04-2024 . During the period of the project, his performance was good.

We wish all the best for his bright future.

Best Regards,

For iNoesis Thechnology Private Limited

Mr. Tamilselvan L

Founder & CEO

Agileinfo
Where Dreams Meet Solutions

Dated:07-05-2024

Project Completion Certificate

This is to certify that S Mohamed Salman Khan, MCA student from Noorul Islam Centre For Higher Education,Thuckalay, Kumaracoil, Tamil Nadu, has done his Project Work titled **"Tourism Management System"** in **Agileinfo Techytern Solutions LLP** from January 22, 2024 το May 06, 2024 as part of curriculum. We have noticed that, during the period, he has shown keen interest in his assignments and was also regular in attendance.

Project Manager

AGILEINFO TECHYTERN SOLUTIONS LLP

Dated: 05 th May, 2024

TO WHOM IT MAY CONCERN

This is to certify that Mr. Raghul Sankar. A, a student of Master of Computer Applications (MCA) at Noorul Islam University, Kanyakumari, Tamilnadu. He has done his internship from 19th January, 2024 to 10th April, 2024 under my supervision at Andjessys.

He has contributed in a project through his Frontend Development skills to work on Andjessys Hospitality management system Using Python for Hospitality management services.

During his internship I have experienced that he is well equipped to grow from challenges with highly self-motivating attitude to learn new things. he is an individual who shows up earlier than asked, works hard and always behaves in a polite, respectable manner.

It is my pleasure to offer recommendations for Raghul to the organization he is going to be a part.

If you have any requests or questions, do not hesitate to contact me.

Thanking you,

Issued by:

YASBIN ROSY T (CO-FOUNDER & CTO)

IT-Department

Andjessys Technologies Private Limited

05/05/2024

ANDJESSYS
No. 2/69C, Kadai Street, Akkarai,
Suchindrum, Kanyakumari District,
Tamil Nadu - 629 704.
E-mail: admin@andjessys.com
Website: www.andjessys.com

For ANDJESSYS

Signature: T Yasbin Rosy

Proprietor

Seal or Stamp of the Organization

andjessys

Date :20/01/2024

To,
The Head of the Department,
Master of Computer Applications,
Noorul Islam Centre for Higher Education,
Kumaracoil.

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Raghul Sankar. A**, **(Reg. No: 1122507025)** final year MCA Student of Noorul Islam Centre for Higher Education, Kumaracoil, will be pursuing her project in our organization on "**Hospitality Management System (HMS)**" during the period from Jan – Apr 2024, in partial fulfilment of the requirements for the award of the degree of Master of Computer Applications.

For **Andjessys Technologies Pvt Ltd**

ANDJESSYS
No. 2/69C, Kadai Street, Akkarai,
Suchindrum, Kanyakumari District,
Tamil Nadu - 629704.
E-mail: admin@andjessys.com
Website: www.andjessys.com

Sharbil Andrews A

Project-coordinator

andjessys

Certificate of Completion

This Certificate is Proudly Presented to **A. RAGHUL SANKAR** for the successful completion of **HOSPITALITY MANAGEMENT SYSTEM** conducted from 19/01/2024 to 10/04/2024.

Throughout the duration of the project, Raghul has demonstrated exceptional dedication, professionalism, and adherence to the highest standards of work. This project, undertaken within the realm of Information Technology, required not only technical expertise but also strategic thinking and innovative problem-solving. The project was completed successfully, meeting all benchmarks and objectives outlined in the project scope. The training fulfils the requirements as per the regulations of this Institute and meets the necessary standards for submission.

During the period we found him hardworking, sincere, and punctual.

Issued by:

YASBIN ROSY T (CO-FOUNDER & CTO)

IT-Department

Andjessys Technologies Private Limited

05/05/2024

ANDJESSYS
No. 2/69C, Kadai Street, Akkarai,
Suchindrum, Kanyakumari District,
Tamil Nadu - 629 704.
E-mail: admin@andjessys.com
Website: www.andjessys.com

For ANDJESSYS

Signature: T Yasbin Rosy

Proprietor

Seal or Stamp of the Organization



NU Technologies

Software Development and Training

(NU Educational Trust – 1032/2008)

Date : 04/05/2024

CERTIFICATE OF COMPLETION

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Siva Sakthi. G (Reg. No. 1122507028)** doing final year **Master of Computer Applications (M.C.A)** Student of Noorul Islam Centre for Higher Education. Kumarakoil. has successfully completed her project entitled **"Multiple Disease Prediction System using Machine Learning"** in our concern from Jan to Mar – 2024.

The project was completed successfully, facing all the technical requirements and preparing all the code sequences in the project scope.

During the period of the project her attitude and performance was good. We wish all the best for future endeavors.

N. Aiyappan

(Project Coordinator)



NU Technologies

Software Development and Training

(NU Educational Trust – 1032/2008)

Date : 04/05/2024

CERTIFICATE OF ATTENDANCE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Siva Sakthi. G (Reg. No. 1122507028) Master of Computer Applications (M.C.A)** Student of Noorul Islam Centre for Higher Education, Kumarakoil has successfully completed an internship with us from January 2024 to April 2024 under my guidance.

We notes that the student exhibited a strong work ethic and adaptability.

During the period of the internship her attitude and performance was good.

This internship certificate is issued as a formal recognition of Siva Sakthi. G for her valuable contributions.

We wish all the best for future endeavors.

N. Aiyappan

(Project Coordinator)

i-TECH Software Academy
S.T. Hindu College Road, Chettikulam Jn, Nagercoil-629 002
Reg.No. TN-09-0002218
9488870339 info@itsacad.com www.itsacad.com

04-05-2024

CERTIFICATE

This is to certify that **Ms.SUJI J**, (Reg.No: **1122507029**) final year student of MCA **Noorul Islam Centre for Higher Eductaion, Kumaracoil** has been Successfully completed project work entitled "**ONLINE PRODUCT AUCTION SYSTEM**" in our company during the period February 2nd, 2024,to April 30th 2024.

Her Attendance performance is found good during the above period, and project work was evaluated and examined at every stage in learning during the project work training.

Thanking You

For i-Tech Software Academy

P.Suresh

Project Manager

Agileinfo
Where Dreams Meet Solutions

Dated:07-05-2025

Project Completion Certificate

This is to certify that Jegadeesh . A, Reg no 1122507901 MCA student from Noorul Islam Centre For Higher Education,Thuckalay, Kumaracoil, Tamil Nadu, has done his Project Work titled **"Disaster Management System"** in **Agileinfo Techytern Solutions LLP** from January 6, 2025 το May 06, 2026 as part of curriculum. We have noticed that, during the period, he has shown keen interest in his assignments and was also regular in attendance.

Project Manager

AGILEINFO TECHYTERN SOLUTIONS LLP

YTS/11/APR 115

23/04/2025

CERTIFICATE

This is to certify that the Project Work entitled **"CAR POOLING SYSTEM"** is a bonafide work of **AMRITHA S (Reg no: 1123507002)** student of MCA, **Noorul Islam Centre for Higher Education [Noorul Islam University]** carried out in our Company from January 2025 to April 2025.

The project was done using ASP.Net and MS SQL Server, successfully completed and tested its functionality.

For **YUVATECH Solutions**





Anoop R V

Managing Director

getstack

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Amrutha.A (Reg no: 1123507003)**, Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Analysis and modelling of Speech -to-Text Synthesis Based on Speech Recognition"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

GETSTACK K.K. DIST. 629167 AZHAGIYAMANDAPAM

MANAGING DIRECTOR

GETSTACK TECHNOLOGIES

04651208803
+91 8248198475

www.getstacktechnologies.com
info@getstacktechnologies.com

1st Floor Mani Complex,
Azhagiyamandapam,
Tamil Nadu-629167

07-05-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that Anoop S (Reg no:1123507004) Student of MCA,Noorul Islam Centre For Higher Education,Kumaracoil-629 180 has been successfully completed his project work titled "Physical Fitness Evaluation" in our firm.

Mr. Anoop is found hardworking and has successfully completed the work allotted to him to date. His performance has been satisfactory.

Throughout the internship period so far, his conduct and character have been good.

This certificate is being issued upon his request for submission to the college as proof.

We wish him continued success in his academic and professional endeavors.

For Ospyn Technologies Limited.,

OSPYN TECHNOLOGIES LIMITED TRIVANDRUM

Bindu Ashok Krishnan
Vice President - HR & Admin

i-TECH Software Academy
S.T. Hindu College Road, Chettikulam Jn, Nagercoil-629 002
Reg.No. TN-09-0002218
9488870339 itsacad20@gmail.com www.itsacad.com

Ref.No.: ITP20595 **Date:29-04-2025**

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **S.ANTO JORGIN** (Reg. No.:**1123507005**) doing final year **Master of Computer Applications** (**M.C.A**) Student of **Noorul Islam Centre for Higher Education**, **Kumaracovil** has successfully completed him project entitled **"VISUAL KINSHIP VERIFICATION"** in our concern from 03/01/2025 to 29/04/2025. During the period of him project performance was good.

We wish all the best for him bright future.

i-Tech Software Academy Nagercoil-2

P.Suresh.,M.C.A.,M.Phil
Project Manager

i-TECH Software Academy
S.T. Hindu College Road, Chettikulam Jn, Nagercoil-629 002
Reg.No. TN-09-0002218
9488870339 itsacad20@gmail.com www.itsacad.com

Ref.No.: ITP20596 **Date:29-04-2025**

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **DONIO DS** (Reg. No.:**1123507007**) doing final year **Master of Computer Applications** (**M.C.A**) Student of **Noorul Islam Centre for Higher Education, Kumaracovil** has successfully completed him project entitled **"QR CODE BASED SMART VEHICLE PARKING MANAGEMENT SYSTEM"** in our concern from 03/01/2025 to 29/04/2025. During the period of him project performance was good.

We wish all the best for him bright future.

i-Tech Software Academy Nagercoil-2

P.Suresh.,M.C.A.,M.Phil
Project Manager

getstack

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Fathima Afra.A (Reg no: 1123507008),** Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Secured Health Data Access Using Multiple Attribute-Based Encryption"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

GETSTACK K.K. DIST. 629167 AZHAGIYAMANDAPAM

MANAGING DIRECTOR

GETSTACK TECHNOLOGIES

04651208803
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www.getstacktechnologies.com
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SKAD
IT SOLUTIONS

admin@skadits.com www.skadits.com

Sy.no 26,27/1,27/2 and 31 Hoodi Village, Krishnarajpuram Hobli, Whitefield, Mahadevapura Post Bangalore South Taluk, Bangalore - 560048

02nd May 2025

TO WHOM IT MAY CONCERN

Subject: Internship Completion Letter

This is to certify that **HOSEA K (Reg No. 1123507009)**, has successfully completed his internship at SKAD IT Solutions PVT LTD, Bangalore India.

During the internship period, he worked in the **DevOps** under the supervision of **Mohan (TEAM LEAD)**. He was involved in various tasks including and demonstrated a keen interest in learning and professional growth. He worked and completed his project work titled **"Face Recognition Using Machine Learning & Deep Learning System for Attendance Management"**.

We found **Hosea** to be sincere, punctual, and dedicated. He exhibited good communication skills and a professional attitude towards assigned responsibilities.

We wish him all the best in future academic and professional endeavours.

Sincerely,

05-05-25

Rakesh Roshan
Director of Sales and Operations
SKAD IT Solutions - India

GET INNOVATIVE

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Jithu mon. S. A (Reg no: 1123507010)**, Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed his project work titled **"Crime Analysis and Prediction using Machine Learning Techniques"** in our firm. He has successfully completed the project within the deadline. During this period his performance was good.

We wish him all the best in all future endeavours.

GET INNOVATIVE K.K. DIST. 629167 AZHAGIYAMANDAPAM

MANAGING DIRECTOR

GET INNOVATIVE

04651208803
+91 8248198475

www.getinnovatives.com
support@getinnovatives.com

1st floor,Mani complex,
Azhagiyamandapam,
Tamil Nadu - 629 167

GET INNOVATIVE

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Libi V.D (Reg no: 1123507012)**, Student of MCA, **Noorul Islam Centre for Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Customer privacy based on Ip address verification"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavours.

GET INNOVATIVE K.K. DIST. 629167 AZHAGIYAMANDAPAM

MANAGING DIRECTOR

GET INNOVATIVE

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1st floor,Mani complex,
Azhagiyamandapam,
Tamil Nadu - 629 167

getstack

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Mini. T (Registration No. 1123507013),** Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Patronizing System"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

GETSTACK K.K. DIST. 629167 AZHAGIYAMANDAPAM

MANAGING DIRECTOR

GETSTACK TECHNOLOGIES

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1st Floor Mani Complex,
Azhagiyamandapam,
Tamil Nadu-629167

VCODEZ™
INNOVATING IDEAS

Date: 30-04-2025

Subject: Project Completion Letter

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Nanthini S (Reg. No. 1123507014)** from **Noorul Islam Centre for Higher Education, Kanyakumari** in the Department of **MCA (Computer Applications)** successfully completed her Project titled **"Pharmacy Management System"** in the platform of **Data Science** in our company from January 2025 to April 2025.

All necessary details were provided from our side for the establishment of this project. We have noticed that, during the period, she has shown keen interest in her assignments and was also regular in attendance.

.

For VCODEZ

VCODEZ CHENNAI - 600 119

Vishnu S
Manager – Human Resources

VCODEZ
#51, Rattha Tek Meadows, Level 3, Tower C,
OMR, Sholinganallur, Chennai - 600119
+91 96001 89201 info@vcodez.com
www.vcodez.com

getstack

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Reshme Anana.S (Reg no: 1123507015),** Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Data Analysis and knowledge Discovery in web recruitment using clustering algorithm"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

GETSTACK K.K. DIST. 629167 AZHAGIYAMANDAPAM

MANAGING DIRECTOR

GETSTACK TECHNOLOGIES

04651208803
+91 8248198475

www.getstacktechnologies.com
info@getstacktechnologies.com

1st Floor Mani Complex,
Azhagiyamandapam,
Tamil Nadu-629167

getstack

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Sahaya Sharmily.S(Reg no: 1123507016),** Student of MCA, **Noorul Islam Centre for Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Towards optimizing task scheduling process using task scheduling algorithm"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

GETSTACK K.K. DIST. 629167 AZHAGIYAMANDAPAM

MANAGING DIRECTOR

GETSTACK TECHNOLOGIES

04651208803
+91 8248198475

www.getstacktechnologies.com
info@getstacktechnologies.com

1st Floor Mani Complex,
Azhagiyamandapam,
Tamil Nadu-629167

URBANELIGHT

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Ms. Shajitha S (Reg. No: 1123507018), a student of MCA from Noorul Islam Centre For Higher Education, Kumaracoil – 629 180, has successfully completed her project work titled: "Asset Management System" in our organization.

She has attended the entire duration of the project work from January 10, 2025 to April 20, 2025 (4 months) without any absence and demonstrated excellent commitment, professionalism, and technical skills throughout the training period.

We appreciate her dedication and wish her great success in all her future endeavors.

Place: Nambali
Date: April 21, 2025

Authorized Signatory
SHAMEERA BEEVI .M.S
MANAGING DIRTECTOR
URBAN EARTHLIGHT LLP

URBAN EARTHLIGHT L.L.P
www.urbanelight.com
NAMBALI - 629 154

+918870966409 Kanyakumari, India Info@urbanelight.com

getstack

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Shanthini G S (Reg no: 1123507019),** Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Determined BSS based on Audio Processing System"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

GETSTACK K.K. DIST. 629167 AZHAG.YAMANDAPAM

MANAGING DIRECTOR

GETSTACK TECHNOLOGIES

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Reg.No. TN-09-0002218
9488870339 itsacad20@gmail.com www.itsacad.com

Ref.No.: ITP20611 **Date:29-04-2025**

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **SHIFNA WILFRED** (Reg. No.:**1123507020**) doing final year **Master of Computer Applications (M.C.A)** Student of **Noorul Islam Centre for Higher Education, Kumaracovil** has successfully completed her project entitled **"CROSS-LEVEL SECURITY VERIFICATION FOR NETWORK FUNCTIONS VIRTUALIZATION (NFV)"** in our concern from 03/01/2025 to 29/04/2025. During the period of her project performance was good.

We wish all the best for her bright future.

i-Tech Software Academy Nagercoil-2

P.Suresh.,M.C.A.,M.Phil
Project Manager

VCODEZ™
INNOVATING IDEAS

Date: 30-04-2025

Subject: Project Completion Letter

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Sivaram M S (Reg. No. 1123507021)** from **Noorul Islam Centre for Higher Education, Kanyakumari** in the Department of **MCA (Computer Applications)** successfully completed her Project titled **"Applying Ai and Semantic Analysis To Identify And Address Harmful Online Comments"** in the platform of **Machine Learning** in our company from January 2025 to April 2025.

All necessary details were provided from our side for the establishment of this project. We have noticed that, during the period, she has shown keen interest in her assignments and was also regular in attendance.

For VCODEZ

VCODEZ CHENNAI - 600 119

Vishnu S
Manager – Human Resources

VCODEZ
#51, Rattha Tek Meadows, Level 3, Tower C,
OMR, Sholinganallur, Chennai - 600119
+91 96001 89201 info@vcodez.com
www.vcodez.com

VCODEZ™
INNOVATING IDEAS

Date: 10-05-2025

Subject: Project Completion Letter

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Sowfik Fazil (Reg. No. 1123507022),** from **Noorul Islam Centre For Higher Education Kumaracoil Kanyakumari** in the Department of **MCA - (Computer Applications)** successfully completed his Project titled **"Combining Climate Models, Hydrological Analysis, And Machine Learning For Comprehensive Risk Prediction"** in the platform of **Machine Learning** in our company from February 2025 to April 2025.

All necessary details were provided from our side for the establishment of this project. We have noticed that, during the period, he has shown keen interest in his assignments and was also regular in attendance.

.

For VCODEZ

VCODEZ CHENNAI - 600 119

Vishnu S
Manager – Human Resources

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Ref.No.: ITP20561 **Date:29-04-2025**

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **SRI HARISH S** (Reg. No.:**1123507024**) doing final year **Master of Computer Applications** (**M.C.A**) Student of **Noorul Islam Centre for Higher Education, Kumaracovil** has successfully completed him project entitled **"ROBUST IMAGE FORGERY DETECTION AGAINST TRANSMISSION OVER ONLINE SOCIAL NETWORKS"** in our concern from 03/01/2025 to 29/04/2025. During the period of him project performance was good.

We wish all the best for him bright future.

i-Tech Software Academy Nagercoil-2

P.Suresh.,M.C.A.,M.Phil
Project Manager

GET INNOVATIVE

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Varsha. S (Reg no: 1123507025)**, Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Collaborating to build the software that tender policies need"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

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Tamil Nadu - 629 167

GET INNOVATIVE

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Vasuntharadevi. K (Reg no: 1123507026)**, Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Analysis of institute profiles based on data mining"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavours.

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getstack

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Veena V S (Reg no: 1123507027),** Student of MCA, **Noorul Islam Centre for Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Identify Image Pattern for Data Retrieval"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

GETSTACK K.K. DIST. 629167 AZHAGIYAMANDAPAM

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INFOTEK

07-05-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **VISWASHARAN R (Reg no: 1123507028)** Student of MCA, Noorul Islam Centre For Higher Education, Kumaracoil-629 180 has been successfully completed his project work titled *"ORC IoT Automation software Maintenance module API"* in our firm.

He is found hardworking and has successfully completed the work allotted to him to date. His performance has been satisfactory. Throughout the project period so far, his conduct and character have been good.

This certificate is being issued upon his request for submission to the college as proof.

We wish him continued success in his academic and professional endeavours.

H.Sathya Bhama
Vaigunth InfoTek (V-InfoTek)

Head of Operation

VAIGUNTH **INFOTEK**

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getstack

Date: 29-04-2025

TO WHOMSOEVER IT MAY CONCERN

This is to inform that **Waffa.U.F (Reg no: 1123507029),** Student of MCA, **Noorul Islam Centre For Higher Education, Kumaracoil- 629 180** has been successfully completed her project work titled **"Selective Image Mapping Matrix For Authenticating Human Actions"** in our firm. She has successfully completed the project within the deadline. During this period her performance was good.

We wish her all the best in all future endeavors.

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9488870339 itsacad20@gmail.com www.itsacad.com

Ref.No.: ITP20597 **Date:29-04-2025**

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **DINESH KUMAR.P** (Reg. No.:**1124507901**) doing final year **Master of Computer Applications** (**M.C.A**) Student of **Noorul Islam Centre for Higher Education, Kumaracovil** has successfully completed him project entitled **"CROP YIELD PREDICTION USING MACHINE LEARNING ALGORITHM"** in our concern from 03/01/2025 to 29/04/2025. During the period of him project performance was good.

We wish all the best for him bright future.

i-Tech Software Academy Nagercoil-2

P.Suresh.,M.C.A.,M.Phil
Project Manager

CRITERION 3

COURSE OUTCOMES AND PROGRAM OUTCOMES

CRITERION 3	Course Outcomes (COs) and Program Outcomes (POs)	100

3.1. Establish the Correlation between the Courses and the Program Outcomes (20)

(A). Programme Outcomes (POs)

Programme Outcomes – POs	
PO-A	Apply the knowledge of mathematics and computing fundamentals to various real life applications for any given requirement.
PO-B	Analyze and review literatures to invoke the research skills to design, interpret and make inferences from the resulting data.
PO-C	Design applications for any desired needs with appropriate considerations for any specific need on societal and environmental aspects
PO-D	Design and develop applications to analyze and solve all computer science related problems
PO-E	Involve in perennial learning for a continued career development and progress as a computer professional
PO-F	Integrate and apply efficiently the contemporary IT tools to all computer applications
PO-G	Function effectively both as a team leader and team member on multi-disciplinary projects to demonstrate computing and management skills
PO-H	Solve and work with a professional context pertaining to ethics, social, cultural and cyber regulations
PO-I	Utilize the computing knowledge efficiently in projects with concern for societal, environmental, and cultural aspects
PO-J	Create and design innovative methodologies to solve complex problems for the betterment of the society

PO-K	Function competently as an individual and as a leader in multidisciplinary projects
PO-L	Communicate effectively and present technical information in oral and written reports
PO-M	Apply the inherent skills with absolute focus to function as an successful entrepreneur.

(B) Programme Specific Outcomes (PSOs)

Programme Specific Outcomes – PSOs	
PSO1	**Application Development Skills –** Graduates will be able to design, develop and implement computer applications using various programming languages and software development tools.
PSO2	**Database Management and Data Handling –** Graduates will gain proficiency in managing databases including designing, creating, querying and maintaining database systems.
PSO3	**Software Engineering and Problem Solving –** Graduates will be able to apply software engineering principles, algorithms and data structures to solve real world problems effectively.
PSO4	**Web and Mobile Technologies** – Graduates will demonstrate skills in designing and developing web and mobile applications using current technologies.
PSO5	**Understanding of IT Infrastructure –** Graduates will understand Computer networks, operating system and information security to manage and maintain IT infrastructure.
PSO6	**Adaptability to Emerging Technologies** – Graduates will have the ability to adapt and learn emerging technologies and trends in computing field for continuous professional development

Mapping of Program Outcomes (POs) with Program Specific Outcomes (PSOs)

PO / PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
PSO1	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
PSO2	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
PSO3	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
PSO4	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓
PSO5					✓								✓
PSO6	✓	✓	✓		✓	✓			✓	✓	✓		✓

3.1.1. List the Course Outcomes (SAR Should include Course Outcomes of One Course from Each Semester or Two Courses per year of Study, however, it should be Prepared for all Courses) (5)

C203 Year of Study 2023 – 2024

Note :- C203 is the second course in Third semester

Subject Code	CA3510	Semester	03
Subject Name	**Visual Programming**		
COs	**Course Outcomes (COs)**		
C203.1	To Study in detail about Windows Programming.		
C203.2	To Study fundamental programming concept of Visual Basic 2010.		
C203.3	To Study the controls supported by Visual Basic 2010.		

C203.4	To Study the concept of backend support in Visual Basic 2010.
C203.5	To Study how to develop the applications in Visual Basic 2010.

C101 Year of Study 2023 – 2024

Note :- C301 is the third course in first semester

Subject Code	**CA4503**	**Semester**	**01**
Subject Name	**Relational Database Management System**		
COs	**Course Outcomes (COs)**		
C301.1	To learn the fundamentals of relational databases.		
C301.2	To conceptualize and depict a database system using ER diagram.		
C301.3	To know the fundamental concepts of transaction processing concurrency control techniques and recovery procedures.		
C301.4	To understand the internal storage structures using different files and indexing techniques which will help in physical DB design.		
C301.5	T study and understand the advanced concepts of databases.		

C202 Year of Study 2023 – 2024

Note :- C202 is the second course in second semester

Subject Code	**CA4506**	**Semester**	**02**
Subject Name	**Full Stack Web Development**		
COs	**Course Outcomes (COs)**		
C202.1	Write Client side Scripting HTML, CSS and JS.		
C202.2	Implement and architect the server side of the web application.		
C202.3	Implement web Application using NodeJS.		
C202.4	Architect NoSQL databases with MongoDB.		
C202.5	Implement a full stack single page Application using React, NodeJS and MongoDB and deploy on cloud.		

C203 Year of Study 2024 – 2025

Note :- C203 is the second course in third semester

Subject Code	CA4508	Semester	03
Subject Name	Machine Learning Techniques		
COs	Course Outcomes (COs)		
C203.1	To understand the characteristics of machine learning strategies.		
C203.2	To apply various supervised learning methods to appropriate problems		
C203.3	To know about the implementation aspects of Machine Learning		
C203.4	To create probabilistic and unsupervised learning models for handling unknown pattern		
C203.5	To understand and implement use cases of ML		

C101 Year of Study 2025 – 2026

Note :- C101 is the first course in first semester

Subject Code	CA5501	Semester	01
Subject Name	Programming in C		
COs	Course Outcomes (COs)		
C101.1	Remember the program structure of C with its syntax and semantics.		
C101.2	Understand the programming principles in C		
C101.3	Apply the programming principles learnt in real time problems.		
C101.4	Analyze the various methods of solving a problem and choose the best method.		
C101.5	Code, debug and test the programs with appropriate test cases.		

C102 Year of Study 2025 – 2026

Note :- C102 is the first course in second semester

Subject Code	CA5503	Semester	02
Subject Name	Advanced Python Programming		
COs	Course Outcomes (COs)		
C102.1	Understand the programming basics and explain basic principles of python programming language.		
C102.2	Create user defined functions and manipulate data using advanced data structures such as sets, dictionaries, and collections.		
C102.3	Implement basic object oriented concepts like inheritance and polymorphism.		
C102.4	Develop GUI applications using PyGTK.		
C102.5	Understand data science in python and begin to implement code using Numpy.		

3.1.2. CO-PO Matrices of Courses Selected in 3.1.1 (One course per Semester) (5)

C203 Year of Study 2023 – 2024

Subject Code			CA3510			Semester			03		
Subject Name			Visual Programming								
COs	Programme Outcomes (POs)										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
C203.1	2	1	1	2	2	2	-	2	-	-	2	-	2
C203.2	3	3	2	3	2	2	-	3	-	-	3	-	2
C203.3	2	3	2	2	2	2	2	2	-	-	2	-	2
C203.4	3	3	2	3	2	2	2	3	-	-	3	-	2
C203.5	3	3	2	3	2	2	2	3	-	-	3	-	2
Average	2.6	2.6	1.8	2.6	2	2	1.2	2.6	0	0	2.6	0	2

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

C101 Year of Study 2023 – 2024

Subject Code	CA4503	Semester	01
Subject Name	Relational Database Management System		

COs	Programme Outcomes (POs)												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
C301.1	1	3	3	2	3	3	3	2	2	3	3	3	1
C301.2	2	1	3	2	3	3	3	2	3	3	3	3	2
C301.3	3	2	3	1	3	3	3	3	2	3	3	2	2
C301.4	2	2	3	2	3	3	3	1	2	3	1	2	3
C301.5	2	3	3	1	3	3	3	1	3	3	1	1	2
Average	2	2.2	3	1.6	3	3	3	1.8	2.4	3	3	2.2	3

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

C202 Year of Study 2023 – 2024

Subject Code	CA4506	Semester	02
Subject Name	Full Stack Web Development		

COs	Programme Outcomes (POs)												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
C202.1	3	3	2	3	3	3	3	2	2	3	3	3	2
C202.2	3	3	1	3	2	2	3	2	3	3	3	3	3
C202.3	3	1	3	2	1	3	3	3	2	3	3	3	2
C202.4	3	2	3	1	2	3	3	3	2	3	1	2	3
C202.5	3	3	3	3	3	3	3	3	3	3	3	3	3
Average	3	2.4	2.4	2.4	2.2	2.8	3	2.6	2.4	3	3	2.8	3

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

C203 Year of Study 2024 – 2025

Subject Code	CA4508	Semester	03
Subject Name	Machine Learning Techniques		

COs	Programme Outcomes (POs)												
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
C203.1	3	2	2	3	3	3	3	2	3	2	3	2	3

C203.2	3	2	3	2	3	2	3	2	3	2	3	2	3
C203.3	2	3	3	3	3	3	3	2	2	2	3	3	2
C203.4	2	3	3	3	3	3	3	3	2	2	2	3	2
C203.5	3	2	2	3	2	2	3	2	3	2	3	2	2
Average	2.6	2.4	2.6	2.8	2.8	2.6	3	2.2	2.6	2	2.8	2.4	2.4

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

C101 Year of Study 2025 – 2026

Subject Code				**CA5501**			**Semester**					**01**	
Subject Name				**Programming in C**									
COs	**Programme Outcomes (POs)**												
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PO13**
C101.1	3	2	1		2	3	2		1	1		2	
C101.2	3	3	2	1	2	3	2		1	1		2	
C101.3	3	3	3	2	3	3		1	2	2		2	
C101.4	3	2	2		3	3	2	1	1	1		2	
C101.5	3	2	1	1	3	3	2	1	1	2	2	2	
Average	3	2.4	1.8	0.8	2.6	3	1.6	0.6	1.2	1.4	0.4	2	-

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

C102 Year of Study 2025 – 2026

Subject Code				**CA5503**			**Semester**					**02**	
Subject Name				**Advanced Python Programming**									
Cos	**Programme Outcomes (POs)**												
	PO1	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PO13**
C102.1	3	2	1		2	3	3	3		1	3	2	
C102.2	3	3	2	1	2	3	2	3		1	3	2	1
C102.3	3	3	3	2	3	3	3		1	2	3		1
C102.4	3	2	2		3	3	3		1	1	3		
C102.5	3	2	1	1	3	3	3		1	2	2		
Average	3	2.4	1.8	0.8	2.6	3	2.8	1.2	0.6	1.4	2.8	0.8	0.4

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

3.1.3. Course-PO Matrix of all Courses for all Years of Study (10)

Regulation 2020

S. No.	Sem.	Subject Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
1	1	CA3501	Digital Logic and Computer Organization	3	3	3	3	2.6	2.4	2	2.6	3	2	2.4	2.8	2.4
2	1	CA3502	Operating System and System Software	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1
3	1	CA3503	Database Management Systems	3	3	3	3	2.6	2.4	2	2.6	3	2	2.4	2.8	2.4
4	1	CA3504	Data Structures Using C Programming	2.4	2.6	2.2	2.2	2.8	2.2	2	1.6	2	3	3	2.2	3
5	1	MA3505	Operations Research	3	2	2	1	2	1	2	1	2	2	1	2	1
6	1	CA3571	Database Management Systems Laboratory	2	1	3	3	2	2	1	1	1	2	2	1	2
7	1	CA3572	Data Structures using C laboratory	2.4	2.6	2.2	2.2	2.8	2.4	2	2.4	2	3	1.8	2.2	2
8	2	CA3505	Data Communication and Network Programming	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1
9	2	CA3506	Object Oriented Programming using Java	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1
10	2	CA3507	Problem Solving using Python	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1
11	2	CA3508	Software Engineering	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1
12	2	CA35C7	Principles of Compiler Design	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1
13	2	CA35D1	Cryptography and Network	2.4	2	1.4	1.6	2.6	3	1.8	2	2.8	1.8	1.4	1.8	2

			Security													
14	2	CA3573	Python Programming Laboratory	3	3	3	3	3	3	1.2	3	2	3	2.8	2.2	3
15	2	CA3574	Java Programming and Networks Laboratory	3	3	3	2.2	3	3	2.4	2.6	2.2	2.8	2.8	2.4	3
16	3	CA3509	Data Science and Cloud Computing	2.6	2.6	1.8	2.6	2	3	1.2	2.6	-	2	2.6	-	2
17	3	CA3510	Visual Programming	2.6	2.6	1.8	2.6	2	2	1.2	2.6	-	-	2.6	-	2
18	3	CA35A6	Digital Image Processing	2.2	1.8	2.4	2	2	2.4	1.8	2.2	2.2	1.8	1.8	2.2	1.6
19	3	CA35A7	Software Testing	1.8	1.8	2.2	2.4	1.8	2.2	1.8	1.8	2.2	2.4	1.8	2.2	1.8
20	3	CA35B8	Big Data Analytics	3	2.8	2.8	2.2	2	2.8	3	3	3	2.2	2.8	3	1.4
21	3	CA3575	Visual Programming Laboratory	2.6	2.6	1.8	2.6	2	2	1.2	2.6	0	0	2.6	0	2
22	3	CA35P1	Project Work – Phase I	3	2	2	2.8	2	1	2	1.6	2	2	2.2	2	1
23	4	CA35P2	Project Work – Phase II	3	2.8	2.4	2.8	2	2.6	2	1.6	2	2	2.2	2	1

Regulation 2023

S. No.	Sem	Subject Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13
1	1	CA4501	Problem Solving Techniques and Programming in C	2.4	2.2	2.2	2.2	2.4	2.5	2.7	2.0	2.4	2.4	1.8	2.0	1.6
2	1	CA4502	Design and Analysis of Algorithms	2.4	2.2	2.2	2.2	2.3	2.5	2.7	2.0	2.3	2.3	1.8	2.0	1.6
3	1	CA4503	Relational Database Management System	2.4	2.2	2.2	2.2	2.4	2.5	2.7	1.9	2.4	2.4	1.8	1.9	1.6

4	1	MA4504	Applied Probability and Statistics	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9
5	1	MS45D1	Fundamentals of Accounting	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8
6	1	CA4571	Relational Database Management Systems Laboratory	2.4	2.4	1.5	2.0	2.2	2.2	1.9	2.2	1.9	2.4	2.2	2.2	2.2
7	1	CA4572	Data Structures and Algorithms using C Laboratory	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
8	1	EG4571	Communication Skill Lab I	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.4	1.7	1.8	0.8
9	2	CA4504	Advanced Python Programming	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
10	2	CA4505	Full Stack Web Development	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9
11	2	CA4506	Data Science and Cloud Computing	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9
12	2	CA45A1	Software Project Management	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
13	2	CA45A9	Cryptography and Network Security	2.5	2.5	1.7	2.5	1.9	2.9	1.1	2.5	0	1.9	2.5	0	1.9
14	2	CA4573	Python Programming Laboratory	2.4	2.2	2.2	2.2	2.3	2.5	2.7	2.0	2.3	2.3	1.8	2.0	1.6
15	2	CA4574	Full Stack Web Development Laboratory	2.4	2.2	2.2	2.2	2.4	2.5	2.7	1.9	2.4	2.4	1.8	1.9	1.6
16	2	EG4572	Communication Skill Lab II	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9
17	3	CA4507	Advanced Java Programming	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8
18	3	CA4508	Machine Learning Techniques	2.4	2.4	1.5	2.0	2.2	2.2	1.9	2.2	1.9	2.4	2.2	2.2	2.2
19	3	CA45B4	Soft Computing	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
20	3	CA45B8	Data Mining and Data Warehousing	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.4	1.7	1.8	0.8
21	3	CA45C3	Management Information System	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9

22	3	CA4575	Advanced Java Programming Laboratory	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8
23	3	CA45P1	Project Work I	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9
24	4	CA45P2	Project Work II	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9

3.2. Attainment of Course Outcomes (40)

(Examples of data collection processes may include, but are not limited to, specific exam/tutorial questions, assignments, laboratory tests, project evaluation, student portfolios. (A portfolio is a collection of artifacts that demonstrate skills, personal characteristics, and accomplishments created by the student during study period), internally developed assessment exams, project presentations, oral exams, focus groups etc. It is expected that each theory course taught should impart specific knowledge and make a foundation for a set of basic concepts related to it. Similarly, the laboratory experiments should have some predetermined and predefined skills which can be developed during the study)

3.2.1. Describe the Assessment Processes Used to Gather the Data upon which the Evaluation of Course Outcome is based on (10)

Assessment Processes

- The assessment process considers the marks obtained in Series Test I (50 marks), Series Test II (50 marks), and Series Test III (50 marks).
- In addition to the series tests, assignments (10 marks) are given to students to promote self-learning and to assess their understanding and analytical ability in theory courses.
  For practical courses, the level of completion of experiments is evaluated through the practical record.
- Attendance (10 marks) is also included as a component of the assessment process to monitor and encourage regular student participation.
- For theory courses, the Continuous Internal Assessment (CIA) includes *Series Test I, Series Test II, Series Test III, Assignments, and Attendance*.
  For practical courses, the CIA consists of *Practical Internal Test I, Practical Internal Test II, Assignments, and Attendance*.
  The maximum marks allotted for internal assessment in both theory and practical courses is 40 marks.
- For project evaluation, the assessment process considers the marks obtained in Review I (50 marks), Review II (50 marks), and Review III (100 marks), which are proportionately reduced to a total of 100 marks.

- The total marks obtained in the internal assessments are proportionately reduced as follows:

Theory Courses: Best of two out of Series Test I, II, and III (out of 200 marks) is reduced to 20 marks, with 10 marks for assignments and 10 marks for attendance.

Practical Courses: The total of *Practical Internal Test I and II* (out of 200 marks) is reduced to 20 marks, with 10 marks for assignments and 10 marks for attendance.

- Thus, for all theory and practical courses, the maximum internal assessment marks awarded is 40 marks.
- For the University Examination, all assessments are carried out on an absolute marks basis. For reporting student performance, letter grades corresponding to specific grade points are awarded based on the total marks obtained out of 100, as per the prescribed grading scheme.

Table 3.2.1.A Grade Points Mark Range

Grade Points Mark Range			
Mark Range	**Grade Points**	**Letter Grade**	**Description**
91 - 100	10	S	Outstanding
81 – 90	9	A	Excellent
71 – 80	8	B	Very Good
61 – 70	7	C	Good
56 – 60	6	D	Above Average
50 – 55	5	E	Average
0 – 49	0	RA	Reappear
AB			**Absent**

The flowchart for attainment of course outcomes is shown in Figure 3.2.1. A

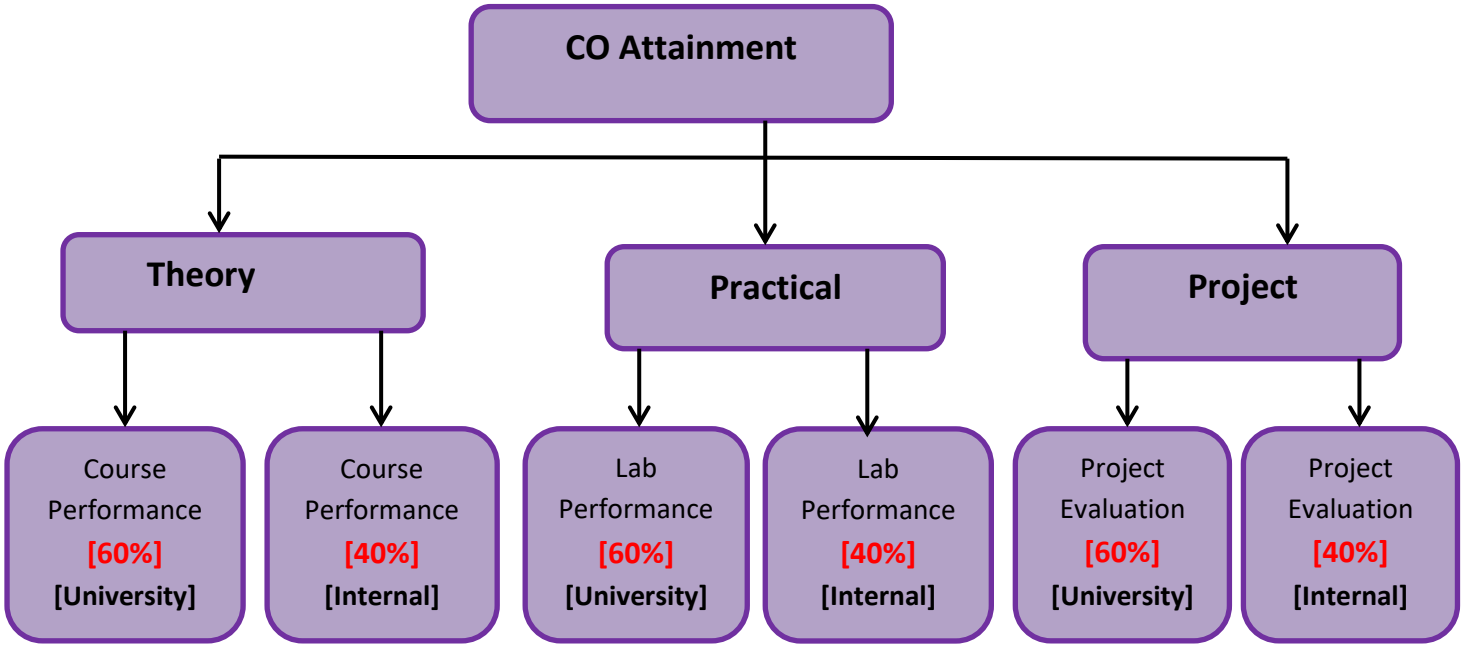


Figure 3.2.1.A Flowchart for Attainment of Course Outcomes Measuring Tools

A. Theory Course Assessment

A.1 Theory Course Performance – University Assessment

The university examination is conducted for 100 marks with three hours duration. The entire COs is distributed in Table 3.2.1.B.

Table 3.2.1.B Distribution of COs for University Theory Exam

Assessment Type	CO1	CO2	CO3	CO4	CO5
University Theory Exam	20%	20%	20%	20%	20%

A.2 Theory Course Performance – Internal Assessment

Internal Assessment performance is calculated based on the marks scored by the student in Series Test - I (50), Series Test - II (50), Series Test - III (50), Attendance and Assignment.

Assignment is given for each subject and is evaluated for 10 marks and also the attendance is calculated for 10 marks based on the percentage of attendance. The COs is distributed as shown in Table 3.2.1.C.

Table 3.2.1.C Distribution % of COs [Theory]

Assessment Type	CO1	CO2	CO3	CO4	CO5
Series Test – I	51%	49%			
Series Test – II		49%	51%		
Series Test – III				51%	49%
Assignment	20%	20%	20%	20%	20%

The overall Percentage Distribution for assessing COs based on Internal assessment tests for theory subjects is shown in Table 3.2.1.D.

Table 3.2.1.D Distribution % of Assessment Methods (Theory)

Assessment Type	Internal	Assignment	Attendance
Series Test – I	**Best of two 20%**	**10%**	**10%**
Series Test – II			
Series Test – III			

The assessment values were converted for 40% as internal marks.

B. Laboratory Course Assessment

B. 1 Lab Course Assessment – University Assessment

The University Examination is conducted for 100 Marks with 3 hours duration. The exam contains two programs. First program from CO1, CO2 or CO3 and second program from CO4 or CO5. It is shown in the Table 3.2.1.E.

Table 3.2.1.E Distribution of COs for Lab University Exam

Course Outcomes	Lab Exam Question	Assessment Type
CO 1	(One Qn. From) **50%**	University Lab Examination 100%
CO 2		
CO 3		
CO 4	(One Qn. From) **50%**	
CO 5		

B.2 Lab Course Assessment – Internal Assessment Test

The laboratory experiments are designed to address the Course Outcomes (COs) of the respective laboratory courses. During laboratory sessions, all experiments are performed practically using relevant software tools to enhance students' conceptual understanding and practical skills. Students maintain observation and record notebooks for each laboratory course, which reflect their work carried out during the laboratory sessions and are verified by the respective course instructors. Laboratory assessment is carried out based on the performance of students in the laboratory and the marks obtained in internal assessments.

Two Internal Assessment Tests, namely Practical Test I and Practical Test II, are conducted during each semester. Each test carries 100 marks and collectively addresses all the defined Course Outcomes (COs). The distribution of COs for the laboratory assessments is presented in Table 3.2.1.F.

Table 3.2.1.F Distribution % of COs (Laboratory)

Assessment Type	CO 1	CO 2	CO 3	CO 4	CO 5
Practical Test	20%	20%	20%	20%	20%

C. Project Assessment

C. 1 Project Assessment – University Assessment

University conducts a viva-voce examination for the students. The projects are evaluated by the External Examiners based on presentation and viva-voce. The assessment process is shown in the Table 3.2.1.G.

Table 3.2.1.G Distribution for Project University Exam

Assessment Type	Internal Assessment Test	Report Preparation	Attendance	Viva Voce Examination
University Exam	20%	10%	10%	60%

C. 2 Project Assessment – Internal Assessment

Project work carried out by the student is evaluated by Project Guide along with project review committee .Students interact with the project guide periodically and the progress of the project in three reviews(Review 1, Review 2, and Review 3) are evaluated.

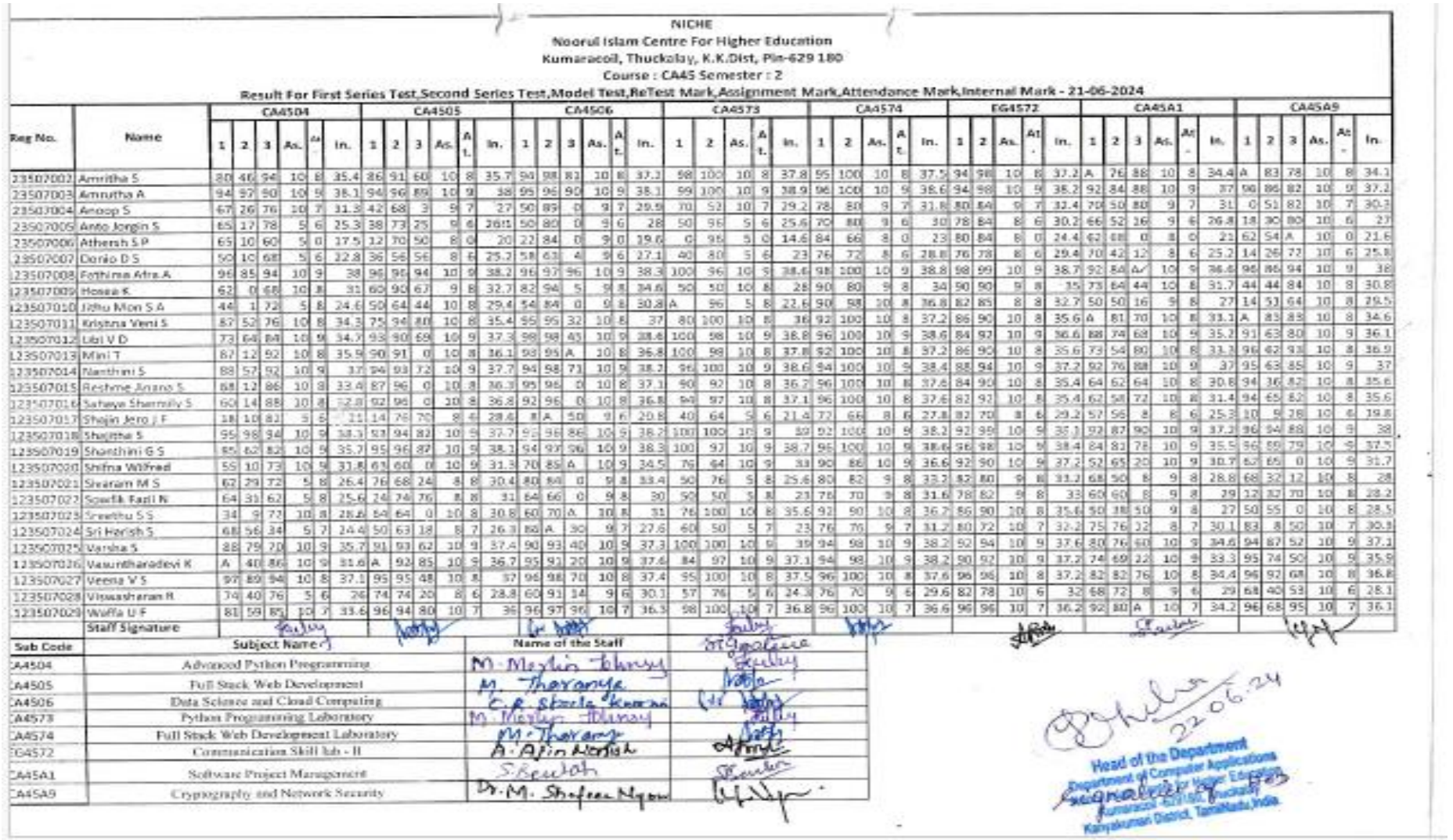
The overall percentage distribution for assessing COs based on assessment type for project work is shown in Table 3.2.1.H.

Table 3.2.1.H Distribution Marks for Project Internal

Assessment Type	Review 1	Review 2	Review 3
Project Assessment	25%	25%	50%

D. Evidences

D.1 Evidence of Internal Assessment



NICHE
Noorul Islam Centre For Higher Education
Kumaracoil, Thuckalay, K.K.Dist, Pin-629 180
Course : CA4S Semester : 2
Result For First Series Test,Second Series Test,Model Test,ReTest Mark,Assignment Mark,Attendance Mark,Internal Mark - 21-06-2024

Reg No.	Name	CA4504						CA4505						CA4506						CA4573					CA4574					EG4572					CA45A1					CA45A9					
		1	2	3	As.	At.	In.	1	2	3	As.	At.	In.	1	2	3	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	3	As.	At.	In.	1	2	3	As.	At.	In.
23507002	Amritha S	80	46	94	10	8	35.4	86	91	60	10	8	35.7	94	98	81	10	8	37.2	98	100	10	8	37.8	95	100	10	8	37.5	94	98	10	8	37.2	A	76	88	10	8	34.4	A	83	78	10	8	34.1
23507003	Amrutha A	94	97	90	10	9	38.1	94	96	89	10	9	38	95	96	90	10	9	38.1	99	100	10	9	38.9	96	100	10	9	38.6	94	98	10	9	38.2	92	84	88	10	9	37	98	86	82	10	9	37.2
23507004	Anoop S	67	26	76	10	7	31.3	42	68	3	9	7	27	90	89	0	9	7	29.9	70	52	10	7	29.2	78	80	9	7	31.6	80	84	9	7	32.4	70	50	80	9	7	31	0	51	82	10	7	30.3
23507005	Anto Jorgin S	65	17	78	5	6	25.3	38	73	25	9	6	28.1	50	80	0	9	6	28	50	96	5	6	25.6	70	80	9	6	30	78	84	8	6	30.2	66	52	16	9	6	26.8	18	90	80	10	6	27
23507006	Athesh S P	65	10	60	5	0	17.5	12	70	50	8	0	20	22	84	0	9	0	19.6	0	96	5	0	14.6	84	66	8	0	23	80	84	8	0	24.4	62	88	0	8	0	21	62	54	A	10	0	21.6
23507007	Dorão D S	50	10	68	5	6	22.8	36	56	56	8	6	25.2	58	63	4	9	6	27.1	40	80	5	6	23	76	72	8	6	28.8	76	78	8	6	29.4	70	42	12	8	6	25.2	14	26	72	10	6	25.8
23507008	Fathima Afra A	96	85	94	10	9	38	96	96	94	10	9	38.2	96	97	96	10	9	38.3	100	96	10	9	38.6	98	100	10	9	38.8	98	99	10	9	38.7	92	84	Av	10	9	36.6	96	86	94	10	9	38
23507009	Hosea K	62	0	68	10	8	31	60	90	67	9	8	32.7	82	94	5	9	8	34.6	50	50	10	8	28	90	80	9	8	34	90	90	9	8	35	73	84	44	10	8	31.7	44	44	84	10	8	30.8
23507010	Jithu Mon S A	44	1	72	5	8	24.6	90	64	44	10	8	29.4	54	84	0	9	8	30.8	A	96	5	8	22.6	90	88	10	8	36.8	82	86	8	8	32.7	50	50	16	9	8	27	14	51	64	10	8	29.5
23507011	Krishna Veni S	87	52	76	10	8	34.3	75	94	80	10	8	35.4	96	96	32	10	8	37	80	100	10	8	36	92	100	10	8	37.2	86	90	10	8	35.6	A	81	70	10	8	33.1	A	83	88	10	8	34.6
23507012	Libi V D	73	64	84	10	9	34.7	93	90	69	10	9	37.3	98	98	45	10	9	38.6	100	98	10	9	38.8	96	100	10	9	38.6	84	92	10	9	36.6	88	74	68	10	9	35.2	91	63	80	10	9	36.1
23507013	Mini T	87	12	92	10	8	35.9	90	91	0	10	8	36.1	93	95	A	10	8	36.8	100	98	10	8	37.8	92	100	10	8	37.2	86	90	10	8	35.6	73	54	80	10	8	33.3	96	62	93	10	8	36.9
23507014	Nanthini S	88	57	92	10	9	37	94	93	72	10	9	37.7	94	98	71	10	9	38.7	96	100	10	9	38.6	94	100	10	9	38.4	88	94	10	9	37.2	92	76	88	10	9	37	95	63	85	10	9	37
23507015	Reshme Jinans S	88	12	86	10	8	33.4	87	96	0	10	8	36.3	95	96	0	10	8	37.1	90	92	10	8	36.2	96	100	10	8	37.6	84	90	10	8	35.4	64	62	64	10	8	30.8	94	36	82	10	8	35.6
23507016	Sahaya Sherrily S	60	14	88	10	8	32.8	92	96	0	10	8	36.8	92	96	0	10	8	36.8	94	97	10	8	37.1	96	100	10	8	37.6	82	92	10	8	35.4	62	58	72	10	8	31.4	94	69	82	10	8	35.6
23507017	Shajin Jero J F	18	10	82	5	5	21	14	76	70	8	4	28.6	8	A	50	9	6	20.8	40	64	5	6	21.4	72	66	8	6	27.8	82	70	8	6	29.2	57	56	8	8	6	25.3	10	5	28	10	6	19.6
23507018	Shajitha S	95	98	94	10	9	38.3	93	94	82	10	9	37.7	92	96	86	10	9	38.7	100	100	10	9	39	92	100	10	9	38.2	92	96	10	9	38.1	92	87	90	10	9	37.2	96	94	88	10	9	38
23507019	Shanthini G S	85	62	82	10	9	35.7	95	96	87	10	9	38.1	94	97	96	10	9	38.3	100	97	10	9	38.7	96	100	10	9	38.6	96	98	10	9	38.4	84	82	78	10	9	35.5	96	86	79	10	9	37.5
23507020	Shifna Wilfred	55	10	73	10	9	31.8	63	60	0	10	9	31.3	70	85	A	10	9	34.5	76	64	10	9	33	90	86	10	9	36.6	92	90	10	9	37.2	52	65	20	10	9	30.7	67	65	0	10	9	31.7
23507021	Sivaram M S	62	29	72	5	8	26.4	76	68	24	8	8	30.4	80	84	0	9	8	33.4	50	76	5	8	25.6	80	82	9	8	33.2	82	80	9	8	33.2	68	56	8	9	8	28.8	68	32	12	10	8	28
23507022	Sowfik Fazil N	64	31	62	5	8	25.6	74	74	76	8	8	31	64	66	0	9	8	30	50	50	5	8	23	76	70	9	8	31.6	78	82	9	8	33	60	60	8	9	8	29	12	32	70	10	8	28.2
23507023	Sreethu S S	34	9	72	10	8	28.8	84	64	0	10	8	30.8	60	70	A	10	8	31	76	100	10	8	35.6	92	90	10	8	36.7	86	90	10	8	35.6	50	38	50	9	8	27	50	55	0	10	8	28.5
23507024	Sri Harish S	68	56	34	5	7	24.4	50	63	18	8	7	26.3	86	A	30	9	7	27.6	60	50	5	7	23	76	76	9	7	31.2	80	72	10	7	32.2	75	76	22	8	7	30.1	83	8	50	10	7	30.3
23507025	Varsha S	88	79	70	10	9	35.7	91	93	62	10	9	37.4	90	93	40	10	9	37.3	100	100	10	9	39	94	98	10	9	38.2	92	94	10	9	37.6	80	76	60	10	9	34.6	94	87	52	10	9	37.1
23507026	Vasuntharadevi K	A	40	86	10	9	31.6	A	92	85	10	9	36.7	95	91	20	10	9	37.6	84	97	10	9	37.1	94	98	10	9	38.2	90	92	10	9	37.2	74	69	22	10	9	33.3	95	74	50	10	9	35.9
23507027	Veena V S	97	89	94	10	8	37.1	95	95	48	10	8	37	96	98	70	10	8	37.4	95	100	10	8	37.5	96	100	10	8	37.6	96	96	10	8	37.2	82	82	76	10	8	34.4	96	92	68	10	8	36.8
23507028	Viswasharan R	74	40	76	5	6	26	74	74	20	8	6	28.8	60	91	14	9	6	30.1	57	76	5	6	24.3	76	70	9	6	29.6	82	78	10	6	32	68	72	8	9	6	29	68	40	53	10	6	28.1
23507029	Wolfa U F	81	59	85	10	7	33.6	96	94	80	10	7	36	96	97	96	10	7	36.3	98	100	10	7	36.8	96	100	10	7	36.6	96	96	10	7	36.2	92	80	A	10	7	34.2	96	68	95	10	7	36.1
	Staff Signature																																													

Sub Code	Subject Name	Name of the Staff
CA4504	Advanced Python Programming	M. Meylin Tilansy
CA4505	Full Stack Web Development	M. Tharanya
CA4506	Data Science and Cloud Computing	C.P. Starla Kumari
CA4573	Python Programming Laboratory	M. Meylin Tilansy
CA4574	Full Stack Web Development Laboratory	M. Tharanya
EG4572	Communication Skill lab - II	A. Alin Morish
CA45A1	Software Project Management	S. Revathi
CA45A9	Cryptography and Network Security	Dr. M. Shafeea Nigam

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NICHE

Noorul Islam Centre For Higher Education

Kumaracoil, Thuckalay, K.K.Dist, Pin-629 180

Course : CA4S Semester : 1

Result For First Series Test,Second Series Test,Model Test,ReTest Mark,Assignment Mark,Attendance Mark,Internal Mark - 01-02-2024

Reg No.	Name	CA4501							CA4502						CA4503						CA4571					CA4572					EG4571					MA4504					MS4501				
		1	2	3	4	As.	At.	In.	1	2	3	As.	At.	In.	1	2	3	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	As.	At.	In.	1	2	3	As.	At.	In.	1	2	3	As.	At.	In.
1123507002	Amritha S	66	72	59	A	10	9	32.8	66	92	64	10	9	34.8	83	85	73	10	9	35.6	96	86	10	9	37.2	90	62	10	9	34.2	97	95	10	9	38.2	50	80	60	10	9	33	80	82	66	10	9	35.2
1123507003	Amrutha A	96	88	77	A	10	10	38.4	74	96	A	10	10	37	91	94	80	10	10	38.5	100	100	10	10	40	100	98	10	10	39.8	98	98	10	10	39.6	94	90	74	10	10	37.4	96	96	78	10	10	39.2
1123507004	Anoop S	94	48	45	A	9	8	31.2	56	58	15	8	8	27.4	69	69	16	10	8	31.8	88	80	9	8	33.8	85	98	8	8	34.5	84	65	9	8	31.9	74	77	53	9	8	32.1	50	52	50	10	8	28.2
1123507005	Anto Jorgin S	96	56	50	A	9	6	30	58	A	30	8	6	22.8	45	61	29	10	6	26.6	70	72	9	6	29.2	85	86	8	6	31.1	62	74	9	6	28.6	67	A	51	10	6	27.8	72	22	76	10	6	30.8
1123507006	Athersh S P	74	4	43	A	9	6	26.7	A	52	48	7	6	23	32	50	50	10	6	26	80	70	9	6	30	85	76	7	6	29.1	85	50	9	6	28.5	96	50	50	9	6	25	62	1	68	10	6	29
1123507007	Donio D S	52	26	33	50	9	6	25.2	A	58	26	10	6	24.4	19	50	42	10	6	25.2	40	60	9	6	25	60	80	8	6	30	75	64	9	6	28.9	18	50	57	9	6	25.7	54	42	47	10	6	26.1
1123507008	Fathima Afra A	96	82	73	A	10	8	35.8	84	98	47	10	8	36.2	86	90	77	10	8	35.6	94	100	10	8	37.4	100	82	9	8	35.2	98	99	10	8	37.7	88	97	84	10	8	36.5	96	88	90	10	8	36.6
1123507009	Hosea K	50	28	60	A	9	8	28	56	60	44	9	8	28.6	50	57	35	10	8	28.7	60	90	9	8	32	68	88	9	8	35.6	92	74	9	8	33.6	28	53	65	10	8	29.8	74	92	62	10	8	33.6
1123507010	Jithu Mon S A	80	31	52	A	9	8	25.3	30	50	21	9	8	25	42	62	16	10	8	28.4	52	72	9	8	29.6	98	85	8	8	34.3	75	65	9	8	30.8	20	50	57	9	8	27.7	59	28	54	10	8	29.3
1123507011	Krishna Veni S	84	68	57	A	10	8	33.2	66	94	55	10	8	34	69	60	43	10	8	30.9	88	90	10	8	35.8	100	90	10	8	37	90	80	10	8	35	63	83	42	10	8	32.6	90	78	69	10	8	34.8
1123507012	Libi V D	92	74	51	A	10	9	35.6	72	82	55	10	9	34.4	78	78	45	10	9	34.6	90	95	10	9	37.5	98	92	9	9	37	86	87	10	9	36.9	79	86	52	10	9	35.5	96	82	74	10	9	36.8
1123507013	Mini T	66	60	55	A	10	9	33.6	56	74	55	10	9	32	78	72	71	10	9	34	96	94	10	9	38.2	98	94	10	9	38.2	95	95	10	9	37.8	75	84	75	10	9	34.9	92	72	78	10	9	35
1123507014	Nanthini S	94	80	84	A	10	10	37.4	76	96	60	10	10	37.2	88	86	79	10	10	37.2	100	94	10	10	39.4	96	96	9	10	38.2	94	92	10	10	38.6	98	96	94	10	10	39.4	96	90	76	10	9	36.4
1123507015	Reshme Arana S	68	66	56	A	10	9	32.4	82	82	54	10	9	35.4	69	76	50	10	9	33.5	98	2	10	5	29	98	93	9	9	37.1	92	97	10	9	37.9	83	69	80	10	9	35.3	86	90	76	10	9	36.4
1123507016	Sahaya Sharmily S	78	46	62	A	10	9	33	64	84	A	10	9	33.8	38	76	50	10	9	31.6	98	84	10	9	37.2	96	90	9	9	36.6	88	86	10	9	36.4	89	92	52	10	9	37.1	94	86	63	10	9	37
1123507017	Shajin Jeno J F	56	A	30	A	9	8	25.6	56	52	A	9	8	25.8	29	34	50	10	8	26.4	60	70	9	8	30	85	75	7	8	31	78	59	10	8	31.7	A	50	67	10	8	29.7	68	50	67	9	8	30.5
1123507018	Shajitha S	92	80	70	A	10	10	37.2	84	96	64	10	10	38	88	91	66	10	10	37.9	92	98	10	10	39	98	92	9	10	38	92	88	10	10	38	86	99	67	10	10	38.5	96	94	72	10	10	39
1123507019	Shanthini G S	90	72	80	A	10	9	36	90	96	62	10	9	37.6	90	85	78	10	9	36.5	96	100	10	9	38.8	98	93	10	9	38.1	97	94	10	9	38.1	93	99	92	10	9	38.2	92	84	85	10	9	36.7
1123507020	Shifna Wilfred	58	30	36	A	10	10	29.4	58	74	30	10	10	33.2	50	69	44	10	10	31.9	92	98	10	10	39	80	95	9	10	36.5	84	84	10	10	36.8	61	85	A	10	10	34.4	84	62	50	10	10	34.6
1123507021	Sivaram M S	64	46	50	A	9	8	28.4	64	70	33	8	8	28.4	50	53	55	10	8	26.3	92	90	9	8	35.2	80	85	8	8	32.3	82	77	10	8	33.6	66	84	72	10	8	33.6	78	58	57	10	8	31.6
1123507022	Sowfik Fazil N	50	14	40	50	9	6	25	50	56	25	8	6	24	26	57	43	10	6	26	60	80	9	6	29	80	83	8	6	30.3	75	73	9	6	29.8	58	53	64	10	6	28.2	46	50	60	10	6	27
1123507023	Sreethu S S	62	50	50	A	10	9	30.2	64	68	A	10	9	32.2	26	67	44	10	9	30.1	98	96	10	9	38.2	80	80	9	9	34	90	83	10	9	36.3	50	55	65	10	9	31	88	60	65	10	9	34.5
1123507024	Sri Harish S	76	44	57	A	9	7	29.3	56	60	10	9	7	27.6	48	76	53	10	7	29.9	84	90	9	7	33.4	100	81	8	7	33.1	70	83	9	7	31.3	63	A	60	10	7	29.3	74	62	70	10	7	31.4
1123507025	Varsha S	82	66	47	A	10	10	34.8	62	90	45	10	10	35.2	60	78	54	10	10	33.8	96	98	10	10	39.4	98	93	10	10	39.1	90	85	10	10	37.5	91	92	55	10	10	34.3	88	78	69	10	10	36.6
1123507026	Vasuntharadevi K	82	A	53	A	10	9	32.5	72	A	43	10	9	30.5	60	A	56	10	9	30.6	92	96	10	9	37.8	100	94	10	9	38.4	92	91	10	9	37.3	60	92	68	10	9	85	90	64	94	10	9	37.4
1123507027	Veena V S	94	76	63	A	10	10	37	84	94	A	10	10	37.8	82	95	69	10	10	37.7	96	100	10	10	39.6	98	98	10	10	39.6	98	96	10	10	39.4	97	99	70	10	10	39.6	96	94	78	10	10	39
1123507028	Viswasharan R	66	22	39	A	9	6	25.5	50	A	37	9	6	23.7	25	55	42	10	6	25.7	72	80	9	6	30.2	94	78	8	6	31.2	79	72	10	6	31.1	69	9	54	10	6	28.3	78	62	54	7	6	27
1123507029	Waffa U F	88	70	A	A	9	6	30.8	82	96	A	10	6	34	58	80	A	10	6	29.8	98	A	10	6	25.8	98	A	8	6	23.8	99	A	10	6	25.9	62	96	A	10	6	31.8	94	90	0	10	6	34.4
	Staff Signature																																													

Sub Code	Subject Name	Name of the Staff	Signature
CA4501	Problem Solving Techniques and Programming in C	Dr. G. Rileba	
CA4502	Data Structures and Algorithms	Ms. (Mr.) Bhargavi Jothirajan	
CA4503	Relational Database Management System	Dr. S. Beulah	
CA4571	Relational Database Management System Laboratory	Dr. S. Beulah	
CA4572	Data Structures and Algorithms Using C Laboratory	Ms. M. Dharanya	
EG4571	Communication Skill Lab I	Mr. Ajin Moloth	
MA4504	Applied Probability and Statistics	Dr. Sudha	
MS4501	Fundamentals of Accounting	Dr. Sahayakiran	

05.02.24

Signature of HOD

Head of the Department
Dept. of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil, Thuckalay - 629 180

D.2 Evidence of Project Assessment

NICHE
Noorul Islam Centre For Higher Education
Kumaracoil, Thuckalay, K.K.Dist, Pin-629 180
Course : CA35 Semester : 4
Result For First Series Test,Second Series Test,Assignment Mark,Attendance Mark,Internal Mark - 17-05-2024

Reg No.	Name	CA35P2				
		1	2	As.	At.	In.
1122507001	Rejin D	70	80	5	8	28
1122507002	Abi A	95	95	5	9	32.7
1122507003	Abin K	55	70	5	9	25.5
1122507004	Abinesh K	65	70	10	8	31.5
1122507006	Anfal Fathima M	95	90	10	9	37.5
1122507007	Anizh S	70	85	10	8	33.5
1122507008	Asib Rahman H	50	65	5	8	24.5
1122507009	Aswin H	70	80	10	8	33
1122507010	Aswini M	95	85	10	9	37
1122507011	Bazeena A	95	90	10	9	37.5
1122507012	Delbin Jose J S	70	75	10	8	32.5
1122507013	Elakkidural M	70	75	10	9	33.5
1122507014	Fathanah S	95	90	10	9	37.5
1122507015	Ganesh K	65	75	10	8	32
1122507016	Hasan Jaseera M	85	90	10	9	37.5
1122507019	Jenish R	55	75	10	8	31
1122507013	Jercy L	85	50	10	9	37.5
1122507020	Kaduan Karloos R	55	70	5	8	25.5
1122507024	Mohamed Ssheem M	80	80	10	8	34
1122507023	Mohamed Ssiman Khan S	80	70	5	9	29
1122507025	Raghul Sankar A	95	95	10	10	38
1122507027	Simson Davie A	80	83	10	9	36.7
1122507028	Siva Sasthi G	95	92	10	9	37.7
1122507029	Suli J	95	92	5	8	32.7
1122507033	Suthi S	95	90	10	8	32.5
1122507034	Vineeth V N	80	85	10	9	35.5
	Staff Signature					

Signature of HOD

Sub Code	Subject Name	Staff Name	Signature
CA55P2	Project Work - Phase II	Dr. O. R Jibo	

17 05 24

D.2 Evidence of University Assessment

Regulation 2020

Refer Annexure 3.1 University Exam Results

3.2.2. Record the Attainment of Course Outcomes of all Courses with Respect to Set Attainment Levels (30)

The assessment of course outcome is evaluated under two categories – University Assessment and Internal Assessment

Regulation 2020

S. No.	Semester	Subject Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	Attainment
1	1	CA3501	Digital Logic and Computer Organization	3	3	3	3	2.6	2.4	2	2.6	3	2	2.4	2.8	2.4	2.8
2	1	CA3502	Operating System and System Software	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1	2.05
3	1	CA3503	Database Management Systems	3	3	3	3	2.6	2.4	2	2.6	3	2	2.4	2.8	2.4	2.73
4	1	CA3504	Data Structures Using C Programming	2.4	2.6	2.2	2.2	2.8	2.2	2	1.6	2	3	3	2.2	3	1.84
5	1	MA3505	Operations Research	3	2	2	1	2	1	2	1	2	2	1	2	1	3
6	1	CA3571	Database Management Systems Laboratory	2	1	3	3	2	2	1	1	1	2	2	1	2	3

7	1	CA3572	Data Structures using C laboratory	2.4	2.6	2.2	2.2	2.8	2.4	2	2.4	2	3	1.8	2.2	2	3
8	2	CA3505	Data Communication and Network Programming	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1	2.96
9	2	CA3506	Object Oriented Programming using Java	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1	2.05
10	2	CA3507	Problem Solving using Python	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1	2.90
11	2	CA3508	Software Engineering	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1	2.89
12	2	CA35C7	Principles of Compiler Design	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1	2.05
13	2	CA35D1	Cryptography and Network Security	2.4	2	1.4	1.6	2.6	3	1.8	2	2.8	1.8	1.4	1.8	2	1.84
14	2	CA3573	Python Programming Laboratory	3	3	3	3	3	3	1.2	3	2	3	2.8	2.2	3	3
15	2	CA3574	Java Programming and Networks Laboratory	3	3	3	2.2	3	3	2.4	2.6	2.2	2.8	2.8	2.4	3	2.8
16	3	CA3509	Data Science and Cloud Computing	2.6	2.6	1.8	2.6	2	3	1.2	2.6	-	2	2.6	-	2	2.76
17	3	CA3510	Visual Programming	2.6	2.6	1.8	2.6	2	2	1.2	2.6	-	-	2.6	-	2	2.72
18	3	CA35A6	Digital Image Processing	2.2	1.8	2.4	2	2	2.4	1.8	2.2	2.2	1.8	1.8	2.2	1.6	2.73
19	3	CA35A7	Software Testing	1.8	1.8	2.2	2.4	1.8	2.2	1.8	1.8	2.2	2.4	1.8	2.2	1.8	2.73
20	3	CA35B8	Big Data Analytics	3	2.8	2.8	2.2	2	2.8	3	3	3	2.2	2.8	3	1.4	2.72
21	3	CA3575	Visual Programming	2.6	2.6	1.8	2.6	2	2	1.2	2.6	0	0	2.6	0	2	

			Laboratory														2.90
22	3	CA35P1	Project Work – Phase I	3	2	2	2.8	2	1	2	1.6	2	2	2.2	2	1	3
23	4	CA35P2	Project Work – Phase II	3	2.8	2.4	2.8	2	2.6	2	1.6	2	2	2.2	2	1	3

Regulation 2023

S. No.	Semester	Subject Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	Attainment
1	1	CA4501	Problem Solving Techniques and Programming in C	2.4	2.2	2.2	2.2	2.4	2.5	2.7	2.0	2.4	2.4	1.8	2.0	1.6	2.73
2	1	CA4502	Design and Analysis of Algorithms	2.4	2.2	2.2	2.2	2.3	2.5	2.7	2.0	2.3	2.3	1.8	2.0	1.6	2.73
3	1	CA4503	Relational Database Management System	2.4	2.2	2.2	2.2	2.4	2.5	2.7	1.9	2.4	2.4	1.8	1.9	1.6	2.73
4	1	MA4504	Applied Probability and Statistics	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9	2.05
5	1	MS45D1	Fundamentals of Accounting	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8	1.84
6	1	CA4571	Relational Database Management Systems Laboratory	2.4	2.4	1.5	2.0	2.2	2.2	1.9	2.2	1.9	2.4	2.2	2.2	2.2	

																	2.8
7	1	CA4572	Data Structures and Algorithms using C Laboratory	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
8	1	EG4571	Communication Skill Lab I	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.4	1.7	1.8	0.8	1.84
9	2	CA4504	Advanced Python Programming	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
10	2	CA4505	Full Stack Web Development	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9
11	2	CA4506	Data Science and Cloud Computing	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9
12	2	CA45A1	Software Project Management	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
13	2	CA45A9	Cryptography and Network Security	2.5	2.5	1.7	2.5	1.9	2.9	1.1	2.5	0	1.9	2.5	0	1.9	2.96
14	2	CA4573	Python Programming Laboratory	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9
15	2	CA4574	Full Stack Web Development Laboratory	2.4	2.2	2.2	2.2	2.4	2.5	2.7	1.9	2.4	2.4	1.8	1.9	1.6	2.73
16	2	EG4572	Communication Skill Lab II	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9	2.05
17	3	CA4507	Advanced Java Programming	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8	1.84

18	3	CA4508	Machine Learning Techniques	2.4	2.4	1.5	2.0	2.2	2.2	1.9	2.2	1.9	2.4	2.2	2.2	2.2	2.73
19	3	CA45B4	Soft Computing	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
20	3	CA45B8	Data Mining and Data Warehousing	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.4	1.7	1.8	0.8	1.84
21	3	CA45C3	Management Information System	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9	2.05
22	3	CA4575	Advanced Java Programming Laboratory	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8	1.84
23	3	CA45P1	Project Work I	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9
24	4	CA45P2	Project Work II	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9

The attainment is calculated based on the three continuous assessment tests and Assignment marks have been entered ERP after the evaluation of in every assessment tests. The Continuous Assessment Test 1 mapped with CO1 & CO2, Continuous Assessment test 2 mapped with CO2 & CO3, Continuous Assessment test 3 mapped with CO4 & CO5, Assignment and University examinations were mapped with all CO's.

Similarly the COs attainment for all the students in a class for a particular course has been calculated. For calculating the attainment of other COs, same procedure has been followed. As the university question paper will be equally distributed in all the units, the contribution of the entire COs will be the same. So, need to take only the university marks.

3.3. Attainment of Program Outcomes (40)

3.3.1. Describe Assessment Tools and Processes Used for Assessing the Attainment of Each PO (10)

(Describe the assessment tools and processes used to gather the data upon which the evaluation of each of the PO is based indicating the frequency with which these processes are carried out. Describe the assessment processes that demonstrate the degree to which the POs are attained and document the attainment levels)

As explained in 3.2, Course outcomes are measured through Continuous Internal Evaluation and Semester End University Examination. The analysis is done to find the level of attainments of each course COs. The direct attainment of POs and COs are being calculated based on the COs attainment of all the courses a student studied.

Figure 3.3.1. A describes the list of direct assessment tools used to calculate the POs and COs directly. The assessment tools used to attain POs and COs are also mapped and tabulated as follows:

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department	Computer Applications	Academci Year	2023-2024 ODD
Class	MCA		
Semester	S1		
Subject	CA4501 - Problem Solving Techniques and Programming in C	Staff	Dr. J. R. Jeba

	Final Direct Course Attainment Calculation							Attainment -Int	Attainment -Univ	CO Attainment
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ			
CO1	2			3		2.5	3	1	1.8	2.8
CO2	2	3		3		2.666667	3	1.066666667	1.8	2.866666667
CO3		3			3	3	3	1.2	1.8	3
CO4			0		3	1.5	3	0.6	1.8	2.4
CO5			2			2	3	0.8	1.8	2.6
Attainment						2.333333	3			
Weightage						40	60			
Direct Total Attainment						0.933333	1.8			
Final Direct Course Attainment						2.733333333				

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department	Computer Applications	Academci Year 2021-2022
Class	MCA	
Semester	III	Staff Name : Ms. C. Juliet Jemila
Subject	CA4507 - Advanced Java Programming	

	Final Direct Course Attainment Calculation						
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ
CO1	0			0	0	0	3
CO2	0	0		0	0	0	3
CO3		0		0	0	0	3
CO4			0	0	0	0	3
CO5			1		0	0.5	3
Attainment						0.1	3
Weightage						40	60
Direct Total Attainment						0.04	1.8
Final Direct Course Attainment						1.84	

Figure 3.3.1.A Direct Attainment of POs and COs

The process of direct attainment assessment tool attainment is explained in Table 3.3.1.A. It describes processes involved in Theory courses and Practical and Project courses under the category of direct assessment.

Table 3.3.1.A List of Direct Assessment Tools for POs and COs

S. No.	Assessment Tool	Method / Processes
1.	**Internal Examinations**	The CO attainments are calculated based on the outcome of the following activities: 1. Conducting three Series examinations per semester to evaluate the continuous performance of the students. 2. Questions are set by the course coordinator. 3. Questions are based on standard level by following Bloom's Taxonomy for evaluation. 5. Series examinations question papers and answer scripts are audited regularly.
2.	**Assignment**	1. An assignment is a qualitative performance assessment tool designed to assess the student's knowledge and practices. 2. Assignments should cover higher order Bloom's Taxonomy cognitive levels. 3. Assignments can be given as Seminar, Open Book Test, Case Studies, Industry expert-based evaluation, Research Article based evaluation etc. The course coordinator will fix any of the above corresponding to the course outcomes.
3.	**University Examinations**	1. End semester examination questions set by internal / external experts and Questions are based on standard level by following Bloom's Taxonomy for evaluation.. 2. Valuation is made by different External experts / Internal experts.
		1. The Internal marks for laboratory courses are awarded based on rubrics framed by the course coordinator for the corresponding lab course consisting of experimentation,

4	**Practical Internal and External Assessment**	interpretation and result analysis. The assessment is done for regular lab exercises as well as internal practical exams. 2. Practical examination is focused on assessing the practical knowledge, skill, and attitude of the students. 3. The External examinations for laboratory courses are conducted at the end of the semester for three hours.
5	**Project**	1. Students are assigned either Internal or External projects. 2. The project review committee is formed internally to approve and evaluate the research in four stages as (i) Title Confirmation (ii) 0th Review (iii) 1st Review (iv) 2nd Review. Students need to volunteer to present their project in reputed conferences / symposium organized by leading academic institutes. 4. External Examiners are invited to evaluate the project through the viva voce examination.

3.3.2. Provide Results of Evaluation of Each PO (30)

A. Results and level of Attainment of each PO

Regulation 2020

S. No.	Semester	Subject Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	Attainment
				Course PO Attainment													
1	1	CA3501	Digital Logic and Computer Organization	2.43	2.43	1.49	2.05	2.24	2.24	1.86	2.24	1.86	2.42	2.24	2.24	2.24	2.8
2	1	CA3502	Operating System and System Software	1.91	1.77	1.64	2.05	1.64	1.77	2.05	2.05	1.77	1.50	1.91	1.64	1.91	2.05
3	1	CA3503	Database Management Systems	2.36	2.18	2.18	2.18	2.36	2.55	2.73	2.00	2.36	2.36	1.88	2.00	1.64	2.73
4	1	CA3504	Data Structures Using C Programming	1.84	1.71	1.71	1.34	1.22	1.71	1.84	1.84	1.84	1.34	1.71	1.84	0.85	1.84
5	1	MA3505	Operations Research	3	2	2	1	2	1	2	1	2	2	1	2	1	3
6	1	CA3571	Database Management Systems Laboratory	3	2	2	1	2	1	2	1	2	2	1	2	1	3
7	1	CA3572	Data Structures using C laboratory	3	2	2	1	2	1	2	1	2	2	1	2	1	3
8	2	CA3505	Data Communication and Network Programming	2.56	2.36	2.56	1.97	2.56	2.76	2.96	2.17	2.56	2.17	1.97	1.77	1.77	2.96

9	2	CA3506	Object Oriented Programming using Java	1.91	1.77	1.64	2.05	1.64	1.77	2.05	2.05	1.77	1.50	1.91	1.64	1.91	2.05
10	2	CA3507	Problem Solving using Python	2.90	2.90	2.90	2.90	2.51	2.32	1.93	2.51	2.90	1.55	0.96	0.96	0.96	2.90
11	2	CA3508	Software Engineering	2.89	2.89	2.89	2.89	2.51	2.31	1.93	2.51	2.89	1.54	0.96	0.96	0.96	2.89
12	2	CA35C7	Principles of Compiler Design	1.91	1.77	1.64	2.05	1.64	1.77	2.05	2.05	1.77	1.50	1.91	1.64	1.91	2.05
13	2	CA35D1	Cryptography and Network Security	1.84	1.71	1.71	1.34	1.22	1.71	1.84	1.84	1.84	1.34	1.71	1.84	0.85	1.84
14	2	CA3573	Python Programming Laboratory	3	2	2	1	2	1	2	1	2	2	1	2	1	3
15	2	CA3574	Java Programming and Networks Laboratory	2.43	2.43	1.49	2.05	2.24	2.24	1.86	2.24	1.86	2.42	2.24	2.24	2.24	2.8
16	3	CA3509	Data Science and Cloud Computing	2.20	2.02	2.20	2.20	2.20	2.39	1.84	2.39	2.39	1.84	2.02	2.02	2.02	2.76
17	3	CA3510	Visual Programming	2.72	2.72	2.72	2.72	2.35	2.17	1.81	2.35	2.72	1.99	1.81	2.17	2.35	2.72
18	3	CA35A6	Digital Image Processing	2.36	2.18	2.18	2.18	2.36	2.55	2.73	2.00	2.36	2.36	1.82	2.00	1.64	2.73
19	3	CA35A7	Software Testing	2.36	2.18	2.18	2.18	2.36	2.55	2.73	2.00	2.36	2.36	1.82	2.00	1.64	2.73
20	3	CA35B8	Big Data Analytics	2.72	2.72	2.72	2.72	2.35	2.17	1.81	2.35	2.72	1.99	1.81	2.17	2.35	2.72
21	3	CA3575	Visual Programming Laboratory	2.90	2.90	2.90	2.90	2.51	2.32	1.93	2.51	2.90	1.55	0.96	0.96	0.96	2.90
22	3	CA35P1	Project Work – Phase I	3	2	2	1	2	1	2	1	2	2	1	2	1	3

23	4	CA35P2	Project Work – Phase II	3	2	2	1	2	1	2	1	2	2	1	2	1	3
Average				2.53	2.20	2.11	1.90	2.08	1.88	2.08	1.87	2.21	1.90	1.54	1.83	1.40	-

Regulation 2023

S. No.	Semester	Subject Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PO13	Attainment
1	1	CA4501	Problem Solving Techniques and Programming in C	2.4	2.2	2.2	2.2	2.4	2.5	2.7	2.0	2.4	2.4	1.8	2.0	1.6	2.73
2	1	CA4502	Design and Analysis of Algorithms	2.4	2.2	2.2	2.2	2.3	2.5	2.7	2.0	2.3	2.3	1.8	2.0	1.6	2.73
3	1	CA4503	Relational Database Management System	2.4	2.2	2.2	2.2	2.4	2.5	2.7	1.9	2.4	2.4	1.8	1.9	1.6	2.73
4	1	MA4504	Applied Probability and Statistics	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9	2.05
5	1	MS45D1	Fundamentals of Accounting	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8	1.84
6	1	CA4571	Relational Database Management Systems Laboratory	2.4	2.4	1.5	2.0	2.2	2.2	1.9	2.2	1.9	2.4	2.2	2.2	2.2	2.8
7	1	CA4572	Data Structures and Algorithms	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	

			using C Laboratory														2.8
8	1	EG4571	Communication Skill Lab I	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.4	1.7	1.8	0.8	1.84
9	2	CA4504	Advanced Python Programming	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
10	2	CA4505	Full Stack Web Development	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9
11	2	CA4506	Data Science and Cloud Computing	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9
12	2	CA45A1	Software Project Management	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
13	2	CA45A9	Cryptography and Network Security	2.5	2.5	1.7	2.5	1.9	2.9	1.1	2.5	0	1.9	2.5	0	1.9	2.96
14	2	CA4573	Python Programming Laboratory	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9
15	2	CA4574	Full Stack Web Development Laboratory	2.4	2.2	2.2	2.2	2.4	2.5	2.7	1.9	2.4	2.4	1.8	1.9	1.6	2.73
16	2	EG4572	Communication Skill Lab II	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9	2.05
17	3	CA4507	Advanced Java Programming	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8	1.84
18	3	CA4508	Machine Learning Techniques	2.4	2.4	1.5	2.0	2.2	2.2	1.9	2.2	1.9	2.4	2.2	2.2	2.2	2.73

19	3	CA45B4	Soft Computing	2.8	2.8	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
20	3	CA45B8	Data Mining and Data Warehousing	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.4	1.7	1.8	0.8	1.84	
21	3	CA45C3	Management Information System	1.9	1.8	1.6	2.1	1.6	1.8	2.1	2.1	1.8	1.5	1.9	1.6	1.9	2.05	
22	3	CA4575	Advanced Java Programming Laboratory	1.8	1.7	1.7	1.3	1.2	1.6	1.8	1.8	1.8	1.3	1.7	1.8	0.8	1.84	
23	3	CA45P1	Project Work I	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9	
24	4	CA45P2	Project Work II	2.9	2.9	2.9	2.9	2.5	2.3	1.9	2.5	2.9	1.5	0.9	0.9	0.9	2.9	
Average				2.38	2.32	2.17	2.2	2.09	2.22	2.15	2.23	2.22	1.92	1.83	1.73	1.58	-	

B. PO attainment calculation for 2020 Regulation

The POs and COs are quantitatively measured by assigning weights with respect to the correlation of COs and POs of a course. The weights assumed for the analysis are as: w1, w2 and w3 for strong, medium and low correlation respectively.

Where: w1 = 3/3 = 1 for strong correlation

w2 = 2/3 = 0.67 for medium correlation and

w3 = 1/3 = 0.33 for low correlation.

$$\textbf{PO} = \frac{\sum_{i=1}^{3} Wi \; x \; CO \; Attainment}{Total \; No.of \; Subjects}$$

The Table 3.3.2.A shows the overall CO and PO attainment for the regulation 2020.

Table 3.3.2.A Overall CO – PO Attainment

Sl. No.	POs	Keywords	Direct CO Attainment Value	Correlation Level	Wi x CO Attained
1	PO-A	Computing Fundamentals	2.53	3	2.53
2	PO-B	Research Skills	2.20	3	2.20
3	PO-C	Societal and Environmental Aspects	2.11	3	2.11
4	PO-D	Design and Develop Application	1.90	3	1.90
5	PO-E	Career Development and Progress	2.08	3	2.08
6	PO-F	Apply IT Tools	1.88	3	1.88
7	PO-G	Computing and Management Skills	2.08	3	2.08
8	PO-H	Solve and work with Professional Context	1.87	3	1.87
9	PO-I	Knowledge in Project Development	2.21	3	2.21

10	PO-J	Design Innovative Methodologies	1.90	3	1.90
11	PO-K	Leadership in Project Development	1.54	3	1.54
12	PO-L	Communication and Presentation Skills	1.83	3	1.83
13	PO-M	Entrepreneur Skills	1.40	3	1.40
Total Value					**25.53**
Overall PO Attainment = 25.53 / 13					**1.96**

C. PO attainment calculation for 2023 Regulation

The POs and COs are quantitatively measured by assigning weights with respect to the correlation of COs and POs of a course. The weights assumed for the analysis are as: w1, w2 and w3 for strong, medium and low correlation respectively.

Where: w1 = 3/3 = 1 for strong correlation

w2 = 2/3 = 0.67 for medium correlation and

w3 = 1/3 = 0.33 for low correlation.

$$\textbf{PO} = \frac{\sum_{i=1}^{3} Wi \; x \; CO \; Attainment}{Total \; No.of \; Subjects}$$

The Table 3.3.2.B shows the overall CO and PO attainment for the regulation 2023.

Table 3.3.2.B Overall CO – PO Attainment

Sl. No.	POs	Keywords	Direct CO Attainment Value	Correlation Level	Wi x CO Attained
1	PO-A	Computing Fundamentals	2.38	3	2.38
2	PO-B	Research Skills	2.32	3	2.32
3	PO-C	Societal and Environmental Aspects	2.17	3	2.17
4	PO-D	Design and Develop Application	2.24	3	2.24

5	PO-E	Career Development and Progress	2.09	3	2.09
6	PO-F	Apply IT Tools	2.22	3	2.22
7	PO-G	Computing and Management Skills	2.15	3	2.15
8	PO-H	Solve and work with Professional Context	2.23	3	2.23
9	PO-I	Knowledge in Project Development	2.22	3	2.22
10	PO-J	Design Innovative Methodologies	1.92	3	1.92
11	PO-K	Leadership in Project Development	1.83	3	1.83
12	PO-L	Communication and Presentation Skills	1.73	3	1.73
13	PO-M	Entrepreneur Skills	1.58	3	1.58
Total Value					**27.08**
Overall PO Attainment = 27.08 / 13					**2.08**

Annexure 3.1 University Exam Results

D.2 Evidence of University Assessment

Regulation 2020

NICHE
Noorul Islam Centre For Higher Education
(Deemed to be University under section 3 of UGC Act 1956)
Kumaracoil, Thuckalay, K.K.Dist, Pin-629 180.

TABULATED MARK REGISTER

Date of publication: 30-12-2023
Month & Year: Dec - 2023
Course & Branch: MCA Computer Applications
Semester: 3

Reg No.	Name	Sex	Subject & Marks				
				Max	40	60	100
				Min	0	30	50

Reg No.	Name	Sex	Subject & Marks	Tot.Cr	Cr.Erd	SGPA	CGPA
1122507002	Abi A	F	CA35B6: IM 32, UM 47, Tot 79, Gr B, Res P CA35P1: IM 33, UM 50, Tot 83, Gr A, Res P CA3575: IM 33, UM 48, Tot 81, Gr A, Res P CA3510: IM 32, UM 42, Tot 74, Gr B, Res P CA3509: IM 35, UM 37, Tot 72, Gr B, Res P CA35A7: IM 33, UM 31, Tot 64, Gr C, Res P CA35A6: IM 31, UM 40, Tot 71, Gr B, Res P	**25**	**25**	**8.20**	**NA**
1122507003	Abin K	M	CA35B6: IM 20, UM 31, Tot 51, Gr E, Res P CA35P1: IM 26, UM 46, Tot 72, Gr B, Res P CA3575: IM 24, UM 42, Tot 66, Gr C, Res P CA3510: IM 18, UM 32, Tot 50, Gr E, Res P CA3509: IM 23, UM 32, Tot 55, Gr E, Res P CA35A7: IM 19, UM 31, Tot 50, Gr E, Res P CA35A6: IM 21, UM 36, Tot 57, Gr D, Res P	**25**	**25**	**6.00**	**NA**
1122507004	Abinesh K	M	CA35B6: IM 26, UM 34, Tot 60, Gr D, Res P CA35P1: IM 25, UM 47, Tot 72, Gr B, Res P CA3575: IM 28, UM 45, Tot 73, Gr B, Res P CA3510: IM 25, UM 35, Tot 60, Gr D, Res P CA3509: IM 29, UM 32, Tot 61, Gr C, Res P CA35A7: IM 28, UM 30, Tot 58, Gr D, Res P CA35A6: IM 26, UM 30, Tot 56, Gr D, Res P	**25**	**25**	**6.80**	**NA**
1122507006	Anfal Fathima M	F	CA35B6: IM 37, UM 40, Tot 77, Gr B, Res P CA35P1: IM 40, UM 56, Tot 96, Gr S, Res P CA3575: IM 39, UM 54, Tot 93, Gr S, Res P CA3510: IM 37, UM 42, Tot 79, Gr B, Res P CA3509: IM 39, UM 45, Tot 84, Gr A, Res P CA35A7: IM 38, UM 38, Tot 76, Gr B, Res P CA35A6: IM 37, UM 35, Tot 72, Gr B, Res P	**25**	**25**	**8.80**	**NA**
1122507007	Anish S	M	CA3510: IM 24, UM 35, Tot 59, Gr D, Res P CA3509: IM 26, UM 31, Tot 57, Gr D, Res P CA35B6: IM 27, UM 31, Tot 58, Gr D, Res P CA35A7: IM 25, UM 30, Tot 55, Gr E, Res P CA35A6: IM 24, UM 34, Tot 58, Gr D, Res P CA35P1: IM 25, UM 48, Tot 73, Gr B, Res P CA3575: IM 26, UM 42, Tot 68, Gr C, Res P	**25**	**25**	**6.44**	**NA**
1122507008	Asib Rahman H	M	CA35B6: IM 26, UM 32, Tot 58, Gr D, Res P CA35A7: IM 30, UM 16, Tot 46, Gr R, Res RA CA35P1: IM 25, UM 47, Tot 72, Gr B, Res P CA3575: IM 30, UM 42, Tot 72, Gr B, Res P CA3510: IM 25, UM 30, Tot 55, Gr E, Res P CA3509: IM 25, UM 30, Tot 55, Gr E, Res P CA35A6: IM 26, UM 40, Tot 66, Gr C, Res P	**25**	**22**	**--**	**NA**
			CA35A7 | CA35A6 | CA35P1 | CA3575 | CA3510 | CA3509	Tot.Cr	Cr.Erd	SGPA	CGPA

NICHE
Noorul Islam Centre For Higher Education
(Deemed to be University under section 3 of UGC Act 1956)
Kumaracoil, Thuckalay, K.K.Dist, Pin-629 180.

TABULATED MARK REGISTER

Date of publication: 30-12-2023
Month & Year: Dec - 2023
Course & Branch: MCA Computer Applications
Semester: 3

1122507009	Aswin H	M	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	**25**	**25**	**6.60**	**NA**
			28	32	60	D	P	21	31	52	E	P	26	48	74	B	P	21	42	63	C	P	17	39	56	D	P	23	44	67	C	P				
			CA35B6																																		
			IM	UM	Tot	Gr	Res																														
			26	34	60	D	P																														
1122507010	Aswini M	F	CA35P1					CA3575					CA3510					CA3509					CA35A7					CA35A6					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	**25**	**25**	**8.88**	**NA**
			37	58	95	S	P	37	54	91	S	P	34	36	70	C	P	37	46	83	A	P	36	40	76	B	P	33	55	88	A	P				
			CA35B6																																		
			IM	UM	Tot	Gr	Res																														
			35	51	86	A	P																														
1122507011	Bazeena A	F	CA35A7					CA35P1					CA3575					CA3510					CA3509					CA35A6					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	**25**	**25**	**9.08**	**NA**
			37	48	85	A	P	38	55	93	S	P	36	48	84	A	P	34	37	71	B	P	37	47	84	A	P	35	48	83	A	P				
			CA35B6																																		
			IM	UM	Tot	Gr	Res																														
			35	50	85	A	P																														
1122507012	Delbin Jose J S	M	CA35A7					CA35P1					CA3575					CA3510					CA3509					CA35A6					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	**25**	**22**	**--**	**NA**
			27	31	58	D	P	25	47	72	B	P	26	36	62	C	P	25	30	55	E	P	28	30	58	D	P	26	4	30	R	RA				
			CA35B6																																		
			IM	UM	Tot	Gr	Res																														
			27	30	57	D	P																														
1122507013	Esakkidurai M	M	CA35P1					CA3575					CA3510					CA3509					CA35A7					CA35A6					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	**25**	**22**	**--**	**NA**
			25	49	74	B	P	26	45	71	B	P	26	30	56	D	P	28	30	58	D	P	26	11	37	R	RA	27	31	58	D	P				
			CA35B6																																		
			IM	UM	Tot	Gr	Res																														
			27	30	57	D	P																														
1122507014	Farhanah S	F	CA3510					CA3509					CA35A7					CA35A6					CA35B6					CA35P1					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	**25**	**25**	**7.92**	**NA**
			31	31	62	C	P	34	44	78	B	P	34	35	69	C	P	30	34	64	C	P	34	41	75	B	P	35	52	87	A	P				
			CA3575																																		
			IM	UM	Tot	Gr	Res																														
			36	48	84	A	P																														
1122507015	Ganesh K	M	CA35A7					CA35A6					CA35B6					CA35P1					CA3575					CA3510					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	**25**	**22**	**--**	**NA**
			30	13	43	R	RA	28	31	59	D	P	28	32	60	D	P	26	50	76	B	P	27	45	72	B	P	27	30	57	D	P				
			CA3509																																		
			IM	UM	Tot	Gr	Res																														
			30	32	62	C	P																														
1122507016	Hasan Jazeera M	F	CA3510					CA3509					CA35A7					CA35A6					CA35B6					CA35P1					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	**25**	**25**	**8.92**	**NA**
			36	37	73	B	P	38	43	81	A	P	36	40	76	B	P	34	46	80	B	P	36	51	87	A	P	38	56	94	S	P				
			CA3575																																		

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	IM	UM	Tot
Max	40	60	100
Min	0	30	50

Reg No.	Name	Sex	Subject & Marks	Tot.Cr	Cr.Erd	SGPA	CGPA
1122507901	Jegadeesh A	M	CA45C3: IM 28, UM 30, Tot 58, Gr D, Res P CA45B8: IM 29, UM 34, Tot 63, Gr C, Res P CA45B4: IM 31, UM 30, Tot 61, Gr C, Res P CA4507: IM 30, UM 30, Tot 60, Gr D, Res P CA4508: IM 30, UM 38, Tot 68, Gr C, Res P CA4575: IM 36, UM 60, Tot 96, Gr S, Res P CA45P1: IM 30, UM 42, Tot 72, Gr B, Res P	25	25	7.20	7.42
1123507002	Amritha S	F	CA45B4: IM 36, UM 36, Tot 72, Gr B, Res P CA45B8: IM 37, UM 44, Tot 81, Gr A, Res P CA45C3: IM 36, UM 42, Tot 78, Gr B, Res P CA4507: IM 36, UM 38, Tot 74, Gr B, Res P CA4508: IM 36, UM 40, Tot 76, Gr B, Res P CA4575: IM 37, UM 45, Tot 82, Gr A, Res P CA45P1: IM 36, UM 54, Tot 90, Gr A, Res P	25	25	8.44	8.56
1123507003	Amrutha A	F	CA45B4: IM 39, UM 41, Tot 80, Gr B, Res P CA45B8: IM 39, UM 49, Tot 88, Gr A, Res P CA45C3: IM 40, UM 54, Tot 94, Gr S, Res P CA4507: IM 39, UM 57, Tot 96, Gr S, Res P CA4508: IM 38, UM 50, Tot 88, Gr A, Res P CA4575: IM 40, UM 60, Tot 100, Gr S, Res P CA45P1: IM 40, UM 60, Tot 100, Gr S, Res P	25	25	9.48	9.46
1123507004	Anoop S	M	CA45B4: IM 34, UM 43, Tot 77, Gr B, Res P CA45B8: IM 32, UM 41, Tot 73, Gr B, Res P CA45C3: IM 33, UM 31, Tot 64, Gr C, Res P CA4507: IM 30, UM 48, Tot 78, Gr B, Res P CA4508: IM 31, UM 37, Tot 68, Gr C, Res P CA4575: IM 34, UM 54, Tot 88, Gr A, Res P CA45P1: IM 32, UM 49, Tot 81, Gr A, Res P	25	25	8.04	7.64
1123507005	Anto Jorgin S	M	CA45B4: IM 29, UM 43, Tot 72, Gr B, Res P CA45B8: IM 32, UM 38, Tot 70, Gr C, Res P CA45C3: IM 29, UM 37, Tot 66, Gr C, Res P CA4507: IM 28, UM 30, Tot 58, Gr D, Res P CA4508: IM 30, UM 41, Tot 71, Gr B, Res P CA4575: IM 27, UM 54, Tot 81, Gr A, Res P CA45P1: IM 29, UM 42, Tot 71, Gr B, Res P	25	25	7.52	7.23

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				IM	UM	Tot
Reg No.	**Name**	**Sex**	**Max**	**40**	**60**	**100**
			Min	**0**	**30**	**50**

Subject & Marks

Reg No.	Name	Sex	CA45B4					CA45B8					CA45C3					CA4507					CA4508					CA4575					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res				
1123507007	Donio D S	M	32	41	73	B	P	30	44	74	B	P	26	44	70	C	P	30	30	60	D	P	27	43	70	C	P	33	36	69	C	P	**25**	**25**	**7.32**	**6.77**
			CA45P1																																
			IM	UM	Tot	Gr	Res																												
			30	42	72	B	P																												
1123507008	Fathima Afra A	F	CA45B4					CA45B8					CA45C3					CA4507					CA4508					CA4575					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res				
			37	46	83	A	P	37	49	86	A	P	37	57	94	S	P	37	58	95	S	P	37	57	94	S	P	38	60	98	S	P	**25**	**25**	**9.76**	**9.49**
			CA45P1																																
			IM	UM	Tot	Gr	Res																												
			38	59	97	S	P																												
1123507009	Hosea K	M	CA45B4					CA45B8					CA45C3					CA4507					CA4508					CA4575					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res				
			35	31	66	C	P	31	32	63	C	P	33	30	63	C	P	32	30	62	C	P	31	32	63	C	P	39	54	93	S	P	**25**	**25**	**7.96**	**7.69**
			CA45P1																																
			IM	UM	Tot	Gr	Res																												
			36	57	93	S	P																												
1123507010	Jithu Mon S A	M	CA45B4					CA45B8					CA45C3					CA4507					CA4508					CA4575					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res				
			32	35	67	C	P	28	39	67	C	P	29	32	61	C	P	29	18	47	R	RA	28	30	58	D	P	36	30	66	C	P	**25**	**21**	**--**	**7.02**
			CA45P1																																
			IM	UM	Tot	Gr	Res																												
			33	50	83	A	P																												
1123507011	Krishna Veni S	F	CA45B4					CA45B8					CA45C3					CA4507					CA4508					CA4575					Tot.Cr	Cr.Erd	SGPA	CGPA
			IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res	IM	UM	Tot	Gr	Res				
			36	54	90	A	P	35	49	84	A	P	36	56	92	S	P	31	51	82	A	P	32	45	77	B	P	37	60	97	S	P	**25**	**25**	**9.28**	**8.72**
			CA45P1																																
			IM	UM	Tot	Gr	Res																												
			35	58	93	S	P																												

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Reg No.	Name	Sex	Subject & Marks	Tot.Cr	Cr.Erd	SGPA	CGPA
1123507012	Libi V D	F	CA45B4: IM 38, UM 46, Tot 84, Gr A, Res P CA45B8: IM 36, UM 44, Tot 80, Gr B, Res P CA45C3: IM 38, UM 53, Tot 91, Gr S, Res P CA4507: IM 35, UM 52, Tot 87, Gr A, Res P CA4508: IM 35, UM 47, Tot 82, Gr A, Res P CA4575: IM 39, UM 60, Tot 99, Gr S, Res P CA45P1: IM 37, UM 57, Tot 94, Gr S, Res P	**25**	**25**	**9.32**	**9.06**
1123507013	Mini T	F	CA45B4: IM 37, UM 52, Tot 89, Gr A, Res P CA45B8: IM 36, UM 33, Tot 69, Gr C, Res P CA45C3: IM 37, UM 40, Tot 77, Gr B, Res P CA4507: IM 34, UM 46, Tot 80, Gr B, Res P CA4508: IM 35, UM 37, Tot 72, Gr B, Res P CA4575: IM 37, UM 57, Tot 94, Gr S, Res P CA45P1: IM 36, UM 55, Tot 91, Gr S, Res P	**25**	**25**	**8.64**	**8.64**
1123507014	Nanthini S	F	CA45B4: IM 38, UM 50, Tot 88, Gr A, Res P CA45B8: IM 38, UM 46, Tot 84, Gr A, Res P CA45C3: IM 38, UM 50, Tot 88, Gr A, Res P CA4507: IM 36, UM 48, Tot 84, Gr A, Res P CA4508: IM 37, UM 46, Tot 83, Gr A, Res P CA4575: IM 39, UM 60, Tot 99, Gr S, Res P CA45P1: IM 37, UM 57, Tot 94, Gr S, Res P	**25**	**25**	**9.32**	**9.21**
1123507015	Reshme Anana S	F	CA45B4: IM 36, UM 52, Tot 88, Gr A, Res P CA45B8: IM 36, UM 38, Tot 74, Gr B, Res P CA45C3: IM 37, UM 53, Tot 90, Gr A, Res P CA4507: IM 33, UM 30, Tot 63, Gr C, Res P CA4508: IM 36, UM 42, Tot 78, Gr B, Res P CA4575: IM 36, UM 45, Tot 81, Gr A, Res P CA45P1: IM 36, UM 57, Tot 93, Gr S, Res P	**25**	**25**	**8.64**	**8.43**
1123507016	Sahaya Sharmily S	F	CA45B4: IM 37, UM 46, Tot 83, Gr A, Res P CA45B8: IM 37, UM 34, Tot 71, Gr B, Res P CA45C3: IM 37, UM 54, Tot 91, Gr S, Res P CA4507: IM 33, UM 32, Tot 65, Gr C, Res P CA4508: IM 36, UM 47, Tot 83, Gr A, Res P CA4575: IM 38, UM 54, Tot 92, Gr S, Res P CA45P1: IM 35, UM 54, Tot 89, Gr A, Res P	**25**	**25**	**8.76**	**8.78**

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1123507017	Shajin Jero J F	M	CA45B4: IM 24, UM AB, Tot 24, Gr Ab, Res RA CA45B8: IM 10, UM AB, Tot 10, Gr Ab, Res RA CA45C3: IM 11, UM AB, Tot 11, Gr Ab, Res RA CA4507: IM 19, UM AB, Tot 19, Gr Ab, Res RA CA4508: IM 17, UM AB, Tot 17, Gr Ab, Res RA CA4575: IM 16, UM AB, Tot 16, Gr Ab, Res RA CA45P1: IM 0, UM AB, Tot 0, Gr Ab, Res RA	**25**	**0**	**--**	**6.52**
1123507018	Shajitha S	F	CA45B8: IM 38, UM 44, Tot 82, Gr A, Res P CA45C3: IM 38, UM 48, Tot 86, Gr A, Res P CA45B4: IM 38, UM 46, Tot 84, Gr A, Res P CA4507: IM 38, UM 53, Tot 91, Gr S, Res P CA4508: IM 38, UM 47, Tot 85, Gr A, Res P CA4575: IM 39, UM 60, Tot 99, Gr S, Res P CA45P1: IM 38, UM 59, Tot 97, Gr S, Res P	**25**	**25**	**9.48**	**9.36**
1123507019	Shanthini G S	F	CA45B8: IM 39, UM 38, Tot 77, Gr B, Res P CA45C3: IM 40, UM 51, Tot 91, Gr S, Res P CA45B4: IM 39, UM 40, Tot 79, Gr B, Res P CA4507: IM 39, UM 49, Tot 88, Gr A, Res P CA4508: IM 39, UM 44, Tot 83, Gr A, Res P CA4575: IM 40, UM 60, Tot 100, Gr S, Res P CA45P1: IM 38, UM 58, Tot 96, Gr S, Res P	**25**	**25**	**9.20**	**9.21**
1123507020	Shifna Wilfred	F	CA45B8: IM 34, UM 41, Tot 75, Gr B, Res P CA45C3: IM 36, UM 50, Tot 86, Gr A, Res P CA45B4: IM 35, UM 39, Tot 74, Gr B, Res P CA4507: IM 32, UM 14, Tot 46, Gr R, Res RA CA4508: IM 31, UM 36, Tot 67, Gr C, Res P CA4575: IM 36, UM 60, Tot 96, Gr S, Res P CA45P1: IM 37, UM 57, Tot 94, Gr S, Res P	**25**	**21**	**--**	**7.97**
1123507021	Sivaram M S	M	CA45B8: IM 32, UM 30, Tot 62, Gr C, Res P CA45C3: IM 31, UM 35, Tot 66, Gr C, Res P CA45B4: IM 35, UM 31, Tot 66, Gr C, Res P CA4507: IM 33, UM 12, Tot 45, Gr R, Res RA CA4508: IM 32, UM 33, Tot 65, Gr C, Res P CA4575: IM 35, UM 54, Tot 89, Gr A, Res P CA45P1: IM 33, UM 52, Tot 85, Gr A, Res P	**25**	**21**	**--**	**7.63**

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Min	0	30	50

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1123507022	Sowfik Fazil N	M	CA45C3: IM 31, UM 34, Tot 65, Gr C, Res P CA45B4: IM 32, UM 32, Tot 64, Gr C, Res P CA45B8: IM 31, UM 30, Tot 61, Gr C, Res P CA4507: IM 30, UM 15, Tot 45, Gr R, Res RA CA4508: IM 30, UM 31, Tot 61, Gr C, Res P CA4575: IM 37, UM 36, Tot 73, Gr B, Res P CA45P1: IM 33, UM 48, Tot 81, Gr A, Res P	**25**	**21**	**--**	**6.75**
1123507023	Sreethu S S	F	CA45C3: IM 32, UM 41, Tot 73, Gr B, Res P CA45B4: IM 35, UM 40, Tot 75, Gr B, Res P CA45B8: IM 29, UM 35, Tot 64, Gr C, Res P CA4507: IM 33, UM 36, Tot 69, Gr C, Res P CA4508: IM 33, UM 35, Tot 68, Gr C, Res P CA4575: IM 37, UM 60, Tot 97, Gr S, Res P CA45P1: IM 35, UM 54, Tot 89, Gr A, Res P	**25**	**25**	**7.96**	**7.68**
1123507024	Sri Harish S	M	CA45C3: IM 29, UM 46, Tot 75, Gr B, Res P CA45B4: IM 31, UM 34, Tot 65, Gr C, Res P CA45B8: IM 30, UM 34, Tot 64, Gr C, Res P CA4507: IM 29, UM 45, Tot 74, Gr B, Res P CA4508: IM 30, UM 37, Tot 67, Gr C, Res P CA4575: IM 27, UM 60, Tot 87, Gr A, Res P CA45P1: IM 27, UM 49, Tot 76, Gr B, Res P	**25**	**25**	**7.68**	**7.38**
1123507025	Varsha S	F	CA45C3: IM 37, UM 49, Tot 86, Gr A, Res P CA45B4: IM 37, UM 37, Tot 74, Gr B, Res P CA45B8: IM 36, UM 38, Tot 74, Gr B, Res P CA4507: IM 35, UM 52, Tot 87, Gr A, Res P CA4508: IM 35, UM 41, Tot 76, Gr B, Res P CA4575: IM 38, UM 57, Tot 95, Gr S, Res P CA45P1: IM 37, UM 59, Tot 96, Gr S, Res P	**25**	**25**	**8.92**	**9.08**
1123507026	Vasuntharadevi K	F	CA45B4: IM 38, UM 38, Tot 76, Gr B, Res P CA45B8: IM 37, UM 40, Tot 77, Gr B, Res P CA45C3: IM 38, UM 52, Tot 90, Gr A, Res P CA4507: IM 33, UM 11, Tot 44, Gr R, Res RA CA4508: IM 36, UM 46, Tot 82, Gr A, Res P CA4575: IM 39, UM 54, Tot 93, Gr S, Res P CA45P1: IM 38, UM 57, Tot 95, Gr S, Res P	**25**	**21**	**--**	**8.54**

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1123507022	Sowfik Fazil N	M	CA45C3: IM 31, UM 34, Tot 65, Gr C, Res P CA45B4: IM 32, UM 32, Tot 64, Gr C, Res P CA45B8: IM 31, UM 30, Tot 61, Gr C, Res P CA4507: IM 30, UM 15, Tot 45, Gr R, Res RA CA4508: IM 30, UM 31, Tot 61, Gr C, Res P CA4575: IM 37, UM 36, Tot 73, Gr B, Res P CA45P1: IM 33, UM 48, Tot 81, Gr A, Res P	**25**	**21**	**--**	**6.75**
1123507023	Sreethu S S	F	CA45C3: IM 32, UM 41, Tot 73, Gr B, Res P CA45B4: IM 35, UM 40, Tot 75, Gr B, Res P CA45B8: IM 29, UM 35, Tot 64, Gr C, Res P CA4507: IM 33, UM 36, Tot 69, Gr C, Res P CA4508: IM 33, UM 35, Tot 68, Gr C, Res P CA4575: IM 37, UM 60, Tot 97, Gr S, Res P CA45P1: IM 35, UM 54, Tot 89, Gr A, Res P	**25**	**25**	**7.96**	**7.68**
1123507024	Sri Harish S	M	CA45C3: IM 29, UM 46, Tot 75, Gr B, Res P CA45B4: IM 31, UM 34, Tot 65, Gr C, Res P CA45B8: IM 30, UM 34, Tot 64, Gr C, Res P CA4507: IM 29, UM 45, Tot 74, Gr B, Res P CA4508: IM 30, UM 37, Tot 67, Gr C, Res P CA4575: IM 27, UM 60, Tot 87, Gr A, Res P CA45P1: IM 27, UM 49, Tot 76, Gr B, Res P	**25**	**25**	**7.68**	**7.38**
1123507025	Varsha S	F	CA45C3: IM 37, UM 49, Tot 86, Gr A, Res P CA45B4: IM 37, UM 37, Tot 74, Gr B, Res P CA45B8: IM 36, UM 38, Tot 74, Gr B, Res P CA4507: IM 35, UM 52, Tot 87, Gr A, Res P CA4508: IM 35, UM 41, Tot 76, Gr B, Res P CA4575: IM 38, UM 57, Tot 95, Gr S, Res P CA45P1: IM 37, UM 59, Tot 96, Gr S, Res P	**25**	**25**	**8.92**	**9.08**
1123507026	Vasuntharadevi K	F	CA45B4: IM 38, UM 38, Tot 76, Gr B, Res P CA45B8: IM 37, UM 40, Tot 77, Gr B, Res P CA45C3: IM 38, UM 52, Tot 90, Gr A, Res P CA4507: IM 33, UM 11, Tot 44, Gr R, Res RA CA4508: IM 36, UM 46, Tot 82, Gr A, Res P CA4575: IM 39, UM 54, Tot 93, Gr S, Res P CA45P1: IM 38, UM 57, Tot 95, Gr S, Res P	**25**	**21**	**--**	**8.54**

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Reg No. | Name | Sex | Subject & Marks

Reg No.	Name	Sex	Subject	IM	UM	Tot	Gr	Res	Tot.Cr	Cr.Erd	SGPA	CGPA
1123507027	Veena V S	F	CA45B4	39	55	94	S	P	25	25	9.72	9.33
			CA45B8	39	50	89	A	P				
			CA45C3	40	54	94	S	P				
			CA4507	39	56	95	S	P				
			CA4508	37	49	86	A	P				
			CA4575	40	60	100	S	P				
			CA45P1	39	58	97	S	P				
1123507028	Viswasharan R	M	CA45B4	32	36	68	C	P	25	25	7.32	6.84
			CA45B8	29	32	61	C	P				
			CA45C3	30	39	69	C	P				
			CA4507	28	31	59	D	P				
			CA4508	27	38	65	C	P				
			CA4575	35	60	95	S	P				
			CA45P1	29	42	71	B	P				
1123507029	Waffa U F	F	CA45B4	29	43	72	B	P	25	25	8.16	8.21
			CA45B8	29	42	71	B	P				
			CA45C3	29	46	75	B	P				
			CA4507	29	33	62	C	P				
			CA4508	28	45	73	B	P				
			CA4575	30	60	90	A	P				
			CA45P1	30	57	87	A	P				
1124507901	Dinesh Kumar P	M	CA45B4	33	34	67	C	P	25	25	7.16	7.16
			CA45B8	31	33	64	C	P				
			CA45C3	29	34	63	C	P				
			CA4507	29	30	59	D	P				
			CA4508	32	37	69	C	P				
			CA4575	35	42	77	B	P				
			CA45P1	30	42	72	B	P				

Controller of Examinations
CONTROLLER OF EXAMINATIONS
NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
KUMARACOIL - 629 180

Gr - Letter Grade
RA - Reappear
SGPA - Semester Grade Point Average
CGPA - Cumulative Grade Point Average

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CRITERION 4

STUDENTS' PERFORMANCE

4. Students' Performance (180)

Item	CAY	CAY *m*1	CAY *m*2	CAYm3 (LYGm1)#	CAYm4 * (LYGm1)#	CAYm5* (LYGm2)
Sanctioned intake of the program (N)	60	30	30	30		
Total no. of students admitted in 1st year(N1)	24	27	29	29		
No. of students admitted in 2nd year in the same batch via lateral entry (N2) if any	-	-	-	-		
Total no. of students admitted in the program (N1+N2)	24	27	29	29		

Table No. 4A. Admission details of a program

*LEET is applicable only in CAYm4 and CAYm5 as these batches are of 3-year program.

CAY = Current Academic Year (2025-2026)

CAYm1 = Current Academic Year minus1= Current Assessment Year(2024-2025)

CAYm2 = Current Academic Year minus2= Current Assessment Year minus1

LYG = Last Year Graduate

LYGm1 = Last Year Graduate minus 1

LYGm2 = Last Year Graduate minus 2.

Year of entry	No. of students admitted in 1st year + admitted via lateral entry in 2nd year (N1 + N2), if any	No. of students, who have successfully graduated without backlogs in any year of study **(Without backlogs means nocompartment/failure in any semester/year of study)**		
		I Year	II Year	III Year (In case of 3-year program)
CAY	24			
CAY*m*1	27	16		
CAY*m*2 (LYG)	29	19	22	
CAY*m*3 (LYG*m*1)#	38	21	22	
CAY*m*4 (LYG*m*1)#				
CAY*m*5 (LYG*m*2)#				

Table No. 4B. No. of students graduated without backlogs

*plus admitted via lateral entry in 2nd year only (N2), #Both graduate in 2024-25

Year of entry	No. of students admitted in 1st year+ admitted via lateral entry in 2nd year (N1 + N2), if any	No. of students, who have successfully graduated in stipulated period of study [Total of with backlogs + without backlogs]		
		I Year	II Year	III Year (In case of 3-year program)
CAY	24			
CAY*m*1	27	27		
CAY*m*2 (LYG)	29	29	29	
CAY*m*3 (LYG*m*1)#	38	29	25	
CAY*m*4 (LYG*m*1)#				

Table No. 4C. No. of students graduated in stipulated period (with backlogs and without backlogs).

*plus admitted via lateral entry in 2nd year only (N2), #Both batches will graduate in year 202-22

4.1. Enrolment Ratio (20)

Enrolment Ratio= N1/N

Item (Students enrolled at the 1st Year Level on average basis during the previous three academic years starting from current academic year)	Marks
≥90% students enrolled	20
≥80% students enrolled	18
≥70% students enrolled	16
≥60% students enrolled	14
≥50% students enrolled	12
<50% students enrolled	0

Item (Students enrolled at the 1st Year Level on average basis during the last three years starting from current academic years)	CAY	CAYm1	CAYm2
Sanctioned intake of the program (N)	60	30	30
Total no. of students admitted in first year (N1)	24	27	29
Enrolment Ratio	40	90	96
Average Enrolment Ratio	75.33		

Table No. 4.1. Average enrolment ratio for past 3 years including CAY

4.2. Success Rate in the Stipulated Period of the Program (50)

4.2.1. Success Rate in Stipulated Period of Study Without Backlogs (30)

Success index (**SI**) = (No. of students who graduated from the program without backlogs)/ {(No. of students admitted in the 1st year of that batch) plus (lateral entry students admitted in 2nd year of study, if any)}
Average SI = Mean of success index (SI) for past 3 batches.
Success rate in stipulated period of study without backlogs =3.0 * Average SI

Item	Latest Year of Graduation (LYG)	Latest Year of Graduation Minus 1 (LYG*m*1) *	Latest Year of Graduation Minus 2 (LYG*m*2) *
No. of students admitted in the corresponding 1st year+ admitted in 2nd year via lateral entry, *if any*	29	26	37
No. of students, who have graduated without backlogs in the stipulated period	18	24	13
Success index (SI)	0.62	0.92	0.35
Average SI	0.63		

Success rate in stipulated period of study without backlogs =3.0 *0.63 = 1.89

Table No. 4.2.1. Success rate without backlogs for 3 batches.

Note: If 100% students passed without any backlogs, then total marks scored will be 50 as both 4.2.1 & 4.2.2 will be applicable simultaneously.
3-year program*

4.2.2. Success Rate in Stipulated Period of Study (Actual Duration of the

Program) [Total of with Backlogs + without Backlogs] (20)

Success index (**SI**) = (No. of students who graduated from the program in the stipulated period of course duration)/ {(No. of students admitted in the 1st year of that batch) plus (lateral entry students admitted in 2nd year of study, if any)}

Average SI = Mean of success index (SI) for past 3 batches. Success rate = 2.0 * Average SI.

Item	LatestYear of Graduation (LYG)	Latest Year of Graduation Minus 1 (LYG*m*1) *	Latest Year of Graduation Minus 2 (LYG*m*2) *
No. of students admitted in the corresponding 1st year+ admitted in 2nd year via lateral entry, *if any*	29	26	37
No. of students, who graduated from the program in the stipulated period of course duration	26	25	19
Success index (SI)	0.89	0.96	0.51
Average SI	0.78		

Table No. 4.2.2. Success rate in stipulated period of study [Total of with backlogs + without backlogs] for 3 batches.

3-year program*

Success Rate: 2.0*0.78 = 1.56

4.3. Academic Performance in Second Year (20)

Academic Performance Index (**API**) = ((Mean of 2nd Year Grade Point Average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2nd Year/10)) * (successful students/no. of students appeared in the examination).

Academic Performance=2.0 * Average API

Successful students are those who passed in all the 2nd year courses

Academic Performance	CAYm1	CAY*m2*	CAY*m3*
(Mean of 2nd Year Grade Point Average of all successful Students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2nd Year/10) (X)	7.62	7.74	9.63
Total no. of successful students (Y)	22	20	19
Total no. of students appeared in the examination (Z)	27	29	37
API = X* (Y/Z)	6.20	5.33	4.94
Academic Performance=Average API = (AP1+AP2+AP3)/3	5.49		
Academic Performance=2.0 * Average API	10.98		

Table No. 4.3. Academic Performance of 2nd Year students for past 3 years

4.4. Academic Performance in First Year (20)

Academic Performance Index (**API**)= ((Mean of 1st Year Grade Point Average of all successful Students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1st Year/10)) * (successful students/no. of students appeared inthe examination).

Academic Performance=2.0* Average API.

Successful students are those who passed in all the 1st year courses

Academic Performance	CAYm1	CAY*m2*	CAY*m3*
(Mean of 1st Year Grade Point Average of all successful Students on a 10-point scale) or (Mean of the percentage of marks of all successful students in first Year/ 10) (X)	7.62	7.71	7.98
Total no. of successful students (Y)	13	19	14
Total no. of students appeared in the examination (Z)	27	41	19
API = X* (Y/Z)	3.66	3.57	5.88
Average API = (AP1+AP2+AP3)/3	4.37		
Academic Performance=2.0 * Average API	8.74		

Table No. 4.4. Academic Performance of 1st year students for past 3 years by other institute)

4.5. Placement and Higher Studies (40) Assessment Points

=40*(X+Y+Z)/N

Item	LYG	LYGm1	LYGm2
Total No. of Final Year Students (N)	29	26	37
No. of students placed in Industries/ Government sector through on/off campus recruitment (X)	16	11	13
No. of students admitted to higher studies with valid scores in various competitive qualifying exams and admissions in premier institutions (Y)	Nil	1	Nil
No. of entrepreneurs (Z)	Nil	1	Nil
X+Y+Z	16	13	13
Placement Index: (X+Y+Z)/N	55.17	50.00	35.13
T = Average of Placement Index ((X+Y+Z)/N)	46.76		
Assessment points = 40 * T	1870.66		

Table No. 4.5. Placement, Higher studies and Entrepreneurship details for past 3 years.

Note: In the above said table, you need to consider respective batch data (N, X, Y, Z) and
Internships/trainings should be excluded

Provide the Placement Data in the below mentioned format with the Name of the program and the assessment Year (CAYm1, CAYm2, CAYm3):

MCA- 2024-2025			
S.No	**Name of the student placed**	**Enrollment no.**	**Name of theEmployer**
1.	Abin J	1124507001	Besant Technologies
2.	Shifna Wilfred	1123507020	Vertical Solutions
3.	Reshme Anana S	1123507015	Vertical Solutions
4.	Mini T	1123507013	Vertical Solutions
5.	Sahaya Sharmily	1123507016	Vertical Solutions
6.	Libi V D	1123507012	Vertical Solutions
7.	Nanthini S	1123507014	Vertical Solutions

8.	Sreethu S S	1123507023	Vertical Solutions
9.	Varsha S	1123507025	Vertical Solutions
10.	Vasunthra Devi K	1123507026	Vertical Solutions
11.	Krishnaveni	1123507011	Vertical Solutions
12.	Shajitha S	1123507018	Vertical Solutions
13.	Amrutha A	1124507003	Vertical Solutions
14.	Veena V S	1122507027	Vertical Solutions
15.	Amritha S	1124507002	Vertical Solutions
16.	Shanthini G S	1124507019	Vertical Solutions

MCA- 2023-2024			
S.No	**Name of the student placed**	**Enrollment no.**	**Name of theEmployer**
1.	Aswini M	1122507010	JM origin Technosoft Pvt Ltd
2.	Esakkidurai M	1122507013	JM origin Technosoft Pvt Ltd
3.	Farhanah S	1122507014	JM origin Technosoft Pvt Ltd
4.	Vineeth V N	1122507034	JM origin Technosoft Pvt Ltd
5.	Anfal Fathima M	1122507006	Vertical Solutions
6.	Aswini M	1122507010	Vertical Solutions
7.	Bazeena A	1122507011	Vertical Solutions
8.	Hasan Jazeera	1122507016	Vertical Solutions
9.	Siva Sakthi G	1122507028	Vertical Solutions
10.	Suthi S	1122507032	Vertical Solutions
11.	Vineeth V N	1122507034	District Climate Change Mission Tirunelveli

MCA- 2022-2023			
S.No	**Name of the student placed**	**Enrollment no.**	**Name of theEmployer**
1.	Ashiga.J	1121507014	Tech Mahindra Assuretech

2.	Siva Bharathi J S	1121507047	JM origin Technosoft Pvt Ltd
3.	Shyjin K.J	1121507046	JM origin Technosoft Pvt Ltd
4.	Syed Mohamed Ribas M	1121507050	JM origin Technosoft Pvt Ltd.
5.	Siva Bharathi J.S	1121507047	Sun TV Network
6.	Rahul S S	1121507039	CIEL
7.	Shahira Moushmi J	1121507042	Mount Park Public Senior Secondary School
8.	Soni T. Thomas	1121507048	Hyderabad College of Aviation Technology
9.	Shalvin	1121507044	Nivas inc
10.	Jhonica	1121507028	Kvaliteta Systems & Solutions
11.	Ashika G E	1121507014	Noorul Islam Centre for Higher Education
12.	Maria Sarjan M	1121507033	UAE Ministry of Human Resources
13.	Rahul R V	11215070	IDFC FIRST Bharath Limited

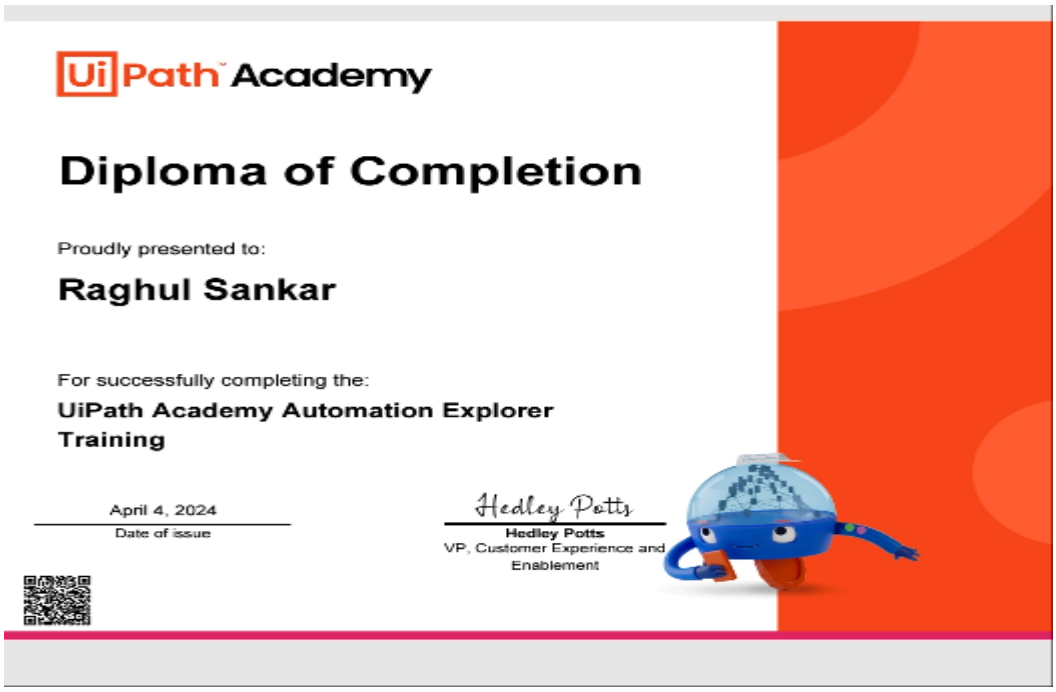
Attached Annexure 4.1 (Placement details)

4.6. Professional Activities (30)

4.6.1. Professional Societies /Chapters/Clubs and Number of Events Organized through Professional Societies /Chapters (10)

(Provide the relevant details including holding of position at regional/national/ international level also mention the events relevant to sustainable development)

The world of Intelligent Automation at the Skill-A-thon 2024, Organized by ICT Academy of Tamil Nadu in association with UiPath Academic Alliance. In this self-learning program, higher education students can showcase their Intelligent Automation prowess! This self-learning platform will make them to explore the world of Intelligent Automation. In our department students can join the Robotic Process Automation (RPA) Certificate Course in this Self learning platform and get the certificates.



Certificate of Skill-a-thon – ICT Academy Self Learning



Virtual Power Seminar by ICT Academy

4.6.2. Publications in Institute Journal/Technical Magazines/ Newsletters, etc. (10)

(List the publications mentioned along with the names of the editors,

publishers,etc.)

Students Publications in Conferences

Sl. No	Author	Title of the paper	Conferen ce Name	Year of publicati ons
1.	Veena V S	Identify Image pattern for data retrieval	ICRTCA'25	7th march 2025
2.	Shajitha S	AI- powered Cyber Threats: The Dark side of Machine Learning.	ICRTCA'25	7th march 2025
3.	Shanthini G S	Intelligent Home Automation with Iot and AI Voice assistants	ICRTCA'25	7th march 2025
4.	Amrutha A	Analysis and modelling of speech to text synthesis based on speech Recognition	ICRTCA'25	7th march 2025
5.	Amritha S	Enhancing smart TV security: AI-Based Threat Detection and blockchain solutions	ICRTCA'25	7th march 2025
6.	Ashigha J	Signature Verification System	ICNCA 2023	May 5th 2023
7.	Soni. T. Thomas	Arduino – based ultrasonic radar system via IOT	ICNCA 2023	May 5th 2023

8.	Thameesh Kumar K S	Student feedback analysis	ICNCA 2023	May 5th 2023
9.	Jhonica J	Cyber -attack on mapping services	ICNCA 2023	May 5th 2023
10.	Gowtham R G	University Result Analysis	ICNCA 2023	May 5th 2023

Students Publications in Journals

S.No	Student/Scholar	Title	Journal Name	Month & Year	Page No
1.	Ahila T	Covid-19 Segmentation with particle swarm Optimization Technique using X-Ray Images	International Journal of Trend in Research and Development (IJTRD),	Apr-23	2394-9333
2.	Sangeetha J	, Sentiment Analysis of Amazon User Reviews Using a Hybrid Approach, Measurement: Sensors	ELSEVIER	June 2023	1-11
3.	Sangeetha J	Using BiLSTM structure with Cascaded Attention Fusion Model for Sentiment Analysis	Journal of Scientific and Industrial Research (JSIR), SCI indexed journal	April 2023	444-449

4.	Sangeetha J	A hybrid optimization algorithm using BiLSTM structure for sentiment analysis	Measurement: Sensors	Feb 2023	
5.	Shalini V	Automatic detection and classification of Leukemia from blood smear image using sense convolutional neural network.	Journal of Theoretical and Applied Information Technology	Aug 2023	6065-6075
6.	Shalini V	Feature Extraction and detectiong of White blood Cells from Microscopic Images using Neural NEtwork	NeuroQuantology	2022	5719-5730
7.	Praveen K Wilson	A developed framework for multi-document summarization using softmax regression and spider monkey optimization methods	Soft Computing	Jan 2022, 26(7)	), pp. 3313–3328
8.	Neethu John	A Study On Sequence Mining Algorithms In Data Related To Emm And Markov Process	International Journal Of Novel Research And Development	October 2023	PP: 268-272 Volume :8 Issue :10

9.	Shyni A :	The impact of Data Mining Classification techniques on the diagnosis of Liver Disease	International Journal Of Novel Research And Development	September 2023	Pp :555-563 Volume : 8 Issue 9
10.	Roshy Thomas	A Novel framework for an intelligent deep learning based product recommendation system using sentiment Analysis (SA)	*Automatika* Journal for Control, Measurement, Electronics, Computing and Communications	Accepted 08 Dec 2023, Published online: 10 Jan 2024	Pp:410-424 Volume :65 Issue No :2
11.	Divya R Unnithan	A novel framework for multiple disease prediction in telemedicine systems using deep learning	*Automatika* Journal for Control, Measurement, Electronics, Computing and Communications	Accepted 10 Dec 2023, Published online: 26 Feb 2024	Pages 763-777 Volume :65 Issue No :3
12.	Pradeepa	Chronic kidney disease prediction using improved deep belief network with local search nearest neighbour optimization	Computer Methods In Biomechanics And Biomedical Engineering-Imaging And Visualization	2024	
13.	Vineesh R	Multi-Point Data Security Mechanism To Facilitate Secure Cloud Data Storage Solutions	International Journal for Research Trends and Innovation	Feb 2024	
14.	Adharsh	Deep Learning Based Automatic	Migration Letters, Vol. 20, issue S13(2023	Dec 2023	pp 393-406

		Answer Scoring using Bi-directional LSTM			
15.	Adharsh	Experimental Survey on Efficiency of AI Chatbots In Education	International Journal for Research Trends and Innovation	Sep 2023	pp 122-127

Attached Annexure 4.2 Student Publications

4.6.3. Participation in Inter-Institute Events by Students of the Program of Study (10)

(Provide a table indicating those events, which received awards in the events/conferences organized by other institutes)

SN	Name of the student	Name of the Event	Within state/ outside state	Date of Event	Prize/ Awards if any
CAYm1					
1	Sheik Mohamed Shalam S	Quiz	Within state	2024	Third
2	Abin Saji	Quiz	Within state	2024	Third
CAYm2					
4	Aswin H	Photography	Within state	17th April 2024	First
5	Aswin H	Photo Editing	Within state	17th April 2024	First
6	Aswin H	One Minute Photography	Within state	17th April 2024	First
7	Aswin H	Best Performer in Photography & Digital Club	Within state	17th April 2024	First
8	Aswin H	Spot Photography	Within state	17th March 2024	Third
9	Shifna Wilfred	Art from waste	Within state	17th April 2024	First
10	Shifna Wilfred	Collage	Within state	17th April	First

				2024	
11	Sreethu S S	Art from waste	Within state	17th April 2024	First
12	Sreethu S S	Collage	Within state	17 April 2024	First
13	Nanthini	Art from waste	Within state	2024	Third
14	Sreethu S S	Art from waste	Within state	2024	First
15	Shifna Wilfred	Art from waste	Within state	2024	First
16	Libi V D	Art from waste	Within state	2024	Third
17	Veena V	Paper bag Making	Within state	2024	Third
18	Amrutha A	Youth Talk	Within state	2024	Pre final
19	Varsha S	Handwriting	Within state	15th August 2024	Participation
20	Shanthini G S	Handwriting	Within state	15th August 2024	Participation
21	Fathima Afra A	Handwriting	Within state	15th August 2024	Participation
22	Veena V S	Handwriting	Within state	15th August 2024	Participation
23	Nanthini S	Drawing	Within state	15th August 2024	Participation
24	Amrutha A	Drawing	Within state	15th August 2024	Participation
CAYm3					
1	Aisha Beevi	Drawing Competition	Outside the State	08.03.2023	Outstanding

Attached Annexure 4.3 Students participation Certificates

Annexure 4.1

PLACEMENT DETAILS

BESANT CAMPUS CONNECT
A Unit of BDreamz Global Solutions

Besant Technologies

OFFER LETTER

To,

ABIN J
Department: MCA
College Name: Noorul Islam College of Engineering and Technology

To Whom It May Concern

Dear,

We are happy to inform you that you have been short listed in our screening test Training in our incubation centre starts on **Year 2026**. On the date of joining we would explain you detail the schedules.

Note

- We do not charge for the complete training which takes **3 months**
- We don't charge for any interviews/placement activity conducted at our end.
- The training includes Full Stack, Data Analytics, Data Science, AI & Cloud
- No other programs are included in this training module.

Following rules to be followed for placement activities:

- You should have **90% attendance** in class room / practical session
- Should be **ready to relocate** to different cities for job / interviews (Bangalore, Chennai, Hyderabad, Pune and Delhi)
- Complete the given **assignments** in time. And give everyday **presentation**
- Bring this offer letter on the first day with all semester marks cards, 10th, 12th, UG, PG documents and any other Govt ID proof. (Xerox Copy)
- Our assistance focuses on roles such as **Software Test Engineer, Full Stack Developer, Cloud Computing Engineer, and Data Analyst / Data Scientist,** with a package ranging from **3 LPA to 5 LPA** (depending on the company's process and the student's performance).

Best Regards,

G M of Besant Technologies

+91-7550016337 / 7349140002
ismail@besanttechnologies.com
magesh.natarajan@besanttechnologies.com
www.besanttechnologies.com
Plot No. 119, No.8, 11th Main Rd,
Vijaya Nagar, Velachery, Chennai,
Tamil Nadu 600042

VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear SHIFNA WILFRED MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

You will be on probation for a period of 6 months from the date of joining and this can be extended for a further period at the Company's discretion. During the probationary period your services can be terminated with One Week's notice on either side.

Please sign and return to us the duplicate of this letter as a token of your acceptance of the above terms and conditions.We look forward to you joining our team and hope it is the beginning of a mutually fulfilling association.

DOCUMENTS NEED

Tc, mark sheet, Aadhar card, smart card Photo, vaccination proof, Bank passbook Xerox

For **Vertical Solutions**



Authorized Sign

I have read and accept the terms and conditions:

Date of Joining :**MAY 2025**

Signature : _____

HRContact 9585447260

No. 111, Mount View Building, 3rd Floor, Guindy, Chennai - 600 032.
E-mail: hr@verticalssolutions.com | Web: http://www.verticalssolutions.com | Land Line : 044 - 4864 7244

VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear RESHME ANANA.S MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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E-mail: hr@verticalssolutions.com | Web: http://www.verticalssolutions.com | Land Line : 044 - 4864 7244

VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear MINI.T MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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For **Vertical Solutions**



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Signature : _____

HRContact 9585447260

No. 111, Mount View Building, 3rd Floor, Guindy, Chennai - 600 032.
E-mail: hr@verticalssolutions.com | Web: http://www.verticalssolutions.com | Land Line : 044 - 4864 7244

VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear SHAYA SHARMILY MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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For **Vertical Solutions**

Authorized Sign

I have read and accept the terms and conditions:

Date of Joining :**MAY 2025**

Signature : _____

HRContact 9585447260

No. 111, Mount View Building, 3rd Floor, Guindy, Chennai - 600 032.
E-mail: hr@verticalssolutions.com | Web: http://www.verticalssolutions.com | Land Line : 044 - 4864 7244

VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear LIBI.VD MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

You will be on probation for a period of 6 months from the date of joining and this can be extended for a further period at the Company's discretion. During the probationary period your services can be terminated with One Week's notice on either side.

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DOCUMENTS NEED

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For **Vertical Solutions**



Authorized Sign

I have read and accept the terms and conditions:

Date of Joining :**MAY 2025**

Signature : _____

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No. 111, Mount View Building, 3rd Floor, Guindy, Chennai - 600 032.
E-mail: hr@verticalssolutions.com | Web: http://www.verticalssolutions.com | Land Line : 044 - 4864 7244

VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear NANTHINI.S MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

You will be on probation for a period of 6 months from the date of joining and this can be extended for a further period at the Company's discretion. During the probationary period your services can be terminated with One Week's notice on either side.

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DOCUMENTS NEED

Tc, mark sheet, Aadhar card, smart card Photo, vaccination proof, Bank passbook Xerox

For **Vertical Solutions**



Authorized Sign

I have read and accept the terms and conditions:

Date of Joining :**MAY 2025**

Signature : _____

HRContact 9585447260

No. 111, Mount View Building, 3rd Floor, Guindy, Chennai - 600 032.
E-mail: hr@verticalssolutions.com | Web: http://www.verticalssolutions.com | Land Line : 044 - 4864 7244

VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear SREETHU.SS MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

You will be on probation for a period of 6 months from the date of joining and this can be extended for a further period at the Company's discretion. During the probationary period your services can be terminated with One Week's notice on either side.

Please sign and return to us the duplicate of this letter as a token of your acceptance of the above terms and conditions.We look forward to you joining our team and hope it is the beginning of a mutually fulfilling association.

DOCUMENTS NEED

Tc, mark sheet, Aadhar card, smart card Photo, vaccination proof, Bank passbook Xerox

For **Vertical Solutions**



Authorized Sign

I have read and accept the terms and conditions:

Date of Joining :**MAY 2025**

Signature : _____

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VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear VARSHA.S MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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For **Vertical Solutions**



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VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear VASUNTHARADEVI.K MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear KRISHNAVENI MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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DOCUMENTS NEED

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For **Vertical Solutions**

VERTICAL SOLUTIONS CHENNAI-32

Authorized Sign

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Date of Joining :**MAY 2025**

Signature : _____

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VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear SHAJIYHA SHAJAHAN MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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For **Vertical Solutions**



Authorized Sign

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Date of Joining :**MAY 2025**

Signature : _____

HRContact 9585447260

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E-mail: hr@verticalssolutions.com | Web: http://www.verticalssolutions.com | Land Line : 044 - 4864 7244

VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear AMRUTHA.A MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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For **Vertical Solutions**



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VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear VEENA.VS MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear AMRITHA.S MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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VERTICAL SOLUTIONS

The Complete Business Solutions.

Date: 04-09-2024

LETTER OF INTENT

Dear SHANTHINI.GS MCA,

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ALP,TESTING,QUALITY** at **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD** Sriperumbudur block Sunguvachatram under **VERTICAL SOLUTIONS**. The salary package is Rs.**2.4 LPA /-CTC** Including Food,Transport and Accommodation. Deploying with the company location, and you are requested to join on **MAY 2025**

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For **Vertical Solutions**

VERTICAL SOLUTIONS CHENNAI-32

Authorized Sign

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JM-ORIGIN

JM-ORIGIN Technosoft Pvt Ltd
11-220/1, Ratha Mahal
Swamiyarmadam -629158
Kanyakumari Dist, Tamil Nadu, INDIA
Ph: +91 9487533814
http://www.jm-origin.com

01-05-2024

Subject: **Letter of Offer.**

Miss. Aswini M
6-90/A Kollenvilai,
Thuckalay,
Kanyakumari District.

Dear Aswini M,

With reference to your application for employment at JM-ORIGIN Technosoft Private Limited. We are pleased to offer you the position of Functional Consultant of our company. You have been selected with us, the details of which are as follows.

1.	Designation	Functional Consultant
2.	Consolidated Salary	Rs.10,000/-
3.	Date of Joining	10/05/2023
4.	Place of Work	Swamiyarmadam.

You will be undergoing probation for a period of Six months. On successful completion of probation, you will be placed as Functional Consultant. Your performance will be evaluated by us and the salary adjustments may be reviewed on the basis of technical performance, overall success of the company, general business climate, economic conditions, your contributions and the value that you add to the company.

You will be handed over the Employee Handbook, which will explain the policies and procedures of the company.

As a part of joining formalities you will be required to sign an agreement of terms and conditions of employment with the organization & would be governed by the same post joining.

Request you to please return the duplicate copy of this letter duly signed as a token of your acceptance. We look forward to your being a part of JM-ORIGIN Technosoft Pvt Ltd.

Note: Further letter of appointment order and terms will follow in details.

Sincerely,
For JM-ORIGIN Technosoft Pvt Ltd.

Basil Chandra J
(Head - Human Resource)

JM-ORIGIN TECHNOSOFT PVT. LTD. SWAMIYARMADAM

I Accept_____

Aswini M

JM-ORIGIN

JM-ORIGIN Technosoft Pvt Ltd
11-220/1, Ratha Mahal
Swamiyarmadam -629158
Kanyakumari Dist, Tamil Nadu, INDIA
Ph: +91 9787533814
http://www.jm-origin.com

01-05-2024

Subject: **Letter of Offer.**

Mr. Esakki Durai M
Amman Kovil Street,
Ilanji (P.O) – 629161,
Tenkasi District.

Dear Esakki Durai M,

With reference to your application for employment at JM-ORIGIN Technosoft Private Limited. We are pleased to offer you the position of Functional Consultant of our company. You have been selected with us, the details of which are as follows.

1.	Designation	Functional Consultant
2.	Consolidated Salary	Rs.10,000/-
3.	Date of Joining	10/05/2023
4.	Place of Work	Swamiyarmadam.

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Note: Further letter of appointment order and terms will follow in details.

Sincerely,
For JM-ORIGIN Technosoft Pvt Ltd.

Basil Chandra J
(Head - Human Resource)

JMORIGIN TECHNOSOFT PVT. LTD. SWAMIYARMADAM

I Accept_____

Esakki Durai M

JM-ORIGIN

JM-ORIGIN Technosoft Pvt Ltd
11-220/1, Ratha Mahal
Swamiyarmadam -629158
Kanyakumari Dist, Tamil Nadu, INDIA
Ph: +91 9787533814
http://www.jm-origin.com

01-05-2024

Subject: **Letter of Offer.**

Miss. Farhanah S
Mettukadai,
Thuckalay – 629161,
Kanyakumari District.

Dear Farhanah S,

With reference to your application for employment at JM-ORIGIN Technosoft Private Limited. We are pleased to offer you the position of Functional Consultant of our company. You have been selected with us, the details of which are as follows.

1.	Designation	Telesales Executive
2.	Consolidated Salary	Rs.10,000/-
3.	Date of Joining	10/05/2023
4.	Place of Work	Swamiyarmadam.

You will be undergoing probation for a period of Six months. On successful completion of probation, you will be placed as Telesales Executive. Your performance will be evaluated by us and the salary adjustments may be reviewed on the basis of technical performance, overall success of the company, general business climate, economic conditions, your contributions and the value that you add to the company.

You will be handed over the Employee Handbook, which will explain the policies and procedures of the company.

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Request you to please return the duplicate copy of this letter duly signed as a token of your acceptance. We look forward to your being a part of JM-ORIGIN Technosoft Pvt Ltd.

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Sincerely,
For JM-ORIGIN Technosoft Pvt Ltd.

Basil Chandra J
(Head - Human Resource)

JM ORIGIN TECHNOSOFT PVT. LTD. SWAMIYARMADAM

I Accept_____

Farhanah S

JM-ORIGIN

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11-220/1, Ratha Mahal
Swamiyarmadam -629158
Kanyakumari Dist, Tamil Nadu, INDIA
Ph: +91 9487533814
http://www.jm-origin.com

01-05-2024

Subject: **Letter of Offer.**

Mr. Vineeth V N
Marikonam,
Ponmanai (P.O) – 629161,
Kanyakumari District.

Dear Vineeth VN,

With reference to your application for employment at JM-ORIGIN Technosoft Private Limited. We are pleased to offer you the position of Functional Consultant of our company. You have been selected with us, the details of which are as follows.

1.	Designation	Functional Consultant
2.	Consolidated Salary	Rs.10,000/-
3.	Date of Joining	10/05/2023
4.	Place of Work	Swamiyarmadam.

You will be undergoing probation for a period of Six months. On successful completion of probation, you will be placed as Functional Consultant. Your performance will be evaluated by us and the salary adjustments may be reviewed on the basis of technical performance, overall success of the company, general business climate, economic conditions, your contributions and the value that you add to the company.

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Note: Further letter of appointment order and terms will follow in details.

Sincerely,
For JM-ORIGIN Technosoft Pvt Ltd.



Basil Chandra J
(Head - Human Resource)

I Accept_____

Vineeth VN

VERTICAL SOLUTIONS

The Complete Business Solutions

Date: 6/3/2024

LETTER OF INTENT

Dear, ANFAL FATHIMA.M (Master of Computer Applications)

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ASSEMBLY LINE OPERATOR** at **VERTICAL SOLUTIONS** under **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD,** Sriperumbudur block Sunguvarchathiram with the salary package upto **Rs.16,000/-CTC** per month deploying with the company location, and you are requested to join on **JUNE 2024.**

You will be on probation for a period of 6 months from the date of joining and this can be extended for a further period at the Company's discretion. During the probationary period your services can be terminated with One Week's notice on either side.

Please sign and return to us the duplicate of this letter as a token of your acceptance of the above terms and conditions.

We look forward to you joining our team and hope it is the beginning of a mutually fulfilling association.

DOCUMENTS NEED

TC, Marksheet, Aadhar Card, Smart Card

Photo 4, Vaccination proof, Bank passbook Xerox (Salary Purpose)

For **Vertical Solutions**

VERTICAL SOLUTIONS CHENNAI-32

Authorized Sign

Declaration by the Student

I have read and accept the terms and conditions:

Name of the Student : ANFAL FATHIMA.M

Signature : Anfal Fathima

HR Contact : 95854 47260, 88388 85866

No. 111, 3rd Floor, Mount View Building, Guindy, Chennai-32.
Email : hr@verticalssolutions.com I Web : www.verticalssolutions.com

VERTICAL SOLUTIONS

The Complete Business Solutions

Date: 6/3/2024

LETTER OF INTENT

Dear, Aswini. M (Master of Computer Applications)

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ASSEMBLY LINE OPERATOR** at **VERTICAL SOLUTIONS** under **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD,** Sriperumbudur block Sunguvarchathiram with the salary package upto **Rs.16,000/-CTC** per month deploying with the company location, and you are requested to join on **JUNE 2024.**

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TC, Marksheet, Aadhar Card, Smart Card

Photo 4, Vaccination proof, Bank passbook Xerox (Salary Purpose)

For **Vertical Solutions**

VERTICAL SOLUTIONS CHENNAI-32.

Authorized Sign

Declaration by the Student

I have read and accept the terms and conditions:

Name of the Student : Aswini

Signature : Aswini

HR Contact : 95854 47260, 88388 85866

No. 111, 3rd Floor, Mount View Building, Guindy, Chennai-32.
Email : hr@verticalssolutions.com I Web : www.verticalssolutions.com

VERTICAL SOLUTIONS

The Complete Business Solutions

Date: 06-02-2024.

LETTER OF INTENT

Dear, Miss. A. Bazeena (Master of Computer Application)

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ASSEMBLY LINE OPERATOR** at **VERTICAL SOLUTIONS** under **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD,** Sriperumbudur block Sunguvarchathiram with the salary package upto **Rs.16,000/-CTC** per month deploying with the company location, and you are requested to join on **JUNE 2024.**

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Photo 4, Vaccination proof, Bank passbook Xerox (Salary Purpose)

For **Vertical Solutions**

VERTICAL SOLUTIONS CHENNAI-32

Authorized Sign

Declaration by the Student

I have read and accept the terms and conditions:

Name of the Student : A. Bazeena.

Signature : Bazeena. A

HR Contact : 95854 47260, 88388 85866

No. 111, 3rd Floor, Mount View Building, Guindy, Chennai-32.
Email : hr@verticalssolutions.com I Web : www.verticalssolutions.com

VERTICAL SOLUTIONS

The Complete Business Solutions

Date: 6 - 3 - 2024

LETTER OF INTENT

Dear, Hasan Jazeera (Master of Computer Applications)

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ASSEMBLY LINE OPERATOR** at **VERTICAL SOLUTIONS** under **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD,** Sriperumbudur block Sunguvarchathiram with the salary package upto **Rs.16,000/-CTC** per month deploying with the company location, and you are requested to join on **JUNE 2024.**

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DOCUMENTS NEED

TC, Marksheet, Aadhar Card, Smart Card

Photo 4, Vaccination proof, Bank passbook Xerox (Salary Purpose)

For **Vertical Solutions**

VERTICAL SOLUTIONS CHENNAI-32

Authorized Sign

Declaration by the Student

I have read and accept the terms and conditions:

Name of the Student : M. Hasan Jazeera

Signature : Jazeera.

HR Contact : 95854 47260, 88388 85866

No. 111, 3rd Floor, Mount View Building, Guindy, Chennai-32.
Email : hr@verticalssolutions.com I Web : www.verticalssolutions.com

VERTICAL SOLUTIONS

The Complete Business Solutions

Date:

LETTER OF INTENT

Dear, Siva Sakthi. G MCA 06.03.2024

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ASSEMBLY LINE OPERATOR** at **VERTICAL SOLUTIONS** under **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD,** Sriperumbudur block Sunguvarchathiram with the salary package upto **Rs.16,000/-CTC** per month deploying with the company location, and you are requested to join on **JUNE 2024.**

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Photo 4, Vaccination proof, Bank passbook Xerox (Salary Purpose)

For **Vertical Solutions**

VERTICAL SOLUTIONS * CHENNAI-32. *

06/03/2024.

Authorized Sign

Declaration by the Student

I have read and accept the terms and conditions:

Name of the Student : Siva Sakthi. G

Signature : Siva.Sakthi.G

HR Contact : 95854 47260, 88388 85866

No. 111, 3rd Floor, Mount View Building, Guindy, Chennai-32.
Email : hr@verticalssolutions.com I Web : www.verticalssolutions.com

VERTICAL SOLUTIONS

The Complete Business Solutions

Date: 6/3/24

LETTER OF INTENT

Dear, Suthi.s (MCA) Computer Application

This has reference to your application and the subsequent interviews you have had with us, we are pleased to make you an offer for the **ASSEMBLY LINE OPERATOR** at **VERTICAL SOLUTIONS** under **FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD,** Sriperumbudur block Sunguvarchathiram with the salary package upto **Rs.16,000/-CTC** per month deploying with the company location, and you are requested to join on **JUNE 2024.**

You will be on probation for a period of 6 months from the date of joining and this can be extended for a further period at the Company's discretion. During the probationary period your services can be terminated with One Week's notice on either side.

Please sign and return to us the duplicate of this letter as a token of your acceptance of the above terms and conditions.

We look forward to you joining our team and hope it is the beginning of a mutually fulfilling association.

DOCUMENTS NEED

TC, Marksheet, Aadhar Card, Smart Card

Photo 4, Vaccination proof, Bank passbook Xerox (Salary Purpose)

For **Vertical Solutions**

VERTICAL SOLUTIONS * CHENNAI-32. *

Authorized Sign

Declaration by the Student

I have read and accept the terms and conditions:

Name of the Student : Suthi.s

Signature : Suthi.S

HR Contact : 95854 47260, 88388 85866

No. 111, 3rd Floor, Mount View Building, Guindy, Chennai-32.
Email : hr@verticalssolutions.com I Web : www.verticalssolutions.com

JM-ORIGIN

JMORIGIN Technosoft Private Limited
11-220/1 Rathna Mahal
Swamiyarmadam - 629158
Kanyakumari Dist, Tamil Nadu, India.
Ph: +91 9787533814
http://www.jm-origin.com

25-02-2023

Subject: **Letter of Offer.**

Miss. Siva Bharathi JS
4-16A/5, Nullivilai, Sasthankarai,
Colachel – 629251,
Kanyakumari District.

Dear Siva Bharathi JS,

With reference to your application for employment at JM-ORIGIN Technosoft Private Limited. We are pleased to offer you the position of Functional Consultant of our company. You have been selected with us, the details of which are as follows.

1.	Designation	System Consultant
2.	Consolidated Salary	Rs.15,000/-
3.	Date of Joining	01/03/2023
4.	Place of Work	Swamiyarmadam.

You will be undergoing probation for a period of Six months. On successful completion of probation, you will be placed as System Consultant. Your performance will be evaluated by us and the salary adjustments may be reviewed on the basis of technical performance, overall success of the company, general business climate, economic conditions, your contributions and the value that you add to the company.

You will be handed over the Employee Handbook, which will explain the policies and procedures of the company.

As a part of joining formalities you will be required to sign an agreement of terms and conditions of employment with the organization & would be governed by the same post joining.

Request you to please return the duplicate copy of this letter duly signed as a token of your acceptance. We look forward to your being a part of JM-ORIGIN Technosoft Pvt Ltd.

Note: Further letter of appointment order and terms will follow in details.

Sincerely,
For JM-ORIGIN Technosoft Pvt Ltd.

Basil Chandra J
(Head - Human Resource)

I Accept_____

Siva Bharathi JS

Innovative Solutions Through Technology

JM-ORIGIN

JMORIGIN Technosoft Private Limited
11-220/1 Rathna Mahal
Swamiyarmadam - 629158
Kanyakumari Dist, Tamil Nadu, India.
Ph: +91 9787533814
http://www.jm-origin.com

25-02-2023

Subject: **Letter of Offer.**

Mr. Shyjin KJ
Door No: I-3-237,
Pulli pittai villai veedu,
Karode (PO) - 629151,
Kanyakumari District.

Dear Shyjin KJ,

With reference to your application for employment at JM-ORIGIN Technosoft Private Limited. We are pleased to offer you the position of Functional Consultant of our company. You have been selected with us, the details of which are as follows.

1.	Designation	Functional Consultant
2.	Consolidated Salary	Rs.15,000/-
3.	Date of Joining	01/03/2023
4.	Place of Work	Swamiyarmadam.

You will be undergoing probation for a period of Six months. On successful completion of probation, you will be placed as Functional Consultant. Your performance will be evaluated by us and the salary adjustments may be reviewed on the basis of technical performance, overall success of the company, general business climate, economic conditions, your contributions and the value that you add to the company.

You will be handed over the Employee Handbook, which will explain the policies and procedures of the company.

As a part of joining formalities you will be required to sign an agreement of terms and conditions of employment with the organization & would be governed by the same post joining.

Request you to please return the duplicate copy of this letter duly signed as a token of your acceptance. We look forward to your being a part of JM-ORIGIN Technosoft Pvt Ltd.

Note: Further letter of appointment order and terms will follow in details.

Sincerely,
For JM-ORIGIN Technosoft Pvt Ltd.

Basil Chandra J
(Head - Human Resource)

I Accept_____

Shyjin KJ

Innovative Solutions Through Technology

JM-ORIGIN

JMORIGIN Technosoft Private Limited
11-220/1 Rathna Mahal
Swamiyarmadam - 629158
Kanyakumari Dist, Tamil Nadu, India.
Ph: +91 9787533814
http://www.jm-origin.com

25-02-2023

Subject: **Letter of Offer.**

Mr. Syed Mohamed Ribas M
5/36, North Street,
Valinokkam – 623528,
Ramanathapuram District.

Dear Syed Mohamed Ribas M,

With reference to your application for employment at JM-ORIGIN Technosoft Private Limited. We are pleased to offer you the position of Functional Consultant of our company. You have been selected with us, the details of which are as follows.

1.	Designation	Functional Consultant
2.	Consolidated Salary	Rs.15,000/-
3.	Date of Joining	01/03/2023
4.	Place of Work	Swamiyarmadam.

You will be undergoing probation for a period of Six months. On successful completion of probation, you will be placed as Functional Consultant. Your performance will be evaluated by us and the salary adjustments may be reviewed on the basis of technical performance, overall success of the company, general business climate, economic conditions, your contributions and the value that you add to the company.

You will be handed over the Employee Handbook, which will explain the policies and procedures of the company.

As a part of joining formalities you will be required to sign an agreement of terms and conditions of employment with the organization & would be governed by the same post joining.

Request you to please return the duplicate copy of this letter duly signed as a token of your acceptance. We look forward to your being a part of JM-ORIGIN Technosoft Pvt Ltd.

Note: Further letter of appointment order and terms will follow in details.

Sincerely,
For JM-ORIGIN Technosoft Pvt Ltd.

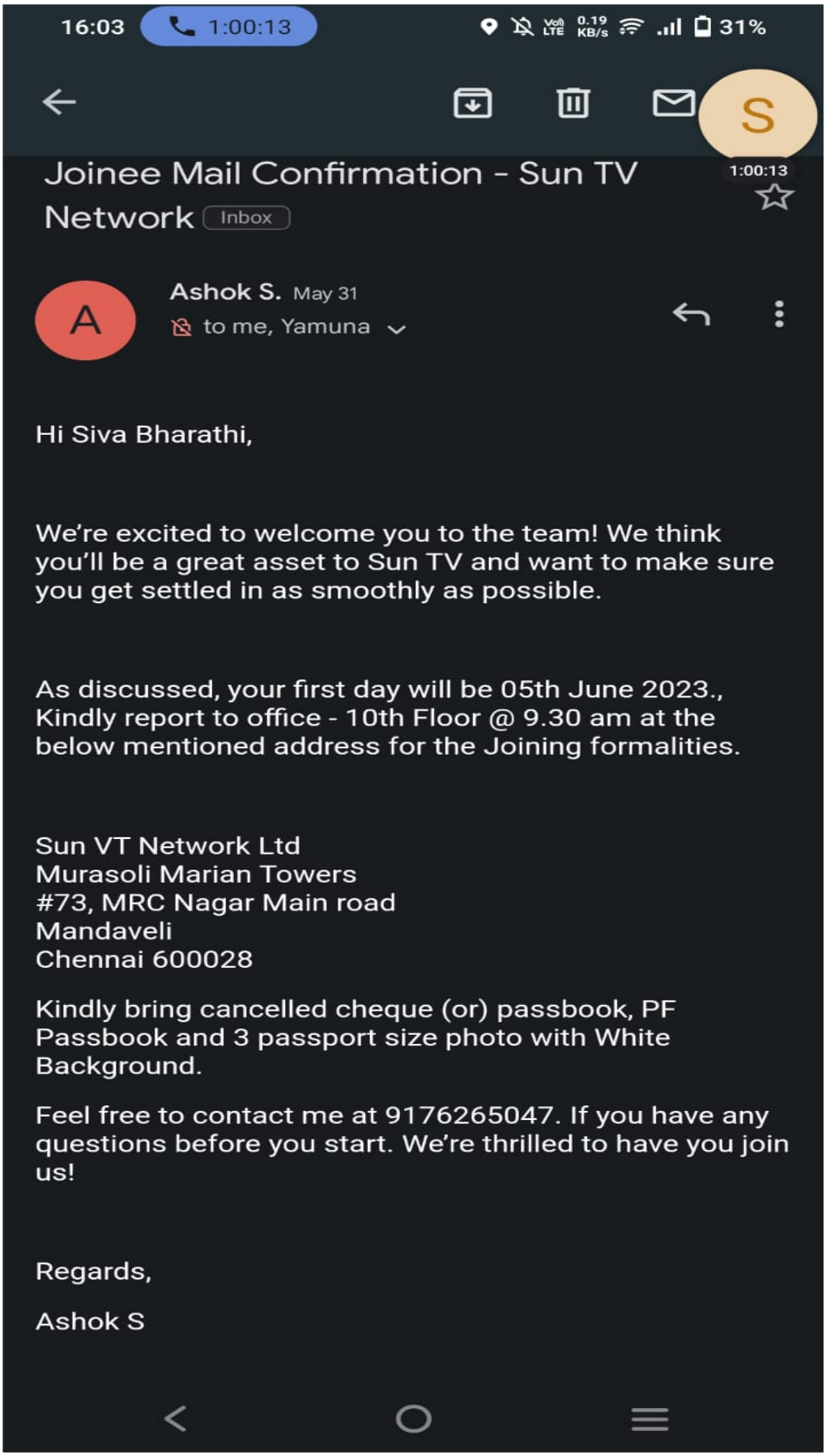
I Accept_____

Basil Chandra J
(Head - Human Resource)

Syed Mohamed Ribas M

JMORIGIN TECHNOSOFT PVT. LTD. SWAMIYARMADAM

Innovative Solutions Through Technology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Ashok S. May 31
to me, Yamuna
Hi Siva Bharathi,
We're excited to welcome you to the team! We think you'll be a great asset to Sun TV and want to make sure you get settled in as smoothly as possible.
As discussed, your first day will be 05th June 2023., Kindly report to office - 10th Floor @ 9.30 am at the below mentioned address for the Joining formalities.
Sun VT Network Ltd
Murasoli Marian Towers
#73, MRC Nagar Main road
Mandaveli
Chennai 600028
Kindly bring cancelled cheque (or) passbook, PF Passbook and 3 passport size photo with White Background.
Feel free to contact me at 9176265047. If you have any questions before you start. We're thrilled to have you join us!
Regards,
Ashok S

CIEL/489266/AL **10/06/2025**

APPOINTMENT LETTER

Dear **Rahul Sivakumar Saritha,**

We are pleased to offer you employment in our organization as **HR Recruiter,** on the following terms and conditions:

1. Your date of joining will be **11 Jun 2025**.
2. During the period of your employment, your services could be deputed at the sole discretion of the Management to any of our client's company to do work pertaining to or incidental to the clients business
3. Details of your salary break up with components are as per the enclosure.
4. Apart from the above any other expenses including travel expenses incurred by you in connection with its obligations under this engagement, with the prior approval of our client, shall be reimbursed by CIEL at actuals subject to the submission of appropriate bills, receipts and supporting documents related to such expenses.
5. You will be covered under a Group Accident Insurance Scheme to the extent of Rs.200000 and medical insurance up to Rs.100000 per annum. This policy will come into effect after 30 days of joining the company.
6. You will be eligible for one day leave per month as per the company policy, during the period of your contract of employment.
7. You will be entitled to all other statutory benefits wherever applicable during your employment,
8. The employment shall be terminable by either party giving 30 days notice in writing or salary in lieu of notice, to the other. In the event of the project/work for which you are being employed comes to an end, the organization may re-deploy you to other projects subject to you clearing the pre-requisites.

We are consciously endeavoring to build an atmosphere of trust, openness, responsiveness, autonomy, and growth among all members of the CIEL HR family. As a new entrant, we would like you to whole-heartedly contribute to this process.

As a token of your acceptance of the above terms and conditions, you are requested to sign the duplicate copy of this letter and return it to us.
With warm regards,

Yours truly,
For CIEL HR Services Limited

Aditya Narayan Mishra
CEO

I hereby accept the above-mentioned terms and conditions

Signature:
Date:


MOUNT PARK PUBLIC
SENIOR SECONDARY SCHOOL
Thirukoilur Main Road,Vadathorasalur,
Thiyagadurgam,Kallakurichi (Dt).
Ph - 04151 - 290534 Cell - 75388 86108
STAFF IDENTITY CARD
B+Ve
2025 - 2026
J.SHAHIRA MOUSHMI
TGT - Computer
D/o Justin Babu .K,
5/78, Anbiyam-13,
Enayam Puthenthurai.
74491 87083
Principal

HYDERABAD COLLEGE OF AVIATION TECHNOLOGY
(Approved by the Director General of Civil Aviation, Ministry of Civil Aviation, Govt. of India)
Noorul Islam University Campus, Kumaracoil, Thuckalay, Kanyakumari (Dist.) - 629 180
Tel : 04651 250566, 9946668103

HCAT/TM/25/AP-01 Date: 14/05/2025

To,
SONI T. THOMAS
S.S. Bhavan, Viralivila,
Vadoorkonam, Ayira(P.O),
Trivandrum, Kerala,
Pin :695502

Sub: Appointment Letter

In view of the interview conducted on 14/05/2025 by the staff selection committee of HCAT, we are pleased to offer you employment in the position of instructor in Hyderabad College of Aviation Technology (HCAT) with a monthly salary of Rs.20000/and free conveyance from Parassala to NICHE in collage bus as per prevailing terms and conditions.

Your appointment is on permanent basis as long as the requirement exists in the institute. The institute has got absolute authority for the appointment as well as the termination of your job. In case you decide to leave the institution, you should give at least 03 months of prior notice to that effect with valid reason. The institute will give you a minimum of 01 months of prior notice before termination your service.

You are hereby directed to report to duty on 15/05/2025

Dr. S. Nalinakshan Nair
Accountable Manager

HYDERABAD COLLEGE OF AVIATION TECHNOLOGY HCAT

Dr. S. NALINAKSHAN NAIR
ACCOUNTABLE & TRAINING MANAGER
HCAT

Sir
The Pro Chancellor (MD) is informed personally by me at DIMS and has given permission to appoint a suitable candidate when Sreedevi left for good

Website:www.nisaindia.com | E-mail:hcatindia@gmail.com

nivas inc
#548, 21st cross,14th main road,
sector3, HSR layout, Bangalore 560102
+91 98869 47770
naveen@nivasinc.com

Job Offer Letter

Dear **Shalvin,**

We would like to offer you the role of **UI/UX Designer.**

This Job Offer Letter ("Offer Letter")letter is being issued on behalf of nivas inc. ("Nivas") and memorializes the terms of your employment with Nivas inc. ("**Nivas**"). Kindly, note that your employment with Nivas is contingent on the employment eligibility documentation as required by law. Your employment with the Nivas may also be subject to successful pre and/or post-employment background check conducted by us, on our own or through a third party. By accepting this offer letter you shall be consenting to any such background checks and shall further agree to co-operate with the same.

We look forward to you joining and helping us grow the Nivas' business!

Nivas is in the process of incorporating a private limited company for carrying out its business activities. This offer letter will serve as a preliminary agreement, subject to formalization into a comprehensive employment contract upon the establishment of a Company ("**Company**"). Upon the formation of the Company, you will be required to execute a new employment contract with the Company. After execution of the new employment contract, it will take precedence over any terms outlined under this Offer Letter. In the event of any discrepancies, the terms of the new employment contract with the Company shall prevail.

The terms of your employment are as follows:

Start Date: 14th October 2024

1. Place of Work: Your assigned work location is India>Karnataka>Bangalore. Nivas, after giving you reasonable notice, transfer or assign your services to any place of business of Nivas that may be operating, or which may subsequently be acquired or established, in any part of India or abroad.

2. Leave and Working Hours: You will be entitled to leave per Nivas' policy and will observe the working hours as may apply to your category of employees and location of posting.

3. Fulfilment Obligation: Any cash bonuses or other expenses paid before salary periods are recoverable by Nivas for the first 90 days of employment should you terminate your employment without cause.

4. Confidentiality and Confidentiality, Non- Solicit, Non-Compete and Non-Disclosure Agreement (NDA): Your employment is conditioned upon your execution of our NDA and your acceptance of the

Kvaliteta
Systems & Solutions
An ISO 9001:2015 Certified Company

KVA/INT/2025/12 28th Mar 2025

Dear Jhonika,

Sub: **Internship and Conditional Employment Offer at Kvaliteta Systems and Solutions**

Ref: **Your application for the Internship Position**

We are pleased to offer you an internship position at Kvaliteta Systems and Solutions. This internship will provide you with practical exposure and training to develop your professional skills.

Internship Terms and Conditions

Position: Intern

Duration: Three (3) months (with an option to extend up to six (6) months based on performance Evaluation

Stipend: ₹7,000 per month

Location: Technopark Phase III, Trivandrum (Relocation to Trivandrum is mandatory)

Schedule:

- Monday to Friday, 9:30 AM to 6:30 PM (including 1-hour lunch break)
- Saturdays and Sundays are designated as weekly off days

Mobile Phone & Office Systems Usage Policy

Mobile Phone Usage:

- Personal mobile use is restricted during Office hours.
- Unauthorized mobile usage may result in a warning or disciplinary action.

Office Systems & Internet Usage:

- Office systems and IT resources must be used only for Work purposes.
- Strictly prohibited: Personal email & social media usage, Job searching using company resources.
- Any violation will result in progressive disciplinary action as mentioned above

Evaluation:

- Your performance will be reviewed twice during the three-month period.
- Based on the evaluation, the internship may be discontinued or extended for an additional three (3) months.

Kvaliteta Systems and Solutions (P) Ltd,
SBC 2207, II Floor, Yamuna Tower, Technopark Phase-III,Trivandrum-695582, Kerala, India.
Phone +91 4712710076 | E-Mail: info@kvaliteta.in Web: www.kvaliteta.in

02-06-2025

Employee Name: RAHUL R V

Employee Code: 611790

Dear RAHUL R V,

We are pleased to extend this letter of appointment ("letter") to you as "SR.BDO - CD" and grade is "Associate" at IDFC FIRST Bharat Limited (the "Company"). You are expected to join on or before 01-06-2025 basis the agreement. The position is currently based at NAGERCOIL Location. Your annual compensation (CTC – All inclusive) will be **CTC INR ₹ 201240.**

Your appointment is subject to your abiding to, in letter and spirit,

- Compensation Details [Annexure-1]
- Terms & Conditions [Annexure-2]
- Code of Conduct [Annexure-3] and
- Code of Conduct for Prohibition of Insider Trading [Annexure-4]

This appointment is subject to you being medically fit to perform your role effectively. It is also subject to verification, as per the norms of the company, of information and particulars submitted by you, including but not limited to Authorization / Undertaking / Declaration Form.

Please note that you are required to keep the salary & other perquisites / benefits offered to you strictly confidential and not share information regarding the same with anyone.

Congratulations on your appointment. We wish you a successful association with IDFC FIRST Bharat Limited.

Thank You

For IDFC FIRST Bharat Limited

For IDFC FIRST Bharat Ltd.,

Authorised Signatory

Satyaprasad Aripirala

IDFC First Bharat Limited
(Formerly IDFC Bharat Limited), Business correspondent of IDFC FIRST Bank
Registered Office:SAN Complex, No. 4, Williams Road, Cantonment, Tiruchirapalli 620 001 Tel: +91 431 4500000 Fax: +91 431 2750393
CIN: U65929TN2003PLC050856 Email: sampark@idfcfirstbharat.com Website: www.idfcfirstbharat.com



Scanned By Camera Scanner

Annexure 4.2

Student Publications

ISBN No. 978-81-972950-6-5

IDENTIFY IMAGE PATTERN FOR DATA RETRIEVAL

Veena V S
PG Student, Department of Computer Applications
Noorul Islam Centre for Higher Education Tamil Nadu, India
veenavsreekala@gmail.com

Ms. M. Merlin Johnsy
Assistant Professor
Department of Computer Applications
Noorul Islam Centre for Higher Education TamilNadu, India
merlinjohnsy@niuniv.com

Abstract

This research paper presents a secured approach to data transmission by identifying patterns in images. The primary objective of this project is to enhance data security through encryption techniques while ensuring that only authorized users can access the data. In today's digital age, data security is of utmost importance due to the increasing risks of cyber threats and unauthorized access. Conventional password-based security mechanisms have become susceptible to hacking and breaches, which necessitates the development of more sophisticated security systems. Our proposed system introduces a novel approach where data is encrypted and embedded within an image, ensuring an additional layer of security. Upon registration, each user receives a unique pin file, which acts as a decryption key to extract and view the information hidden in the image. This means that even if an unauthorized user gains access to login credentials, they cannot retrieve the data without the correct pin file. The methodology adopted in this project leverages encryption and pattern recognition techniques to ensure secure data retrieval. This encryption process transforms the data into an unreadable format that can only be decoded by the authorized recipient. Additionally, during file transmission, the encrypted image undergoes further security measures to prevent tampering or interception. The proposed system guarantees data security and integrity by incorporating advanced encryption methodologies, making it an effective solution for secure data sharing in various applications. The findings of this research highlight the robustness of image-based encryption and its potential toenhance data protection strategies in real-world implementations.

Keywords : Cyber-Attacks, Encryption, Cyber-Threats

I. INTRODUCTION

The rapid advancement of technology has increased concerns about data security and privacy. As more data is transmitted over the internet, cyber threats have escalated, leading to potential breaches and unauthorized access. Traditional password-based authentication systems are vulnerable to hacking, phishing, and brute-force attacks. This project introduces an image-based encryption mechanism where data is converted into an image format, requiring a specific pin file for decryption. Unlike traditional encryption systems that rely solely on alphanumeric passwords, this method enhances security by introducing an additional layer of protection through image pattern recognition [1][2].

ISBN No. 978-81-972950-6-5

AI-POWERED CYBER THREATS: THE DARK SIDE OF MACHINE LEARNING

Shajitha S
PG Student, Department of Computer Applications
Noorul Islam Centre for Higher Education Tamil Nadu, India
irshajithashajahan@gmail.com

Dr.S. Beulah
Associate Professor,
Department of Computer Applications
Noorul Islam Centre for Higher Education Tamil Nadu, India
beulah@niuniv.com

ABSTRACT

The increasing sophistication of Artificial Intelligence (AI) has not only transformed cyber security defenses but also introduced new risks in the form of AI- powered cyber threats. Cybercriminals are now leveraging machine learning (ML) models to develop advanced phishing scams, deep fake attacks, adaptive malware, and automated hacking techniques. This paper explores the landscape of AI-driven cyber threats, analyzing how attackers use AI, the vulnerabilities they exploit, and the potential countermeasures that cyber security professionals can implement. The study also highlights real-world cases of AI-enabled cyber-attacks and provides an assessment of current AI-driven defense mechanisms in mitigating these threats.With the increasing sophistication of AI-powered cyber threats, traditional cyber security measures are struggling to keep pace. The use of AI in cybercrime has led to the development of more convincing social engineering attacks, highly adaptive malware, and large-scale automated hacking operations. The growing accessibility of AI tools further enables cybercriminals to weaponries machine learning for malicious purposes, reducing the barrier to entry for attackers and increasing the overall volume of threats.To mitigate these challenges, AI-driven security frameworks must evolve continuously to counteract adversarial AI techniques. Organizations must leverage machine learning models for predictive threat intelligence, real-time anomaly detection, and automated incident response. This paper aims to provide a comprehensive overview of AI-powered cyber threats, exploring both offensive AI techniques and the defensive strategies required to combat them in an increasingly digital landscape.

Key words: Artificial Intelligence, Cyber Security, Cyber attacks

I. INTRODUCTION

Artificial Intelligence (AI) and Machine Learning (ML) have revolutionized various industries, including cyber security. While these technologies have significantly improved the ability to detect and prevent cyber threats, they have also introduced new risks. Cybercriminals are now leveraging AI to develop more sophisticated attacks, automate cybercrime, and evade traditional security defenses.

AI-driven cyber threats are increasingly difficult to detect as they evolve and adapt in real time. Attackers use AI to craft highly convincing phishing emails, generate deep fake videos for fraud, and

ISBN No. 978-81-972950-6-5

INTELLIGENT HOME AUTOMATION WITH IoT AND AI VOICE ASSISTANTS

Shanthini G.S
PG Student, Department of Computer Applications
Noorul Islam Centre for Higher Education Tamil Nadu, India
shanthinigs13@gmail.com

Dr. M Shafeen Nagoor
Assistant Professor
Department of Computer Applications
Noorul Islam Centre for Higher Education, TamilNadu, India.
shafeennagoor@niuniv.com

Abstract

The Internet of Things (IoT) is a smart technology that connects everyday devices to the internet. These devices, like smart watches, home appliances, and sensors, can talk to each other and share information without needing people to control them all the time. IoT enhances automation and efficiency across various sectors, including healthcare, agriculture, transportation, and smart homes. In smart home environments, IoT enables real-time monitoring, automated control, and seamless interaction through voice assistants like Google Assistant and Alexa For example, in healthcare, smart watches track heart rates and health conditions. In smart cities, IoT helps manage traffic, garbage collection, and energy usage. In factories, IoT improves machines' performance and saves time. Despite its advantages, IoT faces challenges such as data security vulnerabilities, privacy concerns, and interoperability issues among devices from different manufacturers". Because many devices share private information, there is a higher risk of hacking. However, new technologies like artificial intelligence, block chain, and 5G networks are helping IoT become safer and better. In the future, IoT will create smarter cities, automated industries, and a more comfortable lifestyle.

Introduction

The Internet of Things (IoT) is a revolutionary technology that connects physical devices to the internet, enabling seamless communication and data exchange between them. These devices, embedded with sensors, software, and network capabilities, range from household appliances and wearable gadgets to industrial machines and smart vehicles. IoT allows devices to collect and share real-time data without human intervention, creating smart environments that enhance convenience and efficiency. For example, smart homes use IoT devices to control lighting, temperature and security systems automatically. In industries, IoT helps monitor equipment performance and optimize production processes, improving productivity and reducing costs.

Despite its numerous advantages, IoT presents several challenges, especially

ISBN No. 978-81-972950-6-5

ANALYSIS AND MODELLING OF SPEECH-TO-TEXT SYNTHESIS BASED ON SPEECH RECOGNITION

Amrutha A

PG Student, Department of Computer Applications

Noorul Islam Centre for Higher Education Tamil Nadu, India
amruthaayappan2002@gmail.com

Dr. J.R. Jeba
Associate Professor & HOD
Department of Computer Applications
Noorul Islam Centre for Higher Education TamilNadu,India jeba@niuniv.com

ABSTRACT

The integration of speech recognition technologies has revolutionized human-computer interaction by enabling automatic transcription and voice-command systems. This paper focuses on the analysis and modelling of speech-to-text synthesis, specifically addressing the techniques and methodologies used for accurate speech recognition and subsequent text generation. The study explores the core components of speech recognition systems, evaluates the effectiveness of various machine learning models, and discusses advancements in deep learning-based approaches. The paper further investigates challenges such as noise interference, accents, and multilingual support, providing a comprehensive analysis of current solutions and their impact on practical applications such as virtual assistants, transcription services, and accessibility tools. Additionally, the paper examines the role of feature extraction techniques and acoustic modelling in improving the efficiency and accuracy of speech-to-text systems. Through an in-depth exploration of various architectures, including end-to-end models, the research aims to highlight the significance of modern approaches in enhancing speech recognition performance across different real-world scenarios.

Keywords Speech Recognition, Speech-to-Text, Deep Learning, Natural Language Processing (NLP), Acoustic Modeling, Language Modeling, Automatic Speech Recognition (ASR), Neural Networks.

I. INTRODUCTION

Speech-to-text (STT) synthesis, or automatic speech recognition (ASR), is the process of converting spoken language into written text. Over the past few decades, ASR systems have become increasingly efficient and widely used in applications such as voice assistants, transcription services, and accessibility tools for individuals with disabilities. The accuracy of these systems, however, remains an ongoing challenge due to factors such as background noise, accents, and the diversity of language use.

The core challenge in speech recognition lies in converting spoken acoustic signals into meaningful textual representations. This process involves several stages, including acoustic modeling, feature extraction, language modeling, and

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ENHANCING SMART TV SECURITY: AI-BASED THREAT DETECTION AND BLOCKCHAIN SOLUTIONS

Amritha. S
PG Student, Department of Computer Applications
Noorul Islam Centre for Higher Education Tamil Nadu, India
connect2amrithapadmanabhan@gmail.com

Dr. M. Shafeen Nagoor
Assistant Professor
Department of Computer Applications
Noorul Islam Centre for Higher Education TamilNadu, India.
shafeennagoor@niuniv.com

Abstract

Smart TVs have transformed home entertainment by integrating internet connectivity, streaming services, and voice assistants. These advancements provide users with enhanced accessibility and a more immersive experience. However, the increased connectivity also introduces significant cybersecurity risks. Smart TVs can be targeted by hackers who exploit vulnerabilities to gain unauthorized access, steal personal data, or deploy malware. Additionally, third-party applications and unsecured streaming services further expose users to threats such as phishing attacks and ransomware. This paper provides an in-depth analysis of the security vulnerabilities associated with smart TVs, common attack vectors, and the latest advancements in cybersecurity measures, including artificial intelligence (AI) and blockchain technology. By understanding these risks and implementing best security practices, users can safeguard their devices and personal information from cyber threats.

I.Introduction

The growing adoption of smart TVs has transformed traditional television into an interactive multimedia experience. Unlike conventional TVs, smart TVs integrate advanced computing capabilities, enabling users to stream content, browse the internet, and use voice commands through built-in virtual assistants like Google Assistant and Alexa. These devices also support third-party applications, gaming, and even smart-home integration making them a central component of modern digital lifestyles.

However, this increased functionality comes with inherent risks. Smart TVs require an active internet connection to deliver content and updates, which can be exploited by cybercriminals to gain unauthorized access. Many smart TVs also feature cameras and microphones for video conferencing and voice recognition, creating potential vulnerabilities that could be used for surveillance or data theft. Weak security settings, lack of firmware updates, and insecure third-party applications further exacerbate these risks.

Additionally, the rise of Internet of Things (IoT) ecosystems has made smart TVs interconnected with other home devices, such as smart speakers, security cameras, and thermostats. As cyber threats continue to evolve, understanding and

SIGNATURE VERIFICATION SYSTEM

Ashigha J
Noorul Islam Centre for Higher EducationTamil Nadu, India
ashighaj@gmail.com

Dr. J.R. Jeba
Associate Professor & HOD
Department of Computer Applications
Noorul Islam Centre for Higher EducationTamil Nadu, India
jeba@niuniv.com

ABSTRACT

Signature verification system is used toidentify the correct signature of the user. Itcan be used in authentication process. Bank cheques and legal transactions require signature verification. Signature- based verification of a large number of documents is a very difficult and time consuming task. Signature can be also done with digital tablets. Automatic signature verification is more accrue and fast.

The area of handwritten signature verification has been broadly researched in the last decades, but remains an open research problem. The objective ofsignature verification systems is to discriminate if a given signature is genuineor a forgery. This has demonstrated to be a challenging task, in particular in the offline, that uses images of scanned signatures, Where the dynamic information about the signing process isnot available

Signature verification is one of the mostaccepted biometric techniques, because a signature is a part of everyday life,although less accurate than biometrictechniques such as using the iris. In this field, much attention has been paid to features, because a verification system should be able to overcome problems suchas forgeries, insensitivity to intra-personal variability and sensitivity to inter-personalvariability. In this paper, we present asimple and efficient approach to signatureverification, based on a discrete cosine transform

I INTRODUCTION

Image processing is any form of signal processing for which the input is an Image, such as a photograph or video frame the output of image processing may be either an Image or a set of characteristics or parametersrelated to the image image processing usuallyRefers to digital image processing, butoptical and analog image processing also arepossible.

The acquisition of images is referred to asimaging. In simple terms, image processing is a method to convert an image into digital form and perform some operations on it, in order to get an enhanced image or to extra some useful information

ARDUINO – BASED ULTRASONIC RADAR SYSTEM VIA IOT

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Abstract

RADAR is an object-detection system which uses radio waves to determine the range, altitude, direction andspeed of an object. Radar systems have variety of sizes and that have different performance specifications. Some radar systems are used for air- traffic control at airports, and others are used for long range surveillance and early-warning systems. Aradar system is the heart of missile guidance system. Radar was secretly developed by several nations before and during World War II. The term RADAR itself, not the actual development, was coined in 1940 by the United StatesNavy as an acronym for Radio Detection and Ranging.

Keywords- Sonar, Radar, Ultrasonic, Arduino, Processing, Servo, 180 degreerange, Obstacle, IOT, Cloud storage

I. INTRODUCTION

The arduino radar object is to achieve a radar system prototype based on an arduino board that detects stationary and moving objects. The word radar means radio detection and ranging that uses microwaves to determine the range, altitude, direction, and speed of an object within about a 100-mile radius of their location. The radar antenna transmits radio waves ormicro waves that bounce off any object in their path. Due to this we can easilydetermine the object in the radar range. The modern uses of radar are highlydiverse including:

- Air Traffic Control
- Radar Astronomy
- Air-defence Systems
- Antimissile Systems
- Marine radars used to locatelandmarks and other ships
- Aircraft anti-collision Systems
- Ocean Surveillance System
- Flight Control Systems
- Guided missile target locatingsystems
- Ground-penetrating radar forgeological observations

STUDENT FEEDBACK ANALYSIS

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Abstract:

Student Feedback system is used to get the feedback from the students. It generates the reports for the faculty on the basis of given feedback by the students. The staff will be provided with separate usernames and password in order to check the response of the feedback. The total report is visible to the people like chairman and principal. It contains the modules like student, faculty and admin. Admin is the responsible for creating a class and assigning the corresponding faculty to the class. Within short time we can get the performance of the faculty from the student point of view. There are 14 questions to evaluate the status of faculty and each question contains4 options like Excellent, good and Poor.

The online feedback from students from students about the faculties registered in system, such that the physical presence of student is not required for giving the feedback. The whole processof giving feedback can be done online. To develop a feedback student for college student which aims to rate and analyze for college faculty's performance.

To reduce the burden of efforts and burden of keeping and maintaining the records on a manual base, it requires a lot of space and safety to keep up such records. So this online feedback system reduces, the strenuous work of physically examining the feedback pages of each and every student.

I. INTRODUCTION

This type of Student Feedback Systemreduces, the Strenuous work of physically examining the feedback pages of each andevery student.

The system also reduces the burden of efforts and burden of keeping and maintaining the records on a manual base, it requires a lot of space and safety to keep up such records.

CYBER ATTACK ON MAPPING SERVICES

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ABSTRACT

Real-time crowdsourced maps such as Waze provide timely updates on traffic, congestion, accidents and points of interest. In this paper, we demonstrate how lack of strong location authentication allows creation of software-based Sybil devices that expose crowdsourced map systems to a variety of security and privacy attacks. Our experiments show that a single Sybil device with limited resources can cause havoc on Waze, reporting false congestion and accidents and automatically rerouting user traffic. More importantly, we describe techniques to generate Sybil devices at scale creating armies of virtual vehicles capable of remotely tracking precise movements for large user populations while avoiding detection. To defend against Sybil devices, we propose a new approach based on co-location edges, authenticated records that attest to the one-time physical co-location of a pair of devices. Over time, co-location edges combine to form large proximity graphs that attest to physical interactions between devices, allowing scalable detection of virtual vehicles. We demonstrate the efficacy of this approach using large-scale simulations, and how they can be used to dramatically reduce the impact of the attacks. We have informed Waze/Google team of our research findings. Currently, we are in active collaboration with Waze team to improve the security and privacy of their system.

1. INTRODUCTION

Crowdsourcing is indispensable as a real-time data gathering tool for today's online services. Take for example map and navigation services. Both Google Maps and Waze use periodic GPS readings from mobile devices to infer traffic speed and congestion levels on streets and highways. Waze, the most popular crowdsourced map service, offers users more ways to actively share information on accidents, police cars, and even contribute content like editing roads, landmarks, and local fuel prices. This and the ability to interact with nearby users made Waze extremely popular, with an estimated 50 million users when it was acquired by Google for a reported $1.3 Billion USD in June 2013. Today, Google integrates selected crowdsourced data (e.g. accidents) from Waze into its own Maps application. Unfortunately, systems that rely on crowdsourced data are inherently vulnerable to mischievous or malicious users

UNIVERSITY RESULT ANALYSIS

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Associate Professor
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Abstract:

The main objective of this project is to provide results to the students in a simple way. The students can get results through the college/institution website through their roll numbers. By analyzing the result status and applying the standard calculation followed by the University the result is displayed with individual scores and the equivalent percentage. The system is intended for the student. The student can login through their login id and password to check their respective results.

University result analysis system has been designed to carry out the mark analysis process in an educational institution. The results of respective departments can be efficiently computed without much of manual involvement. Given the continuous rise in student population, tertiary institutions calculate examination result of students with the help of computer programs. Analysis of students' information and their academic record is as important as examination result computation.

This can be achieved with web development technologies like HTML, CSS, PhP, JavaScript and using the database MySQL. The faculty can view the overall performance of the students in the semester examinations subject wise. The visualization of the overall results according to the subject.

1. INTRODUCTION:

University Result Management System is a web-based application that mainly focuses on providing the results to the student and the faculty. The student checks their respective results using their University registered recognition id's along with their grades and percentage of that particular semester.

The student accessing their results through college site is more convenient and the faculty can easily analyze the pass and failure of a particular subject. The system is divided into three modules- Student, Faculty and Administrator. The student using his roll number can view his results and the faculty using the joining year and the subject name and view the analysis of pass and failure count in the selected subject. The

Annexure 4.3

Students participation Certificates


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(Deemed to be University u/s 3 of the UGC Act, 1956)
Pravaha
THE FLOW OF DIVERSE 2024
CULTURAL FEST OF NICHE KANYAKUMARI
CERTIFICATE
This is to Certify that ASWIN. H, S4 MCA
won the ~~First~~ / Second / ~~Third~~ Place in
Event PHOTO EDITING Pravaha 2024,
organized by Noorul Islam Centre for Higher Education, Kanyakumari.
Dr. Tessy Thomas
Vice Chancellor
Dr. A.P. Majeed Khan
Chancellor
info@niuniv.com
www.niuniv.com
KUMARACOIL, THUCKALAY
KANYAKUMARI DISTRICT
TAMIL NADU 629 180
17 APRIL
2024

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(Deemed to be University u/s 3 of the UGC Act, 1956)

Pravaha
THE FLOW OF DIVERSE 2024
CULTURAL FEST OF NICHE KANYAKUMARI

CERTIFICATE

This is to Certify that SHIFNA WILFRED, S2 MCA

won the First / ~~Second~~ / ~~Third~~ Place in

Event ART FROM WASTE *Pravaha 2024,*

organized by Noorul Islam Centre for Higher Education, Kanyakumari.

Dr. Tessy Thomas
Vice Chancellor

Dr. A.P. Majeed Khan
Chancellor



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Pravaha
THE FLOW OF DIVERSE 2024
CULTURAL FEST OF NICHE KANYAKUMARI

CERTIFICATE

This is to Certify that SHIFNA WILFRED, S2 MCA.
won the First / ~~Second~~ / ~~Third~~ Place in
Event COLLAGE *Pravaha 2024,*
organized by Noorul Islam Centre for Higher Education, Kanyakumari.

Dr. Tessy Thomas
Vice Chancellor

Dr. A.P. Majeed Khan
Chancellor



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KANYAKUMARI DISTRICT
TAMIL NADU 629 180

17 APRIL 2024



SREE AYYAPPA COLLEGE FOR WOMEN

(Re-accredited with B Grade by NAAC)

Chunkankadai, Nagercoil

KOLUSUKALIN KONDATTAM- 2024

CERTIFICATE OF APPRECIATION

This is to certify that

Selvi /Smt ....Shifna Wilfred (S2 MCA).....Participated in the

Art From Waste.....competition and won First / Second / Third / Consolation prize

held in connection with the KOLUSUKALIN KONDATTAM - 2024 conducted by

Sree Ayyappa College for Women.

Principal
Dr.V.R.Anjana

Organizing secretary
Dr.L Kumari Krishnaveni

Co-ordinator
Dr.B.M.Myla



SREE AYYAPPA COLLEGE FOR WOMEN

(Re-accredited with B Grade by NAAC)

Chunkankadai, Nagercoil

KOLUSUKALIN KONDATTAM- 2024

CERTIFICATE OF APPRECIATION

This is to certify that

Selvi /Smt ....Nanthini..S....(Sa..M.C.A.).....Participated in the

Art....From...Waste.....competition and won First / Second / Third / Consolation prize

held in connection with the KOLUSUKALIN KONDATTAM - 2024 conducted by

Sree Ayyappa College for Women.

Principal
Dr.V.R.Aniana

Organizing secretary
Dr.I. Kumari Krishnaveni

Co-ordinator
Dr.B.M.Myla



SREE AYYAPPA COLLEGE FOR WOMEN
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Chunkankadai, Nagercoil

KOLUSUKALIN KONDATTAM- 2024

CERTIFICATE OF APPRECIATION

This is to certify that

Selvi /Smt .....Hibi V.D (Sa MCA).....Participated in the

Art From Waste.....competition and won First / Second / Third / Consolation prize

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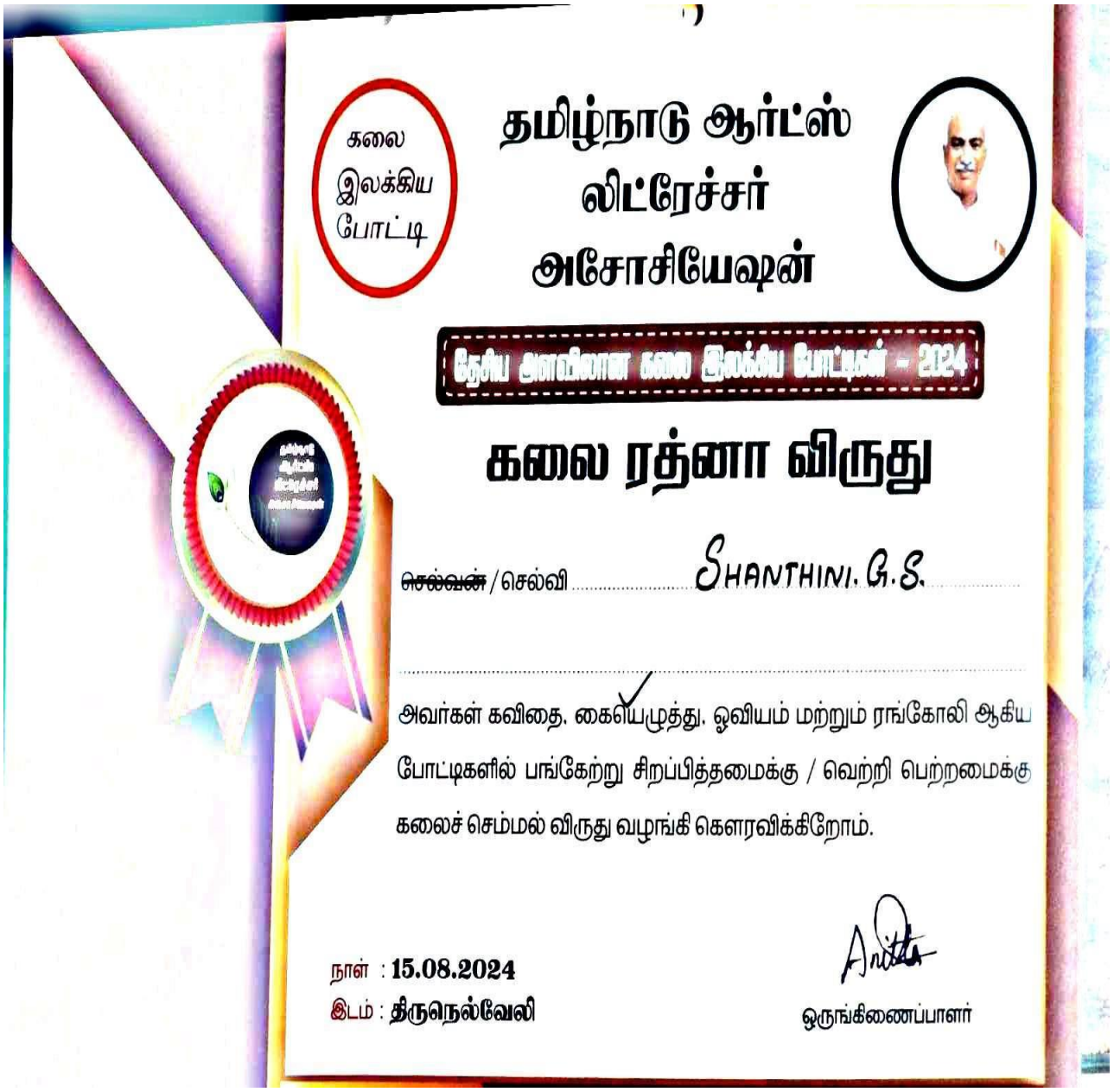
Principal
Dr.V.R.Anjana

Organizing secretary
Dr.L Kumari Krishnaveni

Co-ordinator
Dr.B.M.Myla


Regional Partner - Tirunelveli
St. XAVIER'S
CATHOLIC COLLEGE OF ENGINEERING
(Autonomous)
Chunkankadai, Nagercoil - 629003
Kanyakumari District, Tamil Nadu
ICTACADEMY
YOUTHTALK
2024
An initiative of
ICTACADEMY
Certificate of Participation
REGIONAL PRE-FINALS
AMRUTHA A
NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, NAGERCOIL
has participated in the Regional Pre-finals of ICT Academy Youth Talk - Tamil Nadu.
M. Lalitha
Member of the Jury Committee
ICT Academy Youth Contests
C.No: YT-108532 | Date: 07 October 2024
Srikanth V
Chief Executive Officer (I/c)
ICT Academy


கலை
இலக்கிய
போட்டி
தமிழ்நாடு ஆர்ட்ஸ்
லிட்ரேச்சர்
அசோசியேஷன்
தேசிய அளவிலான கலை இலக்கிய போட்டிகள் - 2024
கலை ரத்னா விருது
செல்வன்/செல்வி VARSHA. S
அவர்கள் கவிதை. கையெழுத்து. ஓவியம் மற்றும் ரங்கோலி ஆகிய
போட்டிகளில் பங்கேற்று சிறப்பித்தமைக்கு / வெற்றி பெற்றமைக்கு
கலைச் செம்மல் விருது வழங்கி கௌரவிக்கிறோம்.
நாள் : 15.08.2024
இடம் : திருநெல்வேலி
ஒருங்கிணைப்பாளர்


கலை
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போட்டி
தமிழ்நாடு ஆர்ட்ஸ்
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~~செல்வன்~~ / செல்வி SHANTHINI. G.S.
அவர்கள் கவிதை, கையெழுத்து, ஓவியம் மற்றும் ரங்கோலி ஆகிய போட்டிகளில் பங்கேற்று சிறப்பித்தமைக்கு / வெற்றி பெற்றமைக்கு கலைச் செம்மல் விருது வழங்கி கௌரவிக்கிறோம்.
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ஒருங்கிணைப்பாளர்


கலை
இலக்கிய
போட்டி
தமிழ்நாடு ஆர்ட்ஸ்
லிட்ரேச்சர்
அசோசியேஷன்
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கலை ரத்னா விருது
செல்வன்/செல்வி FATHIMA AFRA.A.
அவர்கள் கவிதை, கையெழுத்து, ஓவியம் மற்றும் ரங்கோலி ஆகிய
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நாள் : 15.08.2024
இடம் : திருநெல்வேலி
ஒருங்கிணைப்பாளர்


கலை இலக்கிய போட்டி
தமிழ்நாடு ஆர்ட்ஸ் லிட்ரேச்சர் அசோசியேஷன்
தேசிய அளவிலான கலை இலக்கிய போட்டிகள் - 2024
கலை ரத்னா விருது
~~செல்வன்~~ / செல்வி VEENA.V.S.
அவர்கள் கவிதை, கையெழுத்து, ஓவியம் மற்றும் ரங்கோலி ஆகிய போட்டிகளில் பங்கேற்று சிறப்பித்தமைக்கு / வெற்றி பெற்றமைக்கு கலைச் செம்மல் விருது வழங்கி கௌரவிக்கிறோம்.
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கலை
இலக்கிய
போட்டி
தமிழ்நாடு ஆர்ட்ஸ்
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ஒருங்கிணைப்பாளர்


கலை
இலக்கிய
போட்டி
தமிழ்நாடு ஆர்ட்ஸ்
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~~செல்வன்~~ / செல்வி AMRUTHA. A .
அவர்கள் கவிதை, கையெழுத்து, ஓவியம் மற்றும் ரங்கோலி ஆகிய
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KANYAKUMARI
DEEMED-TO-BE UNIVERSITY
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WOMENS' Day 2023
Certificate of Appreciation
This Certificate is awarded to appreciate Mrs/ Ms A AISHA BEEVI
Department MCA of NICHE for outstanding participation and performance in drawing competition conducted with regard to " International Womens Day," March 2023.
NIMS HOSPITALS
Mr.M.S.Faizal Khan
Managing Director, NIMS MEDICITY
Prochancellor, NICHE

CRITERION 5

FACULTY INFORMATION AND CONTRIBUTIONS

CRITERION 5	Faculty Information and Contributions	200

5. Faculty Information and Contributions (200)

Academic Year: 2025 – 2026

SN	Name of the Faculty Member	Qualification			Date of Joining the Institution	Total No. of years of association with the Institution	Current Designation	Date on which Designated as Professor/Associate Professor	Specialization, if any	Academic Research			Currently Associated (Y/N) Date of Leaving (Incase Currently Associated is ("No")	Nature of Appointment(Regular/ Contract on full time basis)
		Highest degree	University	Month and Year of attaining higher qualification						Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	Dr. M. K. Jeya Kumar	Ph.D	Dr..MGR Educational Research Institute University	March 2010	05.09.1994	31.4	Professor	10.03.2010	Mobile Computing, Image Processing	1	1	-	Y	Regular
2	Dr. J.R. Jeba	Ph.D	Mother Teresa Women's University	December 2013	17.12.1997	28.1	Associate Professor & HOD	18/09/2010	Data Mining, Software Engineering, Data Analytics	-	2	-	Y	Regular
3	Dr. S. Beulah	Ph.D	Bharathiar University	January 2020	25.06.2001	24.7	Associate Professor	18.09.2010	Data security, Wireless sensor networks	-	1	-	Y	Regular

4	Ms.C.R. Sheela Kumari	M.Phil	Manonmaniam Sundaranar University	November 2006	30.09.2004	21.4	Assistant Professor	-	Software Engineering	-	-	-	Y	Regular
5	Ms.M.Merlin Johnsy	M.Phil	Manonmaniam Sundaranar University	May 2007	08.09.2005	20.4	Assistant Professor	-	Image Processing	-	-	-	Y	Regular
6	Dr. M. Shafeen Nagoor	Ph.D	Noorul Islam Centre for Higher Education	September 2023	27.02.2024	1.11	Assistant Professor	-	Image Processing, Data Mining	-	-	1	Y	Regular
7	Ms.Juliet Jemila C	M.E	Anna University	July 2010	23.09.2024	1.4	Assistant Professor	-	Data structures, compiler design, computer networks	-	-	-	Y	Regular
8	Ms.Priya J	ME	Anna University	August 2017	19.03.2025	0.10	Assistant Professor	-	Computer Networks	-	-	-	Y	Regular
9	Ms. M.Tharanya	MCA	Anna University	June 2014	10.10.2022	3.3	Teaching Assistant	-	Cyber Forensics	-	-	-	Y	Regular

Academic Year: 2024 – 2025

SN	Name of the Faculty Member	Qualification			Date of Joining the Institution	Total No. of years of association with the Institution	Current Designation	Date on which Designated as Professor/Associate Professor	Specialization, if any	Academic Research			Currently Associated (Y/N) Date of Leaving (Incase Currently Associated is ("No")	Nature of Appointment(Regular/ Contract on full time basis)
		Highest degree	University	Month and Year of attaining higher qualification						Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	Dr. M. K. Jeya Kumar	Ph.D	Dr..MGR Educational Research Institute University	March 2010	05.09.1994	30.8	Professor	10.03.2010	Mobile Computing, Image Processing	3	1	-	Y	Regular
2	Dr. J.R. Jeba	Ph.D	Mother Teresa Women's University	December 2013	17.12.1997	27.5	Associate Professor & HOD	18/09/2010	Data Mining, Software Engineering, Data Analytics	1	-	-	Y	Regular
3	Dr. S. Beulah	Ph.D	Bharathiar University	January 2020	25.06.2001	23.11	Associate Professor	18.09.2010	Data security, Wireless sensor networks	-	4	-	Y	Regular
4	Ms.C.R. Sheela Kumari	M.Phil	Manonmaniam Sundaranar University	November 2006	30.09.2004	20.8	Assistant Professor	-	Software Engineering	-	-	-	Y	Regular

5	Ms.M.Merlin Johnsy	M.Phil	Manonmaniam Sundaranar University	May 2007	08.09.2005	19.8	Assistant Professor	-	Image Processing	-	-	-	Y	Regular
6	Dr. M. Shafeen Nagoor	Ph.D	Noorul Islam Centre for Higher Education	September 2023	27.02.2024	1.3	Assistant Professor	-	Image Processing, Data Mining	-	-	1	Y	Regular
7	Ms. Juliet Jemila C	M.E	Anna University	July 2010	23.09.2024	0.8	Assistant Professor	-	Data structures, compiler design, computer	-	-	-	Y	Regular
8	Ms.Priya J	ME	Anna University	August 2017	19.03.2025	0.2	Assistant Professor	-	Computer Networks	-	-	-	Y	Regular
9	Ms. M.Tharanya	MCA	Anna University	June 2014	10.10.2022	2.7	Teaching Assistant	-	Cyber Forensics	-	-	-	Y	Regular

Academic Year: 2023 – 2024

SN	Name of the Faculty Member	Qualification			Date of Joining the Institution	Total No. of years of association with the Institution	Current Designation	Date on which Designated as Professor/Associate Professor	Specialization, if any	Academic Research			Currently Associated (Y/N) Date of Leaving (Incase Currently Associated is ("No")	Nature of Appointment(Regular/ Contract on full time
		Highest degree	University	Month and Year of attaining higher qualification						Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment		
1	Dr. M. K. Jeya Kumar	Ph.D	Dr..MGR Educational Research Institute University	March 2010	05.09.1994	29.8	Professor	10.03.2010	Mobile Computing, Image Processing	9	-	-	Y	Regular
2	Dr. J.R. Jeba	Ph.D	Mother Teresa Women's University	December 2013	17.12.1997	26.5	Associate Professor & HOD	18/09/2010	Data Mining, Software Engineering, Data Analytics	6	-	-	Y	Regular
3	Dr. S. Beulah	Ph.D	Bharathiar University	January 2020	25.06.2001	22.11	Associate Professor	18.09.2010	Data security, Wireless sensor networks	-	-	-	Y	Regular
4	Dr. A.C. Subhajini	Ph.D	Mother Teresa Women's University	October 2014	09.08.2007	16.9	Associate Professor	13.04.2019	Neural Networks	-	-	-	02/01/2024	Regular
5	Ms.C.R. Sheela Kumari	M.Phil	Manonmaniam Sundaranar University	November 2006	30.09.2004	19.8	Assistant Professor	-	Software Engineering	-	-	-	Y	Regular
6	Ms.M.Merlin Johnsy	M.Phil	Manonmaniam Sundaranar University	May 2007	08.09.2005	18.8	Assistant Professor	-	Image Processing	-	-	-	Y	Regular

7	Dr. M. Shafeen Nagoor	Ph.D	Noorul Islam Centre for Higher Education	September 2023	27.02.2024	0.3	Assistant Professor	-	Image Processing, Data Mining	-	-	1	Y	Regular
8	Ms. M.Tharanya	MCA	Anna University	June 2014	10.10.2022	1.7	Teaching Assistant	-	Cyber Forensics	-	-	-	Y	Regular

5.1 Student-Faculty Ratio (SFR)(20)

(To be calculated at Department Level, if the program is offered in Engineering Department, then include all UG and PG engineering programs for SFR calculations)

No. of MCA Programs in the Department (m): **1**

No. of Students in MCA 1st Year=**24**

No. of Students in MCA 2nd Year=**28**

No. of Students=Sanctioned Intake+ Actual admitted students via lateral entry if any

S = No. of students in the Department

F =Total no. of regular or contractual faculty members (Full Time) in the Department

Student Faculty Ratio **(SFR)** = *S/F*

CAY: Current Academic Year

CAYm1: Current Academic Year minus 1 = Current Assessment Year

CAYm2:CurrentAcademicYearminus2=CurrentAssessmentYearminus1

*It is applicable to a program that has 3rd year students in the Master of Computer Applications (MCA) program

+excluding faculty involved in first year engineering teaching if any.

Year	CAY(2025 – 2026)	CAYm1(2024 – 2025)	CAYm2(2023 - 2024)
mc1(No. of Students in MCA 1st Year)	**24**	**27**	**29**
mc2(No. of Students in MCA 2nd Year)	**28**	**29**	**26**
MCA	**52**	**56**	**55**
Total no .of Students in the Department **(S)**	**52**	**56**	**55**
No. of Faculty in the Department **(F)**	**9**	**9**	**8**
Student Faculty Ratio (**SFR**)	**5.77**	**6.22**	**6.87**
AverageSFRfor3 years SFR=(SFR1+SFR2+SFR3)/3	**6.28**		

5.2 Faculty Cadre Ratio (25)

The reference Faculty cadre ratio is 1(F1):2(F2):6(F3)

F1: No. of Professors required= 1/9* No .of faculty members required to comply with 20:1 Student- Faculty ratio.

F2: No. of Associate Professors required=2/9* No .of faculty members required to comply with 20:1 Student-Faculty ratio.

F3: No. of Assistant Professors required=6/9* No. of faculty members required to comply with20:1 Student-Faculty ratio

Year	No. of Professors		No. of Associate Professors		No. of Assistant Professors	
	RequiredF1	Available F1	RequiredF2	Available F2	RequiredF 3	AvailableF3
CAY (2025 – 2026)	1	1	1	2	2	5
CAYm1 (2024 – 2025)	1	1	1	2	2	5
CAYm2 (2023 - 2024)	1	1	1	3	2	3
Average Numbers	**RF1= 1**	**AF1= 1**	**RF2= 1**	**AF2=2**	**RF3=2**	**AF3=4**

TableNo.5.2. Faculty cadre ratio for past3years including CAY

- IfAF1=AF2=0,then zero mark
- Maximum marks to be limited if it exceeds the allocated marks

Case1:AF1/RF1=1;AF2/RF2=1;AF3/RF3=1&Cadreratiomarks=(1+0.6+0.4)*12.5=25

- Case 2:AF1/RF1=1; AF2/RF2=4/2; AF3/RF3=8/9 & Cadre ratio marks= (1+1.2+0.36)*12.5=32 (limited to 25)

Cadre Ratio Marks=((AF1/RF1)+(AF2x0.6/RF2)+(AF3x0.4/RF3))x12.5

= 40.5

5.3. Faculty Qualification (25)

FQ=2.5*(10X+4Y)/F, where X is no. of faculty with Ph.D. degree, Y is no. of faculty with MCA/M.Tech/ME as per AICTE, F is no. of faculty required to comply 1:20 Faculty Student ratio (no. of faculty and no. of students required to be calculated as per 5.1).

Year	X	Y	F	FQ=2.5*[(10X+4Y)/F]
CAY(2025 – 2026)	4	5	3	50
CAY*m*1(2024-2025)	4	5	3	50
CAY*m*2(2023 – 2024)	5	3	3	51.67
Average Assessment				**50.56**

TableNo.5.3.Faculty qualification for past 3years including CAY

5.4. Faculty Retention (15)

Item	Marks
≥90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	15
≥75% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	12
≥60% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	8
≥50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	4
<50% of required Faculty members retained during the period of assessment keeping CAY*m*2 as base year	0

Item	CAYm2 (2023-2024)	CAYm1 (2024-2025)	CAY (2025-2026))
No. of Faculty Retained	7	7	9
Total No. of Faculty	8	9	9
% of Faculty Retained	87.5	77.77	100
Average % of Faculty Retained	88.42		

TableNo.5.4.Faculty retention

5.5 FDP/STTP Organized by the Faculty Members in the Department (10)

(No. of faculty Development Programs/Short Term Training Programs organized by Department for past 3 years)

SN	Name of the program	Date of the program	Duration of the program	Name of the speaker & designation and organization	No .of people attended
CAYm1 (2024- 2025)					
	Nil				
CAYm2 (2023 – 2024)					
1	Palo Alto Cloud Security Fundamentals	13/5/24-17/5/24	5 days	Mr.K.Siva Gopal Technical Trainer ICT Academy	30
CAYm3 (2022 – 2023)					
	Nil				

TableNo.5.5.1. List of FDP/STP organized by the Faculty Members in the Department

5.6 Innovations by the Faculty in Teaching and Learning (20)

- The faculty members of the institution have adopted several innovative practices in teaching and learning to enhance student engagement, promote critical thinking, and improve learning outcomes. These initiatives are aligned with outcome-based education and learner-centric pedagogical approaches, ensuring holistic student development.
- Faculty members actively integrate ICT-enabled teaching tools such as Learning Management Systems (LMS), virtual classrooms, online quizzes, multimedia presentations, and audio-visual aids to make classroom instruction more interactive and effective. Blended learning approaches, combining traditional chalk-and-talk methods with modern digital technologies like PowerPoint presentations and smart classroom facilities, are widely practiced to improve conceptual understanding.
- To foster experiential and participatory learning, faculty members implement innovative pedagogical practices such as project-based learning, role plays, problem-solving sessions, group discussions, seminars, and presentations as part of continuous internal assessment. Real-world applications are emphasized through industry-

oriented projects, internships, field visits, guest lectures, and live webinars conducted by eminent national and international experts.

- Faculty members provide quality study materials to enhance the learning experience. Course files and learning resources are shared well in advance through emails, institutional websites, handouts, and other digital platforms. Students are also encouraged to engage in reflective learning through assignments, learning journals, and presentations.
- Personalized learning is strengthened through an effective student mentoring system**,** remedial classes for slow learners, and enrichment programs for advanced learners. Faculty members offer academic support beyond classroom hours and continuously improve teaching effectiveness through structured feedback mechanisms.
- The university library plays a vital role in supporting independent and lifelong learning. It houses a vast collection of syllabus-oriented textbooks, reference books by renowned national and international authors, journals, conference proceedings, magazines, and periodicals across various disciplines. The campus also provides access to a digital library and a dedicated computer room with internet facilities, enabling students to access e-resources for projects, seminars, and self-development.
- Students are encouraged to utilize online learning platforms such as NPTEL**,** access scholarly websites, and participate in academic events to gain knowledge beyond the prescribed syllabus. Modern teaching devices including LCD/LED projectors, interactive boards, internet-enabled computers, Wi-Fi laptops, and smart classrooms are extensively used across the campus to support effective teaching and learning.
- Additionally, faculty members regularly participate in Faculty Development Programs (FDPs), workshops, MOOCs, and training programs to update their pedagogical skills and adopt emerging teaching methodologies.
- Through these innovative teaching and learning practices, the faculty ensures a dynamic, inclusive, technology-enabled, and outcome-oriented educational environment**.**

5.7 Faculty as participants in Faculty Development/Training Activities (15)

- A Faculty scores maximum 5 points for participation

- Participation in 2 to 5 days(one week)workshop/Faculty Development Program:3Points
- Participation in more than one-week workshop/ faculty Development Program:5points

SN	Name of the Faculty	Max. 5 per Faculty		
		CAYm1 (2024 – 2025)	CAYm2 (2023 – 2024)	CAYm3 (2022 – 2023)
1	Dr. M. K. Jeya Kumar	3	3	3
2	Dr. J.R. Jeba	5	3	3
3	Dr. S. Beulah	5	3	3
4	Dr. A.C. Subhajini	-	-	3
5	Ms.C.R. Sheela Kumari	3	3	3
6	Ms.M.Merlin Johnsy	5	5	3
7	Dr.M.Shafeen Nagoor	5	3	-
8	Ms.Juliet Jemila C	3	-	-
9	Ms. M.Tharanya	3	5	3
Sum		**32**	**25**	**21**
RF =No. of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1		3	3	3
Assessment=3*Sum/0.5*RF)(Marks limited to 15)		64	50	42
Average assessment over three years (Markslimitedto15)		**52**		

TableNo.5.7.Faculty participants in development/training activities for past3 years

5.8 Faculty Contributions in Educational Policy Implementation (5)

The Department of Computer Applications at Noorul Islam Centre for Higher Education (NICHE) has made significant contributions towards the effective implementation of national educational policies through comprehensive curriculum reforms in its

postgraduate programs. In alignment with the National Education Policy (NEP)-2020 and the UGC Quality Mandate for Higher Education Institutions-2021, the department undertook a structured revision of the curriculum, recognizing curricular innovation as a critical factor in achieving intended learning outcomes.

The revised curriculum is designed based on Outcome Based Education (OBE) principles, ensuring a strong alignment between program outcomes, course outcomes, teaching methodologies, and assessment strategies.

The department adopted the Comprehensive Roadmap for Implementation of NEP-2020**,** which clearly outlines key policy directives and provides an actionable framework with defined responsibilities and timelines for implementing major academic reforms.

To facilitate effective policy implementation, the University initiated a series of webinars, workshops, and academic discussions aimed at orienting faculty members to the vision, objectives, and core components of NEP-2020. These initiatives enabled faculty members to gain a thorough understanding of the policy framework and align curricular components accordingly. As a result, educators were well-equipped to integrate NEP-2020 mandates such as multidisciplinary learning, skill development, flexibility in curriculum design, and learner-centric pedagogies.

The updated postgraduate curriculum emphasizes the development of holistic thinking, creativity, critical reasoning, ethical values, and 21st-century skills, thereby contributing to the formation of socially responsible, knowledgeable, and skilled graduates. The curriculum also incorporates contemporary industry requirements, experiential learning components, and opportunities for lifelong learning.

In line with NEP-2020 guidelines, NICHE proactively implemented the two-year Master of Computer Applications (MCA) program for students who have completed a three-year undergraduate degree. As per the 2020 regulations, the MCA curriculum was revised to a two year program with a total of 88 credits, ensuring academic rigor, flexibility, and relevance to current technological advancements.

Through these initiatives, the faculty of the Department of Computer Applications has played a vital role in translating national educational policies into meaningful academic practices, thereby strengthening institutional quality and educational excellence.

5.9 Research and Development (45)

5.9.1 Academic Research(10)

(Academic research includes research paper publications, No. of students received Ph.D. / Ph.D. guided/No. of faculty members received Ph.D. during the assessment period)

Item	CAYm1 (2024 - 2025)	CAYm2 (2023-2024)	CAYm3 (2022-2023)
No. of quality journal papers published	4	15	6
No. of quality conference papers published	22	7	26
No. of books/book's chapters published	0	10	0
No. of awards(best paper, best researcher, young scientist, etc(related to academic research))	0	0	2
Any others	0	0	0

Table No. 5.9.1.1. Faculty publications details for the past 3 years.

Table 5.9.1.4 List of Paper Publications by Faculties in CAYm1 (2024 - 2025)

Attached as Annexure 5.1 Paper Publications

Journals

No	Authors	Title of the paper	Name of the Journal	Year of publication
1.	Dr. M.K.Jeyakumar	Smart Insights on the Move: Deep Convolution Neural Network and Segmentation for License Plate Recognition	SSRG International Journal of Electronics and Communication Engineering	December 2024

2.	Dr. M.K.Jeyakumar	A hybrid model for diabetic retinopathy and diabetic macular edema severity grade classification	International Journal Of Diabetes In Developing Countries	January 2025
3.	Dr. M.K.Jeyakumar	Deep Learning for Agriculture: Sweet Corn Disease Detection with Convolutional Neural Networks	Journal of Information Systems Engineering & Management	January 2025
4.	Dr.J.R.Jeba	Telehealth Revolution: Leveraging CNN-Bi LSTM For Multiple Disease Prediction	International Journal of Electronics and Communication Engineering	January 2025

Conferences

No	Authors	Title of the paper	Name of the Conference	Year of publication
1.	Dr.M.K.Jeyakumar	Protected image using fragmentation Approach for confidential data transfer,	International Conference on Innovations in Data Analytics	December 2024
2.	Dr.J.R.Jeba	A Deep Learning Framework For Signature Verification: Combining Capsnet With Data Augmentation Techniques	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
3.	Dr.J.R.Jeba	Explainable Artificial Intelligence (XAI) for Data Mining.	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
4.	Dr.J.R.Jeba	Analysis And Modelling Of Speech-To-Text Synthesis Based On Speech Recognition	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
5.	Dr.J.R.Jeba	Highly accurate Feature Classification for Multi-dimensional Data using Whale Optimized LSTM	International Conference on Recent Advances in Cloud Computing and Communication Technology ICRACCCT	September 2024
6.	Dr.J.R.Jeba	Advanced Ensemble Techniques for Enhanced Data Classification Accuracy	International Conference on Recent Advances in Cloud	September 2024

			Computing and Communication Technology ICRACCCT	
7.	Dr.J.R.Jeba	Optimizing Data Mining Algorithms for efficient processing of large scale imbalanced datasets.	International Conference on Recent Advances in Cloud Computing and Communication Technology ICRACCCT	September 2024
8.	Dr.S. Beulah	Novel method for managing the entire Data life cycle, including secure deletion at the end of data retention periods.	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
9.	Dr.S. Beulah	AI powered cyber threats: The dark side of Machine Learning	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
10.	Dr.S. Beulah	Credit card Fraud detection Using machine learning	International International Conference on IT Research & Innovation	January 2025
11.	Dr.S. Beulah	Protected image using fragmentation Approach for confidential data transfer,	International Conference on Innovations in Data Analytics	December 2024
12.	Ms. M. Merlin Johnsy	Enhanced Contour Detection in Natural Images Using Multi-Feature Based Surround Inhibition	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
13.	Ms. M. Merlin Johnsy	Identify Image Pattern For Data Retrieval	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
14.	Ms. M. Merlin Johnsy	Credit Card Fraud Detection Using Machine Learning	International Conference on IT Research & Innovation	January 2025
15.	Ms.M. Merlin Johnsy	Protected Image using Fragmentation Approach for Confidential Data Transfer, ICIDA 2024 (December 18, 2024)	International Conference on Innovations in Data Analytics	December 2024
16.	Dr.M.Shafeen Nagoor	Modern Neural Machine Translation: Approaches for Effective Multilingual Systems	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025

17.	Dr.M.Shafeen Nagoor	Intelligent Home Automation with IoT Voice Assistants	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
18.	Dr.M.Shafeen Nagoor	Enhancing Smart TV Security: AI-Based Threat Detection and Blockchain Solutions	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
19.	Ms. C. R. Sheela Kumari	An Effective channel of comprehensive Data science	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
20.	Ms.C.Juliet Jemila	Combining Residual Networks: An Ensemble Method For Multi-Stage Classification Of Alzheimer's Disease In Multimodal Images	International Conference on Multidisciplinary Science and Technology towards Sustainability.	March 2025
21.	Ms.C.Juliet Jemila	A study on Ethical Hacking	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025
22.	Ms.M.Tharanya	Survey on Cyber Forensic tools	International Conference on Recent Trends in Computer Applications ICRTCA'25	March 2025

Table 5.9.1.4 List of Paper Publications by Faculties in CAYm1 (2023 - 2024)

Journals

No	Authors	Title of the paper	Name of the Journal	Year of publication
1.	Dr.M.K.Jeyakumar	A Survey on Multilingual End-to-End Automatic Continuous Speech Recognition Using Deep Neural Network	International Journal for Research Trends and Innovation,	August 2023
2.	Dr.M.K.Jeyakumar	Experimental Survey on Efficiency of AI Chat bots In Education	International Journal for Research Trends and Innovation	September 2023
3.	Dr.M.K.Jeyakumar	GD-STFA: Gradient Descent Sea Turtle Foraging Algorithm enabled Deep Q Network for Diabetic	Multimedia Tools and Applications,	November 2023

		Retinopathy Detection		
4.	Dr.M.K.Jeyakumar	Deep Learning Based Automatic Answer Scoring using Bi-directional LSTM	Migration Letters	December 2023
5.	Dr.M.K.Jeyakumar	Chronic kidney disease prediction using improved deep belief network with local search nearest neighbour optimization	Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization	December 2023
6.	Dr.M.K.Jeyakumar	A modified-two-fold-deep-learning-classifier paradigm for crop disease detection	International Journal of Computational Vision and Robotics	January 2024
7.	Dr.M.K.Jeyakumar	Multi-point data security mechanism to facilitate secure cloud data storage solutions	International journal for research trends and innovation	February 2024
8.	Dr.M.K.Jeyakumar	Deepharvest: Revolutionizing Agriculture Through a Vario fusion net and Featex pronet for Accurate and Timely Leaf Disease Detection and Management	International Journal of Intelligent Systems and Applications in Engineering DOI	March 2024
9.	Dr.M.K.Jeyakumar	Crop disease detection via ensembled-deep-learning paradigm and ABC Coyote pack optimization algorithm (ABC-CPOA)	Multimedia Tools and Applications,	May 2024
10.	Dr.J.R.Jeba	The impact of Data Mining Classification techniques on the diagnosis of Liver Disease	International Journal Of Novel Research And Development	September 2023
11.	Dr.J.R.Jeba	A Study On Sequence Mining Algorithms In Data Related To Emm And Markov Process	International Journal Of Novel Research And Development	October 2023
12.	Dr.J.R.Jeba	A Novel framework for an intelligent deep learning based product recommendation system using sentiment Analysis (SA)	Journal for Control, Measurement, Electronics, Computing and Communications	January 2024
13.	Dr.J.R.Jeba	A novel framework for multiple disease prediction in telemedicine systems using deep learning	Journal for Control, Measurement, Electronics, Computing and Communications	February 2024
14.	Dr.J.R.Jeba	Enhancing Telehealth: Multiple Disease Prediction through Ensemble Approach	International Journal of Intelligent Systems and Applications in Engineering	March 2024

15.	Dr.J.R.Jeba	Unveiling the Future of Signature Verification: Deep Learning Insights	International Journal Of "Intelligent Systems And Applications In Engineering"	March 2024

Conferences

No	Authors	Title of the paper	Name of the Conference	Year of publication
1.	Dr.M.K.Jeyakumar	Implication of AI chatbot to factor student learning outcomes access traditions training methodology in Indian scenario	International Conference on Material Science and Computational Engineering	October 2023
2.	Dr.M.K.Jeyakumar	Early Detection of Diabetic Retinopathy Using Machine Learning	International Conference on Design Innovation for 3 Cs Compute Communicate Control	November 2023
3.	Dr.S. Beulah	A study of resistive open fault detection on low power nano metric ICs	International Conference on Electrical Electronics & Communication Technology	April 2024
4.	Ms .M. Merlin Johnsy	A study of resistive open fault detection on low power nano metric ICs	International Conference on Electrical Electronics & Communication Technology	April 2024
5.	Dr.J.R.Jeba	Schnorr Multi-Signatures with Key Aggregation for Privacy and Verifiable Randomness in Blockchain Cloud	2024 International Conference on E-mobility, Power Control and Smart Systems (ICEMPS)	April 2024
6.	Dr.J.R.Jeba	Synergistic Recommendation Strategies: GloVe-GRU Sentiment Analysis Combined with Collaborative Filtering	International Conference on Advanced Information Science and Computing Systems (ICAISCS)	May 2024
7.	Dr.J.R.Jeba	Resonance of Wellness: Investigating Voice-Based Telehealth with Deep Learning Models	International Conference on Advanced Information Science and Computing Systems (ICAISCS)	May 2024

Table 5.9.1.4 List of Paper Publications by Faculties in CAYm1 (2022 -

2023)

Journals

No	Authors	Title of the paper	Name of the Journal	Year of publication
1.	Dr.A.C.Subhajini	E-GCS Detection of covid19 through classification by attention bottleneck residual neural network	Engineering Applications of Artificial Intelligence	August 2022
2.	Dr.M.K.Jeya kumar	Modelling of IDBN with LSNN based optimal feature selection for the prediction of CKD using real time data	Multimedia Tools and Applications	August 2022
3.	Dr.M.K.Jeya kumar	Data Redundancy Removal using K-MAD based Self Tuning Spectral Clustering and CKD Prediction using ML Techniques	Journal of Current Science and Technology	September 2022
4.	Dr. M.Shafeen Nagoor	A Dual Fuzzy with Hybrid Deep Learning Architecture based on CNN with Hybrid Meta heuristic Algorithm for Effective Segmentation and Classification	International Journal of Information Technology	October 2022
5.	Dr. A.C.Subhajini	Evaluation and Classification of cov-19 with Attention Bottleneck Residual Neural Network	Semiconductor Optoelectronics	November 2022
6.	Dr. M. K. Jeyakumar	Survey on crop pest detection using deep learning and machine learning approaches,	Multimedia Tools and Applications	April 2023

Conferences

No	Authors	Title of the paper	Name of the Conference	Year of publication
1.	Dr. M. K. Jeya Kumar	Optimal Hybrid Atom Crow Optimization in Improved Deep Belief Network Early Prediction Of Chronic Kidney Disease	2nd International Conference on Multidisciplinary Research and Studies	August 2022
2.	Dr.A.C.Subhajini	Covid 19 classification with medical image using ABRESNet	National Conference on Recent Trends in Research and Innovation	September 2022
3.	Dr.A.C.Subhajini	Covid-19 Segmentation with particle swarm Optimization Technique using X-Ray Images	International Conference on Ubiquitous Computing and Pervasive Intelligence	April 2023

4.	Dr.S. Beulah	Framework for tightly coupled Data mining within data warehouse: Association rule mining	International Conference on Networking and Computer Applications	May 2023
5.	Dr.S. Beulah	Student feedback analysis	International Conference on Networking and Computer Applications	May 2023
6.	Dr.S. Beulah	University Result analysis	International Conference on Networking and Computer Applications	May 2023
7.	Dr.S. Beulah	Cyber-attack on mapping services	International Conference on Networking and Computer Applications	May 2023
8.	Dr.J.R Jeba	Applications of Semantic and Database in Dravidian Languages	International Conference on Networking and Computer Applications	May 2023
9.	Ms.M. Merlin Johnsy	An Efficient Architecture for Big Data Analytics in Cloud Environment	International Conference on Networking and Computer Applications	May 2023
10.	Dr. A. C. Subhajini	Weather Forecasting Using Feed Forward Neutral Networks	International Conference on Networking and Computer Applications	May 2023
11.	Ms.C. R. Sheela Kumari	Research Trends in Software Engineering	International Conference on Networking and Computer Applications	May 2023
12.	Ms. M. Tharanya	A Survey on Latest Trends and Challenges in cyber forensics	International Conference on Networking and Computer Applications	May 2023
13.	Dr. J. R. Jeba	Signature Verification System	International Conference on Networking and Computer Applications	May 2023
14.	Dr. J. R. Jeba	A review on tele- medicine using data mining Techniques	International Conference on Networking and Computer Applications	May 2023
15.	Dr. J.R Jeba	A study on data mining algorithms used for analyzing patterns in diabetic type 2 data	International Conference on Networking and Computer Applications	May 2023
16.	Dr. J. R. Jeba	A review on intelligent deep learning based product recommendation system using sentiment analysis	International Conference on Networking and Computer Applications	May 2023
17.	Dr. M. K. Jeya Kumar	A study of Detection of Early Diabetic Retinopathy using Deep Learning Concepts	International Conference on Networking and Computer Applications	May 2023

18.	Dr.J.R. Jeba	Highly accurate feature selection and data classification using extreme learning machine	International Conference on Networking and Computer Applications	May 2023
19.	Dr. J. R. Jeba	Exploring Classification Techniques in Data Mining: A Comprehensive Review	International Conference on Networking and Computer Applications	May 2023
20.	Ms.M. Tharanya	Arduino – based ultrasonic radar system via IOT	International Conference on Networking and Computer Applications	May 2023
21.	Dr. J. R. Jeba	A detailed review on recent trends in machine learning and deep learning approaches for signature verification	International Conference on Networking and Computer Applications	May 2023
22.	Dr. A. C. Subhajini	Assessment of Texture Descriptors for the Identification of Injury for Diabetic Retinopathy	International Conference on Networking and Computer Applications	May 2023
23.	Dr.A.C. Subhajini	Adaptive Optimization Modified Squirrel Algorithm for Heart Rate Observing Utilizing Photoplethysmography in with Healthcare	International Conference on Networking and Computer Applications	May 2023
24.	Dr. A. C. Subhajini	Use of deep learning methods for weed Identification	International Conference on Networking and Computer Applications	May 2023
25.	Dr. A. C. Subhajini	Predicting Diabetes Mellitus Onset Using Deep Neural Networks	International Conference on Networking and Computer Applications	May 2023
26.	Dr. A. C. Subhajini	Classification of Covid – 19 With Ultrasound Images Using Attention Bottleneck Residual Neural Network	International Conference on Networking and Computer Applications	May 2023

TableNo.5.9.1.1 List of Details of Ph.D guiding details

No	**Name of the student**	**Register Number**	**Year of Registration**	**Supervisor Details**	
				Supervisor Name	**University**
1.	Sabeena A.S	1121908215	2021	Dr. M. K. Jeya Kumar	NICHE
2.	Shajan Jacob	1121908215	2021	Dr. M. K. Jeya Kumar	NICHE
3.	Shari R G	1125908211	2025	Dr. M. K. Jeya Kumar	NICHE

4.	Diliya M Khan	1121908207	2021	Dr. M. K. Jeya Kumar	NICHE
5.	Chithambarathanu M	1121908205	2021	Dr. M. K. Jeya Kumar	NICHE
6.	Jose Stephen	1121908211	2021	Dr. M. K. Jeya Kumar	NICHE
7.	Vineesh R	1121907213	2021	Dr. M. K. Jeya Kumar	NICHE
8.	Adharsh T S	1121907202	2021	Dr. M. K. Jeya Kumar	NICHE
9.	Divya R.Unnithan	2119907202	2019	Dr.J.R.Jeba	NICHE
10.	Neethu John	1121907205	2021	Dr.J.R.Jeba	NICHE
11.	Veena V	2211907203	2023	Dr.J.R.Jeba	NICHE
12.	Roshy Thomas	1120907207	2020	Dr.J.R.Jeba	NICHE
13.	Shinni Lawrence	1119930201	2019	Dr.J.R.Jeba	NICHE
14.	Shyni A.L	1121930204	2021	Dr.J.R.Jeba	NICHE
15.	Abdul Haseeb	1124907201	2024	Dr.S.Beulah	NICHE
16.	Athiraj	1124907202	2024	Dr.S.Beulah	NICHE
17.	Rabeena P A	1124907203	2024	Dr.S.Beulah	NICHE
18.	Silpa Prem	1124907204	2024	Dr.S.Beulah	NICHE

5.9.2 Sponsored Research Projects (10)

(Funded research from external source. Provide a list with PIname, CO-PIname, project title, Dept name, funding agency with date of award of project,duration,funding amount

(Cumulative during CAYm1,CAYm2 and CAYm3)):

Amount ≥10Lacs –10Marks

Amount≥8Lacsand<10lacs – 8marks

Amount ≥6 Lacs and <8 lacs – 6marks

Amount ≥4Lacsand<6lacs –4Marks

Amount ≥2Lacsand<4lacs –2Marks

Amount ≥1Lacsand<2 lacs –1Mark

Amount<1Lacs –0Mark

SN	PIname	Co-PI Names if any	Project title	Name of the dept where project is sanctioned	Funding agency name	Duration of the project	Amount (Lacs)
CAYm1 (2024 -2025)							
	Nil						
CAYm2 (2023-2024)							
	Nil						
CAYm3 (2022 - 2023)							
	Nil						
Total amount (Lacs) received for past 3 years							

Table No. 5.9.2.1.List of sponsored research projects for past 3 years.

5.9.3 Consultancy Work (from Industry/Government) (10)

(Consultancy project from Industry/Government. Provide a list with PI name, CO-PI name, project title, Dept name, funding agency with date of award of project, duration, funding amount (Cumulative during CAYm1, CAYm2 and CAYm3))

Amount ≥10Lacs –10Marks
Amount ≥8Lacsand<10lacs –8Marks
Amount ≥6Lacsand<8lacs – 6Marks
Amount ≥4Lacsand<6lacs – 4Marks
Amount ≥2Lacsand<4lacs – 2Marks
Amount ≥1Lacsand<2lacs – 1Mark
Amount<1Lacs –0Mark

SN	PI name	Co-PI Names if any	Project title	Name of the Dept where project is sanctioned	Funding agency name	Duration of the project	Amount (Lacs)
CAYm1 (2024 -2025)							
	Nil						
CAYm2 (2023-2024)							
	Nil						
CAYm3 (2022 - 2023)							
1	Dr. J. R Jeba	-	Computer training program on PYTHON	Department of Computer Applications	Kiruba Educational and charitable trust	3 days	-
Total amount (Lacs) received for past 3 years							

Table No. 5.9.3.1. List of consultancy work for past 3 years.

5.9.4 Development activities (15)

Provide details:

5.9.4.1 Product Development

5.9.4.2 Research/virtual laboratories

5.9.4.3 Multi-disciplinary and interdisciplinary projects executed

5.9.4.4 Instructional materials

5.9.4.5 Books/MOOCs

5.9.4.6 Application development

5.9.4.7 Software for in house use

5.9.4.8 Training provided to Faculty/Students through external grants

5.9.4.1 Product Development

- Nil

5.9.4.2 Research /virtual laboratories

- Nil

5.9.4.3 Multi-disciplinary and interdisciplinary projects executed

- Nil

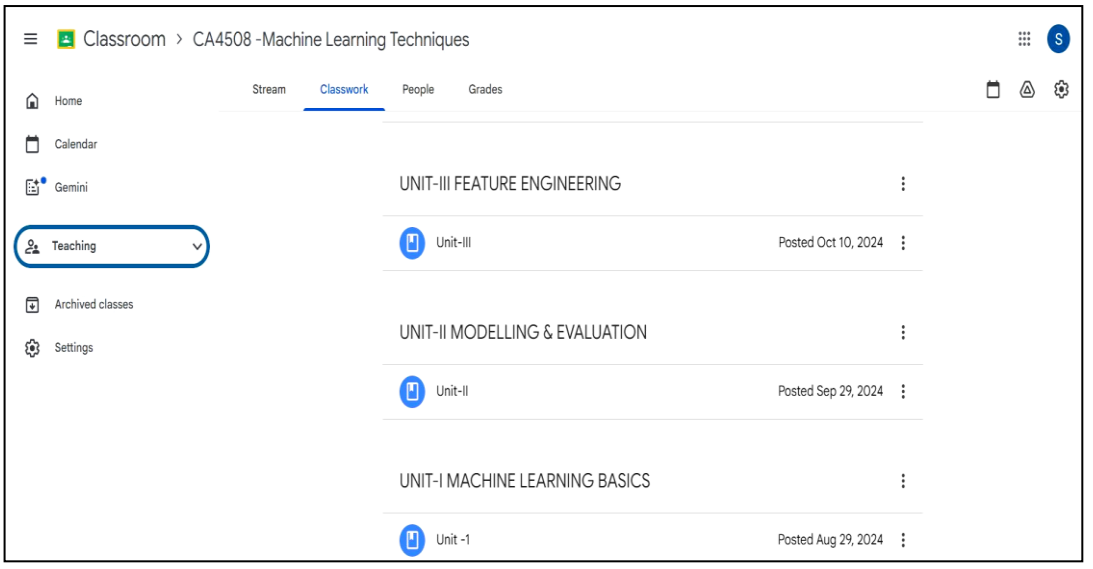
5.9.4.4 Instructional materials

Instructional materials are provided to the students and faculty members in various forms such as:

1. Course Plan, Course materials uploaded by all the faculties in Google

Classroom

2. P



of handouts/lecture notes by faculty members

3. Video Lectures prepared by faculty members
4. Books authored by the faculty members.
5. Lab manuals are prepared for different labs for guiding students.
6. Labs and Lecture rooms are equipped with media projectors for effective lecture delivery.
7. ICT based webinars are arranged for FDP/workshops.

Google Class room

Computer Lab



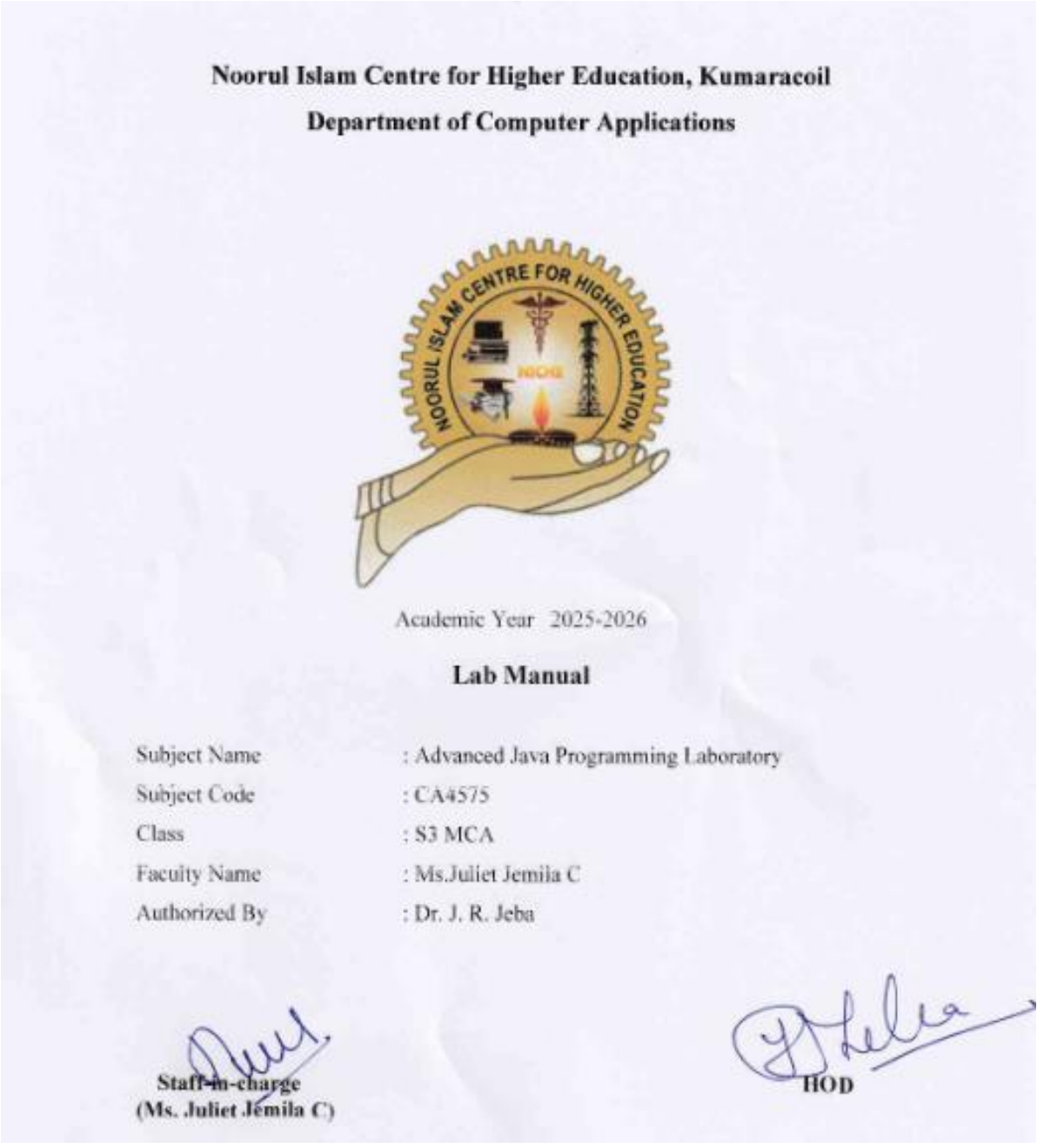
Smart Classroom


GPS Map Camera
Kumaracoil, Tamil Nadu, India
69x2+62m Noorul Islam University, Kumaracoil,
Tamil Nadu 629180, India
Lat 8.248052° Long 77.350039°
Friday, 09/01/2026 02:41 PM GMT +05:30
Google

Classroom



Lab Manuals



Noorul Islam Centre for Higher Education, Kumaracoil

Department of Computer Applications

Academic Year 2025-2026

Lab Manual

Subject Name	: Advanced Java Programming Laboratory
Subject Code	: CA4575
Class	: S3 MCA
Faculty Name	: Ms.Juliet Jemila C
Authorized By	: Dr. J. R. Jeba

Staff-in-charge
(Ms. Juliet Jemila C)

HOD

Attached as Annexure 5.2 (Lab manual)

5.9.4.5 Books/MOOCs

No. of Books Published: 1

Name of the Book: JAVA Programming

Authors Dr.J.R.Jeba, Dr.S.Beulah, Ms.M.Merlin Johnsy.

Faculty Members, Department of Computer Applications,

Date of Publication: 31.05.2024

5.9.4.6 Application development

- Nil

5.9.4.7 Software for in house use

Attached Annexure 5.3 CAMPUS MANAGEMENT SOFTWARE

5.10 Faculty Performance Appraisal and Development System (FPADS) (10)

(Faculties of Higher Education Institutions today have to perform a variety of tasks pertaining to diverse roles. In addition to instruction, Faculty needs to innovate and conduct research for their self-renewal, keep abreast with changes in technology, develop expertise for the effective implementation of curricula. They are also expected to provide services to the hospitals/ industry and community in large for understanding and contributing to the solution of real-life problems. Another role relates to the shouldering of administrative responsibilities to co-operation with other Faculty, heads-of-departments and the Head of Institute. An effective performance appraisal system for Faculty is vital for optimizing the contribution of individual Faculty to institutional performance).

The assessment is based on

A. A well-defined system instituted for all the assessment years(3)

B. Its implementation and effectiveness(7)

- The institution has established a systematic and transparent faculty performance appraisal mechanism to ensure continuous improvement in teaching quality and overall academic effectiveness. Faculty performance is periodically reviewed through structured review meetings, primarily based on the end-semester examination results of the subjects handled by the faculty members.
- At the end of every semester, student feedback on teaching faculty is collected using a standardized feedback form. A total of fourteen (14) well-defined parameters are considered to comprehensively evaluate the performance of faculty members. These parameters cover various aspects of teaching effectiveness, subject delivery, student engagement, evaluation practices, and professional conduct.
- If the percentage of positive feedback received by a faculty member is less than **75%**, appropriate remedial measures are suggested. These corrective actions are communicated to the faculty through the respective Head of the Department (HOD), ensuring constructive guidance and academic mentoring for performance enhancement.
- In addition to teaching performance, the appraisal system considers faculty contributions to academic and professional development activities such as participation in and

organization of seminars, workshops, conferences, and symposiums**.** Faculty involvement in conducting Faculty Development Programs (FDPs) within the institution is also taken into account.

- The evaluation framework further recognizes faculty participation in co-curricular and extension activities**,** including NSS activities, industrial visits, career guidance programs, counselling sessions, placement training activities, examination cell responsibilities, and NPTEL-related academic initiatives**.**
- Research performance indicators such as publications in indexed journals, funded research projects, patents, consultancy services, and interdisciplinary collaborations are progressively integrated into the appraisal framework to strengthen the institution's research culture.
- Appraisal reports are discussed in IQAC and academic council meetings, and aggregated outcomes are used for institutional planning, policy formulation, and quality enhancement initiatives.
- Administrative and leadership responsibilities undertaken by faculty members—such as serving as members or coordinators of institutional committees, class in-charges, academic advisors, admission coordinators, and resource persons for Continuing Education Programs—are also incorporated into the appraisal process, acknowledging their role in institutional governance and academic administration.
- Through this comprehensive and outcome-oriented appraisal mechanism, the institution ensures faculty accountability, professional growth, motivation, and recognition, which in turn leads to sustained excellence in teaching–learning processes, enhanced student satisfaction, and continuous institutional improvement.

5.11 Visiting/Adjunct Faculty/Professor of Practice, etc (10)

Visiting/ Adjunct faculty / Professor of Practice from Industry, Research Organizations/Universities and other Government Organizations. Provide details of participation and contributions in teaching and learning and /or research by visiting/ adjunct faculty for all the assessment years.

A. Provision of visiting/ adjunct faculty/Professor of Practice (1)
B. Minimum 50 hours interaction in a year will result in 3marks for that year; 3marks*3years=9marks.

Table 5.11.1 Visiting Faculties for (2025 – 2026)

SN	Name of the faculty	Organization	Designation	No. of hours handling	Subject handled
1	Ms. Darsana Ramachandran	KVM College of Engineering & IT Cherthala,Kerala	Assistant Professor	*4*	Solving AI Problems
2	Ms. Rabeena P A	Cochin Arts and Science College Cochin	Assistant Professor	*4*	Workshop on Manual Testing
3	Ms. Athiraraj	St Xaviers College for Women Aluva,Kerala	Assistant Professor	*4*	Workshop on Software Quality Assurance

Annexure 5.1

Paper Publications

ANNEXURE A

Journals & Conferences

CAYm1

(2024 -2025)

Original Article

Smart Insights on the Move: Deep Convolution Neural Network and Segmentation for License Plate Recognition

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Received: 11 June 2024 Revised: 25 July 2024 Accepted: 12 August 2024 Published: 31 August 2024

Abstract - *In the modern world, the highway is becoming an increasingly significant part of the entire transportation sector. Due to the widespread interest in Intelligent Transport System technology, numerous systems are being developed and implemented globally. The Intelligent Transport System relies heavily on license plate recognition. Modern technological advancements enable the automatic identification and interpretation of license plate details from images and video streams facilitated by sophisticated license plate recognition systems. These devices are able to reliably read alphanumeric characters from license plates, even in difficult situations like changing angles, lighting, or occlusion. This paper suggests a deep convolutional neural network-based, effective system for license plate recognition. The methodology comprises multiple significant stages, commencing with the acquisition and preprocessing of images via methods like grayscale conversion and thresholding. After that, morphological processes like dilation and erosion are employed to boost the quality of the image, and segmentation is used to separate the area of interest. Next, contour extraction within this segmented area is used to estimate the character. The features that were extracted from the segmented regions are then used to drive a CNN model that accurately recognizes the characters on a license plate. The simulation results confirm that the suggested methodology is effective in correctly identifying and decoding license plate numbers from images, with an impressive recognition accuracy of 99.54%. This method provides an effective and dependable solution for automated license plate recognition tasks. It shows great promise for real-world applications in traffic management, law enforcement, and intelligent transport systems.*

Keywords - *Character segmentation, Convolutional neural network, Deep learning, Image processing, Intelligent transportation system, License plate recognition.*

1. Introduction

Intelligent Transportation Systems (ITS) aim to enhance mobility, security, safety, and the overall productivity of transportation through the application of cutting-edge technologies. As such, they have the capability to enhance the lives of individuals [1] greatly. The capacity to recognize and identify a vehicle is a fundamental need for any ITS. After a vehicle has been located and identified, further processing can be carried out, such as maintaining track of the number of vehicles, monitoring traffic, enforcing access control to various locations, sounding alarms, rerouting traffic based on traffic volumes, etc. A License Plate (LP) is a means of uniquely identifying a motor vehicle in almost every country in the world. In order to identify and recognize the vehicle LP, the ITS system can make use of an LPR system, which is created by fusing a hardware and software module [2]. Following the successful location and accurate identification of the LP, additional processing can be carried out to obtain more vehicle information for the ITS.

The dimensions, design material, colour, and character style of LPs vary by country. The front plate of a vehicle in India measures 500 x 120 mm, while the rear side plate measures 340 x 200 mm [3]. The LP of several Indian states is displayed in Figure 1.

It may be more difficult to extract information about LP in certain countries due to the background texture. Some countries use multiple fonts, sizes, colors, and characters at the same time. Figure 2 shows sample LP images from different countries.

A License Plate Recognition (LPR) system uses soft computing techniques and some image processing theory to identify vehicles based only on their LPs. The systems can be very helpful in a number of applications, encompassing LPR systems for an ITS, highway toll collection, and traffic monitoring systems [4]. LPR technology is utilized in automated parking systems, traffic monitoring, and public space security. A digital camera is used to take images of both

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International Journal of Diabetes in Developing Countries (October–December 2025) 45(4):1026–1040
https://doi.org/10.1007/s13410-024-01437-y

ORIGINAL ARTICLE

A hybrid model for diabetic retinopathy and diabetic macular edema severity grade classification

A. S. Sabeena[1] · **M. K. Jeyakumar**[2]

Received: 31 August 2024 / Accepted: 24 December 2024 / Published online: 24 January 2025
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Abstract

Background Diabetic retinopathy (DR) is a common reason for permanent vision loss, particularly among the elderly population worldwide; diabetic macular edema (DME) is characterized by the accumulation of fluid or swelling in the macula, which can occur in any phase of DR progression. New studies have deepened our knowledge of the needs in eye care to improve methods for recognizing, addressing, diagnosing, and treating retinal conditions.

Objective The work intends to present a scheme for disease severity classification following the processes: pre-processing, segmentation, and disease severity classification. Firstly, pre-processing is done by employing a median filter, followed by GD-STFA-based SwinUNet for segmentation of lesions into soft and hard exudates, hemorrhages, and microaneurysms.

Methods Then, DR and DME severity classification is employed by AlexNet-DQN, which is proposed by combining AlexNet and DQN models. Moreover, the proposed AlexNet-DQN is trained using the Exponential Gradient Descent-Sea Turtle Foraging Algorithm (ExpGD-STFA), which is developed by including the exponential weighted moving average (EWMA) concept in GD-STFA.

Result The presented mechanism attained better results when compared to traditional methods.

Conclusion For DR severity classification, the proposed mechanism attained an accuracy of 98.3%, sensitivity of 98.9%, specificity of 97.8%, and precision of 97.6%. Meanwhile, for DME severity classification, the presented mechanism attained an accuracy of 98.1%, sensitivity of 98.8%, specificity of 97.5%, and precision of 97.3%.

Keywords Diabetic retinopathy · Diabetic macular edema · Segmentation · Severity grade classification · Optimization algorithm · Deep learning

Abbreviations

DR	Diabetic retinopathy
DLA	Deep learning algorithm
ExpGD-STFA	Exponential gradient descent-sea turtle foraging algorithm
W-MSA	Window multi-head self-attention
MTRO	Multi-threshold-based Remora optimization
CANet	Cross-disease attention network
DME	Diabetic macular edema
TPCNN	Tandem pulse coupled neural network
ANFIS	Adaptive neuro-fuzzy inference system
ROC	Receiver operating characteristic
OD	Optic disc
BV	Blood vessels
MA	Microaneurysms
HM	Haemorrhages
EX	Exudates
IDRiD	Indian Diabetic Retinopathy Image Dataset
HSG	Hierarchical severity level grading
ReLU	Rectified linear unit
STFA	Sea turtle foraging algorithm
GD	Gradient descent
SW-MSA	Shifted window multi-head self-attention
DLBSVM	Deep learning–based support vector machine
WGA	Wild geese algorithm
R-CNN	Region-based convolution neural network

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Deep Learning for Agriculture: Sweet Corn Disease Detection with Convolutional Neural Networks

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ABSTRACT

Sweet corn crops have a significant detrimental impact on agricultural productivity and food security because of their high vulnerability to several diseases. A timely and accurate illness diagnosis is essential for both disease treatment and yield enhancement. This paper suggests an automated method for classifying and identifying sweet corn diseases from leaf pictures that is based on convolutional neural networks (CNNs). The collection, which is separated into three categories—common rust, northern corn leaf blight, and maize dwarf mosaic virus—includes images of both healthy and damaged sweet corn leaves. Preprocessing techniques including scaling, normalization, and augmentation are applied to the images in order to increase the model's durability. The CNN design uses many convolutional layers, batch normalization, and dropout to maximize feature extraction and reduce overfitting. The categorical cross-entropy loss function and the Adam optimizer are used to train the model in order to achieve high classification accuracy. Performance is evaluated using precision, recall, F1-score, and confusion matrix analysis. Experimental results show that the proposed CNN model outperforms both pre-trained architectures and traditional machine learning methods in the classification of sweet corn illnesses. By facilitating proactive crop management and real-time disease identification, this work represents a major step toward incorporating AI-driven solutions in smart agriculture. Future studies will concentrate on developing a mobile application for field deployment in the actual world, adding attention methods, and growing the dataset.

Keywords: Sweet corn, convolutional neural networks (CNNs), Common rust, Northern Corn leaf blight, Maize dwarf mosaic.

I. INTRODUCTION

Zea mays var. saccharata, often known as sweet corn, is a widely grown cereal crop valued for both its economic importance and its exceptional nutritional content. However, a number of plant illnesses brought on by bacterial, viral, and fungal pathogens commonly threaten its output. Farmers suffer large financial losses as a result of these diseases' severe effects on crop quality, yield, and market value. For prompt intervention and efficient management, early and precise diagnosis of plant diseases is essential. Agricultural specialists conducting manual inspections, which are usually time-consuming, labor-intensive, and prone to human error, have historically been the mainstay of disease detection. Furthermore, physical examination is not feasible due to the enormous number of plants that require monitoring in large-scale farming. To overcome these challenges, a scalable, automated, and accurate way of recognizing sweet corn illnesses is offered via deep learning and computer vision techniques. [5]

Applications for image-based classification, such the identification of plant diseases, have been transformed by recent developments in deep learning, especially Convolutional Neural Networks (CNNs). The requirement for manual feature extraction is eliminated by CNNs' ability to automatically extract pertinent characteristics from images. This enables them to accurately identify good and damaged crops and spot intricate patterns in images of plant leaves. CNNs directly extract multi-level features from raw images, including color changes, texture differences, and disease-specific patterns, in contrast to conventional machine learning methods that rely on artificial features. CNNs have surpassed traditional classifiers in the identification of plant diseases due to their capacity to learn hierarchical representations.[10]

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Original Article

Telehealth Revolution: Leveraging CNN-Bi LSTM For Multiple Disease Prediction

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Abstract *- Telemedicine has become a key instrument, enabling remote disease diagnosis in the last few years. Patients in underserved areas get access to medical services through telemedicine. Within the telemedicine framework to improve the accuracy of multiple disease prediction, this study presents a hybrid model that integrates a convolutional neural network and bidirectional long short-term memory. The dataset was gathered from the repository of the YBI foundation. This study employs a convolutional neural network to efficiently extract local patterns and features from the input data. Meanwhile, bidirectional long short-term memory captures long-term dependency and temporal patterns by sequentially processing the extracted features. The proposed model attains excellent performance, including 99.04 % recall, 98.99 % F1 score, 98.98 % accuracy, and 99.03 % precision. Compared to current methods, the performance of the suggested methods demonstrates better results and greater efficiency. To improve patient outcomes and healthcare efficiency, the CNN-Bi LSTM model's potential is high in telemedicine applications, showing how well it predicts various diseases.*

Keywords *- Telemedicine, Convolutional Neural Networks, multiple disease prediction, Hybrid model, Bidirectional Long Short-Term Memory.*

1. Introduction

In order to enable communication between patients and medical professionals in different locations, telemedicine uses information technology [1]. The test results are analyzed during the telemedicine process and respond to patient calls. Disease risk assessment, online consultations, electronic health records, and health education are health care services that telemedicine provides through the use of the internet.

Here, the internet serves as the carrier of this service, and it is the foundation for developing an efficient smart healthcare service model [2]. Figure 1 illustrates the general telemedicine system, together with its key components and the flow of information between patients, medical professionals, and diagnostic tools in a remote healthcare environment.

The potential of telemedicine lies in its ability to predict multiple diseases to improve patient care and optimize health care delivery [3]. To enable timely interventions and personalized treatment plans for possible health problems, healthcare professionals utilizing advanced predictive analytics. This is especially important in telemedicine, where patients cannot access in-person consultations [4].

Remote monitoring of patients facilitated by multiple disease prediction tools makes it possible to evaluate patient's health state using real-time data. These predictive capabilities enable healthcare professionals to better manage resources, improve patient outcomes and reduce healthcare costs by preventing the spread of diseases and hospitalizations [5]. Using the advantages of CNN and RNN, the suggested work focuses on developing a hybrid CNN-Bi LSTM model for predicting multiple disease prediction.

The main contributions of the proposed work are as follows:

- Introduces a hybrid CNN-Bi LSTM model specifically designed for disease prediction in telemedicine, combining convolutional and recurrent neural network strengths.
- Leverages CNN to extract spatial features from medical data and Bi LSTM to capture temporal dependencies, improving classification performance.
- Provides a robust approach for predicting multiple diseases by integrating both spatial and temporal information, enhancing decision-making in telemedicine.

The remaining section is arranged as follows: A quick overview of the previous research in the above-mentioned area is summarised in Section 2.

A detailed description of the suggested CNN-Bi LSTM model is given in Section 3. Section 4 summarizes the results along with its discussion. Section 5 gives the conclusion of the paper.

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A DEEP LEARNING FRAMEWORK FOR SIGNATURE VERIFICATION: COMBINING CAPSNET WITH DATA AUGMENTATION TECHNIQUES

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ABSTRACT

This study presents a deep learning-based approach to signature verification, addressing handwriting variability challenges. It leverages Cycle-GAN for data augmentation, generating synthetic signatures to enhance model robustness. Additionally, a Capsule Network (Caps-Net) framework is introduced for superior feature extraction and improved generalization. Experimental results show that combining Cycle-GAN and Caps-Net significantly outperforms traditional methods in accuracy and efficiency. The proposed system is adaptable, scalable, and robust, making it a reliable solution for secure authentication. By integrating advanced AI techniques, this research enhances biometric authentication, providing a more secure and efficient signature verification framework for real- world applications.

Keywords: Signature verification, Authentication, Generative adversarial network, Caps-Net.

1 Introduction

Biometric technology is widely used for security applications by identifying individuals based on physiological or behavioural traits. Physiological traits include fingerprints, facial features, and iris patterns, while behavioural traits involve voice patterns and handwritten signatures [1]. Biometric systems function in two key modes: verification, where a user claims an identity and provides a biometric sample for authentication, and identification, where a biometric sample is matched against a database of enrolled users [2]. Handwritten signatures are a crucial biometric characteristic, extensively used in legal, financial, and administrative settings due to their non-invasive nature and familiarity in daily life [3]. Signature verification systems classify signatures as genuine or forged, with forgeries categorized into random, simple, and skilled types, as shown in Figure 1. Random forgeries involve an impostor using their own signature without knowledge of the genuine one, while simple forgeries mimic a user's name without replicating their actual signature. Skilled forgeries are highly deceptive, as they are created by someone with knowledge of both the user's name and signature.

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EXPLAINABLE ARTIFICIAL INTELLIGENCE (XAI) FOR DATA MINING

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ABSTRACT

The increasing use of Artificial Intelligence (AI) and Machine Learning (ML) in data mining has significantly enhanced the capability to uncover complex patterns and make predictions from vast datasets. However, as AI models become more sophisticated, they often suffer from the "black-box" problem, where the decision-making process is opaque and difficult for humans to interpret. This lack of transparency can hinder trust and accountability, especially in high-stakes domains like healthcare, finance, and criminal justice. To address this issue, **Explainable Artificial Intelligence (XAI)** has emerged as a crucial approach, aiming to make AI systems more transparent and interpretable without sacrificing performance. XAI in data mining focuses on providing clear, understandable explanations for model decisions, offering insights into feature importance, prediction rationale, and model behavior. Techniques such as LIME, SHAP, and counterfactual explanations are increasingly being integrated into AI models to facilitate local and global interpretability. This paper explores the intersection of XAI and data mining, outlining the significance of explainability, the key techniques used, and the wide-ranging applications across industries. We also discuss the challenges of achieving scalability, fairness, and ethical considerations in the context of XAI. The concept of XAI is poised to revolutionize the adoption of AI-driven data mining, fostering greater trust, transparency, and human-AI collaboration in decision-making processes.

Key Concepts of XAI in Data Mining

1. **Interpretability vs. Accuracy Trade-off** Traditional machine learning models, such as deep neural networks, prioritize accuracy and predictive power but tend to obscure the logic behind their predictions. XAI seeks to balance this trade-off, making it possible to maintain high accuracy while providing interpretability. Techniques like **LIME (Local Interpretable Model-agnostic Explanations)** and **SHAP (SHapley Additive exPlanations)** are widely used to achieve this goal by explaining complex models in simpler terms [1].
2. **Local and Global Interpretability**
   - **Global Interpretability** refers to understanding the model's overall behavior across all instances, such as identifying which features have the most influence on the model's predictions.
   - **Local Interpretability** refers to explaining specific predictions, showing why a particular decision was made for an individual instance. These approaches help practitioners understand the underlying mechanisms at both macro and micro levels [2].

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ANALYSIS AND MODELLING OF SPEECH-TO-TEXT SYNTHESIS BASED ON SPEECH RECOGNITION

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ABSTRACT

The integration of speech recognition technologies has revolutionized human-computer interaction by enabling automatic transcription and voice-command systems. This paper focuses on the analysis and modelling of speech-to-text synthesis, specifically addressing the techniques and methodologies used for accurate speech recognition and subsequent text generation. The study explores the core components of speech recognition systems, evaluates the effectiveness of various machine learning models, and discusses advancements in deep learning-based approaches. The paper further investigates challenges such as noise interference, accents, and multilingual support, providing a comprehensive analysis of current solutions and their impact on practical applications such as virtual assistants, transcription services, and accessibility tools. Additionally, the paper examines the role of feature extraction techniques and acoustic modelling in improving the efficiency and accuracy of speech-to-text systems. Through an in-depth exploration of various architectures, including end-to-end models, the research aims to highlight the significance of modern approaches in enhancing speech recognition performance across different real-world scenarios.

Keywords Speech Recognition, Speech-to-Text, Deep Learning, Natural Language Processing (NLP), Acoustic Modeling, Language Modeling, Automatic Speech Recognition (ASR), Neural Networks.

I. INTRODUCTION

Speech-to-text (STT) synthesis, or automatic speech recognition (ASR), is the process of converting spoken language into written text. Over the past few decades, ASR systems have become increasingly efficient and widely used in applications such as voice assistants, transcription services, and accessibility tools for individuals with disabilities. The accuracy of these systems, however, remains an ongoing challenge due to factors such as background noise, accents, and the diversity of language use.

The core challenge in speech recognition lies in converting spoken acoustic signals into meaningful textual representations. This process involves several stages, including acoustic modeling, feature extraction, language modeling, and

HIGHLY ACCURATE FEATURE CLASSIFICATION FOR MULTI-DIMENSIONAL DATA USING WHALE OPTIMIZED LSTM

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Abstract: The fundamental goal of Feature Selection (FS), an important methodology used in data mining and machine learning, is to choose a subset of information characteristics with the intention of improving performance and reducing dimensionality simultaneously. It is to solve high-dimensional classification issues by using information sharing across two tasks that are connected to one another and are produced from a dataset. Two activities pertinent to the aim are developed with the help of the assessment of the relevance of features. This work presents a holistic framework for feature selection and classification utilizing Long Short-Term Memory (LSTM) networks. The accuracy and computation time of the LSTM is optimized by using whale optimization algorithms. The methodology encompasses the identification of relevant input features to enhance model efficiency, followed by LSTM application for sequence modeling and temporal dependency capture. The learning of new weights during training ensures adaptability to diverse patterns. The incorporation of light intensity in the feature set enhances context awareness, particularly in environmental monitoring scenarios. Initialization of population parameters facilitates optimization algorithms, while consideration of absorption coefficient contributes nuanced insights, notably in fields like spectroscopy. This integrative approach establishes a robust foundation for information processing and classification across diverse domains.

Keywords: Efficiency, Feature Selection, High-dimensional classification, Long Short-Term Memory, Whale optimization

I. INTRODUCTION

The quantity of data that is being gathered in a variety of applications that are used in the real world is increasing at an exponential rate as a result of the fast development of technology for managing data and knowledge. The characteristics included in these datasets should, ideally, be valuable. On the other hand, these datasets usually include a high number of characteristics that are not relevant to the problem at hand and are redundant, which considerably hinders the effectiveness of learning algorithms. The process of feature selection, often known as FS, is an essential data preparation method that is used to assist data analysis and pick aspects of a dataset that are useful. The efficacy of FS has led to its widespread use in the resolution of a variety of issues, including time-series forecasting and job shop scheduling, amongst others. The FS problem is an example of combinatorial optimization. There are n original features in a dataset, and among those features, there are 2n potential feature subset combinations from which to choose one. In high-dimensional data, however, the identification of significant features continues to be a difficult challenge to solve because of the enormous search space and the intricate relationships that exist between features [1].

When it comes to data analysis, machine learning, and data mining, feature selection has quickly become an increasingly crucial aspect. In order to prevent overfitting and combat the curse of dimensionality, it is vital to filter out the characteristics that are unnecessary and redundant, particularly for high-dimensional data sets. This may be accomplished by selecting a sufficient subset of relevant features. When it comes to data sets from the field of bioinformatics, feature selection often enables the identification of the properties that are significant for biological processes that are of interest. Before beginning the process of fitting a statistical model to such high-dimensional data sets, one must first choose which feature selection strategy to use. This selection is not an easy one to make since there are so many of them. In the field of machine learning, benchmark studies have garnered a growing amount of interest in relation to the comparison of various methodologies [2].

Techniques that are based on filters make advantage of the inherent qualities of the data (such as distance, dependency, consistency, and information measures) in order to search for a feature subset. These

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ADVANCED ENSEMBLE TECHNIQUES FOR ENHANCED DATA CLASSIFICATION ACCURACY

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Abstract : In the rapidly evolving field of data classification, ensemble techniques have emerged as powerful tools for enhancing predictive accuracy and robustness. This paper presents an in-depth exploration of advanced ensemble methods designed to significantly improve classification performance. The paper delves into the theoretical foundations of these methods, emphasizing their ability to leverage the strengths of diverse base classifiers to achieve superior generalization. This paper aims to provide both theoretical insights and practical guidance for researchers and practitioners seeking to leverage ensemble methods for enhanced classification performance.

Keywords: Ensemble Learning, Classification Accuracy, Boosting Algorithms, Bagging Techniques, Model Aggregation, Feature Selection, Performance Optimization

1. Introduction

In the rapidly evolving landscape of data science and machine learning, achieving high classification accuracy remains a critical objective for numerous applications across diverse domains. Ensemble learning techniques have emerged as powerful tools to enhance classification performance by leveraging the collective strength of multiple base models. These techniques, which include methods like bagging, boosting, and stacking, offer significant improvements over individual classifiers by combining their predictions to form a more robust and accurate ensemble.

Advanced ensemble techniques have further elevated the potential of ensemble learning, addressing various challenges such as model diversity, computational efficiency, and the ability to handle complex and high-dimensional data. These innovations aim to refine traditional ensemble methods and introduce new strategies to enhance classification accuracy.

One prominent development in this area is the integration of sophisticated algorithms that optimize model diversity and synergistically combine the predictions of base models. For instance, recent advancements in boosting algorithms focus on adaptive mechanisms that dynamically adjust to the learning process, thereby improving accuracy on difficult-to-classify instances. Similarly, novel stacking approaches have been proposed to intelligently combine predictions from heterogeneous models, maximizing the benefits of different learning paradigms.

Furthermore, advancements in ensemble methods have addressed specific challenges such as handling imbalanced datasets, incorporating cost-sensitive learning, and improving scalability for large-scale applications. By integrating these advanced techniques, researchers and practitioners are able to tackle complex classification problems with greater precision and efficiency. This paper explores the cutting-edge advancements in ensemble techniques for data classification, highlighting their contributions to improving classification accuracy.

2. Background and Literature Review

The field of data classification has evolved significantly over the past few decades, driven by the exponential growth of data and the increasing demand for accurate and efficient predictive models. Ensemble learning, a powerful paradigm in machine learning, has emerged as a critical approach to improving classification accuracy. By combining multiple models, ensemble techniques leverage the strengths of individual classifiers to create a more robust and accurate predictive system.

Ensemble methods are particularly valuable in scenarios where individual models, such as decision trees, neural networks, or support vector machines, may struggle to achieve high accuracy due to limitations

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OPTIMIZING DATA MINING ALGORITHMS FOR EFFICIENT PROCESSING OF LARGE-SCALE IMBALANCED DATASETS

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Abstract : The proliferation of big data across various domains has brought forth new challenges in data mining, particularly when dealing with large-scale imbalanced datasets. Traditional data mining algorithms often struggle with such datasets, where the minority class is vastly underrepresented, leading to biased models that fail to generalize well in real-world applications. This paper presents a comprehensive study on optimizing data mining algorithms to efficiently process and analyze large-scale imbalanced datasets. We explore various optimization techniques, including algorithmic modifications, adaptive sampling methods, and parallel processing frameworks designed to enhance the performance and scalability of data mining algorithms. Additionally, we introduce novel approaches that integrate cost-sensitive learning and ensemble methods to better handle class imbalance while minimizing computational overhead. This paper provide valuable insights for both researchers and practitioners seeking to develop efficient and reliable data mining solutions for large-scale imbalanced data environments, with applications in areas such as fraud detection, healthcare analytics, and industrial monitoring.

Keywords: Imbalanced Datasets, Data Mining, Machine Learning, Algorithm Optimization, Cost-Sensitive Learning, Ensemble Methods, Scalability

1. Introduction

The advent of big data has revolutionized many industries, offering unprecedented opportunities for extracting insights from large and complex datasets. However, the imbalanced nature of many real-world datasets poses significant challenges to data mining algorithms, particularly in domains like fraud detection, medical diagnosis, and anomaly detection. In such scenarios, the minority class is often of greater interest, yet it is frequently overshadowed by the majority class, leading to models that are biased and perform poorly on the minority class. This paper aims to address these challenges by exploring and proposing optimization techniques for data mining algorithms that are capable of efficiently processing large-scale imbalanced datasets. We focus on enhancing both the performance and scalability of these algorithms, ensuring they can be effectively deployed in real-world scenarios.

2. Optimization Techniques

This section describes the novel techniques proposed for optimizing data mining algorithms to handle large-scale imbalanced datasets efficiently. The focus is on algorithmic modifications, adaptive sampling methods, and parallel processing frameworks each aimed at enhancing the performance and scalability of data mining tasks.

Algorithmic Modifications

Algorithmic modifications involve adapting existing data mining algorithms to better handle specific challenges presented by imbalanced datasets. These modifications are designed to improve the performance of algorithms by addressing biases and inefficiencies that arise when dealing with datasets where one class is significantly underrepresented compared to the other.

Cost-Sensitive Learning

Cost-sensitive learning is a technique designed to improve the performance of machine learning models on imbalanced datasets by incorporating the costs of misclassification into the learning process. In imbalanced datasets, where one class is significantly underrepresented compared to the other, traditional algorithms may bias towards the majority class. Cost-sensitive learning addresses this issue by assigning different costs to misclassifying different classes, thereby guiding the model to place more emphasis on correctly classifying the minority class.

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NOVEL METHOD FOR MANAGING THE ENTIRE DATA LIFECYCLE, INCLUDING SECURE DELETION AT THE END OF DATA RETENTION PERIODS

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Abstract:

Cloud storage, one of the most attractive services offered by cloud computing, can provide users with boundless storage capacity. Thus, users can outsource their data to the cloud server for greatly saving local storage overhead. However, in cloud storage, due to the separation between data ownership and management, users lose the direct control over their outsourced data, resulting in plenty of security and privacy problems. In this project, focus on the problem of verifiable outsourced data deletion, which is important but received less attention in industry and academia. An efficient fine-grained outsourced data deletion scheme based on invertible Bloom filter was proposed, which can also achieve public and private verifiability of the storage and deletion results. If the cloud server does not honestly maintain/delete the data and generate corresponding evidences, users can easily detect the cloud server's malicious behaviours with an overwhelming probability. Meanwhile, in data deletion and deletion result verification processes, the computational complexity is independent of the number of outsourced data blocks, which makes the proposed scheme be suitable for large-scale data deletion scenario. Moreover, provide the detailed security analysis and performance evaluation, which can respectively demonstrate the security and practicability of the proposed scheme.

Keywords: security, privacy, malicious, fine-grained data

1. INTRODUCTION

As a new computing paradigm, cloud computing is the fusion and development of parallel computing, distributed computing and grid computing. Cloud storage is one of the most attractive services offered by cloud computing, which can provide users with convenient data storage services and business access services by integrating a large number of distributed storage devices in network together. In cloud storage, users can outsource their data to the cloud server, which can greatly reduce the local hardware/software overhead and human resources investments. Due to the attractive advantages, cloud storage has been widely applied in the daily life and work. As a result, more and more resource-constraint users, including individuals and corporations prefer to embrace cloud storage service.

Despite tremendous advantages, cloud storage inevitably suffers from some new security problems because of the separation of outsourced data ownership and management, such as data confidentiality, data integrity, data availability and data

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AI-POWERED CYBER THREATS: THE DARK SIDE OF MACHINE LEARNING

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ABSTRACT

The increasing sophistication of Artificial Intelligence (AI) has not only transformed cyber security defenses but also introduced new risks in the form of AI- powered cyber threats. Cybercriminals are now leveraging machine learning (ML) models to develop advanced phishing scams, deep fake attacks, adaptive malware, and automated hacking techniques. This paper explores the landscape of AI-driven cyber threats, analyzing how attackers use AI, the vulnerabilities they exploit, and the potential countermeasures that cyber security professionals can implement. The study also highlights real-world cases of AI-enabled cyber-attacks and provides an assessment of current AI-driven defense mechanisms in mitigating these threats.With the increasing sophistication of AI-powered cyber threats, traditional cyber security measures are struggling to keep pace. The use of AI in cybercrime has led to the development of more convincing social engineering attacks, highly adaptive malware, and large-scale automated hacking operations. The growing accessibility of AI tools further enables cybercriminals to weaponries machine learning for malicious purposes, reducing the barrier to entry for attackers and increasing the overall volume of threats.To mitigate these challenges, AI-driven security frameworks must evolve continuously to counteract adversarial AI techniques. Organizations must leverage machine learning models for predictive threat intelligence, real-time anomaly detection, and automated incident response. This paper aims to provide a comprehensive overview of AI-powered cyber threats, exploring both offensive AI techniques and the defensive strategies required to combat them in an increasingly digital landscape.

Key words: Artificial Intelligence, Cyber Security, Cyber attacks

I. INTRODUCTION

Artificial Intelligence (AI) and Machine Learning (ML) have revolutionized various industries, including cyber security. While these technologies have significantly improved the ability to detect and prevent cyber threats, they have also introduced new risks. Cybercriminals are now leveraging AI to develop more sophisticated attacks, automate cybercrime, and evade traditional security defenses.

AI-driven cyber threats are increasingly difficult to detect as they evolve and adapt in real time. Attackers use AI to craft highly convincing phishing emails, generate deep fake videos for fraud, and

CREDIT CARD FRAUD DETECTION USING MACHINE LEARNING

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ABSTRACT

This paper is focused on credit card fraud detection in real world scenarios. Nowadays credit card frauds are drastically increasing in number as compared to earlier times. Criminals are using fake identity and various technologies to trap the users and get the money out of them. Therefore, it is very essential to find a solution to these types of frauds. In this proposed project we designed a model to detect the fraud activity in credit card transactions. This system can provide most of the important features required to detect illegal and illicit transactions.

As technology changes constantly, it is becoming difficult to track the behaviour and pattern of criminal transactions. To come up with the solution one can make use of technologies with the increase of machine learning, artificial intelligence and other relevant fields of information technology; it becomes feasible to automate this process and to save some of the intensive amounts of labour that is put into detecting credit card fraud. Initially, it collects the credit card usage data-set by users and classifies it as trained and testing dataset using a random forest algorithm and decision trees. Using this feasible algorithm, it analyze the larger data-set and user provided current data-set. Then augment the accuracy of the result data. Proceeded with the application of processing of some of the attributes provided which can find affected fraud detection in viewing the graphical model of data visualization. The performance of the techniques is gauged based on accuracy, sensitivity, and specificity, precision.

Keywords: *Machine Learning, Data Set, Feasible.*

I. INTRODUCTION

'Fraud' in credit card transactions is unauthorized and unwanted usage of an account by someone other than the owner of that account. Necessary prevention measures can be taken to stop this abuse and the behaviour of such fraudulent practices can be studied to minimize it and protect against similar occurrences in the future. In other words, Credit Card Fraud can be defined as a case where a person uses someone else's credit card for personal reasons while the owner and the card issuing authorities are unaware of the fact that the card is being used.

Fraud detection involves monitoring the activities of populations of users in order to estimate, perceive or avoid objectionable behaviour, which consist of fraud, intrusion, and defaulting. This is a very relevant problem that demands the attention of communities such as machine learning and data science where the solution to this problem can be automated. This problem is particularly challenging from the perspective of learning, as it is

Protected Image Using Fragmentation Approach for Confidential Data Transfer



M. Merlin Johnsy, S. Beulah, and M. K. Jeyakumar

Abstract A novel introduced for automatic conversion of huge volume secret image to protected equally sized mosaic image for transmitting image securely. This mosaic image, designed to resemble randomly chosen target image, acts as a camouflage for the secret image, enhancing its security during transmission. The above process is accomplished by separating required image to equal parts called fragments arranging their properties of colour to the matching blocks in the resultant or target. Innovative methodologies are developed to process the colour imaging methods are devised to execute the colour translation similarly the secret picture can be retrieved with minimal loss. Furthermore, a method for handling overflows and underflows in the converted pixel colour values is introduced to ensure the integrity of the colour transformation. This process includes copying the colour changes in the original colour space without conversion. The important data required for secret image recovery is then entrenched into the subsequent mosaic tiled image using a lossless data hiding structure, which is implemented with a unique key for added security.

Keywords Camouflage · Mosaic image · Secret image · Security · Target image

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ENHANCED CONTOUR DETECTION IN NATURAL IMAGES USING MULTI-FEATURE BASED SURROUND INHIBITION

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Abstract

To effectively perform visual tasks like detecting contours, the visual system normally needs to integrate multiple visual features. Sufficient physiological studies have revealed that for many neurons in the primary visual cortex (V1) of monkeys and cats' neuronal responses elicited by the stimuli placed within the classical receptive field (CRF) are substantially modulated normally inhibited when difference exists between the CRF and its surround namely non-CRF for various local features. The exquisite sensitivity of V1 neurons to the center surround stimulus configuration is thought to serve important perceptual functions, including contour detection. This work proposed a biologically motivated model to improve the performance of perceptually salient contour detection. The main contribution is the multifeatured based center surround framework, in which the surround inhibition weights of individual features, including orientation, luminance contrast are combined according to a scale guided strategy and the combined weights are then used to modulate the final surround inhibition of the neurons. The proposed work is concerned with both contextual modulation and cue combination in the visual system, as well as the different contribution of various local features for contour detection in cluttered natural scenes. In the proposed model, the weights of selective surround inhibition from non-CRF are first computed for each individual cue including orientation, luminance and luminance contrast. Then a scale guided combination strategy is designed to combine the inhibition weights of different cues under the control of statistical information about CRF responses at two different scales. The combined inhibition weights are then used to modulate the strength of surround inhibition to obtain the final responses to salient edges, The performance was compared with that of single cue-based models and other existing methods. The results show that combining multiple cues can substantially improve the performance of contour detection compared with the models using single cue. In general, luminance and luminance contrast contribute much more than orientation to the specific task of contour extraction, at least in gray scale natural images.

Keywords: Image Retrieval, Image Processing, Histogram

I. INTRODUCTION

Object detection is the process of finding instances of real-world objects such as faces, bicycles and buildings in images or videos. Object detection algorithms typically use extracted features and learning algorithms to recognize instances of an object category. It is commonly used in applications such as image retrieval, security, surveillance and automated vehicle parking systems. An object recognition system finds objects in the real world from an image of the world, using object models which are known a priori. This task is

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IDENTIFY IMAGE PATTERN FOR DATA RETRIEVAL

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Abstract

This research paper presents a secured approach to data transmission by identifying patterns in images. The primary objective of this project is to enhance data security through encryption techniques while ensuring that only authorized users can access the data. In today's digital age, data security is of utmost importance due to the increasing risks of cyber threats and unauthorized access. Conventional password-based security mechanisms have become susceptible to hacking and breaches, which necessitates the development of more sophisticated security systems. Our proposed system introduces a novel approach where data is encrypted and embedded within an image, ensuring an additional layer of security. Upon registration, each user receives a unique pin file, which acts as a decryption key to extract and view the information hidden in the image. This means that even if an unauthorized user gains access to login credentials, they cannot retrieve the data without the correct pin file. The methodology adopted in this project leverages encryption and pattern recognition techniques to ensure secure data retrieval. This encryption process transforms the data into an unreadable format that can only be decoded by the authorized recipient. Additionally, during file transmission, the encrypted image undergoes further security measures to prevent tampering or interception. The proposed system guarantees data security and integrity by incorporating advanced encryption methodologies, making it an effective solution for secure data sharing in various applications. The findings of this research highlight the robustness of image-based encryption and its potential toenhance data protection strategies in real-world implementations.

Keywords : Cyber-Attacks, Encryption, Cyber-Threats

I. INTRODUCTION

The rapid advancement of technology has increased concerns about data security and privacy. As more data is transmitted over the internet, cyber threats have escalated, leading to potential breaches and unauthorized access. Traditional password-based authentication systems are vulnerable to hacking, phishing, and brute-force attacks. This project introduces an image-based encryption mechanism where data is converted into an image format, requiring a specific pin file for decryption. Unlike traditional encryption systems that rely solely on alphanumeric passwords, this method enhances security by introducing an additional layer of protection through image pattern recognition [1][2].

CREDIT CARD FRAUD DETECTION USING MACHINE LEARNING

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ABSTRACT

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As technology changes constantly, it is becoming difficult to track the behaviour and pattern of criminal transactions. To come up with the solution one can make use of technologies with the increase of machine learning, artificial intelligence and other relevant fields of information technology; it becomes feasible to automate this process and to save some of the intensive amounts of labour that is put into detecting credit card fraud. Initially, it collects the credit card usage data-set by users and classifies it as trained and testing dataset using a random forest algorithm and decision trees. Using this feasible algorithm, it analyze the larger data-set and user provided current data-set. Then augment the accuracy of the result data. Proceeded with the application of processing of some of the attributes provided which can find affected fraud detection in viewing the graphical model of data visualization. The performance of the techniques is gauged based on accuracy, sensitivity, and specificity, precision.

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Fraud detection involves monitoring the activities of populations of users in order to estimate, perceive or avoid objectionable behaviour, which consist of fraud, intrusion, and defaulting. This is a very relevant problem that demands the attention of communities such as machine learning and data science where the solution to this problem can be automated. This problem is particularly challenging from the perspective of learning, as it is

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M. Merlin Johnsy, S. Beulah, and M. K. Jeyakumar

Abstract A novel introduced for automatic conversion of huge volume secret image to protected equally sized mosaic image for transmitting image securely. This mosaic image, designed to resemble randomly chosen target image, acts as a camouflage for the secret image, enhancing its security during transmission. The above process is accomplished by separating required image to equal parts called fragments arranging their properties of colour to the matching blocks in the resultant or target. Innovative methodologies are developed to process the colour imaging methods are devised to execute the colour translation similarly the secret picture can be retrieved with minimal loss. Furthermore, a method for handling overflows and underflows in the converted pixel colour values is introduced to ensure the integrity of the colour transformation. This process includes copying the colour changes in the original colour space without conversion. The important data required for secret image recovery is then entrenched into the subsequent mosaic tiled image using a lossless data hiding structure, which is implemented with a unique key for added security.

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MODERN NEURAL MACHINE TRANSLATION: APPROACHES FOR EFFECTIVE MULTILINGUAL SYSTEMS

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Abstract

In an increasingly interconnected world, the demand for language translation has grown significantly due to the expanding exchange of knowledge across linguistically diverse regions. Machine Translation (MT), or automated translation, plays a crucial role in bridging language barriers by enabling text conversion from one language to another without human intervention. Despite considerable advancements, MT continues to face challenges, particularly in achieving high accuracy and fluency. This paper explores the current landscape of machine translation research, with a particular focus on Neural Machine Translation (NMT) systems. This paper reviews several state-of-the-art NMT approaches, analyze their core methodologies, and discuss the challenges and limitations in developing effective translation systems. By providing a comprehensive overview, this study aims to support researchers in the fields of machine translation and natural language processing (NLP), offering insights into recent advancements and potential future directions.

1 INTRODUCTION

Numerous researches have been carried out in the field of language translation, but Natural Language Processing (NLP) is a quite difficult task due to the fully successful language translation machine. As the world becomes more globalized, the problem of understanding other language information to be translated by hand can only become more acute. People from different countries have different languages and different cultures, so there is a big need for inter-language translation to transfer their information, share ideas, and communicate with one another (Mamta and Tanuj Wala. 2015). Machine Translation has become indispensable in such a scenario where physical and logical boundaries are vanishing, and one needs to be able to communicate at will and in a medium which he is conversant with. Machine Translation (MT) is the process by which computer software is used to translate a text from one natural language (such as English) to another (such as Telugu) (Okpor 2014). It is one of NLP's most important applications, helping people from different places to understand an unknown language without a human translator. It is the collaboration between computer science, artificial intelligence, linguistics mathematics, statistics, and, many other fields (Basmatkar et. al 2019). Existing machine translation systems have given cutting-edge results for real-time translation between major foreign languages such as English-French, English-German, etc. But, a fully automatic high-quality machine translation system (FGH_MT) is extremely difficult to build.

Translation systems between closely related languages are easier to develop since they have many parts of their grammars and vocabularies in common (Goyal, V and Lehal, G.S 2009). Some various approaches and techniquesevolved

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INTELLIGENT HOME AUTOMATION WITH IoT AND AI VOICE ASSISTANTS

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Abstract

The Internet of Things (IoT) is a smart technology that connects everyday devices to the internet. These devices, like smart watches, home appliances, and sensors, can talk to each other and share information without needing people to control them all the time. IoT enhances automation and efficiency across various sectors, including healthcare, agriculture, transportation, and smart homes. In smart home environments, IoT enables real-time monitoring, automated control, and seamless interaction through voice assistants like Google Assistant and Alexa For example, in healthcare, smart watches track heart rates and health conditions. In smart cities, IoT helps manage traffic, garbage collection, and energy usage. In factories, IoT improves machines' performance and saves time. Despite its advantages, IoT faces challenges such as data security vulnerabilities, privacy concerns, and interoperability issues among devices from different manufacturers". Because many devices share private information, there is a higher risk of hacking. However, new technologies like artificial intelligence, block chain, and 5G networks are helping IoT become safer and better. In the future, IoT will create smarter cities, automated industries, and a more comfortable lifestyle.

Introduction

The Internet of Things (IoT) is a revolutionary technology that connects physical devices to the internet, enabling seamless communication and data exchange between them. These devices, embedded with sensors, software, and network capabilities, range from household appliances and wearable gadgets to industrial machines and smart vehicles. IoT allows devices to collect and share real-time data without human intervention, creating smart environments that enhance convenience and efficiency. For example, smart homes use IoT devices to control lighting, temperature and security systems automatically. In industries, IoT helps monitor equipment performance and optimize production processes, improving productivity and reducing costs.

Despite its numerous advantages, IoT presents several challenges, especially

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ENHANCING SMART TV SECURITY: AI-BASED THREAT DETECTION AND BLOCKCHAIN SOLUTIONS

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Abstract

Smart TVs have transformed home entertainment by integrating internet connectivity, streaming services, and voice assistants. These advancements provide users with enhanced accessibility and a more immersive experience. However, the increased connectivity also introduces significant cybersecurity risks. Smart TVs can be targeted by hackers who exploit vulnerabilities to gain unauthorized access, steal personal data, or deploy malware. Additionally, third-party applications and unsecured streaming services further expose users to threats such as phishing attacks and ransomware. This paper provides an in-depth analysis of the security vulnerabilities associated with smart TVs, common attack vectors, and the latest advancements in cybersecurity measures, including artificial intelligence (AI) and blockchain technology. By understanding these risks and implementing best security practices, users can safeguard their devices and personal information from cyber threats.

I.Introduction

The growing adoption of smart TVs has transformed traditional television into an interactive multimedia experience. Unlike conventional TVs, smart TVs integrate advanced computing capabilities, enabling users to stream content, browse the internet, and use voice commands through built-in virtual assistants like Google Assistant and Alexa. These devices also support third-party applications, gaming, and even smart-home integration making them a central component of modern digital lifestyles.

However, this increased functionality comes with inherent risks. Smart TVs require an active internet connection to deliver content and updates, which can be exploited by cybercriminals to gain unauthorized access. Many smart TVs also feature cameras and microphones for video conferencing and voice recognition, creating potential vulnerabilities that could be used for surveillance or data theft. Weak security settings, lack of firmware updates, and insecure third-party applications further exacerbate these risks.

Additionally, the rise of Internet of Things (IoT) ecosystems has made smart TVs interconnected with other home devices, such as smart speakers, security cameras, and thermostats. As cyber threats continue to evolve, understanding and

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AN EFFECTIVE CHANNEL OF COMPREHENSIVE DATA SCIENCE

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Abstract

Data science has rapidly emerged as a crucial discipline in the modern era, where data-driven decision-making has become essential across industries. The combination of statistical techniques, machine learning algorithms, and domain-specific knowledge allows organizations to extract valuable insights from vast amounts of structured and unstructured data. The increasing availability of big data, along with advancements in computational power and artificial intelligence, has accelerated the adoption of data science methodologies. This paper provides a comprehensive analysis of the data science lifecycle, including data acquisition, preprocessing, exploratory data analysis, feature engineering, model selection, and deployment. Furthermore, it explores key machine learning techniques such as supervised, unsupervised, and reinforcement learning, discussing their significance in predictive analytics. Real-world applications of data science are examined in diverse sectors, including healthcare, finance, e-commerce, and marketing. Additionally, the paper highlights the ethical concerns, data privacy challenges, and interpretability issues associated with complex machine learning models. Finally, future directions, including developments in deep learning, federated learning, and quantum computing, are discussed to provide a roadmap for the continued evolution of data science.

Keywords: Data Science, Machine Learning, Artificial Intelligence, Big Data Analytics, Data Mining, Data Visualization, Predictive Analytics, Data Governance

1. Introduction

The exponential growth in data generation over the past decade has driven the need for sophisticated analytical techniques to process and extract meaningful insights. Data science, an interdisciplinary field combining statistics, mathematics, computer science, and domain expertise, has become an integral part of decision-making processes across various industries. With approximately 2.5 quintillion bytes of data being generated daily, organizations leverage data science to enhance operational efficiency, optimize business strategies, and improve customer experiences. Data-driven approaches are widely used in healthcare for predictive diagnostics, in finance for fraud detection, in retail for personalized marketing, and in social media for sentiment analysis. The primary objective of this paper is to provide an in-depth understanding of data science methodologies, the role of machine learning in predictive analytics, and the implications of data science across different sectors. Furthermore, the paper examines the challenges faced by data scientists, particularly concerning ethical concerns, data privacy regulations, and the interpretability of machine learning models. By exploring these aspects, this research aims to offer a structured approach to

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COMBINING RESIDUAL NETWORKS: AN ENSEMBLE METHOD FOR MULTI-STAGE CLASSIFICATION OF ALZHEIMER'S DISEASE IN MULTIMODAL IMAGES

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Abstract:

Alzheimer's disease is a progressive brain disorder that gradually impairs memory, thinking, and daily functioning. In our study, we present a deep learning framework that not only uses residual networks (ResNets) to extract detailed features from brain MRI scans but also incorporates an ensembling technique to improve classification accuracy. By combining predictions from multiple ResNet models through a weighted ensembling approach, our method captures diverse aspects of the imaging data, enabling it to accurately distinguish between early, moderate, and advanced stages of Alzheimer's disease. We evaluated our ensemble model on the ADNI dataset, and the results demonstrate enhanced performance over individual models and traditional convolutional methods. This improved, automated staging system has the potential to support clinical decision-making by providing a more reliable assessment of disease progression.

Keywords: Alzheimer's Disease, Residual Networks, Deep Learning, Multi-Stage Classification, Brain MRI, ADNI Dataset, Early Diagnosis, Ensembling approach

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A STUDY ON ETHICAL HACKING

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ABSTRACT

Ethical hacking is an authorized attempt to gain unauthorized access to a computer system, application, or data using the strategies and actions of malicious attackers. This practice helps identify security vulnerabilities that can then be resolved before a malicious attacker has the opportunity to exploit them. Ethical hackers are security experts who perform these proactive security assessments to help improve an organization's security posture. With prior approval from the organization or owner of an IT asset, the mission of an ethical hacker is the opposite of malicious hacking. The purpose of this essay is to define hacking, who programmers seem to be, what vulnerability assessment is, what ethically hacking's code of conduct is, but also why browser hijackers are required.

1. INTRODUCTION

As computer technology improves, it also brings with it a darker side: HACKERS. Because the internet is rapidly increasing in size and a significant quantity of data is going online in today's world, data security is a key concern. The internet has accelerated the Certain transactions, including as accounting, electronic payments, online cash payments, plus online mailing of many datasets, have become more digitalized, creating a larger risk to cyber theft. Hackers are currently launching various types of hacking attacks on a wide range of companies, corporations, governments, and webpages. To prevent getting hijacked by cybercriminals, we use Ethical Hackers, who are computer experts and who are similar to hackers but have good motives or are bound by a set of norms and regulations created by various organizations. These are the people who try to protect internet-moving data from various hacker attacks while keeping it secure with the owner.

2. TYPES OF HACKERS

Using the term hacking or hacker usually has a negative connotation in its definition. Malicious hackers are often highly skilled in coding and programming, and modifying computer software and hardware systems to gain unauthorized access. However, not all hackers are created equal, and they're not always cybercriminals. Hacking consists of conducting technical activities with the intent of exploiting vulnerabilities within a computer system, network or firewall to obtain unauthorized access. It involves misusing digital devices such as computers, networks, smartphones and tablets. The goal of hacking is to manipulate digital devices in order to cause damage or corrupt operating systems. It also allows hackers to collect user information, steal sensitive information and documents or perform other disruptive data related activities. While hackers can be both ethical and malicious, most fall within three main types of hacking. These three main varieties of hackers are authorized, unauthorized and grey-hat hackers. Each type has different intents and purposes for their exploits. Let's explore each of these types of hackers and how they operate.

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SURVEY ON CYBER FORENSIC TOOLS

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Abstract

Cyber attacks are rapidly evolving and are becoming more frequent and severe. Inresponse to such incidents, affected organizations implement a series of predetermined actions. One of these actions involves the application of digital forensics, which aids in the recovery and examination of data on digital media and networks. Cyber Forensic Investigation encompasses the capture and analysis of digital information to determine whether internet-related theft has occurred. Historically, computers were primarily utilized for storing large amounts of data and performing various operations; however, their role has significantly expanded to include critical functions in crime investigation. To effectively address cyber-related issues, the selection and application of forensic tools are essential. To facilitate thorough research and prompt investigations, developers have created numerous cyber forensic tools. Law enforcement agencies and investigative bodies choose these tools based on several factors, including budget constraints and the expertise available within their teams. This paper discusses the significance of computer forensics, its origins, the forensic framework, and the various types of existing computer forensic tools and their applications.

Keywords - Digital Forensics and its framework, Cyber forensics tools

Introduction

Digital forensics is a specialized field within forensic science that focuses on the recovery and examination of data found on digital devices, frequently in connection with computer-related crimes. This discipline also referred to as computer forensics or cyber forensics, employs various investigative and analytical techniques to resolve criminal cases and furnish evidence that can substantiate legal proceedings. The process entails the identification, preservation, analysis, and presentation of digital evidence in a way that meets legal standards for admissibility. It encompasses a range of applications, such as assessing food quality and forecasting fire-related disasters. The initial criminal cases involving computers primarily pertained to financial fraud, a challenge that has since been addressed through the use of Biometric Smart Cards. Enhancing cyber security through biometrics and digital forensics is crucial. Additionally, biological evidence is significant in criminal investigations, as it includes Deoxyribonucleic Acid (DNA), which links a perpetrator to a crime scene. This evidence is analyzed to ascertain the presence of biological material.

History

Digital forensics has a history spanning nearly four decades, originating in

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A Survey on Multilingual End-to-End Automatic Continuous Speech Recognition Using Deep Neural Network

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***Abstract*- Automatic Speech Recognition (ASR) systems have witnessed significant advancements in recent years, fueled by the development of deep neural networks and large-scale datasets. Multilingual end-to-end ASR, which aims to recognize speech in multiple languages using a unified framework, has gained substantial attention due to its potential applications in various domains. This article thoroughly analyses the design of deep neural frameworks for end-to-end, multilingual automatic continuous voice recognition. It offers an understanding of the latest techniques and possible directions for future research by examining the key components, challenges, and recent advancements within this domain through the lens of Wav2Vec.Wav2vec-U increases unsupervised recognition outcomes across a variety of languages, according to experiments, despite having a simpler conceptual framework.**

***Keywords*- Speech Recognition, Multilingual, Wav2Vec, Neural Networks**

I. INTRODUCTION

The rapid development of deep neural networks and the accessibility of big voice datasets have been key drivers of Automatic Voice Recognition's (ASR) recent substantial improvements. Voice assistants, language translation, transcription services, and accessibility tools for those with speech impairments are just a few of the many fields where ASR technology has found extensive use. Traditionally, ASR systems were developed using modular approaches, involving separate components for acoustic modelling, pronunciation modelling, and language modelling [1]. However, these approaches often suffer from performance limitations and lack the ability to handle multiple languages seamlessly.The general block diagram for automatic voice recognition is shown in Figure 1.

Multilingual end-to-end ASR, on the other hand, aims to overcome the limitations of traditional ASR systems by recognizing speech in multiple languages using a unified framework [2]. This approach leverages the power of deep neural networks to directly map acoustic features to text without relying on intermediate representations. By formulating a deep neural framework for multilingual end-to-end ASR, it becomes possible to build systems that are capable of understanding and transcribing speech in multiple languages, catering to the demands of a multilingual and globally connected world.

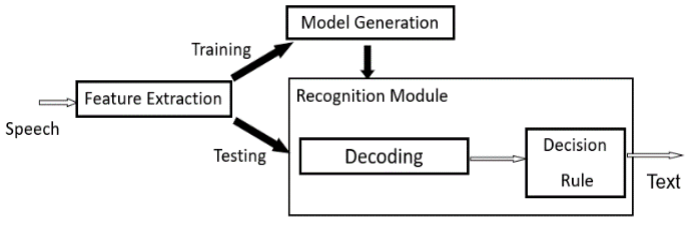

FIGURE1.Block Diagram for ASR

The research thoroughly analyses the design of deep neural frameworks for multilingual end-to-end continuous automatic speech recognition.To provide a glimpse into advanced techniques and emphasize potential directions for future research using the novel approach, itexplores the fundamental components, challenges, and contemporary advancements within this field.

Experimental Survey On Efficiency Of AI Chatbots In Education

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ABSTRACT: Chatbots powered by artificial intelligence have been increasingly utilized in the education sector to provide personalized learning experiences and improve student engagement. There has been limited research on the effectiveness of AI chatbots in education.In this paper we are conducting an experimental survey to evaluate the efficiency of AI chatbots in education.For this we are surveying a sample of students and assessing their perceptions of chatbots' efficiency in facilitating learning outcomes. Our findings suggest that AI chatbots have a positive impact on learning outcomes and student engagement in the educational context. The experimental results highlight the efficient use and implementation of chatbots to maximize their learning potential in education.

Key words: Chatbot, Education, Traditional learning methods, Artificial Intelligence.

INTRODUCTION:

Artificial intelligence has revolutionized many fields, such as customer service, healthcare, finance, e-commerce, and education. One of the most prominent applications of AI in education is the use of chatbots. Chatbots are software programs that use natural language processing (NLP) and machine learning (ML) algorithms to interact with users in human-like conversations[1]. In education, chatbots are used to provide personalized learning experiences, answer students' questions, and provide feedback on their performance. There is only limited research on the efficiency of AI chatbots in education. This paper aims to evaluate the efficiency of chatbots in facilitating learning outcomes and student engagement

A chatbot, also known as a conversational agent, is a computer program designed to simulate human conversation[3]. Chatbots use Natural Language Processing (NLP) and Artificial Intelligence (AI) algorithms to interpret and respond to user inputs in a way that mimics human conversation. With the increasing demand for automation and personalized experiences, chatbots have become an integral part of modern communication technology. In recent years, chatbots have gained significant attention in education as well, with the potential to improve student engagement, provide personalized learning experiences, and reduce the workload of teachers[2]. As AI technology continues to evolve, the potential for chatbots in education is expected to grow and make a significant impact on the way students learn and teachers teach[4].

Traditional learning methods refer to the conventional educational practices that have been used for centuries. These methods mainly involve face-to-face instruction in a physical classroom with a teacher or lecturer leading the learning process. One of the primary advantages of traditional learning is that it provides a structured learning environment where students can interact with their peers and teachers[3]. This social interaction fosters a sense of community and enhances the learning experience. Moreover, traditional learning methods are well-established, and many people are familiar with them, making it easier to implement and understand. However, traditional learning methods also have some disadvantages. {For instance, they can be inflexible and may not cater to the individual learning needs of each student}[2]. Additionally, traditional learning methods can be limited by geographic location, accessibility, and cost.

AI chatbots for education are computer programs that use artificial intelligence to simulate a conversation with a user, typically a student, to assist them in their learning journey [5]. One of the primary advantages of AI chatbots for education is that they offer immediate and personalized feedback to students. These chatbots can answer student questions, provide additional learning resources, and offer guidance on specific topics. Additionally, they can operate 24/7, allowing students to access them whenever they need help. AI chatbots can also reduce the workload of educators, enabling them to focus on other aspects of teaching. However, there are some disadvantages to AI chatbots for education. One concern is that they may not be as effective as human teachers when it comes to addressing complex and “nuanced” student needs. Additionally, AI chatbots can be limited by their programming, which may not always accurately reflect the student's learning needs. Finally, some students may prefer the social interaction and support provided by human teachers over the less personal interaction with a chatbot[6].

There are several existing AI chatbots in schools, colleges, and universities that are being used to support teaching and learning. Ivy, Jill Watson, Ada, Squirrel AI, Julie are a few examples.

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GD-STFA: Gradient Descent Sea Turtle Foraging Algorithm enabled Deep Q Network for Diabetic Retinopathy Detection

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Abstract
Diabetic Retinopathy (DR) refers to a retinal disease that happens due to high glucose levels in the blood, and it leads to blindness globally. In order to delay or avoid vision loss and degradation, early detection, and treatment are necessary. Hence, the conception of an automated technique for precise DR recognition is necessary. Thus, a Deep Q network (DQN) with a Gradient Descent-Sea Turtle Foraging Algorithm (GD-STFA) is proposed that inherits Gradient Descent (GD) in Sea Turtle Foraging Algorithm (STFA), to detect DR from images. This method involves various phases, like pre-processing, segmentation, as well as DR detection. Here, the DR image quality is enhanced in the pre-processing phase using a median filter. After that, the segmentation is done by utilizing Swin-UNet and it is trained using the proposed GD-STFA algorithm. Finally, the DQN trained with GD-STFA finds if a person has DR or normal from his retinal images. The experimentation is performed in detail and validated on the Indian Diabetic Retinopathy Image Dataset benchmark dataset. Ultimately, the experimental outcomes demonstrate that the model is better than traditional techniques regarding optimal accuracy of 0.98, sensitivity of 0.984 and specificity of 0.971. Also, regarding the segmentation accuracy, the proposed model is around 0.906 accurate with a Dice coefficient of 0.963.

Keywords Diabetic Retinopathy · Deep learning · Optimization algorithm · Segmentation · Classification

Abbreviations

DL	Deep Learning
WHO	World Health Organization
DR	Diabetic Retinopathy
SW-MSA	Shifted Window-Based Multi-Head Self-Attention

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Deep Learning Based Automatic Answer Scoring Through Bi-Directional LSTM

T.S Adharsh[1*] and M.K Jeyakumar[2]

Abstract

Due to population expansion and the increasing importance of education, it is becoming increasingly difficult for assessors to evaluate the correctness and relevance of the responses provided by students. The LSTM model was initially used to build the answer-scoring system. The Bi-LSTM model has been designed with callbacks to acquire the student answer scoring system due to the LSTM's limitations for optimal scoring. The proposed system has been implemented using the ASAP Short Answer Scoring dataset. The results show that the system developed using Bi-LSTM displays better performance than LSTM.

Keywords: *Answer Scoring, Answer Evaluation, Deep Learning, LSTM, Bi-directional LSTM, Word Embedding, TF-IDF.*

Introduction

The number of solutions utilised for automated answer grading has grown significantly during the past few years. According to Valenti et al., some of them featured lexical and syntax analysis as well as grammar verification of the student's response [1]. Responses from pupils are highly focused and concise in nature. It has been determined whether a student's response corresponds to a certain word or phrase in the rubric text using regular expressions, text templates, or patterns. When determining a student's capacity for learning, the assessment is crucial. Most automated evaluation systems primarily cater to multiple-choice questions, making it challenging to assess short and essay responses. The education sector has become increasingly reliant on machine learning and Natural Language Processing (NLP) as a result of the growing popularity of online educational platforms and computer-based testing. However, traditional evaluation techniques like pattern matching and language processing using simple programming languages are no longer practical [2]. The issue here is that there are multiple possible answers to the same question from students, each with a unique justification. Therefore, we must assess each response to the question.

Automated Essay Scoring (AES) refers to the process of utilizing computers to automatically assess student responses and assign scores or grades according to relevant criteria. Essay qualities are several characteristics of the essay that can help explain the grade that was given to it. According to Persing and Ng [3], some examples of essay characteristics include content (how much material is included in the essay), organisation (how well the essay is structured), style (how well the essay is written), prompt adherence (how much the essay stays on topic for the essay prompt), etc. Instead of focusing on the

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Research Article

Chronic kidney disease prediction using improved deep belief network with local search nearest neighbour optimization

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ABSTRACT

Chronic Kidney Disease (CKD) is one of the risky diseases that can threaten human life. Thus, automatic system is recommended for the early prediction. Hence, Artifical Intelligence (AI) based deep learning approach is designed in this current research for CKD prediction. However, attributes which is highly correlated to kidney diseases must be considered for effective disease prediction. In this pape a Local Search With Nearest Neighbour (LSNN) optimisation is proposed to select the most relevant attributes for training the deep net model. In the proposed LSNN optimisation, a K-fold cross-validation is applied to calculate the mean square error, which acts as the fitness function to select the best attributes using local search optimisation. Subsequently, the selected attributes are utilised for training the proposed Improved Deep Belief Network (IDBN). In IDBN, the performance of a conventional Deep Belief Network (DBN) is improved by utilising a hybrid atom crow optimisation in the training phase. The analysis is conducted on different scenarios, and the selected 15 attributes are better, with an accuracy of 98% and an error is 2%. Ultimately it proves that the proposed deep learning with LSNN-based attribution is better for the early prediction of CKD.

KEYWORDS: Automated early detection | Chronic kidney disease prediction | improved deep Belief Network | K-Nearest neighbour | local search with Nearest neighbour Optimization

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Disclosure statement

No potential conflict of interest was reported by the author(s).

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MULTI-POINT DATA SECURITY MECHANISM TO FACILITATE SECURE CLOUD DATA STORAGE SOLUTIONS

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Abstract- **This literature review's objective is to present information on the application of Multi-Agent System (MAS) strategies that can help cloud computing platforms ensure the security of their cloud data storage (CDS). The proactive and reactive capabilities of MAS, which are frequently deployed, are highly helpful for cloud data storage security (CDSS). A collection of agent communities make up the system's architecture. In this study, we construct a multi-cloud environment for secure data storage that functions as a public cloud, offers affordable pricing, and employs two layers of encryption for the data kept in the cloud. Additionally, cloud computing introduces a new paradigm and makes it easier for users to use information storage so they may build dynamic apps that can be accessible from anywhere via the internet. The cloud makes use of various storage systems where data is remotely managed, supervised, and backed up. The end customers can keep their data online thanks to this service. so that consumers can utilise the internet to access the data from any place and at any time. Usability, bandwidth, accessibility, disaster recovery, and cost savings are advantages of adopting cloud storage. We employ a powerful AES algorithm that offers greater anonymity and privacy for a number of users in the cloud and keeps the data in many clouds so that users can later retrieve it with the keys while granting access to it via cloud-based access control. The two main concerns in this area are security and pricing, and they vary substantially depending on the provider one chooses.**

Keywords: **Cloud Computing, Cloud Data Storage, Cloud Service Providers, Cloud Data Storage Security.**

1. INTRODUCTION

The National Institute for Standards and Technology (NIST) defined cloud computing as "a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with little management effort or service provider interaction" (Badger et al., 2011). Both public and private enterprises can profit from modern cloud computing's evolving methodology's cost-saving calculations and adaptable services provided by Cloud Service Providers (CSP). Using a suitable access policy, CSP must guarantee the confidentiality, security, and integrity of outsourced data storage.

A cutting-edge advancement in technology, cloud computing offers remunerated access to hardware and software resources. The crucial method for managing several tenants in the usage of resources to conceal data movement from customers is virtualization. The capacity to supply services using internet resources to external consumers is made possible by the immense flexibility of cloud computing. A typical cloud computing model that provides sharing services through the internet. (Jaber and Zolkipli [17]).

The term "cloud computing" describes both the hardware and system software in the datacenters that provide the applications as services via the Internet. Based on who offers the cloud services, NIST (Badger et al., 2011) identified four fundamental cloud delivery models. For effective and optimum delivery of applications and business services, the agencies may use one model or a combination of other models. the following four delivery models:

(i) *Private cloud* in which cloud services are provided solely for an organization and are managed by the organization or a third party. These services may exist off-site.
(ii) *Public cloud* in which cloud services are available to the public and owned by an organization selling the cloud services, for example, Amazon cloud service.
(iii) *Community cloud* in which cloud services are shared by several organizations for supporting a specific community that has shared concerns (e.g., mission, security requirements, policy, and compliance considerations). These services may be managed by the organizations or a third party and may exist offsite.

Deepharvest: Revolutionizing Agriculture Through a Variofusionnet and Featexpronet for Accurate and Timely Leaf Disease Detection and Management

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Abstract: In this pioneering approach to rust classification in plant leaves, deploy an exhaustive pre-processing pipeline to fortify the robustness of this dataset. The integration of Generative Adversarial Networks serves to augment the dataset, while a groundbreaking Modified Gaussian Smoothing technique is introduced to effectively mitigate noise and elevate image quality. Feature extraction is bolstered through Contrast Stretching, enhancing contrast, and color correction methods adeptly standardize color variations. Precision in disease-affected area identification is achieved through refined leaf localization using Region Proposal Networks (RPN) and this innovative Spatial Attention Mechanisms. Further optimization in Regions of Interest (ROI) identification is realized with an optimized dual attention YOLO and FeatExProNet combination, extracting key features encompassing shape, color, texture, statistics, and deep learning-based attributes. Feature selection employs a Hybrid Optimization Approach, synergizing Binary Sand Cat Swarm Optimization and Butterfly Optimization algorithms. The conclusive step incorporates a VarioFusionNet-based model, seamlessly amalgamating Vision Transformer, Google Net, Alex Net, DenseNet-121, ResNet-50, and Efficient Net to ensure unparalleled accuracy in leaf disease detection. This comprehensive methodology represents a remarkable leap forward in rust classification, offering a commitment to improved accuracy and robustness in the identification of plant leaf diseases.

Keywords: *Alex Net, DenseNet-121, Efficient Net, Generative Adversarial Networks, Google Net, Modified Gaussian Smoothing technique, Region Proposal Networks, ResNet-50, Vision Transformer, YOLO and FeatExProNet.*

1. Introduction

Ensuring the accurate and timely detection of leaf diseases is paramount for effective plant health management. Our innovative approach integrates advanced detection methods to swiftly pinpoint and address issues, contributing to optimal plant well-being [1]. Notably, common apple leaf diseases, including Alternaria leaf spot, Brown spot, Mosaic, Grey spot, and Rust, pose significant threats to yield. The development of a precise and swift detector is imperative for the overall health of the industry [1]. Addressing the impact of tea leaf diseases on yield and quality, this research introduces a low-shot learning method for timely identification and control, enhancing disease spot segmentation through the extraction of color and texture features [2]. For precise apple leaf disease identification, a novel approach utilizes deep convolutional neural networks with a unique Alex Net-based architecture, involving the generation of abundant pathological images [3]. In contrast to traditional visual methods, optical sensors offer non-invasive measurement of pathogen-induced plant physiology changes, proving valuable for disease detection, identification, and quantification across various scales [4]. The development of an automatic identification method for grape leaf diseases is urgent for maintaining grape yield. Taking inspiration from the success of deep learning, this research applies the methodology to grape disease identification [5].

Presenting a groundbreaking model for plant disease recognition through leaf image classification, this approach leverages deep convolutional networks [6]. Innovative training methods facilitate seamless real-world implementation. Additionally, an enhanced Faster R-CNN architecture, with adjusted CNN model parameters, is introduced for the automatic detection of leaf spot disease in sugar beet [7]. Enhancing cucumber leaf spot disease extraction in intricate backgrounds, a refined fuzzy C-means algorithm is introduced for improved accuracy [8]. In agricultural information, automated identification and diagnosis of maize leaf diseases are crucial. Enhanced Google Net and Cifar10 models in deep learning improve accuracy with fewer parameters [9]. Given their superior computational and accuracy capabilities, computer vision and deep learning are favoured for diverse fungal disease classifications. Here, we propose a Multilayer CNN for Mango leaves infected with Anthracnose [10].

Implementing deep convolutional-neural-network models for plant disease identification, replace standard convolution with depth-separable convolution, reducing parameters and computation costs significantly [11]. Enhancing plant disease identification, GPDCNN combines dilated

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Crop disease detection via ensembled-deep-learning paradigm and ABC Coyote pack optimization algorithm (ABC-CPOA)

M. Chithambarathanu[1] · **M. K. Jeyakumar**[2]

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Abstract
Crop disease is a significant issue that affects the growth and yield of crops, leading to financial loss for farmers. Identification and treatment of crop diseases have become challenging due to the increase in the variety of diseases and the lack of knowledge among farmers. To address this issue, this investigate uses an ensembled-deep-learning paradigm to propose a deep learning-based model for crop disease identification trained with an ABC-CPOA. Initially, collected raw images are pre-processed via Bilateral filter and gamma correction Feature Extraction: Then, from the pre-processed images, the features like texture feature (Local Quinary Pattern (LQP), Local Gradient Pattern (LGP), Enriched Local Binary Pattern (E-LBP), color features (Color Histogram, Color Moments), shape features (Contour-based features, Convex Hull). Optimal feature selection- Among the extracted features, the optimal features is designated by means of a self-improved meta-heuristic optimization model referred as ABC-CPOA. This ABC-CPOA model is an extended version of standard Coyote Optimization Algorithm (COA). Crop disease detection phase is modelled with a new ensembled-deep-learning paradigm. Ensembled-deep-learning paradigm comprises Attention-based Bi-LSTM, Recurrent Neural Networks (RNNs) and Optimized Deep Neural Network (O-DNN). The weight function of O-DNN is fine-tuned using the new ABC-CPOA. Precision, recall, sensitivity, and specificity, in addition to TPR, FPR, FNR, and TNR, F1-score, and accuracy are used to assess the suggested approach. The implementation was performed by the MATLAB tool (version: 2022B).

Keywords Crop disease detection · Self-Improved Coyote Optimization Algorithm · Attribute based -Bi LSTM · RNN · O-DNN

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The impact of Data Mining Classification techniques on the diagnosis of Liver Disease

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Abstract
Liver disease is a major public health problem, affecting millions of people worldwide. Early diagnosis and treatment are essential for improving outcomes for patients with liver disease. However, liver disease can be difficult to diagnose, as it often does not cause any symptoms until it is in the advanced stages. Data mining classification techniques have the potential to revolutionize the diagnosis of liver disease. By analyzing large datasets of patient data, these techniques can identify patterns that can be used to predict the presence of liver disease, even in patients who do not have any symptoms. This can lead to earlier diagnosis and treatment, which can improve outcomes for patients. In this paper, we review the literature on the use of data mining classification techniques for the diagnosis of liver disease. We discuss the different techniques that have been used, the results of these studies, and the limitations of the current research. We also discuss the potential impact of data mining classification techniques on the diagnosis of liver disease and the future directions of this research.

Keywords: Data Mining, Classification Techniques, SVM, Naïve Bayes, Decision Tree, KNN, Random Forest, Evaluation metrics,

Introduction

Data mining is a powerful tool that can be used to extract hidden patterns and relationships from large datasets. This makes it a valuable tool for early diagnosis of liver disease. In recent years, there has been a growing interest in using data mining to predict liver disease.
Data mining and classification techniques can be used to extract knowledge from large datasets. They can be used to solve a wide variety of problems, and they are becoming increasingly important in the modern world. Data mining is a process of extracting knowledge from large datasets. It is a subset of machine learning that uses statistical methods to find patterns in data. Data mining can be used to find hidden relationships, predict future outcomes, and identify outliers. Classification is a type of data mining task that involves assigning new data points to one of a set of predefined categories. Classification algorithms are trained on a dataset of labelled data points. The training data is used to learn the relationship between the features of the data points and their categories. Once the algorithm is trained, it can be used to classify new data points. In classification, accurate detection of disease by using training and testing data set [12]. There are many different classification algorithms available. Some of the most popular algorithms include:

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A STUDY ON SEQUENCE MINING ALGORITHMS IN DATA RELATED TO EMM AND MARKOV PROCESS

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Abstract

To analyze the behavior of various domains of data, sequence mining is an important task. The random forest algorithm, for example, can be used to extract patterns from data. Our main purpose in this paper is to compare the accuracy of various algorithms used in sequence analysis so far, such as SPADE, GPS, KNN, and Naive Bayesian. This paper is based on the research title: "Discover sequences using exceptional model mining and transition behavior". Even if the selection of data mining algorithm is domain specific the algorithms described must be compared to the accurate selection of algorithm that is suitable for the research.
This paper focuses on work done by various researchers.

Keywords: Sequence mining, Pattern analysis, Naive bayesian,EMM,Markov Process

Introduction

Sequence mining algorithms are an important tool for analyzing sequential data, such as those found in genetic sequences, social media interactions, and financial transactions. Numerous studies have been undertaken on the various types of sequence mining algorithms to enhance their effectiveness and efficiency. Sequence mining algorithms refer to a set of data mining techniques that aim to discover knowledge in sequential datasets. These algorithms analyze data that is represented as sequences and can identify patterns or trends in the order in which events occurred. This is particularly useful in situations where events occur over time, such as website clickstreams, retail transactions, or medical procedures. By analyzing the order in which events occurred,

Sequence mining algorithms can identify frequent patterns and subsequences to help improve data-driven decision-making. Some commonly used sequence mining algorithms include prefix span, SPAM (Sequential Pattern Mining), and GSP (Generalized Sequential Patterns).One important concept in sequence mining algorithms is the notion of transition behavior,

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A novel framework for an intelligent deep learning based product recommendation system using sentiment analysis (SA)

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ABSTRACT

Social media and e-commerce are the two most prominent and quickly expanding industries today. These two areas exhibit the greatest influence on platform users. Numerous new people sign up for these networks on a daily basis. This platform offers extremely quick user networking and communication. These platforms are used to create an online product-based recommender system that will help grow online business by recommending products. Online product recommendations are entirely dependent on the views, feedback, and comments of consumers. Online recommender systems have become a regular part of consumers' everyday routines, with their widespread use observed in e-commerce, social networking platforms, and news websites. This paper offers a novel framework for product recommendation based on sentiment analysis (SA) and collaborative filtering (CF). The SA was performed using an LSTM-based model. On the basis of CF, two distinct recommendation systems were built. The proposed SA model was integrated with the best recommendation system to enhance the recommendations. The experimental findings showed that the proposed system for product recommendation outperformed the existing methods. The outcomes demonstrated the potential of combining CF and SA to improve consumer satisfaction and product recommendation in e-commerce systems.

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KEYWORDS
E-commerce platform; user sentiments; user preferences; sentiment analysis; collaborative filtering; product recommendation;

1. Introduction

The rise of internet usage and the rapid growth of mobile devices have fuelled the widespread adoption and popularity of online shopping, leading to its substantial expansion in recent years [1]. Customers like online shopping because they can make selections about what things to buy based on review comments, product ratings, and technical specifications. Recommender systems encompass software solutions and methodologies that leverage user preferences and historical data to offer recommendations across a range of products or items [2–5]. Users will be assisted in making decisions regarding the products or items by the recommendations made by recommender systems. Recommender systems utilize various types of actively acquired data to analyze and generate recommendations. The type of recommender systems determined the data that was used for information processing. The utilization of the abundant information present on Online Social Networks (OSNs) to offer valuable recommendations on products, items, or other entities is made possible by the significant role played by recommender systems. The cloud platform is used by the automatic recommender system to deliver thoughts or recommendations about the product depending on the user's inquiries. The cloud platform provides a valuable channel for individuals to express their opinions and feelings regarding products and items. The recommender system will function well on the cloud platform provided by online social networks like Twitter and Facebook. Based on user-based and item-based recommenders, the recommendation engines are divided into two categories. Product recommendations through online social networks that offer sentiment data on reviews that users have left about products, items, or anything else. Figure 1 illustrates a visual representation of the recommendation system implemented in an e-commerce platform.

In the e-commerce environment, the recommendation system provides advantages to both the buyers and sellers who participate in the community. In order to cater to diverse product interests and personalized recommendations, recommendation systems play a crucial role by analyzing user purchasing behaviour and preferences from a wide range of available products, ultimately providing relevant recommendations that align with individual needs and preferences [6]. Collaborative and content-based recommendation approaches are the two prevalent types of approaches used in the field of recommendation systems.

The use of SA approach is crucial when creating a recommender system. It is also known as opinion mining. Opinion mining is a technique that utilizes text

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A novel framework for multiple disease prediction in telemedicine systems using deep learning

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ABSTRACT

Telemedicine systems are gaining popularity due to their ability to provide remote medical services. These systems produce a lot of data, which may be used for a variety of purposes, including quality improvement, decision-making, and predictive analytics. Deep learning is an effective data mining method that may be applied to this data to bring out significant findings. Telemedicine systems, which allow patients to receive medical consultation and treatment remotely, generate vast amounts of data. Analyzing this data can provide valuable insights for improving patient care and optimizing the telemedicine system. Data mining techniques can be incredibly valuable for telemedicine systems, as they can help to identify patterns and insights in large amounts of patient data. Data mining techniques can assist telemedicine systems in making better decisions and offer better care to patients. In this paper, a novel framework for multiple disease prediction in telemedicine system using an effective deep learning algorithm was developed. The proposed multiple disease prediction system is composed of Long Short Term Memory (LSTM) unit.The experimental results revealed that the suggested disease prediction model exceeded the present models with an accuracy of 98.51%.

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KEYWORDS
Telehealth system; telemedicine system; data mining techniques; clustering; clustering techniques; classification techniques

1. Introduction

The literal meaning of Telemedicine is "healing from distance". Telemedicine has been defined by the World Health Organization (WHO) as "The delivery of healthcare services, where distance is a critical factor, by all healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for continuing education of healthcare providers, all in the interests of advancing the health of individuals and their communities".

The provision of healthcare services to patients through the use of information, communication, and technology has been referred to as telemedicine. Provision of telemedicine functions by catering to the patient's needs through calls and video conferencing. Globally, physicians use telemedicine for digital imaging transmission, video consultations, and remote medical signals [1]. The origin of telemedicine has been a consequence of the short of time required for consultations. The term "telemedicine" is largely used in conjunction with "telehealth". The term "telehealth" refers to the use of electronic information and communication technology to support and promote long-distance clinical healthcare, for the medical education of clinical professionals, and to help maintain and manage public health [2]. The contrast between the two terms can be drawn as telemedicine purely clinical application of the information technology in healthcare whereas telehealth is being used as an umbrella term for nonspecific healthcare-related activities. With the advancement in technology and application in the diverse fields, evolved concepts like telemedicine have been successful in their implementation globally. The application of telemedicine has been considered to be useful in both developed and developing nations. Core benefits of the application of integrated telemedicine in the healthcare system are inclusive of increment in the revenue, maximization of patient reach, provision of convenience, increased feasibility, high diversity and availability of several healthcare professionals on a single platform and improved healthcare quality [3].

Figure 1 depicts the general framework of a basic telemedicine system. The incorporation of numerous technologies into the telemedicine system enables the creation of a health network connecting medical facilities dispersed across a city, a country, or even a region. This network enables the interchange of health data, including clinical findings, radiographic pictures, laboratory data, and sound recognition, among other things. Because it is more likely that specialists will be available in places with dense populations, those who reside in remote and rural areas have very limited access

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Enhancing Telehealth: Multiple Disease Prediction Through Ensemble Approach

Divya R. Unnithan *[1], J. R. Jeba [2]

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Abstract: Telemedicine plays a pivotal role in extending healthcare reach through remote consultations, addressing gaps in underserved regions and offering convenience, especially during crises. Data mining techniques in telemedicine extract critical insights from complex medical data, enhancing early disease detection and personalized care. This study presents a novel approach that leverages two hybrid deep learning models (CNN-Bi-LSTM, CNN-GRU) and a stacking ensemble model to predict multiple diseases using telemedicine-derived features. The stacking ensemble utilizes Support Vector Machine (SVM) as its meta-learner. The dataset is sourced from the YBI Foundation's repository, and extensive experimentation showcases the ensemble's superiority, achieving 99.52% accuracy, 99.54% precision, 99.57% recall, and 99.54% F1-score. These remarkable results highlight the potential of unified model architectures in enhancing disease prediction using telemedicine. Beyond advancing predictive healthcare, this research demonstrates ensemble learning's effectiveness in intricate medical datasets, ultimately aiding clinical decisions and patient outcomes.

Keywords: *Convolutional Neural network, Data mining, Gated Recurrent Unit, Long short-term memory, Support vector machine, Telemedicine.*

1. Introduction

Telemedicine is a transformative healthcare approach that employs modern communication technologies to deliver medical services remotely. Without the requirement for in-person visits, people are able to speak with medical experts via telemedicine and obtain medical advice, and diagnosis [1]. This approach leverages digital tools such as video conferencing, phone calls, emails, and mobile apps to bridge geographical gaps and enhance access to healthcare, making it particularly valuable for individuals in remote or underserved areas. Telemedicine encompasses a wide range of medical services, from primary care and specialty consultations to mental health support and chronic disease management [2]. It not only offers convenience and cost-effectiveness but also plays a critical role in emergencies and situations where physical interactions are restrict.

The benefits of telemedicine extend beyond convenience. Patients can access medical expertise that might not be available locally, facilitating consultations with specialists and experts from around the world. Additionally, telemedicine enables continuous monitoring of patients with chronic conditions through wearable devices and remote sensors, enhancing their quality of life [3]. Despite its advantages, challenges exist, including the need for reliable internet connectivity, ensuring patient data privacy and security, navigating regulatory frameworks, and addressing diagnostic limitations that require physical examinations [4]. As technology continues to advance, telemedicine's potential to reshape healthcare delivery and improve patient outcomes remains substantial, fostering a more connected and accessible healthcare ecosystem.

Data mining techniques have a significant impact on the field of telemedicine by leveraging the abundant digital healthcare data generated through remote consultations, patient monitoring, and electronic health records [5]. These methods, including clustering [6], classification, and association rule mining, help telemedicine professionals identify patterns and correlations hidden within patient data. By grouping patients with similar profiles, categorizing based on symptoms, and uncovering relationships between medical parameters, practitioners can enhance patient care through targeted interventions and accurate diagnoses.

Predictive modelling [7] is another crucial technique that uses historical patient data to anticipate health risks, disease progression, and treatment responses. This proactive approach enables healthcare providers to optimize treatment plans and resource allocation effectively, while sentiment analysis techniques applied to patient interactions aid in gauging satisfaction, detecting emotions, and tailoring communication strategies.

In essence, data mining empowers telemedicine by extracting actionable insights from intricate healthcare data, resulting in improved diagnostic precision, predictive health outcomes, and personalized patient care. These techniques elevate the quality and accessibility of remote

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Unveiling the Future of Signature Verification: Deep Learning Insights

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Abstract: A person's signature, which is usually affixed to documents as proof of approval or authority, is a unique handwritten representation of their identity. Signatures serve as a useful means of personal identification and are essential for the validation of transactions, contracts, and official documents. Strong signature verification techniques are necessary to counter the growing threat of forged signatures as the use of signatures in diverse areas increases. Forged signatures and fraudulently created copies significantly affect the security and authenticity of documents. This paper suggests a novel deep learning technique for offline signature verification for ease this concern. This novel method seeks to improve the model's capacity to extract specific details as well as high-level semantic information from signature images. A variety of real and fake signatures are included in the dataset, and thorough preprocessing and augmentation methods are used to guarantee successful model training. With 97.39% accuracy, 96.79% precision, 97% recall, and 97.20% F1-Score, the suggested model performs remarkably well. These findings demonstrate the efficiency of the deep learning-based technique in precisely confirming signatures and identifying suspected forged.

Keywords: *Offline Signature Verification, Deep Learning, Genuine or Forged, Dual Path Network, Convolutional Neural Network*

1. Introduction

The signature of a person is a handwritten transcription of their entire name or nickname, used as a symbol of identity. A document is typically written as evidence of identity and purpose. It bears the signature of an authorized individual claiming something as evidence. The most widely recognized personal characteristic in both social and legal contexts is Offline Signature Verification. Handwritten signatures have been widely accepted as a practical method of text verification and fraud protection for many years. A handwritten signature is required for an increasing number of transactions, particularly financial, official, and commercial ones. Because automatic verification takes longer to complete, it is challenging to verify every document. Consequently, there has been an exponential growth in the usage of biometrics such as fingerprints, iris scans, signatures, hand shapes, and Deoxyribonucleic Acid (DNA) for the security of financial and commercial documents over time [1]. To verify the authenticity of handwritten signatures, verification of signature is an essential component of identity authentication and document security. The two primary types of signature verification techniques are: online and offline. Using scanned or digitalized images, static properties, such as the size, shape, and spatial arrangement of signature components, are analyzed in offline signature verification. When digital versions of physical documents are accessible, this technique is frequently used. On the other hand, online signature verification uses specialized equipment, such as tablets with styluses, to record dynamic characteristics of the signing process, such as stroke order, speed, and pressure. Both kinds of signature verification are essential. Both kinds of signature verification are essential for preventing fraud, ensuring the accuracy of legal documents, and promoting safe transactions across a range of industries. The decision between offline and online verification frequently comes down to the particular needs of the application and the state of the technology at hand [2]. Some samples of signatures are given in Figure 1.



Fig.1. Samples of signature

Two genuine signatures from the same signer can never

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Implication of AI chatbot to factor student learning outcomes access traditions training methodology in Indian scenario

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+ Author & Article Information

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Share Tools

Applying the relevance of AI is a necessity in the present scenario of education. As technology has advanced the learning methods and learning outcomes have changed the scenario of the learning environment. The use of intelligent chatbots have paved the way for interactive sessions among teachers and students. The use of intelligent chatbot has increased productivity, communication, learning and tutoring assistance and also makes the subject more interesting. The future of the learning process will be using AI, application and intelligent chatbot which will reduce the ambiguity and give one to one interaction for the student in a classroom. The aim of this research paper is to provide emphasis on the use of intelligent chatbot in the classroom with specific domain knowledge. It also emphasizes the need of the hour as students in a class will be understanding a subject in different levels. The research paper focuses on how the learning outcome will differ and students will improve the performance knowledge in the subject. The research paper takes in an overview of the traditional method concepts in comparison with the new adoption of AI tools. The students can at any point of time after the class interact with the intelligent chatbot and get the required output. It is not a replacement for the teachers but it enhances the knowledge domain, even if the teachers are present. So at any point of time, he/she can interact and get valuable results

Topics

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A STUDY OF RESISTIVE OPEN FAULT DETECTION ON LOW POWER NANOMETRIC ICS

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ABSTRACT

Resistive open fault represents degradation in conductivity within a circuit interconnection. Due to this manufacturing failure occurs in IC interconnection. Such fault causes performance failures and reliability risk. an interconnect-open defects have attracted a significant research effort world-wide to reduce test cost without an affecting the fault coverage-in the context of multi-VDD designs. Recent studies have shown that full open defects can be tested using static test techniques at any VDD setting, as they do not exhibit VDD dependent detectability. On the other hand, the resistive-open defects are better detectable and these elevated at applying multiple VDD settings using various delay test techniques. This paper presents the analysis of various detection methods for resistive open faults. And detectable resistance range versus VDD varies with the test speed also observes. Depending on test speed and small delay faults Multi-VDD is required for detection of ROFs.

Keywords—VDD, IC, ROFs, Multi-VDD

Schnorr Multi-Signatures with Key Aggregation for Privacy and Verifiable Randomness in Blockchain Cloud

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***Abstract*—The absence of privacy and verifiable randomness in blockchain poses security risks such as unauthorized data access and identity theft, especially as the technology gains traction in critical sectors like finance and healthcare. The rapid adoption of blockchain amplifies the urgency to address these vulnerabilities for secure and scalable implementation. This paper confronts the urgent issues of compromised privacy and unverifiable randomness in blockchain systems by introducing the Artificial Intelligence-driven Schnorr Multi-Signature with Key Aggregation (AI-SMKA) approach. This mechanism exhibits a good degree of anonymity and error free key aggregation, desirable for large scale block chain networks. This mechanism is a prospective tool for deployment in sensitive applications towards secured data sharing and digital identity management.**

Keywords—AI, key aggregation, mutli-signature, privacy, blockchain

I. INTRODUCTION

Blockchain technology has emerged as a revolutionary paradigm for secure and transparent data management, particularly in decentralized systems. It provides an immutable ledger that is maintained through a network of nodes, ensuring data integrity and trust among participants. One of the critical aspects of blockchain security is the use of digital signatures for transaction verification. In this context, MultiSignatures (MS) have gained considerable attention as they allow multiple parties to cooperatively generate a signature for a single message, thereby enhancing the security of blockchain wallets and consensus protocols [1].

Recent advancements in MSs have focused on improving efficiency and security. For instance, a two-round MS scheme based on Okamoto signatures has been proposed, which proves to be unforgeable under the discrete logarithm assumption. Another significant development is the introduction of blockchain-based accountable auditing protocols that enable integrity verification and multi-ownership transferability [2]. MS schemes have also been optimized to improve the throughput of transactions in blockchain platforms [3]. Furthermore, a novel multi-party functional signature scheme for private blockchains has been introduced, which ensures that each part of a transaction is verified [4].

The importance of key aggregation and privacy in decentralized blockchain systems cannot be overstated. Key aggregation enables efficient management of cryptographic keys, thereby reducing the storage and computational overhead associated with individual keys. This is particularly crucial in decentralized systems where multiple parties are involved in transactions and consensus mechanisms [5]. On the other hand, privacy is a paramount concern in decentralized blockchain systems. Traditional blockchain platforms often disclose all transaction data on public ledgers, compromising the privacy and anonymity of participants [6]. Recent advancements have incorporated anonymous payments in decentralized systems to enhance privacy. Moreover, blockchain-enabled reputation systems have been developed to preserve rating privacy in the Social Internet of Vehicles (SIoV). Federated learning techniques combined with blockchain have also been proposed to ensure data privacy in medical data sharing [7]. Additionally, decentralized federated learning systems have been developed to address trust and fairness issues associated with centralized servers [8].

Despite promising advancements in key aggregation and privacy in decentralized blockchain systems, several limitations remain. Existing key aggregation methods often struggle with scalability and computational efficiency, particularly in large-scale decentralized networks. Current privacy-enhancing solutions, although effective, are computationally intensive due to the use of complex cryptographic techniques like zero-knowledge proofs. Moreover, in sensitive sectors like healthcare, existing blockchain-based federated learning solutions do not offer adequate privacy assurance. Some federated learning approaches also introduce centralization risks by relying on centralized servers for model aggregation, thereby affecting trust and fairness.

This paper proposes the algorithm to address these limitations by leveraging AI techniques to optimize key aggregation, thereby enhancing both privacy and computational efficiency, while also ensuring higher levels of security and verifiable randomness. The contributions of this paper are as below.

- **Optimized Key Aggregation**: The paper introduces a novel AI-based approach to optimize the key aggregation process, significantly reducing computational overhead and enhancing scalability.

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Synergistic Recommendation Strategies: GloVe-GRU Sentiment Analysis Combined with Collaborative Filtering

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Abstract- **Product recommendation systems are essential to e-commerce platforms because they enhance the user experience and boost sales. It is crucial for increasing customer engagement, revenue, and user experience in e-commerce. These platforms offer personalized product recommendations by analyzing individual user actions, preferences, and previous buys. This increases the likelihood of a customer completing a purchase. These customized recommendations not only help customers find pertinent products, but they also increase customer loyalty and engagement. It provides individualized recommendations, helps users navigate the vast product selection, and makes relevant product recommendations based on user behavior and likes. Sentiment analysis can be incorporated into recommendation systems to provide more accurate and personalized recommendations, which raises customer satisfaction and engagement levels and eventually improves conversion rates. The major objective of this paper is to provide a novel, deep learning-based, intelligent framework for product recommendation using sentiment analysis. This paper introduces a novel sentiment analysis and collaborative filtering-based product recommendation system. The hybrid model based on GloVe-GRU forms the basis of the suggested sentiment analysis model. For efficient product recommendation, the collaborative filtering method is combined with the suggested sentiment analysis model. Collaborative filtering aids in the development of both an item-based and a user-based recommendation system. According to the simulation results, the suggested method outperforms the current approaches and performs exceptionally well. It makes use of user emotions to offer tailored recommendations, increasing user happiness and loyalty, and eventually boosting sales and profits for companies.**

Keywords: Online shopping, E- Commerce Platform, User feedback, Sentiment Analysis, Deep Learning, Gated Recurrent Unit, Collaborative Filtering.

I. INTRODUCTION

The goal of Recommendation Systems (RSs) is to make recommendations for the best products to a specific customer based on the type of similar products, the customer base, and the relationships between the customer and the product [1]. RS are intended to reduce complexity by extracting far more relevant information and services from massive amounts of data to enable customized service. In addition to producing tailored recommendations, a RS analyzes consumer behavior to forecast interests and motivations. RSconsist of software tools and methodologies aimed at offering user recommendations for different items [2, 3, 4,

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RESONANCE OF WELLNESS: INVESTIGATING VOICE-BASED TELEHEALTH WITH DEEP LEARNING MODELS

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ABSTRACT

The primary determinant of both clinicians and telemedicine providers is to ensure a high standard of service delivery in telemedicine applications. In essence, the quality of telemedicine services is subject to diverse factors, encompassing aspects related to physicians, patients, and the overall environment. Various elements within these domains can collectively impact the overall quality of telehealth services. This paper employed a deep-learning-based classification model which explores the quality of assessment in patient-doctor voice-based service. The study utilizes audio recordings sourced from Altibbi, aiming to develop an efficient and objective approach to evaluate the quality of telemedicine consultations. The deep-learning model is designed to analyze the nuances of voice-based interactions, allowing for an automatic assessment process. By leveraging advanced technology, this research addresses the need for reliable and scalable methods to ensure the effectiveness and accuracy of telehealth services. The investigation focuses on the integration of artificial intelligence into the healthcare landscape, specifically in the context of telemedicine, to enhance the overall quality and reliability of remote patient-doctor communication. The outcome of the study has the potential to significantly contribute to the advancement of telemedicine practices, offering a systematic and automated means of evaluating the quality of voice-based consultations for improved healthcare outcomes and patient satisfaction.

Keywords: *Telemedicine, Deep learning, healthcare technologies, Voice-based interactions.*

I. INTRODUCTION

A paramount factor for success for clinicians and telemedicine providers is to ensure a high quality of service in telehealth. The delivery of healthcare services remotely relies heavily on the effectiveness, reliability, and seamless interaction between healthcare professionals and patients [1]. Voice-based telemedicine consultations have emerged as a pivotal component in modern healthcare delivery, facilitating remote patient-doctor interactions through audio communication channels. The integration of telemedicine into healthcare systems addresses various challenges,

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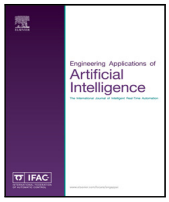

E-GCS: Detection of COVID-19 through classification by attention bottleneck residual network



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ARTICLE INFO

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Coronavirus disease 2019
Attention bottleneck residual network
Edge based graph cut segmentation
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Ultrasound and CT images

ABSTRACT

Background: Recently, the coronavirus disease 2019 (COVID-19) has caused mortality of many people globally. Thus, there existed a need to detect this disease to prevent its further spread. Hence, the study aims to predict COVID-19 infected patients based on deep learning (DL) and image processing.

Objectives: The study intends to classify the normal and abnormal cases of COVID-19 by considering three different medical imaging modalities namely ultrasound imaging, X-ray images and CT scan images through introduced attention bottleneck residual network (AB-ResNet). It also aims to segment the abnormal infected area from normal images for localising the disease infected area through the proposed edge based graph cut segmentation (E-GCS).

Methodology: AB-ResNet is used for classifying images whereas E-GCS segment the abnormal images. The study possess various advantages as it rely on DL and possess capability for accelerating the training speed of deep networks. It also enhance the network depth leading to minimum parameters, minimising the impact of vanishing gradient issue and attaining effective network performance with respect to better accuracy.

Results/Conclusion: Performance and comparative analysis is undertaken to evaluate the efficiency of the introduced system and results explores the efficiency of the proposed system in COVID-19 detection with high accuracy (99%).

1. Introduction

Recently, new outbreak of coronavirus disease (COVID-19) has confronted medical, economic as well as the public health worldwide except few countries. Apart from restricting this outbreaks, attempts have to be made by devising clear measures for preventing further outbreaks of this disease (Singhal, 2020). Thus, a comprehensive analysis has been carried out by the paper (He et al., 2020) for analysing clinical features, COVID-19 treatments etc. The analysis explored that the pathological discoveries related to SARS-CoV-2 have been restricted. Autopsy has also been warranted and useful for future study that will enhance the accuracy of initial diagnostic tests (Li et al., 2020). The study (Kumar et al., 2020) also affords opinions on the analysis of technological advancement utilised for minimising the substantial impact of this disease.

Though various research associated with modern technology have been emerging towards the detection of COVID-19, there exists more restrictions with respect to technological contributions in this prediction. This study explored about the Artificial intelligence (AI) applications and also the way in which modern technology might help in detecting COVID-19. AI can be categorised as computer vision applications, natural language processing and machine learning. A study has been carried out to analyse image processing and ML for accurate COVID-19 detection from two widely utilised medical imaging namely CT images and chest X-ray (Saygılı, 2021). The introduced system has been employed to three COVID-19 datasets that comprise of five fundamental steps such as acquisition of dataset, pre-processing and feature extraction, finally dimensionality reduction as well as classification. From the empirical outcomes, it has been found that the introduced model performed better and faster in comparison to other models. Though results were better, accuracy needed further improvement. For this purpose, the paper (Turkoglu, 2021) proposed an MKs-ELM-DNN (Multiple Kernels-Enhanced Learning Machine-Deep Neural Network) to classify COVID-19 affected area from CT images which rely on deep learning (DL) and enables the system to accomplish more accuracy. Proposed model comprise of three major stages like data augmentation, feature extraction and finally classification. This study exhibited that the introduced system could efficiently subsidise to the detection of this disease. The study aimed to develop a mobile based web platform that rely on the proposed approach. Various studies analysed the existing methods for predicting COVID-19 that rely on ML assessment and data mining (Albahri et al., 2020). Three ML methods have been employed to a dataset named MERS-CoV for determining the correct classification

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Modelling of IDBN with LSNN based optimal feature selection for the prediction of CKD using real time data

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Abstract

Chronic Kidney Disease (CKD) is a critical condition induced by either reduced kidney functions or kidney pathology. The early diagnosis of CKD is considered significant to prevent the patient from a serious condition. In literature, various techniques are presented to detect CKD at the initial stage, but providing a better performance is still challenging, which causes the patients may not identify their diseases at the starting stage. Some of the noticeable drawbacks of existing techniques are higher-dimensional attributes, computational issues and high execution time. In order to overcome these concerns, this proposed paper focuses on designing an improved deep learning approach with optimal feature selection for the effective detection of CKD. The first stage of the proposed method is preprocessing, which performs digitalization, normalization and data filling. Then, a novel Local Search with Nearest Neighbour (LSNN) optimization is introduced for selecting effective features. Finally, the Improved Deep Belief Network (IDBN) is built using the obtained optimal features. The proposed CKD prediction model is validated using Benchmark and Real time datasets. The performance of the model is analyzed by considering five different cases. Each case has a different combination of attributes, and the performances are compared with conventional CKD prediction techniques like Deep Belief Network (DBN), Deep Neural Network (DNN), Multi-layer Perceptron (MLP), and Support Vector Machine (SVM). Both the prediction strategies provided better performance while using the optimally selected 15 features by LSNN. The proposed IDBN provided a maximum of 98% and 97% of accuracy, 0.01 and 0.02 of error value, 99% and 98% of precision, 98% and 99% of recall for benchmark and real time datasets, respectively. Ultimately the proposed IDBM with LSNN based techniques provided better performance for the prediction of CKD.

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Data availability

Not applicable.

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Data redundancy removal using K-MAD based self-tuning spectral clustering and CKD prediction using ML techniques

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Abstract

Chronic kidney disease (CKD) is one of the most complicated disorders, and it is found by gradual degradation of kidney function. People suffer to die several long-term complications like high blood pressure and heart and bone diseases. Hence, various automated early detection methods were developed to identify the disease at its early stage. Still, in numerous existing methods, the prediction level is inaccurate, so patients with low signs of CKD are found severe and undergo CKD treatments. This is because of the dataset's length and redundancy. To overcome these concerns, this paper focuses on increasing the prediction accuracy of CKD, utilizing an effective data mining approach. Therefore, to minimize the redundancy problem and high data dimension, this paper implemented the K-mad based self-tuning spectral clustering (KSSC) technique. The algorithm of self-tuning was designed to arrange data according to requirements and eliminate unnecessary data, resulting in a smaller data dimension. Various machine learning (ML) algorithms were used to verify the dimension-reduced data of Random Forest (RF), Artificial Neural Network (ANN), Deep Neural Network (DNN), K-Nearest Neighbor (KNN), and Support Vector Machine (SVM) classifier. Then the proposed technique was tested using various performance metrics in a Python environment, such as precision, f1_score, sensitivity, accuracy, specificity, and recall. The comparison study reveals that KNN and SVM deliver superior CKD predictions using a clustering method and attained 96% accuracy. Thus, the proposed KSSC shows essential information from healthcare centres and medical patient data, which is most helpful in assisting physicians in enhancing the accuracy of CKD diagnosis prior to a severe condition.

Keywords**:** *ANN; chronic kidney disease; DNN; KNN; machine learning algorithm; redundant self-tuning spectral clustering; SVM.*

1. Introduction

Chronic kidney disease is a disorder that occurs when a patient's kidney function deteriorates. Chronic kidney disease makes it harder to remove excess fluids from the body's bloodstream (Xiao et al., 2019). The last stage of kidney disease is renal disease, resulting in critically high amounts of fluid, electrolytes, and wastes in the body (Wang, Chakraborty, & Chakraborty, 2020). Weak bones, anaemia, nerve damage and high blood pressure are possible side effects. In order to avoid these concerns, the modern medical system developed various health monitoring systems to detect diseases at the initial

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ORIGINAL RESEARCH

A dual fuzzy with hybrid deep learning architecture based on CNN with hybrid metaheuristic algorithm for effective segmentation and classification

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Abstract Tuberculosis (TB) is becoming a deadly disease that causes tremendous death throughout the world. Early diagnosis of TB is a crucial task that helps to prevent the disease from severity. Therefore, several types of research are being held worldwide for providing a highly effective automatic diagnosing system. Hence, the proposed model has emerged where segmentation, feature extraction, and classification are the three significant parts. In segmentation, Fuzzy Kapur's Entropy-based Multi-Level Segmentation with Quantum Bat Optimization Algorithm (QBO_KMLBS) is utilized. Secondly, a Deep Inception with Fuzzy based Support Vector Machine with Sine Cosine Optimization algorithm i.e., named SCHHO-IVFSVM is utilized for feature extraction and classification. In this work, the fuzzy logic has been applied to both the segmentation and classification stages in order to improve the performance model of the TB diagnosis. The implementation is done in the MATLAB 2020 platform and the performance is evaluated in terms of performance matrices with four different categories such as single, overlapped, single and overlapped, and overall. These categorizations are evaluated with different datasets and techniques. Finally, the proposed method has shown 96.89% accuracy for the conventional sputum smear microscopy database (CSM_DS) dataset.

Keywords Fuzzy · Kapur's entropy · Support vector machine · Quantum bat optimization · InceptionV4 · Multilevel segmentation

1 Introduction

TB is commonly named Mycobacterium tuberculosis (MTB), which causes massive death due to a lack of diagnostic tools [1, 2]. As per the report of the World Health Organization (WHO), every year, 480,000 people have lost their life due to not diagnosing in its early stage [3, 4]. The MTB is rod-shaped bacteria with an approximate length of 10 mm from 1 mm. TB can be categorized into two forms: active TB and inactive TB or latent, in which active TB may spread and it causes severe impacts. On the other hand, latent determines the non-dangerous stage, and in some cases, it may transform into active TB [5]. TB bacillus is divided into two categories based on medication sensitivity: drug-sensitive TB (DS-TB) and drug-resistance TB (DR-TB) [6].The cluster test is to diagnose the TB, but it cannot provide the immediate results from a massive TB. Similar to the cluster test, the molecular diagnostics is not fit for population screening applications. A similar TB diagnostic procedure is chest radiography-based diagnostic [7]. Specifically, the sputum smear microscopy is a widely applied techniques whereas Ziehl–Neelsen (ZN) staining is a highly considerable technique [5]. Despite several existing techniques available for TB diagnosis, the ZN sputum smear image-based diagnosis is highly recommended by WHO [8].

Segmentation divides an image into discrete regions, each containing a pixel with identical properties. The regions have a strong relationship to the features of interest, making them useful for further research and interpretation [9]. In research related to the ZN-based TB bacilli segmentation

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EVALUATION AND CLASSIFICATION OF COV-19 WITH ATTENTION BOTTLENECK RESIDUAL NETWORK

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ABSTRACT

Coronavirus disease (COVID-19), quickly distributing across the country, and earlier detection of COVID-19 was serious for providing effective healthcare to sufferers as well as protecting the uninfected population. As deep learning methods have shown potential in particular medical activities, they may be able to provide COVID-19 responses from medical photos of patients. The purpose of this research is to utilize DL with image processing to foretell who will contract COVID-19. The purpose of this research is to use X-ray photographs, ultrasound pictures, as well as CT scan photos to categorize COVID-19 sufferers as either abnormal or normal using the recently announced attention bottleneck residual network (AB-ResNet). It aims to separate the abnormally contaminated region from abnormal images using the recommended edge-based graph cut segmentation (E-GCS) method to locate the diseased area. The results examine how well the proposed method works in identifying COVID-19 with a high degree of accuracy (99%). We conclude that COVID-19 automatic identification may be improved with deep transfer learning as well as bottleneck feature extraction, resulting in better and more consistent overall performance.

Keywords: Attention bottleneck residual network; COVID-19 detection; deep learning; image processing, lung CT analysis.

INTRODUCTION

The World Health Organization (WHO) declared the SARS-CoV-2 virus-derived disease COVID-19 (COV-19) a global health emergency on March 11, 2020. More than 3 million individuals have lost their lives due to COVID-19, making it the ninth leading cause of death worldwide [1]. SARS-CoV-2 ribonucleic acid (RNA) in swab samples from the upper airways is detected using a polymerase chain reaction combined with reverse transcriptase (RT-PCR) [2]. Only people with evident illnesses are examined, and accurate findings take several hours to get [12], and many nations lack the resource's purpose of providing comprehensive testing. As a result, faster and more reliable screening procedures, such as imaging-based methods, are needed to complement or completely replace the PCR test. They may be employed in combination with RT-PCR to enhance diagnostic certainty or even instead of it in some places where RT-PCR is not commonly available[14]. In some circumstances, individuals by a

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Survey on crop pest detection using deep learning and machine learning approaches

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Abstract
The most important elements in the realm of commercial food standards are effective pest management and control. Crop pests can make a huge impact on crop quality and productivity. It is critical to seek and develop new tools to diagnose the pest disease before it caused major crop loss. Crop abnormalities, pests, or dietetic deficiencies have usually been diagnosed by human experts. Anyhow, this was both costly and time-consuming. To resolve these issues, some approaches for crop pest detection have to be focused on. A clear overview of recent research in the area of crop pests and pathogens identification using techniques in Machine Learning Techniques like Random Forest (RF), Support Vector Machine (SVM), and Decision Tree (DT), Naive Bayes (NB), and also some Deep Learning methods like Convolutional Neural Network (CNN), Long Short-Term Memory (LSTM), Deep convolutional neural network (DCNN), Deep Belief Network (DBN) was presented. The outlined strategy increases crop productivity while providing the highest level of crop protection. By offering the greatest amount of crop protection, the described strategy improves crop efficiency. This survey provides knowledge of some modern approaches for keeping an eye on agricultural fields for pest detection and contains a definition of plant pest detection to identify and categorise citrus plant pests, rice, and cotton as well as numerous ways of detecting them. These methods enable automatic monitoring of vast domains, therefore lowering human error and effort.

Keywords Agriculture · Pest identification for citrus · Identification of rice pests · Pesticide identification for cotton · Deep learning · Machine learning

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ABSTRACT

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OPTIMAL HYBRID ATOM CROW OPTIMIZATION IN IMPROVED DEEP BELIEF NETWORK EARLY PREDICTION OF CHRONIC KIDNEY DISEASE

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ABSTRACT

Chronic kidney disease is commonly impacting the structure of kidney and operation. In order to reduce morbidity and mortality rate, early stages of CKD prediction are very important. Discovering the features can lead to better performance and analysis of the medical data for the patients that are in the concern of the problem in deep learning approaches. To solve this issues, Deep Belief Network (DBN) improved by using Hybrid Atom Crow (HAC) Optimization. It performs the optimal feature selection through HAC and promotes the classification approach of DBN to predict the CKD in early stage. For the considered dataset the proposed has produced better prediction performance in terms of accuracy, Accuracy, Precision, Specificity, error, Sensitivity, F1 score than existing approaches.

Keywords: *Deep Belief Network (DBN), chronic kidney disease (CKD), Hybrid Atom Crow (HAC) optimization, Feature Selection*

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COVID-19 CLASSIFICATION WITH MEDICAL IMAGE USING AB-RESNET

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ABSTRACT

In recent times, Coronavirus disease 2019 (COVID-19) has caused death in many parts of the world. Thus, there would be a need to detect this disease to prevent its further spread. Based on deep learning (DL) and image processing, the study aims to predict COVID-19 infection.Through the introduction of an Attention residential bottle neck neural network (AB-ResNet)model, this study analyzing the normalized intensities of the X-ray images each deep neural network model can detect whether the patient is a positive or negative COVID-19 case. Edge-based graph cut segmentation (E-GCS) is also used to segment the abnormal area from the abnormal photos in order to pinpoint where the disease is present. To assess the efficiency of the introduced system in terms of relevant metrics, a performance and comparative study is carried out. The findings investigate the efficacy of the suggested approach in detecting COVID-19 with high accuracy (97%). We conclude that COVID-19 automatic identification may be improved with deep transfer learning as well as bottleneck feature extraction, resulting in better and more consistent overall performance.

Keywords: AB-ResNet, Covid-19 detection, Chest X-Ray, Deep learning, Image Processing.

I. INTRODUCTION

A highly contagious illness known as the Coronavirus Disease 2019 (COVID-19) has spread globally and poses major risks to people everywhere. Numerous examination techniques have been suggested for the diagnosis of COVID-19 in order to stop the further spread of the disease and treat the infected patients right away[1,2]. In order to reduce the death rate, scientists and medical industries around the world are motivated to find a quick and accurate COVID-19 detection method for early prevention, screening, forecasting, drug development, and contact tracing. This will buy more time for the scientific community and medical professionals to move on to the next stage of diagnosis. The COVID-19 infection should be diagnosed by reverse transcription polymerase chain reaction (RT-PCR). This procedure is the most commonly utilized strategy for testing for COVID-19 identification however it is a manual, confused, relentless and time-consuming process with a positivity rate of only 63%[3] COVID19 can be diagnosed using clinical symptoms and epidemiology, as well as radiographic images (computed tomography (CT) or chest radiographs (CXR)) and positive pathogenic testing. The clinical attributes of serious COVID-19 contamination are that of bronchopneumonia causing fever, hack, dyspnea, and respiratory failure with acute respiratory distress syndrome (ARDS)[4-7]. Even though typical CXR images may assist in early detection of pneumonia, pictures of different virus cases are comparably useful. Overlap with other infectious and inflammatory lung diseases. Enhance contrast and intensity by using the zoom settings and the augmentation technique for each image in the dataset. X-ray pictures and DL models have recently been used in studies on the finding of COVID-19. On a dataset of 100 pictures, Narin et al. [10] reported 98 % testing accuracy using the ResNet50 model (50 normal and 50 COV-19). Using chest X-ray images, Sethy and Behera [16] extracted attributes from different pre-trained CNN architectures. With 50 samples, the ResNet50 classifier achieved the highest precision of 95.38 % when combined with the Support Vector Machine (SVM) classifier (25 normal and 25 COV-19 cases). In a COVIDiagnosis-Net study, Ucar and Korkmaz [20] used SqueezeNet and a Bayesian optimizer to achieve tested precision of 98.3 % in threeclass classification scenarios. Using two DL models (MobileNetV2 and SqueezeNet) and an SVM classifier, Toaçar et al. [19] created an

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COVID - 19 Segmentation with Particle Swam Optimization Technique using X-ray Images

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Abstract: The COVID-19 pandemic has brought about the need for accurate and efficient detection of the virus to curb its spread. One approach is the use of chest X-rays for diagnosis, which requires accurate segmentation of the infected area. In this study, we propose a COVID-19 X-ray segmentation approach using Particle Swarm Optimization (PSO). The methodology involved preprocessing the X-ray images using Discrete Wavelet Transform (DWT), followed by PSO-based segmentation of the infected area. The segmented images were then quantitatively evaluated for accuracy. Our findings demonstrated that the suggested method successfully segmented the affected region, indicating its potential for use in COVID-19 diagnosis. This study contributes to the development of efficient and accurate COVID-19 detection approaches, which are essential in controlling the spread of the virus.

Keywords: *Covid-19,X-ray, Particle Swam Optimization, Discrete Wavelet Transform*

I. INTRODUCTION

This coronavirus 2 that causes COVID-19 is responsible for a severe form of the respiratory illness known as severe acute respiratory syndrome (SARS-CoV-2). A strain of the virus reportedly discovered in Wuhan, China in December 2019, while the following year, a worldwide pandemic had broken out. Droplets expelled during speech, coughing, and sneezing are the most common modes of transmission for COVID-19. Contacting an infected surface and would then contacting your lips, nose, and eyes is another way to transfer the virus. Temperature, cough, exhaustion, body aches, lack of senses such as smell and taste, with breathing difficulties are only a few of the varying degrees of symptoms that can be brought on by this virus. Even if a person shows no indications, they could still infect others with the virus.

In response to the pandemic, scientists and researchers around the world have been working to develop treatments and vaccines for COVID-19. Several vaccinations were produced and seem to be currently in use; these vaccines have really been demonstrated to significantly reduce the likelihood of contracting the virus as well as contracting a serious illness or dying as a result of it. The epidemic, however, persists, but much must be accomplished to slow its development and lessen its damage. The avoidance of both erroneous positives and negatives emphasizes the importance of precise detection. Unwanted worry, social withdrawal, and medical intervention may ensue from a false positive, while false negatives can result in infected individuals unknowingly spreading the virus to others.Timely and accurate detection of COVID-19 can also help inform public health decisions and interventions, such as contact tracing, quarantining, and vaccination campaigns. Overall, early, and accurate detection is a crucial component in the global efforts to control the COVID-19 pandemic.

Segmenting a picture into discrete sections that each represent a unique object or feature is known as image localization. Object recognition, driverless vehicles, as well as diagnostic devices are just a few of the many areas where image segmentation has found value in machine learning. In order to find optimal solutions, particle swarm optimization (PSO) mimics the motion of a swarm moving particles across a search space. Particles' positions and velocities are updated repeatedly according to the optimal solution identified by the swarming as well as the components' own past positions, with each particle representing a potential solution to the issue in question.

To achieve the best possible results when segmenting an image, PSO can be utilized parameters, such as the number of segments or the threshold values used to separate different regions in the image. y optimizing certain parameters, such as threshold values or segmentation criteria, By using PSO, picture segmentation techniques can be made more precise and efficient. PSO can also be used in combination with other techniques, such as neural networks or fuzzy logic, to further improve the performance of segmentation models.

Objective of this study:

1. To analyze the effectiveness of the segmentation methods of COVID-19 images.
2. To contribute to the existing body of knowledge on the use of particle swarm optimization for image segmentation, particularly in the context of COVID-19 detection
3. A Lastly, the dot product of the grayscale picture and the mask data matrix was used to segment the effective region. Chest X-ray images without any background were acquired after the unnecessary components were taken out.

II. LITERATURE REVIEW

Using AI approaches, image-based solutions have reliably and repeatedly produced accurate results. For the past several years, scientists have used deep learning as well as machine learning techniques to study X-ray images for COVID-19. This paper evaluates the multilevel image method as well as Kapur's entropy-based fitness function determined using 2D bar chart of gray scale used in Sanjoy chakraborty et al proposed .'s altered whale optimization algorithm to population thermal reduction for segmenting six benchmark images[1]. Using characteristics extracted from chest X-ray pictures and a discrete social learning particle swarm optimization method (DSLPSO), ChaonanShen et al. suggested an approach to detect that could really detect COVID-19 successfully; they then advocated using support vector machines (SVMs) to classify the pictures. A.A. Harsan et al. provide a Neural Network as well as a particle swarm optimization technique, both of which are useful in modern medical diagnosis and in identifying rough development of covid 19 characteristics. It

FRAMEWORK FOR TIGHTLY COUPLED DATA MINING WITHIN DATA WAREHOUSE:ASSOCIATION RULE MINING

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Abstract:

Data warehousing provides architectures and tools for business executives to systematically organize, understand, and use their data to make strategic decisions. This paper suggests a novel way of acquiring more information from corporate data warehouses without the complications and drawbacks of deployingadditional software systems. One of the most important and successful methods for finding new patternsis association-rule mining. It captures Co-occurrence patterns within data. Unfortunately, most data mining tools are loosely coupled with the data warehouse repository. Most of these tools find association rules only within the fact table of the data warehouse and it is difficult to apply these tools on non- transaction level data. In this paper, a new data-mining framework is given that is tightly coupled withthe data warehousing technology. This new framework has several advantages. First, the data stays at the data warehouse, and thus it reduce management of security and privacy issues. Second, we utilize the query processing power of a data warehouse itself, without using a separate data-mining tool. This framework also allows ad-hoc data mining queries over the whole data warehouse, not just over a transformed portion of the data. Finally this framework expands the association rule mining fromtransaction level data to aggregated data.

1. INTRODUCTION

Data warehouses are used in wide range of applications. The data stored in the data warehouse captures many different aspects of the business process such as controlled manufacturing (demand-based production), distribution, sales, and marketing. This data reflects explicitly and implicitly customer patterns and trends, business practices,strategies. Some information and facts can be gleaned from the data warehouse directly, much more remains hidden as implicit patterns andtrends. One of the most successful methods for finding new patterns is association-rule mining. If an organization wants to employ association rule mining on their data warehouse data, it has to acquire a separate data mining tool [1][2].Some companies are already allowing for tighterintegration of their database and data mining software (e.g. IBM's DB2 Database and Intelligent Miner). Before the analysis is to be performed, the data must be retrieved from the database repository that stores the data warehouse, which is often a time-consuming process [3][6]. In this paper we describe a direct approach to association-rule data mining within data warehouses that utilizes the query processing power of the data warehouse itself without using a separate data mining tool. This

STUDENT FEEDBACK ANALYSIS

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Abstract:

Student Feedback system is used to get the feedback from the students. It generates the reports for the faculty on the basis of given feedback by the students. The staff will be provided with separate usernames and password in order to check the response of the feedback. The total report is visible to the people like chairman and principal. It contains the modules like student, faculty and admin. Admin is the responsible for creating a class and assigning the corresponding faculty to the class. Within short time we can get the performance of the faculty from the student point of view. There are 14 questions to evaluate the status of faculty and each question contains4 options like Excellent, good and Poor.

The online feedback from students from students about the faculties registered in system, such that the physical presence of student is not required for giving the feedback. The whole processof giving feedback can be done online. To develop a feedback student for college student which aims to rate and analyze for college faculty's performance.

To reduce the burden of efforts and burden of keeping and maintaining the records on a manual base, it requires a lot of space and safety to keep up such records. So this online feedback system reduces, the strenuous work of physically examining the feedback pages of each and every student.

I. INTRODUCTION

This type of Student Feedback Systemreduces, the Strenuous work of physically examining the feedback pages of each andevery student.

The system also reduces the burden of efforts and burden of keeping and maintaining the records on a manual base, it requires a lot of space and safety to keep up such records.

UNIVERSITY RESULT ANALYSIS

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Abstract:

The main objective of this project is to provide results to the students in a simple way. The students can get results through the college/institution website through their roll numbers. By analyzing the result status and applying the standard calculation followed by the University the result is displayed with individual scores and the equivalent percentage. The system is intended for the student. The student can login through their login id and password to check their respective results.

University result analysis system has been designed to carry out the mark analysis process in an educational institution. The results of respective departments can be efficiently computed without much of manual involvement. Given the continuous rise in student population, tertiary institutions calculate examination result of students with the help of computer programs. Analysis of students' information and their academic record is as important as examination result computation.

This can be achieved with web development technologies like HTML, CSS, PhP, JavaScript and using the database MySQL. The faculty can view the overall performance of the students in the semester examinations subject wise. The visualization of the overall results according to the subject.

1. INTRODUCTION:

University Result Management System is a web-based application that mainly focuses on providing the results to the student and the faculty. The student checks their respective results using their University registered recognition id's along with their grades and percentage of that particular semester.

The student accessing their results through college site is more convenient and the faculty can easily analyze the pass and failure of a particular subject. The system is divided into three modules- Student, Faculty and Administrator. The student using his roll number can view his results and the faculty using the joining year and the subject name and view the analysis of pass and failure count in the selected subject. The

CYBER ATTACK ON MAPPING SERVICES

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ABSTRACT

Real-time crowdsourced maps such as Waze provide timely updates on traffic, congestion, accidents and points of interest. In this paper, we demonstrate how lack of strong location authentication allows creation of software-based Sybil devices that expose crowdsourced map systems to a variety of security and privacy attacks. Our experiments show that a single Sybil device with limited resources can cause havoc on Waze, reporting false congestion and accidents and automatically rerouting user traffic. More importantly, we describe techniques to generate Sybil devices at scale creating armies of virtual vehicles capable of remotely tracking precise movements for large user populations while avoiding detection. To defend against Sybil devices, we propose a new approach based on co-location edges, authenticated records that attest to the one-time physical co-location of a pair of devices. Over time, co-location edges combine to form large proximity graphs that attest to physical interactions between devices, allowing scalable detection of virtual vehicles. We demonstrate the efficacy of this approach using large-scale simulations, and how they can be used to dramatically reduce the impact of the attacks. We have informed Waze/Google team of our research findings. Currently, we are in active collaboration with Waze team to improve the security and privacy of their system.

1. INTRODUCTION

Crowdsourcing is indispensable as a real-time data gathering tool for today's online services. Take for example map and navigation services. Both Google Maps and Waze use periodic GPS readings from mobile devices to infer traffic speed and congestion levels on streets and highways. Waze, the most popular crowdsourced map service, offers users more ways to actively share information on accidents, police cars, and even contribute content like editing roads, landmarks, and local fuel prices. This and the ability to interact with nearby users made Waze extremely popular, with an estimated 50 million users when it was acquired by Google for a reported $1.3 Billion USD in June 2013. Today, Google integrates selected crowdsourced data (e.g. accidents) from Waze into its own Maps application. Unfortunately, systems that rely on crowdsourced data are inherently vulnerable to mischievous or malicious users

APPLICATION OF SEMANTIC DATABASES IN DRAVIDIAN LANGUAGES

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Abstract

Semantic databases have much importance in the field of artificial intelligence and natural language processing, since those are better lexical resource for semantic calculations in different fields of natural language processing such as information retrieval, word sense disambiguation etc. where lots of researches are going on. Number of such databases were developed and used in English language but not the situation in Dravidian languages where the volume of linguistic research is less compared to the European languages. Even though the group consists of 70 languages, only four major literary languages were recognized by the constitution of India. Malayalam, one such south Dravidian language spoken by 32 million people and is the official language of Kerala. Unfortunately the computational processing of this language has not getting improved due to the lack of efficient semantic resources such as Themesets, Thesaurus, Wordnet etc. in the format suitable to be used in Dravidian languages. Here we are proposing a framework for the development of a semantic database, WordNet in a form suitable to be used in Malayalam language. It also presents the issues and solutions that were faced during the developing process of a WordNet for Malayalam language. This is a small step in the computational process which may speed up the language processing operations. Although the design was inspired by the English WordNet, it is some more different based on the content, since the language structure is different.

Keywords—*Wordnet, Semantic Relations, Dravidian Language, Synset, POS Tagging*

I. INTRODUCTION

People who wish to refer a paper dictionary must not bother about the interrupt of their work and break of their thoughts. The reason is that the standard Dictionaries organize words alphabetically that are spelled alike. Searching a word from a paper dictionary is a tedious work. In this age of computers, however, there is an answer to that complaint. One obvious solution is making use of computers for searching words. In 1985 a group of psychologists and linguists at Princeton University undertook to develop a lexical database. The initial idea was to provide an aid to use in searching dictionaries conceptually, rather than merely alphabetically, it was to be used in close conjunction with an on-line dictionary of the conventional type. As the work proceeded, however, it demanded a more ambitious formulation of its own principles and goals. WordNet is the result [1]. The most obvious difference between WordNet and a standard dictionary is that WordNet divides the lexical information into four

AN EFFICIENT ARCHITECTURE FOR BIG DATA ANALYTICS IN CLOUD ENVIRONMENT

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Abstract

In this age, big data applications are increasingly becoming the main focus of attention because of the enormous increment of data generation and storage that has taken place in the last years. This situation becomes a challenge when huge amounts of data are processed to extract knowledge because the data mining techniques are not adapted to the new space and time requirements. In this work, architecture for processing big data effectively in cloud environment is proposed.

Keywords: big data, data analytics, cloud, preprocessing.

Introduction

Many real-world areas such as telecommunications, health care, pharmaceutical or financial businesses generate massive amounts of data. Gaining critical business insights by querying and analysing such massive amounts of data is becoming the need of the hour and has become a challenge to the standard data mining approaches. Traditionally, data warehouses have been used to manage large amounts of data. However, for the management of massive data that grow day after day, these are not able to provide reasonable response times. Big data can be defined as data that exceeds the processing capacity of conventional systems. The traditional techniques for machine learning and data mining cannot cope with such amounts of data when there is a growing need to run machine learning and data mining algorithms on very large datasets.

The techniques used to deal with big data are focused on obtaining fast, scalable and parallel implementations. To achieve this goal, one of the more popular solutions nowadays is to follow a MapReduce procedure, dividing the original set into subsets which are more easily addressed, and then combining the partial solutions that are obtained. However, this data distribution operation may have a special negative effect in imbalanced datasets. Among the difficulties that can degrade the performance when classifying imbalanced datasets we can encounter the problem of small sample size which is amplified as the original data is distributed in different machines. Furthermore, we may also confront the dataset shift problem which occurs when the training and test set partitions are quite different between them. The constantly increasing speed of data generation is heading us to handling large amounts of data using the traditional machine learning algorithms. This data is obtained from diversified sources and domains, building massive datasets that need to be inspected within reasonable response times. For instance, Facebook and Twitter are examples of applications that generate such amounts of data. In 2010, Facebook had 21 Peta Bytes of internal warehouse data with

WEATHER FORECASTING USING FEED FORWARD NEURAL NETWORKS

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***Abstract* —** The weather conditions such as Minimum temperature, Precipitation Rate, wind speed, Maximum temperature, pressure etc. have many important roles in the field of cultivation. In a country like India, having precise weather forecasting technology will grant farmers a chance for better productivity of crops. Not only farmers, weather information may by a direct route or not affect industrial sector also. Artificial Neural Network, which is a soft computing technique, is a constructive advance towards building an intuitive system which will be suited for processing the nonlinear conditions of weather and make prognosis. The suggested work focuses on initiating such an intuitive system which can forecast weather with least error rate with a more acceptable architecture.

Keywords*—Artificial neural network, weather forecasting, feed forward neural network*

I. INTRODUCTION

The properties that make weather forecasting an ominous task are that it is an uninterrupted, multifaceted, effective, disordered process which uses a lot of data or information. The main goal is to find out that how proficient our recommended soft computing Artificial Neural Network and Back Propagation Algorithm are functioning. This project will help a person to foresee the Minimum Temperature, Maximum Temperature and Pressure of the coming day. This project uses the data of 2021, 2022 and 2013 about Kanyakumari which is collected from Government of India, India Meteorological Department, Regional Meteorological Centre (IMD-RMC). Artificial Neural Network provides a strategy for solving various nonlinear problems that are inconvenient to solve by conventional methods. A connection can be established with Artificial Neural Networks between the inputs and the outputs without providing the internal processing involved. Hence, it can be concluded that the above mentioned characteristics of Artificial Neural Network are appropriate for weather forecasting under inspection.

II. RELATED WORKS

A number of projects and works have been done in the field of forecasting of Temperature and Pressure. This will help us interpret our project in a more effective way; a few of those works are discussed below,

De [1] used Artificial Neural Network for only rainy season to predict the minimum and maximum temperature. It forecasted the temp. Of 3 months i.e., June,

RESEARCH TRENDS IN SOFTWARE ENGINEERING

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Abstract

There has been outstanding growth in the field of Software Engineering. With this emergence, scholars of this area worked hard to produce researches that would really be effective in the progress of Software Engineering. New researchers always face number of problems while initiating any work. Lack of proper guideline and being progressing field, it becomes crucial to provide such detailed and up-to-date information about latest research publication trends in Software Engineering. This research has been conducted in order to address this problem and help the researcher community by providing them guidance. While conducting this study, about 57 research articles published only in 2018 have been considered from renowned Journal of Software Engineering. On the basis of title, abstract, content, contribution form, area, occurrences and citation, those articles are evaluated. Results show that software testing is on hype while comparing with development, maintenance, refactoring and management. MS scholars and PhD students surely get advantage after getting such information. This study is more focused on providing guidelines so that scholar community can emerge in a better way.

Keywords: Software Engineering, software testing, software development, software maintenance, publications

I. INTRODUCTION

In the domain of software engineering (SE), scholars and researchers are striving hard to initiate work exactly on the topic that is timely demand. Students of this field cannot get clear guidance while selecting their research topics, not because they have limited crew that can guide them but main reason is shortage of material[1]. As the area is emerging so inventions and development is on its peak. Dedicated software houses set goal to come up with better solution by providing frameworks that would support in future. Software Engineering comprises many sub fields such as Software designing, development, analysis, testing and maintenance. It is quite unclear for new comers to understand scope of any particular area. SE is knowledge-intensive in its approach, which should not only be explicit but also implicit and detailed. Maintaining and management of such knowledge is gaining popularity and it helps community to learn more about SE [2]. This research presented a basic survey conclusion comprises knowledge about 57 articles of the year 2018.

MS and PhD Students of software engineering face such problems due to many reasons. It can either be lack of awareness related to demanding area or shortage of time while deciding research topics. Exploring each top ranked journal is time consuming

A SURVEY ON LATEST TRENDS AND CHALLENGES IN CYBER FORENSICS

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Abstract

Digital forensics has become increasingly important as an approach to investigate cyber and computer-assisted crime. While many tools exist and much research is being undertaken, many questions exist regarding the future of the domain. Widely published literature analyses the challenges that exist within the domain, from the increasing volume of datato the varying technology platforms and systems that exist. Having gone through various literatures, it is understood that the lack of effective evidence data acquisition methods because of diversity of technology and their deployment platforms and the lack of effective models to process large volume of data to analyze are key limiting factors in this domain. This paper reviews the existing forensic models, defines cyber-crime and focuses on challenges in this domain.

Keywords— Digital Forensic Investigation Models, Crime Profiling, Criminal Profiling, Logging Scheme, Evidence Preservation, Cyber Law.

I. INTRODUCTION

Computer forensics and investigation has become a professional field and it has been around for a while and is rapidly becoming a specialized and accepted investigative technique (in a court of law) with its owntools and legal precedents that validate the discipline. It is basically a computing profession dedicated to "finding the truth" [38]. The domain of computerforensics is not to assign guilt or innocence but rather to find facts in the form of electronic evidence that canbe presented in a coherent way so that others may weigh the evidence and then assign guilt or innocencewhere appropriate. The field of computer forensics will, no doubt, grow rapidly at an exponential rate over the next decade as the development of new and better technologies relating to computer use bring vulnerability of information and the potential of risk and abuse.

Computer forensics is defined as "the application of computer investigation and analysis techniques in the interests of determining potential legal evidence" [25]. Reasons that legal evidence might be sought constitutea wide range of computer crimes or misuses, includingtheft of trade secrets, theft of or destruction of intellectual property and fraud. Computer specialists have many ways of discovering data that reside in a computer system, or of recovering deleted, encrypted,or damaged file information. The data discovered is important in litigation and in solving various computercrimes.

"Cyberspace" was almost a term from science fiction for previous generation which, for all practical purposes, was used to describe the nascent network ofcomputers

SIGNATURE VERIFICATION SYSTEM

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ABSTRACT

Signature verification system is used toidentify the correct signature of the user. Itcan be used in authentication process. Bank cheques and legal transactions require signature verification. Signature- based verification of a large number of documents is a very difficult and time consuming task. Signature can be also done with digital tablets. Automatic signature verification is more accrue and fast.

The area of handwritten signature verification has been broadly researched in the last decades, but remains an open research problem. The objective ofsignature verification systems is to discriminate if a given signature is genuineor a forgery. This has demonstrated to be a challenging task, in particular in the offline, that uses images of scanned signatures, Where the dynamic information about the signing process isnot available

Signature verification is one of the mostaccepted biometric techniques, because a signature is a part of everyday life,although less accurate than biometrictechniques such as using the iris. In this field, much attention has been paid to features, because a verification system should be able to overcome problems suchas forgeries, insensitivity to intra-personal variability and sensitivity to inter-personalvariability. In this paper, we present asimple and efficient approach to signatureverification, based on a discrete cosine transform

I INTRODUCTION

Image processing is any form of signal processing for which the input is an Image, such as a photograph or video frame the output of image processing may be either an Image or a set of characteristics or parameters related to the image image processing usuallyRefers to digital image processing, butoptical and analog image processing also arepossible.

The acquisition of images is referred to asimaging. In simple terms, image processing is a method to convert an image into digital form and perform some operations on it, in order to get an enhanced image or to extra some useful information

A REVIEW ON TELE- MEDICINE USING DATA MINING TECHNIQUES

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ABSTRACT

Telemedicine is the method of providing remote healthcare services using information and communication technologies. With the development of technology and the rising need for healthcare services, telemedicine has gained popularity and usability as a method of delivering medical care. Telemedicine can be utilized for a range of medical procedures, including consultations, diagnoses, treatments, and patient monitoring. Telemedicine has revolutionized the healthcare industry by allowing healthcare professionals to provide remote medical consultationsand services to patients. However, the large amount of data generated by telemedicine applicationshas posed significant challenges in terms of data management and analysis. The enormous amountsof data gathered via telemedicine applications have been shown to be an excellent tool for healthcare professionals, who may employ data mining methods to extract knowledge and insights.This paper reviews various data mining techniques used in telemedicine, including classification, clustering, association rule mining, etc. The benefits and challenges of each technique are also discussed in this paper. Ultimately, telemedicine could benefit from the application of data miningtools to enhance patient care, improve healthcare delivery, and cost reduction.

Keywords: Health care system, Medical services, Data Mining, Telemedicine, Artificial intelligence, Clustering, Classification.

INTRODUCTION

Telemedicine has been utilized as a crucialtool by healthcare stakeholders to promote and improve the timely, equitable, andeffective delivery of health services in view of the increasing emphasis on the quality andsafety of healthcare. According to the WHO, telemedicine is "The provision of healthcare services by all healthcare professionals utilizing information and communicationtechnology for the sharing of reliable information for the diagnosis, treatment, andprevention of disease and injuries, research and evaluation, and ongoing education ofhealthcare professionals, all in the purpose ofenhancing the health of individuals and theircommunities". The supply of

A REVIEW ON INTELLIGENT DEEP LEARNING BASED PRODUCT RECOMMENDATION SYSTEM USING SENTIMENT ANALYSIS

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ABSTRACT

A huge amount of comments and reviews about goods and services are produced every day as a result of the quick expansion of web-based application like website, social network, and blog. In business, government, and research extract and evaluate public mood and perspectives using sentiment analysis in order to acquire business insight and improve decision-making. The study of sentiment analysis methodologies, uses, and related disciplines is presented in this work. Sentiment analysis is a process that involves examining the emotional undertone of a text. It can be applied as a decision-making tool in a variety of fields, such as politics, customer service, healthcare, and more. This review of the literature seeks to give a summary of recent studies on sentiment analysis as a decision-making tool. The review highlights how sentiment analysis may be utilized to learn insightful things in public opinion. It can assist decision-makers in spotting sentimental tendencies and patterns that can aid with strategic planning, product development, and decision-making. Sentiment analysis can also be used to track a brand's reputation, spot new problems, and evaluate the success of advertising campaigns.

Keywords: Sentiment classification, Sentiment Analysis, Information gain, Social media, Opinionmining

1. INTRODUCTION

The branch of research known as sentiment analysis (SA), sometimes known as opinion mining, examines how people feel about many types of entities, including goods, services andorganizations. Other terms and slightly different tasks include subjectivity analysis, emotion analysis, review mining, opinion mining, opinion extraction, andsentiment mining [1]. SA is a computer studyof the attitudes, views, and sentiments that people express towards a subject in written texts.SA helps to achieve a number of objectives, including determining public sentiment, political event intelligence, market intelligence, consumer pride levels, and the prediction of movie sales [2].

A STUDY OF DETECTION OF EARLY DIABETIC RETINOPATHY USING DEEPLEARNING CONCEPTS

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Abstract

Diabetic retinopathy is a complication of diabetes that affects the eyes. It is a progressive disease that occurs in stages, each of which is characterized by specific changes in the retina. It is caused by damage to the blood vessels in the retina, which is the light-sensitive part of theeye that sends visual signals to the brain. People with diabetes, especially those with poorly controlled blood sugar levels, are at risk of developing diabetic retinopathy. Over time, high blood sugar levels can cause the blood vessels in the retina to become damaged or blocked. This can lead to swelling, bleeding, and the growth of abnormal blood vessels in the retina, which can cause vision loss or even blindness. Symptoms of diabetic retinopathy may includeblurry vision, floaters (spots in the field of vision), and difficulty seeing at night. However, many people with diabetic retinopathy may not have any symptoms at all in the early stages of the condition. Treatment for diabetic retinopathy may involve controlling blood sugar levels, blood pressure, and cholesterol levels, as well as laser treatment, injections, or surgery in moreadvanced cases. Regular eye exams are also recommended for people with diabetes to detect any early signs of diabetic retinopathy and prevent vision loss.

Keywords- Diabetic Retinopathy, Deep Learning, Image processing, Convolution neural network

Introduction

Deep learning techniques have been used todevelop algorithms for the detection and diagnosis of diabetic retinopathy from retinal images. These techniques use artificial neural networks that can learn from large datasets of retinal images toidentify features that are indicative of diabetic retinopathy. One common deep- learning technique used for diabetic retinopathy is convolutional neural networks (CNNs). CNNs are designed to recognize patterns in visual data, such as images, and have been shown to be highly effective in analyzing retinal images fordiabetic retinopathy. In recent years, several studies have reported high accuracy rates for deep learning algorithms in detecting diabetic retinopathy from retinal images.

HIGHLY ACCURATE FEATURE SELECTION AND DATA CLASSIFICATION USING EXTREME LEARNING MACHINE

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ABSTRACT

Feature selection is a dimension reduction strategy that removes unrelated and superfluous features in order to improve classification accuracy. Present a new feature selection strategy to Extreme Learning Machines in this research (ELM). The purpose of this model is to look into the accuracy of feature selection methods and the influence of applying priority with features. It is not the goal here to simply predict class labels with unseen samples; rather, it is to understand what lead to the results, i.e. the genes involved in a certain disease, which is different from a traditional classification work. This is extremely crucial for biologists who are trying to figure out what is causing the illness to begin with. With these classifier, experimental findings show that the proposed model can obtain a higher accuracy rate. Furthermore, finding the best subset of features takes substantially less time.

Keywords: Features selection, Extreme Learning Machines, classification, distancer, light intensity

1. INTRODUCTION

Advances in information technology have enabled applications such as text mining and bioinformatics to generate increasingly large datasets, which are both in terms of number of instances and in terms of number of predictors. When dealing with high- dimensional data prediction, one of the most major issues is that the number of predictors exceeds the number of observations, which is one of the most serious concerns. Occasionally, certain predictors may be redundant, irrelevant, or damaging to model training, and these predictors are removed from the model. When it comes to model training, relevant predictors do not make a difference; on the other hand, redundant predictors supply information that is already represented by other predictors. Model training is not aided by the inclusion of relevant predictors [1].

Given that live in an era of big data, in which huge volumes of data are collected every day, determining which of these data are genuinely essential is a challenging decision. It is true that inrecent years, the number of processes that collect hundreds, if not thousands, of characteristics has increased substantially. In this context, a feature is

EXPLORING CLASSIFICATION TECHNIQUES IN DATA MINING: ACOMPREHENSIVE REVIEW

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Abstract

Classification is a fundamental task in data mining, which involves categorizing a set of data instances into predefined classes or categories. Classification techniques are useful tohandle large amount of data. The goal of classification is to accurately predict the target class for each case in the data. Classification models predict categorical class labels. Constructing fast and accurate classifiers for large data sets is an important task in data mining and knowledge discovery. This paper provides an overview of various data miningclassification techniques like Decision Tree, K-Nearest Neighbor, Support Vector Machines, Naive Bayesian Classifiers, and Neural Networks. The paper also discusses the factors that influences the choice of classification techniques, such as the nature of the data,the classification task, and the desired level of interpretability. Additionally, the paper highlights the importance of evaluating the performance of classification techniques usingvarious metrices, such as accuracy, precision, recall, F1 score and ROC. Classification techniques are powerful tools for data mining, and they have applications in various fieldssuch as finance, healthcare, and marketing. With the increasing availability of large datasets, the demand for effective and efficient classification techniques is expected to continue to grow.

Keywords: Classification, Data Mining, Decision Trees, K-Nearest Neighbor, Support Vector Machines, Naïve Bayesian Classifier, Random Forest, Neural Networks, Performance evaluation

Introduction

Data mining is the study of collecting, cleaning, processing, analyzing, and gaining useful insights from data. A wide variation exists in terms of the problem domains, applications, formulations, and data representations that are encountered in real applications. Therefore, "data mining"is a broad umbrella term that is used to describe these different aspects of data processing [1]. Data classification is a two-step process, consisting of a learning step (where a classification model is constructed) and a classification step (where the model is used to predict class labels for given data), In the first step the classification algorithms build the classifier. The classifier is built from the training set made up of database tuples andtheir associated class labels. Each tuple

ARDUINO – BASED ULTRASONIC RADAR SYSTEM VIA IOT

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Abstract

RADAR is an object-detection system which uses radio waves to determine the range, altitude, direction andspeed of an object. Radar systems have variety of sizes and that have different performance specifications. Some radar systems are used for air- traffic control at airports, and others are used for long range surveillance and early-warning systems. Aradar system is the heart of missile guidance system. Radar was secretly developed by several nations before and during World War II. The term RADAR itself, not the actual development, was coined in 1940 by the United StatesNavy as an acronym for Radio Detection and Ranging.

Keywords- Sonar, Radar, Ultrasonic, Arduino, Processing, Servo, 180 degreerange, Obstacle, IOT, Cloud storage

I. INTRODUCTION

The arduino radar object is to achieve a radar system prototype based on an arduino board that detects stationary and moving objects. The word radar means radio detection and ranging that uses microwaves to determine the range, altitude, direction, and speed of an object within about a 100-mile radius of their location. The radar antenna transmits radio waves ormicro waves that bounce off any object in their path. Due to this we can easilydetermine the object in the radar range. The modern uses of radar are highlydiverse including:

- Air Traffic Control
- Radar Astronomy
- Air-defence Systems
- Antimissile Systems
- Marine radars used to locatelandmarks and other ships
- Aircraft anti-collision Systems
- Ocean Surveillance System
- Flight Control Systems
- Guided missile target locatingsystems
- Ground-penetrating radar forgeological observations

A DETAILED REVIEW ON RECEND TRENDS IN MACHINELEARNING AND DEEP LEARNING APPROACHES FOR SIGNATURE VERIFICATION

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ABSTRACT

Because it is a trustworthy and extensively used technique of confirming a person's identification, signature verification is significant. It is frequently utilised in a variety of contexts, including the banking, financial, legal, and government sectors, where authenticity and security are crucial. A digital signature can guarantee the validity and integrity of a document when it is employed in the authentication of electronic documents, where signature verification is also performed. Additionally, the prevention of fraud, forgery, and identity theft is aided by signature verification. These crimes can have detrimental effects on both persons and enterprises. In today's digital age, where identity theft and fraud are on the rise, it offers a trustworthy and effective method of confirming a person's identification. This study of the literature looks at the most recent methods for signature verification, which is essential for confirming the legitimacy of signatures across a range of fields. The paper organizes the methods for signature verification based on deep learning, machine learning, and transfer learning. The evaluation covers the benefits and drawbacks of each strategy as it assesses the effectiveness of various approaches using measures including accuracy, false acceptance rate, and false rejection rate. The study emphasizes the value of signature verification in areas including banking, finance, and law. A summary of recent review publications that had an emphasis on signature verification is also provided in the study. The deep learning-based neural network recently achieved the mostencouraging results in signature verification systems on open datasets, according to this systematic review.

Keywords Signature examination, Deep Learning, Off-line signature verification, Back propagation neural network, False acceptance rate, Transfer Learning

ASSESSMENT OF TEXTURE DESCRIPTORS FOR THE IDENTIFICATION OF INJURY FOR DIABETIC RETINOPATHY

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Abstract

Over the world, diabetes hyperglycemia and diabetic retinopathy are becoming more prevalent. Otolaryngologists currently struggle to differentiate between the various stages of eye disorders. In such stages, microaneurysm is the initial stage. This article describes a brand-new texture-based machine microaneurysm diagnosis method. Participants can see the textural qualities of each image thanks to the textured description, considerably enhancing MA's ability to recognise patterns. The obtained characteristics from the Local Binary Pattern greatly contribute when using a logistic regression classifier to differentiate the tumours.

Keywords: Diabetic retinopathy, Local binary pattern, Microaneurysms, Circular Hough transforms.

1. Introduction

As per International Diabetes Federation (IDF), around 366 million individuals worldwide identified as mellitus in 2011, even with number anticipated to rise to 522 billion in 2030 [1]. Nearly every day, four million people get eye diagnostic tests as a result of the massive increase in mellitus patients across the country. Diabetic retinopathy (DR) is one of the five primary causes of impaired vision, according to epidemiology research. Non-proliferative diabetic retinopathy (NPDR) and progressive diabetic retinopathy (PDR) are really the two primary stages of DR (PDR). The enlargement of microscopic blood arteries designated microaneurysms is a sign of NPDR in its initial phases (MAs).Red blemishes are another name for MAs. The arteries also degenerate, as well as the leaking causes bleeding, which is characterized by little red spots. A next step is tough opac, in which microscopic, blood smear capillaries in the retinal close, resulting in merino speckles known as wet cotton blotches. Circulatory issues and respiratory failure develop in the PDR stage, resulting in artery destruction and retinopathy [2]. In order to aid optometrists in the identification of MAs, automatic identification techniques now are recommended [3]. As a result, human mistakes can be minimized. DR identification is a very well area of

ADAPTIVE OPTIMIZATION MODIFIED SQUIRREL ALGORITHM FOR HEART RATE OBSERVING UTILIZING PHOTOPLETHYSMOGRAPHY IN WITH HEALTHCARE

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ABSTRACT

Motion artefact has a great impact on the ability of portable and wearable biosensing. A new real-time method for precise movement-tolerated heart rate (HR) and pulsation oximeter O_2 saturation (SpO2) collection from vesture photoplethysmographic (PPG) biological sensors is suggested in this study. The suggested methodology eliminates motion artefact caused by a variety of factors such as tissue impact and venous blood adjustments during body motions, resulting in noise-free PPG sound waves for function extraction. In order to estimate the heart rate accurately and reliably utilizing wearable technology, particularly throughout physical activity, noisy signals of motion artefacts must be dealt with. We introduced a technique based on PPG signals, as well as a robust algorithm relies on the Modified Squirrel Algorithm, for accurately predicting HR from PPG signals polluted by extreme motion artefacts. A stable transmission mechanism, operated by a self-adaptive filter, can immediately recollect missing or inaccurate data. Our proposed system advances network dependability, and delivers a quicker processing speediness. The calculated pulse rate from PPGs agreed well with data source from a touch pulse-oximeter. In 87 percent of a epochs, the failure of pulse rate prediction was less than 3% of an individual average pulse rate, and in 98 percent of the epochs, the uncertainty was less than 7%.

Keywords: Heart Rate, Motion Artifact, Oximeter, Photoplethysmographic, Squirrel Algorithm.

INTRODUCTION

PPG stands for non-invasive implicit blood circulation measurement [1]. Pulse oximeters use light-emitting diodes (LEDs) to highlight the skin and corresponding blood vessels in order to calculate changes in the level of reflected energy that is reflected either by photo diodes. The arterial oxygen saturation and heart index can be measured using the strength shift in the PPG signal. When the PPG sign is combined via an electrocardiogram (ECG), estimated values can be derived, including the pulse arrival time (PAT), that is associated with blood pressure [2]. The PPG calculation, on the other hand, is vulnerable to motion artefacts (MA), which are unavoidable throughout physical activities. Motion induced artefacts can significantly degrade the quality of a PPG signal, necessitating the use of statistical methods to eliminate the MA before calculating the heart rate. Different methods to cleaning PPG signals from MA

USE OF DEEP LEARNING METHODS FOR WEEDIDENTIFICATION

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Abstract: Weeds are to blame for agricultural losses in recent years. Farmers must evenly spray herbicides throughout the entire field to combat this. However, the application of herbicides has an impact on the environment. In the agricultural sector, weed detection and categorization are ofcritical technical and financial relevance. Deep learning algorithms are employed to eradicateand stop the growth of particular weeds. The CNN model's fully connected layers perform the classification. The major goal is to use deep learning techniques to increase the accuracy of weeddetection.

Key Words: Weed detection, Deep learning, Convolution neural network, Agriculture.

1. INTRODUCTION

The need for food rises along with the global population. 7.68 percent of global agricultural output comes from India. Theinability of Indian agriculture to utilise the proper quantity of pesticides to eradicate weeds is one of their issues. Because they contain enough vitamins, minerals, and antioxidants, crops are regarded as one of the most nutrient-dense foods in the entire globe. Crops are vulnerable to pest and disease because weeds compete with them for water, sunlight, and nutrients. Various machine vision approaches to weed detection have been the subject of extensive investigation. Support Vector Machine(SVM) is a machine vision approach. One ofthe most recent and extensively researched technologies currently is deep learning. It is a tool for creating intelligent systems thatare as similar to the human brain as is practical.

Effective weed control will boost agricultural yield and food supply because weeds are one of the most harmful obstacles to crop production. Vegetables grown organically call for non-chemical weed management. So, the primary method of weed management is by hand. The creation of a visual tool for distinguishing between crops and weeds is a crucial and essential step towards ecologically viable weed management as labour costs rise.

2. LITERATURE SURVEY

Site-specific weed management (SSWM) is used in this work. The component of precision agriculture (PA) known as site-specific weed management seeks to

PREDICTING DIABETES MELLITUS ONSET USING DEEP NEURAL NETWORKS

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ABSTRACT

Large amounts of sensitive data are present in the healthcare sector, and these data must be treated with extreme care. One of the many deadly diseases that are on the rise in the globe is diabetes mellitus (DM). Medical experts need a trustworthy method of predicting Diabetes. For analysing the data from many angles and synthesising it into meaningful knowledge, various machine learning methods are helpful. Huge volumes of information are accessible and available, and if specific methods for data mining are used on them, they can provide us important insights. With training its properties in a five-fold as well as ten-fold cross validation way, we suggest a method for determining the existence of diabetes utilising deep neural networks. The database of the UCI machine learning repository is employed to obtain the Pima Indian Diabetes (PID) data set. With a prediction accuracy of 98.21% and an F1 score of 99 for five-fold cross-validation, the results demonstrate that deep learning approach designed a favourable model for diabetes prognosis. Furthermore, ten-fold cross-validation produces accuracy, sensitivity, and specificity results of 97.34%, 97.91%, and 96.54%, respectively.

Keywords – Diabetes mellitus, deep learning, accuracy, PIMA, cross validation, confusion matrix

1. INTRODUCTION

In diabetes, the body's capacity for metabolising blood sugar is affected. It is regularly and disturbingly increasing in frequency. Diabetes-related complications can cause damage to several vital bodily organs if left untreated. Over a million lower appendage elimination each year and visual impairment and debilitation in adults in developed countries are primarily caused by diabetes [6]. The prevalence of Type 2 diabetes (T2DM) is between 90 and 95 percent globally [10]. Every day, more people are being diagnosed with diabetes. Diabetes is one of the top causes of death, which affects many people each year invisibly. By 2035, there will be a total of 592 million individuals worldwide who have diabetes, about twice as many as there are today [4]. Blood glucose levels rise with diabetes, and excessive plasma glucose damages the small blood vessels in the kidneys, heart, neurological system, and eyes [5].

CLASSIFICATION OF COVID – 19 WITH ULTRASOUND IMAGES USING ATTENTION BOTTLENECK RESIDUAL NEURAL NETWORK

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Abstract:

The coronavirus disease 2019 (COVID-19) has recently been responsible for several global fatalities. Therefore, it was necessary to identify this illness in order to isolate the patients and stop the disease from spreading. The goal of the project is to use deep learning (DL) and image processing to predict COVID-19-infected patients. The goal of the project is to use ultrasonography medical images to classify both normal and pathological COVID-19 cases using the newly developed attention bottleneck residual network (AB-ResNet). The study benefits in several ways since it uses DL. It is able to speed up the training procedure for deep networks. Additionally, it improves the network's depth, resulting in minimal parameters, minimizing the effects of the vanishing gradient problem, and achieving effective network performance in terms of accuracy, particularly for image classification. The findings examine the effectiveness of the suggested system's high (86.5%) accuracy in COVID-19 detection.

Introduction:

SARS-CoV-2, the virus responsible for the current Covid-19 pandemic, was first discovered in China and quickly started spreading over Europe in February 2020. It spread quickly over the world and continues to pose a threat to the global health systems. It emerges after a protracted incubation period and has a high transmission rate[1], making the creation of quick and affordable diagnostic techniques to identify infected individuals necessary.

Additionally, Covid-19 can result in bilateral multifocal interstitial pneumonia, which has the potential to quickly develop into acute respiratory distress syndrome (ARDS), a grave complication that has been linked to hundreds of thousands of fatalities worldwide. By LUS in the so-called "white lung pattern" and by bilateral substellar subpleural consolidations, subjects infected with SARSCoV-2 may exhibit an evolving clinical picture ranging from focal to multifocal interstitial pulmonary involvement[2, 3]. Because patient care must be provided in accordance with the highest healthcare standards in addition to stringent pandemic protocols that must be followed for the safety of medical personnel, the high contagion rate adds an additional

Annexure 5.2

Lab manual

Noorul Islam Centre for Higher Education, Kumaracoil

Department of Computer Applications

Academic Year 2025-2026

Lab Manual

Subject Name	: Advanced Java Programming Laboratory
Subject Code	: CA4575
Class	: S3 MCA
Faculty Name	: Ms.Juliet Jemila C
Authorized By	: Dr. J. R. Jeba

Staff-in-charge
(Ms. Juliet Jemila C)

HOD

Noorul Islam Centre for Higher Education

Department of Computer Applications

Lab Manual

Subject Code & Name : CA4575 – Advanced Java Programming Laboratory

Semester & Class : S3 MCA

Faculty Name : Juliet Jemila C

List of Experiments

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2	Program using interfaces and inheritance.	
3	Creation of user defined packages.	
4	Creation of program using threads and Exception handling.	
5	Reading and writing text files.	
6	Create an applet for calculator application.	
7	Program using JDBC.	
8	Program to build simple Client Server application using RMI.	
9	Program to Implementing Events.	
10	Program using Servlet.	
11	Prepare an Employee pay slip using JSP.	
12	Develop a program for calculating the percentage of the marks of student using Swing.	
13	Creation and Usage of Java Beans	

1.Simple Programs using overloading and Constructor.

Aim:

To write a Java program that demonstrates constructor overloading and method overloading by calculating the area of different shapes.

Algorithm:

Step 1: Start the program.
Step 2: Create a class AreaCalculator.
Step 3: Define overloaded constructors to initialize different shapes:
– Constructor for circle (radius).
– Constructor for rectangle (length, breadth).
Step 4: Define overloaded methods area() to calculate area of:
– Circle.
– Square (by passing side as parameter).
– Triangle (by passing base and height as parameters).
Step 5: Define a method areaRectangle() to calculate area of rectangle.
Step 6: Create main method to create objects using different constructors and call overloaded area methods.
Step 7: Display the calculated areas.
Step 8: End the program.

Program:

```
class AreaCalculator
{
   double radius, length, breadth;
   AreaCalculator(double r)
   {
      radius = r;
   }
   AreaCalculator(double l, double b)
   {
      length = l;
      breadth = b;
   }
   void area()
   {
      double result = 3.14 * radius * radius;
      System.out.println("Area of Circle: " + result);
   }
   void area(double side)
   {
      double result = side * side;
      System.out.println("Area of Square: " + result);
   }
   void area(double base, double height)
   {
```

```
        double result = 0.5 * base * height;
        System.out.println("Area of Triangle: " + result);
    }
    void areaRectangle()
    {
        double result = length * breadth;
        System.out.println("Area of Rectangle: " + result);
    }
    public static void main(String[] args)
    {
        AreaCalculator circle = new AreaCalculator(5);
        AreaCalculator rectangle = new AreaCalculator(4, 6);
        circle.area();
        rectangle.areaRectangle();
        circle.area(4);
        rectangle.area(3, 7);
    }
}
```

Output:

```
D:\>cd D:\software\jdk1.5.0\bin

D:\software\jdk1.5.0\bin>javac AreaCalculator.java

D:\software\jdk1.5.0\bin>java AreaCalculator
Area of Circle: 78.5
Area of Rectangle: 24.0
Area of Square: 16.0
Area of Triangle: 10.5

D:\software\jdk1.5.0\bin>
```

Result:

The program was executed successfully, and the areas of different shapes were calculated using constructor overloading and method overloading.

2.Program using interfaces and inheritance.

Aim:

To write a Java program that demonstrates interfaces and inheritance by calculating area and perimeter of different shapes.

Algorithm:

Step 1: Start the program.
Step 2: Define an interface Shape with methods area() and perimeter().
Step 3: Create a class Rectangle that implements Shape to calculate area and perimeter of a rectangle.
Step 4: Create a class Square that extends Rectangle and overrides area() and perimeter() methods to calculate for square.
Step 5: Create a class Circle that implements Shape to calculate area and perimeter of circle.
Step 6: In the main method, create objects of Rectangle, Square, and Circle and call their area() and perimeter() methods.
Step 7: Display the results.
Step 8: End the program.

Program:

```
interface Shape
{
   void area();
   void perimeter();
}
class Rectangle implements Shape
{
   double length, breadth;
   Rectangle(double l, double b)
   {
      length = l;
      breadth = b;
   }
   public void area()
   {
      double result = length * breadth;
      System.out.println("Area of Rectangle: " + result);
   }
   public void perimeter()
   {
      double result = 2 * (length + breadth);
      System.out.println("Perimeter of Rectangle: " + result);
   }
}
class Square extends Rectangle
```

```
{
   double side;
   Square(double s)
   {
      super(s, s);
      side = s;
   }
   public void area()
   {
      double result = side * side;
      System.out.println("Area of Square: " + result);
   }
   public void perimeter()
   {
      double result = 4 * side;
      System.out.println("Perimeter of Square: " + result);
   }
}
class Circle implements Shape
{
   double radius;
   Circle(double r)
   {
      radius = r;
   }
   public void area()
   {
      double result = 3.14 * radius * radius;
      System.out.println("Area of Circle: " + result);
   }
   public void perimeter()
   {
      double result = 2 * 3.14 * radius;
      System.out.println("Perimeter of Circle: " + result);
   }
}
class Main
{
   public static void main(String[] args)
   {
      Rectangle r = new Rectangle(4, 5);
      r.area();
      r.perimeter();
      Square s = new Square(6);
      s.area();
      s.perimeter();
      Circle c = new Circle(3);
      c.area();
      c.perimeter();
   }
```

}

Output:

```
C:\software\jdk1.5.0\bin>javac Main.java

C:\software\jdk1.5.0\bin>java Main
Area of Rectangle: 20.0
Perimeter of Rectangle: 18.0
Area of Square: 36.0
Perimeter of Square: 24.0
Area of Circle: 28.259999999999998
Perimeter of Circle: 18.84
```

Result:

The program was executed successfully, and the area and perimeter of rectangle, square, and circle were calculated using interfaces and inheritance.

3.Creation of user defined packages.

Aim:

To write a Java program that demonstrates user-defined package with inheritance to calculate employee salaries.

Algorithm:

Step 1: Start the program.
Step 2: Create a package employeeinfo.
Step 3: Inside it, define a base class Employee with name and basic salary.
Step 4: Define a derived class Manager that extends Employee and calculates total salary with incentives.
Step 5: Create a Main class with main method to create objects and display details.
Step 6: End the program.

Program:

```
package employeeinfo;
class Employee
{
   String name;
   double basic;
   Employee(String n, double b)
   {
      name = n;
      basic = b;
   }
   void display()
   {
      System.out.println("Name: " + name);
      System.out.println("Basic Salary: " + basic);
   }
}
class Manager extends Employee
{
   double incentive;
   Manager(String n, double b, double i)
   {
      super(n, b);
      incentive = i;
   }
   void display()
   {
      double total = basic + incentive;
      System.out.println("Name: " + name);
      System.out.println("Basic Salary: " + basic);
      System.out.println("Incentive: " + incentive);
      System.out.println("Total Salary: " + total);
```

```
    }
}
class Main
{
    public static void main(String[] args)
    {
        Employee e = new Employee("John", 25000);
        e.display();
        Manager m = new Manager("Alice", 40000, 10000);
        m.display();
    }
}
```

Output:

```
C:\software\jdk1.5.0\bin>javac employeeinfo/Main.java

C:\software\jdk1.5.0\bin>java employeeinfo/Main
Name: John
Basic Salary: 25000.0
Name: Alice
Basic Salary: 40000.0
Incentive: 10000.0
Total Salary: 50000.0
```

Result:

The program was executed successfully, and user-defined package with inheritance was implemented to calculate employee salaries.

4.Creation of program using threads and Exception handling.

Aim:

To write a Java program that demonstrates the creation of threads and exception handling.

Algorithm:

Step 1: Start the program.
Step 2: Create a class MyThread extending Thread with run() method to print numbers.
Step 3: In the run() method, implement exception handling using try-catch block for InterruptedException.
Step 4: In the main method, create an object of MyThread and start the thread.
Step 5: Also, implement exception handling in main() for division by zero using try-catch.
Step 6: Display appropriate messages.
Step 7: End the program.

Program:

```
class MyThread extends Thread
{
   public void run()
   {
      try
      {
         for(int i=1;i<=5;i++)
         {
            System.out.println("Thread: " + i);
            Thread.sleep(500);
         }
      }
      catch(InterruptedException e)
      {
         System.out.println("Thread interrupted");
      }
   }
}
class Main
{
   public static void main(String[] args)
   {
      MyThread t = new MyThread();
      t.start();
      try
      {
         int a = 10, b = 0;
```

```
            int c = a / b;
            System.out.println("Result: " + c);
        }
        catch(ArithmeticException e)
        {
            System.out.println("Exception caught: Division by zero");
        }
        System.out.println("Main method ends");
    }
}
```

Output:

```
C:\software\jdk1.5.0\bin>javac Main.java

C:\software\jdk1.5.0\bin>java Main
Exception caught: Division by zero
Thread: 1
Main method ends
Thread: 2
Thread: 3
Thread: 4
Thread: 5
```

Result:

The program was executed successfully, and thread creation and exception handling were demonstrated in Java.

5. Reading and writing text files.

Aim:

To write a Java program to read from and write to text files.

Algorithm:

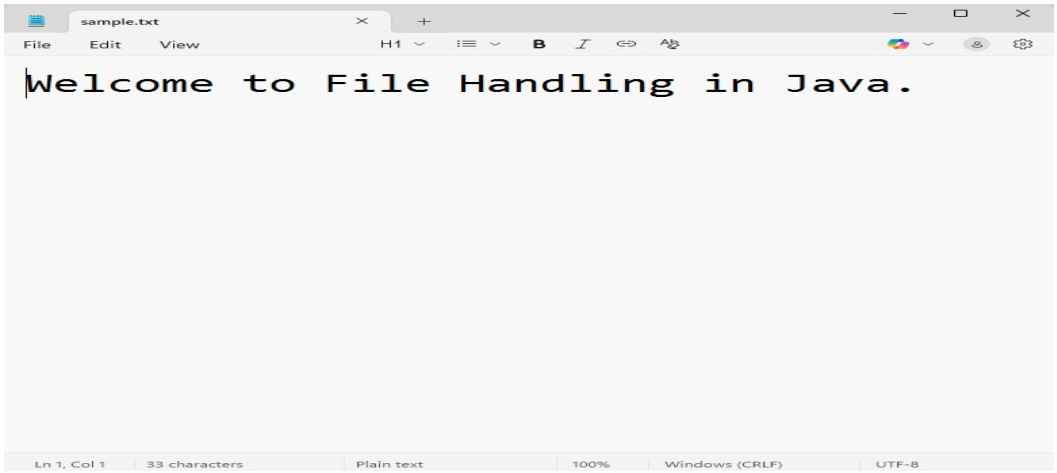
Step 1: Start the program.
Step 2: Import java.io.* package.
Step 3: In the main method, create a FileWriter object to write data into a file.
Step 4: Use write() method to write text into the file and close the file.
Step 5: Create a FileReader object to read data from the file.
Step 6: Use read() method in a loop to read and display contents of the file.
Step 7: Implement exception handling using try-catch block.
Step 8: Close the file.
Step 9: End the program.

Program:

```
import java.io.*;
class Readwrite
{
   public static void main(String[] args)
   {
      try
      {
         FileWriter fw = new FileWriter("sample.txt");
         fw.write("Welcome to File Handling in Java.");
         fw.close();
         FileReader fr = new FileReader("sample.txt");
         int c;
         while((c = fr.read()) != -1)
         {
            System.out.print((char)c);
         }
         fr.close();
      }
      catch(IOException e)
      {
         System.out.println("Exception caught: " + e);
      }
   }
}
```

Output:

```
C:\software\jdk1.5.0\bin>javac Readwrite.java

C:\software\jdk1.5.0\bin>java Readwrite
Welcome to File Handling in Java.
```



Result:

The program was executed successfully, and reading from and writing to text files was demonstrated in Java.

6.Create an applet for calculator application.

Aim:

To write a Java applet program for a simple calculator application.

Algorithm:

Step 1: Start the program.
Step 2: Import java.awt.* and java.applet.* packages.
Step 3: Extend Applet class and implement ActionListener interface.
Step 4: Declare components: labels, text fields, buttons for operations, and result.
Step 5: Initialize components in init() method and add them to the applet.
Step 6: Register action listeners for buttons.
Step 7: Implement actionPerformed() to perform addition, subtraction, multiplication, and division based on button pressed.
Step 8: End the program.

Program:

```
import java.awt.*;
import java.applet.*;
import java.awt.event.*;
public class CalculatorApplet extends Applet implements ActionListener
{
   TextField t1, t2, t3;
   Button b1, b2, b3, b4;
   public void init()
   {
      t1 = new TextField(5);
      t2 = new TextField(5);
      t3 = new TextField(10);
      b1 = new Button("+");
      b2 = new Button("-");
      b3 = new Button("*");
      b4 = new Button("/");
      add(t1);
      add(t2);
      add(b1);
      add(b2);
      add(b3);
      add(b4);
      add(t3);
      b1.addActionListener(this);
      b2.addActionListener(this);
      b3.addActionListener(this);
      b4.addActionListener(this);
   }
   public void actionPerformed(ActionEvent e)
   {
```

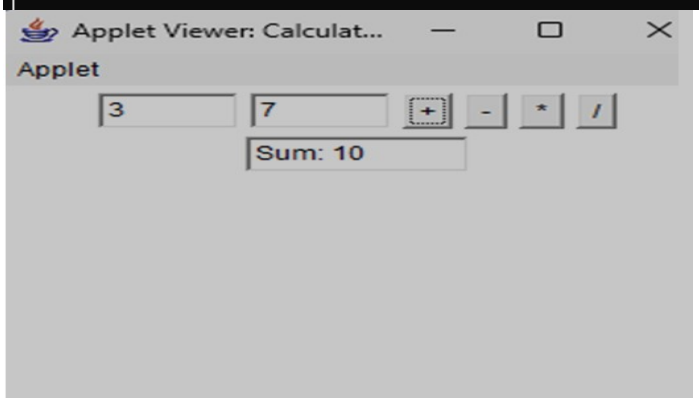
```
        int a = Integer.parseInt(t1.getText());
        int b = Integer.parseInt(t2.getText());
        if(e.getSource() == b1)
            t3.setText("Sum: " + (a + b));
        else if(e.getSource() == b2)
            t3.setText("Difference: " + (a - b));
        else if(e.getSource() == b3)
            t3.setText("Product: " + (a * b));
        else if(e.getSource() == b4)
        {
            if(b != 0)
                t3.setText("Quotient: " + (a / b));
            else
                t3.setText("Divide by zero error");
        }
    }
}
```

HTML code (save as CalculatorApplet.html in the same folder):

```
<html>
  <body>
    <applet code="CalculatorApplet.class" width="300" height="200"></applet>
  </body>
</html>
```

Output:

```
C:\software\jdk1.5.0\bin>javac CalculatorApplet.java

C:\software\jdk1.5.0\bin>appletviewer CalculatorApplet.html
```



Result:

The program was executed successfully, and a calculator application was implemented using Java applet.

7.JDBC Connectivity

Aim:
To write a java program using JDBC Connection with ODBC technique to create table and perform insert, update and delete data using MS-Access.

Way to Procedure:
Database Creation:
Step 1:
Go to Start→Programs→Microsoft Access 2007→Select the option BLANK DATABASE
Step 2:
Choose Path of database and give filename "student" with file format Microsoft access 2002-2003 format (.mdb).
Step 3:
Save table as "student_tab".
Step 4:
Select design view of table by clicking right button and give fields of table such as id, name with respective data type number, text respectively and set unique key in id.
Step 5:
Give sample records and save the database and table data.
Step 6:
Close the package Microsoft access.
Data Source name creation:
Step 1:
Go to start→control panel→administrative tools→data source (ODBC) and get the wizard.
Step 2:
In DSN wizard, click add button and choose driver as "Microsoft diver do access (*.mdb).
Step 3:
Give data source name as "stud" and select path of database then click OK.
Step 4:
Exit from ODBC wizard.
Algorithm:
Step1:
Start the program.
Step 2:
Include packages java.io and java.sql.
Step 3:
Define class with name "jdbc" and define the main function.

Step 4:
Declare objects for Connection, Statement, ResultSet and also declare the object for BufferedReader class.
Step 5:
Declare local variables ch,rno,n as integer and na as String.
Step 6:
Register the JdbcOdbcDriver and make a connection using getConnection() by giving Data Source Name “Stud”.
Step 7:
Define switch case 1 for insert records,case 2 for delete records,3 for update records and 4 for Display records.
Step 8:
Do Step 7 until will give choice > 4.
Step 9:
Close Statement object and Connection object.
Step 10:
Stop the Program.

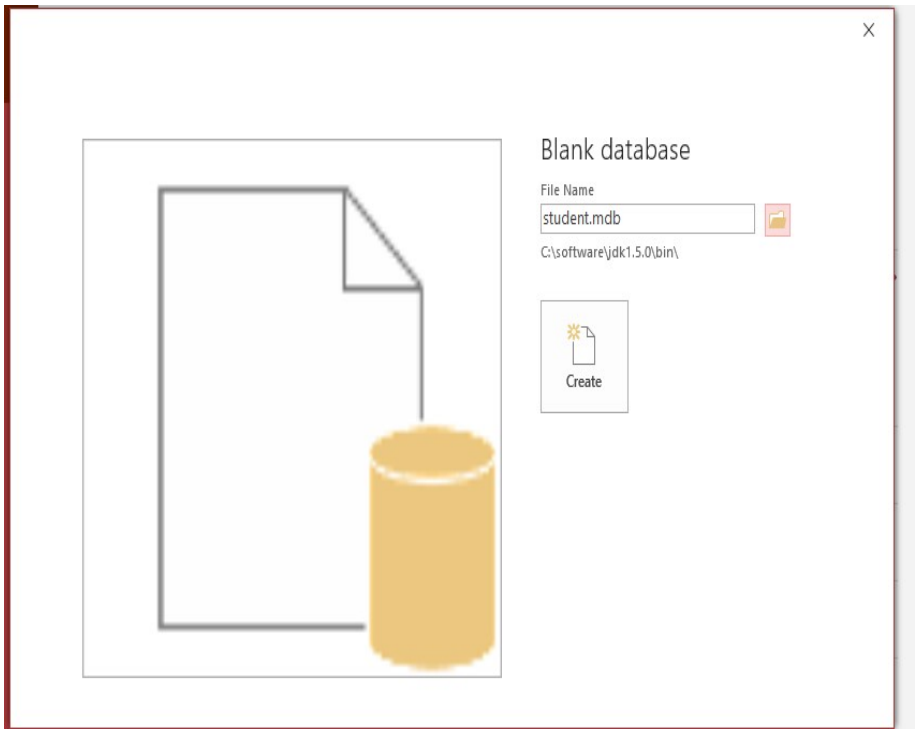
Program:

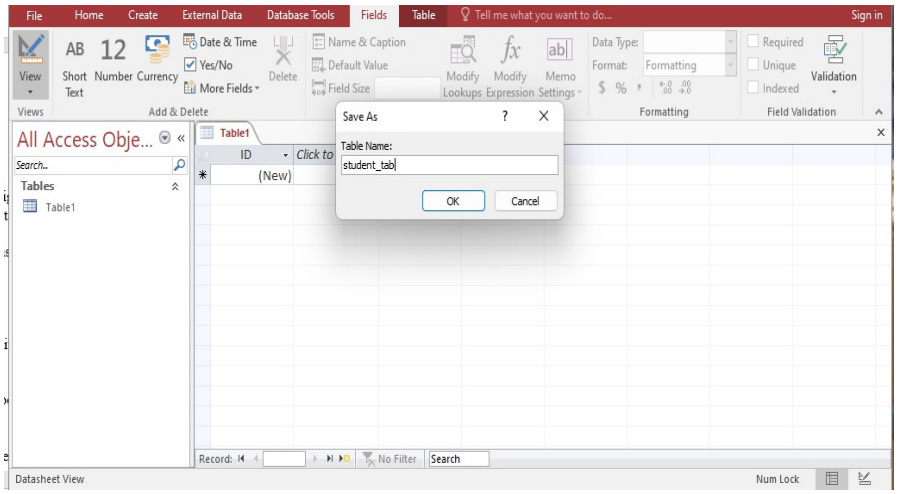
```
import java.awt.*;
import java.sql.*;
import java.util.*;
import java.awt.event.*;
import javax.swing.*;
import javax.swing.event.*;
public class jdbc extends JFrame implements ActionListener
{
   JButton b1;
   Panel p;
   GridBagConstraints c;
   Container cp;
   static Connection con;
   static String dsn = "jdbc:odbc:test";
   PreparedStatement pst;
   ResultSet rs;
   jdbc() throws Exception
   {
      cp = getContentPane();
      cp.setLayout(new BorderLayout());
      p = new Panel();
      setTitle("Mark Statement");
      b1 = new JButton("Close");
      b1.addActionListener(this);
      try
      {
         Class.forName("sun.jdbc.odbc.JdbcOdbcDriver");
         con = DriverManager.getConnection(dsn);
         pst = con.prepareStatement("select * from student_tab");
         rs = pst.executeQuery();
      }
```

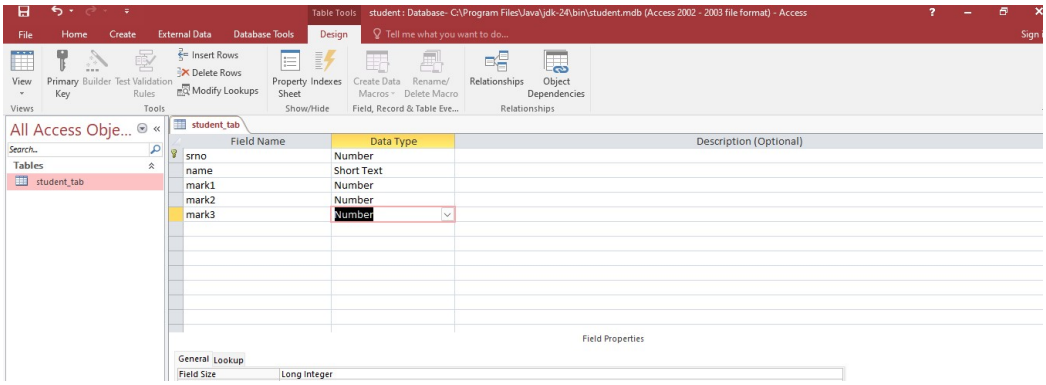
```
    catch(Exception e)
    {
       System.out.println(e.toString());
    }
    addWindowListener(new WindowAdapter()
    {
       public void windowClosing(WindowEvent e)
       {
          System.exit(0);
       }
    });
    setSize(500,500);
    p.add(b1);
    cp.add(p,"South");
}
public void paint(Graphics g)
{
    int i = 50;
    g.drawString("Student Mark Statement",200,50);
    try
    {
       g.drawString("Roll Number",10,100);
       g.drawString("Name",160,100);
       g.drawString("Mark1",290,100);
       g.drawString("Mark2",350,100);
       g.drawString("Mark3",420,100);
       while(rs.next())
       {
          g.drawString(rs.getString("srno"),10,100+i);
          g.drawString(rs.getString("name"),160,100+i);
          g.drawString(rs.getString("mark1"),290,100+i);
          g.drawString(rs.getString("mark2"),350,100+i);
          g.drawString(rs.getString("mark3"),420,100+i);
          i = i + 50;
       }
    }
    catch(Exception e)
    {
       System.out.println(e.toString());
    }
    b1.setVisible(true);
}

public void actionPerformed(ActionEvent e)
{
    String cmd = e.getActionCommand();
    if(cmd.equals("Close"))
    {
       System.exit(0);
    }
```

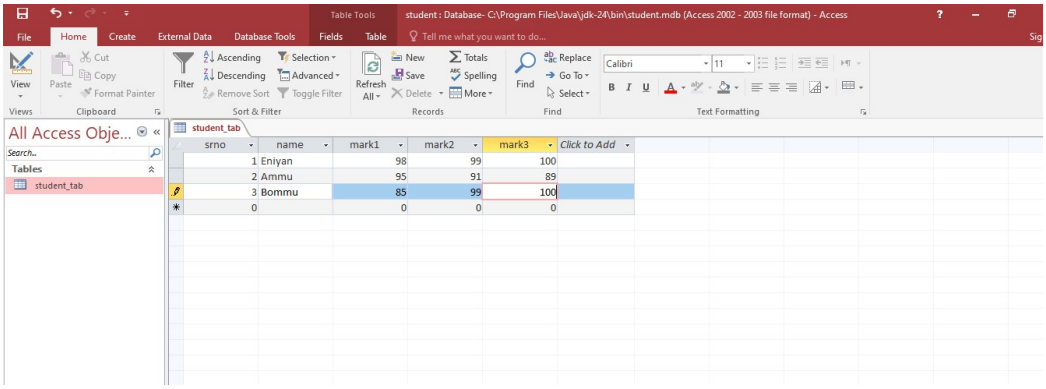
```
    }

    public static void main(String args[]) throws Exception
    {
        JFrame f = new jdbc();
        f.setVisible(true);
    }
}
```

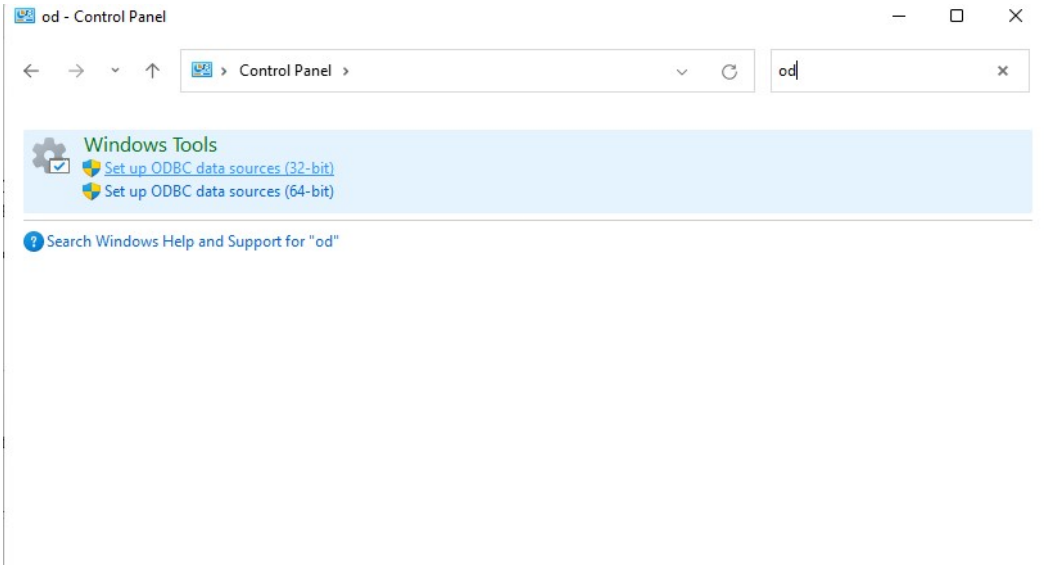
Output:

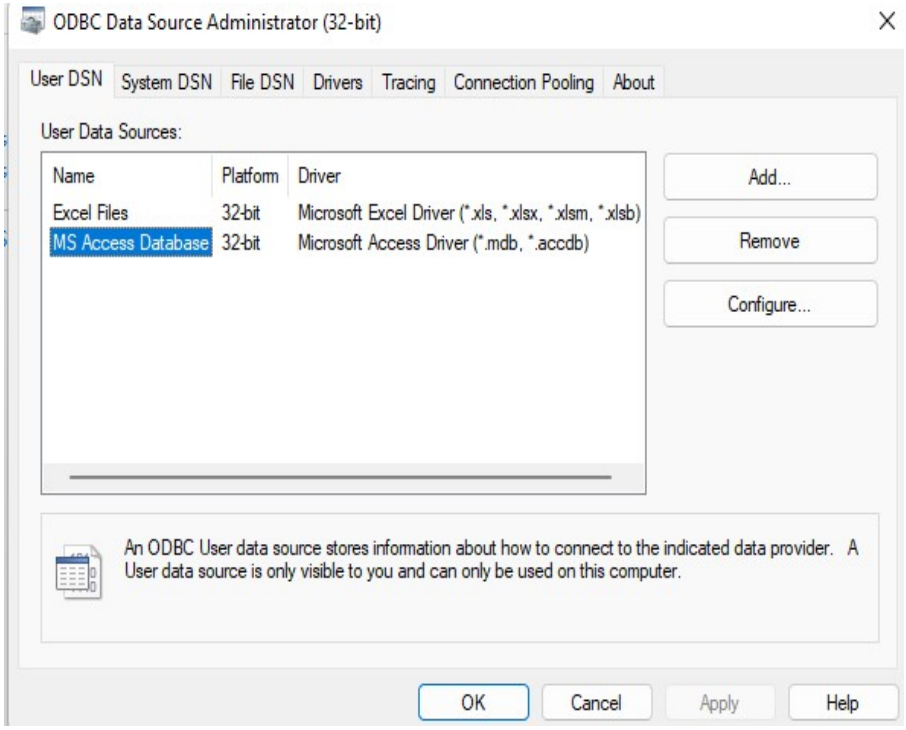


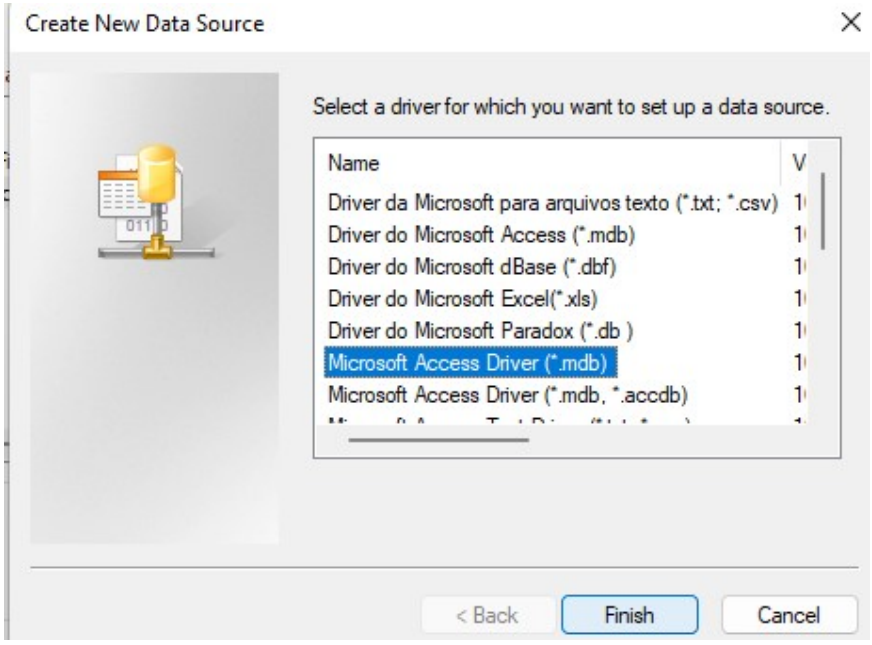


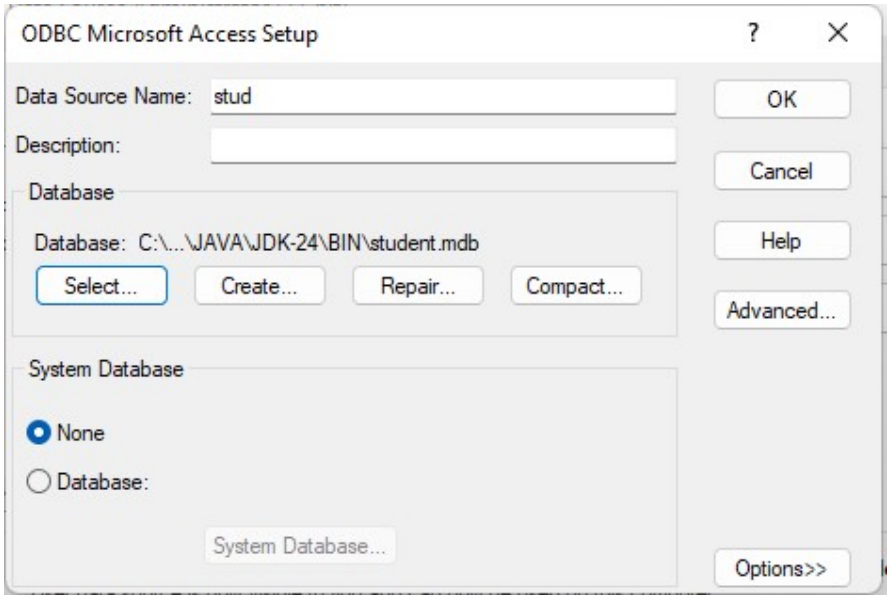

student : Database- C:\Program Files\Java\jdk-24\bin\student.mdb (Access 2002 - 2003 file format) - Access
Table Tools
File
Home
Create
External Data
Database Tools
Design
Tell me what you want to do...
All Access Obje...
Search...
Tables
student_tab
Field Name
Data Type
Description (Optional)
srno
Number
name
Short Text
mark1
Number
mark2
Number
mark3
Number
Field Properties
General
Lookup
Field Size
Long Integer


student : Database- C:\Program Files\Java\jdk-24\bin\student.mdb (Access 2002 - 2003 file format) - Access
Table Tools
File
Home
Create
External Data
Database Tools
Fields
Table
Tell me what you want to do...
All Access Obje...
Search...
Tables
student_tab
srno
name
mark1
mark2
mark3
Click to Add
1 Eniyan 98 99 100
2 Ammu 95 91 89
3 Bommu 85 99 100
0 0 0 0


od - Control Panel
Control Panel
od
Windows Tools
Set up ODBC data sources (32-bit)
Set up ODBC data sources (64-bit)
Search Windows Help and Support for "od"


ODBC Data Source Administrator (32-bit)
User DSN
System DSN
File DSN
Drivers
Tracing
Connection Pooling
About
User Data Sources:
Name
Platform
Driver
Excel Files
32-bit
Microsoft Excel Driver (*.xls, *.xlsx, *.xlsm, *.xlsb)
MS Access Database
32-bit
Microsoft Access Driver (*.mdb, *.accdb)
Add...
Remove
Configure...
An ODBC User data source stores information about how to connect to the indicated data provider. A User data source is only visible to you and can only be used on this computer.
OK
Cancel
Apply
Help


Create New Data Source
Select a driver for which you want to set up a data source.
Name
Driver da Microsoft para arquivos texto (*.txt; *.csv)
Driver do Microsoft Access (*.mdb)
Driver do Microsoft dBase (*.dbf)
Driver do Microsoft Excel(*.xls)
Driver do Microsoft Paradox (*.db)
Microsoft Access Driver (*.mdb)
Microsoft Access Driver (*.mdb, *.accdb)
< Back
Finish
Cancel




```
C:\Program Files\Java\jdk-24\bin>javac jdbc.java

C:\Program Files\Java\jdk-24\bin>java jdbc
```

```
------------------------------------------------------------
|             Student Mark Statement                       |
------------------------------------------------------------
Roll Number     Name       Mark1     Mark2     Mark3
1               Eniyan     98        99        100
2               Ammu       95        91        89
3               Bommu      85        99        100
0               0          0         0         0
```

Result:

The program was executed successfully, and the student mark statement was displayed using Java Swing GUI by retrieving data from the database using JDBC connection.

8.Implement a Client/Server application using RMI

Aim:

To write a java program to implement a Client/Server application using RM1.

Algorithm:

Program 1: Define the Remote Interface

Step 1:
Start the program.
Step 2:
Import the package java.rmi.*.
Step 3:
Define interface "AddServerIntf" by extends from Remote.
Step 4:
Declare the methods to perform arithmetic operation add, sub, mul, div, modulo and throws RemoteException.
Step 5:
Stop the program.

Program 2: Implement Remote Interface

Step 1:
Start the program.
Step 2:
Import the packages java.rmi.* and java.rmi.server.*.

Step 3:
Define class AddServerImpl by extends from "UnicastRemoteObject" and implements "AddServerIntf".
Step 4:
Define the procedure for interface methods by throwing RemoteException. **Step 5:**
Stop the program.

Program 3: Implementation of Server Machine

Step 1:
Start the program.
Step 2:
Import the packages java.rmi.* and java.net.* **Step 3:**
Define class server with main function.
Step 4:
Create object for the class AddServerImpl.
Step 5:
Using naming.rebind() method add the interface to the server .

Step 6:
Stop the program.

Program 4: Implementation of Client Machine

Step 1:
Start the program.
Step 2:
Define class "client"
with main() function **Step 3:**
Create object for server interface with proper URL definition using naming.lookup(); **Step 4:**
Using this object call required methods and handling exception.
Step 5:
Stop the program.

Program:

// 1. Define the Remote Interface

```
import java.rmi.*;
public interface AddServerIntf extends Remote
{
int add(int a,int b) throws RemoteException;
int sub(int a,int b) throws RemoteException;
int mul(int a,int b) throws RemoteException;
int div(int a,int b) throws RemoteException;
int mod(int a,int b) throws RemoteException;
}
```

// 2. Implement Remote Interface

```
import java.rmi.*;
import java.rmi.server.*;
public class AddServerImpl extends UnicastRemoteObject
implements AddServerIntf
 {
        public AddServerImpl() throws RemoteException
        {}
        public int add(int a,int b)throws RemoteException
        {
                return (a+b);
        }
        public int sub(int a,int b)throws RemoteException
        {
                return (a-b);
        }
        public int mul(int a,int b)throws RemoteException
        {
```

```
		return (a*b);
	}
	public int div(int a,int b)throws RemoteException
	{
		return (a/b);
	}
	public int mod(int a,int b)throws RemoteException
	{
		return (a%b);
	}
}
```

// 3. Implementation of Server Machine

```
import java.rmi.*;
import java.net.*;
public class AddServer
{
	public static void main(String args[])
	 {
	try
{
		AddServerImpl obj = new AddServerImpl();
		Naming.rebind("addserver", obj);
		System.out.println("server started");
	}
	catch (Exception e)
{
		System.out.println("Exception: " + e);
	}
	}
}
```

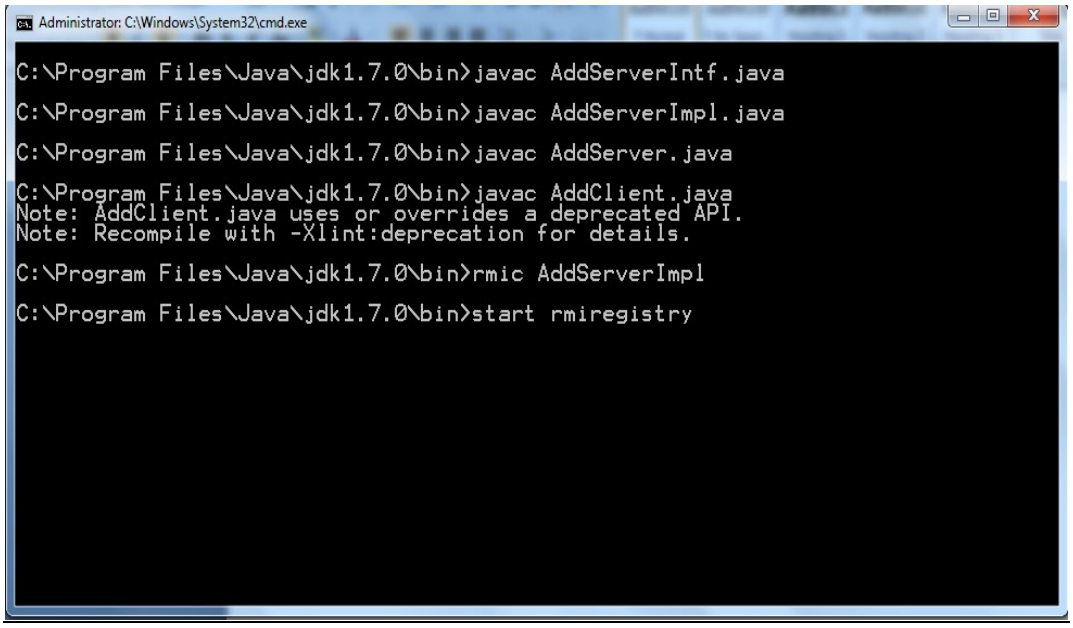
// 4. Implementation of Client Machine

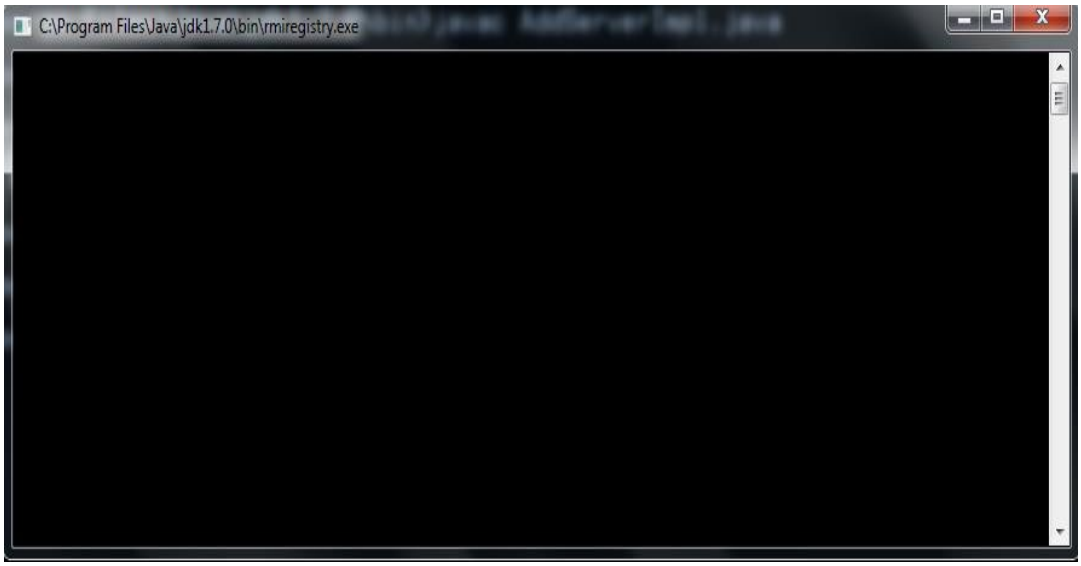
```
import java.rmi.*; import java.io.*;
public class AddClient
  {
	public static void main(String args[])
	{
		try
 {
		DataInputStream ds=new DataInputStream(System.in);
		String s="rmi://MY-PC/addserver";
		AddServerIntf obj = (AddServerIntf)Naming.lookup(s);
		System.out.println("ENTER THE VALUES FOR a & b:");

		int a=Integer.parseInt(ds.readLine());
		int b=Integer.parseInt(ds.readLine());
```

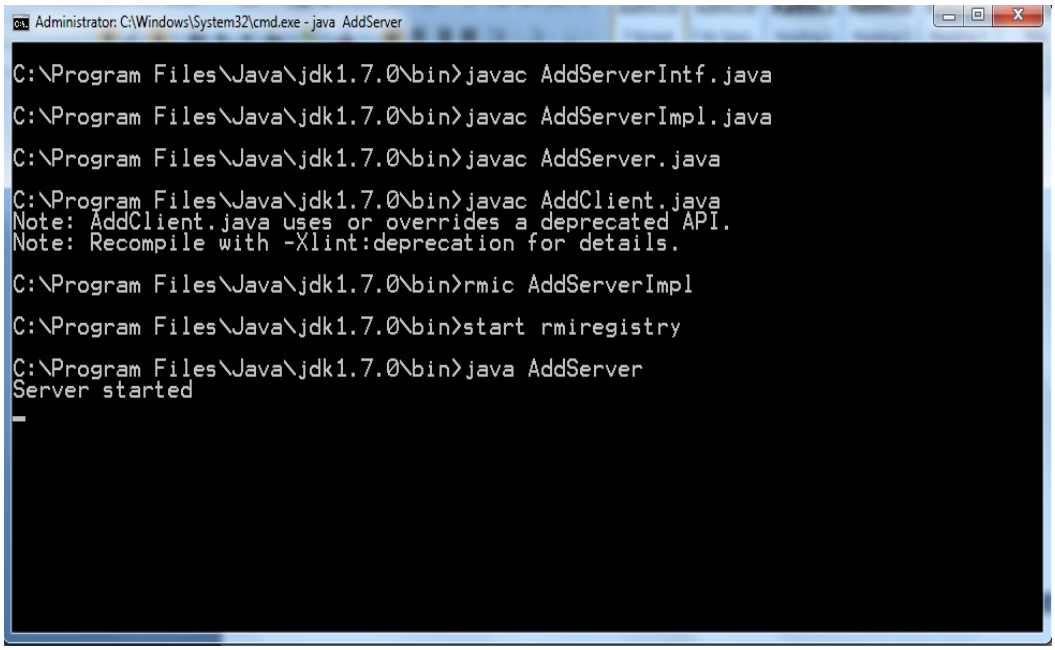
```
                System.out.println("ADDITION="+obj.add(a,b));
                System.out.println("SUBTRACTION="+obj.sub(a,b));
                System.out.println("MULTIPLICATION="+obj.mul(a,b));
                System.out.println("DIVISION="+obj.div(a,b));
                System.out.println("MODULODIVISION="+obj.mod(a,b));
}
                catch (Exception e)
 {
                        System.out.println("Exception: " + e);
  }
}
}
```

Output:

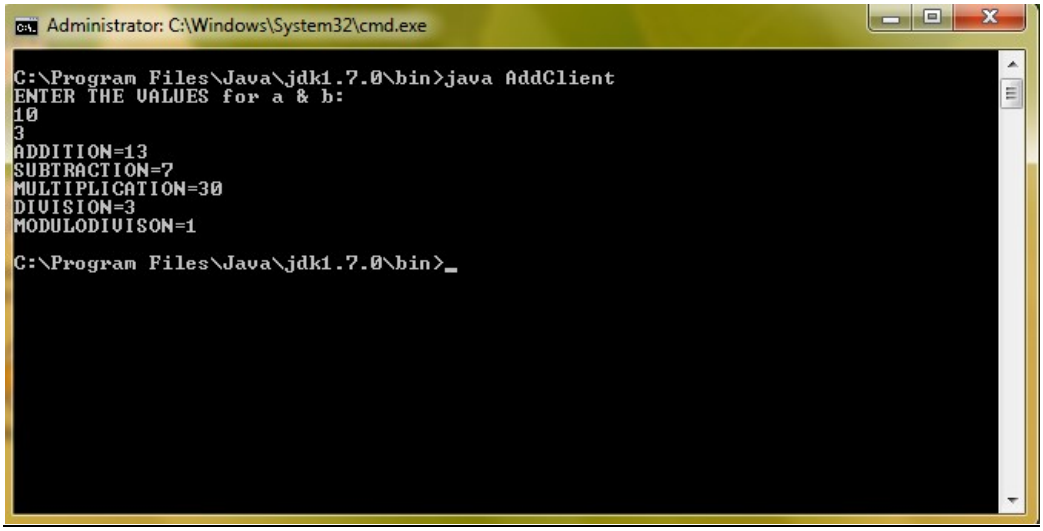
LOCAL HOST SERVER SIDE COMMAND WINDOW:




C:\Program Files\Java\jdk1.7.0\bin\rmiregistry.exe


Administrator: C:\Windows\System32\cmd.exe - java AddServer
C:\Program Files\Java\jdk1.7.0\bin>javac AddServerIntf.java
C:\Program Files\Java\jdk1.7.0\bin>javac AddServerImpl.java
C:\Program Files\Java\jdk1.7.0\bin>javac AddServer.java
C:\Program Files\Java\jdk1.7.0\bin>javac AddClient.java
Note: AddClient.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.
C:\Program Files\Java\jdk1.7.0\bin>rmic AddServerImpl
C:\Program Files\Java\jdk1.7.0\bin>start rmiregistry
C:\Program Files\Java\jdk1.7.0\bin>java AddServer
Server started

LOCAL HOST CLIENT SIDE COMMAND WINDOW:



Result:

The program was executed successfully, and a simple client-server application was implemented using Java RMI.

9.Program to Implementing Events.

Aim:

To write a Java program that demonstrates implementing events using ActionListener.

Algorithm:

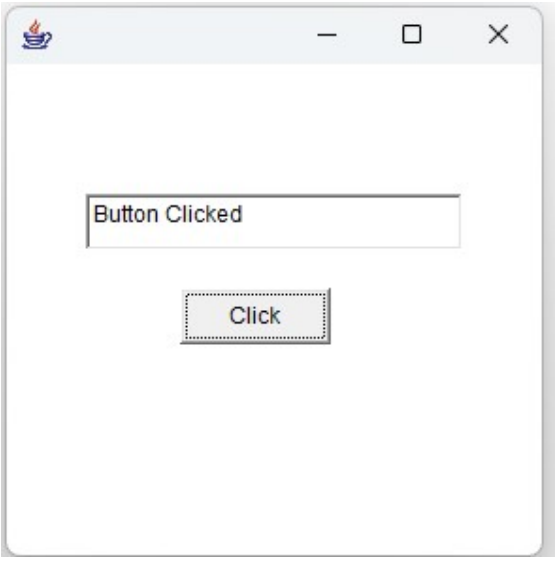
Step 1: Start the program.
Step 2: Import java.awt.* and java.awt.event.* packages.
Step 3: Create a class that extends Frame and implements ActionListener.
Step 4: Create GUI components: label, text field, and button.
Step 5: In the constructor, set layout, add components, and register the button with ActionListener.
Step 6: Implement the actionPerformed() method to handle button click event.
Step 7: In main method, create object of the class and set frame size and visibility.
Step 8: End the program.

Program:

```
import java.awt.*;
import java.awt.event.*;
class EventDemo extends Frame implements ActionListener
{
   TextField t;
   Button b;
   EventDemo()
   {
      t = new TextField();
      t.setBounds(50, 100, 200, 30);
      b = new Button("Click");
      b.setBounds(100, 150, 80, 30);
      b.addActionListener(this);
      add(t);
      add(b);
      setSize(300, 300);
      setLayout(null);
      setVisible(true);
   }
   public void actionPerformed(ActionEvent e)
   {
      t.setText("Button Clicked");
   }
   public static void main(String[] args)
   {
      new EventDemo();
   }
}
```

Output:

```
C:\>cd C:\software\jdk1.5.0\bin

C:\software\jdk1.5.0\bin>javac EventDemo.java

C:\software\jdk1.5.0\bin>java EventDemo
```



Result:

The program was executed successfully, and event handling using ActionListener was implemented in Java.

10. Program using Servlet.

Aim:

To develop a simple Java Servlet program that displays a message using GenericServlet.

Algorithm:

Step 1: Start.

Step 2: Import necessary packages: java.io.*, javax.servlet.*.

Step 3: Extend the GenericServlet class.

Step 4: Override the service() method.

Step 5: Set the response content type to text/html.

Step 6: Obtain a PrintWriter object from the response.

Step 7: Use the PrintWriter to write HTML content displaying the message.

Step 8: Close the PrintWriter.

Step 9: Configure web.xml with servlet name, class, and URL pattern mapping.

Step 10: Deploy on a Servlet container and access via browser to view output.

Step 11: Stop.

Program:

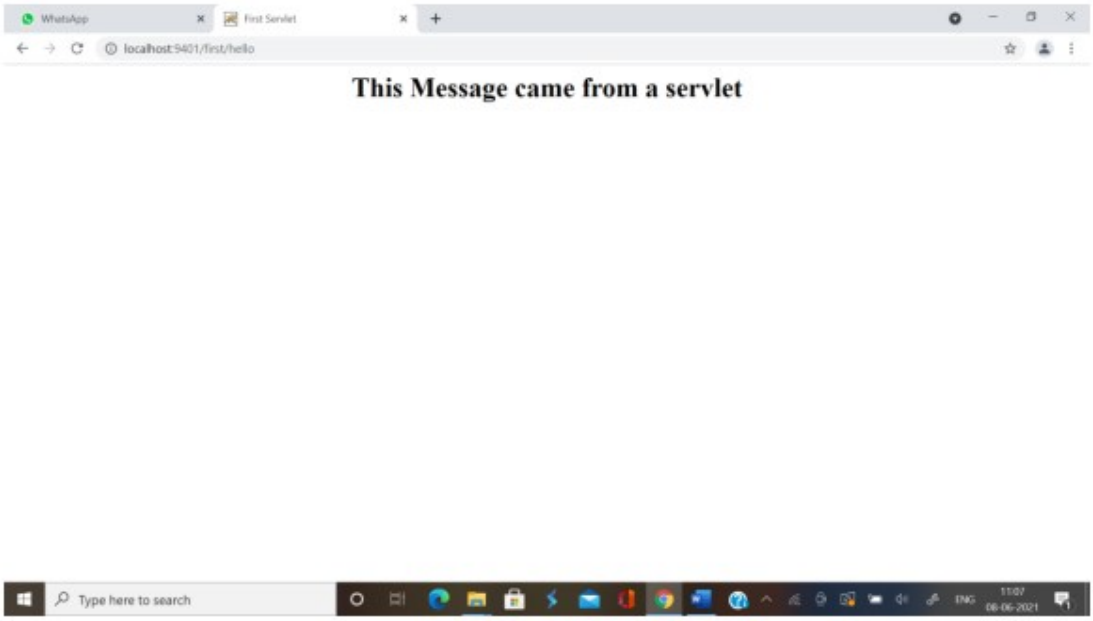
```
import java.io.*;
import javax.servlet.*;
public class FirstServlet extends GenericServlet
{
   public void service(ServletRequest req, ServletResponse res) throws
ServletException, IOException
   {
      res.setContentType("text/html");
      PrintWriter pw = res.getWriter();
      pw.println("<html><head><title>First Servlet</title></head>");
      pw.println("<body><center><h1>This Message came from a servlet</h1>");
      pw.println("</center></body></html>");
      pw.close();
   }
}
```

web.xml

```
<web-app>
```

```
    <servlet>
        <servlet-name>abc</servlet-name>
        <servlet-class>FirstServlet</servlet-class>
    </servlet>

    <servlet-mapping>
        <servlet-name>abc</servlet-name>
        <url-pattern>/hello</url-pattern>
    </servlet-mapping>
</web-app>
```

Output:



Result:

Thus, the simple Java Servlet program using GenericServlet was successfully implemented, compiled, deployed, and executed to display a message on the web browser.

11. Prepare an Employee pay slip using JSP.

Aim

To develop a JSP program to prepare an employee pay slip by accepting employee details and calculating net salary.

Algorithm

Step 1: Start.

Step 2: Create an HTML form to accept employee details such as Employee ID, Name, Basic Pay, HRA, and DA.

Step 3: Create a JSP page to retrieve these input values using request.getParameter().

Step 4: Parse string inputs to numeric values where required.

Step 5: Calculate Gross Pay as Basic + HRA + DA.

Step 6: Calculate deductions (if any) and Net Pay.

Step 7: Display the employee pay slip details in a tabular format using JSP out.println or HTML tags.

Step 8: Stop.

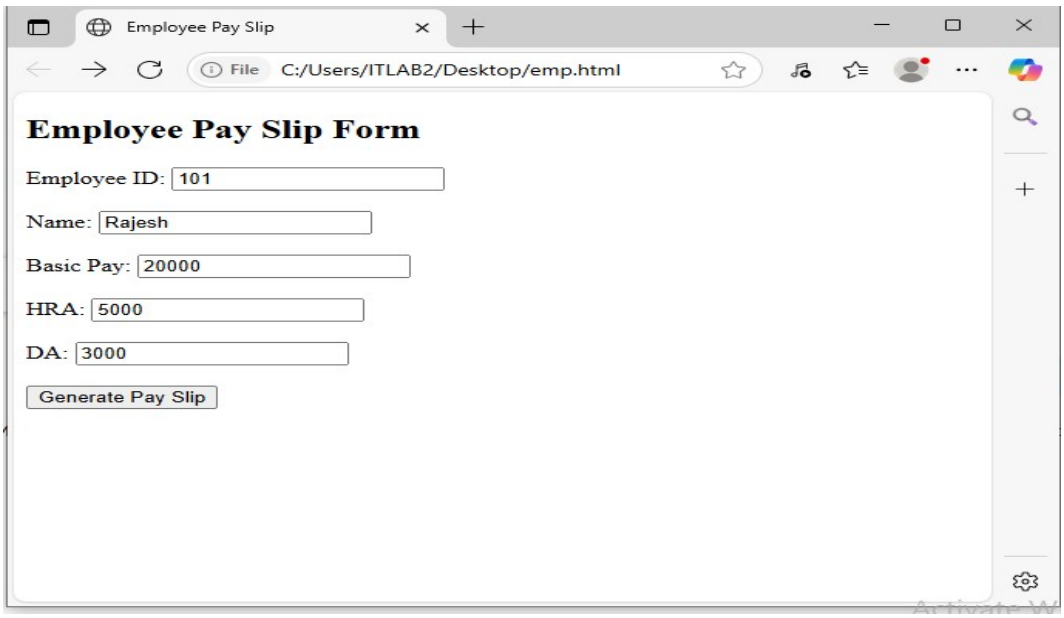
HTML Form (employee.html):

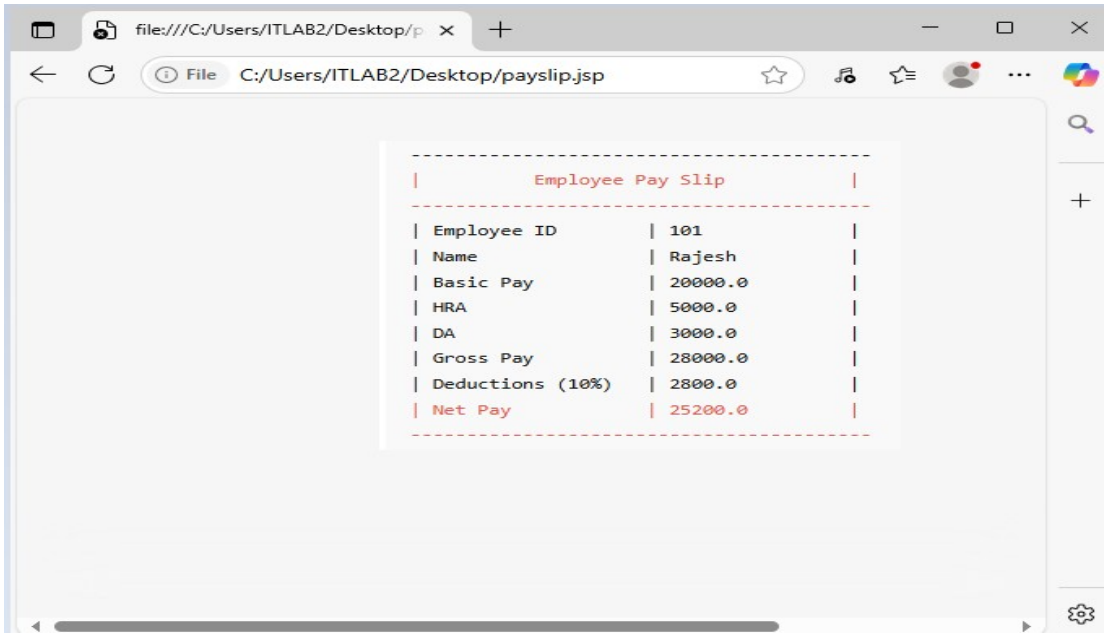
```
<!DOCTYPE html>
<html>
<head>
   <title>Employee Pay Slip</title>
</head>
<body>
   <h2>Employee Pay Slip Form</h2>
   <form action="payslip.jsp" method="post">
      Employee ID: <input type="text" name="empid"><br><br>
      Name: <input type="text" name="name"><br><br>
      Basic Pay: <input type="text" name="basic"><br><br>
      HRA: <input type="text" name="hra"><br><br>
      DA: <input type="text" name="da"><br><br>
      <input type="submit" value="Generate Pay Slip">
   </form>
</body>
</html>
```

JSP File (payslip.jsp):

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
pageEncoding="UTF-8"%>
<html>
<head>
   <title>Employee Pay Slip</title>
</head>
<body>
<%
   String empid = request.getParameter("empid");
   String name = request.getParameter("name");
   double basic = Double.parseDouble(request.getParameter("basic"));
   double hra = Double.parseDouble(request.getParameter("hra"));
   double da = Double.parseDouble(request.getParameter("da"));
   double gross = basic + hra + da;
   double deduction = gross * 0.10; // assuming 10% deduction
   double net = gross - deduction;
%>
   <h2>Employee Pay Slip</h2>
   <table border="1" cellpadding="10">
      <tr><td>Employee ID</td><td><%= empid %></td></tr>
      <tr><td>Name</td><td><%= name %></td></tr>
      <tr><td>Basic Pay</td><td><%= basic %></td></tr>
      <tr><td>HRA</td><td><%= hra %></td></tr>
      <tr><td>DA</td><td><%= da %></td></tr>
      <tr><td>Gross Pay</td><td><%= gross %></td></tr>
      <tr><td>Deductions (10%)</td><td><%= deduction %></td></tr>
      <tr><td>Net Pay</td><td><%= net %></td></tr>
   </table>
</body>
</html>
```

Output:





Result:

Thus, the JSP program was successfully implemented to prepare an employee pay slip by accepting details, calculating gross and net pay, and displaying them in a formatted table.

12.Develop a program for calculating the percentage of the marks of student using Swing.

Aim:

To write a Java Swing program to calculate the percentage of marks obtained by a student.

Algorithm:

Step 1: Start the program.
Step 2: Import javax.swing.* and java.awt.event.* packages.
Step 3: Create a class extending JFrame and implementing ActionListener.
Step 4: Create labels, text fields for marks input, button for calculating, and a label for displaying result.
Step 5: Add components to frame and set their positions.
Step 6: Register the button with ActionListener.
Step 7: In actionPerformed(), calculate the percentage by reading marks from text fields and display result.
Step 8: In main() method, create object of the class to display the frame.
Step 9: End the program.

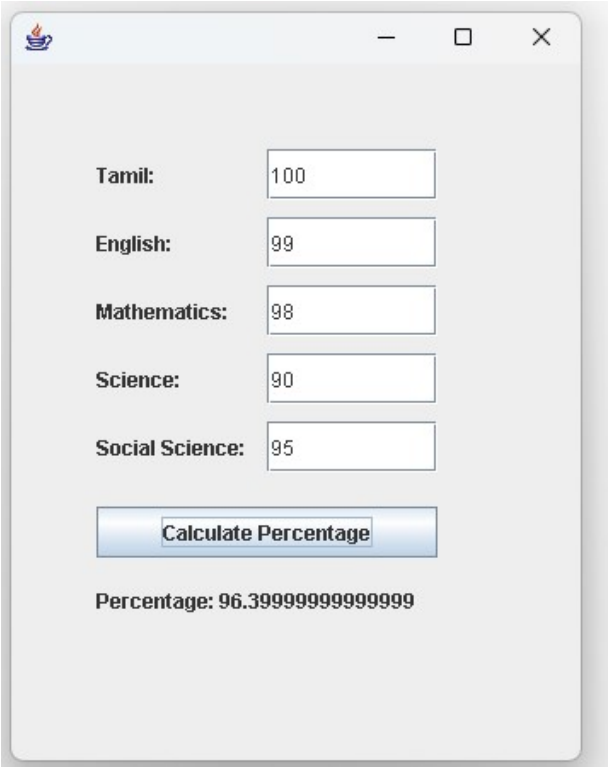
Program:

```
import javax.swing.*;
import java.awt.event.*;
class PercentageCalculator extends JFrame implements ActionListener
{
   JTextField t1, t2, t3, t4, t5;
   JLabel result;
   JButton b;
   PercentageCalculator()
   {
      setLayout(null);
      JLabel l1 = new JLabel("Tamil:");
      l1.setBounds(50, 50, 100, 30);
      add(l1);
      t1 = new JTextField();
      t1.setBounds(150, 50, 100, 30);
      add(t1);
      JLabel l2 = new JLabel("English:");
      l2.setBounds(50, 90, 100, 30);
      add(l2);
      t2 = new JTextField();
      t2.setBounds(150, 90, 100, 30);
      add(t2);
      JLabel l3 = new JLabel("Mathematics:");
      l3.setBounds(50, 130, 100, 30);
      add(l3);
      t3 = new JTextField();
      t3.setBounds(150, 130, 100, 30);
```

```
        add(t3);
        JLabel l4 = new JLabel("Science:");
        l4.setBounds(50, 170, 100, 30);
        add(l4);
        t4 = new JTextField();
        t4.setBounds(150, 170, 100, 30);
        add(t4);
        JLabel l5 = new JLabel("Social Science:");
        l5.setBounds(50, 210, 100, 30);
        add(l5);
        t5 = new JTextField();
        t5.setBounds(150, 210, 100, 30);
        add(t5);
        b = new JButton("Calculate Percentage");
        b.setBounds(50, 260, 200, 30);
        b.addActionListener(this);
        add(b);
        result = new JLabel("Percentage: ");
        result.setBounds(50, 300, 200, 30);
        add(result);
        setSize(350, 400);
        setVisible(true);
        setDefaultCloseOperation(EXIT_ON_CLOSE);
    }
    public void actionPerformed(ActionEvent e)
    {
        int m1 = Integer.parseInt(t1.getText());
        int m2 = Integer.parseInt(t2.getText());
        int m3 = Integer.parseInt(t3.getText());
        int m4 = Integer.parseInt(t4.getText());
        int m5 = Integer.parseInt(t5.getText());
        int total = m1 + m2 + m3 + m4 + m5;
        double percent = (total / 500.0) * 100;
            result.setText("Percentage: " + percent);
    }
    public static void main(String[] args)
    {
        new PercentageCalculator();
    }
}
```

Output:

```
C:\software\jdk1.5.0\bin>javac PercentageCalculator.java

C:\software\jdk1.5.0\bin>java PercentageCalculator
```



Result:

The program was executed successfully, and percentage of marks was calculated using Java Swing.

13.Creation and Usage of Java Beans

Aim

To develop a Java Bean class and use it in a JSP page to set and get properties.

Algorithm:

Step 1: Start.

Step 2: Create a Java Bean class with private properties, public getter and setter methods, and a default constructor.

Step 3: Compile the Java Bean class and place the .class file in the appropriate package folder within WEB-INF/classes.

Step 4: Create a JSP page that uses the <jsp:useBean> tag to instantiate the bean.

Step 5: Use <jsp:setProperty> to set values and <jsp:getProperty> to retrieve and display the values.

Step 6: Deploy on the server.

Step 7: Access the JSP page via browser to view the output

Step 8: Stop.

Program:

Java Bean Class (Employee.java):

```
package beans;
public class Employee
{
   private String empId;
   private String name;
   public Employee()
   {
   }
   public String getEmpId()
   {
      return empId;
   }
   public void setEmpId(String empId)
   {
      this.empId = empId;
   }
   public String getName()
   {
      return name;
```

```
    }
    public void setName(String name)
    {
        this.name = name;
    }
}
```

JSP File (empbean.jsp):

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<jsp:useBean id="e" class="beans.Employee" scope="page" />
<jsp:setProperty name="e" property="empId" value="101" />
<jsp:setProperty name="e" property="name" value="Rajesh" />
<html>
<head>
    <title>Employee Bean Example</title>
</head>
<body>
    <h2>Employee Details Using Java Bean</h2>
    <p>Employee ID: <jsp:getProperty name="e" property="empId" /></p>
    <p>Name: <jsp:getProperty name="e" property="name" /></p>
</body>
</html>
```

Output:



Result:

Thus, the Java Bean was successfully created with private properties and public getter/setter methods, and it was used in a JSP page to set and display employee details.

NICHE CAMPUS MANAGEMENT SOFTWARE (NICHE ERP)

NICHE ERP Modules and Functionalities

- Configuration and Operations

NICHE
KANYAKUMARI
DEEMED-TO-BE-UNIVERSITY

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ABSTRACT

The NICHE Campus Management Software (ERP) is a comprehensive solution designed to streamline and automate the management of information related to students, faculty, courses, and administrative functions within the institution. This software provides an integrated platform to manage the entire academic lifecycle, from the initial registration of new students to the tracking of their attendance, academic performance, and overall progress. By automating administrative processes, NICHE ERP enhances efficiency, accuracy, and accessibility, ensuring that essential information is available to stakeholders across the campus. The ERP is an intranet-based campus-wide portal that consolidates data from all departments, enabling centralised access and retrieval of information. It facilitates the generation of various reports that support data-driven decisions and help measure both individual and collective student performance. Additionally, the software provides robust tools for handling financial operations, hostel and transport services, human resources, and examination management, thus covering the broad range of administrative and academic needs of the institution. The development process for the NICHE Campus Management Software begins with a thorough software analysis, where a formal model of the requirements and challenges is created. By providing a centralised, automated, and user-friendly software, NICHE ERP aims to support delivering high-quality education while optimising administrative tasks.

II. PURPOSE OF THE SOFTWARE

The NICHE Campus Management Software (ERP) is designed to efficiently manage and streamline information related to students, faculty, courses, and administrative functions across the institution. Unlike traditional systems, NICHE ERP provides an integrated and automated solution that is customizable for diverse college management requirements within the institution.

This system enables seamless retrieval and sharing of information through a secure, intranet-based campus-wide portal, allowing administrators, faculty, and students to access data in real time. NICHE ERP consolidates information from various departments, including admissions, academics, finance, and human resources, into a single platform. This centralization of data facilitates the generation of comprehensive reports that are critical for monitoring individual and overall student performance, assessing academic outcomes, and supporting data-driven decisions within the institution. NICHE ERP not only enhances operational efficiency but also ensures accuracy, transparency, and accessibility in managing campus activities.

III. INTRODUCTION

In today's rapidly evolving educational landscape, educational institutions face increasing demands for efficient, transparent, and scalable management solutions. From student admissions and academic scheduling to financial transactions and administrative tasks, the volume and complexity of data handled daily are substantial. Manual processes not only slow down operations but also increase the likelihood of errors and reduce overall efficiency. To address these challenges, the NICHE Campus Management Software (ERP) has been designed to provide a comprehensive, integrated solution.

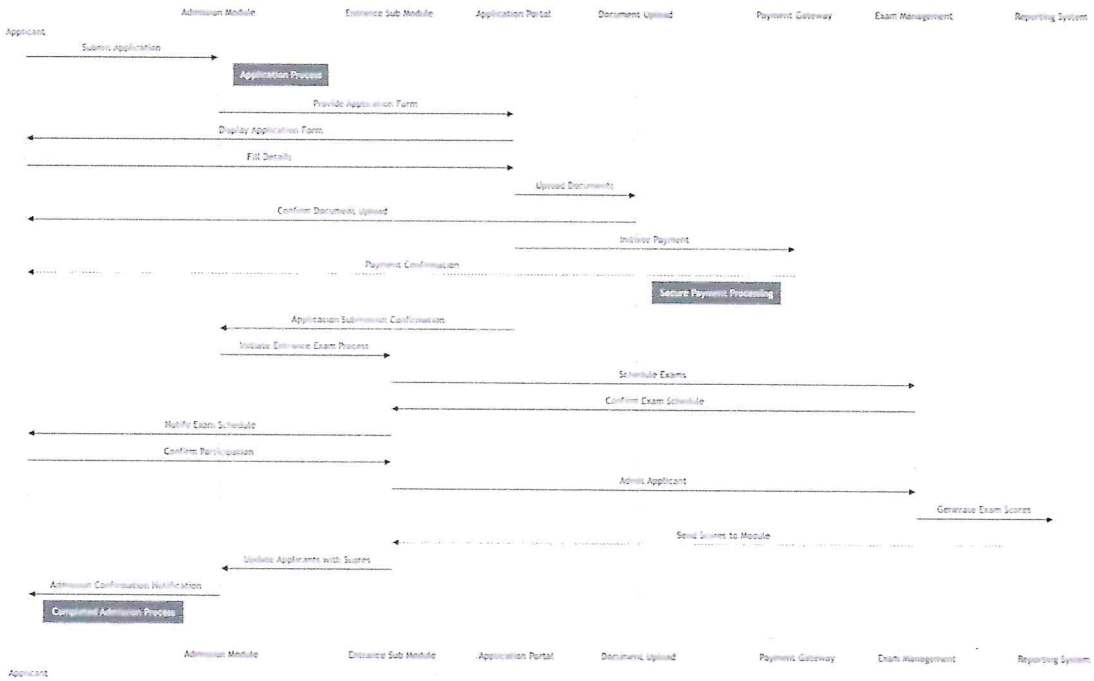
The NICHE ERP is a robust platform that automates and streamlines core institution functions across multiple departments, supporting administrative, academic, and operational activities. Through modular components covering admissions, academics, finance, examinations, human resources, hostel and fleet management, and overall administration, NICHE ERP delivers an intuitive and centralized approach to managing campus operations. Each module is crafted to enhance data accessibility, improve accuracy, and reduce the time spent on routine tasks, thereby allowing faculty and administrators to focus more on strategic initiatives and student support.

The following report provides an in-depth exploration of the proposed NICHE ERP, outlining each module and its specific functionalities. Implementing NICHE ERP enhances improved resource allocation, enhanced student engagement, and streamlined workflows. This report will serve as a comprehensive guide to understanding how NICHE ERP can contribute to transforming institution management, ultimately promoting a more efficient and effective educational environment.

IV. NICHE CAMPUS MANAGEMENT SOFTWARE

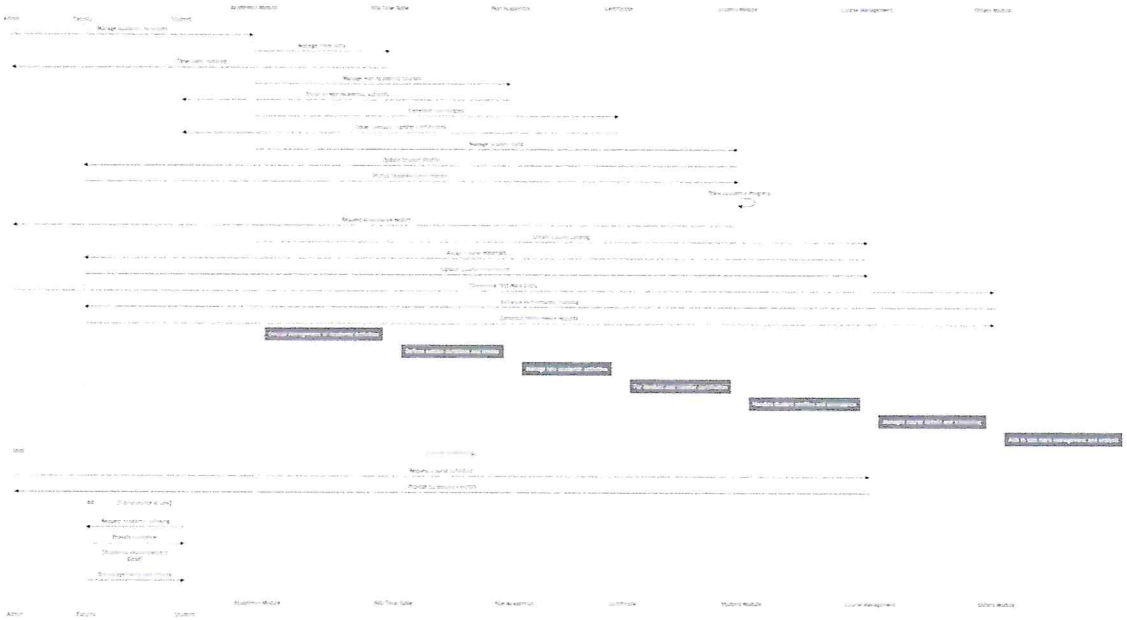
The NICHE Campus Management Software (ERP) is an integrated platform designed to streamline and automate diverse administrative and academic functions. It is modular, allowing for efficient management across admissions, academics, finance, examinations, human resources, hostel services, and overall administration. Each module enhances efficiency, accuracy, and real-time data access. The core features of the proposed system are as follows:

4.1. Admission Module: This module provides a user-friendly online platform for prospective students to apply, upload documents, and pay fees. The **Entrance Module** automates exam scheduling, scoring, and reporting, while the **Admission Module** manages applicant data, payment schedules, and daily admission reports. This reduces administrative load and improves the applicant experience.



4.2. Academics Module: The central component of NICHE ERP, this module manages academic activities like course scheduling, enrolment, and examination management. Faculty can update attendance, track student performance, and manage grades. Key submodules include **NICHE Time Table** (class scheduling), **Non-Academics** (extracurriculars), **Certificate** (conduct and transfer certificates), **Student** (attendance, profiles, and leave), **Course** (catalogue and scheduling), and **Others** (test marks and

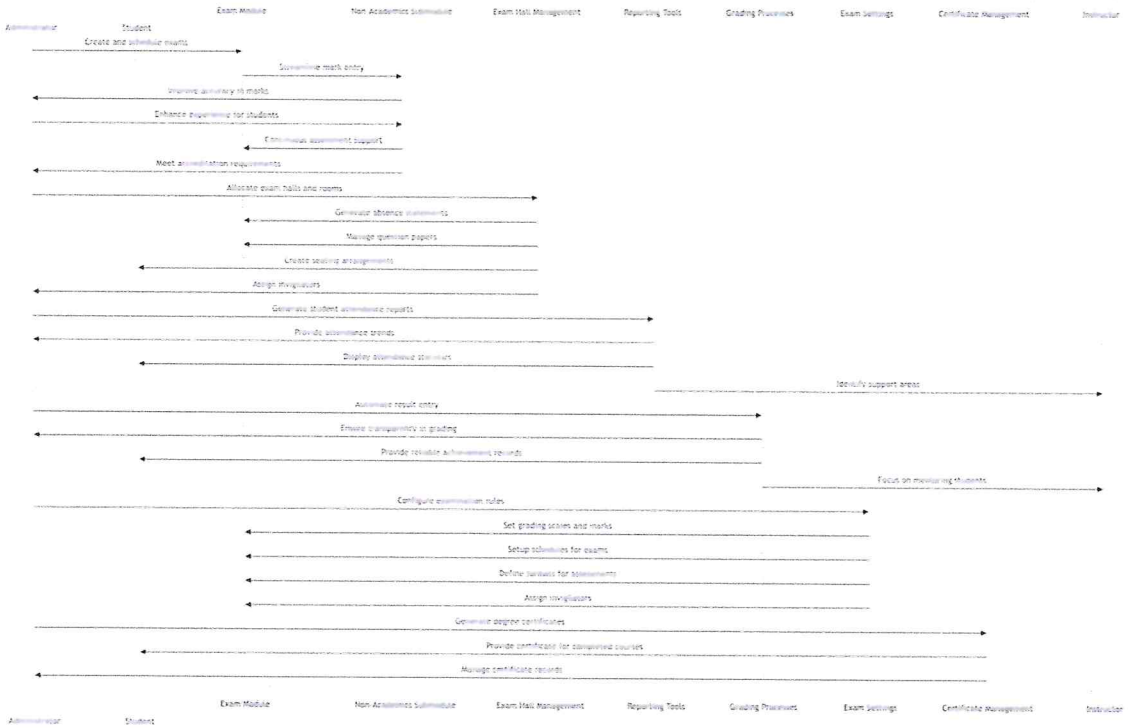
performance tracking). This module improves both academic organization and user experience.



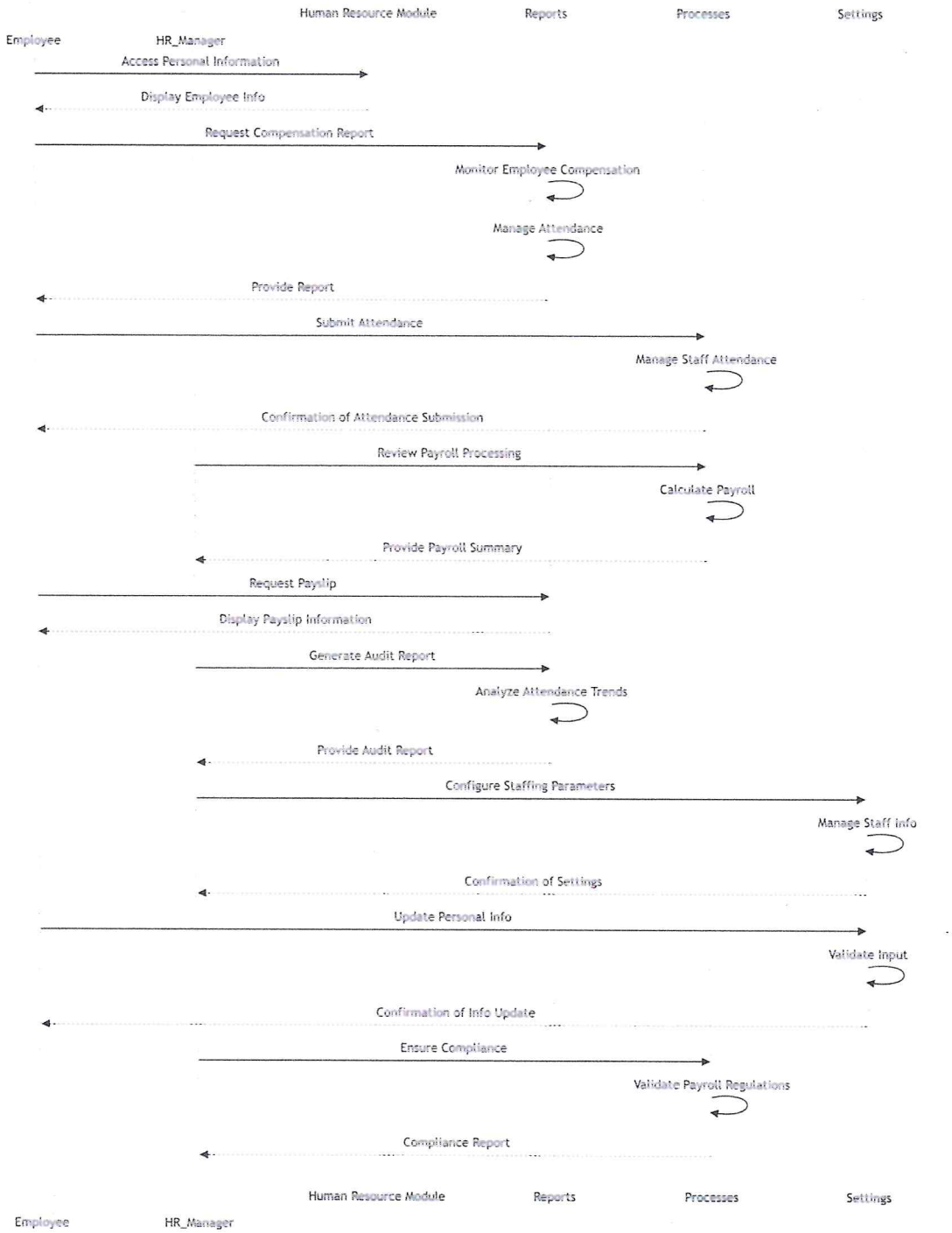
4.3. Finance Module: This module handles all financial operations, including tuition, exam, and transport fees. Submodules for **Reports** (statements on fees and payments), **Processes** (fees for certificates and compliance), and **Settings** (customizing workflows and integrations) streamline transactions, ensure regulatory compliance, and offer financial transparency. It reduces administrative burden and simplifies fee tracking.



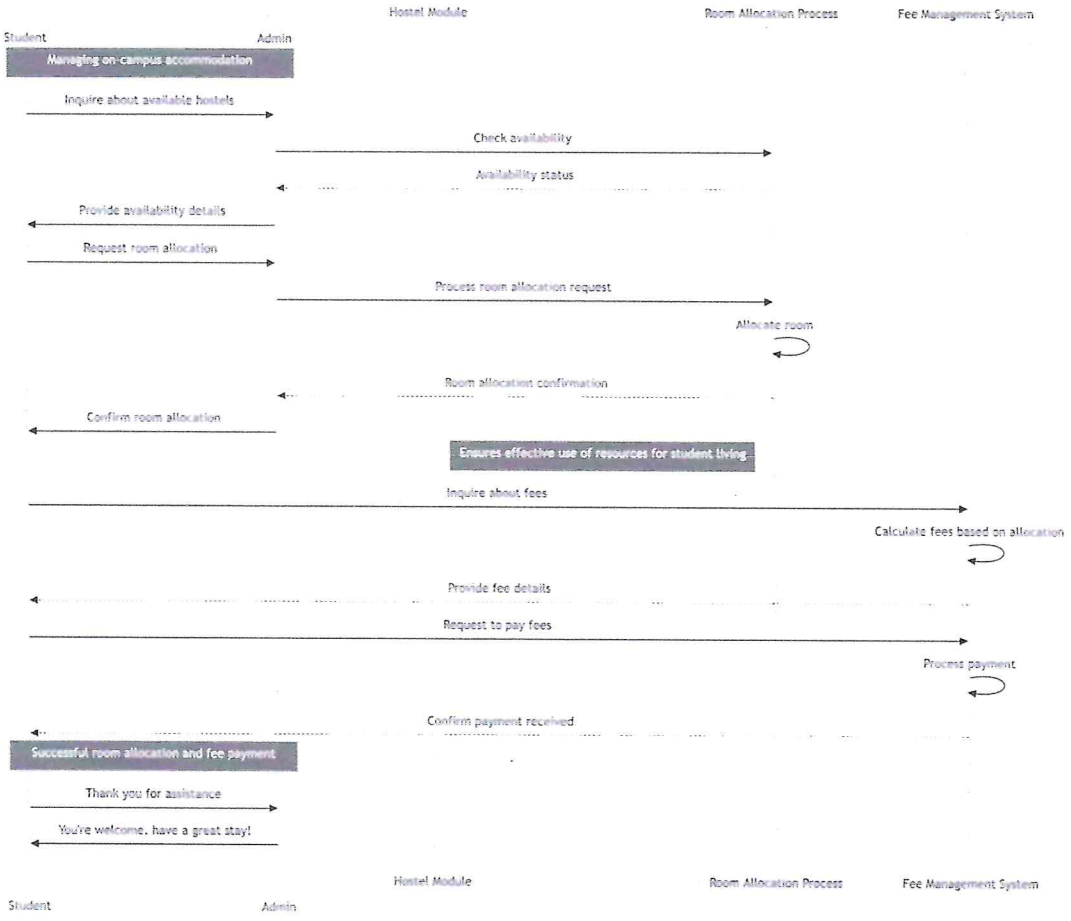
4.4. Examination Module: Supporting the end-to-end exam process, this module includes **Non-Academics** (non-academic course exams), **Exam Hall** (room and seating management), **Reports** (exam performance and attendance), **Processes** (automated result entry), **Settings** (exam rules and formats), and **Certificates** (degree issuance). It ensures secure exam administration and reliable grading, with tools for quality assurance.



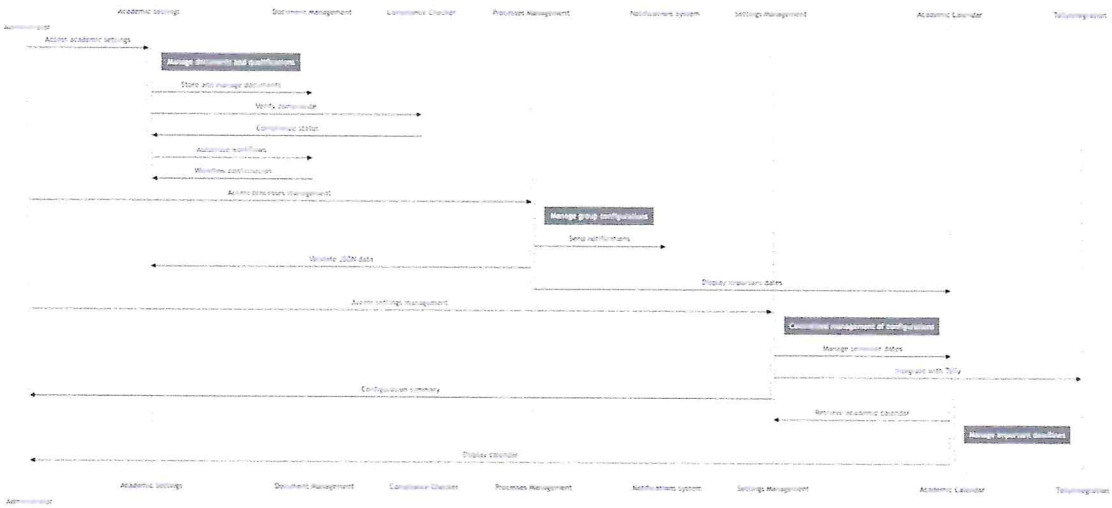
4.5. Human Resource Module: This module centralizes employee data, payroll, and attendance. Submodules include **Reports** (payroll and attendance), **Processes** (payroll accuracy and compliance), and **Settings** (HR configurations). It supports transparent HR operations, reduces manual errors, and ensures payroll compliance.



4.6. Hostel Module: Managing on-campus accommodation, this module includes **Hostel** (room allocation, fees). It ensures effective use of resources for student living.



4.7. Administration Module: This module enables centralized control and customization for institution operations. **Academic Settings** supports document management and compliance, **Processes** manages group settings and notifications, and **Settings** covers the academic calendar, Tally integration, and user preferences. It ensures smooth institution-wide operations and policy standardization.



Each module in NICHE ERP is designed to minimise manual processes, improve transparency, and enable data-driven decisions, enhancing the overall efficiency and experience for students, faculty, and administrators.

V. FEASIBILITY STUDY FOR NICHE CAMPUS MANAGEMENT SOFTWARE

5.1. Technical Feasibility

5.1.1. Infrastructure Requirements: Evaluate the campus's current IT infrastructure (servers, hardware, and internet connectivity) to ensure compatibility with NICHE Campus Management Software.

5.1.2. Security Features: Assess the software's ability to handle data security and comply with relevant regulations.

5.1.3. Technical Support and Maintenance: Review the availability of support teams to maintain and troubleshoot the software post-implementation.

5.2. Operational Feasibility

5.2.1. Ease of Use: Evaluate the user-friendliness of the software for different stakeholders (students, staff, administrators, etc.). This includes understanding the learning curve and training requirements.

5.2.2. Scalability: Examine whether the software can scale according to the growing size of the institution or accommodate more users if required.

5.2.3. Process Automation: Assess the degree to which the software automates routine tasks such as admissions, attendance, grading, and payroll to improve operational efficiency.

5.3. Financial Feasibility

5.3.1. Initial Costs: Calculate the upfront costs for acquiring, installing, and configuring the software, including hardware.

5.3.2. Operational Costs: Estimate ongoing costs for maintenance, support, upgrades, and any subscription fees.

5.4. Legal Feasibility

5.4.1. Compliance with Regulations: Evaluate whether the software complies with local and national educational regulations, including those concerning student data, payments, and academic certifications.

5.4.2. Licensing and Copyrights: Verify that the software adheres to legal requirements for intellectual property and licenses, especially for proprietary features.

5.5. Time Feasibility

5.5.1. Implementation Timeline: Estimate how long it will take to deploy the software, including setup, configuration, training, and full-scale rollout.

5.5.2. Timeline for Benefits Realization: Define the time frame for realizing the benefits, such as time savings, improved accuracy, and operational efficiency.

5.6. Risk Assessment

5.6.1. Potential Risks: Identify risks such as system failures, data breaches, user resistance, and unforeseen costs. Propose mitigation strategies for these risks.

5.6.2. Contingency Plans: Develop contingency plans for technical failures, including backup systems, data recovery processes, and alternative manual operations.

VI. SYSTEM REQUIREMENTS

6.1. Software Requirements

6.1.1. Operating System

- **Server Side:**
  - Windows Server 2019
- **Client Side:**
  - Windows 10 or higher (for administrative staff and faculty use)
  - macOS Mojave or higher (for administrative staff and faculty use)
  - Linux (Ubuntu 18.04 or higher, CentOS 7 or higher) for students, staff, or faculty on non-Windows machines.

6.1.2. Database Management System (DBMS)

- **Supported DBMS:**
  - MySQL 8.0

6.1.3. Web Server

- **Apache HTTP Server** (latest stable version)

6.1.4. Web Browser Compatibility (For Client/Student Access)

- **Google Chrome** (latest version)
- **Mozilla Firefox** (latest version)
- **Safari** (latest version for macOS)
- **Microsoft Edge** (latest version)

6.1.5. Middleware/Framework

- **PHP**

6.1.6. Additional Software Tools

- **Email Server** for communication purposes

6.2. Hardware Requirements

6.2.1. Server Requirements

- **Processor:**
  - Intel Xeon E5-2620 v4
- **Memory (RAM):**
  - 16 GB
- **Storage:**
  - 1 TB
- **Network Interface:**
  - 1 Gbps Ethernet
- **Backup Storage:**
  - Cloud daily backups
- **Redundancy and Failover Support:**
  - Load balancing and failover setup to ensure system availability
  - Backup power supply (UPS) for uninterrupted service

6.2.2. Client Workstation Requirements

- **Processor:**
  - Minimum: Intel Core i3 or equivalent
  - Recommended: Intel Core i5 or equivalent (for better multi-tasking performance)
- **Memory (RAM):**
  - Minimum: 4 GB
  - Recommended: 8 GB or higher
- **Storage:**
  - Minimum: 250 GB HDD or 120 GB SSD
  - Recommended: 500 GB SSD or higher for smooth performance
- **Display:**
  - Minimum: 1366 x 768 resolution
  - Recommended: Full HD (1920 x 1080) for better readability
- **Input Devices:**
  - Keyboard and mouse (or touchscreen for touch-enabled devices)

- **Network Connectivity:**
    - Stable internet connection (minimum 2 Mbps for optimal performance, higher for multiple users)

6.2.3. Mobile Device Requirements

- **iOS Devices:**
    - Minimum: iOS 12 or higher
    - Devices like iPhone or iPad with internet connectivity for accessing the system
- **Android Devices:**
    - Minimum: Android 8.0 (Oreo) or higher
    - Devices like smartphones or tablets with internet connectivity

6.2.4. Backup and Disaster Recovery Hardware

- **Backup Server:**
    - Additional storage (e.g., network-attached storage or cloud-based backups) for disaster recovery and long-term data retention.

6.3. Additional Considerations

- **Network Infrastructure:** High-speed internal network setup with Wi-Fi support in campus locations for seamless access to the system.
- **Security Devices:** Firewalls, intrusion detection systems, and other security hardware to protect the system from unauthorized access and cyber threats.

VII. INPUTS AND OUTPUTS FOR NICHE CAMPUS MANAGEMENT SOFTWARE

To ensure that the NICHE Campus Management Software operates effectively, it's important to define the inputs and outputs for each module. Below is a detailed list of inputs and outputs for the various modules of the system.

7.1.Admission Module

7.1.1. Inputs:

- **Prospective Student Data:**
  - Personal Information (Name, Address, Date of Birth, etc.)
  - Academic Records (Previous qualifications, grades, etc.)
  - Documents (Photographs, Mark Sheets, etc.)
  - Entrance Exam Scores (If applicable)
- **Application Fee Payments:**
  - Payment details (Amount, Payment Method, Transaction ID)
- **Admission Preferences:**
  - Preferred Courses
  - Hostel Preferences (if applicable)

7.1.2. Outputs:

- **Application Status:**
  - Confirmation of Application Submission
  - Admission Status (Accepted, Pending, Rejected)
- **Admission Confirmation:**
  - Admission Letter or Receipt
  - Payment Confirmation Receipt
- **Report:**
  - Daily Admission Status Report (Applicants, Accepted, Pending, Rejected)

7.2.Academics Module

7.2.1. Inputs:

- **Course Data:**

- Course Name, Description, Credit Hours, Pre-requisites
- Faculty Assignment (Faculty Member Names)
- Class Timings and Venue Information

- **Student Enrollment Data:**
  - Student's Course Registration
  - Student's Attendance Data
- **Examination Data:**
  - Exam Timetables, Dates, and Venue Information
  - Question Papers and Answer Sheets

7.2.2. Outputs:

- **Timetable:**
  - Individual Timetable for Students and Faculty
  - Academic Calendar (Semester-wise)
- **Student Progress Reports:**
  - Academic Performance (Grades, Attendance, etc.)
  - Mid-term and Final Exam Results
- **Certificate Generation:**
  - Conduct Certificates
  - Transfer Certificates
- **Reports:**
  - Course Enrollment Report
  - Class Attendance Report
  - Performance Reports (Exam Marks, Grades)

7.3.Finance Module

7.3.1. Inputs:

- **Fee Details:**
  - Tuition Fees, Hostel Fees, Exam Fees, Other Miscellaneous Fees
  - Payment Method (Online, Cash, Bank Transfer)
- **Student Payment Data:**
  - Payment Date, Payment Amount, Payment Method
  - Fee Waiver or Discount Information
- **Financial Processes Data:**

- Fee Schedules, Deadlines, Installment Plans

7.3.2. Outputs:

- **Payment Receipts:**
  - Detailed Receipts for Student Payments (Tuition, Hostel, Exam, etc.)
- **Fee Payment Reports:**
  - Fee Collection Status (Daily, Monthly, Yearly)
  - Outstanding Fee Balance Reports
- **Financial Statements:**
  - Tuition Fee Summary
  - Fees Paid and Balance Reports for Each Student
- **Receipts for Miscellaneous Fees:**
  - Provisional Certificate Fee
  - Duplicate Document Fee, Special Fees

7.4.Examination Module

7.4.1. Inputs:

- **Exam Data:**
  - Exam Schedules (Dates, Times, Venues)
  - Question Papers, Answer Sheets
  - List of Invigilators and Exam Supervisors
- **Student Data:**
  - Student Enrollment Data (for the exams)
  - Student Attendance Data for Exams
- **Grading Data:**
  - Marks for Each Student
  - Exam Performance Data

7.4.2. Outputs:

- **Exam Hall Allocation:**
  - Seating Arrangements for Students
  - Hall Occupancy Status
- **Grading Results:**
  - Individual Student Marks for Exams
  - Final Exam Results (Grades, Marks)

- **Reports:**
  - Exam Attendance Report
  - Exam Results Report
  - Performance Analysis Report
- **Certificates:**
  - Degree Certificates
  - Transcript Generation

7.5.Human Resource Module

7.5.1. Inputs:

- **Employee Data:**
  - Personal Information (Name, Address, Position, Department)
  - Attendance Data (Daily Attendance, Leaves, Holidays)
  - Payroll Data (Salary, Bonuses, Deductions)
- **Employee Requests:**
  - Leave Requests (Sick Leave, Casual Leave, etc.)
  - Recruitment Requests

7.5.2. Outputs:

- **Payslips:**
  - Monthly Salary Details, Deductions, Bonuses
- **Employee Reports:**
  - Attendance Report (Absenteeism, Latecomers, etc.)
  - Payroll Summary Report
- **Employee Leave Details:**
  - Leave Approval/Rejection Status
  - Leave Balance Report

7.6.Hostel Module

7.6.1. Inputs:

- **Hostel Data:**
  - Student Accommodation
  - Room Assignment Data
  - Hostel Fee Details

7.6.2. Outputs:

- **Hostel Allocation Report:**
  - Room Assignment Status
  - Student List in Each Hostel Room
- **Billing Reports:**
  - Hostel Fee Payments

7.7.Administration Module

7.7.1. Inputs:

- **Administrative Settings:**
  - Institutional Policies, Academic Calendar, and Holiday Information
  - Departmental and Faculty Assignments
- **Campus Data:**
  - Campus Facilities and Resource Allocation
  - Departmental Budgets and Financial Information

7.7.2. Outputs:

- **Institutional Reports:**
  - Academic and Administrative Reports
  - Accreditation and Compliance Reports
- **Campus Operations Reports:**
  - Resource Usage (Classrooms, Labs, etc.)
  - Budget and Financial Health Reports
- **Custom Reports:**
  - Tailored Reports for Specific Departments or Roles
  - Real-Time Analytics for Strategic Decision Making

VIII. PROCESS MODEL USED FOR NICHE CAMPUS MANAGEMENT SOFTWARE

The NICHE Campus Management Software is designed to streamline and automate the various administrative, academic, and operational processes. To ensure the effective functioning of this software, a well-defined process model is necessary. The chosen process model for NICHE is the **Spiral Model**, which is highly suitable for projects that require frequent iterations, constant feedback, and continuous improvement.

8.1. Justification for Using the Spiral Model

The Spiral Model is a risk-driven, iterative software development model that combines the iterative nature of prototyping with the systematic aspects of the waterfall model. It is particularly effective for large, complex systems like campus management software, which require frequent updates, testing, and feedback.

8.2. Key Features of the Spiral Model in the Context of NICHE Software:

8.2.1. Iterative Development: The Spiral Model breaks down the project into smaller, manageable iterations, allowing for the continual refinement of features. Each iteration or "spiral" involves planning, risk analysis, development, testing, and evaluation. For NICHE software, this means that each module (Admission, Academics, Finance, etc.) can be developed and tested incrementally, with constant improvements based on user feedback.

8.2.2. Risk Management: Each cycle of the Spiral Model includes risk analysis, which helps to identify potential issues early in the process. For NICHE software, this is crucial, as the system involves various stakeholders (students, faculty, administrators) and must meet a range of functional, security, and performance requirements. The Spiral Model allows for the identification and mitigation of risks such as security vulnerabilities, data integrity issues, and integration problems as they arise.

8.2.3. User Feedback Integration: The Spiral Model allows for continuous user involvement and feedback. Since NICHE is meant to be used by multiple user groups (students, faculty, administrators), regular feedback from these groups during each iteration

ensures that the software meets their needs and addresses any concerns early in the development process.

8.2.4. Adaptability to Changing Requirements: One of the greatest advantages of the Spiral Model is its flexibility in responding to changing requirements. The NICHE system must constantly adapt to the evolving needs of the academic institution, including changes in policies, regulations, and technological advancements. By using the Spiral Model, the software can evolve to meet these needs without starting the development process from scratch.

8.2.5. Focus on Prototyping: The Spiral Model incorporates rapid prototyping, which allows for the early visualization of features, enabling stakeholders to interact with prototypes of the software and provide feedback. This is particularly important for NICHE software because administrators and faculty may need to review various modules (e.g., Finance, Examination) early on to ensure they meet institutional needs.

8.2.6. Incremental Delivery: Instead of delivering the entire system at once, the Spiral Model allows for incremental deliveries. This ensures that each module of the NICHE software is deployed, tested, and refined in smaller, manageable chunks. This reduces the time to market for each module and ensures that the software is continuously evolving to meet real-world needs.

8.3. Phases of the Spiral Model for NICHE Software Development

Each phase of the Spiral Model involves a set of activities that are crucial for the success of the project

8.3.1. Planning Phase:

- Define requirements for each module (Admission, Academics, Finance, etc.).
- Set project goals, milestones, and deadlines.
- Identify stakeholders and establish communication channels for regular feedback.

8.3.2. Risk Analysis Phase:

- Analyse risks such as system integration challenges, data migration, and security concerns.
- Develop strategies to mitigate these risks (e.g., using encryption for sensitive data, ensuring cross-module compatibility).

8.3.3. Engineering Phase (Development & Prototyping):

- Design and develop prototypes for different modules.
- Implement each module incrementally, starting with core functionalities such as the Admission module or Finance module.
- Integrate the modules into the overall system architecture.

8.3.4. Testing & Evaluation Phase:

- Test each module for functionality, usability, and security.
- Validate performance against requirements (load testing, scalability testing).
- Evaluate user feedback and incorporate changes.

8.3.5. Feedback Phase:

- Gather feedback from stakeholders (students, faculty, administrators).
- Identify issues, gather additional feature requests, and refine the design for future iterations.
- Update the project plan based on feedback and lessons learned.

8.3.6. Deployment & Maintenance Phase:

- Deploy modules in a phased manner across the institution.
- Monitor performance, security, and user experience.
- Provide ongoing maintenance and updates based on changing needs and feedback.

8.4. Advantages of the Spiral Model for NICHE Campus Management Software

- **Risk Reduction:** By addressing potential issues early in the development cycle and continuously refining the system, the Spiral Model reduces the likelihood of major project failures or costly delays.
- **Flexibility:** The ability to adjust and change course during each iteration allows NICHE software to adapt to new requirements, technological advancements, and user feedback.
- **Better Quality:** With continuous testing and refinement, each version of the system is of higher quality, ensuring fewer errors and better overall performance.
- **User-Centric Development:** By incorporating user feedback regularly, the software is more likely to meet the needs of students, faculty, and administrators, resulting in higher satisfaction.

IX. FUNCTIONAL REQUIREMENTS

The functional requirements describe the specific behaviour or functions of the system. The modules and their features are detailed below.

9.1. Admission Module

- **Entrance Sub-module**:
  - Allows students to apply for entrance exams online.
  - Provides scheduling and reporting features for entrance exams.
- **Admission Sub-module**:
  - Collects and processes student application data (personal information, academic records, documents).
  - Manages fee payments and provides status updates to applicants.
  - Generates admission reports and tracks progress.

9.2. Academics Module

- **Time Table Sub-module**:
  - Allows administrators to define and manage class schedules.
- **Course Management Sub-module**:
  - Allows administrators and faculty to create and manage courses.
- **Student Profile Sub-module**:
  - Manages student personal information, academic performance, and attendance records.
- **Attendance Management Sub-module**:
  - Tracks student attendance and generates attendance reports.

9.3. Finance Module

- **Reports Sub-module**:
  - Tracks fee payments (tuition, exam fees, etc.).
  - Generates financial reports, such as payment receipts, fee balance statements, and daily collection statements.
- **Payment Sub-module**:

- Handles payment processing for various fees, including online payments.
- Supports multiple payment methods (credit/debit cards, online bank transfers, etc.).

9.4. Examination Module

- **Exam Scheduling Sub-module**:
  - Allows administrators to schedule exams and assign invigilators.
  - Generates exam schedules and manages exam hall assignments.
- **Results Sub-module**:
  - Manages the entry of exam results.
  - Allows students to view their results online.

9.5. Human Resources Module

- **Employee Profile Management**:
  - Manages employee personal and professional details.
  - Tracks employee attendance, payroll, and performance.
- **Payroll Management**:
  - Calculates and processes employee salaries and benefits.
  - Generates payslips and tax reports.

9.6. Hostel Management Module

- **Hostel Management**:
  - Manages room allocation, occupancy, and hostel-related fees.
  - Allows students to request accommodations and tracks check-ins/check-outs.

9.7. Administration Module

- **Settings Management**:
  - Allows administrators to configure and manage academic calendars, policies, and financial settings.
  - Provides a centralized platform for managing institutional settings.

X. SPECIFICATIONS OVERVIEW

10.1.PHP

10.1.1. Overview of PHP

PHP is a widely used open-source server-side scripting language that is primarily used for web development. It is a powerful tool for creating dynamic and interactive web pages. PHP is highly popular due to its simplicity, flexibility, and ability to integrate seamlessly with various web technologies, making it a top choice for web developers. The language can be embedded directly into HTML, which makes it highly versatile for creating dynamic content.

10.1.2. Key Features of PHP

- **Server-Side Scripting:** PHP code runs on the server and generates dynamic HTML content for the client. This allows developers to create interactive web applications that respond to user actions or requests.
- **Ease of Use:** PHP is designed to be easy to learn and use. With simple syntax and built-in functions, PHP allows rapid development of web applications.
- **Database Integration:** PHP excels in database-driven applications. It supports many databases, especially MySQL, which is widely used in combination with PHP. It allows seamless integration with databases for tasks such as storing, retrieving, and updating data.
- **Cross-Platform Compatibility:** PHP is cross-platform, which means it can run on different operating systems such as Windows, Linux, macOS, and others. It can be deployed on multiple servers, including Apache and Nginx.
- **Open Source:** PHP is free to use and has a large community of developers contributing to its growth and improving its features. The open-source nature of PHP allows organizations to use it without licensing costs.
- **Security:** PHP provides robust security features such as data encryption, form validation, and secure connection handling for building secure applications.

10.1.3. PHP in Campus Management Software

PHP plays a central role in the development of the NICHE Campus Management Software. Here are the ways in which PHP is used in the system:

- **Web-based Interface:** PHP is used to build the web-based interface for various campus management functionalities like student admission, course registration, and fee payments.
- **Form Processing:** PHP handles form submissions, including student details, academic information, fee payment details, and more, ensuring smooth and secure data transfer between the client and the server.
- **Database Communication:** PHP communicates with the database to store and retrieve data. It processes requests such as retrieving student records, updating academic results, and generating reports.
- **Session Management:** PHP manages user sessions for administrators, faculty, and students, ensuring that user data is preserved across different pages and actions.

10.2.DBMS (Database Management System)

10.2.1. Overview of DBMS

A Database Management System (DBMS) is a software that manages and organizes data in a structured way. It provides an interface for users to interact with the data, allowing them to store, retrieve, update, and manage the information effectively. DBMS ensures the integrity, security, and consistency of data, which is essential for any application that deals with large volumes of data.

10.2.2. Types of DBMS

DBMS can be categorized into four types based on their data models:

- **Hierarchical DBMS:** Data is organized in a tree-like structure.
- **Network DBMS:** Data is organized in a graph structure, where each node can have multiple relationships.
- **Relational DBMS (RDBMS):** Data is organized into tables with rows and columns. Each table represents an entity, and relationships between entities are established through keys. Examples include MySQL, PostgreSQL, and Oracle.
- **Object-Oriented DBMS:** Data is stored as objects, similar to object-oriented programming principles.

For the NICHE Campus Management Software, Relational Database Management System (RDBMS) is the preferred choice due to its ability to manage structured data efficiently.

10.2.3. Key Features of DBMS

- **Data Integrity:** DBMS ensures that the data is accurate, consistent, and free from errors by enforcing constraints such as primary keys, foreign keys, and unique constraints.
- **Data Security:** DBMS offers advanced security features, including access control, encryption, and authentication, to protect sensitive data.
- **Data Retrieval:** DBMS provides powerful querying capabilities, allowing users to retrieve data using Structured Query Language (SQL). It can execute complex queries efficiently, which is essential for generating reports and records and managing student data.
- **Backup and Recovery:** DBMS systems support backup and recovery mechanisms to prevent data loss and ensure data availability even in case of system failures.
- **Concurrency Control:** DBMS ensures that multiple users can access and modify the database simultaneously without causing conflicts or data inconsistencies.
- **Data Redundancy Elimination:** DBMS reduces redundancy by organizing data into tables, thereby ensuring that the same information is not stored in multiple places, which improves storage efficiency.

10.2.4. Role of DBMS in NICHE Campus Management Software

In the NICHE Campus Management Software, the DBMS serves as the central repository for all campus-related data, including student records, academic information, fee payments, exam results, staff details, and more. Here are the ways the DBMS is utilized in the system:

- **Data Storage:** All records related to admissions, academic courses, finance transactions, and examinations are stored in the database.
- **Data Retrieval:** The system retrieves and displays data on user interfaces, such as student profiles, academic results, attendance, and financial statements.
- **Data Integrity and Security:** The DBMS ensures that only authorized users can access or modify the data, providing the necessary access control mechanisms for students, faculty, and administrators.
- **Report Generation:** The DBMS is used to generate various reports, such as fee payment reports, exam result reports, student attendance reports, and more. It allows administrators to query the data and generate custom reports for analysis and decision-making.

10.2.5. Database Choice for NICHE Campus Management Software

For the NICHE Campus Management Software, the database choice is typically MySQL (or any other suitable relational DBMS), which is a widely used open-source RDBMS known for its speed, reliability, and ease of use. It works seamlessly with PHP and is highly scalable, making it suitable for handling a large volume of data in a campus management system.

10.3.Benefits of Using PHP and DBMS

- **Seamless Integration:** PHP and MySQL (or other DBMS) integrate well together, allowing smooth interaction between the web application and the database.
- **Efficiency:** The combination of PHP for the backend and DBMS for data storage ensures that the system is both fast and efficient.
- **Scalability:** PHP and DBMS systems can scale to handle increased user loads and growing datasets, making it a viable solution for expanding campus management needs.
- **Cost-Effective:** As both PHP and MySQL are open-source, they offer a cost-effective solution for developing and maintaining the system.

By leveraging PHP and a relational DBMS like MySQL, the NICHE Campus Management Software ensures efficient, secure, and reliable management of campus operations.

XI. DATABASE DESCRIPTION FOR NICHE CAMPUS MANAGEMENT SOFTWARE

The **NICHE Campus Management Software** relies heavily on a well-structured and organized database to store, manage, and retrieve data efficiently. Below is a detailed description of the database structure, including the types of data stored, key tables, and relationships between them.

11.1. Database Overview

The database for NICHE Campus Management Software is designed to handle various aspects of institution management, including admissions, academics, finance, human resources, hostel management, and examination processes. It serves as the central repository for all data associated with these functions.

The database is relational, and the key components include:

- **Students**: Personal information, academic details, attendance, and performance.
- **Faculty**: Information on faculty members, their courses, schedules, and performance.
- **Courses**: Course details, schedules, registrations, and grades.
- **Finance**: Fee payments, billing, receipts, and financial reports.
- **Examinations**: Exam schedules, question papers, grades, and results.
- **HR**: Employee records, payroll, and attendance.
- **Hostel**: Student accommodation details, room allocation management.

The relational database structure uses **primary keys** to uniquely identify records in each table and **foreign keys** to establish relationships between tables.

11.2. Overview of Major Tables

11.2.1. Admissions and Student Management

- **applicant:** Contains information about applicants, including personal and educational background details.
    - **Fields:** app_no, name, email, dob, qualification, status
- **student:** Holds the primary details of enrolled students, covering both academic and personal information.

  - **Fields:** roll_no, name, department_code, course_code, dob, batch, email, mobile_no

- **candidate_qualification:** Manages records of qualifications submitted by candidates during the admission process.
  - **Fields:** app_no, qualification_type, year_of_passing, institution

11.2.2. Academics and Course Management

- **academic_calendar:** Stores key dates and events for academic scheduling, including semester dates.
  - **Fields:** academic_year, semester, start_date, end_date
- **course:** Manages information on courses offered by the institution, such as capacity, prerequisites, and eligibility.
  - **Fields:** course_code, course_name, capacity, department_code
- **course_paper:** Lists the subjects associated with each course, with details on grading and evaluation criteria.
  - **Fields:** course_code, paper_code, semester, internal_pass_mark, external_pass_mark

11.2.3. Attendance Management

- **daily_attendance:** Logs attendance on a daily basis for students across subjects.
  - **Fields:** date, roll_no, subject_code, status
- **attendance_percentage:** Stores calculated attendance percentages for students.
  - **Fields:** roll_no, semester, subject_code, attendance_percentage

11.2.4. Examinations Management

- **exam_hall:** Lists exam halls, detailing their capacity and available seats.
  - **Fields:** hall_code, name, capacity, available_capacity
- **exam_hall_allocation_header:** Stores main details for exam hall allocations, linking dates, sessions, and halls.
  - **Fields:** code, exam_year_month, exam_date, hall_code, session
- **final_result:** Contains final exam results, covering both internal and external marks, and revaluation status.

- **Fields:** roll_no, semester, subject_code, internal_mark, external_mark, result_status

11.2.5. Human Resources (HR) Management

- **staff:** Holds detailed records of faculty and administrative staff, covering qualifications, personal details, and employment history.
  - **Fields:** staff_id, name, designation, department, qualification, email, contact
- **staff_attendance:** Tracks daily attendance of staff members.
  - **Fields:** staff_id, attendance_date, status
- **payroll_ledger:** Manages payroll entries, detailing earnings, deductions, and final payment amounts.
  - **Fields:** staff_id, pay_code, basic_pay, deductions, final_payment

11.2.6. Hostel Management

- **hostel:** Stores information about hostel blocks and their overall capacity.
  - **Fields:** hostel_id, block_name, total_capacity
- **hostel_room:** Manages individual room details, including availability and capacity.
  - **Fields:** room_no, hostel_id, capacity, available_capacity
- **hostel_allocation:** Tracks which students are assigned to specific rooms.
  - **Fields:** hostel_id, roll_no, room_number, start_date, end_date

11.2.7. Key Fields in Some Tables

- **Student Information (student):** roll_no, name, department_code, course_code, dob, batch, email, mobile_no
- **Course Details (course):** course_code, course_name, semester, internal_pass_mark, external_pass_mark
- **Exam Hall Allocation (exam_hall_allocation_header):** code, exam_date, session, hall_code
- **Final Exam Results (final_result):** roll_no, semester, subject_code, internal_mark, external_mark, result_status

11.3. Database Relationships

- **One-to-Many Relationships:**
  - A course (course) has multiple papers (course_paper).
  - A student (student) has multiple attendance records (daily_attendance).
  - One faculty member (staff) can teach multiple courses (course).
- **Many-to-Many Relationships:**
  - A student can enroll in multiple courses (course_paper), and each course can have many students.

11.4. Security and Integrity

- **Primary Keys:** Uniquely identify records across tables (e.g., roll_no in student, course_code in course).
- **Foreign Keys:** Establish relationships between tables to maintain referential integrity (e.g., department_code in staff references department).
- **Access Control:** Role-based access for restricted access to sensitive data (e.g., payroll details, grades).

XII. SYSTEM TESTING

System testing ensures the software works as expected, is free from bugs, and meets user requirements. Testing is performed in several stages

12.1.Unit Testing:

- Testing individual components or units of the software (e.g., database queries, form validation, report generation) for expected behavior.
- This is carried out by developers using PHPUnit or similar testing frameworks.

12.2. Integration Testing:

- Testing the interaction between modules, ensuring that data flows smoothly between different components like student registration, course management, and finance.
- This ensures that the integrated system functions as a whole.

12.3. System Testing:

- Testing the entire system to verify it meets the functional requirements. This includes testing the user interface, backend functionality, database queries, and overall performance.
- Testing is done by a QA (Quality Assurance) team using tools like Selenium or Postman for automated testing.

12.4. User Acceptance Testing (UAT):

- The system is tested by actual users (faculty, students, HR, etc.) to ensure that it meets their needs and is user-friendly.
- Feedback is collected and used to make any final adjustments to the system.

12.5. Performance Testing:

- Load testing is performed to ensure the system can handle a large number of concurrent users, especially during peak usage periods (e.g., during registration or exam periods).

XIII. USER TRAINING

Training is an essential part of system implementation. The following steps are taken to ensure users are comfortable using the system:

13.1. Admin and Faculty Training: Admins and faculty are trained on how to manage student data, generate reports, process attendance, manage finances, and oversee student course registration.

13.2. Student Orientation: Students are provided with instructions on how to register for courses, pay fees, and use the system's features relevant to them.

XIV. SECURITY IN SOFTWARE FOR NICHE CAMPUS MANAGEMENT SOFTWARE

The security of the NICHE Campus Management Software is crucial as it handles sensitive information such as student records, financial transactions, employee data, and academic results. The system is designed to incorporate multiple layers of security to safeguard data integrity, ensure privacy, and prevent unauthorized access. Below are the key security features and measures implemented in the software:

14.1. User Authentication and Authorization

- **Role-Based Access Control (RBAC)**: The system utilizes role-based access control to ensure that users have access to only the information and features relevant to their roles. Users are categorized into different roles (e.g., Admin, Faculty, Students, HR, Finance) and granted specific permissions accordingly.
    - **Admins** have full access to the system's functionality, including user management and system configurations.
    - **Faculty and Staff** have access to student records, grades, attendance, and other relevant academic data.
    - **Students** can only access their personal information, course registration, and exam results.
    - **HR/Finance** have access to employee records, payroll, and student fee information.
- **Secure Authentication**: The system uses a secure login process to authenticate users before granting access. This includes:
    - **Password Protection**: Users must provide a valid username and password to access the system. Passwords are stored in an encrypted format to protect against unauthorized access.

14.2. Data Encryption

- **Data Encryption at Rest**: All sensitive data, including student records, employee details, financial transactions, and other personal information, is encrypted while stored in the database using industry-standard encryption algorithms. This ensures that even if data is accessed or stolen, it remains unreadable and protected.

- **Data Encryption in Transit**: Communication between the client (user's browser) and the server is encrypted using SSL/TLS protocols. This ensures that data transferred between the user's device and the server (e.g., login credentials, student records, payments) is encrypted and protected from interception during transmission.

14.3. Secure Database Management

- **Database Security**: The MySQL database is secured using best practices, including:
  - **Strong Authentication**: Only authorized personnel with a secure database login can access the database.
  - **Least Privilege Principle**: Database users are granted only the minimum necessary permissions, reducing the risk of unauthorized access.
  - **Regular Backups**: Regular backups are taken to prevent data loss and allow recovery in case of a security breach or system failure.
- **SQL Injection Prevention**: The system employs secure coding practices to prevent SQL injection attacks. This includes:
  - Using **Prepared Statements** with parameterized queries to ensure that user inputs are properly sanitized and validated before being passed to the database.
  - Avoiding dynamic SQL queries, which could allow malicious users to inject harmful SQL code into the system.

14.4. Session Management

- **Session Security**: Sessions are used to track authenticated users and maintain their logged-in status. To enhance session security:
  - **Session Timeout**: Users are automatically logged out after a period of inactivity (e.g., 15 minutes) to prevent unauthorized access if a user leaves their device unattended.
  - **Session Encryption**: Session data is encrypted and stored securely to prevent tampering or session hijacking.
- **Secure Cookies**: The system uses secure cookies to store session IDs, which are transmitted only over HTTPS and have the HttpOnly flag enabled. This prevents attackers from accessing session data via client-side scripts.

14.5. Audit Logs and Monitoring

- **Audit Trails**: The system maintains comprehensive logs of all user activities, including login attempts, data modifications, and system access. This provides a record of actions for audit purposes and helps track potential security breaches or unauthorized activity.
    - **Login History**: The system tracks and logs user login attempts, including failed login attempts, IP addresses, and timestamps, to detect any suspicious login behavior.
    - **Activity Logs**: Changes to sensitive data (e.g., student records, fee payments) are logged with details such as the user's identity, the change made, and the timestamp.
- **Real-Time Monitoring**: The system is equipped with monitoring tools to detect and respond to security threats in real-time. These tools can help identify abnormal patterns of access, unauthorized login attempts, and potential security breaches, allowing administrators to take quick action.

14.6. Data Privacy and Compliance

- **Data Minimization**: The system only collects and stores the minimum amount of personal data necessary to fulfill its functionality. This helps minimize the risk of exposure in case of a breach.
- **Data Anonymization**: In cases where sensitive personal information is not required for processing, the system uses data anonymization techniques to ensure that no personal identifiers are exposed or stored unnecessarily.

14.7. Regular Security Updates and Patching

- **Security Patches**: The software and underlying server infrastructure are regularly updated to patch known security vulnerabilities. This includes updates to the PHP framework, database server, web server, and any third-party libraries integrated into the system.
- **Vulnerability Scanning**: Periodic security scans and penetration testing are conducted to identify and fix potential vulnerabilities before they can be exploited by attackers.

14.8. Backup and Disaster Recovery

- **Data Backup**: Regular backups of critical data (including student records, financial data, and user settings) are taken and stored securely. These backups are encrypted to ensure data confidentiality.
- **Disaster Recovery Plan**: A disaster recovery plan is in place to ensure the availability of the system in the event of a security breach or system failure. This includes restoring the most recent secure backups and ensuring the system can be restored to normal operation in a timely manner.

XV. MAINTENANCE IN SOFTWARE FOR NICHE CAMPUS MANAGEMENT SOFTWARE

Maintenance of the NICHE Campus Management Software is a critical aspect of ensuring that the system continues to function effectively, remains secure, and adapts to changing institutional needs. The maintenance process includes activities that help keep the software up-to-date, improve its performance, resolve issues, and enhance its functionality. Below are the key maintenance activities involved in the NICHE Campus Management Software.

15.1. Types of Maintenance

The maintenance of the system is categorized into the following types:

- **Corrective Maintenance**: Corrective maintenance focuses on fixing issues or defects that may arise in the system, including bugs, errors, and malfunctions. This type of maintenance is necessary to ensure that the software continues to function as expected and resolves problems reported by users.
- **Adaptive Maintenance**: Adaptive maintenance involves modifying the software to accommodate changes in the system environment or user requirements. This includes adapting the software to changes in the hardware, operating systems, or third-party software libraries. It also includes updates required due to changes in laws, regulations, or business practices.
- **Perfective Maintenance**: Perfective maintenance aims at improving the software's performance and functionality. It involves enhancements to existing features, optimizing code, improving user interface design, and adding new features or modules that improve the overall user experience.
- **Preventive Maintenance**: Preventive maintenance is performed to identify and resolve potential issues before they can cause major problems. This includes tasks such as conducting security audits, updating software components, optimizing the database, and ensuring system backups are taken regularly.

15.2. Maintenance Activities

The specific activities involved in the maintenance of NICHE Campus Management Software include:

15.1.1. Regular Software Updates

- **Patch Management**: The system will be periodically updated with security patches, bug fixes, and minor enhancements. These updates ensure that the software remains secure and functions without errors. Updates may include patching the application, database management systems, and any third-party libraries or frameworks used in the system.
- **Version Upgrades**: As new versions of the software's framework, programming languages (e.g., PHP), and database management system (e.g., MySQL) are released, the system will be upgraded to ensure compatibility with the latest features, security fixes, and performance improvements.

15.1.2. Bug Fixing and Error Resolution

- **Bug Tracking**: Any bugs or errors reported by users or identified by the system administrators are logged in a bug-tracking system. These bugs are then prioritized and fixed in the appropriate maintenance cycle.
- **Error Logs Review**: Regular reviews of error logs and system logs will be conducted to detect anomalies or failures in the system. Any errors related to user authentication, database queries, payment processing, or other critical areas will be promptly addressed to prevent service disruption.

15.1.3 Performance Optimization

- **Database Optimization**: Over time, as the amount of data increases, the database may experience performance issues. Regular database optimization activities, such as indexing, query optimization, and clean-up of obsolete records, will be conducted to ensure efficient data retrieval and better system performance.
- **Code Optimization**: The software's codebase will be periodically reviewed and optimized for performance. This includes refactoring inefficient code, removing redundant processes, and ensuring that the software is running as efficiently as possible.
- **Load Testing**: Periodic load testing will be conducted to simulate high user traffic and ensure that the system can handle peak loads without compromising performance. Any identified performance bottlenecks will be addressed.

15.1.4. Security Maintenance

- **Security Patches**: The software will receive regular security updates to fix any vulnerabilities identified by the development team or through external security audits. Security patches for the underlying server, PHP, and other related software will be applied promptly.
- **Security Audits**: Regular security audits will be conducted to assess the system for vulnerabilities, such as potential SQL injection points, weak encryption, or other security risks. A vulnerability scanning tool will be used to proactively detect any weaknesses.
- **Data Backups**: Regular backups of the system's database and critical data will be scheduled and stored securely. Backup schedules will be defined to ensure that data can be recovered in case of any system failure or data corruption.

15.1.5. User Support and Feedback Management

- **User Support**: A dedicated support team will be available to address issues reported by users, whether they are related to functionality, user experience, or bugs. Support may include answering user queries, troubleshooting problems, and providing guidance on using the system.
- **User Feedback Analysis**: Feedback from end users (administrators, faculty, students, and staff) will be continuously collected and analyzed to identify areas for improvement or new features to be added. This helps the software adapt to changing user needs and improve overall user satisfaction.

15.1.6. Documentation Updates

- **System Documentation**: The system's technical and user documentation will be regularly updated to reflect any changes made during the maintenance process, such as new features, updated workflows, or changes in security procedures. This ensures that both developers and users have access to accurate and up-to-date information.
- **User Training and Manuals**: As new features or changes are implemented, the training materials and user manuals will be updated. This includes creating new tutorials, guides, and training sessions for administrators, faculty, and students to ensure they can effectively use the system.

15.7. Maintenance Schedule

A formal maintenance schedule will be established, detailing the frequency of different types of maintenance activities:

- **Daily Maintenance**: Monitoring system health, database backups, and error log reviews.
- **Weekly Maintenance**: Performance optimization tasks and bug fixing.
- **Monthly Maintenance**: Security audits, patch application, and user feedback review.
- **Quarterly Maintenance**: Major version upgrades, load testing, and system health checks.

15.8. Benefits of Ongoing Maintenance

Ongoing maintenance provides several key benefits:

- **Enhanced Security**: Regular updates and security patches ensure that the system is protected against evolving cyber threats.
- **Improved Performance**: Optimizations ensure that the system runs efficiently and can handle increasing user loads.
- **User Satisfaction**: Regular updates based on user feedback ensure that the software evolves to meet user needs.
- **Reduced Downtime**: Proactive maintenance helps prevent system failures and ensures that the system remains operational at all times.

CONCLUSION

The NICHE Campus Management Software is a comprehensive solution designed to streamline and automate the administrative, academic, financial, and support. The software's modular architecture, encompassing areas such as Admissions, Academics, Finance, Examinations, Human Resources, Hostels, and Fleet management, ensures that all aspects of campus operations are managed efficiently and effectively.

The system leverages modern technologies such as PHP and MySQL, ensuring high performance, scalability, and flexibility. The integration of advanced features like real-time updates, secure payment gateways, attendance tracking, and performance analysis tools contributes to a seamless user experience for both staff and students. The inclusion of detailed reports and dashboards enhances decision-making capabilities and operational transparency.

Throughout the development and implementation phases, emphasis has been placed on security, reliability, and user-friendliness. Rigorous testing procedures, including bug fixes, system optimization, and regular security updates, are in place to ensure that the system continues to meet the evolving needs of the institution.

Furthermore, the software's ongoing maintenance and support mechanisms are designed to address emerging requirements, adapt to changes in technology, and resolve any issues promptly. Regular updates, user feedback integration, and proactive security audits guarantee that the software remains secure, efficient, and aligned with best practices.

In essence, the NICHE Campus Management Software provides a powerful tool to enhance operational efficiency, improve student and staff experiences, and ensure smooth functioning across all areas of campus management. As technology continues to evolve, this software will serve as a robust platform for supporting future innovations and adapting to the dynamic needs of the institution.

XVII. LIMITATIONS

While the NICHE Campus Management Software offers a comprehensive and integrated solution for managing various aspects of campus operations, there are certain limitations that should be considered:

17.1. Dependency on Internet Connectivity: As the software is web-based, a stable internet connection is essential for its optimal functioning. In areas with unreliable internet infrastructure, users may face connectivity issues, which could disrupt access to critical functionalities.

17.2. Training and Adaptability: Despite the system's user-friendly interface, there may be a learning curve for staff and faculty, especially those who are not tech-savvy. Comprehensive training and ongoing support are required to ensure smooth adoption across the institution.

17.3. Limited Mobile Functionality: The current version may not fully support mobile-based functionalities, such as mobile apps or responsive design, which could limit access for users who prefer using smartphones or tablets over desktop systems.

XVIII. FUTURE IMPROVEMENTS

While the NICHE Campus Management Software is designed to meet the current needs of educational institutions, there are several areas where improvements can be made to enhance its functionality, scalability, and user experience. These potential improvements can ensure that the software remains relevant and adaptable to future technological advancements and institutional requirements:

18.1. Mobile Application Development: Developing a dedicated mobile application for students, faculty, and administrators would enhance accessibility and enable users to access the system from anywhere at any time. Mobile-based features like notifications, course updates, attendance tracking, and fee management would improve the user experience.

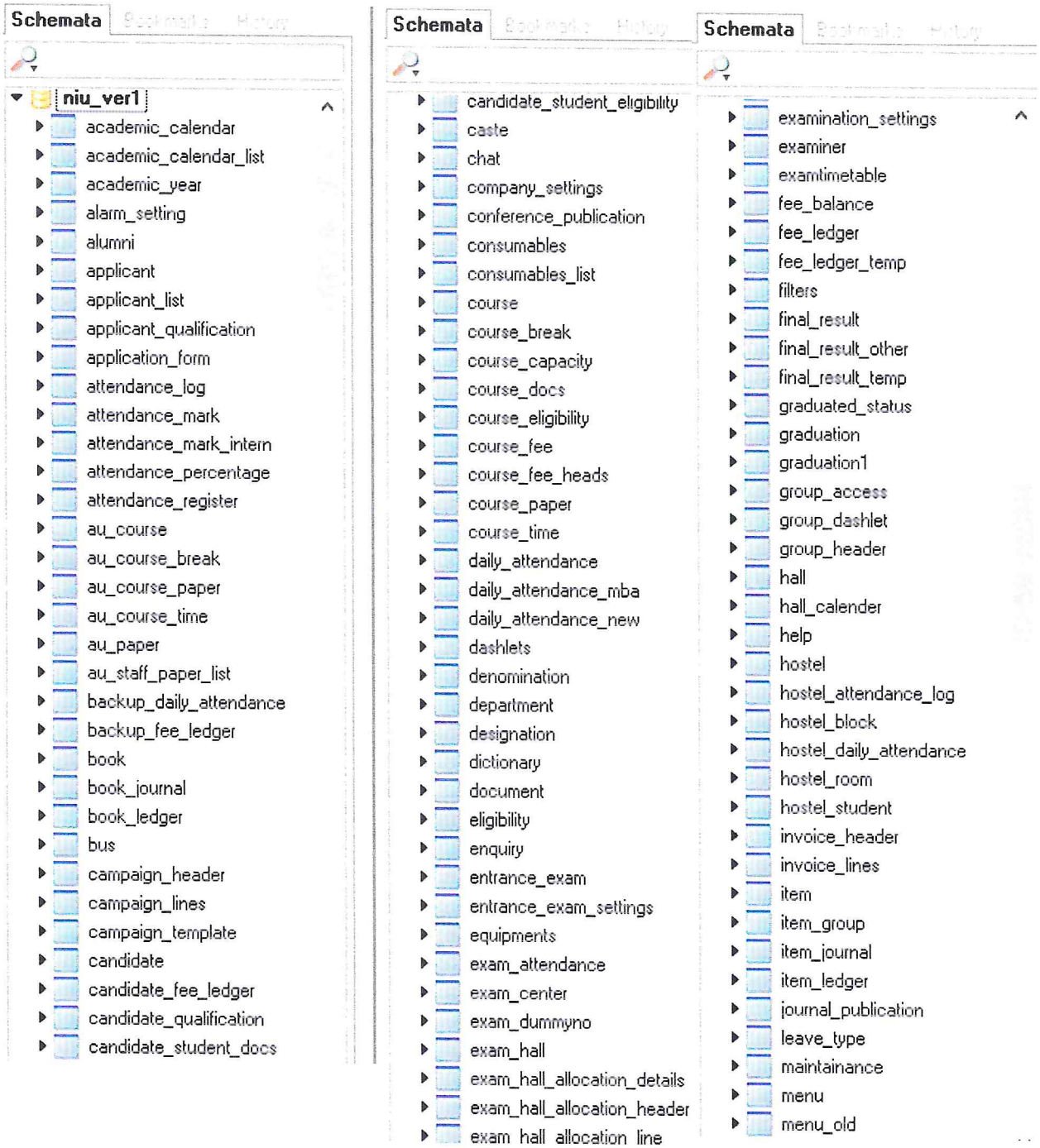
18.2.Artificial Intelligence (AI) Integration: AI can be integrated to enhance the functionality of the system. AI-driven analytics could help in predicting student performance, tracking behavioral trends, and even suggesting personalized academic or career paths for students. Automated tutoring or chatbots for students and staff queries could be another useful AI-based addition.

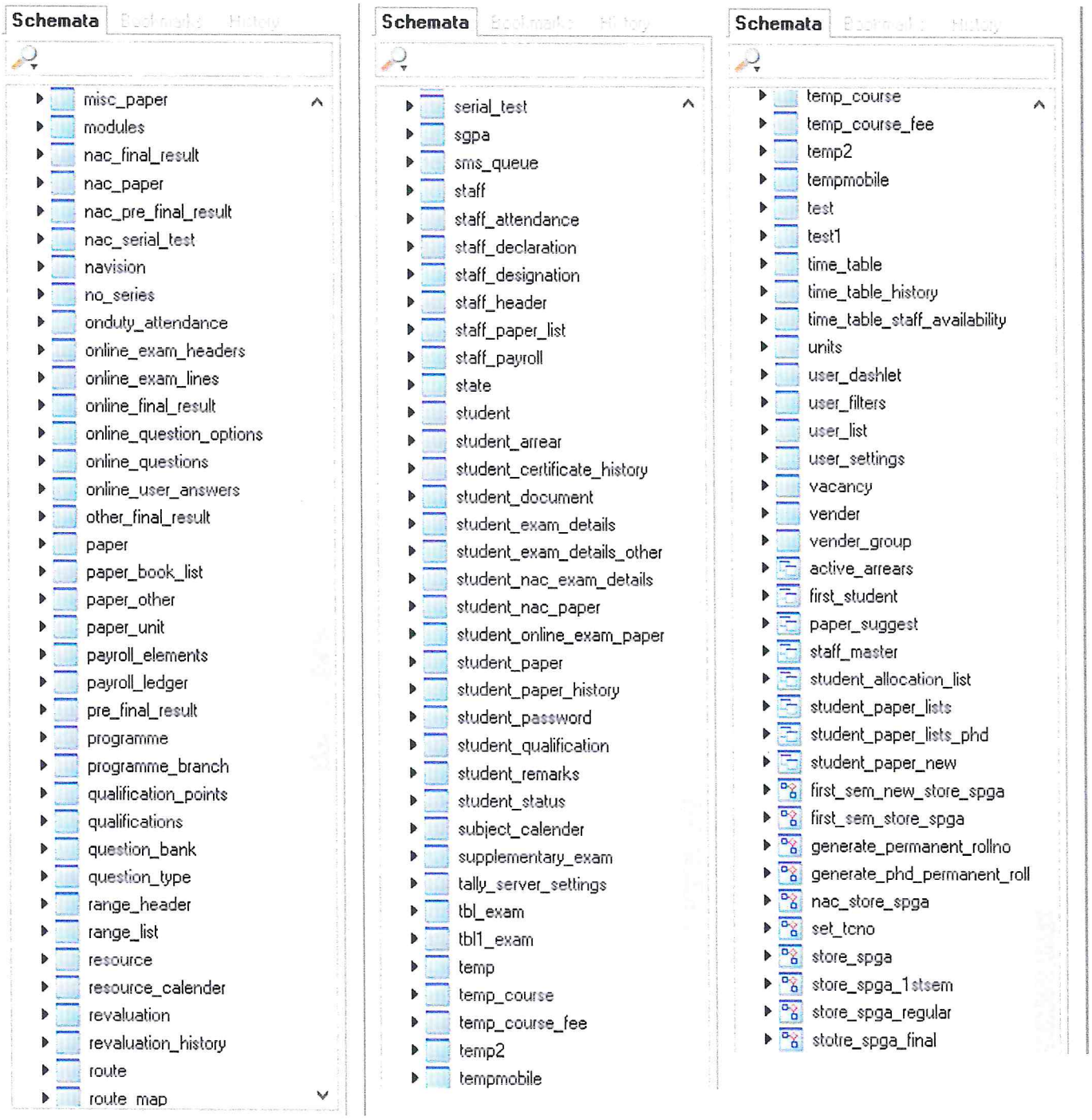
18.3. Advanced Data Analytics and Reporting: Introducing more advanced data analytics capabilities could enable institutions to generate deeper insights into student performance, financial trends, and academic outcomes. Interactive dashboards and AI-powered reporting tools could be integrated to help administrators make data-driven decisions.

18.4. Seamless Integration with Other Educational Platforms: To enhance the software's utility, integration with other widely-used educational tools, such as Learning Management Systems (LMS), Student Information Systems (SIS), and Communication platforms (e.g., Zoom, Google Classroom), could improve functionality. This would provide a more holistic system for managing all educational and administrative needs in one place.

APPENDICES

APPENDIX I: SCREENSHOTS OF DATABASE TABLES

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sms_queue
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student_remarks
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user_list
user_settings
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student_paper_new
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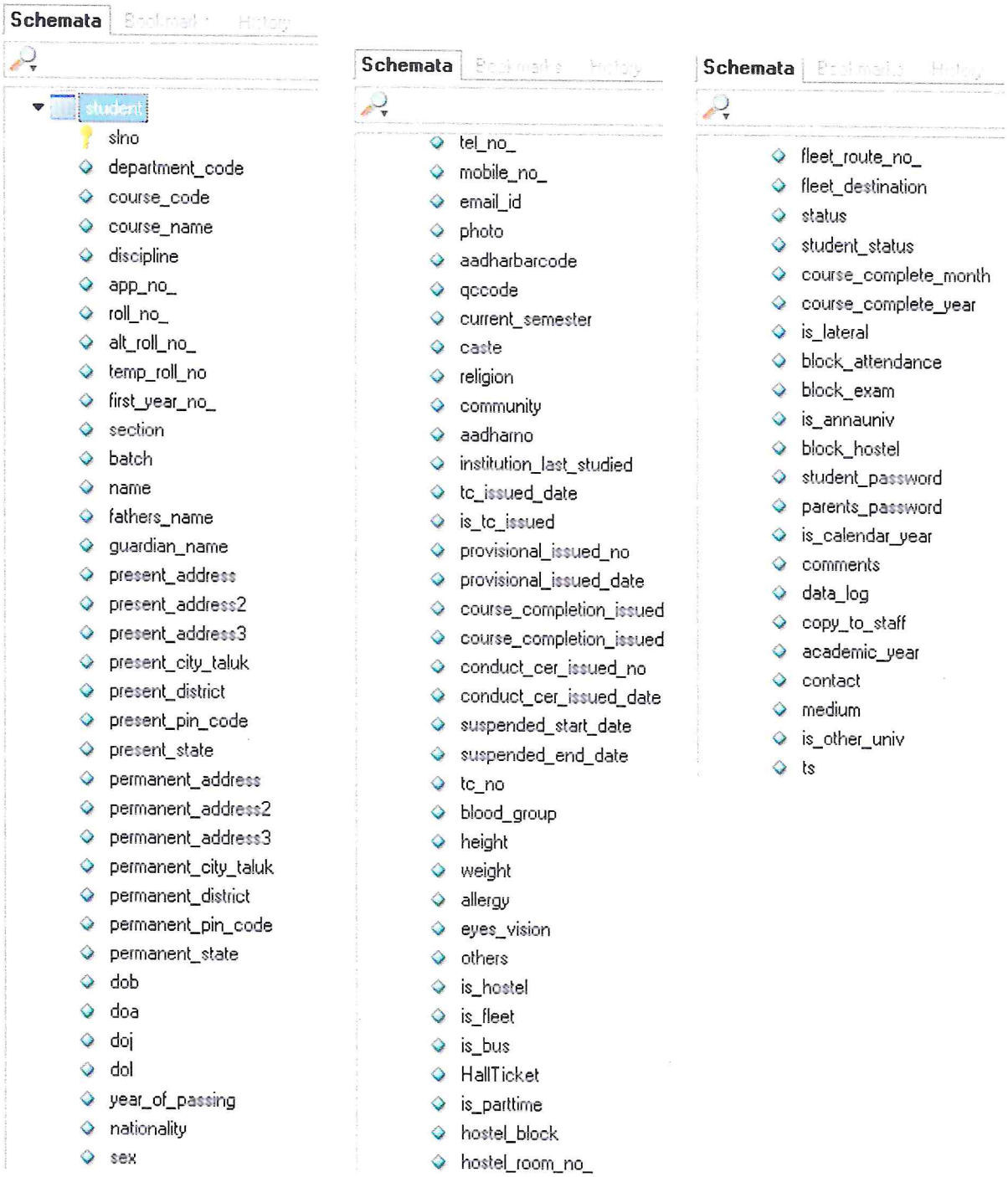
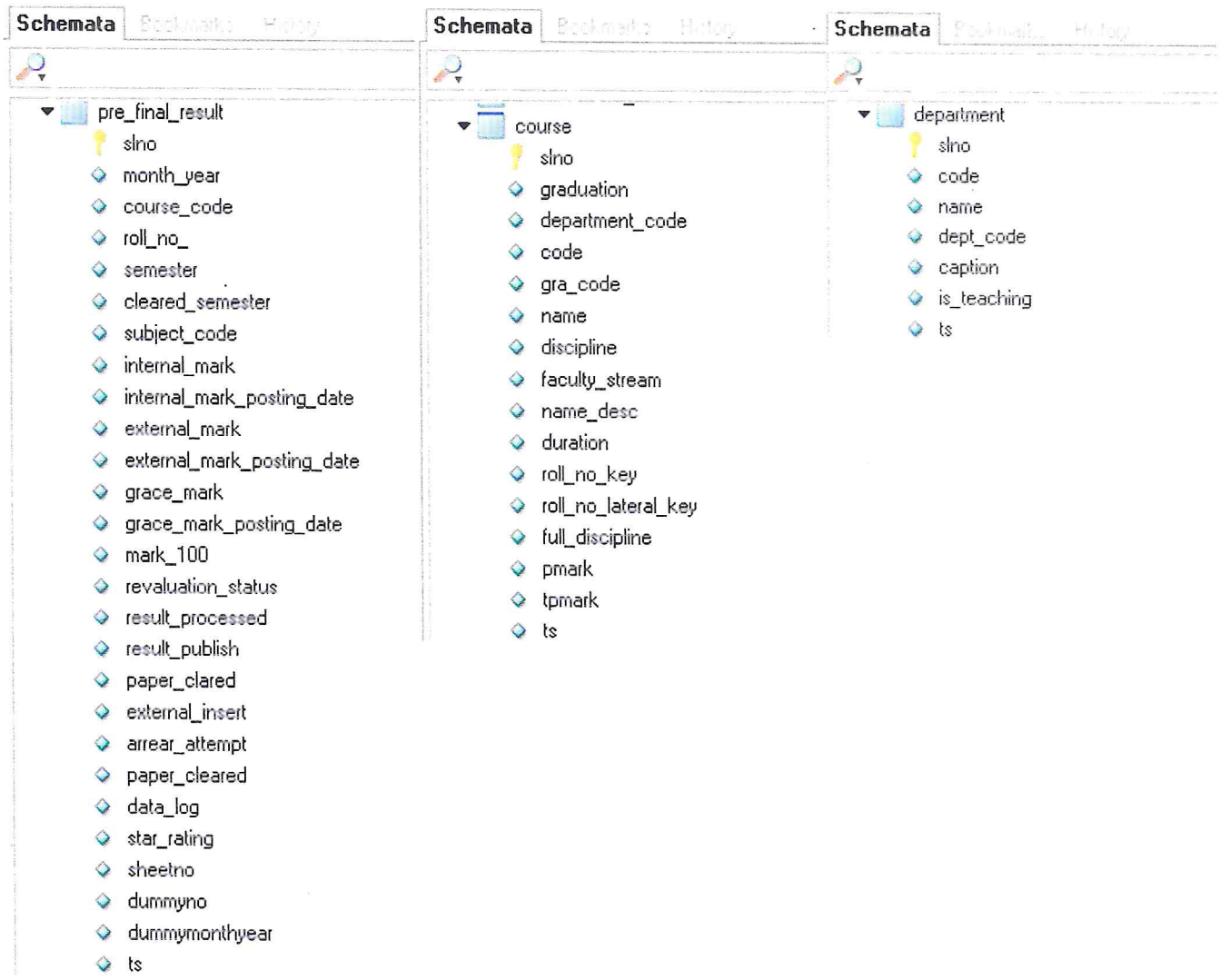
APPENDIX II: SCREENSHOTS OF DATABASE FIELDS FROM EACH TABLE

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external_mark
external_mark_posting_date
grace_mark
grace_mark_posting_date
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paper_clared
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arrear_attempt
paper_cleared
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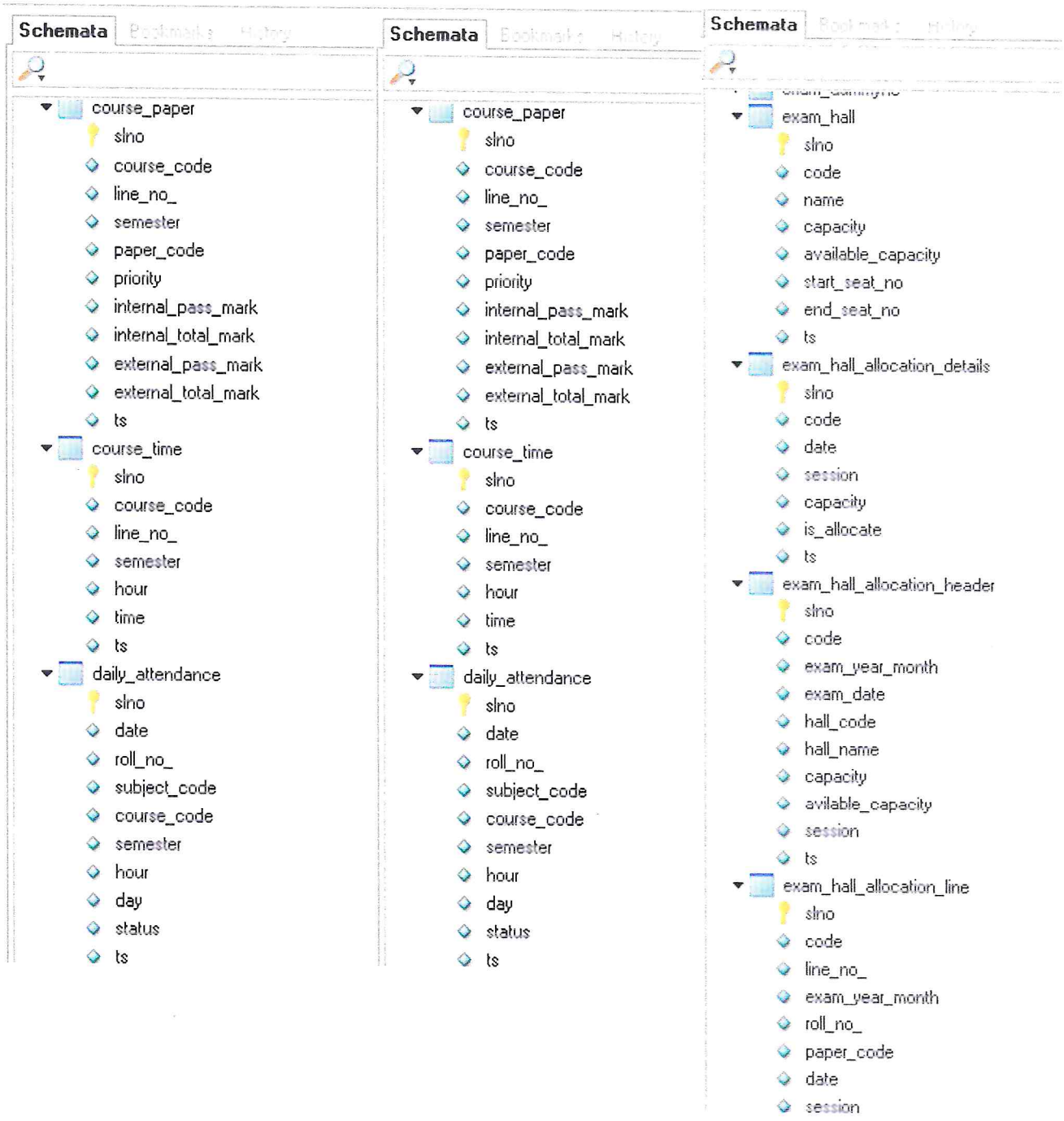
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time
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day
status
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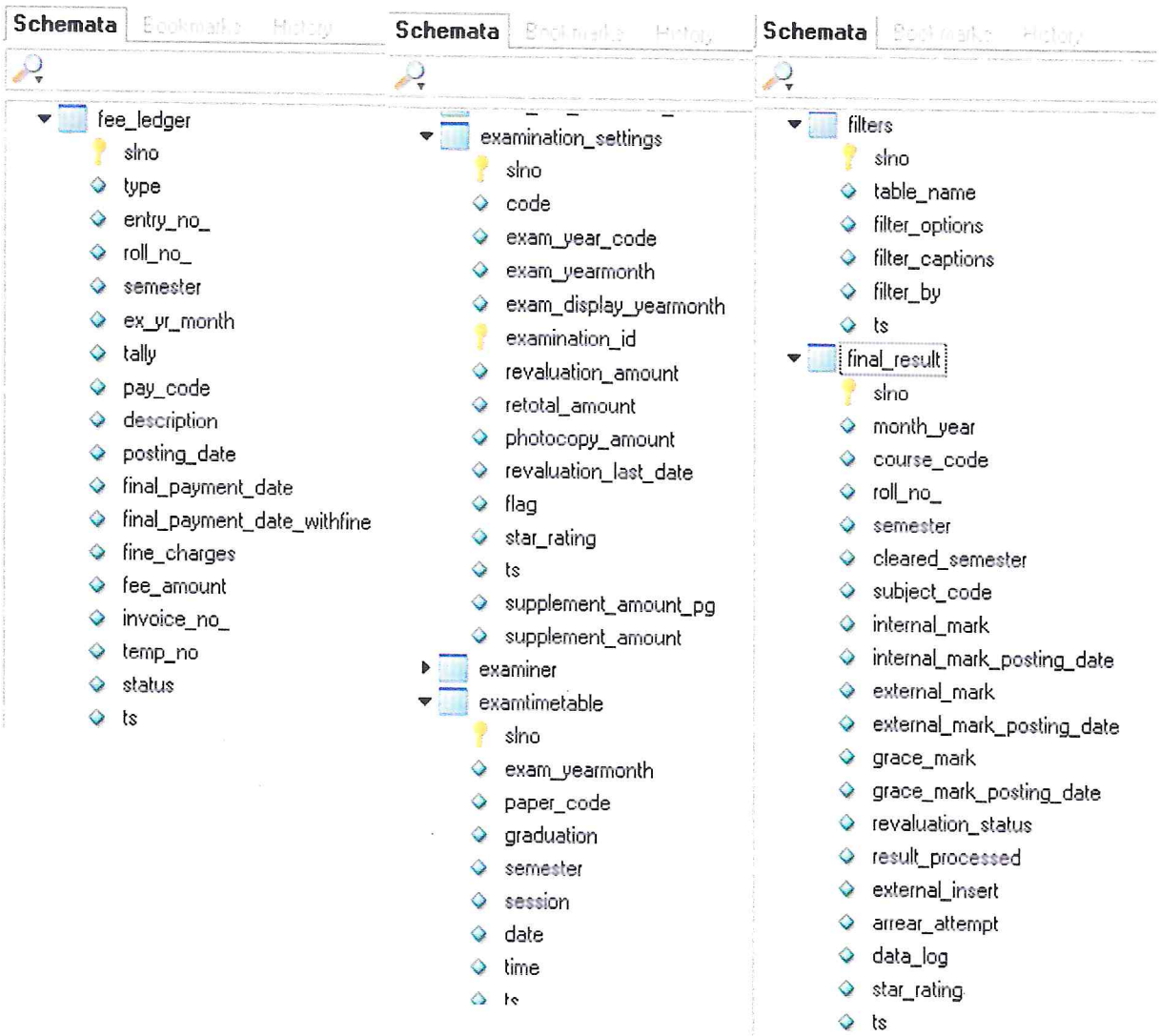
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fee_amount
invoice_no_
temp_no
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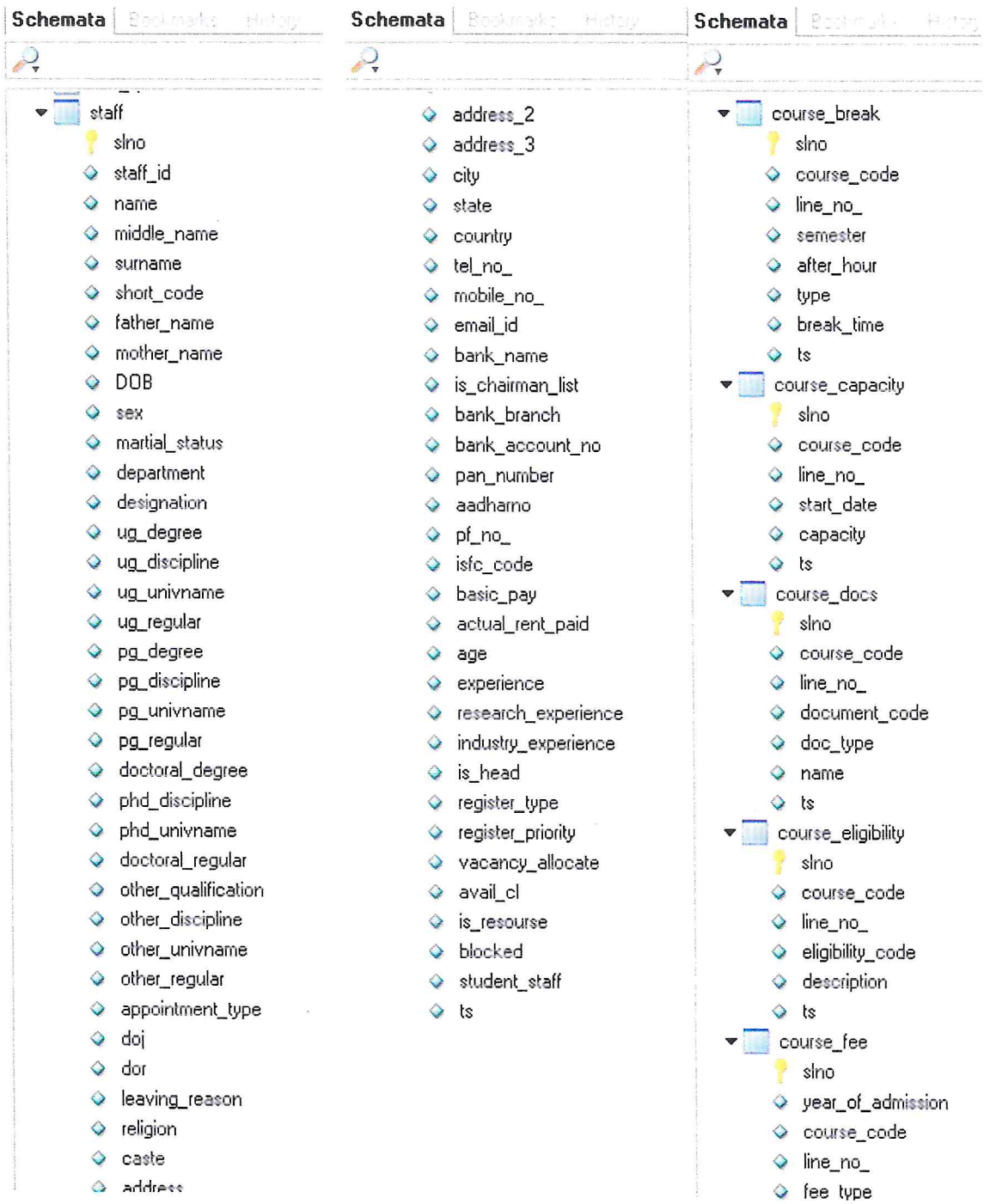
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isfc_code
basic_pay
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industry_experience
is_head
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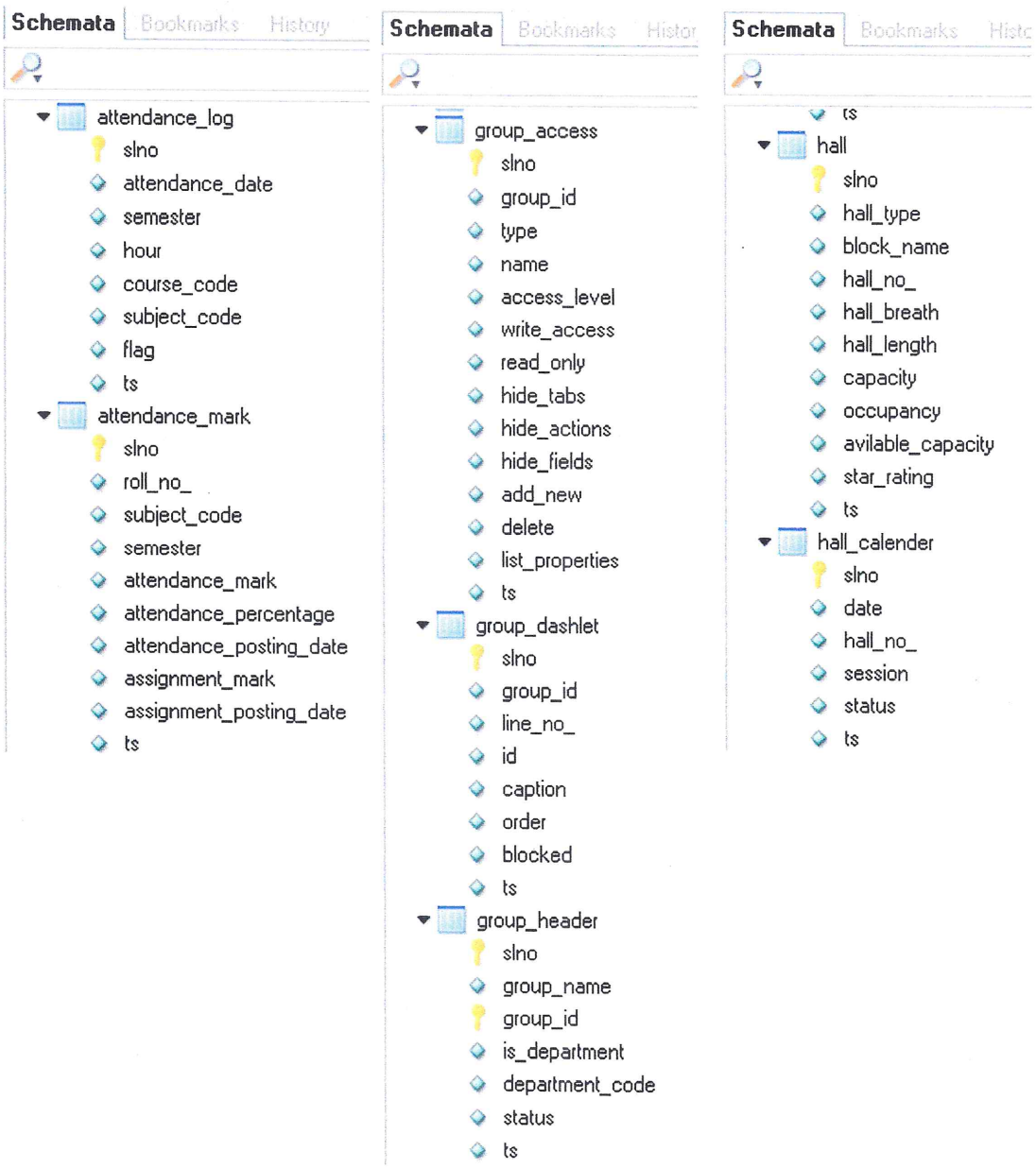

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CRITERION 6

Facilities and Technical Support

CRITERION 6	Facilities and Technical Support

Facilities and Technical Support(80)

The Department of Computer Applications has a strong academic profile, supported by state-of-the-art infrastructure. Provides a comprehensive range of equipment, facilities, and technical expertise to support teaching, learning, and research in applied computing.

The department is staffed with qualified and experienced faculty members who adopt innovative teaching methodologies using ICT-enabled smart classrooms. It offers an industry-oriented curriculum with emphasis on practical learning, research, and skill development. Students are encouraged to participate in internships, projects, workshops, seminars, and technical events to enhance their professional competencies. promotes value-added and certification courses, and maintains an effective mentoring system to support academic excellence, employability, and overall student development

6.1.Availability of Adequate, Well-equipped Classrooms and Tutorial Rooms to Meet the Curriculum Requirements(15)

Class rooms architecturally designed with optimal room for natural/electrical light and air, provide vibrant backdrop the academic achievements and offer a unique place to study, relax and develop. The lecture halls are allotted for theory class for the students.

Sl.No	Class	Room No
1.	Lecture Hall –I	X101
2.	Lecture Hall –II	X102
3.	Lecture Hall –III	X103
4.	Lecture Hall-IV	X202
5.	Smart Class Room	X201

Table 6.1A Class rooms

The Smart Class room located on the first floor is equipped with advanced teaching–learning facilities to support faculty members. The classroom is furnished with modern instructional technologies such as a 65-inch Interactive Display (CDX-65i) and an LED projector. The interactive display enables effective content delivery and supports the demonstration of industrial applications and Internet of Things (IoT) devices, thereby enhancing the overall teaching–learning process. The learning spaces of the Institute are put to excellent use by the students. The classrooms support traditional chalk-and-talk methods

as well as **interactive discussions**, group activities, and problem-solving sessions. Regular maintenance ensures cleanliness and functionality, contributing to a positive academic atmosphere.

In addition to conventional classrooms, the institution has Smart Rooms equipped with modern ICT-enabled teaching aids to enhance the quality of education. These smart rooms facilitate outcome-based education (OBE) and learner-centric teaching methodologies.

Classrooms and Smart class room images are depicted in the following figure



Figure 6.1.A Classroom



Figure 6.1.B Classroom corridor

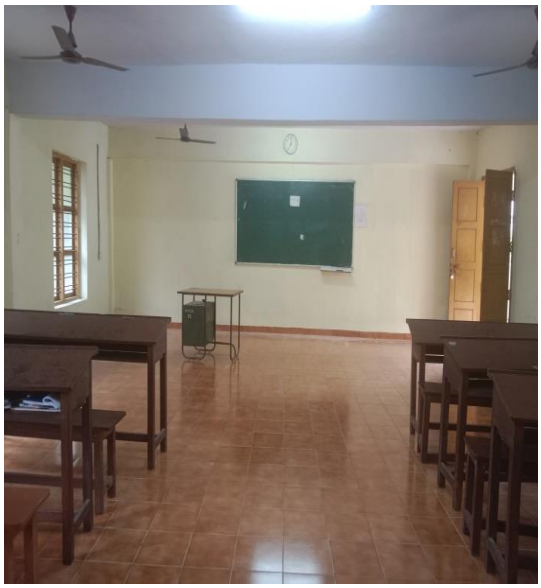


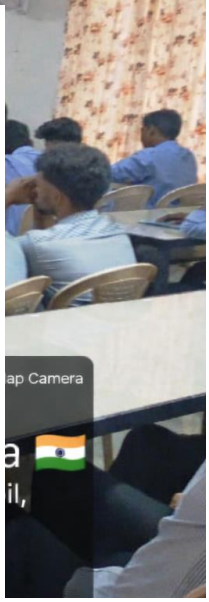
Figure 6.1.C Classroom



Figure 6.1.D Classroom







6.2.Adequate and Well-Equipped Laboratories(15)

(*Scientific experiments conducting/computing facilities ;availability ,adequacy ,batchsize ,and effectiveness*)

The Department of Computer Applications includes well-equipped laboratory with all of the required hardware and software to enhance student's technical knowledge with innovative skills, programmes and tasks.

Laboratory are modern and spacious with 77 desktop computers and include specialist facilities for simulating computational research activities.

The detailed description of all the laboratory Courses in Curriculum are given in Tables.

6.2.1. List of Laboratories

Sl.No	Name of the lab	Batch size	Name of major equipment	Remarks
1.	Visual Programming Laboratory	26	Intel Core i7-12700-2.10 GHz /16GB DDR4 RAM/500 GB M2 NVME SSD/HDD/22" Monitor/ keyboard/keyboard/Mouse.	
2.	Project Work – Phase I	26		
3.	Relational Database Management System Laboratory	29		
4.	Data Structures and Algorithms Using C Laboratory	29		
5.	Phython Programming Laboratory	29		
6.	Full Stack Web Development laboratory.	29		

Table 6.2.1.A List of Laboratories (Academic year 2023-2024)

Sl.No	Name of the lab	Batch size	Name of major equipment	Remarks
1.	Project Work – I	28	Intel Core i7-12700-2.10 GHz /16GB DDR4 RAM/500 GB M2 NVME SSD/HDD/22" Monitor/ keyboard/keyboard/Mouse.	
2.	Relational Database Management System Laboratory	28		
3.	Data Structures and Algorithms Using C Laboratory	27		
4.	Python Programming Laboratory	28		
5.	Full Stack Web Development laboratory.	27		

6.	Advanced Java Programming Laboratory	28		
7.	Project Work – II	29		

Table 6.2.1.B List of Laboratories (Academic year 2024-2025)

Sl.No	Name of the lab	Batch size	Name of major equipment	Remarks
1.	Programming in C lab	24	Intel Core i7-12700-2.10 GHz /16GB DDR4 RAM/500 GB M2 NVME SSD/HDD/22" Monitor/ keyboard/keyboard/Mouse.	
2.	Project Work – I	24		
3.	Relational Database Management System Lab	24		
4.	Data Structures and Algorithms Using C Laboratory	24		
5.	Advanced Java Programming Laboratory	24		
6.	Project Work – II	28		

Table 6.2.1.C List of Laboratories (Academic year 2025-2026)

6.3.Technical Staff(15)

(*Availability of adequate and qualified technical staff members*)

Academic year(2023-2024)

Sl.No	Name of the technical staff	Designation	Date of Joining (MM/YY)	Qualification		Other Technical skills gained	Responsibility
				At Joining	Now		
1	Mrs.M. Sreeleha	Lab Assistant	13.01.2007	Diploma in Computer Technology	Diploma in Computer Technology	-------	Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Appropriate storage areas Permission denied for pen drives. • Sign the log-out register before leaving the lab. • Computers should be turned off properly before leaving the lab. •Check Students must remove their footwear before entering to the lab.

Table 6.3.A Availabilty of Technical staff member–Academic Year (2023-2024)

Academic year(2024-2025)

Sl. No	Name of the technical staff	Designation	Date of Joining (MM/YY)	Qualification		Other Technical skills gained	Responsibility
				At Joining	Now		
1	Mrs.Ahila	Lab Assistant	18.08.2024	BCA	BCA	-------	Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Appropriate storage areas Permission denied for pen drives. • Sign the log-out register before leaving the lab. • Computers should be turned off properly before leaving the lab. •Check Students must remove their footwear before entering to the lab.

Table 6.3.B Availabilty of Technical staff member–Academic Year (2024-2025)

Academic year(2025-2026)

Sl.No	Name of the technical staff	Designation	Date of Joining (MM/YY)	Qualification		Other Technical skills gained	Responsibility
				At Joining	Now		
1	Mrs.Celin S	Lab Assistant	01.09.2025	B.E	B.E	-------	Maintain a clean and organized laboratory. • Avoiding the use of cell phones. • Appropriate storage areas Permission denied for pen drives. • Sign the log-out register before leaving the lab. • Computers should be turned off properly before leaving the lab. •Check Students must remove their footwear before entering to the lab.

Table 6.3.C Availabilty of Technical staff member–Academic Year (2025-2026)

6.3.1.Availability of Adequate and Qualified Technical Supporting Staff or Program Specific Laboratories (10)

Sl.No	Name of the lab	Technical Staff Name	Remarks
1.	Visual Programming Laboratory	Ms.S.Celin	
2.	Project Work – I		
3.	Database Management System Laboratory		
4.	Data Structures Using C Laboratory		
5.	Python Programming Laboratory		
6.	Java programming and Networks laboratory.		
7.	Relational Database Management System Laboratory		

Table 6.3.1.A Program Specific Laboratories

6.3.2.Incentives, Skill Upgrade, and Professional Advancement(5)

(Assessment based on the information provided in the preceding table)

Sl.No	Date	Courses conducted	Designation
1	11.10.2025	Artificial Intelligence for Office Use	Lab Assistants & office staff members

Table 6.3.2.A Courses Conducted for Skill upgrade

6.4.Additional Facilities Created for Improving the Quality of Learning Experience in Laboratories(10)

(*Availability and relevance of additional facilities and their utilizations*)

SN	Facility Name	Details Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs
1	LCD Projector	For explain the programs and conducting student development program in various streams.	For Project review and to Improve their skills.	Develop their skills, and for conducting beyond syllabus Experiments	PO-E,PO-F
2	Wifi equipped	Improved Access to learning resources and Career Planning, Increased engagement, Making education to more interactive.	For Project work, and to improve their skills.	To Learn Programs and develop their skills, Get ideas about applications.	PO-D,PO-E
3	LAN Connection	Manages file storage, Application access, Device access.	For Project work, and to improve their skills.	To Learn Programs and develop their skills, Get ideas about applications	PO-I
4	Interactive Display 65”	Making education to more interactive		Develop their skills, Get ideas about applications	PO-D

Table 6.4.A Additional Facilities in Laboratories.

6.5.Laboratories: Maintenance and Overall Ambiance(10)

(*Self-Explanatory*)

All labs are well equipped and have advanced computing facilities maintained by dedicated and experienced supporting staff members. So as to monitor the maintenance of laboratories, a departmental committee is constituted headed by the head of the department. All the laboratories are maintained periodically. Each laboratory maintains a lab register for detailing the proper utilization of labs and information related to lab records.

All the Lab in charges maintain the indent book on a regular basis and also the overall ambience of the laboratories is well maintained. To maintain the laboratories a departmental committee is constituted which is headed by head of the department and the faculty lab in charge. This committee is responsible for monitoring and taking necessary actions for maintenance of labs. All the laboratories are maintained periodically. In house maintenance is carried out as per requirement on a periodic basis and major issues are outsourced as per the procedure followed by the institution.

Policy: Equipment is operated in accordance with manufacturer's instructions and in a way which minimizes the cost of repairs and maintenance.

Procedure:

1. Do's and Don'ts and Safety measures are displayed in each lab.

2. Skilled Technical Staff are available for maintenance of Electronic equipment's and

software.

Laboratory maintenance:

1. All the systems are checked and updated as per the requirements, before the start of every semester.

2. Student Attendance Register is maintained for Students IN/OUT time and PCs usage.

3. Dos and Donts and Safety estimates rules are displayed in each laboratory.

4. Department has **40KVA** UPS along with batteries and backup to support power suppliers.

5. One Teaching faculty and a Lab instructor are in-charge of the overall functioning of each lab.

6. Stock register is maintained separately for each lab.

7. Fire Extinguishers are available in each lab and floor.

8. First Aid Kit is available for emergencies.

9. The list of lab programs is displayed in all the labs.

10. Software installation and minor software/hardware issues are solved by lab instructor.

11. Major problem is outsourced by Institute.

Overall Ambiance

1. All laboratories are equipped with state of art equipment to meet the requirements of curriculum for PG courses.
2. All faculty members who are involved in labs are well trained in all recent software and tools to educate the students in new technologies.
3. All labs are spacious and equipped with comfortable furniture like chairs and benches.
4. Hard copy and soft copy of lab manuals are available in the lab for student reference as well as distributed to students.
5. Every lab is provided with one entry / exit and sufficient number of windows for ventilation and natural light.
6. Project lab has been provided for the students to carry out their mini and major projects.
7. Each lab is equipped with white board, multimedia projector, computer, Internet, and other amenities.
8. The laboratories are facilitated with proper air conditioning systems.

6.6.Project Laboratory(10)

(*Mention facilities & Utilization*)

- One Teaching faculty and a Lab instructor are in-charge of the overall functioning of each lab.
- Stock register is maintained separately for each lab.
- Fire Extinguishers are available in each lab and floor.
- First Aid Kit is available for emergencies.
- The list of lab programs is displayed in all the labs.
- Software installation and minor software/hardware issues are solved by lab instructor.
- Major problem is outsourced by Institute. Project Laboratories images are given below



Figure 6.6.A Computer Lab



Figure 6.6.B Computer Lab



Figure 6.6.C UPS(40 KVA)



Figure 6.6.D Network Cables



Figure 6.6.E First Aid Kit

Figure 6.6.E, A first aid kit is an essential safety item used to provide immediate care during accidents, injuries, or medical emergencies. It helps in the quick treatment of minor cuts, burns, wounds, sprains, and other injuries before professional medical help arrives.

The availability of a first aid kit reduces the risk of infection and prevents injuries from becoming severe. It promotes safety awareness and preparedness in, laboratories. A well-equipped first aid kit can save lives, reduce pain, and provide confidence to handle emergency situations effectively.



Figure 6.6.F Specktron CDX-65i HD Display

Figure 6.6.F, The Specktron CDX-65i is a high-performance 65-inch 4K Ultra HD interactive display designed to enhance learning and collaboration in classrooms, meeting rooms, and corporate environments. It delivers crystal-clear visuals with vibrant colors and wide viewing angles, making content easy to read from any position in the room. The panel supports multi-touch interaction (up to 20–50 touch points), allowing multiple users to write, draw, and interact simultaneously, which boosts engagement and teamwork.

Built-in Android system and interactive whiteboard tools enable users to run applications, annotate, and share content without needing external devices. With versatile connectivity options like HDMI, USB, LAN, and wireless screen mirroring, the CDX-65i easily connects to laptops, tablets, and smartphones. The display also features integrated speakers for clear audio and durable anti-glare, toughened glass for long-lasting use with comfortable viewing under different lighting conditions. Overall, the CDX-65i offers a powerful all-in-one solution for interactive presentations, teaching, and collaborative work.

Figure 6.6.D ,The cabinet helps in systematic cable management, reducing clutter and preventing damage to network cables. It ensures efficient data communication, easy maintenance, troubleshooting, and future expansion of the network.

6.7.Safety Measures in Laboratories(5)

SN	Name of the Laboratory	Safety measures
1	Computer Lab	Fire Extinguishers are available in each lab and floor

Table 6.7.A Safety Measures

Safety Measures Images are depicted in the following figures



Figure 6.7.A Fire Extinguisher



Figure 6.7.B Fire Extinguisher

A fire extinguisher is a safety device used to control or extinguish small fires in emergency situations. It helps prevent the spread of fire by releasing fire-suppressing agents such as water, foam, dry powder, or carbon dioxide, depending on the type of fire. Proper use of a fire extinguisher can reduce damage, provide time for safe evacuation, and control fire before it becomes uncontrollable. They play a vital role in ensuring fire safety and emergency preparedness.

CRITERION 7

Continuous Improvement

CRITERION 7	Continuous Improvement	50

7. Continuous Improvement (50)

7.1. Improvement in the Quality of Students Admitted to the Program (10)

(Assessment is based on improvement in terms of ranks/score in qualifying national level/state level/University entrances tests, average percentage marks in entry level degree).

Item		CAY	CAY*m1*	CAY*m2*
National Level Entrance Examination (Name of the Entrance Examination)	No. of students admitted			
	Opening score/rank			
	Closing score/rank			
State/University level Entrance Examination /Others (Name of the Entrance Examination)	No. of students admitted	24	27	29
	Opening score/rank	94	96	92
	Closing score/rank	61	64	62
Average percentage of marks of all admitted students in entry level degree		71	72	70

Table No. 7.1. Improvement in quality of students admitted to program for past 3 years including CAY

7.2. Improvement in Success Index of Students Without Backlogs (10)

SI= (No. of students who graduated from the program without backlogs)/ (No. of students admitted in the 1st year of that batch and admitted in 2nd year via lateral entry, if applicable)

Assessment shall be based on improvement trends in success indices.

Marks are awarded accordingly.

Items	LYG	LYG*m1*	LYG*m2*
Success index	0.62	0.92	0.35

Table 7.2. Improvement in success index of students without backlog for past 3 years.

7.3. Improvement in Placement including Entrepreneurs and Higher Studies (10)

Assessment is based on improvement in:

- *Placement: number, quality placement, core industry, pay packages etc.*
- *Higher studies: performance in any competitive exams and admissions in premier institutions.*

Items	LYG	LYG*m1*	LYG*m2*
Placement index	55.17	50.00	35.13

Table No. 7.3. Improvement in placement including entrepreneurs and higher studies for past 3 years

7.4. Improvement in Faculty Qualification, Publications, Sponsored Research Projects and Consultancy Work (10)

(Assessment is based on publications, sponsored Research Projects and consultancy work, core companies, total amounts, outcome of the projects)

During the assessment period, the institution has taken consistent initiatives to enhance faculty qualifications, research output, sponsored projects, and consultancy activities, thereby strengthening the academic and research ecosystem.

Improvement in Faculty Qualifications

- Faculty members are encouraged and supported to pursue Ph.D.
- Financial support, duty leave, and flexible workload are provided for faculty enrolled in doctoral programs.

- As a result, there has been a steady increase in the number of Ph.D.-qualified faculty, improving the quality of teaching, mentoring, and research guidance.

Publications

- Faculty members have published research papers in SCI / Scopus / Web of Science indexed journals, UGC-CARE listed journals, and reputed conferences.
- Institutional incentives are provided for:
    - Publications in high-impact journals
    - Collaborative and interdisciplinary research
- Faculty actively participate in national and international conferences, contributing to knowledge dissemination.
- The trend shows a year-on-year increase in publications, reflecting a strong research culture.

Sponsored Research Projects

- Faculty members are encouraged to get funded research projects from agencies such as:
    - AICTE
    - DST
    - SERB
    - UGC
    - Industry-sponsored bodies
- Projects focus on emerging areas such as AI, IoT, Data Analytics, Sustainable Technologies, etc.
- Outcomes include:
    - Research publications
    - Student involvement in projects
    - Development of prototypes and tools

Consultancy Work

- Faculty provide consultancy services to industries, startups, and government organizations.
- Consultancy areas include:
    - Software development
    - Data analysis
    - System design
    - Technical training and expert advisory
- Revenue generated through consultancy contributes to institutional development and research enhancement.

Outcomes

- Improved academic reputation of the institution
- Enhanced student exposure to real-world problems
- Strengthened industry–academia interaction
- Increased total funding and consultancy revenue during the assessment period

7.5. Academic Audit and Actions Taken thereof during the Assessment Period (5)

(Academic Audit system/process and its implementation in relation to Continuous Improvement)

Academic Audit Process

- Academic audits are conducted **every semester** by the Internal Quality Assurance Cell (IQAC).
- The audit covers:
    - Course plan and lesson delivery
    - Course Outcomes (COs), Program Outcomes (POs) and Program Specific Outcomes (PSOs)
    - CO–PO mapping and attainment levels
    - Internal and end-semester assessment analysis
    - Student feedback and pass percentage
    - Teaching–learning methodologies and use of ICT tools

Identification of Gaps

Based on audit findings, gaps are identified in:

- CO/PO attainment levels
- Student performance in specific courses
- Teaching methodologies
- Assessment strategies

Actions Taken for Continuous Improvement

The following actions are initiated and monitored:

- **Curriculum Enrichment**
    - Inclusion of value-added courses, industry-relevant topics, and emerging technologies.
    - Revision of course content based on feedback from stakeholders.
- **Teaching–Learning Improvement**

    - Adoption of innovative teaching methods such as flipped classroom, case studies, problem-based learning, and experiential learning.
    - Increased use of ICT tools, smart classrooms, and LMS platforms.

- **Assessment Reforms**

    - Redesign of internal assessment patterns to align with COs and Bloom's Taxonomy.

- **Student Performance Enhancement**

    - Conduct of **remedial classes**, tutorial sessions, and mentoring for slow learners.
    - Advanced learning opportunities and projects for fast learners.

- **Faculty Development**

    - Faculty are encouraged to attend FDPs, workshops, MOOCs, and certification programs.
    - Sharing of best practices through departmental meetings.

- **Outcome Attainment Improvement**

    - Action plans are prepared for courses with low CO attainment**.**
    - Corrective measures are implemented and reviewed in subsequent semesters.

Monitoring and Review

- Implementation of corrective actions is reviewed in:

    - Department meetings
    - IQAC meetings

- Improvements in CO, PO, and PSO attainment are documented and analyzed.
- Best practices and successful strategies are institutionalized.

Impact of Continuous Improvement

- Improved student learning outcomes and pass percentage
- Enhanced CO and PO attainment levels
- Improved teaching effectiveness
- Strong alignment with NBA quality assurance requirements

7.6. Actions Taken based on the Results of Evaluation of Each of the POs (5)

(Identify the areas of weaknesses in the program based on the analysis of evaluation of POs attainment levels. Measures identified and

implemented to improve POs attainment levels for the assessment years. Actions to be written as per table in section 3.3.2.)

POs attainment and actions taken for improvement– 2023-2024

	Target Level	Attainment Level	Observations
PO1: Apply the knowledge of mathematics and computing fundamentals to various real-life applications for any given requirement			
PO1	3	2.53	Students demonstrate a good understanding of mathematical and computing fundamentals and are able to apply them to real-life problems with reasonable proficiency.
Action 1: Introduce more application-oriented numerical problems and real-life case studies. **Action 2:** Include analytical and problem-solving questions in internal assessments. **Action 3:** Conduct tutorial and remedial sessions focusing on weak areas.			
PO2: Analyze and review literatures to invoke the research skills to design, interpret and make inferences from the resulting data.			
PO2	3	2.20	Students show developing research aptitude and are able to analyze literature and interpret data at a satisfactory level.
Action 1: Assign mini projects involving literature review and data interpretation. **Action 2:** Encourage paper review presentations and seminars. **Action 3:** Organize workshops on research methodology and technical writing.			
PO3: Design applications for any desired needs with appropriate considerations for any specific need on societal and environmental aspects			
PO3	3	2.11	Students are capable of designing applications and demonstrate awareness of societal and environmental considerations.
Action 1: Include societal and environmental impact as part of project evaluation. **Action 2:** Assign case studies on sustainable and green computing solutions. **Action 3:** Encourage projects addressing real societal and environmental problems.			
PO4: Design and develop applications to analyze and solve all computer science related			

problems			
PO4	3	1.90	Students possess fundamental problem-solving skills and are able to develop solutions for computer science problems.
Action 1: Strengthen laboratory sessions with structured problem-solving exercises. **Action 2:** Provide additional practice on algorithm design and implementation. **Action 3:** Encourage participation in coding contests and problem-solving workshops.			
PO5: Involve in perennial learning for a continued career development and progress as a computer professional.			
PO5	3	2.08	Students recognize the importance of lifelong learning and show interest in continuous professional development.
Action 1: Motivate students to enroll in MOOCs and certification courses. **Action 2:** Introduce self-learning and skill-based assignments. **Action 3:** Provide continuous mentoring and career guidance.			
PO6: Integrate and apply efficiently the contemporary IT tools to all computer applications.			
PO6	3	1.88	Limited hands-on exposure to contemporary IT tools.
Action 1: Integrate modern software tools and platforms in laboratory courses. **Action 2:** Assign tool-based mini projects and practical assessments. **Action 3:** Conduct hands-on workshops on emerging technologies.			
PO7: Function effectively both as a team leader and team member on multi-disciplinary projects to demonstrate computing and management skills.			
PO7	3	2.08	Students are familiar with contemporary IT tools and demonstrate the ability to apply them in academic activities.
Action 1: Assign team-based projects with defined roles. **Action 2:** Rotate leadership responsibilities among team members. **Action 3:** Include peer and self-assessment for teamwork evaluation.			
PO8: Solve and work with a professional context pertaining to ethics, social, cultural and cyber regulations.			

PO8	3	1.87	Students demonstrate basic awareness of professional ethics, social responsibilities, and cyber regulations.

Action 1: Introduce case studies on ethics and cyber laws in computing.
Action 2: Include ethical compliance components in assignments and projects.
Action 3: Organize expert talks on professional ethics and cyber security laws.

PO9: Utilize the computing knowledge efficiently in projects with concern for societal,
environmental, and cultural aspects

PO9	3	2.21	Students are able to apply computing knowledge to projects with due consideration for societal and cultural aspects.

Action 1: Encourage socially relevant and community-based projects.
Action 2: Include service-learning activities as part of project work.
Action 3: Collaborate with external agencies for real-world problem statements.

PO10: Create and design innovative methodologies to solve complex problems for the betterment of the society.

PO10	3	1.90	Students demonstrate emerging innovative thinking and are able to approach complex problems with creative ideas.

Action 1: Conduct ideation and design-thinking sessions.
Action 2: Introduce innovation-based mini projects and hackathons.
Action 3: Encourage participation in innovation and startup competitions.

PO11: Function competently as an individual and as a leader in multidisciplinary projects

PO11	3	1.54	Students exhibit individual responsibility and show potential to develop leadership skills in multidisciplinary activities.

Action 1: Provide leadership roles through projects and technical clubs.
Action 2: Assign individual responsibility-based tasks in multidisciplinary projects.
Action 3: Organize leadership and management skill development programs.

PO12: Communicate effectively and present technical information in oral and written reports.

PO12	3	1.83	Students are able to communicate technical information effectively in both oral and written forms at a basic level.
Action 1: Include seminars, presentations, and technical report writing. **Action 2:** Evaluate communication skills using structured rubrics. **Action 3:** Conduct communication and soft-skill enhancement programs.			
PO13: Apply the inherent skills with absolute focus to function as a successful entrepreneurs.			
PO13	3	1.4	Students demonstrate initial awareness of entrepreneurship and show interest in entrepreneurial activities.
Action 1: Organize entrepreneurship development and startup awareness programs. **Action 2:** Introduce business plan preparation and evaluation activities. **Action 3:** Facilitate incubation support and interaction with entrepreneurs.			

Table No. 7.6. POs attainment and actions taken for improvement– CAYm2

POs attainment and actions taken for improvement– 2024-2025

	Target Level	Attainment Level	Observations
PO1: Apply the knowledge of mathematics and computing fundamentals to various real-life applications for any given requirement			
PO1	3	2.9	The attainment level of 2.9 indicates that students have a strong understanding of mathematical and computing fundamentals and are able to apply them effectively to real-life applications.
Action-1: Encourage more problem-based learning and real-world case studies in core courses. **Action-2:** Include advanced application-oriented assignments and competitive coding activities.			
PO2: Analyze and review literatures to invoke the research skills to design, interpret and make inferences from the resulting data.			

PO2	3	2.9	Students demonstrate good analytical ability and research skills, as reflected by the high attainment level of 2.9.
Action-1: Promote literature survey and mini-research projects in advanced subjects. **Action-2:** Motivate students to publish review papers and participate in technical paper presentations.			
PO3: Design applications for any desired needs with appropriate considerations for any specific need on societal and environmental aspects			
PO3	3	2.9	The attainment of 2.9 shows that students are capable of designing applications while considering societal and environmental aspects.
Action-1: Integrate socially relevant problem statements into project work. **Action-2:**Encourage students to participate in community-oriented and sustainability-based projects.			
PO4: Design and develop applications to analyze and solve all computer science related problems			
PO4	3	2.9	With an attainment level of 2.9, students exhibit strong skills in designing and developing solutions to computer science problems.
Action-1: Introduce advanced lab experiments and real-time problem-solving sessions. **Action-2:** Encourage participation in hackathons and coding contests to strengthen analytical skills.			
PO5: Involve in perennial learning for a continued career development and progress as a computer professional.			
PO5	3	2.5	The attainment level of 2.5 indicates that students show satisfactory inclination towards lifelong learning and professional growth.
Action-1: Motivate students to enroll in MOOCs, certification courses, and workshops. **Action-2:** Organize expert talks and alumni interactions to emphasize continuous learning.			
PO6: Integrate and apply efficiently the contemporary IT tools to all computer applications.			
PO6	3	2.3	An attainment of 2.3 reflects adequate exposure to contemporary IT tools and technologies.

Action-1: Enhance hands-on training using modern software tools and platforms. **Action-2:** Introduce tool-based mini projects and industry-oriented lab sessions.			
PO7: Function effectively both as a team leader and team member on multi-disciplinary projects to demonstrate computing and management skills.			
PO7	3	1.9	The attainment level of 1.9 shows that students are developing teamwork and leadership abilities through group activities.
Action-1: Increase team-based projects and collaborative learning activities. **Action-2:** Assign leadership roles in labs, projects, and technical events.			
PO8: Solve and work with a professional context pertaining to ethics, social, cultural and cyber regulations.			
PO8	3	2.5	With an attainment of 2.5, students demonstrate good awareness of professional ethics and social responsibilities.
Action-1: Include case studies on ethics, cyber laws, and professional conduct in courses. **Action-2:** Organize seminars and awareness programs on ethical and legal issues in IT.			
PO9: Utilize the computing knowledge efficiently in projects with concern for societal, environmental, and cultural aspects			
PO9	3	2.9	The high attainment level of 2.9 indicates that students effectively apply computing knowledge to projects addressing societal and environmental needs.
Action-1: Encourage interdisciplinary and socially impactful projects. **Action-2:** Promote participation in government and NGO-based technology initiatives.			
PO10: Create and design innovative methodologies to solve complex problems for the betterment of the society.			
PO10	3	1.5	The attainment level of 1.5 indicates initial development of innovative thinking among students.
Action-1: Introduce design thinking and innovation-focused assignments.			

Action-2: Encourage students to participate in innovation challenges and idea-pitching events.			
PO11: Function competently as an individual and as a leader in multidisciplinary projects			
PO11	3	0.9	An attainment of 0.9 reflects that students are gradually gaining exposure to leadership roles in multidisciplinary environments.
Action-1: Provide more opportunities for students to lead multidisciplinary project teams. **Action-2:** Organize leadership development programs and project management workshops.			
PO12: Communicate effectively and present technical information in oral and written reports.			
PO12	3	0.9	The attainment level of 0.9 indicates that students are in the early stages of developing effective communication skills.
Action-1: Incorporate regular presentations, seminars, and group discussions. **Action-2:** Train students in technical writing and professional communication skills.			
PO13: Apply the inherent skills with absolute focus to function as a successful entrepreneurs.			
PO13	3	0.9	An attainment of 0.9 shows emerging awareness of entrepreneurial skills among students.
Action-1: Introduce entrepreneurship development programs and startup awareness sessions. **Action-2:** Encourage students to participate in innovation, incubation, and business plan competitions.			

Table No. 7.7. POs attainment and actions taken for improvement– CAYm1

CRITERION 8

Student Support Systems

8. Student Support Systems (80)

8.1. Mentoring System to Help at Individual Levels (5)

NICHE offers a well-established student support and mentoring system. The student support system is monitored by the office of the Director Student Affairs. Based on the strength of the class the Mentors are allocated to the students. For every 25-30 students one Mentor is allocated. The Mentor bridges the communication gap between Parents and Management by regularly updating the Parents about the Student's progress.

Attached Annexure - 8.1 Mentor Mentee Details

Faculty Advisory System assists in Academic, Personal and Career advancement through the centralized monitoring process. A software NICHE Student Portal exclusively designed for the Faculty Advisory System has been established provides the Academic information (Attendance, Internal Assessment Marks, University Marks, Fees details etc.) of the students with regular updates. The Academic and Personal information of the students are available in the student's portal for tracking the students. Sample screenshot of the student's portal is given in Figures 8.1.A.

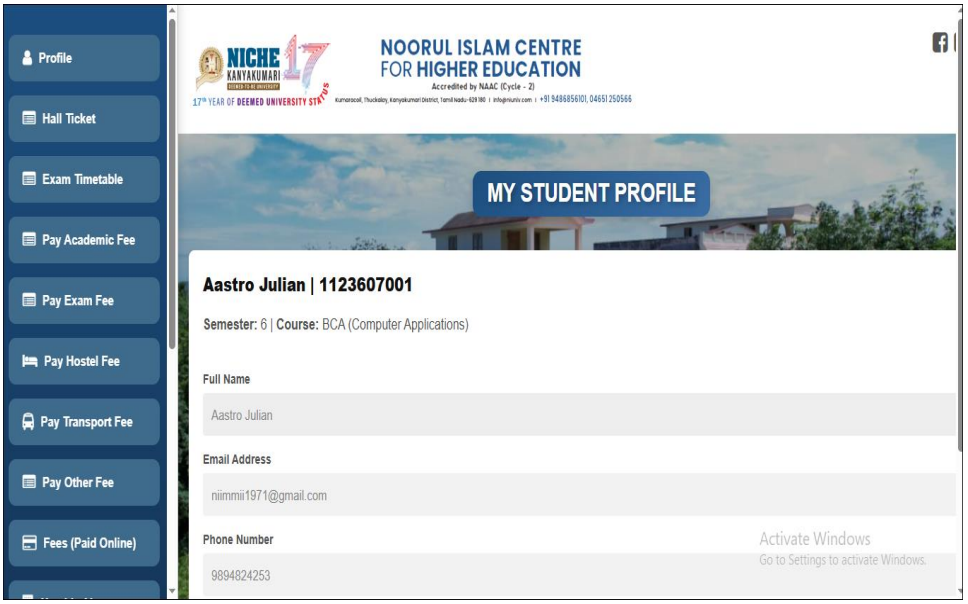


Figure 8.1.A. NICHE Student's Portal

(Attached Annexure - 8.2 NICHE Student's Portal Entries)

8.1.1. Mentoring System Summary

1. **Frequency of Meeting**
    - **Attendance** - Daily
    - **Academic Discussion, Result Analysis** – 3 Per Semester
    - **Discipline** – Daily

- **Any other Guidance** – Any time based on the student's requirement

2. Faculty Mentors continuously monitor their wards to identify the slow-learners and advanced learners.
3. Slow-learners are given special coaching to improve their academic performance.
4. Advanced learners are advised to register for additional courses and to undergo special training and certifications.
5. The Faculty Mentor maintains a regular contact with parents/guardians of the wards and updates them about the wards' performance.

The various responsibility of Faculty Advisory System is given in Figure 8.1.1.A.

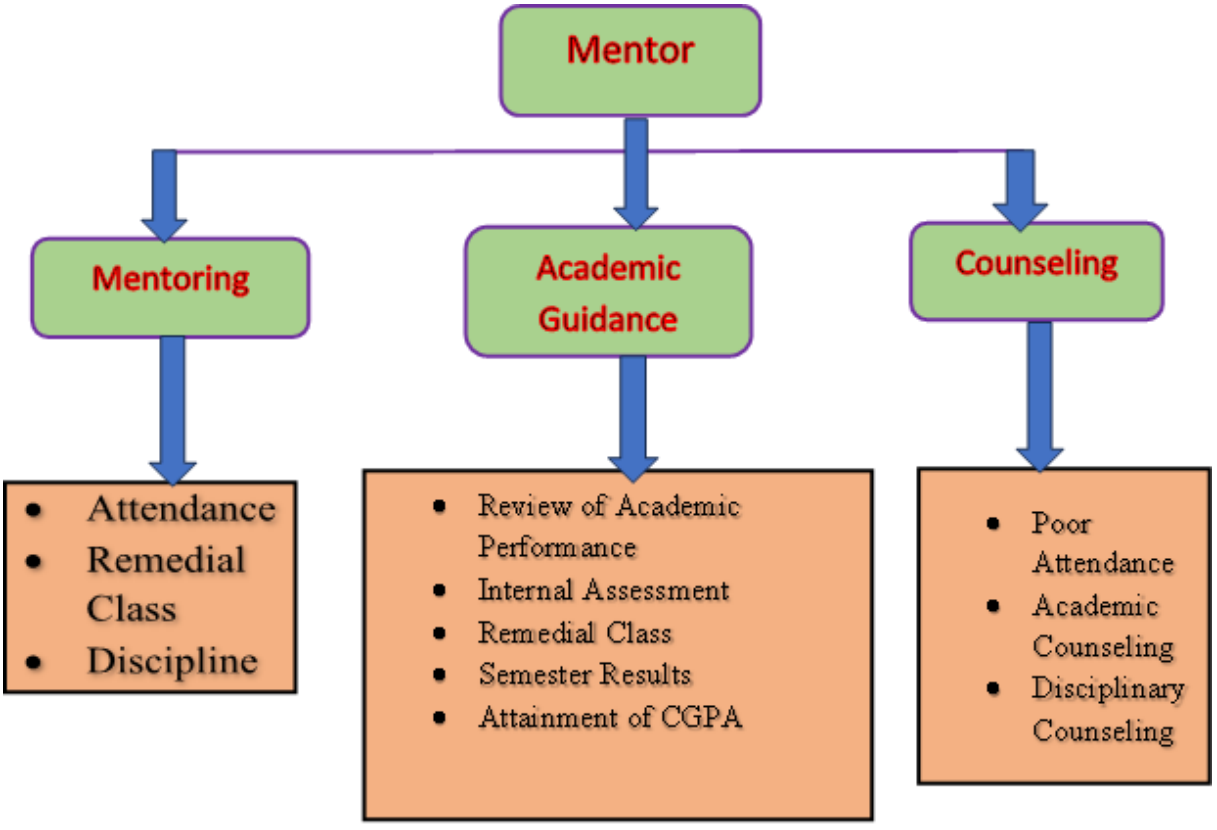


Figure 8.1.B. Responsibility of Faculty Advisory System

Support Offered to Slow Learners

1. Constant monitoring and interaction by mentors help to encourage, and arrange special classes by the faculty members and the peers.
2. Mentors are available and accessible to the students to interact one-by-one.
3. Faculty members repeat teaching the tough topics as per the students' request and provide university question bank.
4. Remedial classes are also conducted.

(Attached Annexure - 8.3 Remedial Class Details)

The **Counseling details** are shown below.

Annex 09 03 00

Student Counseling Report

Date	18/1/'23
Name of the Student Counselled	R. Jenish, 18
Class and Roll No.	S1 MCA
Purpose of Counseling	Series test low mark
Signature of the Student	Jenish
Remarks of the Counselor	Retest conducted, Advised him to study well

Annex 09 03 00

Student Counseling Report

Date	18/1/'23
Name of the Student Counselled	A. Anish, 7
Class and Roll No.	S1 MCA
Purpose of Counseling	Series test low mark
Signature of the Student	Anish
Remarks of the Counselor	Advised him to study well and come to the class regularly

Annex 09 03 00

Student Counseling Report

Date	18/1/'23
Name of the Student Counselled	Siji, 26
Class and Roll No.	S1 MCA
Purpose of Counseling	Series test Absent
Signature of the Student	
Remarks of the Counselor	Advised her to come regularly

Figure 8.1C. Counseling Details

Support for Advanced Learners

The Faculty Advisory System also helps the advanced learners to upgrade their knowledge and skills to reach the next level of their career growth. The methodologies followed for advanced learners are given in Figure 8.1.5.

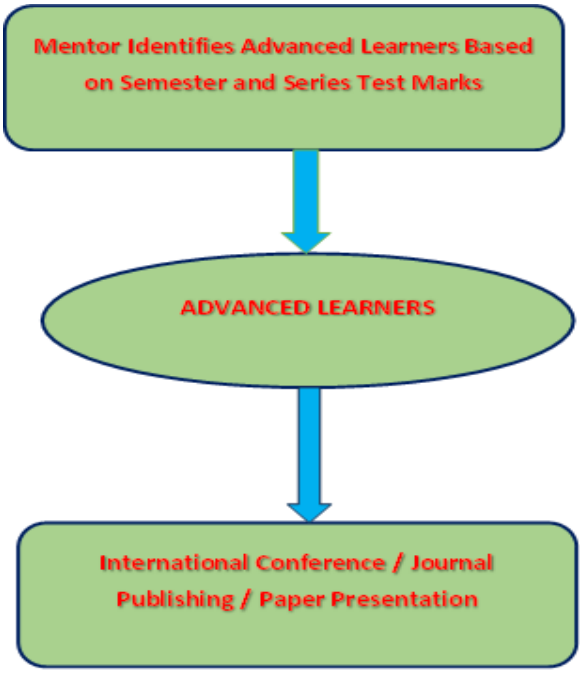


Figure 8.1.D. Methodologies for Advanced Learners

Advanced learners are encouraged to Participate conferences and paper presentation etc. Advanced learner International Conference Presentation certificates are given in the Figure 8.1.5.



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Department of Computer Applications
International Conference on Recent Trends in Computer Applications
(ICRTCA'25)

Certificate of Presentation

This is to certify that Mr/Ms / Dr AMRUTHA . A , MCA Student
of Noorul Islam Centre for Higher Education has presented a paper entitled
Analysis and modelling of Speech-to-text Synthesis based on Speech recognition, in the
International Conference on Recent Trends in Computer Applications (ICRTCA'25) on 07th March 2025
organised by the Department of Computer Applications, Noorul Islam Centre For Higher Education,
(Deemed to be University under section 3 of the UGC Act 1956) Kumaracoil, Tamil Nadu.

Dr. J.R. Jeba, HOD-CA | Dr. P. Thirumalvalavan, REGISTRAR | Dr. Tessy Thomas, VICE-CHANCELLOR | Dr. R. Perumalsamy, PRO CHANCELLOR (ACADEMIC) | Dr. A. P. Majeed Khan, CHANCELLOR



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Department of Computer Applications
International Conference on Recent Trends in Computer Applications
(ICRTCA'25)

Certificate of Presentation

This is to certify that Mr/Ms / Dr VEENA . V / MCA Student
of Noorul Islam Centre for Higher Education has presented a paper entitled
Identify image pattern for data retrieval in the
International Conference on Recent Trends in Computer Applications (ICRTCA'25) on 07th March 2025
organised by the Department of Computer Applications, Noorul Islam Centre For Higher Education,
(Deemed to be University under section 3 of the UGC Act 1956) Kumaracoil, Tamil Nadu.

Dr. J.R. Jeba, HOD-CA | Dr. P. Thirumalvalavan, REGISTRAR | Dr. Tessy Thomas, VICE-CHANCELLOR | Dr. R. Perumalsamy, PRO CHANCELLOR (ACADEMIC) | Dr. A. P. Majeed Khan, CHANCELLOR

Figure 8.1.E. Advance Learner Presentation Certificate

8.2. Feedback Analysis and Reward /Corrective Measures, if any (10)

A. Feedback collected for all courses (Yes/No): Yes

B. Feedback Collection Process:

The feedback collection process takes place twice in a semester.

1. After Series Test I
2. After Series Test II

A standard feedback questionnaire is prepared by the Internal Quality Assurance Cell (IQAC) for all the students. Feedback mechanism is systematically organized in the University and it is taken periodically in each semester to improve the teaching skills of the faculty members. The feedback is collected through offline. At the beginning of the feedback collection process, the staff in-charge is defined and communicated to the students about the purpose of the assessment. The students normally understand the purpose and outcome of the process and accordingly give their feedback.

C. Percentage of students who participated in the feedback:

85-100%

D. Feedback Analysis Process

- All the parameters mentioned in the feedback form are analyzed.
- Ability of teaching with respect to each item and comprehensive ability of the teachers is analyzed.
- All the comments provided by the students in the feedback forms are communicated to the respective faculty members along with their feedback levels (score) to know their strengths and weaknesses and to enhance their teaching skills.
- The feedback is obtained offline, and a descriptive summary of the feedback is submitted to the Head of Department for each faculty.
- The outcome of the evaluation process is reported back to the staff concerned and actions are taken based on that feedback.

Questionnaire:

1. Knowledge of teacher in the subject
2. Clarity and understand ability of teachers explanations
3. Teachers willingness to help
4. Regularity in engaging classes
5. Whether the teacher dictates notes without explanation
6. Teacher’s ability to organize lectures
7. Speed of presentation
8. Does the teacher encourage questioning?
9. Behaviour of the teacher

10. Use of blackboard
11. Sincerity of the teacher
12. Norms of valuation of tests and assignments
13. Promptness in valuing tests and assignments
14. Overall teaching effectiveness of the teacher

Rating of Scale:

10 – Excellent

6 – Good

3 – Fair

0 – Poor

The student feedback process is shown below:

NOORUL ISLAMCENTRE FOR HIGHER EDUCATION
STUDENT'S EVALUATION OF TEACHING STAFF
Master of Computer Applications
II Semester - Academic Year 2023-2024 (EVEN)

		CA4504	CA4505	CA4506	CA45A5	CA45A9
1. Knowledge of Teacher in the subject	Excellent	22	23	24	20	24
	Good	2	2	1	4	1
	Fair	1	0	0	1	0
	Poor	0	0	0	0	0
2. Clarity and understandability of teachers explanations	Excellent	23	24	20	24	22
	Good	2	1	4	1	2
	Fair	0	0	1	0	1
	Poor	0	0	0	0	0
3. Teachers willingness to help	Excellent	20	24	24	20	23
	Good	4	1	1	4	2
	Fair	1	0	0	1	0
	Poor	0	0	0	0	0
4. Regularity in engaging classes	Regular	24	25	24	25	24
	Irregular	1	0	1	0	1
5. Whether the Teacher dictates notes without explanation	Yes	25	24	25	24	25
	No	0	1	0	1	0
6. Teacher's ability to organize lectures.	Excellent	20	24	22	23	24
	Satisfactory	4	1	2	2	1
	poor	1	0	1	0	0
7. Speed of presentation	Just right	20	24	24	24	20
	Too fast	4	1	1	1	4
	Too slow	1	0	0	0	1
8. Does the teacher encourage Questioning?	Yes	25	24	25	24	25
	No	0	1	0	1	0
9. Behavior of the teacher	Pleasant	22	23	24	20	24
	Indifferent	2	2	1	4	1
	Unpleasant	1	0	0	1	0
10. Use of Black board	Effective	24	22	23	24	20
	Rarely uses	1	2	2	1	4
	Not at all uses	0	1	0	0	1
11. Sincerity of the teacher	Sincere	24	22	23	24	24
	Not sincere	1	3	2	1	1
12. Norms of valuation of tests and assignments.	Too Strict	20	24	22	23	24
	Too liberal	4	1	2	2	1
	Just right	1	0	1	0	0
13. Promptness in valuing tests and assignments.	Quite prompt	24	22	23	24	25
	Not prompt	1	3	2	1	0
14. Overall teaching effectiveness of the teacher.	Excellent	22	23	24	20	24
	Good	2	2	1	4	1
	Fair	1	0	0	1	0
	Poor	0	0	0	0	0

Subject Name	Code	Staff Name
Advanced Phython Programming	CA4504	Ms.M.Merlin Johnsy
Fullstack Web Development	CA4505	Ms.M.Tharanya
DataScience and cloud computing	CA4506	Ms.Sheela Kumari C.R
Agile Methodologies	CA45A5	Dr.S.Beulah
Cryptography and Network security	CA45A9	Dr.M.Shafeen Nagoor

Signature of the Staff
C.M. Tharanya

HOD
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil-629 180, Thuckalay
Kanyakumari District, TamilNadu, India.

Figure 8.2.A. Student's Evaluation of Teaching Staff (Even Semester 2023 -2024)

NOORUL ISLAMCENTRE FOR HIGHER EDUCATION
STUDENT'S EVALUATION OF TEACHING STAFF
Master of Computer Applications
First Evaluation
I Semester - Academic Year 2023-2024 (ODD)

		CA4501	CA4502	CA4503	CA3601	MS45D1	MA4504
1. Knowledge of Teacher in the subject	Excellent	20	23	23	22	20	22
	Good	5	2	3	4	5	4
	Fair	1	1	0	0	1	0
	Poor	0	0	0	0	0	0
2. Clarity and understandability of teachers explanations	Excellent	24	23	25	23	24	23
	Good	2	3	1	3	2	3
	Fair	0	0	0	0	0	0
	Poor	0	0	0	0	0	0
3. Teachers willingness to help	Excellent	20	23	23	22	20	22
	Good	5	2	3	4	5	4
	Fair	1	1	0	0	1	0
	Poor	0	0	0	0	0	0
4. Regularity in engaging classes	Regular	23	24	24	24	24	24
	Irregular	1	0	0	0	0	0
5. Whether the Teacher dictates notes without explanation	Yes	19	20	20	19	19	19
	No	11	10	10	11	11	11
6. Teacher's ability to organize lectures.	Excellent	18	19	15	19	15	19
	Satisfactory	12	11	10	11	10	11
	poor	0	0	4	0	4	0
7. Speed of presentation	Just right	19	15	15	18	19	18
	Too fast	11	10	10	12	11	12
	Too slow	0	4	4	0	0	0
8. Does the teacher encourage Questioning?	Yes	19	20	20	19	19	19
	No	11	10	10	11	11	11
9. Behavior of the teacher	Pleasant	18	19	15	19	15	19
	Indifferent	12	11	10	11	10	11
	Unpleasant	0	0	4	0	4	0
10. Use of Black board	Effective	15	18	19	19	19	19
	Rarely uses	10	12	11	10	11	10
	Not at all uses	5	0	0	1	0	1
11. Sincerity of the teacher	Sincere	25	20	20	19	19	19
	Not sincere	5	10	10	11	11	11
12. Norms of valuation of tests and assignments.	Too Strict	15	18	19	15	19	15
	Too liberal	10	12	11	10	11	10
	Just right	4	0	0	4	0	4
13. Promptness in valuing tests and assignments.	Quite prompt	19	20	20	19	19	19
	Not prompt	11	10	10	11	11	11
14. Overall teaching effectiveness of the teacher.	Excellent	15	18	19	15	19	15
	Good	10	12	11	10	11	10
	Fair	4	0	0	4	0	4
	Poor	1	0	0	1	0	1

Subject Name	Code	Staff Name
Problem solving techniques and programming in c	CA4501	Dr.Jeba J R
Data Structures and Algorithms	CA4502	Ms.R,Sujitha
Relational Database Management System	CA4503	Dr.S.Beulah
Fundamentals of Accounting	MS45D1	Dr.J.R.Inba Saharan
Applied Probability and Statistics	MA4504	Dr.M.Sudha

Staff Incharge
(M. Thavanya)

HOD
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil-629 180, Thuckalay
Kanyakumari District, TamilNadu,India.

Figure 8.2.B. Student's Evaluation of Teaching Staff (Odd Semester 2023 -2024)

D. Corrective Measures

Feedback along with the comments given by the students in the feedback forms is communicated to the respective faculty members to know their strengths and weaknesses and to enhance their teaching skills. Faculty members who get average feedback below 80% are identified. The score obtained through student

feedback on different attributes helps faculty to plan improvement strategies. The faculty members who get a low feedback score are asked to prepare an action plan to improve their teaching skills.

8.3. Feedback on Facilities (5)

(Assessment is based on feedback collection, analysis and corrective action taken in respect of library, computing facilities, canteen, sports etc.)

Assessment is based on gathering student feedback, analyzing it, and implementing corrective measures. Feedback is also collected regarding the facilities.

A standard procedure for gathering feedback on facilities is carried out in the department according to the following steps:

Feedback is collected from students regarding the facilities available in the department, including classroom infrastructure, library, labs etc. The feedback is then analyzed, and necessary corrective measures are implemented following discussions with the management.

The process for gathering feedback on facilities includes the following steps:

A. Feedback Collection Process
B. Feedback Analysis
C. Corrective Measures

A. Feedback Collection Process

1. **Feedback collected on all facilities provided by the department –** Yes
2. **Feedback collection process –** Offline
3. **Frequency of Feedback Collection –** Once in a Semester
4. **Questionnaire:**
   - i. Lighting and Ventilation in Classrooms
   - ii. Audio & Video quality in Smart classroom
   - iii. Quality and Quantity of Furniture
   - iv. Cleanliness in classrooms and Lab
   - v. Number of Computers Sufficient for all students
   - vi. Availability of Software
   - vii. Number of Washrooms
   - viii. Availability of amply water supply
   - ix. Quality of drinking water
   - x. Motivation from Institute authorities to participate and other college fest.
5. **Rate of Scale**
   - 10 – Excellent
   - 6 – Good
   - 3 – Fair
   - 0 – Poor

6. Purpose of Comments

The purpose of comments is to provide constructive feedback, offer suggestions for improvement, highlight areas of concern, and recognize positive aspects. Comments help facilitate communication, promote transparency, and support the continuous enhancement of services and facilities.

Student feedback is obtained through,

- A team of senior faculty members and the class teacher conducts a class committee meeting one month after the commencement of each semester. A minimum of three class committee meetings are held every semester.
- In the class committee meeting, the student representatives freely express their opinions about each course and the faculty members handling the subjects.

  The class committee meeting is illustrated below.

(Attached Annexure - 8.4 Class Committee Meeting Details)

- If the students experience any inconvenience with the subjects or faculty members, the Head of the Department will take the necessary corrective measures.
- The feedback forms for each course will be filled out by the students and collected offline.
- Parents-Teachers meetings are conducted once per semester, during which parents interact with the Head of the Department and the staff members. The Parents-Teachers meeting is shown in the Figure (8.3.A. – 8.3.C.)

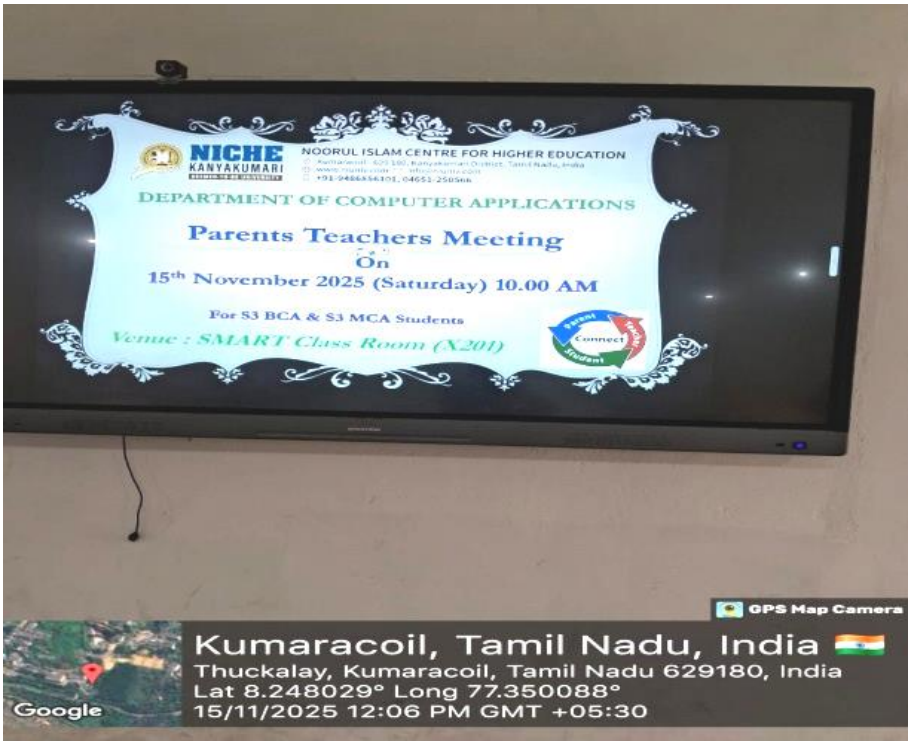


Figure 8.3.A. Parents-Teachers Meeting on 15.11.2025



Figure 8.3.B. Parent and Teachers Interaction



Figure 8.3.C. Parents-Teachers Meeting on 28.09.2024

B. Feedback Analysis

The feedback provided by the students is consolidated and analyzed. The Head of the Department discusses the consolidated report with the management and takes necessary actions accordingly.

C. Corrective Measures

Some of the corrective actions initiated include:

- Revising course content based on feedback.
- Providing additional training or support to faculty members.
- Upgrading facilities such as labs or library resources.

- Implementing changes to scheduling or classroom management.
- Enhancing communication between students and faculty.

8.4. Self-Learning (10)

- In addition to classroom interactions, students have opportunities for self-directed learning. These activities are crucial for maintaining motivation.
- Self-learning initiatives offer hands-on practice alongside theoretical studies, serving as essential exercises.
- NICHE offers campus-wide Wi-Fi access, facilitating student use of self-learning resources like NPTEL, LMS and Google Classroom.
- To enrich self-learning experiences, seminars, workshops, and guest lectures are regularly hosted. The following are the initiatives at NICHE for self-learning;
- **NPTEL**

  It provides web courses and video courses in Engineering / Science and Humanities and has been available in the library for Self-Learning.
- **Learning Management System (LMS)**

  The course materials are organized by course coordinators with the help of HOD and the same is uploaded to the server. Students can retrieve the course material using their username and password provided to them in the web portal **https://lms.niuniv.com** as shown in the Figure 8.4.A.

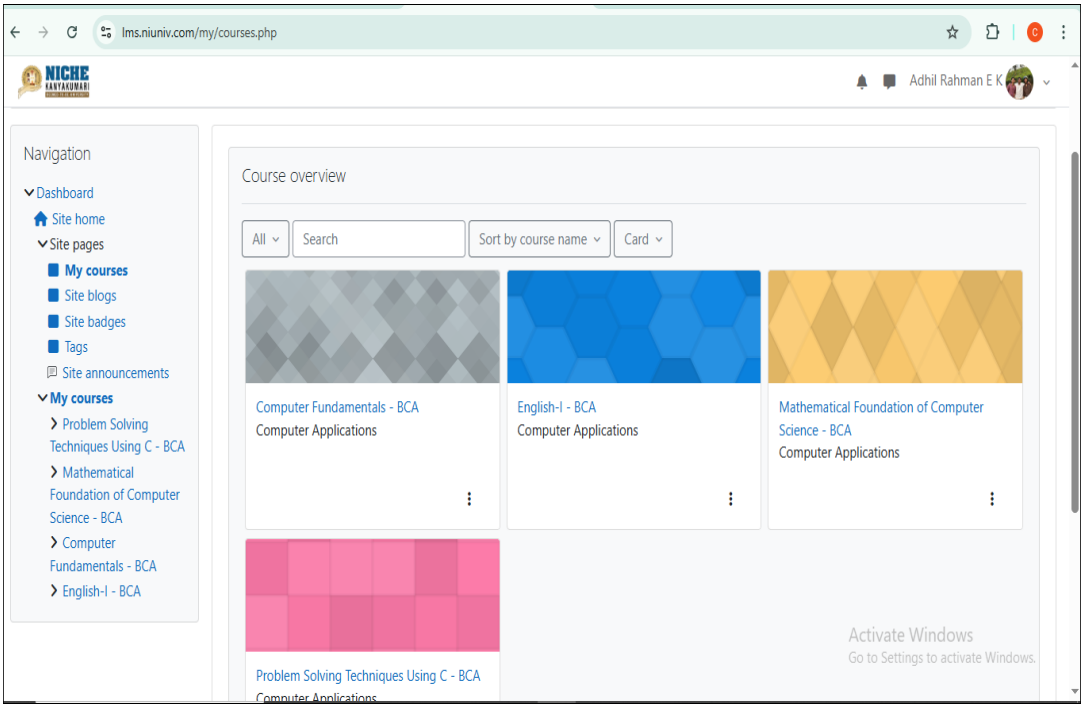


Figure 8.4.A. Learning Management System

- **Google Classroom**

  Google Classroom enhances the teaching and learning process. It is also reliable,

effective and efficient in improving students' access and attentiveness towards learning, activities conducted in Google classroom changes students from passive to active learners. The sample screenshot for Google classroom is shown in the Figure 8.4.B.

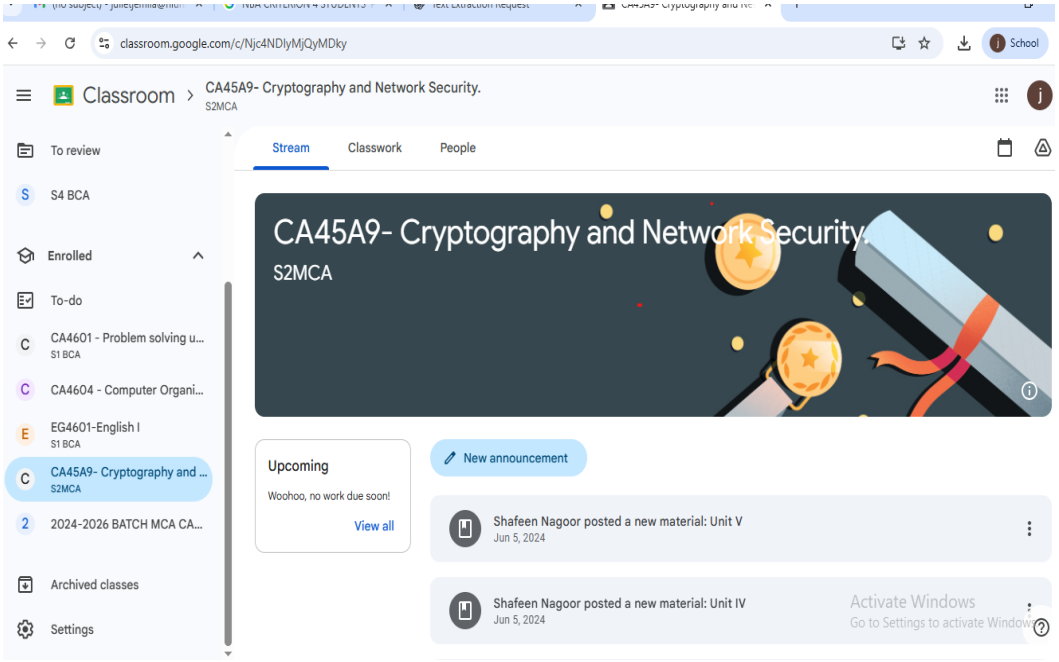


Figure 8.4.B. Google Classroom

- ## Skill-a-thon – ICT Academy

The world of Intelligent Automation at the Skill-A-thon 2024, Organized by ICT Academy of Tamil Nadu in association with UiPath Academic Alliance. In this self-learning program, higher education students can showcase their Intelligent Automation prowess! This self-learning platform will make them to explore the world of Intelligent Automation. In our department students can join the Robotic Process Automation (RPA) Certificate Course in this Self learning platform and get the certificates. This is shown in the Figure 8.4.C.



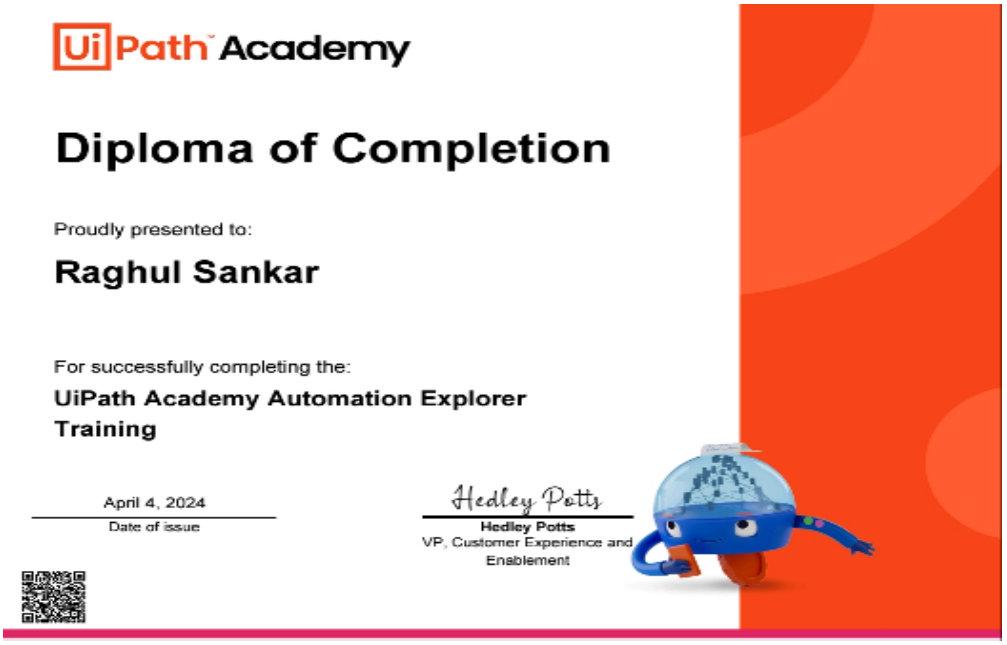




Figure 8.4.C. Certificate of Skill-a-thon – ICT Academy Self Learning

Facility for Self-Learning Activity at NICHE is as shown in Table 8.4.A.

Table 8.4.A. Facility for Self Learning Activity

Sl. No.	Facility	Description
1	E – Books	804
2	E – Journals	207
3	E-Learning Resources	NPTEL and Intranet Server.
4	Wi-Fi Facility	All buildings are provided with Wi-Fi Facility.
5	Department Laboratory	Computers with internet and intranet facilities, Usage

		of Software and hardware facilities.
6	Events encouraging Self Learning	Seminar, Workshop, Conferences, Guest lectures, Career guidance, Industrial tours, Symposium and Industrial Visit

8.5. Career Guidance, Training, Placement (10)

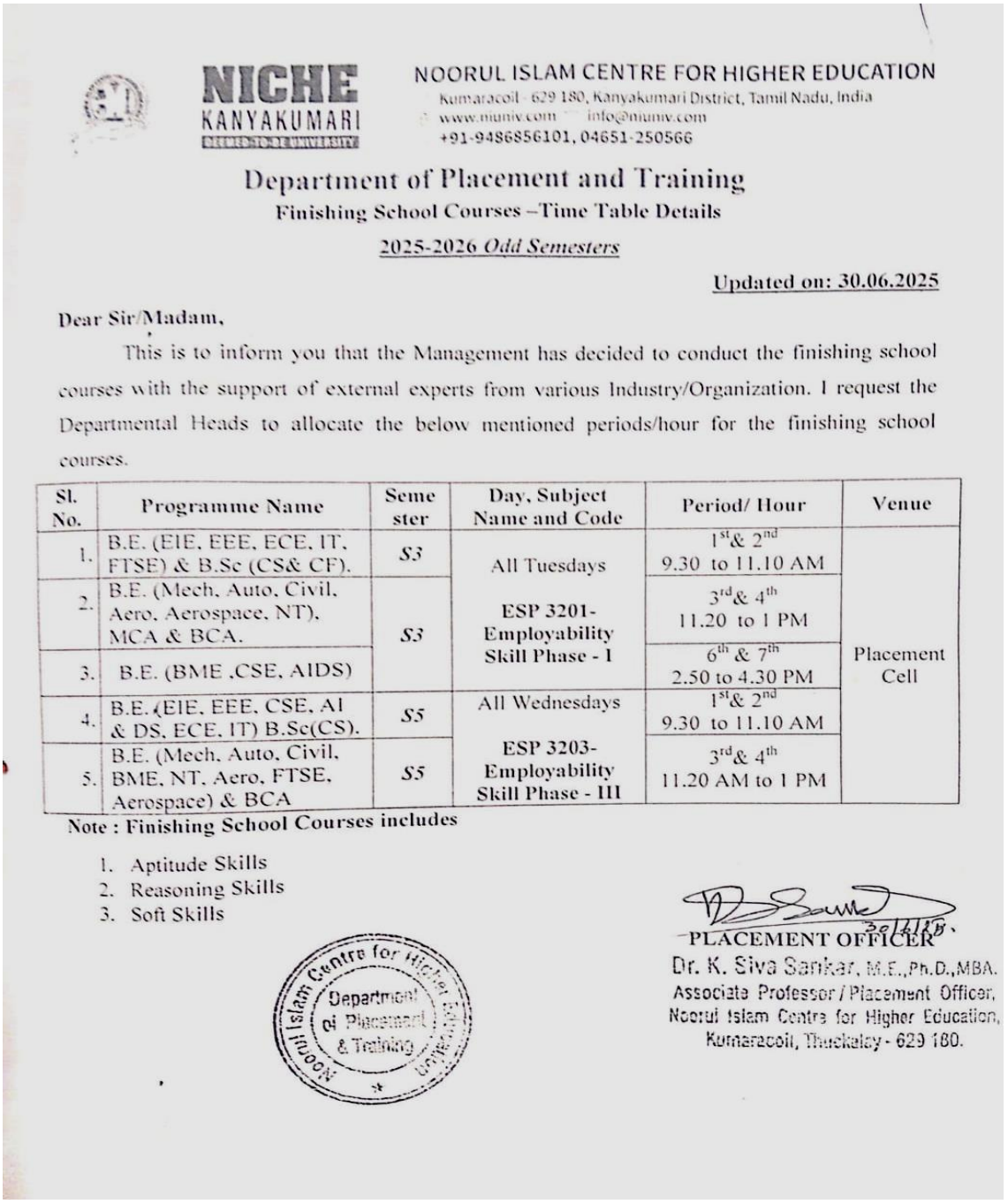
Noorul Islam Centre for Higher Education has a full-fledged Placement & Training Cell manned by an industry experienced person as the Director. The function of this cell is mainly to promote Institution-Industry Interaction for the benefit of the students to carry out their In-plant training and also to undertake Project Work as a part of their education requirements as per the norms framed by the University. The Cell is in constant touch with major industries throughout India to provide job opportunities to the students. They are constantly given training to face the recruitment process by reputed trainers. Necessary guidance is also provided for higher studies not only in India but also in foreign countries. The cell provides books for competitive exams such as CAT, MAT, TOFEL, IES and GATE including Soft Skill Development & General Knowledge for the benefit of the students to better their Career Prospects.

The University has initiated a series of training programmes for the final and pre-final year students on how to write aptitude tests, face interviews, win jobs and be successful in their career. Many personality development programs are arranged by experts from industries. A good number of training programs aiming at their overall competency and preparedness are under way throughout the academic year. Smart trainers and leading experts also train students to face job requirements both on and off campus recruitment.

Career Guidance

For computer applications students, the intramural courses are conducted to improve the skills in reasoning, aptitude and soft skills. The students are instructed to register the intramural courses allotted for the corresponding semester. The placement and training department is co-ordinating this intra mural courses. The staff and time allocated for those courses by placement department and circulated to the departments. The details are shown below

(Attached Annexure - 8.5 Course Registration Details)



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Department of Placement and Training

Finishing School Courses –Time Table Details

2025-2026 *Odd Semesters*

Updated on: 30.06.2025

Dear Sir/Madam,

This is to inform you that the Management has decided to conduct the finishing school courses with the support of external experts from various Industry/Organization. I request the Departmental Heads to allocate the below mentioned periods/hour for the finishing school courses.

Sl. No.	Programme Name	Semester	Day, Subject Name and Code	Period/ Hour	Venue
1.	B.E. (EIE, EEE, ECE, IT, FTSE) & B.Sc (CS& CF).	*S3*	All Tuesdays	1st& 2nd 9.30 to 11.10 AM	Placement Cell
2.	B.E. (Mech, Auto, Civil, Aero, Aerospace, NT), MCA & BCA.	*S3*	ESP 3201- Employability Skill Phase - I	3rd& 4th 11.20 to 1 PM	
3.	B.E. (BME ,CSE, AIDS)			6th & 7th 2.50 to 4.30 PM	
4.	B.E. (EIE, EEE, CSE, AI & DS, ECE, IT) B.Sc(CS).	*S5*	All Wednesdays	1st& 2nd 9.30 to 11.10 AM	
5.	B.E. (Mech, Auto, Civil, BME, NT, Aero, FTSE, Aerospace) & BCA	*S5*	ESP 3203- Employability Skill Phase - III	3rd& 4th 11.20 AM to 1 PM	

Note : Finishing School Courses includes

1. Aptitude Skills
2. Reasoning Skills
3. Soft Skills

Noorul Islam Centre for Higher Education Department of Placement & Training

PLACEMENT OFFICER
Dr. K. Siva Sankar, M.E.,Ph.D.,MBA.
Associate Professor / Placement Officer,
Noorul Islam Centre for Higher Education,
Kumaracoil, Thuckalay - 629 180.

Figure 8.5.A. Faculty Allotment for Career guidance courses

The Placement and Training department held a program for final year B.E/B.Tech and MCA students on March 26th. The session focused on higher education opportunities abroad. Dr. K. Siva Sankar introduced Mr. C.V. Nikhil Kumar, Managing Director of CADDESK, who discussed the advantages and disadvantages of studying overseas and provided guidance for international education paths. On March 26, 2024, the Placement Cell organized a career guidance session on "General Introduction to UPSE Training." Mr. S. Harisankar, Centre Head of Paavai IAS Academy, Namakkal, served as the resource person. He provided an overview of UPSE training, covering exam formats, syllabuses, and preparation strategies for UPSC civil service exams. 25 students attended the session and actively participated, gaining valuable knowledge to pursue civil services careers through UPSE training. On November 7th, 2023, the Department of Placement and Training conducted a career guidance program for final year B.E/B.Tech and

MCA students at the Placement Cell. The session aimed to introduce students to the possibilities of pursuing higher education abroad. Dr. Selvamony offered insights into the advantages and disadvantages of international studies and provided guidance for navigating the application process.

The Placement and Training Cell of NICHE organized a comprehensive career guidance program aimed at enhancing the career prospects of students. Spanning a total of 12 hours, the program successfully catered to 597 students, providing them with valuable insights and guidance on various career paths. The sessions were meticulously designed to address the diverse needs of the students, encompassing topics such as resume building, interview preparation, industry trends, and career planning.

Pre-Placement Training

- On February 6, 2024, the Placement and Training Department held a Pre-Placement Training session titled “Get Ready for Corporate Environment” in the CSE Smart Classroom. Dr. Ajith Sankar from Cox Academy equipped 39 final-year B.E. students with essential skills for the upcoming campus drive by Ashok Leyland and TVS Sundaram Fasteners.
- On April 4, 2024, the Placement and Training Department held a pre-placement session titled "Corporate Readiness" at the Placement Cell, featuring Dr. Ajith Sankar as the resource person. Dr. Sankar provided 70 students with key insights on essential skills such as communication, problem-solving, teamwork, and adaptability, enhancing their employability.
- On April 25, 2024, the Placement and Training Department held a pre-placement session titled "Corporate Connect" at the Placement Cell, led by Dr. A. Shajin Nargunam, Pro Vice- Chancellor (Academic), NICHE. Dr. Nargunam shared insights on networking, corporate culture, and industry trends with 25 participating students.

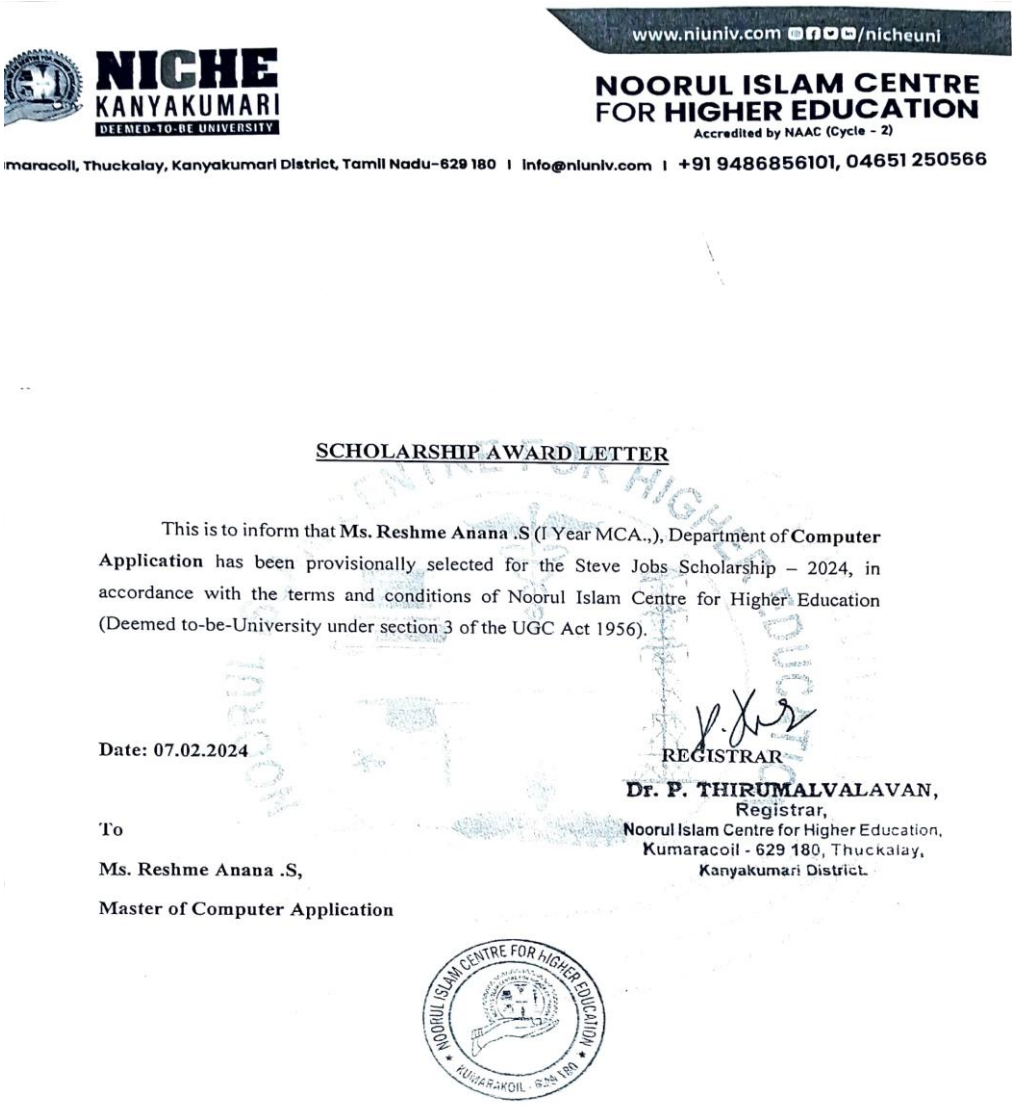
NICHE **Padmashri Gopinathan Nair Civil Service Academy** has planned to schedule Orientation and regular training programme for the aspirants of UPSC Civil Service Examination from October 2023 onwards and **Dr.C.Selvamony**, Managing Director, ACS International Educational Consultancy has planned to schedule Career Guidance Program on “Overseas Prospects in Higher Education” at November 2024. This programme is aims to orient students in various aspects of cracking the prelims of civil service examination. Eminent officers of All India Service and Central Civil Service along with resource experts will deliver expert sessions.

Steve Jobs Scholarship Training

The Steve Jobs Scholarship Training Program selected 69 promising students who demonstrated exceptional potential and a keen interest in their respective fields. Over a total of 30 hours, these students underwent intensive training conducted by leading industrialists and eminent trainers. The program was designed to bridge the gap between academic knowledge and industry requirements, covering a wide range of topics including technical skills, soft skills, leadership development, and

industry-specific knowledge. The training was meticulously crafted to provide a holistic development experience through interactive sessions, workshops, case studies, group discussions, and hands-on activities.

The impact of the program on the students has been profound. They have emerged with enhanced technical competencies, improved soft skills, and valuable industry insights. Additionally, the mentorship provided one-on-one guidance, addressing individual concerns and helping students map out their career paths. The training has not only prepared them to excel in collaborative environments but also helped them build a network of professionals, beneficial for their future endeavors. Overall, the Steve Jobs Scholarship Training Program has been a significant step in preparing these students to meet the challenges of the professional world, ensuring they are well-equipped for successful careers.



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SCHOLARSHIP AWARD LETTER

This is to inform that **Ms. Reshme Anana .S** (I Year MCA.,), Department of **Computer Application** has been provisionally selected for the Steve Jobs Scholarship – 2024, in accordance with the terms and conditions of Noorul Islam Centre for Higher Education (Deemed to-be-University under section 3 of the UGC Act 1956).

Date: 07.02.2024

REGISTRAR
Dr. P. THIRUMALVALAVAN,
Registrar,
Noorul Islam Centre for Higher Education,
Kumaracoil - 629 180, Thuckalay,
Kanyakumari District.

To

Ms. Reshme Anana .S,

Master of Computer Application

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
KUMARAKOIL - 629 180

Figure 8.5.B. Steve Job Scholarship Award Letter

Placement Activities:

- We have full-fledged Placement cell, which monitors the employment opportunities and arranges campus interviews for the final year students.
- We also have MOUs with reputed companies for placement.
- Our Campus recruitment program starts by the beginning of the Pre-Final semester.
- The On Campus recruitment program keeps continuing till the end of their final semester.
- The effectiveness of the training program is analyzed by the feedback collected from each and every student and the continuous improvement in the placement record.

8.6 Entrepreneurship Cell (5)

(Describe the facility, its management and its effectiveness in encouraging entrepreneurship, startups, innovation and incubation)

An **Entrepreneurship Guidance Cell** has been created as a wing of Department of Management studies. It gives guidance to the undergraduate and post graduate students who may be the prospective entrepreneurs likely to enter into business ventures. The Cell has been conducting entrepreneurial awareness camps, inviting managers from small scale industries and bank managers to motivate the students. The Entrepreneurship Awareness Programme was conducted by Dr. K. Asha, Assistant Professor, Department of Management Studies. It is shown in the Figure 8.6.A.



Figure 8.6.A. Entrepreneurship Awareness Programme

8.7. Financial Support in the Form of Scholarships and Paper Presentation for Students (10)

(*Describe the financial support given to students for attending various activities and the list of scholarships given to the students by Institute*)

NICHE gave Scholarship and concession to the students based on the policy. The students studied

in sister institutions benefited in our department. The policy and the list of students befitted is given below
Policy:

(Attached Annexure – 8.6 NICHE SCHOLARSHIP POLICY)

Table 8.7.A. Fees Concession List (2023 -2025 batch)

Sl. No.	Student Name	Tuition Fees / Year	Scholarship (from Sister institution)
1.	Abinesh K	40000	20000
2.	Abi	40000	20000
3.	Abin	40000	20000
4.	Anish S	40000	20000
5.	Aswin H	40000	20000
6.	Bazeena	40000	20000
7.	Farhana S	40000	20000
8.	Hasan Jazeera M	40000	20000
9.	Kadsun Kaloos R	40000	20000
10.	Raghul Sankar A	40000	20000
11.	Siva Sakthi G	40000	20000
12.	Suthi S	40000	20000
13.	Vineeth V N	40000	20000
14.	Raveena R	40000	20000
15.	Anish J	40000	20000

Table 8.7.B. Fees Concession List (2024 -2026 batch)

Sl. No.	Student Name	Tuition Fees / Year	Scholarship (from Sister institution)
1.	Archana A.L	40000	10000
2.	Athira.A.N.	40000	10000
3.	Sherin Fathima S	40000	10000

Sl. No.	Student Name	Tuition Fees / Year	Sports Scholarship
1.	Mani Shankar S	40000	Full Fee Concession
2.	Karthik Rishi R K	40000	
3.	Padmanabhan P S	40000	

Table 8.7.C. Fees Concession List (2025 -2027 batch)

Sl. No.	Student Name	Tuition Fees / Year	Sports Scholarship
1.	Ahash I	40000	Full Fee Concession

8.8 Cultural, Community and Outreach Activities (15)

(Specify information about the cultural, community and outreach activities during the assessment period)

Cultural Activities

Cultural activities are encouraged in the University with the help of faculty member's guidance; the cultural activities such as Music, Dance, Photography and Mime are conducted for computer applications students as well as inter- institute students. MCA Students are actively participating in various Inter institute cultural events. Activities of this kind help the students to mould their personality. An Event Co-ordinator is co-ordinating all the cultural activities. Cultural Fest "PRAVAHA" organized by NICHE. Computer Applications Department students actively participated in the events and won prizes in "PRAVAHA". Symposium conducted by the Department of Computer Applications every year, the other college students in and around was participated. The events conducted by the departments are

Table 8.8.A. Cultural Activities

Sl. No	Name of the Activity	Participants	Date of Event
1.	Technical Symposium	Other College Students	25/02/2025
2.	Pongal Celebration	Department Students	11/01/2025
3.	Christmas Day celebration	Department Students	20/12/2024
4.	Deepavali Celebration	Department Students	29/10/2024
5.	Onam Celebration	Department Students	25/08/2024
6.	Pongal Celebration	Department Students	12/01/2024
7.	Symposium	Other College Students	01/03/2024

(Attached Annexure – 8.7 Cultural Activity)

Department of Computer Applications encourage the students to participate the events conducted by other institutions and NICHE. The following table shows the details for the achievements of students in cultural activities.

Table 8.8.B. Achievements of Students in Cultural Activities

Sl. No	Event Name & Date	Organized by	Activity participated	Student Name
1.	International Womens Day, March 2023	NIMS Medicity	Drawing	Aisha Beevi A, S2 MCA
2.	Kolusukalin Kondatam,	Sree Iyappa College, Chunkankadai	Paper Bag Making	Veena.V S2 MCA, 3rd Prize
3.			Art From Wate	Shifna Wilhed, S2 MCA, 1st Prize
4.				Sreethu, S2 MCA, 1st Prize
5.				Nanthini.S, S2 MCA, 3rd Prize
6.				Libi. V.D, S2 MCA, 3rd Prize
7.	NEMIC FEST-2024	NMCC, Marthandam	Spot Photography	Aswin . H, S4 MCA, 3rd Prize
8.	PRAVAHA 2024, 17th April 2024	NICHE	Collage	Shifna Wilhed, S2 MCA, 1st Prize
9.				Sreethu, S2 MCA, 1st Prize
10.			Art From Waste	Sreethu, S2 MCA, 1st Prize
11.				Shifna Wilhed, S2 MCA, 1st Prize
12.			Best Performer in Photography & Digital Club	Aswin. H, S4 MCA, 1st prize
13.			Photo Editing	
14.			Photography Digital Camera	
15.			One minute Videography	

(Attached Annexure – 8.8 Achievements in Cultural Activity)

- **Community Activities**

The charity programmes are organized by the department of computer applications are listed below.

Table 8.8.C. Extension Activities

Sl. No	Community Event	Date
1.	Visited "Santhi Nilayam, BTK School for the Mentally Challenged", Paruthivilai, Nagercoil, Sponsored Toys, Chairs, etc.	30.10.2025
2.	Visited "C.S.I Transitional Resource Centre", Alancode, Neyyoor, Sponsored Chairs & Fan etc.	26th Sep 2025
3.	Visited "Cancer Centre", Neyyoor, Sponsored Fruits & Books etc.	13th Aug 2024
4.	Visited "Tamilnadu Blind Welfare Trust", Providing Financial Assistance	20th Feb 2024

(Attached Annexure – 8.9 Extension Activity Details)

Outreach Activities

Department conducts various outreach activities like blood donation, Awareness programme on Voters day etc. The details are given below

Table 8.8.D. Outreach Activities

Sl. No	Community Event	Date
1.	Blood Donated by Students	21.09.2023
2.	Indian Languages Festival	12.12.2023

(Attached Annexure – 8.10 Outreach Activity Details)

8.9 Alumni Support in beyond Syllabus Activities (10)

(Documentary evidence on different events perform and impact analysis)

To cultivate effective alumni support in beyond syllabus activities, NICHE conducts formal alumni meet, Student Alumni Interaction, maintain updated alumni databases, and actively communicate opportunities for involvement. By leveraging the expertise and passion of

alumni, institutions can enrich the educational experience for current students and build a strong community that benefits all stakeholders involved. An alumnus provides valuable insights and advice to current students regarding career paths, industry trends, and skill development. The alumni interactions organized in the department of computer applications are listed below

Table 8.9.A. List of Student Alumni Interaction

Sl. No	Name of Alumni with Current Designation	Passed out Year And Programme	Date of Interaction
1.	Mr. Robin Suresh. A, Sr. Manager, Global ERP Innovation, Information Technology Division, Johnson & Johnson, USA.	2007 MCA	01-08-2025
2.	Mr. Jaya Krishnan P.S, PMP® Principal Consultant, Digital Commerce, Infosys Ltd,Trivandrum.	2001, MCA	24-10-2024
3.	Ms. Akhila. U. S Software Tester, Synonyms Technologies, I st Floor, Technokraft Info Systems	2010, MCA	08-11-2023
4.	Ms. Sindhu Vijayan Technical Lead, Allianz Technology Pvt Ltd., Trivandrum	2007, MCA	15-06-2023

(Attached Annexure – 8.11 Sudent Alumini Interaction Details)

- **Skill Development**: Beyond the standard curriculum, our NICHE alumni contributed as resource person in workshops or seminars on topics not covered in depth in regular classes. This could include practical skills, leadership development and specific industry knowledge. Some of the events organized with the help of our alumni are listed below

Table 8.9.B. List of Seminars and Workshop Conducted

S. NO	Alumni Name	ORGANIZATION	Seminar/ Workshop Topic	DATE
1.	Mr. S. Venkadasalam	CEO, Get Innovative, Azhagiyamandapam	Workshop on" The Future of UI/UX Designing"	27/01/2025, 28/01/2025
2.	Sridhar Chakravarthi Mulakaluri	ICT Academy	Power Seminar on" Life Skills"	09/01/2025

3.	Mr. S. Sheik Mohamed Shalam	Master of Computer Application, NICHE.	Seminar on" Business Intelligence using Tableau"	07/11/2024
4.	Ms. Wincy J	Network Administrator, Networkz Systems, Nagercoil.	Seminar on" Ethical Hacking"	24/07/2024
5.	Ms. B. Asha	Track Lead, Chennai	Seminar On "Amazon Web Services"	27/01/2023
6.	Irshad Kalam	RRD, Chennai	Workshop on "Agile methodology and Web application development"	24/02/2023, 25/02/2023
7.	Ms. Akila. U. S	Synonyms Technologies, Trivandrum	Seminar On "Full Stack Development"	08/11/2023

(Attached Annexure – 8.12 Seminars and Workshop Conducted Details)

Annexure - 8.1

Mentor Mentee Details

MENTOR MENTEE DETAILS:

NICHE
KANYAKUMARI
DEEMED-TO-BE UNIVERSITY

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NOORUL ISLAM CENTRE
FOR HIGHER EDUCATION
Accredited by NAAC (Cycle - 2)

Kumaracoil, Thuckalay, Kanyakumari District, Tamil Nadu-629 180 | info@niuniv.com | +91 9486856101, 04651 250566

List of Mentors and Allotted Mentees
Academic Year – 2023-2024 Odd Semester
Department: Computer Applications

Date: 31.07.2023

Sl. No	Semester and Class	Name of the Mentor	Allotted Mentees (Register Number)	
1	S3 BCA	Ms.M.Merlin Johnsy	1122607001 1122607002 1122607003 1122607004 1122607006 1122607007	1122607010 1122607011 1122607012 1122607013 1122607014 1122607015 1122607016
2	S3 MCA	Ms.C.R.Sheela Kumari	1122507001 1122507002 1122507003 1122507004 1122507005 1122507006 1122507007 1122507008 1122507009 1122507010 1122507011 1122507012 1122507013 1122507014	1122507015 1122507016 1122507017 1122507018 1122507019 1122507020 1122507022 1122507023 1122507025 1122507027 1122507028 1122507029 1122507032 1122507034 1122507037

Staff -In- Charge
(M. Tharanya)

HOD 31.07.23
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Mentor Mentee Details in 2023 – 2024 (Odd Semester)

List of Mentors and Allotted Mentees
Academic Year – 2023-2024 Even Semester
Department: Computer Applications

Date : 28.01.2024

Sl. No	Semester and Class	Name of the Mentor	Allotted Mentees (Register Number)	
1	S4 BCA	Ms.M.Merlin Johnsy	1122607001 1122607002 1122607003 1122607004 1122607006 1122607007	1122607010 1122607011 1122607012 1122607013 1122607014 1122607015 1122607016
2	S4 MCA	Ms.C.R.Sheela Kumari	1122507001 1122507002 1122507003 1122507004 1122507006 1122507007 1122507008 1122507009 1122507010 1122507011 1122507012 1122507013 1122507014	1122507015 1122507016 1122507018 1122507019 1122507020 1122507022 1122507023 1122507025 1122507027 1122507028 1122507029 1122507032 1122507034

Staff in-charge

(M.Tharanya)

HOD 28.01.24

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Mentor Mentee Details in 2023 – 2024 (Even Semester)

List of Mentors and Allotted Mentees

Academic Year – 2024-2025 ODD Semester

Department: Computer Applications

Date: 6.6.2024

Sl. No	Semester and Class	Name of the Mentor	Allotted Mentees (Register Number)		
1	S3 MCA	Dr.S.Beulah	1123507001 1123507002 1123507003 1123507004 1123507005 1123507006 1123507007 1123507008 1123507009 1123507010	1123507011 1123507012 1123507013 1123507014 1123507015 1123507016 1123507017 1123507018 1123507019 1123507020	1123507021 1123507022 1123507023 1123507024 1123507025 1123507026 1123507027 1123507028 1123507029
2	S3 BCA	Ms.M.Tharanya	1123607001 1123607002 1123607003 1123607004 1123607005 1123607006 1123607007 1123607008 1123607009 1123607010 1123607011 1123607012	1123607013 1123607014 1123607015 1123607016 1123607017 1123607018 1123607019 1123607020 1123607021 1123607022 1123607023 1123607024	1123607025 1123607026 1123607027 1123607028 1123607029 1123607030 1123607032 1123607033 1123607034 1123607035 1123607036 1123607037
3	S5 BCA	Ms.M.MerlinJohnsy	1122607001 1122607002 1122607003 1122607004 1122607006	1122607007 1122607010 1122607011 1122607012 1122607013	1122607014 1122607015 1122607016

Staff -In- Charge

(M. Tharanya)

HOD 6/6/24

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Mentor Mentee Details in 2024 – 2025 (Odd Semester)

List of Mentors and Allotted Mentees
Academic Year – 2024-2025 EVEN Semester
Department: Computer Applications

Date: 5.1.2025

Sl. No	Semester and Class	Name of the Mentor	Allotted Mentees (Register Number)		
1	S4 MCA	Dr.S.Beulah	1123507001 1123507002 1123507003 1123507004 1123507005 1123507006 1123507007 1123507008 1123507009 1123507010	1123507011 1123507012 1123507013 1123507014 1123507015 1123507016 1123507017 1123507018 1123507019 1123507020	1123507021 1123507022 1123507023 1123507024 1123507025 1123507026 1123507027 1123507028 1123507029
2	S4 BCA	Ms.M.Tharanya	1123607001 1123607002 1123607003 1123607004 1123607005 1123607006 1123607007 1123607008 1123607009 1123607010 1123607011 1123607012	1123607013 1123607014 1123607015 1123607016 1123607017 1123607018 1123607019 1123607020 1123607021 1123607022 1123607023 1123607024	1123607025 1123607026 1123607027 1123607028 1123607029 1123607030 1123607032 1123607033 1123607034 1123607035 1123607036 1123607037
3	S6 BCA	Ms.M.Merlin Johnsy	1122607001 1122607002 1122607003 1122607004 1122607006	1122607007 1122607010 1122607011 1122607012 1122607013	1122607014 1122607015 1122607016

Staff -In- Charge

(M. Tharanya)

HOD

5.1.25

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Mentor Mentee Details in 2024 – 2025 (Even Semester)

Mentor wise Issues Raised Details
Academic Year – 2025-2026 [ODD]
Department: Computer Applications

Date:27.1.2026

Sl. No	Mentor Name	Class and Semester	Issues Raised	Resolved
4	Dr. S. Beulah	S1 MCA	No issues	
5	Ms.M.Merlin johnsy & Ms.J.Priya	S1 BCA	No issues	

Staff in-charge

HOD 27.1.26

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

List of Mentors and Allotted Mentees
Academic Year – 2025-2026 ODD Semester
Department: Computer Applications

Date: 3.9.2025

Sl. No	Semester and Class	Name of the Mentor	Allotted Mentees (Register Number)		
1	S1 MCA	Dr.S.Beulah	1125507001 1125507002 1125507003 1125507004 1125507005 1125507006 1125507007 1125507008	1125507009 1125507010 1125507011 1125507012 1125507013 1125507014 1125507015 1125507016	1125507017 1125507018 1125507019 1125507020 1125507021 1125507022 1123607023 1123607024
2	S1 BCA	Ms.M.Merlin Johnsy	1125607001 1125607002 1125607003 1125607004 1125607005 1125607006 1125607007 1125607008	1125607009 1125607010 1125607011 1125607012 1125607013 1125607015 1125607016 1125607017	1125607018 1125607019 1125607020 1125607021 1125607022 1125607023 1125607024 1125607027
		Ms.J.Priya	1125607028 1125607029 1125607030 1125607031 1125607032 1125607033 1125607034 1125607035 1125607038 1125607039 1125607040 1125607041	1125607042 1125607044 1125607045 1125607046 1125607047 1125607048 1125607050 1125607051 1125607014 1125607043 1125607036 1125607049	1125607026 1125607037 1125607025 1125607052 1125607053 1125607054 1125607055 1125607056 1125607057

Staff in charge
(Mr. Tharanya).

3.09.25

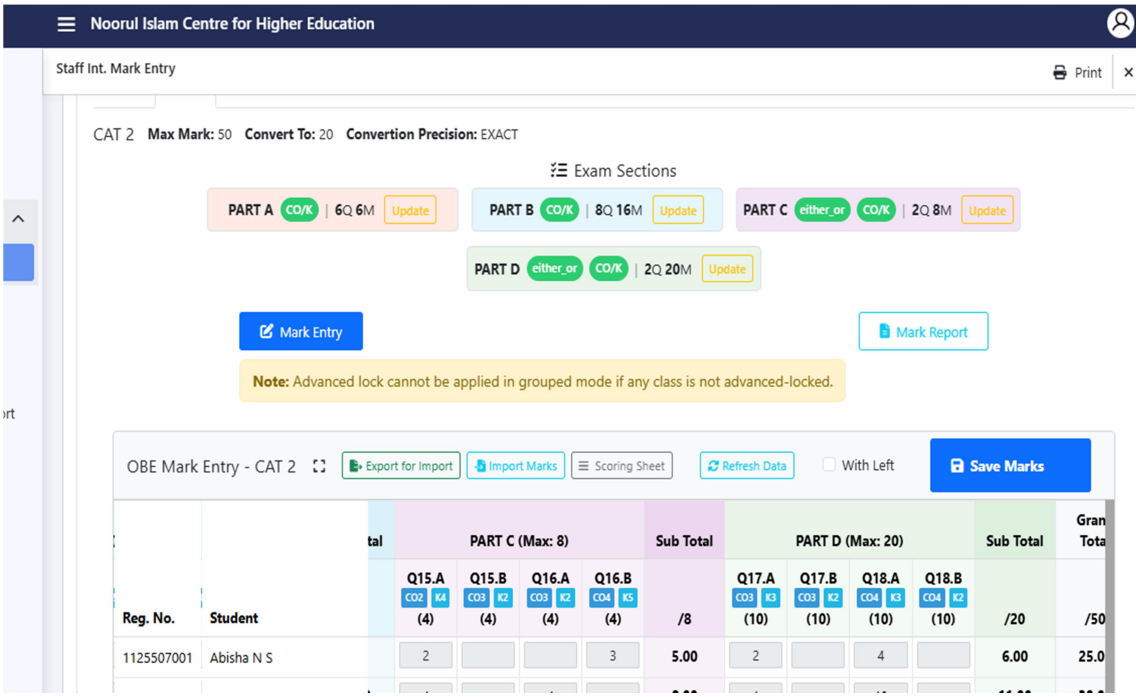
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Mentor Mentee Details in 2023 – 2024 (Odd Semester)

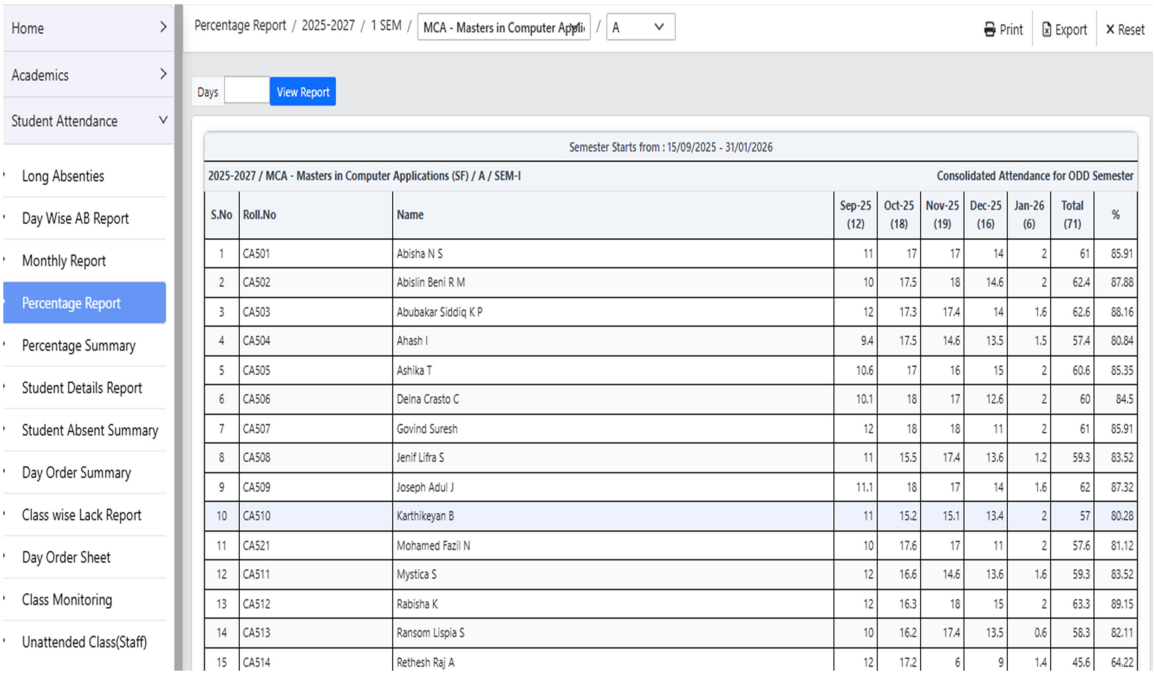
Annexure - 8.2

NICHE Student's Portal Entries

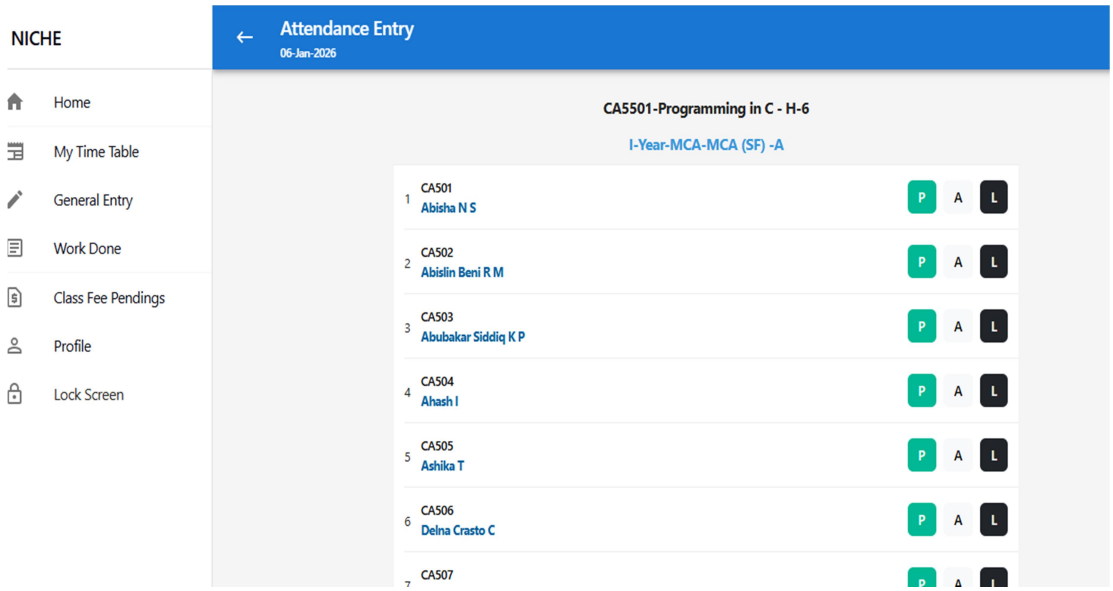
NICHE STUDENT'S PORTAL ENTRIES:



Series Test Mark Entry



Attendance Report



Attendance Entry

Annexure - 8.3

Remedial Class Details

REMEDIAL CLASS (SLOW LEARNERS) DETAILS:

NICHE KANYAKUMARI DEEMED-TO-BE UNIVERSITY
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Accredited by NAAC (Cycle - 2)
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DEPARTMENT OF COMPUTER APPLICATIONS
CAREER ADVANCED PROGRAMME FOR S2 MCA
CIRCULAR
(Dated 27-03-2025)

It is decided to conduct career advance programme for the slow learners in S2 MCA from 31-03-2025 onwards. The faculties are requested to extend wholehearted co – operation for the successful conduct of this programme.

Time : 09:00 am – 09:30 am or 1:20 pm – 1:50 pm

Date	Subject code & Name	Staff Name	Signature
19/5/25, 20/5/25, 21/5/25, 23/5/25, 26/5/25, 27/5/25	CA4504 – Advanced Python Programming	Ms. M. Merlin Johnsy	
14/5/25, 19/5/25 20/5/25, 22/5/25 25/5/25 28/5/25	CA4505 – Full Stack Web Development	Dr. S. Beulah	
19/5/25, 20/5/25, 23/5/25, 26/5/25 27/5/25	CA4506 – Data Science and Cloud Computing	Dr. M. Shafeen Nagoor	
22/9/25, 23/9/25 28/9/25, 2/6/25 3/6/25, 13/6/25	CA45A1 – Software Project Management	Ms. M. Tharanya	
4/4/25, 7/4/25 11/4/25, 15/4/25 16/4/25	CA45B1 – Mobile Communication Technique	Ms. C. Juliet Jemila	

Staff in-charge

HOD
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Career Advance Programme Circular for the Slow Learners

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

CIRCULAR

By the request of the students the coaching class is scheduled as below with the following candidates between 09:00 am to 9:30 am or 01:20 pm to 01:50 pm. Make yourself to attend the classes without fail.

Sl. No.	Reg.No.	Name
1.	1124507001	Abin J
2.	1124507002	Abin Saji
3.	1124507003	Abinesh R
4.	1124507004	Abishek S J
5.	1124507008	Dhanush T H
6.	1124507011	Karthick Rishi R K
7.	1124507012	Mani Sankar S
8.	1124507013	Masma G
9.	1124507014	Mohaideen Raseen S
10.	1124507015	Moniesh J R
11.	1124507016	Newsha M R
12.	1124507018	Padmanabhan P S
13.	1124507023	Sriram R V
14.	1124507024	Vijesh Mon K R
15.	1124507025	Vridha J B
16.	1124507026	Yahoof R
17.	1124507027	Syed Mohamed Hasan S Y

Staff in-charge

HOD

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakuman District, TamilNadu,India.

To be read in

1. S3 BCA

Copy To

1. Notice board

2. All staff members

Coaching Class Student List

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL
DEPARTMENT OF COMPUTER APPLICAIONS

Coaching class attendance list

Time : 9:00 am-9:30 am

Subject Code	Subject Name	Staff Name
CA4504	Advanced Python Programming	Ms. M. Merlin Johnsy

Sl.No	Reg.No.	Name	Date					
			19/5/25	20/5/25	21/5/25	23/5/25	26/5/25	27/5/25
1	112450-7002	Abin Saji	/	/	/	/	/	/
2	112450-7008	Dhanush.T.H	/	/	/	a	/	/
3	112450-7013	Masma.G	/	/	/	a	/	/
4	112450-7016	Newsha.M.R	/	/	/	a	a	a
5	112450-7024	Vijesh Mon.k.R	/	/	/	/	/	/
Total No. of present			5	5	5	2	4	4
Total No. of absent			-	-	-	3	1	1
Staff Sign with date			19/5	20/5	21/5	23/5	26/5	27/5

Staff in - charge

HOD

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Coaching Class Attendance List

Noorul Islam Centre for Higher Education, Kumaracoil

Kumaracoil, Thuckalay, Kanyakumari - 629180, Tamil Nadu, India

Department of Computer Applications

REMEDIAL CLASSES FOR SLOW LEARNERS

Subject Code with Subject Name : CA4504 - Advanced Python Programming

Staff Name : M. Merlin Johnsy **Academic Year and Semester :** 2024 - 2025 (EVEN)

Sl.no	Roll No	Name of the Student	Test Performance		Coaching Classes					Improvement		Signature of the staff
			I/II /III	Marks	Date & Time	Date & Time	Date & Time	Date & Time	Date & Time	II/III	Marks	
					9:00 am – 9:30 am							
					14/5/25	20/5/25	21/5/25	23/5/25	26/5/25			
1.	2	Abin Saji	II	31	/	/	/	/	/	III	62	Faulty
2.	8	Dhanush.T.H	II	2	/	/	/	a	/	III	80	Faulty
3	13	Masma.G	II	48	/	/	/	a	/	III	56	Faulty
4	16	Newsha.R	II	27	/	/	/	a	a	III	60	Faulty
5	24	Vijesh Mon.k.R	II	20	/	/	/	/	/	III	84	Faulty

Faulty

Staff in-charge

HOD

Remedial Classes for Slow Learners

Annexure - 8.4

Class Committee Meeting Details

CLASS COMMITTEE MEETING DETAILS:

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ACADEMIC YEAR 2025-26 ODD SEMESTER

CLASS COMMITTEE IV

26/11/2025

Circular

This is to inform that the Fourth class committee meeting for S3 MCA will be conducted on 27/11/2025on Smart Class Room at 12.30 P.M.The Class Committee members are requested to attend the meeting.

Class Committee Members

Sl.No	Name	Designation	Signature
1.	Ms.M.Tharanya	Chair Person	
2.	Ms.M.Merlin Johnsy	Course Teacher	
3.	Ms. Priya J	Course Teacher	
4.	Ms.Juliet Jemila C	Course Teacher	
5.	Dr. Shafeen Nagoor M	Course Teacher	
6.	Ms. Sheela Kumari C R	Course Teacher	
7.	Mr. Sheik Mohamed Shalam S	Student Member	
8.	Abin J	Student Member	
9.	Ms. Newsha M R	Student Member	
10.	Sherin Fathima S	Student Member	

Staff In Charge

Ms. C.Juliet Jemila

HOD 15.12.25

Dr.J.R.Jeba

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil 629 180, Thuckalay
Kanyakumari District, Tamil Nadu, India.

Circular on Class Committee

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL

DEPARTMENT OF COMPUTER APPLICATIONS

ACADEMIC YEAR 2025-26 ODD SEMESTER

CLASS COMMITEE IV

Minutes of Meeting

Date: 28.11.2025

Class: S3 MCA

Chairperson: Ms.M.Tharanya.

The Fourth class committee meeting for S3 MCA was held on 27/11/2025 at 12.30 P.M. in the Department Smart Class Room. The following members were present.

Sl.No	Name	Designation	Signature
1.	Ms.M.Tharanya	Chair Person	
2.	Ms.M.Merlin Johnsy	Course Teacher	
3.	Ms. Priya J	Course Teacher	
4.	Ms.Juliet Jemila C	Course Teacher	
5.	Dr. Shafeen Nagoor M	Course Teacher	
6.	Ms. Sheela Kumari C R	Course Teacher	
7.	Mr. Sheik Mohamed Shalam S	Student Member	
8.	Abin J	Student Member	
9.	Ms. Newsha M R	Student Member	
10.	Sherin Fathima S	Student Member	

The following are the outcomes of the meeting:

1. The results of the Model Examination were discussed.
2. The schedule for the University Laboratory and Theory Examinations was announced.
3. The students were instructed to complete their laboratory records.
4. The students were advised to prepare well for the end-semester examinations.
5. The subject-wise analysis of the Model Examination was prepared and shared with the students.

Minutes of Meeting

Annexure - 8.5

Course Registration Details

COURSE REGISTRATION DETAILS:

Noorul Islam Centre for Higher Education- *Intramural Course Registration Details* | Academic Year 2025-2026 ~~Even~~ odd Semesters

Department : Computer Application | Class: ~~MSc~~ MCA | Semester: First

Register No.	Name	Subject Code												Signature of the Student
		MA5504	CA5501	CA5502	CA5503	CA5504	CA5505	CA5506	CA5507	CA5508				
1185507001	Abisha	✓	✓	✓	✓	✓	✓	✓	✓	✓				Abisha
1185507002	Abislin Beni	✓	✓	✓	✓	✓	✓	✓	✓	✓				Beni
1185507003	Abubakar Siddique	✓	✓	✓	✓	✓	✓	✓	✓	✓				Khan
1185507004	Ahash	✓	✓	✓	✓	✓	✓	✓	✓	✓				I Ahash
1185507005	Ashika.T	✓	✓	✓	✓	✓	✓	✓	✓	✓				Ashika T
1185507006	Delna Crasta.C	✓	✓	✓	✓	✓	✓	✓	✓	✓				D Crasta
1185507007	Govind Suresh	✓	✓	✓	✓	✓	✓	✓	✓	✓				Govind
1185507008	Jenif Lifta	✓	✓	✓	✓	✓	✓	✓	✓	✓				Lifta. S
1185507009	Joseph Adwl	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1185507010	Karthikeyan.	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1185507011	Mohammed Fayil	✓	✓	✓	✓	✓	✓	✓	✓	✓				M. Fayil
1185507012	Mystica.S	✓	✓	✓	✓	✓	✓	✓	✓	✓				Mystica
1185507013	Rabisha	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1185507014	Ransom Lispia	✓	✓	✓	✓	✓	✓	✓	✓	✓				lispia.S
1185507015	Rathesh.A	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1185507016	Siva shanmugam	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1185507017	Siva Nandana	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1185507018	Shreyas	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1185507019	Sundar	✓	✓	✓	✓	✓	✓	✓	✓	✓				
1185507020	Varshini	✓	✓	✓	✓	✓	✓	✓	✓	✓				Varshini

Head of the Department
Department of Computer Applications
Signature of the HOD
Noorul Islam Centre for Higher Education
Kumaracoil-629180, Thuckalay
Kanyakumari District, TamilNadu India

Note: write the subject code in the row header and tick the appropriate columns

Course registration by students

Noorul Islam Centre for Higher Education- *Intramural Course Registration Details* | Academic Year 2025-2026 ~~Even~~ Semesters

Department : Computer Application | Class: MCA | Semester: 1st

Register No.	Name	Subject Code												Signature of the Student
		MA5504	CA5501	CA5502	CA5503	CA5504	CA5505	CA5506	CA5507	CA5508				
1185507091	Velam	✓	✓	✓	✓	✓	✓	✓	✓	✓				M Velam
1185507092	Vishva	✓	✓	✓	✓	✓	✓	✓	✓	✓				Vish.
1185507093	Agnes Gihansha	✓	✓	✓	✓	✓	✓	✓	✓	✓				Agnes.

Head of the Department
Department of Computer Applications
Signature of the HOD
Noorul Islam Centre for Higher Education
Kumaracoil-629180, Thuckalay
Kanyakumari District, TamilNadu India

Note: write the subject code in the row header and tick the appropriate columns

Course registration by students

Noorul Islam Centre for Higher Education- *Intramural Course Registration Details* | Academic Year 2025-2026 Even Semesters

Department : CA | Class: MCA | Semester: 03

Register No.	Name	Subject Code							Signature of the Student
		CA4507	CA4508	CA45B1	CA45C1	CA45C3	CA4575	CA45P1	
1122507902	Arsha Beevi. A	✓	✓	✓	✓	✓	✓	✓	
1124507001	Abin. J	✓	✓	✓	✓	✓	✓	✓	
1124507002	Abin Saji	✓	✓	✓	✓	✓	✓	✓	
1124507003	Abinesh. R	✓	✓	✓	✓	✓	✓	✓	
1124507004	Abishek S J	✓	✓	✓	✓	✓	✓	✓	
1124507005	Anusha. M	✓	✓	✓	✓	✓	✓	✓	
1124507006	Archana A.L	✓	✓	✓	✓	✓	✓	✓	
1124507007	Athira A.N	✓	✓	✓	✓	✓	✓	✓	
1124507008	Dhanush. T.H	✓	✓	✓	✓	✓	✓	✓	
1124507009	Dhinya Dhas. P	✓	✓	✓	✓	✓	✓	✓	
1124507010	Jaya Bharathi A	✓	✓	✓	✓	✓	✓	✓	
1124507011	Karthik Rishi R.K	✓	✓	✓	✓	✓	✓	✓	
1124507012	Mani Shankar. S	✓	✓	✓	✓	✓	✓	✓	
1124507013	Masma. G	✓	✓	✓	✓	✓	✓	✓	
1124507014	Mohaideen Raseen S	✓	✓	✓	✓	✓	✓	✓	
1124507015	Moniesh J.P	✓	✓	✓	✓	✓	✓	✓	
1124507016	Newsha M.R	✓	✓	✓	✓	✓	✓	✓	
1124507017	Nibitha. A	✓	✓	✓	✓	✓	✓	✓	
1124507018	Padmanabhan P.S	✓	✓	✓	✓	✓	✓	✓	
1124507019	Sairam N.A	✓	✓	✓	✓	✓	✓	✓	

Note: write the subject code in the row header and tick the appropriate columns

MCA

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu, India.

Course registration by students

Noorul Islam Centre for Higher Education- *Intramural Course Registration Details* | Academic Year 2025-2026 Even Semesters

Department : CA | Class: MCA | Semester: 03

Register No.	Name	Subject Code							Signature of the Student
		CA4507	CA450E	CA45B1	CA45C2	CA45C3	CA4575	CA45P1	
1124507020	Shasbin Jeno. P	✓	✓	✓	✓	✓	✓	✓	
1124507021	Sheik Mohamed Shalens	✓	✓	✓	✓	✓	✓	✓	
1124507022	Sherin Fathima. S	✓	✓	✓	✓	✓	✓	✓	
1124507023	Sriram R.V	✓	✓	✓	✓	✓	✓	✓	
1124507024	Vijesh Hon K.B	✓	✓	✓	✓	✓	✓	✓	
1124507025	Vrindha J.B	✓	✓	✓	✓	✓	✓	✓	
1124507026	Yahoof. K	✓	✓	✓	✓	✓	✓	✓	
1124507027	Syed Mohamed Hasans Y.	✓	✓	✓	✓	✓	✓	✓	

Note: write the subject code in the row header and tick the appropriate columns

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu, India.

Course registration by students

Annexure – 8.6

NICHE SCHOLARSHIP POLICY

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
Kumaracoil - 629 180, Kanyakumari District, Tamil Nadu, India
www.niuniv.com info@niuniv.com
+91-9486856101, 04651-250566

NICHE Scholarship Policy

The Noorul Islam Centre for Higher Education (NICHE), declared as a Deemed-to-be-University under Section 3 of the UGC Act, 1956, offers scholarships to students admitted for the academic year 2023-2024.

1. Academic Excellence Scholarship

To recognize and support students who exhibit outstanding academic performance, NICHE provides academic excellence scholarships.

Eligibility Criteria

Candidates admitted to NICHE for the academic year 2023-2024 must fulfil the following requirements to qualify for the institution's academic excellence scholarship.

For Undergraduate students

To receive a 30% scholarship on tuition fees, students must meet any of the following criteria:

- Achieve 90% or above in their plus two Physics, Chemistry, and Mathematics exams.
- Achieve 90% or above in their plus two Physics, Chemistry, and Biology exams.
- Achieve 90% or above in eligible subjects in their plus two exams.
- Achieve 90% or above in the NICHE entrance examination.

For Post Graduate students

For students enrolling in PG courses, the following conditions apply for tuition fee scholarships:

- To receive a 10% scholarship, students must have secured 90% or above in their eligible undergraduate degree or in the NICHE entrance examination.
- To receive a 5% scholarship, students must have secured 80% or above in their eligible undergraduate degree or in the NICHE entrance examination.

2. Economically Weaker Section Students Scholarship

This scholarship aims to provide financial support and opportunities for education to students from economically disadvantaged backgrounds.

Eligibility Criteria

- Students whose parents' annual income is below one lakh rupees are eligible for this scholarship.

• Students belonging to the same criteria the Government of India used to determine the creamy layer of Other Backward Communities (OBC) will be considered.

• Income calculation norms, as prescribed by the Government of India and the Government of Tamil Nadu, will be adhered to and updated from time to time.

3. COVID Crisis Relief Scholarship

NICHE aims to lead by example on the advice of both the Central and Tamil Nadu Governments, providing assistance to families affected by COVID during the admissions for 2023-24.

Eligibility Criteria

• Students applying for B.E./B. Tech. or other courses who have lost both parents due to COVID-19 will receive a 100% scholarship covering tuition fees.

• Students applying for B.E./B. Tech. or other courses that have lost one parent (either the father or mother) due to COVID-19 will receive a 50% scholarship covering tuition fees.

4. Sports Quota Scholarships

A Sports Quota Scholarship aims to recognize and support talented athletes who excel in sports while pursuing their education.

Eligibility Criteria

Under the sports quota, students demonstrating exceptional performance and talent in sports are eligible for scholarships. This includes students who have won prizes in University, State, National, or international sports and games.

5. Differently Abled Students Support Scholarship

The Differently Abled Students Support Scholarship aims to provide students with disabilities with assistance and educational opportunities.

Eligibility Criteria

NICHE prioritizes support for differently abled students with the following provisions:

- Students with over 40% disability will receive a 25% scholarship on tuition fees.
- Children of individuals with disabilities will also receive a 25% scholarship on tuition fees.

6. Regional Scholarship

Regional Scholarship aims to support and retain talent within a specific geographic area, contribute to local development, and empower students to succeed academically and professionally within their communities.

Eligibility Criteria

NICHE offers a 10% tuition fee scholarship to students who are residents of Tamil Nadu.

7. Sister Institution Scholarship

The Sister Institutions Scholarship aims to recognize and support students who have completed their studies at one of the sister institutions and are continuing their academic journey at NICHE.

Eligibility Criteria

NICHE provides a 10% tuition fee scholarship to students from its sister institutions.

8. NCC Cadet Scholarship

An NCC (National Cadet Corps) Cadets Scholarship aims to recognize and support cadets' achievements and contributions in NCC / NSS / Scout activities.

Eligibility Criteria

NICHE awards scholarships to students certified in NCC/NSS/Scout. Eligible students receive a 10% tuition fee scholarship based on their achievements in NCC/NSS/Scout activities.

9. Faculty Children Scholarships

The objective of a Faculty Children's Scholarship is to provide financial assistance and support to the children of educational institution faculty members or employees.

Eligibility Criteria

NICHE grants a 30% tuition fee scholarship to students who are children of faculty members employed at the institution.

10. Other Deserving Students Scholarships

Scholarships will be awarded to other deserving students based on their academic performance and economic status, as well as recommendations from the minister, chancellor, pro-chancellor, Jammad, Devasam Board, Churches, and other authorities. The committee constituted in this regard will make the recommendation.

For the above scholarships, the procedure is as follows:

Application Process

Eligible students pursuing both undergraduate (UG) and postgraduate (PG) degree courses should fill out the designated form titled "Application for Fees Concession" and submit it to the Admission Office.

Selection Process

The Director (Admission) will review all applications and forward them to the committee comprising the Finance Officer, Pro—Vice-Chancellor (Admin), and Director (Admission). The authorities will approve the scholarship's provision.

Scholarship Awards

The deserving candidates are granted fee concessions for their academic pursuits.

Termination of Scholarship

The scholarship may be terminated if the recipient fails to meet renewal criteria or violates the institution's code of conduct.

11. Government Scholarships

In addition to these provisions, our institution assists the students in getting scholarships from the Central and State Governments, which include:

- Minority Scholarship – Merit cum Means Scholarship
- Minority Scholarship – Post Matric Scholarship
- Prime Minister's Scholarship Scheme For Central Armed Police Forces And Assam Rifles
- Central Sector Scheme of Scholarships for College and University Students
- PG Indira Gandhi Scholarship For Single Girl Child
- Pragati Scholarship Scheme For Girl Students (Technical Degree)
- AICTE – Swanath Scholarship Scheme (Technical Degree)
- Pudhumai Penn Scheme – State Government

The students are made aware of the scholarships via proper circulars on time and are made to avail themselves of government scholarships online at the stipulated time.

General Guidelines

- Students who meet any of the above criteria are eligible for the scholarship provided by the institution, regardless of their gender, community, religion, economic status, or region.
- Recipients must maintain satisfactory academic progress as defined by the institution.
- Recipients are expected to uphold high standards of conduct and ethics.
- Any significant decline in performance or disciplinary actions may lead to a review of the scholarship grant.



Registrar

Dr. P. THIRUMALVALAVAN,
Registrar,
Noorul Islam Centre for Higher Education,
Kumaracoil - 629 180, Thuckalay,
Kanyakumari District.

Annexure – 8.7

Cultural Activity

CULTURAL ACTIVITIES:





Technical Symposium on 25-02-2025



Pongal celebration on 11.01.2025





Christmas Day Celebration on 20.12.2024



Deepavali Celebration on 29– 10-2024



Pongal celebration on 12th January 2024





Symposium on 01-03-2024

Annexure – 8.8

Achievements in Cultural Activity

CULTURAL ACTIVITY AWARDS:



Receiving prize on April 17th in PRAVAHA



Receiving prize on April 17th in PRAVAHA





NESAMONY MEMORIAL CHRISTIAN COLLEGE, MARTHANDAM

(Re-Accredited with 'A' Grade by NAAC)

88th Position in National Rankings - 2023 for colleges by NIRF

Marthandam - 629 165, Kanyakumari District

YOUTH WELFARE & FINE ARTS CLUB

NEMIC 2024

This is to certify that Mr./Ms. Aswin. N. H

of Noorul Islam Centre for Higher Education

has participated in Spot Photography competition and won the **THIRD PRIZE** conducted during **NEMIC FEST - 2024** organized by Youth Welfare & Fine Arts Club on 15th & 16th March, 2024.

Dr. R. SHEELA CHRISTY
Principal i /c

3

Dr. P. J. GIFTLIN
Convenor

Receiving prize and Certificate, NMCC Marthandam



SREE AYYAPPA COLLEGE FOR WOMEN
(Re-accredited with B Grade by NAAC)
Chunkankadai, Nagercoil

KOLUSUKALIN KONDATTAM- 2024

CERTIFICATE OF APPRECIATION

This is to certify that

Selvi /Smt ....Shifna Wilfred (Ss.MCA).....Participated in the

Art From Waste.....competition and won First / Second / Third / Consolation prize

held in connection with the KOLUSUKALIN KONDATTAM - 2024 conducted by

Sree Ayyappa College for Women.

Principal
Dr.V.R.Anjana

Organizing secretary
Dr.L Kumari Krishnaveni

Co-ordinator
Dr.B.M.Myla



SREE AYYAPPA COLLEGE FOR WOMEN
(Re-accredited with B Grade by NAAC)
Chunkankadai, Nagercoil

KOLUSUKALIN KONDATTAM- 2024

CERTIFICATE OF APPRECIATION

This is to certify that

Selvi /Smt .....Veena.V.S(Ss.M.C.A).....Participated in the

Paper Bag Making.....competition and won First / Second / Third / Consolation prize

held in connection with the KOLUSUKALIN KONDATTAM - 2024 conducted by

Sree Ayyappa College for Women.

Principal
Dr.V.R.Anjana

Organizing secretary
Dr.L Kumari Krishnaveni

Co-ordinator
Dr.B.M.Myla

Certificate received from Sree Iyappa College



Certificate Received from NICHE

Annexure – 8.9

Extension Activity Details

EXTENSION ACTIVITY:



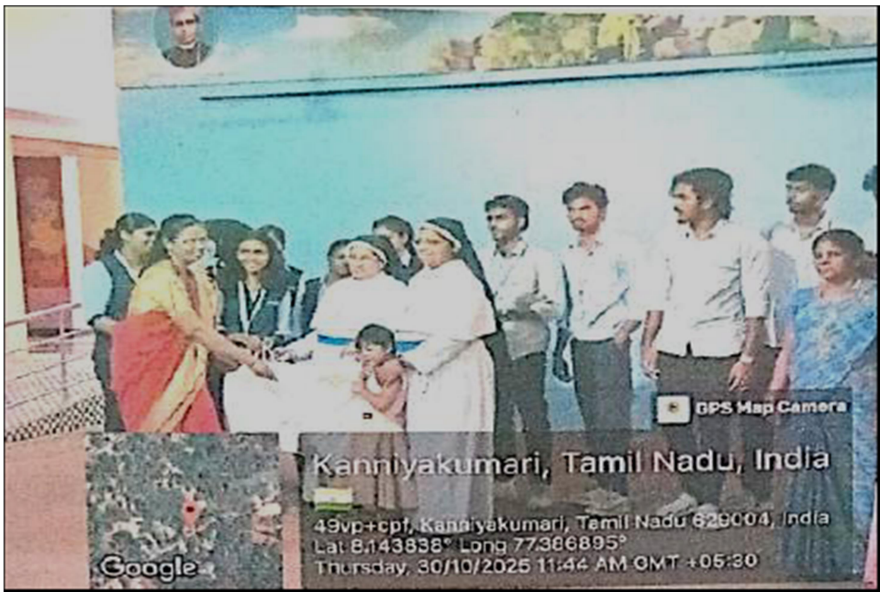




Visited "Neyyoor Cancer Centre"



Visited "Tamilnadu Blind Welfare Trust"



Visited "C.S.I Transitional Resource Centre"



Visited "Santhi Nilayam, BTK School for the Mentally Challenged"

Annexure – 8.10

Outreach Activity Details

OUTREACH ACTIVITY:



Blood donated by our students



Blood donation Certificate



Indian Languages Festival

Annexure – 8.11

Student Alumini Interaction Details

STUDENT ALUMINI INTERACTION DETAILS:





Student Alumni Interaction on 01.08.2025



Student Alumni Interaction on 24.10.2024

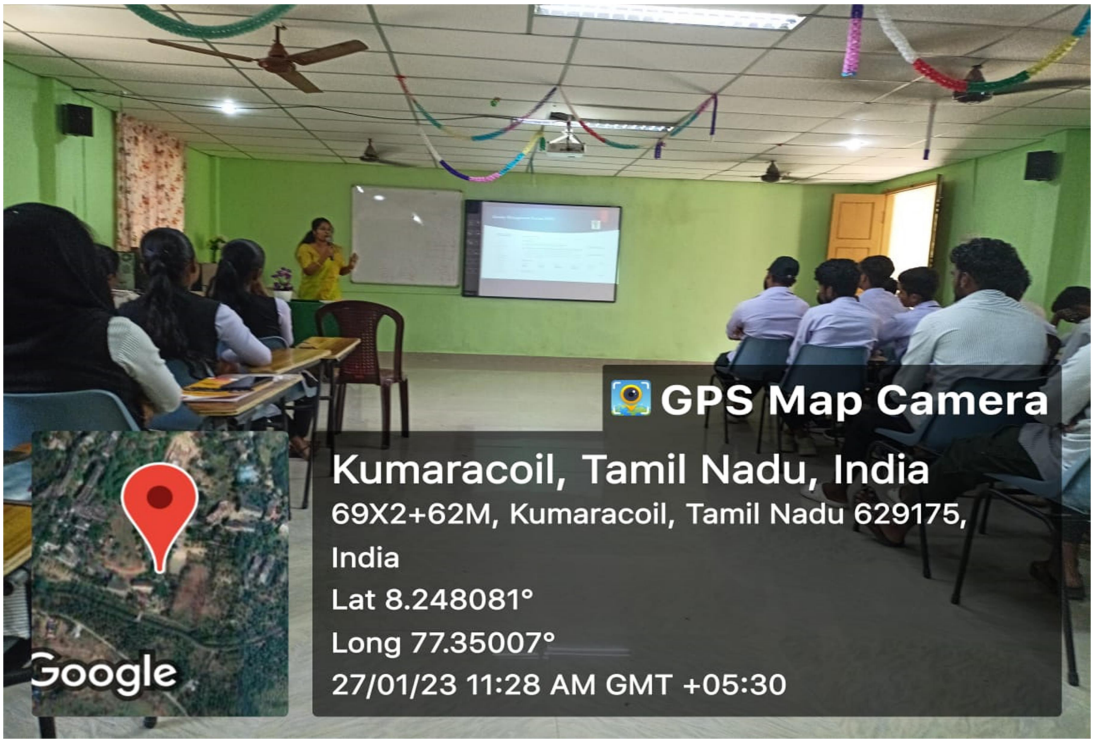


Student Alumni Interaction on 08.11.2023

Annexure – 8.12

Seminars and Workshop Conducted Details

SEMINARS AND WORKSHOP CONDUCTED DETAILS:



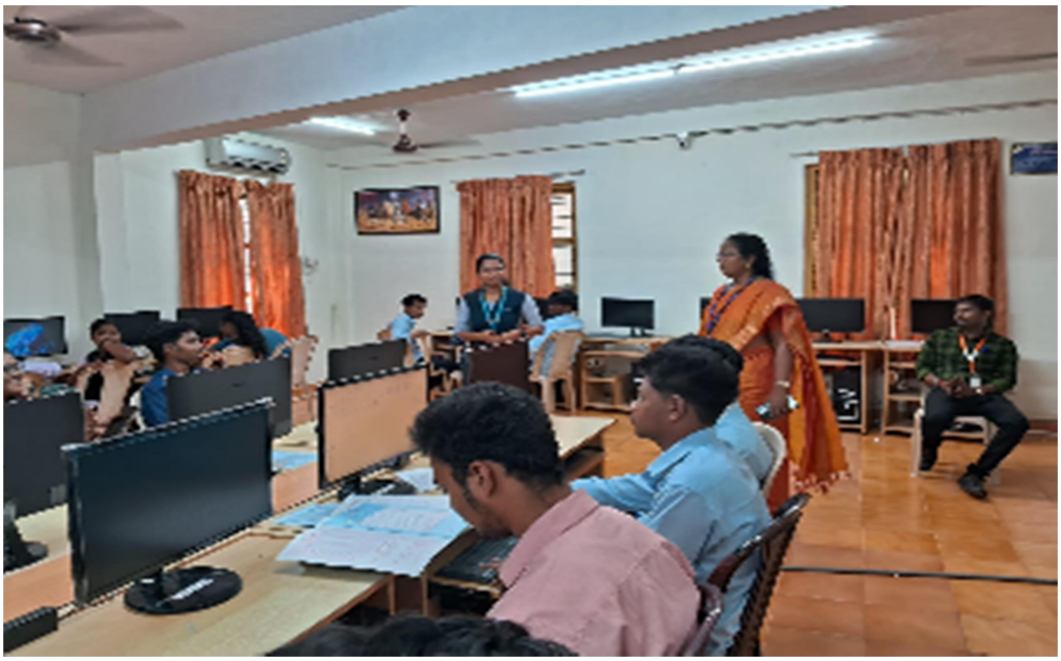
Seminar On "Amazon Web Services" on 27.01.2023

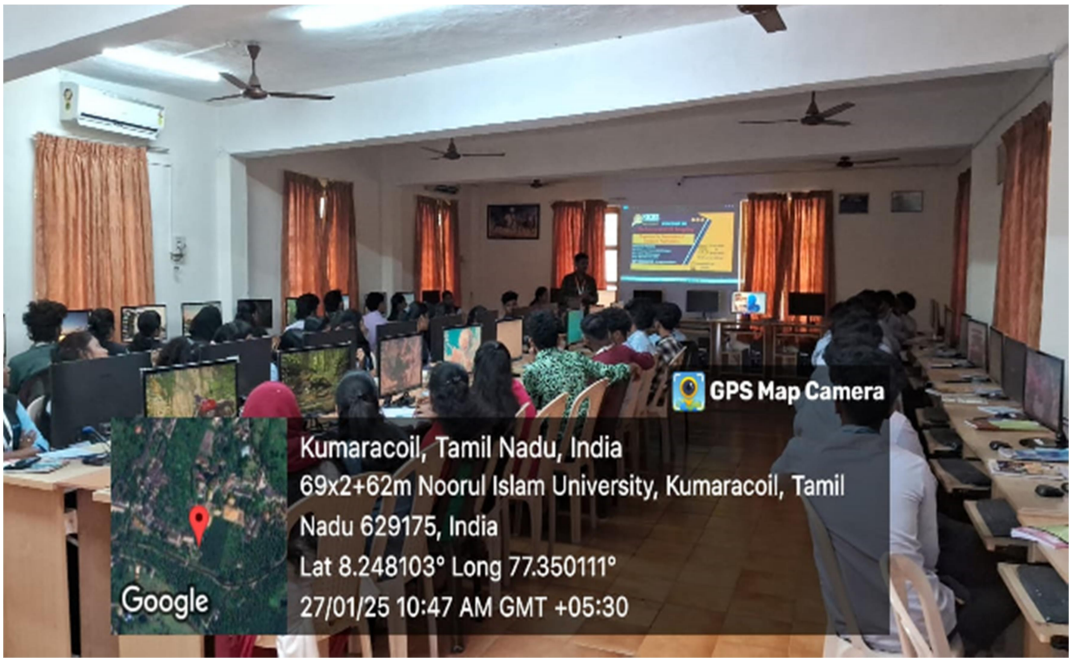




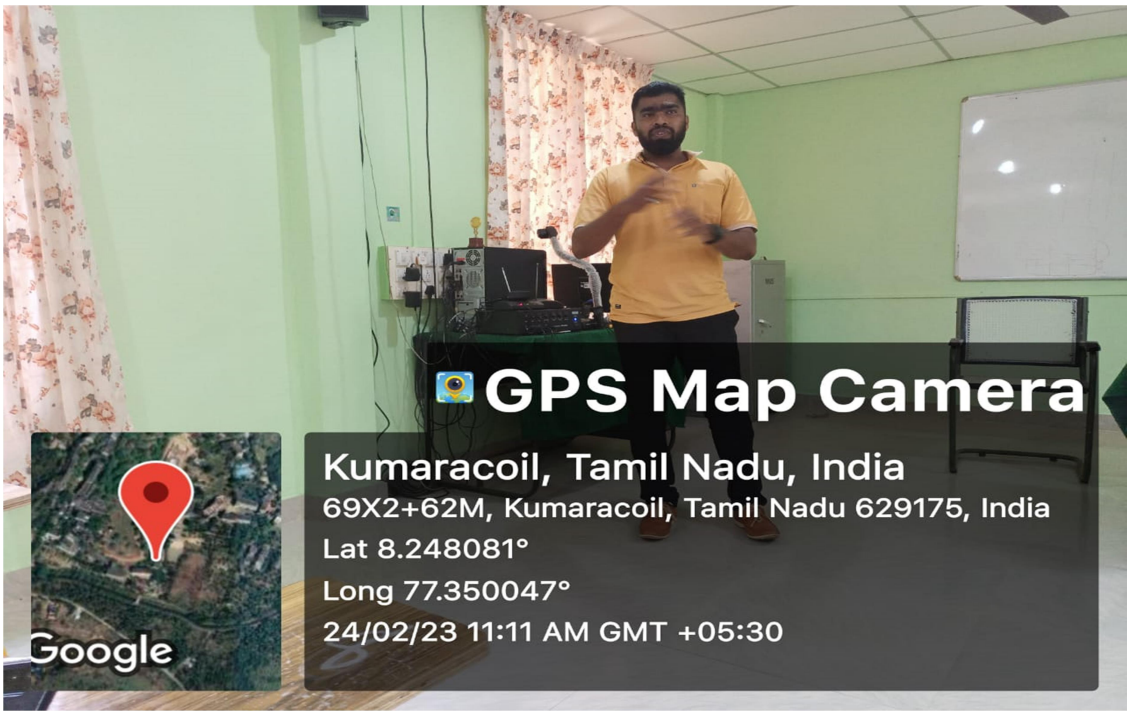
Seminar on" Business Intelligence using Tableau" on 07/11/2024







Workshop on" The Future of UI/UX Designing" on 27.01.2025



Workshop on "Agile methodology and Web application development" on 24.02.2023



Seminar on "Full Stack Development" on 08.11.2023

CRITERION 9

Governance, Institutional Support and Financial Resources

CRITERION 9	Governance, Institutional Support and Financial Resources	120

9. Governance, Institutional support and Financial Resources (120)

9.1. Organization, Governance and Transparency (60)

9.1.1. Governing Body, Administrative Setup, Functions of Various Bodies, Service Rules Procedures, Recruitment and Promotional Policies (10)

(List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, participation of external members in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed and available on Institution's website

The published rules, policies and procedures; year of publication and its implementation shall be listed and available on Institution's website. Also, state the extent of awareness among the employees/students).

The NICHE has a clearly defined organizational hierarchy and structure to support decision making processes that are clear and consistent with its vision and mission and support effective decision making.

The UGC regulations on deemed universities and the various *Memorandum of Associations*(MOAs)/rules approved by the UGC provide for various statutory authorities of the University and provide policy framework and direction for the functioning of the University and for the fulfilment of its vision mission and objectives.

- The various committees and boards constituted are the Board of Management, Executive Committee, Finance Committee, Grievance Redressal Committee, Committee against Sexual Harassment, Grievance Redresssal Committee, Women Empowerment Cell, Anti Ragging Committee, Boys Hostel Monitoring Board, Internal Complaints Committee, Hostel Advisory Committee, Institutions Innovation Council- Members, Marine Hostel Monitoring Board, Ladies Hostel Monitoring Board, Disciplinary Committee, NICHE Students Council, NCC Office Bearers, NSS Program Committee, Examination Committees, Board for Research and Consultancy, Committee for SC/ST and NICHE Students Council.
- External members are part of various councils, committees for enhancing the broader base and bringing transparency and fairness to the system.

The service rules and promotional policies of the UGC applicable for the deemed universities and that of the Tamil Nadu State Government are followed as amended from time to time.

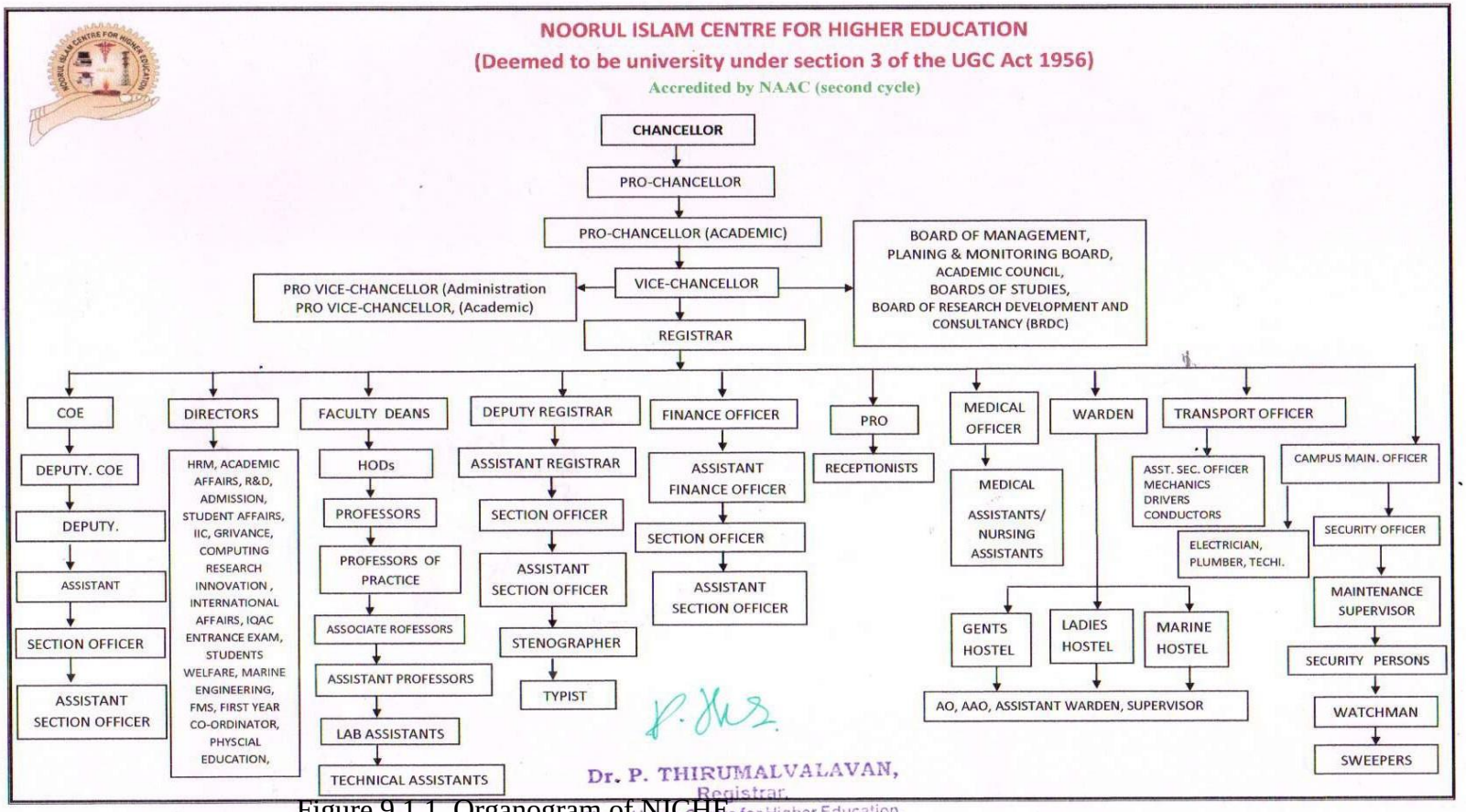


Figure 9.1.1. Organogram of NICHE

Evidence collected:

Academic Council, BOM, BRDC Member List, Committees, Institutional bodies and Administration setup, Leave rules, Other benefits, Selection process, MOA and Rules Modified in Accordance with UGC Regulations 2019, NICHE Rules, Service Rules, Office Procedure Manual, Examination Instruction Manual, Library Manual

(Attached as Annexure 9.1)

9.1.2. Strategies for Implementation of Education Policy (10)

(Keep list of initiatives which are taken towards implementation of NEP 2020 and state education policy, etc like supporting multidisciplinary /interdisciplinary, academic bank of credits system, multiple entry-exit, teaching in Indian Languages)

Strategic Plan

NICHE believes that for any institution to grow and develop, it should have a strategic planning system. NICHE also extends control mechanism to guide implementation of the following strategic activities.

- Focusing on Outcome Based Education
- Enhancing research capabilities and outcomes
- Strengthening collaboration with industry in Research, Consultancy, Training and Internships
- Establishment of Incubation Centre

Strategic Plan Deployment - Outcome Based Education

NICHE is successfully deploying Outcome Based Education (OBE) strategy. Outcome-Based Education is a student-centric teaching and learning methodology in which the course delivery and assessment are planned to achieve stated objectives and outcomes.

The OBE model measures the progress of the graduate in terms of parameters like:

- Graduate Attributes (GAs) are exemplars of the attributes expected out of a graduate from an accredited programme.
- Programme Educational Objectives (PEOs) are broader objectives that are aligned with the vision-mission statement of the department.
- Programme Outcomes (POs) are expertise developed after completion of the programme. POs are expected to be aligned closely with Graduate Attributes.
- Programme Specific Outcomes (PSOs) are statements that describe what the graduates of a specific programme should be able to do.
- Course Outcomes (COs) are the description of knowledge and skills acquired via course/curriculum/syllabi.

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department: Computer Applications
Class: MCA
Semester: I
Subject Code & Name: CA3504 - Data Structures Using C Programming

Academci Year 2022-2023 (ODD)

Staff Name : Ms. M. Tharanya

	Final Direct Course Attainment Calculation								
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ		
CO1	0			0	0	0	3		
CO2	0	0		0	0	0	3		
CO3		0		0	0	0	3		
CO4			0	0	0	0	3		
CO5			1		0	0.5	3		
Attainment						0.1	3		
Weightage						40	60		
Direct Total Attainment						0.04	1.8		
Final Direct Course Attainment						1.84			

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	3	2	2	2	3	3	3	3	2	3	3	0
CO-02	3	3	3	2	2	3	3	3	3	2	3	3	2
CO-03	3	2	3	2	2	3	3	3	3	3	3	3	2
CO-04	3	3	3	2	2	2	3	3	3	2	3	3	2
CO-05	3	3	3	3	2	3	3	3	3	2	2	3	1
Average	3	2.8	2.8	2.2	2	2.8	3	3	3	2.2	2.8	3	1.4
Course PO Attainment	1.84	1.717333333	1.717333	1.349333333	1.226667	1.717333	1.84	1.84	1.84	1.349333	1.717333	1.84	0.858667
	Strong - 3	**Medium-2**	**Low-1**	**Not Relevent-0**									

for Staff Faculty in-charge
(M. Tharanya)

1-10-22
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629160, Thuckalay
Kanyakumari District, TamilNadu, India.

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department Computer Applications — Academci Year 2022-2023 ODD

Class MCA

Semester S1

Subject CA3503- Database Management System — Staff Dr. S. Beulah

	Final Direct Course Attainment Calculation							Attainment -Int	Attainment -Univ	CO Attainment
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ			
CO1	2			3		2.5	3	1	1.8	2.8
CO2	2	3		3		2.666667	3	1.066666667	1.8	2.866666667
CO3		3			3	3	3	1.2	1.8	3
CO4			0		3	1.5	3	0.6	1.8	2.4
CO5			2			2	3	0.8	1.8	2.6
Attainment						2.333333	3			
Weightage						40	60			
Direct Total Attainment						0.933333	1.8			
Final Direct Course Attainment						2.733333333				

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	3	3	2	3	2	3	1	3	2	3	3	2
CO-02	2	3	2	2	2	3	3	2	2	3	2	3	1
CO-03	3	2	3	3	3	3	3	3	3	3	2	1	3
CO-04	3	2	1	2	2	3	3	2	2	3	1	1	1
CO-05	2	2	3	3	3	3	3	3	3	2	2	3	2
Average	2.6	2.4	2.4	2.4	2.6	2.8	3	2.2	2.6	2.6	2	2.2	1.8
Course PO Attainment	2.36888889	2.186666667	2.186667	2.186666667	2.368889	2.551111	2.733333	2.004444444	2.368888889	2.368888889	1.822222	2.004444	1.64
	Strong - 3	Medium-2	Low-1	Not Relevent-0									

CO-PO Attainment 2.73333333 2.75 2.777778 2.744444444 2.748718 2.728571 2.733333 2.739393939 2.748717949 2.738461538 2.773333 2.745455 2.785185

for Staff — Staff in-charge (Dr. S. Beulah)

1-10-22

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil-629180, Thuckalay

Department MCA
Class S1
Name of the Staff Dr. John Arul Singh
Subject Operations Research

Academci Year 2022-2023 (ODD)

	Final Direct Course Attainment Calculation								
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ		
CO1	3			3		3	3		
CO2			3	3		3	3		
CO3		3			3	3	3		
CO4	3	3			3	3	3		
CO5			3			3	3		
Attainment						3	3		
Weightage						40	60		
Direct Total Attainment						1.2	1.8		
Final Direct Course Attainment						3			

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	2	2	1	2	1	2	1	2	2	1	2	1
CO-02	3	2	2	1	2	1	2	1	2	2	1	2	1
CO-03	3	2	2	1	2	1	2	1	2	2	1	2	1
CO-04	3	2	2	1	2	1	2	1	2	2	1	2	1
CO-05	3	2	2	1	2	1	2	1	2	2	1	2	1
Average	3	2	2	1	2	1	2	1	2	2	1	2	1
Course PO Attainment	3	2	2	1	2	1	2	1	2	2	1	2	1
	Strong - 3	Medium-2	Low-1	Not Relevent-0									

for July
Staff in-charge
(Dr. John Arul Singh)

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department Computer Applications
Class MCA
Semester S1
Subject CA3501-Digital Logic and Computer Organization

Academci Year 2022-2023 ODD

Staff Dr. A. C. Subhajini

	Final Direct Course Attainment Calculation								
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ		
CO1	3			3		3	3		
CO2	3	3		3		3	3		
CO3		3			3	3	3		
CO4			0		3	1.5	3		
CO5			2			2	3		
Attainment						2.5	3		
Weightage						40	60		
Direct Total Attainment						1	1.8		
Final Direct Course Attainment						2.8			

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	2	2	2	3	2	3	2	2	3	1	2	3
CO-02	2	3	1	2	2	3	2	3	2	2	3	3	1
CO-03	3	2	2	3	3	2	2	2	1	3	3	1	3
CO-04	3	3	1	2	3	2	2	2	3	3	3	3	3
CO-05	2	3	2	2	1	3	2	3	2	2	2	3	2
Average	2.6	2.6	1.6	2.2	2.4	2.4	2	2.4	2	2.6	2.4	2.4	2.4
Course PO Attainment	2.42666667	2.426666667	1.493333	2.053333333	2.24	2.24	1.866667	2.24	1.866666667	2.426667	2.24	2.24	2.24
	Strong - 3	**Medium-2**	**Low-1**	**Not Relevent-0**									

for Faculty
Staff in-charge
(Dr. A. C. Subhajini)

1.10.22

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department Computer Applications Academci Year 2022-2023 EVEN

Class MCA

Semester S2 Subject CA3505-Data Communication and Network programming

Staff Ms. C. R. Sheela Kumari

	Final Direct Course Attainment Calculation								
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ		
CO1	3			3		3	3		
CO2	3	3		3		3	3		
CO3		3			3	3	3		
CO4			2		3	2.5	3		
CO5			3			3	3		
Attainment						2.9	3		
Weightage						40	60		
Direct Total Attainment						1.16	1.8		
Final Direct Course Attainment						2.96			

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	3	3	2	3	2	3	1	3	2	3	3	2
CO-02	2	3	2	2	2	3	3	2	2	3	2	1	1
CO-03	3	2	3	3	3	3	3	3	3	3	2	1	3
CO-04	3	2	2	2	2	3	3	2	2	1	1	1	1
CO-05	2	2	3	1	3	3	3	3	3	2	2	3	2
Average	2.6	2.4	2.6	2	2.6	2.8	3	2.2	2.6	2.2	2	1.8	1.8
Course PO Attainment	2.56533333	2.368	2.565333	1.973333333	2.565333	2.762667	2.96	2.170666667	2.565333333	2.170667	1.973333	1.776	1.776
	Strong - 3	Medium-2	Low-1	Not Relevent-0									

Staff in-charge
(C.R. Sheela kumari)

1-10-23

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakuman Distnct, TamilNadu,India.

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department: Computer Applications | Academci Year: 2022-2023(EVEN)

Class: MCA

Semester: II

Staff Name: Ms. M. Tharanya | Subject: CA3506 - Object Oriented Programming using Java

	Final Direct Course Attainment Calculation							Attainment -Int	Attainment -Univ	CO Attainment
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ			
CO1	2			3	2	2.333333	2	0.933333333	1.2	2.133333333
CO2	2	1		3	2	2	2	0.8	1.2	2
CO3		1		3	2	2	2	0.8	1.2	2
CO4			1	3	2	2	2	0.8	1.2	2
CO5			2	3	2	2.333333	2	0.933333333	1.2	2.133333333
Attainment						2.133333	2			
Weightage						40	60			
Direct Total Attainment						0.853333	1.2			
Final Direct Course Attainment						2.053333333				

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	2	3	3	2	3	3	3	3	0	3	2	3
CO-02	2	3	2	3	2	3	3	3	2	3	3	2	3
CO-03	3	2	3	3	2	3	3	3	3	3	3	2	2
CO-04	3	3	2	3	3	2	3	3	3	3	3	3	3
CO-05	3	3	2	3	3	2	3	3	2	2	2	3	3
Average	2.8	2.6	2.4	3	2.4	2.6	3	3	2.6	2.2	2.8	2.4	2.8
Course PO Attainment	1.91644444	1.779555556	1.642667	2.053333333	1.642667	1.779556	2.053333	2.053333333	1.779555556	1.505777778	1.916444	1.642667	1.916444
	Strong - 3	Medium-2	Low-1	Not Relevent-0									

CO-PO Attainment 2.05714286 2.051282051 2.055556 2.053333333 2.055556 2.051282 2.053333 2.053333333 2.051282051 2.024242424 2.047619 2.055556 2.057143

for Staff in-charge

Staff in-charge

(M. Tharanya)

1702

Head of the Department

Department of Computer Applications

Noorul Islam Centre for Higher Education

Kumaracoil -629 180, Thuckalay

Kanyakuman District, TamilNadu, India.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
Kumaracoil - 629 180, Kanyakumari District, Tamil Nadu, India
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+91-9486856101, 04651-250566

Department MCA
Class S4
Name of the Staff Dr. S. Beulah
Subject Project Work - Phase II

Academci Year 2023- 2024 (EVEN)

	Final Direct Course Attainment Calculation								
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ		
CO1	3			3		3	3		
CO2			3		3	3	3		
CO3		3			3	3	3		
CO4	3	3			3	3	3		
CO5			3			3	3		
Attainment						3	3		
Weightage						40	60		
Direct Total Attainment						1.2	1.8		
Final Direct Course Attainment						3			

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	2	2	1	2	1	2	1	2	2	1	2	1
CO-02	3	2	2	1	2	1	2	1	2	2	1	2	1
CO-03	3	2	2	1	2	1	2	1	2	2	1	2	1
CO-04	3	2	2	1	2	1	2	1	2	2	1	2	1
CO-05	3	2	2	1	2	1	2	1	2	2	1	2	1
Average	3	2	2	1	2	1	2	1	2	2	1	2	1
Course PO Attainment	3	2	2	1	2	1	2	1	2	2	1	2	1
	Strong - 3	Medium-2	Low-1	Not Relevent-0									

for Staff in-charge
(Dr. S. Beulah)

HOD
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakuman District, TamilNadu,India.

Figure 9.1.2 Course Attainment Spreadsheet

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department CA
Class S2 MCA
Semester 2
Subject Code & Name CA3507 - Problem Solving using Python

Academic Year 2022-2023 (EVEN)

Staff Name : Ms. M. Merlin Johnsy

	Final Direct Course Attainment Calculation								
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ		
CO1	3			3		3	3		
CO2	2	2		3		2.333333	3		
CO3		2			3	2.5	3		
CO4			3		3	3	3		
CO5			3		3	3	3		
Attainment						2.766667	3		
Weightage						40	60		
Direct Total Attainment						1.106667	1.8		
Final Direct Course Attainment						2.906666667			

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	3	3	3	3	2	2	3	3	1	1	1	1
CO-02	3	3	3	3	2	2	2	2	3	2	1	1	1
CO-03	3	3	3	3	2	3	2	3	3	1	1	1	1
CO-04	3	3	3	3	3	3	2	2	3	3	1	1	1
CO-05	3	3	3	3	3	2	2	3	3	1	1	1	1
Average	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1
Course PO Attainment	2.906666667	2.906666667	2.906667	2.906666667	2.519111	2.325333	1.937778	2.51911	2.9067	1.550222	0.9689	0.968889	0.968888889
	Strong - 3	**Medium-2**	**Low-1**	**Not Relevent-0**									

Staff in-charge
(M. Merlin Johnsy)

1.10.23

Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu,India.

Noorul Islam Centre for Higher Education

Kumaracoil, Thuckalay, Kanyakumari District

Department CA
Class S2 MCA
Semester 2
Staff Name : ~~Ms.M. Merlin Johnsy~~ Dr. J.R. Jeba

Academic Year 2022-2023 (EVEN)
Subject CA3508 - Software Engineering

	Final Direct Course Attainment Calculation								
	Series-1	Series-2	Series-3	Asgn-1	Asgn-2	INT	Univ		
CO1	3			3		3	3		
CO2	2	2		3		2.333333	3		
CO3		2			3	2.5	3		
CO4			3		3	3	3		
CO5			3		3	3	3		
Attainment						2.766667	3		
Weightage						40	60		
Direct Total Attainment						1.106667	1.8		
Final Direct Course Attainment						2.896666667			

	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	PO-H	PO-I	PO-J	PO-K	PO-L	PO-M
CO-01	3	3	3	3	3	2	2	3	3	1	1	1	1
CO-02	3	3	3	3	2	2	2	2	3	2	1	1	1
CO-03	3	3	3	3	2	3	2	3	3	1	1	1	1
CO-04	3	3	3	3	3	3	2	2	3	3	1	1	1
CO-05	3	3	3	3	3	2	2	3	3	1	1	1	1
Average	3	3	3	3	2.6	2.4	2	2.6	3	1.6	1	1	1
Course PO Attainment	2.896666667	2.896666667	2.896667	2.896666667	2.510444	2.317333	1.931111	2.51044	2.8967	1.544889	0.966	0.965556	0.965555556
	Strong - 3	Medium-2	Low-1	Not Relevent-0									

Staff in-charge
(Dr. J.R. Jeba)

1/10/23
Head of the Department
Department of Computer Applications
Noorul Islam Centre for Higher Education
Kumaracoil -629180, Thuckalay
Kanyakumari District, TamilNadu, India.

9.1.3. **Policy and Implementation Initiatives on Sustainable Development Goals (SDG) (5)** (Keep list of initiatives which are taken towards implementation of 17 Sustainable Development Goals)

S.No	Event name
1.	World Natural Conservation Day
2.	World photography day
3.	Sustainable development- Pisciculture
4.	Desh Ka Prakriti Parikshan Abhyan Campaign
5.	Social Connect Programme
6.	Proud Sporting Moment
7.	National Energy Conservation Day
8.	National Education Day
9.	Student Support Differently Abled Peers At Transitional Resource

GREEN ENERGY AND ECO CLUB EVENT REPORT

Report on 27-07-2023

Club Name : Green energy and Eco Club
Event Name : World natural conservation day
Event Date : 27-07-2023
Mode : Offline
Report:

- Prof. **Dr. N. Richard Kennedy**, a distinguished Horticultural Scientist from TNAU, Coimbatore, was our esteemed chief guest.
- 28th July 2023 is the world natural day
- Dr. R. Perumalsamy, Pro-Chancellor (Academic), Dr. A. K. Kumaraguru, Vice-Chancellor, Dr. P. Thirumalvalavan, Registrar, and Dr. K. A. Janardhanan, Pro-Vice Chancellor, Administration were present

- all the club members participated in this momentous event.
- Chief guest gave a lecture on the importance of planting trees and also planted a sapling near main block.





Figure:9.1.3.A : World natural conservation day



Figure :9.1.3.B : World natural conservation day

GREEN ENERGY AND ECO CLUB EVENT REPORT

Report on 19-08-2023

Club Name : Green energy and Eco Club
Event Name : World photography day 2023- photography contest
Event Date : 19-08-2023
Mode : Offline
Report:

- Photography day was celebrated and also conducted a photography competition on 19-08-2023 The event was inaugurated by the esteemed Pro Vice Chancellor, Dr. Janardhanan, and witnessed enthusiastic participation from students across various departments.

The talent displayed by our participants was truly remarkable, making the task of selecting winners quite a challenge. A special shootout to the experienced freelance photographer from Parassala, Mr. Sanal, who lent his expertise in evaluating the captivating photographs and unveiling the brilliant winners.

Mr.Amal joy(mech) got 1st prize(1000rs) , Mr Adarsh(CSE) 2nd price (750rs)and Ms.Sowmya Chakravarthy (AME) got third price(500rs)

Chancellor Dr.A.P.Majeed Khan Sir Distributed the prizes for the winners



Figure:9.1.3.C : Chancellor Dr.A.P.Majeed Khan Sir Distributed the prizes for the winners

GREEN ENERGY AND ECO CLUB EVENT REPORT

Report on 15-12-2023

Club Name **: Green energy and Eco Club**
Event Name **:** Sustainable development- Pisciculture
Event Date **:** 15-12-2023
Mode **: Offline**

Report:

Green energy and eco club members along with other staffs had a sustainability drive in the ladies hostel –introduction of tiny fish into the water tank. The students have actively participated in the activities. The event was graced by the presence of Pro chancellor Dr.R,Perumalsamy, and Registrar Dr. P.Thirumalvalavan. Dr.Tibbie Pon Symon and Dr.T.M.Sharmila made the arrangements and Mr. K. Suresh Babu gave full support for the success of the event.





Figure:9.1.3.D : Sustainable development- Pisciculture

Event Name : Desh Ka Prakriti Parikshan Abhyan Campaign

Event Date : 10-12-2024

Mode : **Offline**

Report:

NICHE Kanyakumari, in collaboration with the Ayurveda Medical College Hospital in Nagercoil, successfully organized the "Desh Ka Prakriti Parikshan Abhyan Campaign." This initiative, spearheaded by the Department of Nano Technology and supported by the Ministry of AYUSH, Government of India, aimed to promote awareness and understanding of individual Ayurvedic Prakriti (mind-body constitution) among students, faculty, and the local community. The event was a significant step towards integrating traditional Ayurvedic knowledge with modern educational practices, offering participants personalized health insights and fostering a

holistic approach to well-being. This campaign underscored NICHE's commitment to innovative educational collaborations and community health initiatives.



Figure:9.1.3.E: Desh Ka Prakriti Parikshan Abhyan Campaign

Event Name **:** Social Connect Programme
Event Date **:**23-12-2025
Mode **: Offline**
Report:

The Faculty of Management Studies, NICHE Kanyakumari, organized a meaningful Social Connect Programme at S. J. Special School, Kuttichal, Thiruvananthapuram, as part of its commitment to social responsibility and community engagement. Faculty members and students actively interacted with the school community, gaining valuable insights into societal needs and inclusive care. Based on the requirements of the special school, a washing machine was donated as a thoughtful and compassionate gesture. The programme provided students with a meaningful opportunity to understand empathy,

service, and their role in contributing positively to society.



Figure:9.1.3.F: Social Connect Programme

Event Name **:** Proud Sporting Moment
Event Date **:** 23-12-2025
Mode **: Offline**
Report:

NICHE Kanyakumari proudly celebrates the spirit of determination, discipline, and sporting excellence showcased at the District Level Sports Meet 2025–26 held on campus. The outstanding performance of our young athlete reflects the strong sports culture, dedicated training, and encouragement for holistic development fostered at NICHE. The achievement stands as a testament to the institution's commitment to nurturing champions both on and off the field.



Figure 9.1.3.G Proud Sporting Moment

Event Name : National Energy Conservation Day
Event Date : 12-12-2025
Mode : Offline
Report:

National Energy Conservation Day was observed at NICHE Kanyakumari in coordination with the Department of Electrical and Electronics Engineering and the Green Energy & Eco Club. The program featured a meaningful address by Dr. L. Ramesh, FIE, alumnus of NICHE (1993–1997), who shared valuable insights on the importance of energy conservation, reducing energy consumption, and adopting sustainable practices. The session was highly informative and left a lasting impact on students by emphasizing responsible energy use for a sustainable future.



Figure 9.1.3.H National Energy Conservation Day

Event Name : World Disability Day
Event Date : 20-12-2025
Mode : **Offline**
Report:

In observance of World Disability Day, the Department of Audiology and Speech-Language Pathology (ASLP) at NICHE organized a series of impactful awareness activities aligned with the theme "Fostering Disability-Inclusive Societies for Advancing Social Progress." Informative stalls set up in the NICHE lobby showcased student presentations on various disabilities, focusing on early identification, causes, assessment, and management, supported by creative displays and interactive elements that encouraged empathy and inclusivity. A powerful mime act highlighted the daily challenges faced by persons with disabilities and the importance of understanding and support. The

event continued with a quiz competition in the ASLP Seminar Hall, promoting knowledge on accessibility, rehabilitation, and inclusive practices. The initiative reinforced NICHE's commitment to inclusion, equality, and social responsibility.



Figure 9.1.3.I World Disability Day

Event Name : National Education Day
Event Date :11-11-2025
Mode : Offline
Report:

NICHE celebrated National Education Day on November 11, commemorating the birth anniversary of Maulana Abul Kalam Azad—India's first Education Minister and a renowned visionary in the field of education.The event emphasized the critical role of knowledge, innovation, and learning as the foundation for progress and national empowerment. Azad's enduring legacy—universal education, inclusion, and cultural advancement—continues to inspire NICHE and educational institutions across India to foster enlightenment and a brighter future for all.



Figure 9.1.3.J: National Education Day

Event Name : Student Support Differently Abled Peers At Transitional Resource
Event Date : 26-09-2025
Mode : Offline
Report:

Students from the Department of Computer Applications at NICHE visited the Transitional Resource Centre at Alancode, Neyoor, with a mission to enhance accessibility and comfort for physically handicapped students. The group demonstrated their commitment to social responsibility by donating comfortable chairs designed for individuals with mobility challenges, as well as ceiling fans to improve classroom ventilation and comfort. The staff at the Centre greeted the team warmly and expressed heartfelt gratitude, emphasizing the positive impact these contributions would have on students' daily experiences. This outreach initiative stands as a meaningful step in supporting differently-abled peers, illustrating NICHE's holistic approach to community engagement—extending

beyond technology to address essential physical needs and promote inclusivity



Figure 9.1.3.K: Student Support Differently Abled Peers At Transitional Resource

9.1.4. Financial Support for Startup Eco-System (10)
(Startup Cell, Startup Policy, Budget, Activities, Beneficiaries, if any)

(Attached as Annexure 9.2)

9.1.5. Decentralization and Delegation of Financial Powers (10)
(List the names of the faculty members, who are administrators/decision makers for various responsibilities. Explicitly mention financial powers delegated to the Principal/Director, Heads of Departments and relevant in-charges. Demonstrate the utilization of financial powers for each assessment year)

Finance Committee

FINANCE COMMITTEE w.e.f. 13-11-2025

Sl. No.	Category	Name	Address
1	Chairperson	Dr. Tessy Thomas	Vice-Chancellor, NICHE.
2	UGC Nominee	Shri S Dehaleesan, CA	Shri S Dehaleesan, CA, Vivekanandan Associates, New No.4, Old No. zz, Raghavan Colony, Ashok Nagar, Chennai
3	Pro Vice-Chancellor (Administration) (Ex-officio)	Dr.K.A.Janardhanan	Pro Vice-Chancellor (Administration)
4	Pro Vice-Chancellor (Academic) (Ex-officio)	Dr.A. Shajin Nargunam	Pro Vice-Chancellor (Academic)
5	One person nominated by the Society or Trust	Mr. S.I. Sreenivas,	Accounts Officer, Parvaty Vilasam, Palliyadi
6	Nominee of the Executive Council	Shri. M.S. Faizal Khan	Pro-Chancellor, NICHE
7	Nominee of the Executive Council	Dr.G. Ramadas,	PRO, NICHE
8	Nominee of the Chancellor	Dr.M. Sankaranarayana Pillai	Director Students Welfare, NICHE
9	Nominee of the Chancellor	Dr.K. Kinslin	Professor, FMS, NICHE
10	Nominee of the Chancellor	Dr.P.K. Praseetha,	Professor, HoD, Nano, NICHE
11	Special Invitee (Ex-Officio)	Dr. P. Thirumalvalavan	Registrar, NICHE
12	**Secretary (Ex-Officio)**	**Mr.M. Viswanath**	**Finance Officer, NICHE**

Financial Policy

(Attached as Annexure 9.3)

9.1.6. Grievance Redressal Mechanism (10)

*(Specify the mechanism and composition of grievance redressal cell f*or students, faculty & staff*)*

(Attached as Annexure 9.4)

9.1.7. Transparency and Availability of Correct/Unambiguous Information in Public Domain (05)

(Information on the policies, rules, processes to be made available on Institute's website).

Board of Management : https://www.niuniv.com/boardofmanagement.php
BRDC : https://www.niuniv.com/brdc.php
Academic Council Members : https://www.niuniv.com/academiccouncilmembers.php
Finance Committee : https://www.niuniv.com/financecommittee.php
Planning and Montoring Board : https://www.niuniv.com/planningmonitoringboard.php
Strategic Plan : https://www.niuniv.com/files/StrageicPlan.pdf
Service Rules : https://www.niuniv.com/files/ServiceRules.pdf

9.2. Budget Allocation, Utilization, and Public Accounting at Institute level (30)

(Summary of financial year's budget and expenditure incurred (for the institution exclusively) in the four current financial years.

CFY = Current Financial Year,
CFYm1 = Current Financial Year minus 1 CFYm2 = Current Financial Year minus 2 CFYm3 = Current Financial Year minus 3)

Financial Year	Fee Received	Grant received from Government	Other Sources (specify)	Total Amount
CFYm1	2740.93	-	196.48	2937.41
CFYm2	2493.50	-	96.87	2590.37
CFYm3	2737.15	-	87.12	2824.27

Table No. 9.2.A. Total Income at Institute level.

	Total Income in the CFYm1				Actual expenditure In the CFYm1	Total Students in The institute	Expenditure per student InCFYm1
Fee	Govt.	Grant(s)	Annual Day	Other Receipts			
2740.93		136.07	11.71	184.77	3592.76	1887	1.904

Table No. 9.2.B. Summary of budget and actual expenditure incurred at Institute level for CFY m1

	Total Income in the CFYm2				Actual expenditure intheCFYm2	Total Studentsin theinstitute	Expenditure per student InCFYm2:
Fee	Govt.	Grant(s)	Annual Day	Other Receipts			
2493.50		36.84	11.60	85.27	3140.30	1586	1.980

Table No. 9.2.C. Summary of budget and actual expenditure incurred at Institute level for CFY m2

	TotalIncomeintheCFYm3				Actual expenditure in the CFYm3	Total Students in the institute	Expenditure per student inCFYm3:
Fee	Govt.	Grant(s)	Annual Day	Other Receipts			
2737.15		13.48	16.75	70.37	2514.84	1860	1.352

Table No. 9.2.D. Summary of budget and actual expenditure incurred at Institute level for CFYm3

Items	Budgeted in CFY 2025-2026	Actual expenses in CFY (till 31.12.25 …)	Budgeted in CFYm1 2024-25	Actual Expenses in CFY m1 2024-25	Budgeted in CFYm2 2023-24	Actual Expenses in CFYm2 2023-24	Budgeted in CFYm3 2022-23	Actual Expenses in CFYm3 2022-23
Infrastructure Built-Up	250.00	17.36	75.00	179.55	90.00	106.74	15.00	9.35
Library	44.48	1.10	40.44	1.93	38.51	3.94	25.06	.10
Laboratory equipment	100.00	.17	110.04	5.19	25.00	33.90	20.00	3.47
Teaching and non-teaching staff salary	1699.00	1029.99	1417.69	1373.90	1333.69	1313.01	1390.90	1315.06
Outreach Programs	115.59	6.46	115.35	114.65	12.47	10.14	9.70	6.67

R&D	185.86	59.33	173.54	91.55	76.77	81.03	60.56	25.51
Training, Placement and Industry linkage	81.90	67.87	76.04	57.56	69.53	71.65	66.63	69.91
SDGs	0	0	0	0	0	0	0	0
Entrepreneurship	0	0	0	0	0	0	0	0
Administrative	218.30	158.65	193.98	200.99	163.43	170.33	153.54	168.49
Annual Day	22.94	7.50	21.28	20.16	11.85	19.46	11.29	18.25
Bookstore	7.86	3.92	13.47	5.23	7.00	8.99	9.35	5.71
Bus Service	166.37	89.90	155.32	148.90	142.74	144.10	137.60	140.38
Establishment	414.27	257.59	408.60	368.59	346.64	385.13	167.21	131.20
Examination	57.80	29.24	59.36	27.76	33.48	33.89	30.50	21.19
Expert Committee	4.15	3.18	3.56	2.75	3.25	3.53	2.00	2.05
Facilities to Students	80.24	51.63	68.45	64.35	59.21	37.25	61.60	23.31
Hostel	318.38	187.00	241.20	197.58	203.58	222.65	184.00	238.90
Repairs and Maintenance	155.94	120.58	122.45	82.21	71.09	110.09	118.79	144.54
Fee Concession to Students	400.02	203.67	358.81	321.84	75.52	83.51	70.00	53.76
Promotion of Science	19.45	0	18.76	15.45	16.03	10.46	13.51	12.43

Contingencies & Unforeseen	10.00	0	10.00	0	5.00	0.00	5.00	0.00
Computer & Software	350.00	80.72	212.27	126.29	150.00	151.41	40.00	44.64
Electronic Equipment	100.00	7.17	83.53	46.74	20.00	26.56	50.00	36.92
Furniture & Electrical Fittings	100.00	39.72	73.94	77.82	30.00	66.26	30.00	34.68
Machinery & Equipments	50.00	28.44	40.29	45.74	15.00	35.41	25.00	8.32
Motor vehicle	50.00	97.75	25.00	16.03	0.00	10.86	0.00	0.00
Total amount	**5002.55**	**2548.94**	**4118.37**	**3592.76**	**2999.79**	**3140.30**	**2697.24**	**2514.84**

Table.9.2.E Budget and actual expenditure incurred at Institute level.(Rs in Lakhs)

*Paper books and electronic (e-journals, e-books, e-subscription, publications etc.)

9.2.1. Adequacy of Budget Allocation (10)
(Justify that the budget allocated over the years was adequate)

- The budget allocation over the last four academic years has been adequate, need-based and outcome-oriented, ensuring the smooth functioning of academic, research and student-support activities in alignment with institutional goals.

Consistent and Progressive Financial Support

- The institution has consistently allocated substantial budgets across key functional heads such as infrastructure development, laboratory equipment, computer and software resources, faculty and staff salaries, R&D, training and placement, and student support services. The progressive increase in budget allocation, especially during CFY 2024–25 and CFY 2025–26, reflects the institution’s strategic emphasis on strengthening computing education and digital infrastructure.

Optimal Utilization of Allocated Budget

- A comparative analysis of budgeted versus actual expenditure indicates effective financial planning and

judicious utilization:

- Computer & Software, Laboratory Equipment, and Electronic Equipment allocations have been effectively utilized to upgrade computing laboratories, support programming, AI, data science, cloud computing, and emerging technology requirements relevant to the Computer Applications curriculum.
- Training, Placement, and Industry Linkage expenditures show strong utilization trends, ensuring continuous skill enhancement, employability, and industry readiness of students.

Infrastructure and Learning Resources

- Adequate funding under Infrastructure Built-Up, Machinery & Equipment, and Repairs & Maintenance has ensured well-maintained classrooms, computer labs, and learning spaces.

Research, Innovation, and Academic Enrichment

- The budget allocation towards Research and Development has enabled faculty participation in conferences, publications, workshops, and minor research initiatives. This supports a research-oriented academic environment and contributes to quality enhancement.

Student-Centric Support

- Significant allocations under Facilities to Students, Fee Concession, Hostel, Bus Service, and Outreach Programs demonstrate the institution's commitment to inclusivity, accessibility, and holistic student development.

9.2.2. Budget Allocation for Industrial Linkage (5)

Industrial Linkage Budget Allocation		
	Rs in Lakhs	
Year	Head	Amount
2025-26	Placement Expenses	5.09
2024-25	Placement Expenses	4.76
2023-24	Placement Expenses	1.37
2022-23	Placement Expenses	1.51

9.2.3. Utilization of Allocated Funds (10)

(State how the budget was utilized during the last three years)

During the last three academic years, the allocated budget was effectively and purposefully utilized to support academic delivery, infrastructure strengthening, research promotion, and student development.

Academic and Human Resource Expenditure

A major portion of the budget was utilized towards teaching and non-teaching staff salary. This ensured:

- Retention of qualified faculty and technical staff
- Smooth conduct of lectures, laboratory sessions, examinations, and academic mentoring
- Maintenance of optimal student–faculty ratios

Infrastructure and Laboratory Development

Funds allocated under Infrastructure Built-Up, Laboratory Equipment, Machinery & Equipment, Furniture & Electrical Fittings, and Repairs & Maintenance were utilized for:

- Upgradation and maintenance of computer laboratories
- Procurement of computing hardware, peripherals, and networking components
- Modernization of classrooms and academic spaces

ICT, Computer and Software Resources

Significant utilization under Computer & Software and Electronic Equipment facilitated:

- Purchase and renewal of licensed software tools
- Enhancement of programming and application development environments
- Support for project work, virtual labs, and digital learning platforms

Research and Academic Enrichment

Allocated funds under Research and Development were utilized for:

- Faculty participation in conferences, workshops, and seminars
- Research publications and academic collaborations
- Encouraging student involvement in technical competitions and innovation activities

Training, Placement, and Industry Linkages

The budget earmarked for Training, Placement, and Industry Linkage was optimally utilized for:

- Skill development programs and certification courses
- Industry interaction sessions and expert talks
- Placement-related training activities

Student Support and Welfare

Funds allocated under Facilities to Students, Fee Concessions, Hostel, Bus Service, and Outreach Programs were utilized to:

- Provide academic and co-curricular support
- Ensure accessibility and inclusivity

Promote student participation in extension and outreach activities

9.2.4. Availability of the Audited Statements on the Institute's Website (5)
(Needs to make audited statements available on Institute's website with URL).

https://www.niuniv.com/annualaccounts.php

Attached as Annexure 9. 5

[Audited Statement for the year 2024
Audited Statement for the year 2025]

9.3. Library and Internet (30)

Noorul Islam Centre for Higher Education Library building spans over an area of 16,54.77 sq. m. It has a seating capacity of 200 persons and follows Open Access System blended with State-of-the art facilities. The library houses a collection of

83,405 books and 3,045 back volumes. It subscribes to more than 69 Periodicals (National & International), 207+ E-journals, 804 E-Books. Our vision is to provide world-class knowledge resources that not only cater to the curricular requirements but also provide intellectual enquiry and research.

The transactions of the library are fully automated and automation covers the entire gamut of library activities such as acquisition, circulation with provision for renewal, reservation, serial control, OPAC (Online Public Access Catalogue), and generating various types of reports and statistics.

9.3.1. Quality of Learning Resources (Hard/Soft) (20)

- Relevance of available learning resources
- Automation/digital resources
- Accessibility to students

NICHE has established a spacious central library with a construction area of 1,654.77 square meters and a pleasant environment. The central library is fully automated through AutoLib OPAC (Online Public Access Catalog) for complete digitization and computerization of all the operations of the library. Autolib OPAC allows users to search the library's online catalog by author name, title, subject, and keywords on the campus LAN. It has separate collections of reference books and old magazine volumes, technical reports and CDs.

Name of ILMS software	**Auto Lib**
Nature of Automation	**Fully**
Version	**AutoLib, Version 5.1**
Year of Automation	**2006**

Functions of AutoLib

- Student and Staff Membership Entries
- Books Entries
- Books Issue and Returns
- Collection of Dues
- OPAC
- Viewing reports
- Serial Control

Stack Area I	It contains more than 83,405 books on Arts, Science & Technology, Paramedical, Encyclopedias, Dictionaries, Directories, Thesaurus, Year Books, Glossaries. It contains more books for students to prepare for the various Competitive Examinations .

Reference Section	This section has over 447 research thesis in various disciplines All department question banks are available. Magazine and 69 Journals are available.
Periodical Section	This section over 3,045 Back Volumes of Scientific and Technical periodicals. It also contains 69 Periodicals .
Digital Library	It facilitates access to Electronic Information Services to ensure that the information needs of our Students, Faculty and Staff are met. Staff and Students can access E-journals from IEEE.

A well-equipped dedicated Digital Library with computer facility and wide internet connectivity is a part of the Central Library for access to e-resources. All members of faculty and student community having personal computers can access the library through the fully connected wi-fi system in the campus.

- The library has a comfortable and spacious reading area with 180 seats. The reading area is 1654.77 square meters built-up area.
- The Central library is heading towards complete computerization and automation of all its operations. • The database of library books is available on OPAC for bibliographical search. OPAC can also be searched over the library's LAN.
- The library offers printing and photocopying services, thereby offers a priceless service to the staff, researchers, and students.
- To make it easier to obtain materials, there are sections such as the Book Section, Reference Section, Periodicals Section, Back Volumes Section, Theses Report Section, and Digital Library.
- The Digital Library has 77 PCs with multimedia facility and NDL access.
- Thousands of publications and reference materials are accessible through the digital library with institutional IEEE, Knimbus, and DELNET subscriptions.
- Library provides various teaching-related teaching materials, reference books, e-books, periodicals, electronic journals, project reports and NPTEL video projects and Related disciplines.

FACILITIES AND SERVICES

- OPAC
- Locker facility to keep the personal belongings of the users while in library
- Reference Facility
- Internet facility
- Library membership
- Newspaper Clippings

Library – Online Resources

IEEE

The IEEE Xplore digital library is a powerful resource for discovery and access to

scientific and technical content published by the IEEE (Institute of Electrical and Electronics Engineers) and its publishing partners. IEEE Xplore provides Web access to some of the world's most highly cited publications in electrical engineering, computer science and electronics.

URL	www.ieee.org
Login	Direct Access within the campus (User Name & Password not required)




ELECTRONICS
ELECTRICAL
INFORMATION TECHNOLOGY
COMPUTER SCIENCE



Figure 9.3.1.A Library – Resources



Figure 9.3.1.B : Central Library

9.3.2. Internet (10)

- *Name of the Internet provider.*
- *Available bandwidth.*
- *Wi-Fi facility availability with bandwidth.*
- *Internet access in labs, classrooms, library and other offices.*
- *Security arrangements.*
- *Justification of the bandwidth for support to digitization process adopted like LMS, video-based learning, etc.*

- Name of the Internet provider ;

BSNL Fibrenet

- Available bandwidth;

a) BSNL- 1GBPS connection with unlimited DataAccess.

- Backup Line- Asianet.
- Wi Fi availability; Enabled in full campus.
- Internet access in labs, library, hostel and other offices.
- Security arrangements

a) Whole Campus is Enabled with CCTV Surveillance

b) Firewall panarofx1 with antivirus used for Network and Data Security.

All Desktops and Laptops maintained upto-Date.

NICHE offers an essential ICT services including a state-of-the-art data center, hosting of servers including university and department websites, computing services, online teaching-learning services, Internet Access, Email, e-Governance services, IT security, campus Wi-Fi, problem diagnostics and troubleshooting, etc. through a network comprising with 9 physical servers, 5 core switches, and 120 distribution switches. The Centre administers a 1Gbps link to National Knowledge Network (NKN) to provide smooth internet facility and access to online learning materials.

It was established to facilitate and support the essential teaching and research goals of University through the deployment and delivery of computing and communication services to the University's faculty, staff, and students. Students have access to computers for their course or project work. Its facilities are also used in administrative work, such as recruitment, examinations, finance etc. All residential buildings, hostels, and upcoming buildings were connected to the backbone network.

A connected campus with ubiquitous access of internet is the backbone of ICT infrastructure. The entire University campus has a Fiber Optic LAN providing network to over 1100 PCs/ Workstations/Thin Clients/Laptops other than Wi-Fi connections across the campus. Nine Wi-Fi towers were erected at different locations to create wireless hotspots. As of today, 100% campus is Wi-Fi enabled, providing secured access to all the students, faculty and other staff through a state-of-the art hardware firewall system.

With the expansion of computing activities, the University distributed the staff at the Computing Centre to various sites, such as A.I. Lab, iOS Lab, Language Lab, Robotics Lab, CAD CAM Lab, Cloud Computing Lab, Computer Engineering Lab, CFD Lab, Satellite Centre, Campus Network Facility, Admin Computer Centre, Cyber Security Centre, Automated Academic office, Automated Admission Office, Automated Exam Cell, and e-Governance Cell to tap their inherent potential.

Learning Management System http://www.lms.niuniv.com provides a wide range of learner-centric tools including a knowledge repository-NKN in the Intranet with MIT Open Courseware, NPTEL and MOOC.

IT infrastructure is crucial and paramount to support teaching-learning, research and extension in higher education sector. Responding to this need, NICHE has invested significantly on the IT infrastructure to the tune of Rs.245 lakhs. NICHE has revisited its earlier policy to align with the guidelines of Govt. of India on IT.

The NICHE Computing Centre maintains the infrastructure and IT resources based on a well-defined, comprehensive IT policy. The policy describes the protection of information and information technology resources to assure the utility and availability of those resources to the user. The following are the salient features of the ITpolicy:

- Policy statements are framed in line with the guidelines of the Government of India and the existing IT laws of the country.
- The policy covers systems usage, Internet usage and all IT resources.
- The policy enforces the use of proper authentication and authorization mechanisms. The policy practices the usage of only legal and licensed software.
- Data and information related aspects including content creation, ownership, transfer, usage, storage, backup, recovery, retention, disposal, security and privacy are given importance.
- Privacy and security features are outlined. Guidelines for online examinations are provided.
- Purchase and replacement procedure for IT equipment and accessories are defined. Policies on video surveillance are detailed.
- Provision is made for disciplinary and legal action in case of violation.

Implementation and Adherence to the Policy:

The IT Policy applies to students, employees, project staff, contractors, consultants, temporary and other workers at NICHE. This policy applies to all equipment that are owned or leased by NICHE and also to any privately owned equipment that may be connected to the network services provided. The policy is enforced by way of:

- Centralized authentication and authorization servers
- Enterprise-grade firewall with Unified Treat Management features such as Gateway Antivirus, Anti- malware, Intrusion Prevention, Web Filtering and Content Filtering
- Centralized logging of user activity.
- Students, employees, project staff, contractors, consultants, temporary and other workers at NICHE shall log into the University network only with their respective Username and Password. Anyone trying to login on a different user shall have his privileges canceled. User Login attempts to all computers are constantly monitored.

ANNEXURE 9.1

Academic Council, BOM, BRDC Member List, Committees, Institutional bodies and Administration setup, Leave rules, Other benefits, Selection process, MOA and Rules Modified in Accordance with UGC Regulations 2019, NICHE Rules, Service Rules, Office Procedure Manual, Examination Instruction Manual, Library Manual

Academic Council Members – w.e.f. 19-3-2024

S.No.	Category	Name / Address
1	Vice-Chancellor	Dr.Tessy Thomas
2	Pro Vice-Chancellor (Administration)	Dr.K.A. Janardhanan
3	Pro Vice-Chancellor (Academic)	Dr.A. Shajin Nargunam
4	Dean(s) of Faculties (11)	**Dean-Faculty of Management Studies** Dr.K.A. Janardhanan, Pro Vice-Chancellor (Administration)
		Dean-Faculty of Information and Computer Engineering /Director Academic Affairs Dr.A. Shajin Nargunam, Pro Vice-Chancellor (Academic)
		Dean-Faculty of Computer Science Dr. M.K. Jeya Kumar
		Dean-Faculty of Aeronautical and Space Technology Dr.R.C. Mehta
		Dean-Faculty of Civil Engineering Dr. V. Narayanan Nair
		Dean-Faculty of Mechanical Engineering/Director Research Dr. M. Dev Anand
		Dean-Faculty of Science and Humanities/ Dr.B. Bindhu
		Dean-Faculty of Electrical & Electronics Engineering. Dr.R.S. Vinod Kumar
		Dean-Faculty of Technology Dr. M. Murugan
		Dean, Faculty of Marine Dr. S. John Leon
		Dean Faculty of AHS Dr. M. Sankaranarayana Pillai
5	HoDs	**1. Aeronautical Engineering** Dr. T Annil Kumar
		2. Aerospace Engineering Dr. J. SajiSoundara Raj

S.No.	Category	Name / Address
		3. Aircraft Maintenance Engineering Mr.S. Hari Kumar
		4. Biomedical Engineering Dr.M.Murugan
		5. Automobile Engineering Dr. J. Edwin Raja Dhas
		6. Allied Health Sciences Dr.G. Arockia Selva Saroja
		7. Chemistry Dr. J. Joseph
		8. Civil Engineering Dr.N. Stalin Jose
		9. Computer Applications Dr. J.R. Jeba
		10. Computer Science Engineering Dr. V. G. Ranjith
		11. Electronics Communication Engineering Dr. T. Gopalakrishnan
		12. Electrical and Electronics Engineering Dr.J. Arul Linsely
		13. Electronics and Instrumentation Engineering Dr. S.S. Kumar
		14. English Mr. A. KhaleelRahuman
		15. Fire Technology & Safety Engineering Mr.I.JamesDinakar Williams
		16. Information Technology Dr. R. MathuSoothana S. Kumar

S.No.	Category	Name / Address
		17. Marine Engineering Dr. S. John Leon
		18. Mathematics Dr. M. Immaculate Mary
		19. Management Studies Dr. G. Arun
		20. Mechanical Engineering Dr. R. Rajesh
		21. Nano Tech Dr. P.K. Praseetha
		22. Physics Dr. B. Bindhu
		23. Software Engineering Dr. J.P. Jayan
		24. Audiology and Speech Language Pathology Dr. M. L. Nisha
4	Professor (10)	1. Dr. G.M. Joselin Herbert Professor, Dept. of Mechanical Engineering
		2. Prof. A.R.S. Iyer Professor, Dept of Information Technology
		3. Dr. P. Sujatha Therese Professor, Department of Electrical and Electronics Engineering
		4. Mr. Vijayan Pillai S Department of Marine Engineering
		5. Dr. Balamurugan S Professor, Department of Nanotechnology
		6. Dr. Joseph J Professor, Department of Chemistry
		7. Dr. D. Kinslin Professor, Faculty of Management Studies

S.No.	Category	Name / Address
		8. Dr.R. Subramania Pillai Professor, Department of English
		9. Dr. B. Ben Sujitha Professor, Department of CSE
		10.
5	Associate Professor (five)	1. Dr. N. Ramaswamy Associate Professor, Dept. of Mechanical Engineering
		2. Dr. J. Charles Associate Professor
		3. Dr. P.V. Samuel Blessed Nayagam, Deputy Director – Academic Affairs and Associate Professor
		4. Dr. B. Stanly Jones Rethnam, Associate Professor
		5. Dr. I. Sowmy Associate Professor
6	Assistant Professor (five)	1. Dr. J. Benita, Department of AME
		2. Mrs. J.P. Janu Assistant Professor
		3. Mr. D. Allwin Assistant Professor
		4. Dr. K. Muthuvel Assistant Professor
		5. Dr. Rimal Isaac Assistant Professor
7	Educationists (three)	1. Dr. Paulose Jacob Dean, Faculty of Engineering, Cochin University
		2. Mr. T. Elangovan Former Director, NCTPR, Trivandrum
		3. Dr. G.L. Valsala Rtd. Principal, Government Engineering College, Sreekrishnapuram, Palakkad
8	Non-Teacher Experts (co opted) (three)	4. Rear Admiral B.R. Menon Chairman, Kerala Shipping and Island Navigation Corp.Ltd, Cochin
		5. Dr. S. Venkataraman Behavioural Catalyst & CEO Coach TVS Groups

S.No.	Category	Name / Address
		6. Mr. R.Narayanan Former Vice President, TCS
9	Member Secretary	Dr.P. Thirumalvalavan Registrar
10	Permanent Invitee	Controller of Examinations Dr. M. K. Jeyakumar
11	Special Invitees (if any)	1. Dr. Velmurugan Vadivel Principal, Sree Sakthi Engg. College, Coimbatore
		2. Director IQAC, Dr.J.P. Jayan

Kumaracoil – 629 180
19-3-2024

(Dr.P.Thirumalvalavan)
Registrar

BRDC Member List as on 31.07.2025

Sl. No.	Name of the Members	Designation
1.	**Dr. Tessy Thomas,** Vice-Chancellor, NICHE.	Chairman
2.	**Dr. K. A. Janardhanan,** Dean, Faculty of Management Studies, NICHE.	Member
3.	**Dr. A. Shajin Nargunam,** Dean, Faculty of ICE, NICHE	Member
4.	**Dr. M. K. Jeyakumar**, Dean, Faculty of Computer Science, NICHE.	Member
5.	**Dr. R.S. Vinod Kumar,** Dean, Faculty of EEE, NICHE.	Member
6.	**Dr. B. Bindhu**, Dean, Faculty of Humanities & Science, NICHE.	Member
7.	**Dr. M. Murugan,** Dean, Faculty of Technology, NICHE.	Member
8.	**Dr. R. C. Mehta,** Dean, Faculty of Aeronautical and Space Technology, NICHE.	Member
9.	**Dr. V. Narayanan Nair**, Dean, Faculty of Civil Engineering, NICHE.	Member
10.	**Dr. S. John Leon**, Dean, Faculty of Marine Engineering, NICHE.	Member
11.	**Dr. M. Sankaranarayana Pillai,** Dean, Faculty of Allied Health and Sciences, NICHE.	Member
12.	**Padma Shri. Dr. N. Vedachalam,** Distinguished Professor, Director-LPSC (Rtd.), VSSC, Trivandrum.	Member
13.	**Dr. N. Periasamy,** Professor, School of Chemistry, University of Hyderabad, Hyderabad.	Member
14.	**Dr. T. J. Pandian,** Emeritus Professor, School of Biological Sciences, M.K University, Madurai.	Member
15.	**Dr. M. Lakshmanan,** Profesor of Eminence & DST Ramanna Fellow, Centre for Nonlinear Dynamics, Bharathidasan University, Trichy.	Member
16.	**Dr. A. Kannan,** Professor & Head, Department of Information Science & Technology, Anna University, Chennai.	Member
17.	**Dr. T. J. Apren,** Head, R.F System and Development Division, VSSC, Thumba, Trivandrum - 695002	Member
18.	**Dr. M. Dev Anand,** Dean, Faculty of Mechanical Engineering, Director - Research, NICHE.	Member Secretary
19.	**Dr. P. Thirumalvalavan,** Registrar, NICHE	Invitee

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

(Deemed-to-be University under Section 3 of the UGC Act, 1956)
Kumaracoil – 629 180, Kanyakumari Dist., Tamil Nadu
Accredited by NAAC (Second Cycle)
Website : www.niceindia.com, email : info@niceindia.com

EXAMINATION INSTRUCTION MANUAL-2024

OFFICE OF THE CONTROLLER OF EAMINATIONS
NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
Kumaracoil – 629 180, Kanyakumari Dist., Tamil Nadu
Website : www.niceindia.com, email : coe@niuniv.com

CONDUCT OF EXAMINATIONS – AN INSTRUCTION MANUAL

The teaching, learning, and evaluation are integrated and indissoluble components of education. Noorul Islam Centre for Higher Education desired that the evaluation system should serve as an aid in the process of learning. The evaluation process should include the conduct of examination, the evaluation of answer scripts and publishing results.

I. EXAMINATION BOARD

- **The Examination Board shall consist of the following persons:**
  - i. The Vice-Chancellor or his nominee - Chairman
  - ii. Chairpersons of the various Boards of Valuators -- Members
  - iii. Deputy Controller of Examinations - Member
  - iv. The Controller of Examinations - Member-Secretary (Ex-Officio)
  - v. The Registrar - Special Invitee

- The Examination Board shall consider the consolidated result forwarded by the various boards of examiners, approve the same and arrange for the declaration of all examination results in the university.
- The Examinations Board shall submit a report every year to the Academic Council on the working of the university examinations and make recommendations for effecting improvement.
- It shall perform such other duties and functions assigned to it by the Academic Council.
- A list of eligible examiners shall be prepared annually by the respective board of studies members and get it approved by the authorities.

All the examiners shall carry out the instructions, which the Controller of Examinations may issue from time to time.

II. CHIEF SUPERINTENDENT :

To conduct the University end semester examinations, the Controller of Examinations is authorized to call for a panel of senior members of teaching staff with a minimum of 12 years of teaching experience who are willing to function as Chief Superintendent and the Controller of Examinations may appoint one from the panel as the Chief Superintendent after getting the approval of the Vice-Chancellor. Twelve Years of service will not be relaxed in any case

Any faculty whose blood relative is appearing for the University Examinations should not assume Chief Superintendentship.

a. Appointment of Hall Superintendents / Invigilators:

To Chief Superintendent will appoint teaching staff as Hall Superintendents for invigilation work and clerical assistants and other for the conduct of examination related works. Using the nominal roll and time –table supplied by the Controller of Examinations, the invigilation scheme may be prepared. Based on the invigilation scheme number of invigilators to be appointed for each session may be decided. Copies of the scheme may be displayed at appropriate places before the commencement of examination so as to enable the candidates to identity their examination halls for the respective sessions. The neighboring colleges may be are requested to send a list of teaching staff willing to act as external invigilators much in advance of the commencement of the examinations. Preferable 50% of invigilators are to be appointed by the Chief Superintendents from the neighboring colleges as external invigilators.

All teaching and non-teaching staff who were drafted for the conduct of the examinations are bound by the rules and regulations of the University. For any commission and omission in the conduct of University Examinations, the University will take appropriate action.

Examination Time – Table (Annexure-1)

The Examination Time Table shall be prepared by the Office of the Controller of Examinations and copies will be sent to the Main Office, Head of the Departments and the Chief Superintendent well in advance before the date of commencement of Examinations. The copy of the Time Table shall be displayed at a prominent place in the University and invite the attention of candidates thereto and specify when and where hall tickets will be issued.

Hall-Ticket(Annexure-2)

Hall-ticket (Performa-I) are forwarded to the Main Office shall be distributed to the eligible candidates one week before the commencement of examinations. Any discrepancy in the hall-tickets should be immediately brought to the notice of the Controller of Examinations.

At the time of issuing hall-tickets each one of candidates may be asked to verify whether his/her name is registered for all subjects for which he/she has remitted examination fees. Discrepancy, if any in the hall-ticket may be brought to the notice of the Controller of Examinations immediately.

Sending Question Paper Packets to Chief Supt./

On receipts of question paper packets, which will be sent by Controller of Examinations in sealed covers through an office staff, the Chief Superintendent is expected to check the description mentioned on each packet with the time-table and the nominal roll (containing the name, register number and the subjects for which the candidates have registered). Immediately after the receipt of the nominal roll and time-table the Chief Superintendent can prepare a table showing the number of question papers required in each subject. Any shortage in required number of question paper may be brought to the notice of the Controller of Examinations immediately to avoid last minute problems.

Candidates Attendance records:

The Director-Student Affairs will prepare the names of candidates who have not earned the required percentage of attendance, in that semester, and he will send it to the the Controller of Examinations. The Controller of Examinations will not issue the Hall Ticket such students. However, these candidates are eligible to appear for arrear subjects only.

Identification of the Candidate:

In the computerized hall-tickers, the photograph of the candidates is affixed. Candidates should enter the examination hall with ID card and the Hall Ticket issued by the Office of the Controller of Examination. If any case the candidate is failed to produce the original hall tickets issued by the Controller of Examination shall be directed to get a duplicate copy of it from the COE.

Taking Examinations at the Own risk of the Candidate:

In case of those candidates, whose names have not been registered for a subject or subjects for which they have paid the examination fees, the Chief Superintendent may permit those candidates to write the examinations after obtaining a written declaration that he/she is appearing for the examination at his/her own risk and the matter shall be reported to the Controller of Examinations.

In case the claims of such candidates are not supported by evidences at the Controller's Office, answer scripts will not be valued and he/she shall be liable for Punishment. In such cases, the Chief Superintendent should ensure the availability of Proper question papers for each day examination.

Issuing of answer Books:

Answer books containing sufficient pages are supplied from the Controller's Office. Serial number is also printed in the answer book. A record of answer books used, date wise and session wise

should be kept by the Chief Superintendent and this information should also be made available when called for. No additional sheets will be issued. Candidates are expected to complete the answers for all questions within the given answer book.

Number of Answer Books and Question Papers to Halls:

The Controller of Examinations shall issue answer books and question papers equal to the total number of candidates writing examination in that hall so to avoid any malpractice.

Facsimile of Chief Superintendent:

Facsimile signature of the Chief Superintendent should be affixed only at the left top corner of the title page of the answer book. The facsimile shall not be affixed at any other place on the answer book or the drawing / graph sheet. The invigilator has to check whether the answer books bear the facsimile of Chief Superintendent's signature before being issued to candidates.

Candidates suffering from infectious diseases:

Candidates who are suffering from infectious diseases of any king about which there is no doubt should not be admitted in the examination hall. However, they may be given separate seating in a separate hall with a separate invigilator.

Silence in Exam Hall:

Strict silence should be maintained in the examination hall. This rule is applicable to hall superintendents, helpers and candidates.

To Complete Answering within given time:

Candidates are not allowed to write beyond the time prescribed for the concerned subject. However, if the issue of question paper to the students is delayed for reasons beyond the control of hall superintendents and Chief-Superintendent, the examinees shall not be put into inconvenience and they shall be allowed to avail the time prescribed in the questions paper concerned.

Warning Bell:

Arrangements shall be made for the announcement of time and a bell be rang every half-an-hour. A warning bell shall be rung five minutes before the end of the examination in order to enable the examinees to complete their writing, arrange, tie the drawing / graph / charts and hand over the same to the hall superintendent.

Public – Holiday:

In the event of a public – holiday being declared after the publication of time – table, the examination will not be postponed or cancelled. The examination shall be conducted as scheduled, unless otherwise notified. After the publication of time-table, preponement of examination should not be done under any circumstances.

No Person Loiters in Verandah:

During the examination hours, the hall superintendent shall ensure, persons do not loiter in the verandhas or anywhere near the examination hall and be vigilant to prevent any attempts to communicate with the examinees from outside.

Chief Superintendent to visit Halls:

The Chief Superintendent should visit as frequently as possible the various halls/rooms and buildings where examination is conducted. The Chief Superintendent shall ensure that the hall Superintendents keep moving among candidates and do not engage in any other activity likely to diminish the efficiency of supervision. Supervision should be very strict. Under no circumstances staff other than teaching staff be employed as hall superintendents

Seating arrangements (Annexure-3)

Seating arrangements in every examination hall must be meticulously planned in such a way that candidates writing more than one subject shall be combined. In other words as far as possible not more than 50 percent of the seating capacity of a hall shall be allotted for candidates appearing for one particular subject. The chief Superintendent is personally responsible for implementation of this norm and hence any violation thereof will be viewed seriously. However in case if all the examinees in one particular session are appearing for only one subject, the Chief Superintendent has to ensure a minimum distance of one meter between any two candidates(between rows).

Candidates to occupy only Allotted Seats:

Register number of candidates must be clearly written on the table or desk in serial order. No candidate is permitted to occupy any seat other than the allotted one. No candidate is permitted to alter the seating arrangements without the concurrence of the chief superintendent .If a candidate is found guilty of altering the seating arrangement of a hall, the chief superintendent may recommend the

cancellation of the written examination of that particular session by providing the original plan of seating arrangement and the alteration made by the said candidate.

Leaving seats:

Candidate shall occupy their seats at least five minutes prior to the commencement of the examination and they are not allowed to leave their seats under any pretext during examination hours.

Entering and Leaving Halls:

No Candidates desirous of writing the examination shall be permitted to enter the hall after the expiry of 30 minutes from the commencement of examinations. Similarly no candidate shall be permitted to leave the hall earlier than 45minutes from the commencement of the examination. No candidate who left the examination hall before the end of the session shall be permitted to reenter the hall under any circumstances.

Opening, Checking and Signing of Question Paper Packet:

Question paper packets shall be thoroughly checked by the chief Superintendent to ascertain that the question paper code and the title of the question paper tally with the subject of examination announced. No question paper packet shall be opened in haste as it will cause irreparable damage to the credibility of the university examination. The chief Superintendent should verify the pasting and sealing of the question paper packets and the date and time before signing the packets. Question paper packet shall be opened in the presence of external Superintendents, who should also scrutinize the packet and affix their signature before opening.

The Chief Superintendent will sign at the place indicated in the question paper covers before opening. All the question paper covers shall be preserved and forwarded to the Controller of Examination.

Distribution of Correct Question Paper: (Annexure-4)

Copies of Question paper are to be distributed only to candidates actually seated in their places. Each question paper must be scrutinized so as to ensure that it is correct according to the heading.

Safe Transit of Question Papers:

When candidates are examined in more than one hall, every precaution should be taken that no outsiders are present in and around such halls/rooms and sufficient security measure should be taken to carry the question safely from one hall to another and distributed to the candidates concerned.

When one/few candidates are registered and unopened covers:

Whenever, only one or very few candidates have registered for an examination the Chief Superintendent must open the question paper cover concerned only after verifying the presence of candidate in the hall for that examination. All the question paper cover concerned should be returned to the controller of examination unopened (if no candidates is present) at the close of all the examinations.

Opening of Question Paper Cover:

The question paper covers of the university examinations should be cut open on the left hand side of the cover. It should also be noted that flap should be intact when the covers are sent back to the Controller of Examinations for the scrutiny. This procedure must be strictly followed.

Preparation of Session –wise Candidate List:

On receipt of the nominal roll **(Annexure-5)** from the Controller's Office, day/Session wise register number of candidate who have registered for each subjects, in that semester examination, must be prepared by the Chief Superintendent.

Distribution of appropriate Question Paper

Care must be taken to verify whether current semester and arrear/Supplementary candidates have to answer the same or different question papers (with different question paper codes) for a subject. In case they have to answer different question papers, as far as possible, they must be accommodated in different halls and care must be taken to provide appropriate question papers for each of them. To identify which set of (batch of) candidates should answer which question paper, Examination timetable can be referred carefully and the question paper code in an important guide.(Reading the foot notes in the timetable will provide necessary clarity for identifying the question paper code to the related batch of candidates. If any mistake is committed in the distribution of proper question papers the hall superintendent will be held responsible for the same. Apart from the above, to ensure distribution of appropriate question paper to each candidate, he/she may be asked to verify receipt of proper question paper before answering. The chief superintendent is to issue instructions to each hall superintendent so as to ensure proper distribution of appropriate question paper to candidate.

Duration of Exam:

The timetable supplied should be considered as authoritative wherever discrepancies are found in question paper regarding the duration of Examination.

Use of Pen:

Candidates are expected to bring their own pens, pencils etc., and will not be allowed to borrow from others in the examination hall. Candidate should use only blue or black ink or ball pen while answering their papers. Only for drawing diagrams or charts, colour pens/Sketch pen etc are allowed.

Data Book/Tables:

Clark's Mathematical & Physical Tables and other scientific tables/ data book if mentioned in the question paper will be supplied to candidates on request, by the hall Superintendent. Chief Superintendent is requested to make arrangement for supply of Tables and Data Books which do not contain any entries in pencil or ink. The books & Tables should also be examined while being returned back by candidates.

Calculators:

The use of mathematical instruments while answering the papers in relevant subject is allowed. Such instruments will not be supplied by the University. Only Scientific calculators are allowed. No programmable calculators, cell phones, pagers are allowed.

To keep away Books Note Books etc...:

All Books, note books manuscripts etc., brought by candidates shall be placed outside the examination hall in a separate room. A notice to this effect should be placed at the entrance

Sketch of Seating Arrangement:.

The Chief Superintendent of the Examination should prepare and keep with him sketches of the seating arrangements in the examination hall or rooms and should forward a copy of the same when requested by the Controller of Examinations.

Telegrams to Candidates:

Any letter or Telegram to a candidate, shall not, in any case be delivered to candidate until he/she- completes examination.

Candidates not to ask any question in hall:

Candidates are forbidden to ask question of any kind during the examination. Hall Superintendent are to be instructed not to answer any enquiry whatsoever relating to the question papers, whether an explanation or meaning or correction or typographical errors.

Attendance of Candidate Present (Annexure-6)

Ten minutes after the commencement of the examination the Hall Superintendents are expected to start taking the attendance of candidates who are present and writing the examination by getting the signature of candidates and complete immediately after 30 minutes in the format. The formats may be collected by the Chief Superintendent and forwarded to the Controller of Examinations whenever they are specially required.

Absentee Statement

Half an hour after the commencement of examination (in each session) the Chief Superintendent may send an attender with an ABSENTEES STATEMENT sheet to collect the register number of absentees in each hall. The entry made by hall Superintendent in the statement should tally with statement prepared earlier. The Chief Superintendent shall verify that there is no discrepancy in these two entries. Using these particulars, answer paper cover shall be prepared by the examination assistant. Along with the absentee details, the Chief Superintendent should return the unused question papers and answer books. The number of absentees, answer books and question papers should tally. The number of absentees, answer books and unused question papers should tally. The Chief Superintendent shall verify that these things are in order, so as to avoid malpractice.

Consolidated Absentee Statement:

At the close of examination, the Chief Superintendent is expected to send a consolidated absentee statement, date and subject wise and list of absentees with register numbers, within three days.

The examination section will send two copies of nominal roll along with the hall tickets. If anyone candidates is absent for one paper, the code number or the serial number, as the case may be, of that subject shall be rounded (encircled) and marked in red ink as “AB” (must not be scored off) by the Chief Superintendent in one copy of the nominal roll against the register number of the candidate who is absent for that particular paper at the end of Examination on each day. This copy of nominal roll with the absentee markings shall be returned to Controller of Examinations and this will be treated as consolidated absentee statement.

Preparation of Answer Paper Cover:

In preparing the answer paper covers, the register number of absentees for each subject of examination should be entered in the respective column on the cloth lined answer-paper cover. Candidates who are not permitted to sit for the examination for want of attendance and for progress should be treated as absentees. The number of answer papers dispatched to the Controller of Examinations added to the number of absentees must be equal to the number of candidates registered. Any discrepancy should at once be enquired into on the spot and accounted for, by a note at the foot of the cover. Special care must be taken to ensure accuracy in this respect and in writing the correct register number of absentees on the cover.

Collection of Answer Papers:

Hall Superintendents should collect answer books from candidates personally. It would be better to instruct the candidates that they should stand up in their place and remain standing until one the hall Superintendents reaches them and receives the answer books as soon as they have completed answering and wish to surrender their answer books, or at the end of the period prescribed for each particular part of the examination. The candidates should be instructed to verify, before surrendering their answer books, that they have entered their register number correctly in the answer books at the appropriate places in the title page only. They should be warned that writing wrong register number in their answer books will entail rejection of their answer papers.

Arranging of Answer Papers:

After the answer books have been collected, they should be carefully arranged according to subjects or languages and in numerical order.

Entries on Answer Paper Cover:

Special care must be taken in making entries on the face of the answer paper cover. The register number of all candidates in the nominal roll shall be written on the left side of the over in the space provided. If a candidate is absent, the Register number of that candidate must be noted on the right side of the cover.

Chief Superintendent Signing:

The signature of the Chief Superintendent, and seal of University shall be affixed on the cover without fail. The Chief Superintendent shall sign on the reverse across the pasted portion of the clothlined cover.

Packing of Answer Paper:

When a question paper is common for more than one branch /degree, the answer papers of candidates of different branch/ degree shall be packed in different covers to ensure that there is no mix up.

Sealing of Answer Paper Covers:

No paper should be torn off from the answer books. The number of answer books kept inside the cover shall not exceed the specified number indicated thereon. The clothlined covers should be pasted in the presence of the Chief Superintendent at the close of session. After signing of the covers as said in the previous para then the flap portion of the covers are to be pasted with cello tape neatly.

The answer paper delivery slip supplied by the Controller of Examination may be filled. Separate delivery slips may be used for different separate degree answer paper packets. Say for example, dispatch of B.E., M.E., M.Sc., covers shall be written in different proforma. Serial No. must be given date wise for the answer paper covers and handed over to the Controller of Examinations. Serial number shall be given continuously and not separately for each degree.

No. of Candidates and hall:

Candidates should be accommodated in rooms or in large halls. In ordinary circumstances, one hall Superintendent for ever twenty five(25) candidates or part thereof in each hall is sufficient. If the number of candidates for the examination on any date does not exceed twenty five examination can be conducted with the assistance of a reserve Superintendent. No hall Superintendent need to be appointed. The reserve Hall Superintendent will assist the Chief Superintendent at times when there is no invigilation.

Contingent advances:

All applications for contingent advance towards conduct examinations should be made to the controller of Examination atleast Ten days before the commencement of the examination. Stamped acknowledgement should invariably be furnished for all advances of Rs. 5000/- and above Advance paid must be utilized for the purpose for which it is given and should not be used for any other purpose.

All expenditure relating to Clerical Staff Office Asst, / Peon, Waterman Watchman, Purchase of stationery, sealing wax, cello tape, string, sketch pen, all other contingencies etc. have to be met within the amount allotted.

Sending final account:

On conclusion of the examinations, a bill should be prepared and forwarded and to the Controller of Examinations together with all voucher and other statements connected therewith within 5 days.

All Original Bills to be Sent:

After the bills have been checked, order will be given for the payment of any sum due. If the amount originally drawn is in excess of the expenditure, the balance should be refunded within fifteen days after the examinations are over.

Stork Position:

Chief Superintendent is required to make a return in the form for the amount of stationery and serviceable articles remaining at the close of examination and send them to the Controller of Examinations.

Stationery requirement

Chief Superintendent has to maintain stock particulars of the items such as, Answer book, clothined cover, etc. Supplied by the University. At the close of each semester / annual examination, the Chief Superintendent is expected to send stock Position and request for requirement of various items for the use of next examination in the proforma.

Squad:

‘’Examination Vigilance Squad’’ is to be appointed by the Controller of Examination based on the instructions given by the University authorities from time to time, to check compliance of the following:

a. Examinations Commence on time.
b. Question Papers issued to the Chief Superintendent are kept in safe custody.
c. Answer papers of completed examinations are sealed and kept in safe custody.
d. Absentee list agrees with entries on answer paper packets (a random sample will be enough)
e. Seating arrangements are satisfactory.
f. Adequate number of external and internal invigilators are employed.
g. University examination stationery supplied to Chief Superintendent colleges are properly stored and accounted for, and any particulars related to the conduct of Examination in that centre.

III. INSTRUCTIONS TO HALL SUPERINTENTS (INVIGILATORS)

Invigilators to initial:

Hall Superintendent must initial on the left top corner of the first page of the answer book.

Writing Register number:

Proper instructions are to be given before question paper are distributed to candidates to write his/her register number legibly on the title page of main answer book and not to write register any where else. Candidates may also be informed that violation of this rule will attract disciplinary action.

Check the Question Paper:

Candidates attention may be drawn to verify and satisfy themselves that they have received appropriate question papers before they start answering for the questions. Each question paper must be scrutinized so as to ensure that it is relevant to the heading. Question paper not relevant should be returned to the Chief Superintendent at once.

Candidate to write register number only on the title page of answer book.

Before distributing question paper, candidates should be issued with the main answer book and instructed to fill up the columns on the title page of the book. Candidates are to be instructed not to write their register numbers at any place other than the space provided for on the book. Writing a wrong register number will lead to rejection of answer paper. Writing the name or writing an appeal to the examiner or writing the internal assessment marks will be treated as an attempt to influence the examiner. Hence, any such act will attract disciplinary action by the Controller of Examinations.

The attendance of candidates may be finalized half-an-hour after the commencement of the examination by getting the signature from individual candidates in the format prescribed by the office of the Controller of Examinations.

Checking Register number:

Hall tickets of the all candidates should be inspected during the course of each session of the examination. While checking the hall tickets of each candidate, the hall superintendent should ensure whether the candidates wrote the register number in the Title page of the answer booklet same as in the Hall Ticket.

Rough work:

Candidates should be informed that rough work if any must done by them on the bottom of page in their answer papers by reserving one fourth of the page at the bottom exclusively for this purpose. No separate answer books for rough work will be supplied to candidates.

Checking main answer books.

The number of absentees and the number of main answer books not distributed in the hall should tally and the unused main answer books should be returned to the Chief Superintendent along with the absentee list.

Reporting at exam hall:

Candidates presenting themselves thirty minutes after the commencement examination shall not be admitted. Candidates are required to bring their own pens, pencils atc.,

Date books, maths /stat ,tables:

Candidates are not allowed to use books of any kind, except approved Date books and mathematical/ statistical tables issued by the Chief Superintendent. The handbooks /date books rough by the candidates may be checked for any hand written matters.

Report for Duty:

The invigilators are expected to report for invigilation work to Chief Superintendent atleast thirty minutes before the commencement of examination on the respective date and session for which the invigilation work is assigned.

Supply of Answer Book:

Answer book contains sufficient pages for answering. No additional sheets will be issued to the candidates

Writing 20 lines per page:

Candidates should be informed that they are expected to write atleast 20 lines in a page and use both sides of an answer paper. In this connection, Chief Superintendent should instruct their hall superintendents to monitor whether all the students write not less than 20 lines per page if no rulings are made.

Collecting answer books:

At the end of examination, the hall superintendent has to collect the answer books from candidates and arrange them subject wise, register number wise and personally handover them to the Chief Superintendent. The hall superintendent has to be present till all the answer papers are checked and put into the appropriate answer paper covers by the Chief Superintendent.

While collecting the answer books from a candidate, the hall superintendent shall verify that the register number of the candidate has been correctly entered and that too only on the title page, No loose sheets or papers shall be detached from the answer books of candidates. Rough work carried out by a candidate shall form part and parcel of the answer paper.

IV. MALPRACTICE:

Candidate are not allowed to use books of any kind. Chief Superintendent is to warn the candidates before the commencement of each examination that persons fount in possession of answer book of any other candidates or found in possession of any book or portion of the book, manuscript paper of any description or communication or copying from each other or communicating with any person inside or outside the examination room will treated as guilty of malpractice.

Any candidate detected for having violated this rule, may be permitted to continue answering in a fresh Answer Book and a detailed report on the matter together with the candidates answer book/s, the iceriminating material used by the candidates, other material evidence and candidates confessional statement should be forwarded immediately, addressed by name to the controller of examination. The report of any malpractice shall be sent to the controller of Examination on the same day, or next day of the incident with all materials. Late representation should be avoided.

Malpractice and Confistication of Hall Ticket:

Chief Superintendent and hall Superintendents who have reasons to suspect malpractice on the part of any candidate should forthwith make all possible preliminary investigation and communicate the same to Controller of Examinations on the same day by forwarding all materials evidence available together with detailed report from the hall superintendent and the written explanations obtained from the candidates. Hall tickets of such candidates need not be confiscated and they may be permitted to write the subsequent examination. However, if the Chief Superintendent envisages any disturbance in the conduct of examination by allowing such candidates to write examination, the Chief Superintendent is empowered not to permit the candidate to appear for the subsequent examinations and the same may be reported to the Controller of Examinations.

Documents to be enclosed along with malpractice case:

1. Report of the invigilator on malpractice to the Chief Superintendent.
2. Explanation if any submitted by the candidate.
3. Report letter of the Chief Superintendent to the Controller of Examinations.
4. Answer book of the candidate. If a fresh answer book is given to the candidate after malpractice is detected, both the answer books are to be enclosed.
5. Incriminating materials used by the candidates.
6. Sketch of the seating arrangement (whenever necessary)

The report of the hall Superintendent must be clear. Based on the report of the hall Superintendent, Chief Superintendent must also enquire the candidate and send his report along with the hall Superintendent's report. The nature of the punishment to be imposed by the syndicate will depend largely upon the evidence furnished.

Impersonation:

In case of impersonation, the police authorities should be contacted immediately and the person concerned be handed over for investigation and necessary action. A full report about the same should be sent to the University authorities.

Discipline in University Examination

- During the examination the candidates shall be under the disciplinary control of the Chief Superintendent who shall issue the necessary instructions to the invigilators and students.
- Every day, before the examination begins, the invigilators shall call upon all the candidates to search their tables, desks etc., and ask them to hand over all papers, books, notes, cell phones or other reference material which they are not permitted to have in their possession or accessible to them in the examination hall. If a late-comer is admitted, this warning shall be repeated to him at the time of entering into the examination hall.
- The invigilators are also to see that each candidate has his/her identification card and hall ticket in possession with him / her.
- If a candidate disobeys the instructions or misbehaves with any member of the supervisory staff or misbehaves with any of the invigilators at the examination hall, he / she may be expelled from the examination for that session.

- The Chief Superintendent shall immediately report the facts of such cases with full details of evidence to the Controller of Examinations who will refer the matter to the Vice-Chancellor
- If the Vice-Chancellor is satisfied that there has been a mass-scale copying or use of unfair means on a mass-scale at a particular hall, he may cancel the examination of all the candidates in that hall/halls and order re-examination.
- Note: here the invigilator in charge is satisfied that 1/3 or more students were involved in using unfair means or copying in a particular examination hall, it shall be deemed to be a case of mass copying.
- The Chief Superintendent of the examination center shall report to the Controller of examinations without delay and on the day of occurrence if possible, each case where use of unfair means in the examination is suspected or discovered with full details of evidence in support there of and the statement of the candidate concerned, if any, on the forms supplied by the Controller of Examinations for that purpose.
- A candidate shall not be forced to give a statement but the fact of his / her having refused to make a statement shall be recorded by the Chief Superintendent and shall be attested by another supervisory staff on duty at the time of occurrence of the incidence.
- A candidate detected or suspected of using unfair means in the examination may be permitted to answer the question paper, but on separate answer book. The answer book in which the use of unfair means as suspected shall be seized by the Chief Superintendent, who shall send both the answer-books to the Controller of Examinations with his report. This will not affect the concerned candidate appearing in the rest of the examinations.
- A candidate shall not use unfair means in connection with any of the examinations. The following shall be deemed to be unfair means:
    a. Found in possession of incriminating material related / unrelated to the subject of the examination concerned.
    b. Found copying either from the possessed material or from a neighbour.
    c. Inter-changing of answer books
    d. Change of seat for coping
    e. Trying to help other candidates
    f. Found consulting neighbours
    g. Exchange of answer sheets or relevant materials
    h. Writing some other candidate’s register number in the main answer paper
    i. Insertion of pre-written answer sheets (main sheets and additional sheets)

j. Threatening the invigilator or insubordinate behaviour as reported by the chief superintendent and / or the hall superintendent.
k. Consulting the invigilator for answering the questions in the examination.
l. Cases of impersonation.
m. Mass Copying

The Academic Council may declare any other act of Omission or Commission to be unfair means in respect of any or all the examinations

3.1.Examination Discipline Committee.

- The Vice – Chancellor shall constitute the Examination Discipline Committee in which the Controller of Examinations shall be the Member - Secretary.
- The Committee shall consist of five members drawn from amongst the teachers and officers of the University. All the cases of alleged use of unfair means shall be referred to the Examination Discipline Committee:

1. One Head of the Department nominated by the Vice Chancellor - Convener
2. One Dean nominated by the Vice Chancellor - Member
3. Director – Student Affairs – Member
4. Additional COE – Member
5. Controller of Examinations – Member Secretary

- The committee will make recommendations for disciplinary action as deemed fit to the Vice – Chancellor as provided under the scale of punishment already prepared and approved by the Academic Council.
- The members of the committee shall be appointed for a period of two years, and shall be eligible for re-appointment.
- Three members present shall constitute the quorum.
- Ordinarily, all decisions shall be taken by the Committee by a simple majority. If the members are equally divided the case shall be referred to the Vice-Chancellor, whose decision shall be final.
- All decisions taken by the Examination Discipline Committee will be placed before the Vice-Chancellor for approval.
- A candidate, within one month of the receipt of the decision of the University, may appeal to the Vice-Chancellor, in writing for review of the case. If the Vice-Chancellor is satisfied that the

representation merits consideration, he/she may refer the case back to the Examination Discipline Committee for reconsideration

The Examination Discipline Committee may recommend one of the following punishments for cases of unfair means

The report of the hall Superintendent must be clear. Based on the report of the hall Superintendent, Chief Superintendent must also enquire the candidate and send his report along with the hall Superintendent's report.

The nature of the punishment to be imposed by the syndicate will depend largely upon the evidence furnished.

Sl.No.	**Nature of Unfair means**	**Scale of Punishment**
1.	If the candidate has used unfair means specified in sub-clause (a) to (g) mentioned above	Prevent the candidate from writing all the University Examinations registered by him in that session.
2.	If the candidate has repeated the unfair means shown at (a) to (g) a second time	Prevent the candidate from writing all the University Examinations registered by him in that session and debar him/her for the next examination session (i.e. all University Examinations in the subsequent session)
3.	If the candidates has repeated the unfair means shown at (a) to (g) third time	Prevent the candidate from writing all the University Examinations registered by him in that session and debar him/her for two years from registering and appearing for the University Examinations.
4.	If the candidate used unfair means in sub Clause (h) only	Prevent the candidate from writing all the University Examinations registered by him in that session only.
5.	If the candidates used unfair means in sub Clause (i)	Prevent the candidate from writing all the University Examinations registered by him in that session and debar him/her for two subsequent examination sessions.

6.	If the candidates used unfair means in sub Clause (j)	Prevent the candidate from writing all the University Examinations registered by him in that session and debar him/her for two years from registering and appearing for the University Examination.
7.	If the candidates used unfair means in sub Clause (k)	Prevent the candidate from writing all the University Examinations registered by him in that session
8.	If the candidates used unfair means in sub Clause (l)	Prevent the candidate from writing all the University Examinations registered by him in that session and debar him/her for two years from registering and appearing for the examinations. Moreover, relevant legal action shall be initiated if an outsider is involved.
9.	If the candidates used unfair means in sub Clause (m)	a)In a Single Hall: Cancel the relevant examination taken by the students of that Hall. Debar the concerned Hall Superintendent and others involved directly or indirectly from the examinations work such as invigilation, question paper setting, valuation, etc., for the next six examination sessions. b) In a Center: Cancel the relevant examination taken by the students of the center. Debar the Hall Superintendents and the Chief Superintendent and others involved directly or indirectly from the examination work such as invigilation, question paper setting, valuation etc., for the next six examination sessions and cancel the examination center for two years

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL – 629180

TIME TABLE – B.E. / B. Tech. / BBA / B. Com. / B. Sc. / M.E. / M. Tech. / MBA / MCA / M. Sc. / M.A. Degree Examinations – December 2023

Regulation 2023

Semester: 01 **Session: 10.00 AM to 01.00 PM**

Exam Date	27/01/2024	29/01/2024	31/01/2024	02/02/2024	05/02/2024	07/02/2024
Day	Saturday	Monday	Wednesday	Friday	Monday	Wednesday
Branch	Subject Code Title of the Paper	Subject Code Title of the Paper	Subject Code Title of the Paper	Subject Code Title of the Paper	Subject Code Title of the Paper	Subject Code Title of the Paper
M.E. Computer Integrated Manufacturing	CM4501 Optimization Technique	CM4502 Computer Integrated Manufacturing	CM4503 CAD/CAM	CM45A1 Computer Aided Process Planning	OE45D1 Research Methodology and IPR	CM45A2 Design for Manufacturing
M.E. Computer Science & Engineering	CS4501 Advanced Data Structures & Algorithms	CS4502 Advanced Operating Systems	CS45A3 Fundamentals of Digital Image Processing	MA4504 Applied Probability and Statistics	OE45D1 Research Methodology and IPR	CS45A6 Machine Learning
M.E. Cyber Security	CY4501 Advanced Data Structures and Algorithms	CY4502 Advanced Operating System and Security	CY4503 Cryptography and Cyber Security	MA4504 Applied Probability and Statistics	OE45D1 Research Methodology and IPR	CY45A7 OS Forensics
M.E. Structural Engineering	CV4501 Structural Dynamics	CV4502 Theory of Elasticity and Plasticity	CV4503 Concrete Structures	MA4503 Mathematical Methods for Structural Engineering	OE45D1 Research Methodology and IPR	CV4504 Maintenance and Rehabilitation of Structures
M.E. Thermal Engineering	TE4501 Advanced Engineering Fluid Dynamics	TE4502 Instrumentation for Thermal Engineering	TE45A8 Electric and Hybrid Vehicles	MA4502 Advanced Numerical Methods	OE45D1 Research Methodology and IPR	TE45B3 Energy Conservation and Waste Heat Recovery

Kumaracoil
12/12/2023

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION * KUMARACOIL - 629 180 *

CONTROLLER OF EXAMINATIONS

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

(Deemed-to-be-University under section 3 of the UGC Act 1956)

Kumaracoil,Thuckalay,K.K.Dist,Pin-629 180

UNIVERSITY EXAMINATIONS May - 2024

HALL TICKET

Reg. No.:	**1121208011**	**Semester : 6**	
Name :	**Mohamed Parvez M**		
Course :	**B.E. Computer Science and Engineering CS32**		
Examination Centre	**Noorul Islam Centre for Higher Education, Kumaracoil**		

Sem	Code	Subject Title	Sem	Code	Subject Title
6	ME32D1	Supply Chain Management			
6	CS32A9	Virtual Reality			
6	CS32A5	Neural Networks and Deep Learning			
6	CS3213	Compiler Design			
6	CS3214	Cloud Computing Techniques			
6	CS3215	Cyber Security			
6	CS3279	Compiler Design Laboratory			
6	CS3280	Cloud Computing Laboratory			
6	CS32P2	Summer Internship II			

Signature of the Candidate

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION * KUMARAKOIL 629 180 *

Controller of Examinations

Note: Corrections if any is to be reported to the controller of Examinations immediately

22_Apr_2024

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION UG / PG THEORY EXAMINATIONS

Centre : Noorul Islam Centre for Higher Education,Kumaracoil

SEATING ARRANGEMENTS-May-2024 Examination

Date : 01-07-2024 | Session : FN

Hall Code:I 102

Reg. No	Course and Semester	Paper Code	Seat No	Reg. No	Course and Semester	Paper Code	Seat No
1121507006	S2-MCA	CA3507	1	1121506009	S2-M.E.	CV3507	2
1121507019	S2-MCA	CA3507	3	1121506011	S2-M.E.	CV3507	4
1121507023	S2-MCA	CA3507	5	1121506014	S2-M.E.	CV3507	6
1121507025	S2-MCA	CA3507	7	1121506026	S2-M.E.	CV3507	8
1121507038	S2-MCA	CA3507	9	1121506027	S2-M.E.	CV3507	10
1121507045	S2-MCA	CA3507	11	1122506003	S2-M.E.	CV3507	12
1121507049	S2-MCA	CA3507	13	1122506006	S2-M.E.	CV3507	14
1121507052	S2-MCA	CA3507	15	1122506008	S2-M.E.	CV3507	16
1121507055	S2-MCA	CA3507	17	1122506009	S2-M.E.	CV3507	18
1122507005	S2-MCA	CA3507	19	1122506013	S2-M.E.	CV3507	20
1122506014	S2-M.E.	CV3507	22	1122507020	S2-MCA	CA3507	23
1123510001	S2-M.E.	EC4506	24				

Hall No	Course Code	Subject Code	Reg no	No. of candidates
I 102	CA35	CA3507	1121507006, 1121507019, 1121507023, 1121507025, 1121507038, 1121507045, 1121507049, 1121507052, 1121507055, 1122507005, 1122507020	11
	CV35	CV3507	1121506009, 1121506011, 1121506014, 1121506026, 1121506027, 1122506003, 1122506006, 1122506008, 1122506009, 1122506013, 1122506014	11
	EC45	EC4506	1123510001	1

NAME : . . . . . .

REGISTER NUMBER : | | | | | | | | | | |

Question Paper code assigned by COE office

B.E. / B.Tech. / BBA / B.Com. / B. Sc. / BASLP. / M.E. / M.Tech. / MBA / MCADEGREE EXAMINATIONS, DEC. 2023/ JAN. 2024.

------Semester

Department

Subject Code – Subject Name

(Regulation ----------)

Time : Three hours Maximum Marks : 100

PART A - (10 x 2 = 20 Marks)

Answer **ALL** questions

Q.No.	Questions	CO	Blooms Level	Marks
1.	Unit – I			
2.	Unit – I			
3.	Unit – II			
4.	Unit – II			
5.	Unit – III			
6.	Unit – III			
7.	Unit – IV			
8.	Unit – IV			
9.	Unit – V			
10.	Unit – V			
Part B - (5 X 16 = 80 Marks) Answer **ALL** questions choosing either (a) or (b)				
11.	(a) Unit – I			
(Or)				
	(b) Unit – I			
12.	(a) Unit – II			
(Or)				
	(b) Unit – II			
13.	(a) Unit – III			

(Or)					
	(b)	Unit – III			
14.	(a)	Unit – IV			
(Or)					
	(b)	Unit – IV			
15.	(a)	Unit – V			
(Or)					
	(b)	Unit – V			

NICHE

Noorul Islam Centre For Higher Education

(Deemed to be University under section 3 of UGC Act 1956)

Kumaracoil, Thuckalay, K.K.Dist, Pin-629 180.

S2 – **Course:AE32-B.E.-Aeronautical Engineering**

Reg. No	Name	Sub Codes	No of Subjects
1121201001	Adithya Krishna S.R	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201002	Ameena Fathima S	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201003	Anto Stanies S J	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201004	Ashlin Aneesh	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
121201005	Ashutosh Kumar Jha	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201006	Bansod Mrunal Girdhari	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201007	Chavhan Rohan Ramesh	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201008	Mohammed Naahid Hussain	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201009	Rashmash Rajan R L	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201010	Sanjay S	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201011	Swasthy. S	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
1121201012	Vrinda Girish	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7
.121201013	Nabila A	EG3101,MA3101,BS3101,BS3102,CS3101,CS3171,BS3171	7

Controller of Examination

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION KUMARAKOIL - 629 180

Kumaracoil

05-05-2022

Controller of Examinations

NICHE

Deemed to be University under section 3 of UGC Act 1956

Noorul Islam Centre For Higher Education

Kumaracoil - 629180

UNIVERSITY EXAMINATION ATTENDANCE SHEET - May - 2024

Course Code : SA26 Subject Code : SA2618 Date :03-07-2024	Course Name:BASLP Audiology and Speech Language Pathology Subject Name:Implantable Hearing Devices Session:AN

Reg No.	Name	Remarks*	Signature
1120636901	Muhammed Sayas R	66178	
1122636001	Aiswarya C R	66179	
1122636002	Arya V Kumar	66710	
1122636003	Gouri Sunil	66709	
1122636004	Hiba Nasreen Abdulsaleem	66716	
1122636005	Johanna Antony A	66702	
1122636006	Linda Prince	66717	
1122636007	Muhuzina S	66708	
1122636008	Navaneeth Krishna A S	66704	
1122636009	Noufia N N	66703	
1122636010	Sravan N S	66705	
1122636011	Sulthana S	66706	
1122636012	Sunaina Iqbal Sait	66707	
1122636013	Fathima Shanavas	66715	
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*** Hall Superintendents to indicate "ABSENT" in the Remarks column against the name of the absentee candidates**

Certified that the following particulars have been verified :

1. The Register No. in the attendance sheet with that in the hall ticket.

2. The identification of the candidate with the photo given in the hall ticket.

Page Total Present: 14	**Page Total Absent:** —
Signature of the Hall Superintendent	**Signature of the Cheief Superintendent**
[G301 B] 7/24 C-301-B C 301 C M. Tharan	03.07.24

5/49

NICHE EXECUTIVE COUNCIL w.e.f. 5-11-2024

S.No.	Name	Period	Tenure/ w.e.f.	Category	Address
1	Dr.Tessy Thomas,	For five years	5-11-2024 to 4-11-2029	Vice-Chancellor Chair person	Dr.Tessy Thomas, Vice-Chancellor, NICHE Kumaracoil – 629 180
2	Prof. P. Fazul Rahaman	For three years	9-1-2025	UGC Nominee	Prof. P. Fazul Rahaman, Formerly Vice - Chancellor, Dr. Abdul Haq Urdu University, Kurnool. M: 09490105324 Email: rahmanf1965@gmail.com rahman f@rediffmail-com
3	Shri. M.S. Faizal Khan,	For three years	5-11-2024 to 4-11-2027	Nominee of the Sponsoring Society	Shri. M.S. Faizal Khan, Managing Director, NIMS Medicity, Aralumoodu, Neyyattinkara, Thiruvananthapuram
4	Dr. Salim Shafeek,	For three Years	5-11-2024 to 4-11-2027	Nominee of the Sponsoring Society	Dr. Salim Shafeek, Lecester Shire, M.M. Road, Calicut.
5	Dr.R. Vel Raj,	For three years	5-11-2024 to 4-11-2027	Nominee of the Sponsoring Society	Dr.R. Vel Raj, Former Vice-Chancellor, Anna University, Professor, Department of Mechanical Engineering, Anna University, Chennai
6	Prof.(Dr.) M.K.C. Nair,	For three Years	5-11-2024 to 4-11-2027	Nominee of the Sponsoring Society	Prof. (Dr) M.K.C. Nair, Director, NIMS – SPECTRUM-CDRC, NIMS Medicity, Aralumoodu, Neyyattinkara, Thiruvananthapuram
7	Dr.K.A.Janardhanan ,	Co-terminates with the VC	5-11-2024	Pro-Vice-Chancellor (Administration)	Dr.K.A.Janardhanan, Pro-Vice-Chancellor (Administration), NICHE, Kumaracoil – 629 180
8	Dr. A. Shajin Nargunam,	Co-terminates with the VC	5-11-2024	Pro-Vice-Chancellor (Academic)	Dr.A. Shajin Nargunam, Pro-Vice-Chancellor (Academic) NICHE, Kumaracoil – 629 180.

S.No.	Name	Period	Tenure/ w.e.f.	Category	Address
9	Dr.M.K. Jeya Kumar,	Ex-Officio Special Invitee	5-11-2024	Controller of Examinations	Dr.M.K. Jeya Kumar, Controller of Examinations, NICHE, Kumaracoil – 629 180
10	Dr.M. Dev Anand,	For three years	5-11-2024 to 4-11-2027	Dean	Dr.M. Dev Anand, Dean, Faculty of Mechanical Engineering, NICHE, Kumaracoil – 629 180
11	Dr.B. Bindhu	for three years	5-11-2024 to 4-11-2027	Dean	Dr.B. Bindhu, Dean, Faculty of Science and Humanities, NICHE, Kumaracoil – 629 180
12	Dr.P. Sujatha Therese,	For one year	13-11-2025 to 12-11-2026	Professor	Dr.P. Sujatha Therese , Professor, Department of Department of Electrical and Electronics Engineering, NICHE, Kumaracoil – 629 180
13	Dr.S. Amala Shanthi,	For one year	13-11-2025 to 12-11-2026	Associate Professor	Dr.S. Amala Shanthi, Associate Professor, Department of Electronics and Communication Engineering, NICHE, Kumaracoil – 629 180
14	Dr.V.G. Ranjith,	For one year	13-11-2025 to 12-11-2026	Assistant Professor	Dr.V.G. Ranjith, Assistant Professor, Department of Computer Science and Engineering, NICHE, Kumaracoil – 629 180
15	Dr.P. Thirumalvalavan,	Ex-Officio Secretary	5-11-2024	Registrar	Dr.P.Thirumalvalavan, Registrar, NICHE, Kumaracoil- 629 180

Kumaracoil-629 180
25-1-2025

(Dr.P. Thirumalvalavan)
Registrar

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
(Reg. No: 79/2005)
10/47A, Haji Manzil
Kollenvilai, Main Road
THUCKALAY - 629175

Preamble:

The Society – **NOORUL ISLAM CENTRE FOR HIGHER EDUCATION (Reg. No: 79/2005)** having two parts of MoA and Byelaws, one for "Society" and another for the "Institution - Deemed to be University". As per the revised regulations given by the University Grant Commission, Ministry of Human Resource Development - Government of India, the second parts in MoA and Rules of the "Institution - Deemed to be University" were proposed to change.

The draft copy of amended Memorandum of Association and Bye-laws of the "Institution - Deemed to be University" were circulated along with the notice & agenda of the meeting.

After wide discussions, the following **SPECIAL RESOLUTIONS** were passed on 30.05.2024 in accordance with the Tamilnadu Societies Registration Act, 1975 and connected Rules and in accordance with the rules and regulations given by the University Grant Commission, Ministry of Human Resource Development - Government of India

1. RESOLVED THAT to amend the entire Memorandum of Association and Bye-laws of the "Institution - Deemed to be University" in the society - NOORUL ISLAM CENTRE FOR HIGHER EDUCATION (Regn. No: 79/2005) in supersession of the concerned parts of the existing
2. RESOLVED THAT to design the MoA and Bye-laws of the NOORUL ISLAM CENTRE FOR HIGHER EDUCATION (Deemed to be University u/s 3 of the UGC Act, 1956) as per the approval of the UGC, vide letter No: F.6-2/2005 (CPP-1), dated 27.05.2024

Memorandum of Association of the Institution 'Deemed to be University'

1.Name of the Society:

The Name of the Society shall be **"Noorul Islam Centre for Higher Education"**

2.Name of the Deemed to be University and its constituent unit(s):

The name of the Deemed to be University shall be **"Noorul Islam Centre for Higher Education"** hereinafter referred to as "the Institute". Noorul Islam College of Engineering located at Kumaracoil, Thuckalay, 629180 in Kanyakumari District, Tamil Nadu, shall be its constituent teaching unit.

3. Office of the Society and Deemed to be University:

The Registered Office of the Society shall be situated at **10/47A, Hajee Manzil, Kollenvilai, Thuckalay-**629175, Kanyakumari District, Tamil Nadu.

The Office of the Deemed to be University shall be at Kumaracoil - 629180, Kanyakumari District, Tamil Nadu.

4 Definitions —

In these Memorandum of Association and Rules of the Deemed to be University, unless the context otherwise requires—

(1) "Academic Council" means the academic council of the institution deemed to be University;

(2) "Act" means the University Grants Commission Act, 1956 (3 of 1956);

(3) "affiliated college" means a college recognised by, associated with and admitted to the privileges of a University;

(4) "Board of Studies" means the Board of Studies of a Department of the institution deemed to be University;

(5) "campus" means campus (single or multiple locations within the city) of the institution deemed to be University wherein its facilities, faculty, staff, students, and Academic Departments are situated;

(6) "centre" means a centre of studies of the institution deemed to be University;

(7) “Chancellor”, “Pro- Chancellor”, “Vice-Chancellor”, and “Pro-Vice-Chancellor” means the Chancellor,Pro-Chancellor, Vice-Chancellor and Pro-Vice-Chancellor of the institution deemed to be University, respectively;

(8) “college” means any institution whether affiliated college or constituent college, known as such or by any other name and provides undergraduate or postgraduate or Ph.D. programmes or all together, for obtaining any qualification from a University, in accordance with the rules and regulations of such University, which has been recognised as competent by the University Grants Commission to provide such programmes or courses of study;

(9) “Commission” means the University Grants Commission (UGC) constituted under the Act;

(10) “constituent college” means a college operating under the administrative, academic, and financial control of the sponsoring body;

(11) “constituent unit" means an academic unit (Schools or centres or departments) of the institution existing on the date of submission of a proposal to declare an institution to be an institution deemed to be University;

(12) “Department” means a department of studies of the institution deemed to be University;

(13) “distinct category” means an existing institution or an institution starting from the beginning with the focus on teaching or research in the unique disciplines or addressing the strategic needs of the country or engaged in the preservation of Indian cultural heritage or preservation of the environment or dedicated to skill development or dedicated to sports or languages or any other discipline, as so determined by the Expert Committee approved by the Chairman of the Commission;

(14) “Executive Council” means the executive council of the institution deemed to be University;

(15) "Expert Committee" means a committee consisting of academics and other experts from other fields and includes representatives of the statutory bodies and approved by the Chairman of the Commission;

(16) “Government" means the Department in the Ministry of Education in the Central Government dealing with the higher education;

(17) “institution" means an institution of higher education engaged in teaching and research at the undergraduate, post-graduate or higher level;

(18) "institution deemed to be University" means an institution of higher education so declared by the Central Government by notification under section 3 of the Act, on the advice of the Commission;

(19) “main campus” means the campus of the institution deemed to be University, where its major facilities, faculty, staff, students, academic departments and administration are situated;

(20) MoA/Rules means Memorandum of Association and/or Rules of (Noorul Islam Centre for Higher Education (Deemed to be University under section 3 of the UGC Act, 1956)).

(21) "NAAC" means the National Assessment and Accreditation Council;

(22) "NBA" means the National Board of Accreditation;

(23) "necessary infrastructure" means the infrastructure required under the norms of the concerned statutory body or the Commission, as the case may be;

(24) “NEP” means the National Education Policy, 2020;

(25) "NIRF" means the National Institutional Ranking Framework;

(26) “notification" means a notification issued by the Central Government in the Official Gazette declaring an institution of higher education, as an institution deemed to be University under section 3 of the Act;

(27) “off-campus" means the premises of the institution deemed to be University, approved by the Government, other than the main campus or the campuses;

(28) “off-shore campus" means the premises of the institution deemed to be University, approved by the Government, outside India, other than the main campus in India;

(29) "processing fee" means the fee to be paid by the applicant institution to the Commission along with theapplication for processing such application;

(30) “Regulations” means the University Grants Commission (Institutions deemed to be Universities) Regulations, 2023.

(31) “school” or “faculty” means a school or faculty of studies of the institution deemed to be University;

(32) “sponsoring body" means a body being a charitable or a not-for-profit society or trust or a company under section 8 of the Companies Act, 2013 (18 of 2013),

submitting an application for declaring an institution under its administrative, academic and financial control as an institution deemed to be University;

(33) "Standing Committee" means a committee consisting of academics and other experts from other fields and includes representatives of the statutory bodies and approved by the Chairman of the Commission;

(34) “statutory body” means a body constituted under any law for the time being in force for determining or maintaining standards of quality in the relevant areas of higher education, including the All India Council for Technical Education (AICTE), the Bar Council of India (BCI), the Dental Council of India (DCI), the Indian Nursing Council (INC), the National Council for Teacher Education (NCTE) and the National Medical Commission (NMC), or any other statutory body established under an Act of Parliament;

(35) "teacher" means professors, associate professors, assistant professors and such other academic staff as may be appointed for imparting instructions or conducting research in the institution deemed to be University including the adjunct faculty or professor of practice or visiting faculty; and

(36) the words and expressions used in these regulations and not defined, but defined in the Act shall have the same meanings respectively assigned to them.

5.Objectives:

The objectives of the Noorul IsalCentre for Higher Education are to —

a. provide for higher education leading to excellence and innovations in such branches of knowledge as may be deemed fit, primarily at undergraduate, post-graduate, and research degree levels, fully conforming to the concept of a University;
b. engage in inter-disciplinary or multi-disciplinary or trans-disciplinary teaching and research in addition to domain-specific specialisation;
c. provide for high-quality teaching and research recognised nationally and globally;
d. recognise, identify and foster the unique capabilities of each student, by sensitising teachers as well as parents to promote each student’s holistic development;

e. provide multi-disciplinary and a holistic education in the faculties of science, engineering, technology, social sciences, arts, humanities, sports and other disciplines;
f. transform into research and teaching intensiveMultidisciplinary Education and Research (MERU) University over a period of time;
g. focus on research and innovation by setting up start-up incubation centers; technology development centres; centres in frontier areas of research; greater industry-academic linkages; and inter-disciplinary research including humanities and social sciences research;
h. provide flexible and innovative curriculum, which includes credit-based courses and projects in the areas of community engagement and service, environmental education, value-based education, etc.;
i. contribute for social transformation through socially responsive teaching, learning, research, and fieldwork;
j. adopt the provisions of NEP, 2020;
k. strengthen the research ecosystem by establishing Research and Development Cell (RDC);
l. possess such academic and physical infrastructure as may be specified by the Commission or the relevant statutory body, as the case may be;
m. have teacher-student ratio of 1:20 with a minimum combined faculty strength of not less than one hundred and fifty teachers and a minimum combined student strength of three thousand on rolls under the regular classroom mode, of which not less than one fifth being post-graduate or research or as per the norms of the relevant statutory body;
n. have administrative area, library, lecture halls, labs, hostels, health care, common facilities and recreational facilities.
o. engage in providing post doctoral research programmes in diverse disciplines and to engage in unique areas of knowledge which are important for the strategic needs of the country or for the preservation of our cultural heritage.
p. offerprogrammes in skill development and online programmeslike MOOC/ NPTEL courses in SWAYAM Platform.
q. offer Undergraduate, graduateand Research Degrees like / Ph.D., D.Sc., D.Litt, D.LHonoriscausaand PostDoctoral degrees and other degrees approvedby

theUniversity Grants Commissionfrom time to time in the areas where differentprogrammesare offered.

r. offer CertificateProgrammes of various durations on the skill and knowledge levels subservient to the degrees and diplomas

s. offer various visitorships, fellowships, prizes and medals for various courses of studies offered by the Institute.

t. do all other such things as may be necessary or desirable to furtherthe objectives of the Institute.

6.Powers and Functions of the Institute:

To carry out the above objectives and the management of properties, the Institute shall have the following powers:

(1) To establish innovative, broad-based and viable courses of study and research and to provide instruction to make distinctive contributions to the advancement and dissemination of knowledge in such branches of study as the Institute deems appropriate;

(2) To institute and award visitorship, fellowship, exhibits, prizes and medals;

(3) To conduct Young Student Scientist Adoption Programmes (YSSAP) throughout the state;

(4) To impart free computer education for school children hailing from rural areas;

(5) To promote research activities on socially relevant areas like prediction of naturaldisasters liketsunamis, earthquake etc;

(6) To promote Institute-Industry interactions and Institute-Institute/University Interactions for mutual benefit;

(7) To make provision to enable constituent colleges to undertake specialised studies to organise, maintain and manage departments, laboratories, libraries, museums and equipment for teaching or research;

(8) To establish, maintain and manage institutions of research, specialised studies or academic service units with the prior permission of UGC/MoE/AICTE/RCI other statutory bodies etc.;

(9) To establish, maintain and manage constituent colleges, institutions, hostels, health centres, cultural centres, auditoria and gymnasiums with the prior permission of UGC/MoE/AICTE/RCI other statutory bodiesetc.;

(10) To create posts of Principals, Professors, Associate Professors, Assistant Professors and other teaching or non-vacation academic posts required by the Institute with the prior approval of the Sponsoring Body and to prescribe their qualifications and make appointments thereto;

(11) To appoint or recognise persons working in any other Institute, Industry or organisation as adjunct Professors, Associate Professors, Assistant Professors,Visiting Professors of the Institute for a specified period;

(12) To provide for the appointment of Visiting Professors, Emeritus Professors, Professor of Practice, Consultants, Scholars, etc., and determine the terms and conditions of such appointments;

(13) To create skilled, administrative, ministerial and other non-teachingposts and prescribe their qualifications and pay scales with the prior approval of the Sponsoring Body and to make appointments thereto;

(14) To hold examinations and confer degrees and post-graduate diplomas and award post-higher secondary diplomas and certificates and other academic distinctions on persons whoin the manner prescribed, have pursued approved courses of study in the Institute and have passed the examinations prescribed by the Institute unless exempted therefromhave pursued approved courses of study in the Institute and have passed the examinations prescribed by the Institute andhave engaged in research under conditions provided by bye-laws of the Institute;

(15) To confer honorary degrees or other academic distinctions as prescribed by the bye-laws of the Institute.

(16) To monitor and evaluate the academic performance of the Institute for periodical accreditation with the help of accreditation agencies like NBA, NAAC, ISO, EMS, SAS, JCI, etc.;

(17) To hold and to manage trusts and endowments and to institute and award fellowships, travelling fellowships, scholarships, studentships, medals and prizes for teachers and students of the Institute;

(18) To fix, demand and receive or recover such fees and other charges as may be regulated by the bye-laws from time to time;

(19) To supervise, control and regulate the conduct and discipline of thestudents of the Institute and hostels;

(20) To provide for mobility of students from formal to non-formal stream andvice-versa and approve the transfer of credit from other Higher Educational Institutions including online higher education providers.

(21) To make arrangements for promoting the welfare of the employees of the Institute;

(22) To coordinate and regulate teaching and research in the Institute;

(23) To provide for the training and quality improvement of teachers and non-teaching staff;

(24) To provide for periodical assessment of the performance of teachers and non-teaching staff of the Institute in accordance with the provisions of the Bye-Laws;

(25) To regulate and provide for the attendance of the teachers on the premises of the Institute during teaching hours and beyond teaching hours, as prescribed and to prohibit teachers from taking or conducting private tuition or private coaching classes;

(26) To provide for conduct and discipline rules for teaching and non-teaching staff and the enforcement thereof;

(27) To maintain records, documents and returns of the Institute;

(28) To establish, maintain and manage the Institute;

(29) To provide for special training or coaching for competitive examinations, for recruitment to the public services,Defence, public undertakings and other competitive employment opportunities;

(30) To recognise and approve the equivalency of the courses and programmes offered by other higher or other educational Institutions.

(31) To cooperate or collaborate with any other Institution, Authority or Organisation within and outside India for research and advisory services and for such purposes to enter into appropriate arrangement with other universities, institutions, authorities or organizations to conduct certain courses as the situation may demand;

(32) To organise training programmes for the faculty and supporting staff;

(33) To borrow funds for the purposes of the Institute on the security of the property of the Institute with the prior permission of the Sponsoring Body;

(34) To explore the possibilities of augmenting the resources of the Institute by exploring or innovating activities such as research and development, consultancy, training programmes and providing services for different clients from industry, trade or any other non-government organisations;

(35) To undertake academic collaboration and twining programmes with Universities and institutions abroad, with the approval of the Central Government;

(36) To receive funds for collaboration programmes from foreign agencies subject to rules and regulations of the Central Government;

(37) To lay down teachers' service conditions including code of conduct, workload, norms of performance appraisal and such other instructions or directions which may be necessary on academic matters;

(38) To make special provisions for education to be made available to classes and communities which are socially and educationally backward;

(39) To make special provision for such benefits of the Institute, education to be made available for women students and differently-abled students as the Institute may think necessary;

(40) To become members of the Higher Educational andresearch and consultancy association to promote and develop higher education;

(41) To offerskill-based online andvirtual courses of study for self-learning.;

(42) To perform such other functions as deemed fit by the Institute.

(43) To implement the NEP 2020 as modified from time to time.

Interpretation of the Objectives

The Institute is established for public benefit and accordingly, the objectives of the Institute as set forth above will be interpreted and restricted to mean such objectives and purposes as are regarded in law to be those ofa public charitable institution in nature.

7. Corpus Fund:

1. A corpus fund of Rupees twenty – five crores or as decided by the Commission from time to time, shall be created and maintained in the name of the institution deemed to be University;
2. The interest accrued on the corpus fund shall be used only for the purpose of further development of the institution deemed to be University; and

3. Institutions deemed to be Universities may invest the corpus fund in any suitable scheme or schemes.

8. Off-Campus Centres

i. Institutions deemed to be Universities with minimum 'A' grade and above or ranked from 1 to 100 in the "Universities" category of NIRF rankings of the relevant year are eligible to set up off-campus centres.

ii. Institutionsdeclaredasdeemedtobe Universitiesunder"distinctcategory"may applyforoff-campuses afterfive yearsoftheirdeclarationiftheyfulfilthecriteriaspecifiedinclause(i).

2. Institutions deemed to be Universities with minimum 'A' grade and above or ranked from 1 to 100 in the"Universities" category of the NIRF rankings of the relevant year may submit their application to start off-campuscentresthroughtheCommission'sportalalongwiththefollowingdocuments,namely:—

i. fromtherelevantstatutorybody (whereverapplicable)forapprovaltosetupoff-campuscentresor,forissuanceofLetter ofIntentforsettingup off-campuscentres,asthecasemaybe.

3. By following the procedure specified in these regulations for setting up the off-campus centres, aninstitution deemed to be University may also apply on the Commission's portal for establishing an off-campus centreby taking over any affiliated college under the same sponsoring society or trust or company by progressively closingthe affiliated college to convert it into an off- campus centre and a no objection certificate from the affiliatingUniversity shallaccompany the application and the affiliating University may decide on granting no objectioncertificatetotheinstitutiondeemedtobeUniversitywithinamaximumperiodof sixtydaysfromthedateofreceiptof the request, failing which it shall be presumed that the affiliating University has no objection to the application bythe institution deemed to be University for establishing an off-campus centre and in such cases, the acknowledgementforreceiptofthe requestshallbe submittedasadocument.

4. The infrastructure at the proposed off-campus centres shall be in accordance

with the norms and standardsspecified by the relevant statutory body or the Commission, as the case may be, and the off-campus centre shall bestarted with a minimum of five under-graduate or post-graduate or research or combination thereof with a minimum ofonethousandstudents,ofwhichnotlessthanone-fifthofthestudentsarepost-graduateorresearchstudentswithfifty teachersandwithrequiredinfrastructure facilities.

5. The Chairman of the Commission may constitute a Standing Committee to undertake an examination ofthe information furnished by the institution deemed to be University and the Chairman, on behalf of the Commission,shall forward the advice to the Government within sixty days from the date of receipt of the application, by taking intotheconsideration, the observationsmade bythe said StandingCommittee.
6. TheGovernmentshall,aftertakingintoconsiderationtheadviceoftheCommissionmay withinaperiodofthirtydaysfromthedateofreceiptofsuchadvice,eitherissueanotificatio nforstartinganoff-campuscentreor,asthecase may be, a Letter of Intent for setting up of new off-campus centre or reject the proposal by recording the reasonsfordoingsoandthedecisionoftheCentralGovernmentshallbefinal.
7. On the basis of the advice of the Expert Committee, the Commission shall render its advice to theGovernment to consider the approval of any such off-campus which was operating before the commencement of theseregulations on a case-to-case basis, and to validate the degrees of each programme for the passed-out students, if theyfulfillthe basic eligibilityconditionsrequiredfor startingtheoff-campuscentre.
8. Ifatanytime, theinformationprovidedbythe applicantinstitutiondeemedtobe Universityisfoundtobeincorrect,theGovernmentmaywithdrawtheapprovalgrantedfo rstartingtheoff-campuscentre;andinordertoprotectthe interests of students enrolled at such centre, the institution deemed to be University shall take necessary action forshiftingofsuchstudentstothemaincampus.
9. Institution deemed to be University may start new courses or programmes in any field in their existingcampus and approved off-campus centres, with the prior approval of its Executive Council and, also whereverapplicable,withthe approvaloftherelevantstatutorybodies:

Provided that where the institution deemed to be University is in receipt of

grant-in-aid or other funds for maintenance from the Central Government or the State Government or its Agencies, as the case may be, prior approval of the appropriate Government shall also be required.

9. Off-shore campus

1. Institutions deemed to be Universities may start or establish off-shore campuses with the prior approval of the Central Government in accordance with the provisions of the Act, rules and regulations made thereunder.
2. Existing off-shore campuses shall continue to operate, provided they have obtained proper permissions and approval.

10.Monitoring the Performance-

1. The Commission shall monitor the performance and academic outcomes of the institutions deemed to be Universities.

11.Governance

1. The Institution deemed to be University shall be registered as a not-for-profit society under the Societies Registration Act, 1860 (21 of 1860) or as a not-for-profit trust under the Indian Trusts Act, 1882 (2 of 1882) or as a not-for-profit company registered under section 8 of the Companies Act, 2013 (18 of 2013):

PROVIDED that a sponsoring body exclusively established for running educational institutions shall be exempted from registering as a separate not-for-profit society or trust or a company and the sponsoring body shall specifically mention in its registration deed that the sponsoring body is exclusively for running educational activities and no other activities are being carried out or shall be carried out in the future under it:

PROVIDED further that if the sponsoring body of an existing institution deemed to be University does not have a society or trust or company exclusively for running educational institutions, it shall form a new not-for-profit society or trust or company, for the purposes of the institution deemed to be University and in such cases, the sponsoring body shall be exempted from transferring its moveable and immovable assets to the newly created society or trust or company, if such sponsoring body provides a notarised affidavit to the effect that the entire moveable and immovable assets allocated to the institution deemed to be University shall not be leased or otherwise disposed of without the prior permission of the Commission:

PROVIDED also that the sponsoring body shall make available the necessary infrastructure for operating the institution deemed to be University without any rental or other such charges.

2. All moveable and immovable assets of the institution deemed to be University shall be used for the purposes of conducting academic activities, promotion of research and related administrative requirements of the institution deemed to be University, including outreach educational activities.
3. The highest governing body of the institution deemed to be University shall be the Executive Council to be headed by the Vice-Chancellor and consisting of not less than ten and not more than thirteen members.
4. The Executive Council shall be the principal executive body of the institution deemed to be University.

The composition of the Executive Council shall be as under -

a. Vice-Chancellor - Chairperson;
b. Pro-Vice-Chancellor (wherever applicable);
c. two members from amongst the Deans of schools of studies, by rotation, to be appointed by the Vice-Chancellor;
d. one Professor, who is not a Dean, by rotation, to be appointed by the Vice-Chancellor;
e. one Associate Professor, by rotation, to be appointed by the Vice-Chancellor;
f. one Assistant Professor, by rotation, to be appointed by the Vice-Chancellor
g. a representative nominated by the commission
h. up to four nominees of the Sponsoring body; and
i. the Registrar, who shall be the ex-officio Secretary of the Executive Council.

12.Tenure of the members of the Executive Council —

1. All the members of the Executive Council, other than the Vice-Chancellor and Pro-Vice-Chancellor, shall hold office for a term of three years and in the case of Deans, the term shall be three years or until they hold the office of Dean, whichever is earlier.
2. Members of the Executive Council appointed by the Vice-Chancellor from Professor, Associate Professor and Assistant Professor category shall hold office for a period of one year or till such time they cease to be teachers of the University, whichever is earlier.

13. Powers and limitations of Executive Council —

1. The Executive Council shall have the power of management and administration of the institution deemed to be University.
2. The Executive Council shall be the final decision-making body of the institution deemed to be a University in respect of every matter of the institution deemed to be a University, including academic, administrative, personnel, financial, and developmental matters.
3. Subject to the provisions of these regulations and the rules of the institution deemed to be University, the Executive Council shall, in addition to all other powers vested in it, have the following powers, namely:—
    a. to appoint such Professors, Associate Professors, Assistant Professors and other academic staff, including Chairs, as may be necessary, on the recommendation of the Selection Committee constituted for the said purpose and to fill up temporary vacancies therein;
    b. to regulate and enforce discipline amongst the employees of the institution in accordance with the rules of the institution deemed to be University;
    c. to provide for the appointment of Visiting Professors, Emeritus Professors, Professor of Practice, Consultants, Scholars, etc., and determine the terms and conditions of such appointments;
    d. to exercise such other powers and perform such other duties as may be conferred or imposed on it by the rules and regulations of the institution deemed to be University;
    e. to make rules and regulations for the institution deemed to be University; and
    f. if the institution is controlled or managed or receiving funds more than or equal to fifty per cent of their annual receipt from the Central or State Government, the creation of posts shall be done by the Executive Council with prior approval of the respective Government from which grants are being released.

14.Meetings of Executive Council

1. The Executive Council shall meet at least four times a year (minimum two in one semester), with not less than seven days' prior notice given before every

meeting of the Executive Council and emergency meetings may be convened at a shorter notice, for reasons to be recorded in writing for such emergency meeting.

2. One-third of the total number of members of the Executive Council shall form the quorum for the meeting.
3. In the absence of the Vice-Chancellor, the Pro-Vice Chancellor shall preside over the meeting; and where there is no Pro-Vice-Chancellor in an institution deemed to be University, a member chosen by the other members of the Executive Council present at the meeting, shall preside over the meeting.
4. Every member of the Executive Council including the Chairperson, shall have one vote and the decisions at the meetings of the Executive Council shall be taken by simple majority; and in case of a tie, the Chairperson shall have a casting vote.
5. Any business, which may be urgent in nature, may be carried out by circulation amongst its members.
6. A copy of the minutes of each meeting shall be furnished to the Chancellor of the institution deemed to be University, as soon as possible after the convening of the meeting.

15.Termination of membership

If a member other than the Vice-Chancellor and those representing the teachers, accepts a full- time appointment in the institution deemed to be University or fails to attend three consecutive meetings of the Executive Council, without proper leave of absence, such member shall cease to be a member of the Executive Council.

16. Delegation of powers of Executive Council

The Executive Council may, by a resolution, delegate to the Vice Chancellor or any other officer or faculty or to a Committee of officers or faculties of the institution deemed to be University, such powers as it may deem fit, subject to the condition that the action taken by the Vice-Chancellor or the officer or faculty or the Committee in the exercise of the powers so delegated, shall be reported at the next meeting of the Executive Council.

17. Other authorities of NICHE

A.Academic Council:

1. The Academic Council shall be the principal academic body of the institution deemed to be University and shall, subject to the provision of the rules of the institution deemed to be University, co-ordinate and exercise general supervision over the academic policy of the institution deemed to be University.
2. The composition of the Academic Council shall be as under—
    i. Vice Chancellor - Chairperson;
    ii. Pro Vice-Chancellor (wherever applicable);
    iii. Deans of faculties of the schools and heads of the departments or centres;
    iv. up to ten Professors (excluding those who are Deans of schools and heads of departments or centres) by rotation, to be nominated by the Vice-Chancellor giving due regard to the representation of different schools or departments or centres;
    v. up to five Associate Professors from departments or centres other than the heads of the departments or centres, by rotation, to be appointed by the Vice- Chancellor;
    vi. up to five Assistant Professors from the departments or centres other than the heads of the departments or centres, by rotation, to be appointed by the Vice- Chancellor;
    vii. six persons of repute from amongst the educationists or experts for their specialised knowledge, who are not in the service of the institution deemed to be University, nominated by the Vice Chancellor; and
    viii. the Registrar, who shall be the ex-officio Secretary of the Academic Council.
3. The representation of different categories shall be through rotation and not through an election and the term of members, other than the ex-officio members, shall be three years and the Controller of Examination shall be the permanent invitee to the meetings of the Academic Council.

B. Powers and Functions of Academic Council: Subject to the provisions of these regulations and rules of the institution deemed to be University, the Academic Council shall, in addition to all other powers vested in it, have the following powers, namely:—

a. to exercise general supervision over the academic policies of the institution deemed to be University and to give directions regarding methods of instruction, co-ordination of teaching among departments or faculties or schools or centers, evaluation of research and improvement of academic standards;
b. to bring about and promote inter-departmental, inter-faculty, inter-school, inter-center co- ordination and to establish or appoint such committees or boards, as may be deemed necessary for the purpose;
c. to consider matters of general academic interest either on its own initiative, or on a reference by a department or faculty or school or centre or the Executive Council, and to take appropriate action thereon;
d. to prescribe courses or programmes of study leading to degree and diploma of the institution deemed to be University;
e. to make arrangements for the conduct of examinations in conformity with the rules and bye-laws of the institution deemed to be University;
f. to maintain proper standards of the examination;
g. to recognise diplomas and degrees of Universities and other Institutions and to determine equivalence with the diplomas and degrees of the institution deemed to be University;
h. to institute Fellowships, Scholarships, Medals, Prizes, etc.;
i. to frame rules covering the academic functioning of the institution deemed to be University, admissions, examinations, award of fellowships and studentships, free-ships, concessions, attendance, discipline, residence, etc.;
j. to take a periodical review of the activities of the departments or centres and to take appropriate action to maintain and improve the standards of instruction;
k. to recommend the institution of teaching posts (Professors, Associate Professors, and Assistant Professors) to the Executive Council;

l. to make recommendations to the Executive Council for the establishment or abolition of departments or centres or schools or faculties, etc.

m. to make recommendations to the Executive Council; and

n. to exercise such other powers and to perform such other duties, as may be conferred or imposed upon it by the rules of the institution deemed to be University.

C. Meeting of Academic Council —

1. The Academic Council shall meet as often as necessary but not less than four times (at least two times in a semester) during an academic year with not less than seven days prior notice being given before every meeting of the Academic Council and emergency meetings may be convened at a shorter notice, for reasons to be recorded in writing for such emergency meeting.
2. One-third of the total number of members of the Academic Council shall constitute the quorum for the meeting of the Academic Council.
3. Each member, including its Chairperson, shall have one vote, and decisions at the meetings of the Academic Council shall be taken by simple majority; and in case of a tie, the Chairperson shall have a casting vote.
4. Any business that may be necessary for the Academic Council to perform, which may be urgent in nature, may be carried out by circulation amongst its members.

18.Finance Committee—

1. The composition of the Finance Committee shall be —

i. Vice Chancellor - Chairperson;

ii. Pro Vice-Chancellor (wherever applicable);

iii. one person nominated by the society or trust or company, as the case may be (wherever applicable);

iv. three persons to be nominated by the Executive Council, out of whom at least one shall be a member of the Executive Council;

v. a representative nominated by the commission

vi. three persons to be nominated by the Chancellor;

vii. Finance Officer-Secretary- ex officio

2. In case the institution deemed to be University is controlled or managed or funded by the State Government, one representative of such Government.
3. All members of the Finance Committee other than ex-officio member shall hold office for a term of three years.
4. The Finance Committee shall meet at least four times in an academic year (at least twice each semester) to examine the accounts and scrutinise the proposals for expenditure and one-third of the total number of members of the Finance Committee shall form the quorum for a meeting.
5. All proposals relating to the creation of posts and those items which have not been included in the Budget, shall be examined by the Finance Committee before the Executive Council considers them and to decide waiver in fees, the establishment of scholarships, freeship and any other financial benefits.
6. The annual accounts and financial estimates of the institution deemed to be University prepared by the Finance Officer shall be laid before the Finance Committee for consideration and comments and thereafter the same shall be submitted to the Executive Council for approval.
7. The Finance Committee shall recommend limits for the total recurring and non-recurring expenditures for the year, based on the income and resources of the institution deemed to be University.

19.Board of Studies—

1. There shall be one Board of Studies for each department or school of the institution deemed to be University. The composition of the Board of Studies shall be—
    i. Dean of school or Head of the department - Chairperson;
    ii. All Professors of the school or department;
    iii. two Associate Professors of the school or department, by rotation;
    iv. two Assistant Professors of the school or department, by rotation; and
    v. two external experts to be co-opted for their specialised knowledge.
2. Subject to the overall control and supervision of the Academic Council, the functions of a Board of Studies shall be to approve subjects for research for various degrees and other requirements of research degrees and to recommend to the concerned School Board in such manner as may be prescribed by the rules of the institution deemed to be University regarding—

a. courses of studies;
b. appointment of supervisors for research; and
c. measures for the improvement of the standards of teaching and research.

3. The powers and functions of the Board of Studies shall be prescribed by the rules of the institution deemed to be University.

20.Selection Committee for appointment of teaching staff—

There shall be one or more Selection Committees constituted, for making recommendations to the Executive Council for appointment to the post of Professors, Associate Professors, Assistant Professors and such other posts as may be prescribed, in accordance with the University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018.

21.Disqualification:

1. A person shall be disqualified for being chosen as, and for being, a member of any of the authorities, or being appointed as, and for being, an officer, of the institution deemed to be University if—
    a. if he or she is of unsound mind; or
    b. if he or she is an un-discharged insolvent; or
    c. if he or she has been convicted by a court of law for an offense involving moral turpitude and sentenced in respect thereof to imprisonment for not less than six months; or
    d. if he or she has not been appointed as per the provisions of these regulations.
2. If any question arises as to whether a person is or had been subjected to any of the disqualifications mentioned above, the question shall be referred to the Chancellor, and his or her decision shall be final and no suit or other proceedings shall lie in any civil court against such decision.

22. Miscellaneous matters relating to different authorities —

1. If any question arises, as to whether any person, other than Government nominated or appointed, has been duly nominated or appointed as, or is,

entitled to be a member of any authority or any committee of the institution deemed to be University, the matter shall be referred to the Chancellor, whose decision thereon shall be final and binding.

2. Any member, other than an ex-officio member of any authority, may resign by a letter addressed to the Registrar, and the resignation shall take effect as soon as it is accepted by the Chancellor or the Chairperson of the Executive Council, as the case may be.
3. Sudden vacancies among the members of any authority or any Committee of the institution deemed to be University shall be filled by the respective authority, as soon as may be, and within a period of six months.

23. Officers of institution deemed to be University—

A. Chancellor:

1. The Chancellor shall hold office for a period of five years from the date of assuming office and shall be eligible for re-appointment for one more term by following the procedure prescribed for the appointment of the Chancellor:
   The chancellor shall be appointed by the sponsoring body.
2. The Chancellor shall, by virtue of his or her office, be the head of the institution deemed to be University and shall, if present, preside at the Convocations of the institution deemed to be University held for conferring degrees.

B.Pro-Chancellor:

C.Pro Chancellor (Aacademic)

The Sponsoring body of the Institution may also appoint one or more

Pro-chancellors as required such as

(Pro-Chancellor, and

Pro Chancellor (Aacademic), etc.,

whose role would be limited to carrying out the tasks assigned to the Chancellor in these Regulations, when the latter is not available for carrying out the same. The Pro-Chancellor(s)., if so appointed, shall hold office for a period co-terminus with that of the Chancellor.

D. Vice-Chancellor:

1. The Vice-Chancellor shall be a whole-time salaried officer of the institution deemed to be University and shall be appointed by the Chancellor from a panel of three names suggested by a Search-cum-Selection Committee.
2. The qualifications of the Vice-Chancellor shall be in accordance with the University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018.
3. The procedure for composition of Search-cum-Selection-Committee (SCSC) for the selection of Vice Chancellor shall be as under—
   a. in case of institutions deemed to be Universities, the composition of the Search-cum- Selection Committee shall be as under—
      i. a nominee of the Chancellor, who shall be a reputed academician as the Chairperson of the Committee;
      ii. a nominee of the Chairman, University Grants Commission; and
      iii. an academician, with not less than ten years' service as Professor, nominated by the Executive Council.
4. The Vice-Chancellor shall hold office for a term of five years from the date on which he or she enters upon his or her office or until he or she attains the age of seventy years, whichever is earlier and shall be eligible for re-appointment for one more term by following the procedure prescribed for the appointment of Vice-Chancellor:

Provided that notwithstanding the expiry of the said period of five years, he or she shall continue in office until his or her successor is appointed and enters upon his or her office, however, in no case, the Vice-Chancellor shall hold office beyond the age of seventy years:

Provided further that the Chancellor may direct the Vice-Chancellor, after his or her term has expired, to continue in office for such period, not exceeding a total period of one year.

5. If the office of the Vice-Chancellor becomes vacant due to death, resignation or otherwise, or if he or she is unable to perform his or her duties due to ill

health or any other cause, the Pro- Vice- Chancellor shall perform the duties of the Vice-Chancellor:

Provided that if the Pro-Vice-Chancellor is unavailable, the Chancellor shall appoint the senior most Professor who shall perform the duties of the Vice-Chancellor, until a new Vice-Chancellor assumes office or the existing Vice-Chancellor resumes the duties of his or her office, as the case may be.

E.Powers and duties of Vice-Chancellor—

1. The Vice-Chancellor shall be the Principal Executive Officer and academic officer of the institution deemed to be University and shall exercise general supervision and control over the affairs of the institution deemed to be University and give effect to the decision of all authorities of the institution deemed to be University.
2. The Vice-Chancellor may, if he or she is of the opinion that immediate action is necessary on any matter, exercise any power conferred on any authority of the institution deemed to be University by or under these regulations and shall report to such authority at its next meeting the action taken by him or her on such matter:

   PROVIDED that, if the authority mentioned in this sub-regulation is of the opinion that such action ought not to have been taken, it may refer the matter to the Chancellor whose decision thereon shall be final:

   PROVIDED further that any person in the service of the institution deemed to be University who is aggrieved by the action taken by the Vice-Chancellor under this regulation shall have the right to represent against such action to the Executive Council within ninety days from the date on which decision on such action is communicated to him and thereupon the Executive Council may confirm, modify or reverse the action taken by the Vice-Chancellor.
3. The Vice-Chancellor, if he or she is of the opinion that any decision of any authority of the institution deemed to be University is beyond the power of the authority conferred by the provisions of these regulations or that any decision taken is not in the interest of the institution deemed to be University, may ask the authority concerned to review its decision within sixty days of such decision and if the authority refuses to review the decision either in

whole or in part or no decision is taken by it within the said period of sixty days, the matter shall be referred to the Chancellor whose decision thereon shall be final.

4. The Vice-Chancellor shall be the ex-officio Chairperson of the Executive Council, the Academic Council and the Finance Committee and shall, in the absence of the Chancellor, preside at the Convocations held for conferring degrees to the students.
5. The Vice-Chancellor shall be entitled to be present at, and address, any meeting of any authority or other body of the institution deemed to be University, but shall not be entitled to vote unless he or she is a member of such authority or body.
6. It shall be the duty of the Vice-Chancellor to see that these regulations are duly observed and implemented and he or she shall have all the powers necessary to ensure such implementation.
7. The Vice-Chancellor shall have all the powers necessary for the proper maintenance of discipline in the institution deemed to be University, and he or she may delegate any such powers to such person or persons, as he or she may deem fit.
8. The Vice-Chancellor shall have the power to convene or cause to be convened the meetings of the Executive Council, the Academic Council, the Finance Committee, and other authorities.

F. Removal of Vice-Chancellor—

1. Where there are reasons to believe that the Vice-Chancellor of an institution deemed to be University does not possess the qualifications as required under the University Grants Commission (Minimum Qualifications for Appointment of Teachers and other Academic Staff in Universities and Colleges and other Measures for the Maintenance of Standards in Higher Education) Regulations, 2018, or is not appointed as per the procedure stipulated in these regulations or has committed any financial or administrative impropriety, the Chairman of Commission shall constitute an enquiry committee consisting of academic, administrative or financial experts to enquire into the matter.

2. On the directions from the Commission, the Chancellor shall place the Vice-Chancellor under suspension, pending an enquiry.
3. The enquiry committee shall give an opportunity of hearing to the Vice-Chancellor before submitting its report to the Commission and where the report of the enquiry committee confirms the ineligibility or procedural violations or impropriety, as the case may be, the Commission shall direct the Chancellor to remove the Vice Chancellor by following due procedure:
4. Notwithstanding anything contained in these regulations, the Chancellor may, at any time after the Vice Chancellor has entered upon his or her office, by order in writing, remove the Vice- Chancellor from office on the grounds of incapacity, misconduct or violation of these regulations:

   PROVIDED that the Chancellor shall make no such order unless the Vice-Chancellor has been given a reasonable opportunity of showing cause against the action proposed to be taken against him:

   PROVIDED further that the Chancellor may, at any time before making such order, place the Vice- Chancellor under suspension, pending an inquiry.
5. In case of an institution deemed to be University managed or controlled or receiving funds more than or equal to fifty per cent. of its annual receipt from the Central or State Government or its Agencies, the actions referred to in sub-regulations (1) to (4) shall have the approval of the appropriate Government.

G. Pro-Vice-Chancellor (Administration):

H. Pro-Vice-Chancellor (Academic) :

1. On the recommendation of the Vice-Chancellor, the Executive Council shall appoint one or more Professors as Pro-Vice-Chancellor (Administration) Pro Vice-Chancellor (Academic) to discharge the duties of the Pro-Vice-Chancellor in addition to his or her duties as a Professor:

   PROVIDED further that where the recommendation of the Vice-Chancellor is not accepted by the Executive Council, the matter shall be referred to the Chancellor, who may either appoint the Professor recommended by the Vice-Chancellor or ask the Vice-Chancellor to recommend name of another Professor for re-consideration by the Executive Council.

2. The term of office of the Pro-Vice-Chancellor shall be such as may be decided by the Executive Council, but it shall not, in any case, exceed five years or until the expiration of the term of office of the Vice-Chancellor, whichever is earlier:

   PROVIDED that the Pro-Vice-Chancellor whose term of office has expired shall be eligible for re-appointment by following the procedure prescribed for the appointment of Pro-Vice- Chancellor:

   PROVIDED further that the Pro-Vice-Chancellor shall, while discharging the duties of the Vice- Chancellor, continue in office, notwithstanding the expiration of his or her term of office as Pro- Vice-Chancellor, until the Vice Chancellor resumes office or a new Vice-Chancellor assumes office, as the case may be:

   PROVIDED also that, in any case, the Pro-Vice-Chancellor shall retire on attaining the age of sixty-five years.

3. The Pro-Vice-Chancellor shall have the powers and duties as may be prescribed by the rules of the institution deemed to be University.
4. The Pro-Vice-Chancellor shall assist the Vice-Chancellor in respect of such matters as may be specified by the Vice-Chancellor on his behalf, from time to time, and shall also exercise such powers and perform such duties as may be assigned or delegated to him by the Vice-Chancellor.

I. Registrar—

(1) (a) The Registrar shall be a whole-time salaried officer of the institution deemed to be University and shall be appointed by the Executive Council on the recommendations of the selection committee consisting of the following:—

i. Vice-Chancellor - Chairperson;
ii. one nominee of the Chancellor;
iii. two members of the Executive Council nominated by it; and
iv. one expert not in the service of the University to be nominated by the Executive Council.

b. The meeting of the selection committee shall be fixed after prior consultation with, and subject to the convenience of the Chancellor's nominee and the experts nominated by the Executive Council and the proceedings of the selection committee shall not be valid unless at least three of the Chancellor's

nominees or persons nominated by the Executive Council attended the meeting.

3. The Registrar shall hold office for a term of five years from the date of assuming office and shall be eligible for re-appointment for a second term by following the procedure prescribed for Registrar:

   PROVIDED that, the Registrar shall retire on attaining the age of sixty-two years and the emoluments and other terms and conditions of service of the Registrar shall be such as may be prescribed by the rules of the institution deemed to be University.
4. When the office of the Registrar is vacant or when the Registrar is, by reason of illness, absence, or any other cause, unable to perform the duties of his or her office, the duties of the office shall be performed by such person as the Vice-Chancellor may appoint for the purpose.
5. The Registrar shall be ex-officio Secretary of the Executive Council and the Academic Council, but shall not be deemed to be a member of any of these authorities.
6. The Registrar shall be directly responsible to the Vice-Chancellor and work under his or her direction.

   The Registrar shall have the power to take disciplinary action against employees, excluding teachers and other academic staff, as may be specified in the order of the Executive Council and to suspend them pending inquiry, to administer warnings to them or to impose on them the penalty of censure or the withholding of increment:
7. PROVIDED that no such penalty shall be imposed unless the person has been given a reasonable opportunity of showing cause against the action proposed to be taken in regard to him or her.
8. An appeal shall lie to the Vice-Chancellor against any order of the Registrar imposing any of the penalties specified in sub-regulation (6).
9. In the case where the inquiry discloses that a punishment beyond the power of the Registrar is called for, the Registrar shall, upon the conclusion of the inquiry, make a report to the Vice- Chancellor along with his or her recommendations:

   PROVIDED that an appeal shall lie to the Executive Council against an order of the Vice- Chancellor imposing any penalty.

10. It shall be the duty of the Registrar—
    a. to be the custodian of the records, the common seal, and such other property of the institution deemed to be University as the Executive Council shall commit to his or her charge;
    b. to issue all notices convening meetings of the Executive Council, the Academic Council, and any Committees appointed by those authorities;
    c. to keep the minutes of all the meetings of the Executive Council, the Academic Council, and any Committees appointed by those authorities;
    d. to conduct the official correspondence between the Executive Council and the Academic Council;
    e. to supply to the Chancellor copies of the agenda of the meetings of the authorities of the institution deemed to be University as soon as they are issued and the minutes of such meetings;
    f. to represent the institution deemed to be University in suits or proceedings by or against the University, sign powers of attorney and verify pleadings or depute his or her representative for the purpose;
    g. to perform such other duties as may be specified in the rules of the institution deemed to be University or as may be required from time to time by the Executive Council or the Vice- Chancellor, as the case may be;
    h. to enter into an agreement, sign documents, and authenticate records on behalf of the institution deemed to be University;
    i. to make arrangements to safeguard and maintain the buildings, gardens, office, canteen, cars and other vehicles, laboratories, libraries, reading rooms, equipment and other properties of the institution deemed to be University; and
    j. to conduct the official correspondence on behalf of the authorities of the institution deemed to be University.

J.Finance Officer—

1. The Finance Officer shall be appointed by the Executive Council on the recommendations of a selection committee constituted for the purpose and he or she shall be a whole-time salaried officer of the institution deemed to be University.

2. The Finance Officer shall be appointed for a term of five years and shall be eligible for re- appointment by following the procedure prescribed for the appointment of the Finance Officer: Provided that, the Finance Officer shall retire on attaining the age of sixty-two years.
3. The emoluments and other terms and conditions of service of the Finance Officer shall be such as may be prescribed by the Executive Council from time to time.
4. When the office of the Finance Officer is vacant or when the Finance Officer is, by reason of illness, absence or any other cause, unable to perform the duties of his or her office, the duties of the office shall be performed by such person as the Vice-Chancellor may appoint for the purpose.
5. The Finance Officer shall be ex-officio Secretary of the Finance Committee but shall not be deemed to be a member of such Committee.
6. The Finance Officer shall—
   a. exercise general supervision over the funds of the institution deemed to be University and shall advise it as regards its financial policy; and
   b. perform such other financial functions as may be assigned to him by the Executive Council or as may be prescribed by the rules of the institution deemed to be University.
7. Subject to the control of the Executive Council, the Finance Officer shall—
   ensure that the limits fixed by the Executive Council for recurring and non-recurring expenditures for a year are not exceeded and that all amounts of money are expended on the purpose for which they are granted or allotted;
   a. be responsible for the preparation of annual accounts and the budget of the institution deemed to be university and for their presentation to the Executive Council;
   b. keep a constant watch on the state of the cash and bank balances and on the state of investments;
   c. watch the progress of the collection of revenue and advice on the methods of collection employed;
   d. ensure that the registers of buildings, land, furniture, and equipment are maintained and up-to- date and that stock-checking is conducted, of

equipment and other consumable materials in all offices, departments, schools, faculties, centers and specialised laboratories;

e. bring to the notice of the Vice-Chancellor un-authorised expenditure and other financial irregularities and suggest disciplinary action against persons at fault;
f. call for from any office, department, school, faculty, centre, laboratory, etc. maintained by the institution deemed to be University any information or returns that he or she may consider necessary for the performance of his or her duties; and
g. work under the direction of the Vice-Chancellor and shall be responsible to the Executive Council through the Vice-Chancellor.

K.Controller of Examinations —

1. The Controller of Examinations shall be appointed by the Executive Council on the recommendations of a selection committee constituted for the purpose and he or she shall be a whole-time salaried officer of the institution deemed to be University.
2. The Controller of Examinations shall be appointed for a term of five years and shall be eligible for reappointment by following the procedure prescribed for the appointment of Controller of Examination:
   Provided that the Controller of Examinations shall retire on attaining the age of sixty-two years.
3. The emoluments and other terms and conditions of service of the Controller of Examination shall be such as may be prescribed by the Executive Council from time to time.
4. When the office of the Controller of Examinations is vacant or when the Controller of Examinations is, by reason of illness, absence or any other cause, unable to perform the duties of his or her office, the duties of the office shall be performed by such person as the Vice-Chancellor may appoint for the purpose.
5. The Controller of Examination shall arrange for and superintend the examinations of the institution deemed to be University in the manner as may be prescribed by the rules of the institution deemed to be University.
6. The Controller of Examinations shall be a permanent invitee to the Academic Council.

7. The Controller of Examinations shall ensure that all the specific directions of the Executive Council, Academic Council and Vice-Chancellor in respect of examination and evaluation are complied with.

L. Directors:

There shall be Directors to look after Human Research Management, Academic affairs, Entrance Examinations, Admissions, Computing Centre and Administration, Projects, Grievance Cell, Industry–Institute Collaboration, Research, Students Affairs, Innovations and such other matters and field of activity as the Board of Management may deem fit.

1. The Director shall be appointed by the Vice–Chancellor from among the Heads of the Departments / Senior Professors.
2. The term of appointment of the Directors shall normally be 3 years and he/she shall be eligible for reappointment.

   The powers and functions of the Directors shall be prescribed by the Board of Management from time to time.

M. Deans

1. The Departments dealing with allied subjects may be grouped into faculties or schools, etc., and every faculty shall be headed by a Dean.
2. Every Dean of the school or faculty shall be appointed by the Vice-Chancellor from amongst the Professors in the school or faculty, by rotation, for a period of two years:
3. PROVIDED that if there is only one Professor or no Professor in a school or faculty, the Dean shall be appointed, for the time being, from amongst the Professor, if any, and the Associate Professors in the school or faculty.
4. When the office of the Dean is vacant or when the Dean is, by reason of illness, absence or any other cause, unable to perform duties of his or her office, the duties of the office shall be performed by the senior-most Professor or Associate Professor, as the case may be, in the School.
5. The Dean shall be the Head of the school or faculty or centre and shall be responsible for the conduct and maintenance of the standards of teaching and research in the school or faculty or centre and shall have such other functions as may be prescribed by the rules of the institution deemed to be University.

6. The Dean shall have the right to present and speak at any meeting of the Board of Studies or Committees of the school or faculty or centre, as the case may be, but shall not have the right to vote there unless he is a member thereof.

N. Head of the Departments:

1. There shall be a Head of the Department or chairperson of the centre for each of the department or centre in the institution deemed to be University, who shall be appointed by the Vice-Chancellor from amongst the Professors of the department or centre:

   PROVIDED that if there is no Professor in the department or centre or there is only one Professor in the department or centre, whose term as Head of the department or chairperson of the centre is ending, the Vice Chancellor may appoint an Associate Professor as Head of the Department.
2. The term of the Head of the department or chairperson of the centre shall normally be two years and he or she shall be eligible for re-appointment for one more term by following the procedure prescribed for appointment of the Head of the department or chairperson of the centre.
3. The powers and functions of the Head of the department or chairperson of the centre shall be prescribed by the rules of the institution deemed to be University.

24. Admission and fees structure —

A.Admission :

Admission of students to the institution deemed to be University shall be strictly based on merit in the entrance exam conducted by a Government Testing Agency or the institution deemed to be University and as prescribed by the appropriate statutory authority, wherever applicable and in case of no entrance examination, the admission of students to the institution deemed to be University may be made in the manner specified in the prospectus.

B. Fee structure:

1. Donation or capitation fee in whatever nomenclature or form, either directly or indirectly, is strictly prohibited.
2. The institutions deemed to be Universities shall follow the rules and regulations regarding fee structure, number of seats, etc., issued by the

relevant statutory bodies and in case an institution deemed to be University offers different courses which come under the regulatory ambit of different statutory bodies, namely the University Grants Commission, the All India Council of Technical Education, National Medical Council etc., the rules and regulations regarding fee structure, number of seats, etc., issued by such statutory body concerned shall be applicable.

3. The fee shall be fixed transparently, keeping in view non-profiteering or non-commercial aspects.
4. The fee shall be collected as declared in the prospectus of the institution deemed to be University and with a proper receipt for such payment and the prospectus shall also state that donation or capitation fee in whatever nomenclature or form, either directly or indirectly, shall not be collected from the student or parent and in case of any grievance, the student or parent may submit their complaint to the institution deemed to be University.
5. The institution deemed to be University may provide fee concession or scholarships or may allocate some seats to meritorious students belonging to socially and economically deprived groups of the society.
6. The institution deemed to be University shall abide by all the University Grants Commission notifications, guidelines regarding the refund of fees and return of original certificates, as may be issued from time to time.
7. Every institution deemed to be University shall maintain the records of the entire process of selection of candidates, exhibit such records on its website, and preserve such records for a minimum period of five years.
8. The institution deemed to be University shall make available the prospectus on its website at least sixty days before the commencement of admissions, including fee structure, refund policy, number of seats in a programme, eligibility qualifications, admission process, etc.
9. The institution deemed to be University shall not retain any original certificates of the students, faculty members, and staff.

25. **Institution deemed to be University open to all:**

1. The institution deemed to be University shall be open to the persons of all genders and of whatever caste, creed, race or class, and it shall not be lawful for the institution deemed to be University to adopt or impose on any person, any

test whatsoever of religious belief or profession in order to entitle him or her to be appointed as a faculty member of the institution deemed to be University or to hold any other office therein or to be admitted as a student in the institution deemed to be University or to graduate there at or to enjoy or exercise any privilege thereof:

PROVIDED that nothing in this section shall be deemed to prevent the institution deemed to be University from making special provision for the employment or admission of women, persons with disabilities, or of persons belonging to the weaker section of the society and, in particular, of the Scheduled Castes, the Scheduled Tribes and the other socially and educationally backward classes of citizens.

2. All policies and procedures, in matters of admission, fee, and employment as applicable to the university-level public-funded and self-financing institutions, respectively, shall apply.

26. Institution deemed to be University to be unitary:

The institution deemed to be University shall be unitary in nature and shall not affiliate any other institution.

27. Reservation policy:

Institution deemed to be University shall implement the policy on reservations in admissions and recruitment, in accordance with the provisions of the Constitution of India and any Act of Parliament for the time being in force and disclose all such information on its website.

28. Online or distance education:

Institutions deemed to be Universities may offer courses online or distance courses or degrees in accordance with the regulations notified by the Commission from time to time.

29.Power to conduct enquiry and consequences for violation of regulations:

1. Where the Government or the Commission, as the case may be, receives information by way of a complaint or otherwise, that an institution deemed to be University has violated any of the provisions of these regulations, it shall cause to

conduct an enquiry into the facts of such information after issuing a notice to the said effect to the institution deemed to be University.

2. The Commission may also cause an inspection, to be made by experts in matters of academics, administration, and finance regarding academic outcomes or any matter connected with the administration or finances of the institution deemed to be University for the purpose of the enquiry.
3. Based on the enquiry or through procedures mentioned in these regulations, if the Government or the Commission, as the case may be, is satisfied that the regulations have been violated, the institution deemed to be University shall be subjected to such action as provided in the University Grants Commission (Institutions deemed to be Universities) Regulations, 2023.

30.Consideration of proposals under previous regulations:

1. All the applications for the declaration of an institution as an institution deemed to be a University, or for the approval for establishing off-campus centres or off-shore campuses, that have been received by the Government or are pending or under process in the Commission prior to the date of publication of these regulations, as the case may be, shall be processed under the provisions of these regulations:

   Provided that the applicant may submit an undertaking in writing that such an application may be processed in terms of the regulations of the Commission governing an institution deemed to be University as were in force on the date of such application, and that, subject to the approval of the application under those regulations, the applicant shall comply with the provisions of these regulations within a period of six years from the date of approval, as the case may be, failing which the status of the applicant as an institution deemed to be University or status of the off-campus or off-shore campus shall be withdrawn.

31.Funds, Accounts, Audit, and Annual Report:

1. The books of accounts of the institution deemed to be University shall be maintained, managed, and operated in the name of the institution deemed to be University and not in the name of the sponsoring body or any other body; and, shall be kept in such form as may be specified by the Executive Council and

conform to the rules or regulations, if any, prescribed by the Commission, in this regard.

2. Funds shall not be diverted at any time from the accounts of the institution deemed to be University to any other accounts, including to the accounts of the sponsoring body or to any other body.
3. The institution deemed to be University shall get its books of accounts audited annually, separately published and uploaded on the website of the institution; and if such institution is funded by Central or State Government or through its Agencies fully or partially, then the accounts of such institution deemed to be University shall be open for examination by the Comptroller and Auditor General of India and the accounts of institution deemed to be University shall also, where required, be open for inspection by the Commission.
4. The annual financial statements and accounts shall be audited by a qualified professional, a Member or Fellow of the Institute of Chartered Accountants of India, to be appointed by the institution deemed to be University:

   PROVIDED that, the Commission may, on receipt of information regarding financial impropriety or embezzlement or illegal diversion of funds from the accounts of the institution deemed to be University; or of fees being collected against the provisions of these regulations, issue a notice directing the institution deemed to be University to show cause as to why an inspection, including a forensic audit, not be ordered in respect of the complaint, and after providing a reasonable opportunity to the respondent institution, the Commission may on being satisfied that there were sufficient grounds to proceed further, cause an inspection by a team of the Commission or may direct a forensic audit; the report of and the inspection team and the forensic audit report taken together shall form the basis for the Commission to take further action, as it may be deem fit, under these regulations including the recommendation for withdrawal of institution deemed to be University status, to the Government.
5. Annual Reports, Annual Financial Statements, and Audit Reports shall be uploaded on the institution deemed to be University website and also on the Commission's portal, after due approval by the Executive Council and the institution deemed to be Universities managed or controlled or funded by the

Central or State Government shall submit a copy of the annual report, Annual Financial Statements and annual audit report to the respective Government.

32. Miscellaneous:

1. The institution deemed to be University shall, as soon as may be, after the completion of the academic programme, and in no case later than one hundred and eighty days from the date of such completion, ensure that the degree, diploma, certificate, or any other qualification in respect of the programme of studies, is awarded and made available to students.
2. The institutions deemed to be Universities shall compulsorily create Academic Bank of Credits (ABC), identities of their students and upload their credit scores in digital lockers and ensure that the credit scores are reflected in ABC portal and adopt Samarth e-Gov.
3. The institution deemed to be University shall not at any time enter into any franchise agreement or arrangement, either overtly or covertly, with any individual or organisation for establishing, maintaining, or operating the off-campus or off-shore campus or constituent units or course or programme of study or department or school or faculty of the institution deemed to be University except in the following cases, namely :—
   a. the institution deemed to be University, which is eligible under sub-regulations
      (1) and (2) of regulation 8 may enter into an agreement or arrangement, if—
      the establishment, maintenance, or operation of such institution is permitted under any Act of Parliament or the rules or regulations made there under; andit has made an application under sub-regulation (3) of regulation 8, after following the procedure specified in these regulations
   b. the campus to be established under such agreement or arrangement shall be—
      i. treated as an off-campus centre of the institution deemed to be University as long as such agreement or arrangement remains valid under such law; and
      ii. subject to similar standards of audit and disclosure as a not-for-profit entity as that of the institution deemed to be University;

c. the institution deemed to be University, which is eligible under regulation 8 may enter into an agreement or arrangement for practical training of students of a skill-oriented vocational course, if such course is approved by the University Grants Commission or any other body established under any Act of Parliament.

d. twinning Programmes, Joint Degree Programmes, and Dual Degree Programmes shall be offered in accordance with the provisions stipulated in the University Grants Commission(Academic Collaboration between Indian and Foreign Higher Educational Institutions to offer Twinning, Joint Degree, and Dual Degree Programmes) Regulations, 2022.

e. the income and property of the institution deemed to be University shall be utilised solely for promoting the objectives of the institution deemed to be University.

f. the Commission shall have the power to issue directions to an institution deemed to be University for implementation of any public policy of the Government or in respect of any law in force, including appropriate directions in case of any violation of any law or policy by the institution deemed to be University.

g. no portion of the income and property of the institution deemed to be University shall be paid or transferred directly or indirectly, by way of dividend, bonus, or otherwise how so ever by way of profit to the persons who were at any time or are members of the institution deemed to be University or to any of them or any persons claiming through them:

PROVIDED that nothing herein contained shall prevent the payment in good faith of remuneration to any member thereof or another person as consideration for any service rendered to the institution deemed to be University or for traveling or other allowances and such other charges.

h. in consultation with the Commission, the Government shall have the power to impose such other conditions, not inconsistent with these regulations, in the notification, and the same shall be binding on the institution deemed to be University.

i. where the institution deemed to be University wishes to surrender its status of “institution deemed to be University”, it shall do so with the prior

permission of the Government; and similarly, withdrawal of any constituent units or off-campus or off-shore campus of the institution deemed to be University from the purview of an institution deemed to be University, shall require the sponsoring body to take the prior permission of the Government:

PROVIDED that such surrender or withdrawal, as the case may be, shall take effect only after the last batch of students on the rolls of the institution deemed to be University or its constituent units, as the case may be, have been accorded the opportunity to qualify for the completion of the programme of study and award of degree.

j. the institution deemed to be University shall furnish to the Central Government or the Commission such returns or other information with respect to its property or activities as the Central Government or the Commission may, from time to time, require, within such period as may be specified by the Central Government or Commission.

k. convocations of the institution deemed to be University for conferring the degrees or for other purposes shall be held in such manner as may be prescribed by the rules of the institution deemed to be University.

l. the Executive Council may, by a resolution passed by a majority of not less than two-thirds of the members present and voting, withdraw a degree of academic distinction conferred on, or any certificate or diploma granted to, any person by the institution deemed to be University for good and sufficient cause:

PROVIDED that no such resolution shall be passed until a notice in writing has been given to that person calling upon him or her to show cause within such time as may be specified in the notice as to why such a resolution shall not be passed and until his or her objections, if any, and any evidence he or she may produce in support of them, have been considered by the Executive Council.

m. in the event of conflict of opinion with regard to the interpretation of these regulations, the opinion of the Commission shall be final.

n. the provisions contained in the University Grants Commission (Institutions deemed to be Universities) Regulations, 2023 shall prevail in case of any

inconsistency or conflicting provisions in any other regulations issued by the Commission under the provisions of the Act.

33. Legal proceedings:

1. The Registrar may sue or be sued for the purpose of any legal proceedings against institution deemed to be University, who shall have the power to enter into agreements, sign documents and authenticate records on behalf of the institution deemed to be University, and have the powers to exercise such powers and perform such duties under the provisions of these regulations.
2. No suit or legal proceedings shall lie against the Government or the Commission in respect of anything done or purported or intended to be done in pursuance of any of these regulations.

34.Consequences of the violation of regulations:

In the event of non-compliance of any of the provisions as enumerated herein above or any other provisions as stipulated in the University Grants Commission(Institutionsdeemed to be Universities) Regulations, 2023, the Institution shall be liable to be subjected to one or more of the following actions, namely:—

1. for violation of these regulations established by the enquiry committee set up by the Commission or Government, the institution deemed to be University shall be warned in writing with public notice or barred from any expansion in terms of diversification to new courses or programmes of study or departments and establishment of off-campuses or off-shore campuses, for a period of three years or as recommended by the enquiry committee, whichever is higher;
2. continuous violation of regulations established by the enquiry committee set up by the Commission or the Government may result in closure of the courses or programmes of study or Departments and off campuses or constituent institutions or off-shore campuses or may result in withdrawal of the status of institution deemed to be University;
3. in order to protect the interests of students in case of surrender or withdrawal of the status, as the case may be, shall take effect only after the last batch of students on the rolls of the institution deemed to be University or its

constituent units, has been accorded opportunity to qualify for the completion of the programme of study and award of degree.

35. Removal of Difficulty:

General Body of the Society reserves the right to remove difficulty(ies) in the course of implementation of this MoA in consultation with the UGC-Government of India.

ISLAM CENTRE FOR HIGHER EDUCATION ★ NOIDA S.No.79/2005

(Dr.A.P.Majeed Khan)
PRESIDENT

Amendment of the memorandum of Association
of the Noorul Islam Centre For Higher Education
S.No. 79/2005 Registered as 06 /2024.



District Registrar
Kanyakumari @ Nagercoil.

06.01.24.

Service Rules for Teaching and Non-Teaching Staff

A Service Rules document for teaching and non-teaching staff at NICHE Deemed to be University typically outlines employees' policies, expectations, and rights to ensure a fair, professional, and efficient work environment. For both teaching and non-teaching staff, the document may cover areas such as:

Duties & Responsibilities of Teaching Staff

1 Faculty Members

Following its deemed-to-be university status, the management has made efforts to introduce UGC pay scales, proper working conditions, a social security scheme, etc. As this is an Institute, the contribution of faculty members is expected to be more through research and extension activities apart from regular academic and teaching activities.

This document details the rules and regulations that every faculty member should follow and the code of conduct they should adopt in the discharge of their professional duties. These rules and regulations are not exhaustive; hence, the faculty members must adopt the detailed instructions issued from time to time by Government bodies like UGC and AICTE, RCI, etc.... and the Management may make modifications to these due to necessities time to time.

1.1.Applicability and Infringements

These rules and regulations and the code of conduct prescribed apply to all full-time faculty members, visiting faculty members, faculty members on contract/part-time employment, and research scholars given teaching assignments attached to all departments.

Adherence to these rules, regulations, and codes of conduct makes faculty members responsible for bringing suspected infringement of any of the provisions to the attention of the appropriate authority of NICHE. Raising such concern is a service to the NICHE and will not jeopardize one's position or employment. Confirmed violations will result in suitable disciplinary action, including termination from employment or other relationships with NICHE. Legal recourse may also be resorted against the concerned individuals if need be.

1.2. Curricular Related

a) Teaching and Learning

A faculty is responsible for,

i) Teaching both core and elective courses in the field of his/her specialization as allocated by the Head of the Department for various programmes offered by the Institute.

ii) Effectively conduct laboratory courses, tutorials, and seminars on the programmes assigned to him/her to improve the students' practical knowledge.

iii) Providing proper guidance and supervision of the project work undertaken by students and developing proper rapport with the industry/organization if the project is industry-related.

iv) Making the teaching more effective and interesting to the students by using technology and multi-media teaching aids.

v) Making the laboratory and seminar classes more purposeful by examining the students orally before or after the experiment/seminar to improve the student's understanding of the subject.

vi) Conducting the core / elective course as project-based / experimental / activity-based learning through Outcome Based Education (OBE).

vii) Helping peer-assisted learning.

viii) Overall, teaching-learning shall be learner-centred, ensuring the learning outcomes of different courses.

b) Course Planning and Material Preparation

i) The faculty member is required to plan and make complete preparations well in advance to teach the theory and practical courses effectively.

ii) He/she should prepare the schedule of lectures with topics, tests, assignments, demonstrations, screening of video or PowerPoint presentations, etc., in advance, and the students should be informed of the same.

iii) The faculty member designs experiments for laboratory classes to improve the student's creative skills and help them properly understand the physical phenomena or concepts.

c) Examination, Evaluation and Grading

i) A faculty member is required to set standard question papers based on the Bloom Taxonomy to test the knowledge / analytical thinking of students and evaluate the answer scripts of courses not only taught by him/her but also that assigned to him/her by the Dean/Head of Department/Controller of Examinations of the NICHE.

ii) A faculty member is required to conduct and invigilate any exam/test in the Institute. Such test/exam may be for the course taught by him/her or for any other course assigned by the Head of Department/Controller of Examinations of the NICHE.

iii) A faculty member should scrupulously be objective in his/her approach while evaluating answer scripts and oral examination/project work evaluation so that the student can earn marks/grading only for his/her performance.

d) Maintenance of Records

i) Each faculty member is required to maintain a record of class work, attendance and continuous assessment neatly, properly and on time. This should be produced to the Head of the Department (HOD) as and when called for or immediately after the test for scrutiny and should be handed over to the HOD after the academic audit.

ii) Each faculty member is required to keep a file containing question papers set by him/her for the course handled and copies of the student's answer sheets after evaluation for production to the academic audit.

iii) If the faculty member is assigned to be the mentor by the HOD, he/she should maintain the list of students under him/her, their parent/local guardian contact address/phone/mail ID, etc., so that the student's progress could be monitored and communicated to them. The mentor shall also maintain a cumulative record of attendance for the courses the student has undertaken. The mentor should also help the HOD counsel poorly performing students and slow learners and take follow-up actions to improve the student's performance.

e) Monitoring of students' progress

i) The faculty of any course is required to watch the attendance and academic performance of each student of his/her course and take necessary steps at his/her command to improve the student's progress. If his/her effort fails, the faculty member should bring it to the notice of the HOD and the Mentor so that the information can be sent to the parents/guardians.

ii) A faculty member is required to attend/organize the Class Committee Meeting either as a course teacher and/or as chairperson of the class committee and should actively participate in the deliberations there to improve the teaching-learning process.

iii) A faculty member may be required to be a mentor to a group of students. He/she is then really a mentor for the students in his/her group. He/she has to keep account of the courses registered/enrolled by them and advice and counsel the students.

iv) A faculty member has to be thorough with the regulations of the academic programmes offered by his/her Department and other instructions issued from time to time so that he/she can effectively guide the student.

v) As a Mentor, the faculty member must motivate students under his/her care and help them with any other general problems until they leave the university.

f) Participation in Academic Developments

i) A faculty member should actively participate in curriculum preparation for new programmes/modification of existing programmes.

ii) Contribution to the preparation of new syllabi or updating of existing syllabi is also the responsibility of a faculty member pertaining to his/her specialization.

iii) Faculty members are expected to be creative in contributing to the introduction of new academic programmes in emerging areas relevant to society, innovative curricula, and new teaching and evaluation methodologies.
iv) In order to be an effective faculty, he/she is required to update his/her knowledge by attending Faculty Development Programmes, short–term courses, professional society meetings, National / International Conferences, reading recent technical journal articles and periodicals and going through the web sites of world-class Universities and participate in the development of MOOC/SWAYAM/NPTEL courses. They may also enrol in one or more Professional Societies/Associations.

g) Punctuality and Regularity

i) The faculty member shall not permit any student to attend the class after the stipulated time specified by the University to ensure punctuality in the student's class attendance.
ii) A faculty member is required to make alternative arrangements to handle his/her scheduled coursework and other work whenever he/she goes on leave.
iii) As far as possible, a faculty member should not miss the scheduled class; alternative arrangements can only be made under unavoidable circumstances. This will ensure better compliance with scheduled classes.
iv) A faculty member shall be punctual in attending class and leave the classroom after his/her class is over only after the arrival of the faculty for the next period or instruct the students to go to the laboratory/workshop for practical classes, as the case may be.
v) The faculty member shall carry out any other academic-related activity that may be assigned to him by the HOD/Higher Authorities from time to time.

2. Non-Teaching Staff (Administrative and Technical Staff)

As an Institute, the scope of administrative and technical staff activities has not only increased but also become more focused and result-oriented. Though the administrative category of staff is smaller than that of faculty and technical staff, their contribution to the efficient functioning of the institute is great. While the management of the Institute has made efforts to improve the service conditions of the technical employees, they are expected to contribute their best for the achievement of the mission and goals of the Institute. With this in view, detailed guidelines were made for prescribing duties and responsibilities of administrative and technical staff.

3. Miscellaneous Conditions

i) All Institute staff members are required to be present in the Institute timings during working hours on all working days and days specifically notified.
ii) A staff member shall devote his/her whole duty time to the service of the Institute and shall not engage directly or indirectly in any other private work/business.

iii) All members of staff are governed by the general duties and responsibilities prescribed for each category of staff detailed in the service rules.
iv) In case of any misinterpretation / wrong interpretation of any of the rules and conditions specified in the service rules, the Vice Chancellor is the final authority to decide.

4. Disciplinary Action

a) All staff members are liable for disciplinary action for disobedience, misconduct, misappropriation, dereliction/negligence of duty and action involving moral turpitude.
b) All disciplinary action shall be taken after establishing the grounds on which the disciplinary action is initiated and after providing a reasonable opportunity for the employee to defend him/her.
c) Depending upon the nature of the offence, and if the competent authority, such as the discipline committee, feels that it is necessary to constitute an enquiry committee as part of the procedure for taking disciplinary action, such an enquiry committee shall be constituted.
d) While pursuing disciplinary action, the competent authority of the Institute is empowered to impose upon the staff any of the following punishments after having satisfied that the offences committed by the staff member are established beyond reasonable doubt.
   i) Censure
   ii) Withholding of increments
   iii) Recovery of salary, whole or a portion towards the loss caused to the Institute.
   iv) Suspension issued pending enquiry.
   v) Dismissal from service.
e) If a staff member feels that the punishment imposed upon him/her by the competent authority is excessive, he/she can appeal to the authority higher than the one that imposed the punishment.

5. **Retirement And Severance**

5.1. Retirement / Superannuation

i) As per the UGC norms, the superannuation age of a faculty member is 60 years. However, on contract, reappointment up to the age of 70 years can be considered depending on the need. Consolidated salary is to be fixed based on the qualifications and requirements of the department for those retired at the age of 60. However, retirement benefits such as gratuity, etc., shall be paid at the time of retirement (Age of 60).

ii) The age of superannuation in the categories of Librarians and Directors of Physical Education will be 60 years only.

iii) Normally, the age of superannuation for non-teaching staff is 58 years. However, extension on a contract basis on consolidated pay can be considered up to the age of 60 years on merit and depending upon the need.

iv) Any appointment after 58 years in the case of non-teaching staff and 60 years for teaching faculty shall be on contract. After they have been relieved from their regular service with all service benefits, they may be reappointed on consolidated pay to be fixed by Management on the recommendation of the Vice-Chancellor.

52. Resignation

i) If a staff member (Teaching or Non-Teaching) intends to resign from this Institute, he/she shall give either 3 months' notice in advance or pay three months' salary to the Institute in lieu thereof. The three-month notice period shall be a co-terminus with the semester only. Under any circumstances, a staff member shall not be relieved in the middle of a semester.

5.3. Termination of service:

The Institute can relieve any staff member by giving him / her three months' notice or three months' salary in lieu of the notice at any time in a semester.

6. Leave Rules

6.0 Duty Leave, Study Leave, Sabbatical Leave

6.1 Duty Leave:

1) Duty leave up to 30 days in an academic year may be granted for the following purposes: Attending Orientation Programmes, Refresher Courses, Research Methodology Workshops, Faculty Induction Programmes, Conferences, Congresses, Symposia and seminars as a delegate nominated by the university or with the permission of the university/college.

- Delivering lectures in institutions and universities at the invitation of such institutions or universities received by the university and accepted by the vice-chancellor/Principal of the College;
- Working in another Indian or foreign university, any other agency, institution or organisation, when so deputed by the university/College;
- Participating in a delegation or working on a committee appointed by the Central Government, State Government, the UGC, a sister university or any other similar academic body; and
- For performing any other duty assigned to him/her by the university/college.

2) The duration of leave should be considered necessary by the sanctioning authority on each occasion.

3) Leave may be granted on full pay, provided that if the teacher receives a fellowship, honorarium, or any other financial assistance beyond the amount needed for normal expenses, he/she may be sanctioned duty leave on reduced pay and allowances.

4) Duty leave may be combined with earned, half-pay, extraordinary, or casual leave.

5) Duty leave should also be given for attending meetings in the UGC, DST, etc., where a teacher is invited to share his/her expertise with an academic body, government agency, or NGO.

6.2 Study Leave

1) The Study Leave scheme provides scholarships/fellowships awarded to faculty members who wish to acquire new knowledge and improve their analytical skills. When a teacher is awarded a scholarship or stipend (by whatever nomenclature is called) for pursuing further studies, leading to a Ph.D./Post-doctoral qualification or for undertaking a research project in a higher education institution abroad, the amount of the scholarship/fellowship shall not be linked to the recipient's pay/salary paid to him/her by his /her parent institution. The awardee shall be paid a salary for the entire duration of the fellowship/scholarship, provided that he/she does not take up any other remunerative jobs, like teaching, in the host country.

2) A teacher on Study Leave shall not take up, during the period of that leave, any regular or part-time appointment under an organisation in India or abroad. He/she may, however, be allowed to accept a fellowship or a research scholarship or an ad-hoc teaching and research assignment with an honorarium or any other form of assistance other than regular employment in an institution either in India or abroad, provided that the Executive Council/Syndicate of his/her parent institution may, if it so desires, sanction study leave on reduced pay and allowances to the extent of any receipt in this regard, in-lieu of teaching etc., which may be determined by his/her employer.

3)The study leave shall be granted to an entry-level appointee as Assistant Professor/Assistant Librarian/Assistant Director of Physical Education and Sport/College DPE&S (other than as Associate Professor or Professor of a University/College/Institution, who is otherwise eligible for sabbatical leave) after a minimum of three years of continuous service, to pursue a special line of study or research directly related to his/her work in the University/College/Institution or to make a special study of the various aspects of University organisation and methods of education, giving full plan of the work.

4) The Executive Council/Syndicate shall grant the study leave on the Head of the Department's recommendation. The leave shall not be granted for more than three years in one spell, save in exceptional cases in which the Executive Council/Syndicate is satisfied that such extension is unavoidable on academic grounds and necessary in the interest of the University/College/Institution.

5) Study leave shall not be granted to a teacher due to retirement within five years of the date on which he/she is expected to return to duty after the study leave expires.

6) The study leave shall be granted not more than twice during one 's entire career. However, the maximum period of study leave admissible during the entire service shall not exceed five years.

7) Study leave may be granted more than once, provided that no more than five years have elapsed after the teacher/returned to duty on completion of the earlier spell of study leave. For subsequent spell of study leave, the teacher shall indicate the work done during the period of earlier leave and also give details of work to be done during the proposed spell of study leave.

8) No teacher who has been granted study leave shall be permitted to alter substantially the course of study or the programme of research without the permission of the Executive Council/Syndicate in the event the course of study falls short of study leave sanctioned, the teacher shall resume duty on the conclusion of the course of study unless the previous approval of the Executive Council/Syndicate to treat the period of short-fall as Extra-Ordinary leave has been obtained.

9) Subject to the maximum period of absence from duty, on leave not exceeding three years, the study leave may be combined with the earned leave, half-pay leave, or extra-ordinary leave of vacation provided that the earned leave at the credit of the teacher shall be availed of at the discretion of the teacher. When the study leave is taken as a continuation of vacation, the period of study leave shall be deemed to begin to run on the expiry of the vacation. A teacher selected for a higher post during the study leave shall be placed in that position and get the higher scale only after joining the post.

10) The period of study leave shall count as service for the purpose of the retirement benefits (pension/contributory provident fund), provided that the teacher rejoins the University/College/Institution on the expiry of his/her study leave and serves the institution for the period for which the Bond has been executed.

11)The study leave granted to a teacher shall be deemed to have been cancelled in case it is not availed of within 12 months of its sanction, provided that where the study leave granted has been so cancelled. The teacher may apply again for such leave.

12) A teacher availing himself/herself of the study leave shall undertake that he/she shall serve the University/College/Institution for a continuous period of at least three years to be calculated from the date of his/her resuming duty on the expiry of the study leave.

13) A teacher -

who is unable to complete his/her studies within the period of study leave granted to him/her

or

Who fails to rejoin the services of the University on the expiry of his/her study leave

or

who rejoins the service of the university but leaves the service without completing the prescribed period of service after rejoining the service

or

who, within the said period, is dismissed or removed from the service by the University shall be liable to refund, to the University/College/Institution, the amount of the leave salary and allowances and other expenses incurred on the teacher or paid to him/her or on his/her behalf in connection with the course of study

Explanation:

If a teacher asks for an extension of the study leave and is not granted the extension but does not rejoin duty on the expiry of the leave originally sanctioned, he/she shall be deemed to have failed to rejoin the service on the expiry of his/her leave for the purpose of recovery of dues under these Regulations.

Notwithstanding the above provision, the Executive Council/Syndicate may order that nothing in these Regulations shall apply to a teacher who, within three years of return to duty from study leave, is permitted to retire from service on medical grounds, provided further that the Executive Council/Syndicate may, in any other exceptional case, waive or reduce, for reasons to be recorded the amount refundable by a teacher under these Regulations.

14) After the leave has been sanctioned, the teacher shall, before availing himself/herself of the leave, execute a bond in favour of the University/College/Institution, binding himself/herself for the due fulfilment of the conditions laid down in paragraph above and give security of immovable property to the satisfaction of the Finance Officer/Treasurer or a fidelity bond of an insurance company or a guarantee by a scheduled bank or furnish security of two permanent

teachers for the amount which might become refundable to the University/College/Institutions in accordance with paragraph above.

15) The teacher on study leave shall submit to the Registrar/Principal of his/her parent University/College/Institution six-monthly reports of progress in his/her studies from his/her supervisor or the Head of the institution. Such report shall reach the Registrar/Principal within one month of the expiry of every six months of the period of the study leave. If the report does not reach the Registrar/Principal within the specified time, the payment of leave salary may be deferred till the receipt of such report.

16) The teacher on leave shall submit a comprehensive report on the completion of the study leave period. A copy of the research document/monograph/academic paper produced during the period of the study leave shall be put in the public domain, preferably on the website of the University/College/Institution.

17) With a view to enhancing the knowledge and skills of the faculty members, especially the junior faculty, at the level of Assistant Professor, the Heads of universities/Colleges/Institutions and their subordinate Departments are enjoined to be generous in the award of study leave in the interest of faculty improvement, thereby impacting the academic standards of the University/College/Institution in the long run.

6.3 Sabbatical Leave

1) The permanent, whole-time teachers of the university and colleges who have completed seven years of service as a Reader/Associate Professor or a Professor may be granted sabbatical leave to undertake study or research or any other academic pursuit solely for the object of increasing their proficiency and usefulness to the university and higher education system. The duration of leave shall not exceed one year at a time and two years in the teacher's entire career.

2) A teacher who has availed himself/herself of study leave would not be entitled to the sabbatical leave until after the expiry of five years from the date of the teacher's return from previous study leave or any other kind of training programme of a duration of one year or more.

3) A teacher shall, during the period of sabbatical leave, be paid full pay and allowances (subject to the prescribed conditions being fulfilled) at the rates applicable to him/her immediately prior to his/her proceeding on sabbatical leave.

4) A teacher on sabbatical leave shall not take up any regular appointment under another organization in India or abroad during the period of that leave. He/she may, however, be allowed to accept a fellowship or a research scholarship or ad hoc teaching and research assignment with an honorarium or any other form of assistance other than regular employment in an institution of advanced studies, *provided* that in such cases the Executive Council/Syndicate may, if it so desires, sanction the sabbatical leave on reduced pay and allowances.

5) During the period of sabbatical leave, the teacher shall be allowed to draw the increment on the due date. The period of leave shall also count as service for purposes of pension/contributory provident fund, *provided* that the teacher rejoins the university on the expiry of his/her leave.

6.4 Other Kinds of Leave Rules for Permanent Teachers of the Universities / Colleges The following kinds of leave would be admissible to permanent teachers:

- Leave treated as duty, *viz.* casual leave, special casual leave, and duty leave;
- Leave earned by duty, *viz.* earned leave, half-pay leave, and commuted leave;
- Leave not earned by duty, *viz.* extraordinary leave; and leave not due;
- Leave not debited to leave account
- Leave for academic pursuits, *viz.* study leave, sabbatical leave and academic leave;
- Leave on grounds of health, *viz.*, maternity leave and quarantine leave.

The Executive Council/Syndicate may grant, *in exceptional cases*, for the reasons to be recorded, any other kind of leave, subject to such terms and conditions as it may deem fit to impose.

1) Casual Leave

The total casual leave granted to a teacher shall not exceed 8 days in an academic year.

Casual leave cannot be combined with any other kind of leave except special casual leave. However, such casual leave may be combined with holidays, including Sundays. Holidays or Sundays falling within the period of casual leave shall not be counted as casual leave.

2) Special Casual Leave

Special casual leave, not exceeding 10 days in an academic year, may be granted to a teacher:

1) To conduct an examination of a university/Public Service Commission/Board of Examination or any other similar body/institution; and

2) To inspect academic institutions attached to a statutory board.

In computing the 10 days' leave admissible, the days of the actual journey, if any, to and from the places where activities specified above take place will be excluded. In addition, special casual leave to the extent mentioned below may also be granted;

a. To undergo sterilization operation (vasectomy or salpingectomy) under a family welfare programme. Leave, in this case, shall be restricted to six working days and

b. To a female teacher who undergoes non-puerperal sterilization. Leave, in this case, shall be restricted to 14 days.

c. The special casual leave shall not accumulate or be combined with any other kind except casual leave. It may be granted in combination with holidays or vacations by the sanctioning authority on each occasion.

3) Earned Leave

Earned leave admissible to a teacher shall be:

i. 1/30th of the actual service, including vacation, *plus*
ii. 1/3rd of the period, if any, during which he/she is required to perform duty during the vacation.

For purposes of computation of the period of actual service, all periods of leave, except casual, special casual, and duty leave, shall be excluded.

Earned leave at a teacher's credit shall not accumulate beyond 300 days. The maximum period of earned leave that may be sanctioned at a time shall not exceed 60 days. Earned leave exceeding 60 days may be sanctioned in the case of higher study or training, or leave with a medical certificate, or when the entire leave, or a portion thereof, is spent outside India.

For removal of doubt, it may be clarified:

When a teacher combines vacation with earned leave, the period of vacation shall be reckoned as a leave in calculating the maximum amount of leave on average pay, which may be included in the particular period of leave.

In the case only a portion of the leave is spent outside India, the grant of leave in excess of 120 days shall be subject to the condition that the portion spent in India shall not, in the aggregate, exceed 120 days.

Members of the teaching staff shall be allowed to encash earned leave as applicable to the Central Government or State Government employees.

4) Half-pay Leave

Half-pay leave may be sanctioned for a period of 20 days to a permanent teacher for each completed year of service. Such leave may be granted on the basis of a medical certificate from a registered medical practitioner for any private affairs or for any academic purpose.

***Explanation*:**

A "completed year of service" means continuous service under the university's specified duration. It includes periods of absence from duty and leave, including extraordinary leave.

Note: Half-pay leave shall be combined with earned leave to calculate the number of earned leaves if the number of earned leaves is less than 300 for the purpose of encashment of leave

at the time of superannuation as applicable to the employees of the Government of India/State Government.

5) Commuted Leave

Commuted leave, not exceeding half the amount of half-pay leave due, may be granted to a permanent teacher on the basis of a medical certificate from a registered medical practitioner subject to the following conditions:

- Commuted leave during the entire service shall be limited to a maximum of 240 days;
- When commuted leave is granted, twice the amount of such leave shall be debited against the half-pay leave account, and
- The total duration of earned leave and commuted leave taken in conjunction shall not exceed 240 days at a time, *provided* that no commuted leave shall be granted under these Regulations unless the authority competent to sanction leave has reason to believe that the teacher would return to duty on its expiry.

6) Extraordinary Leave

A permanent teacher may be granted extraordinary leave when:

No other leave is admissible, or other leave is admissible, and the teacher applies in writing for the grant of extraordinary leave.

The extraordinary leave shall always be without pay and allowances. It shall not count for an increment except in the following cases:

Leave taken on the basis of medical certificates;

Cases where the Vice-Chancellor is satisfied that the leave was taken due to causes beyond the control of the teacher, such as inability to join or rejoin duty due to civil commotion or a natural calamity, and the teacher has no other kind of leave to his credit;

Leave taken for pursuing higher studies; and Leave granted to accept an invitation to a teaching post or fellowship or research-cum- teaching post or on assignment for technical or academic work of importance.

Extraordinary leave may be combined with any other leave except the casual leave and special casual leave, provided that the total period of continuous absence from duty on leave (including periods of vacation when such vacation is taken in conjunction with leave) shall not exceed three years, except in cases where the leave is taken on medical certificate. The total period of absence from duty shall not exceed five years during the individual's entire service period.

The authority empowered to grant leave may commute retrospectively the periods of absence without the leave into extraordinary leave.

7) 'Leave Not Due'

Leave not due may, at the discretion of the Vice-Chancellor/Principal, be granted to a permanent teacher for a period not exceeding 360 days during the entire period of service, out of which not more than 90 days at a time and 110 days, in all, maybe otherwise than on a medical certificate. Such leave shall be debited against the half-pay leave earned by him/her subsequently.

'Leave not due' shall not be granted unless the Vice-Chancellor/Principal is satisfied that, as far as can reasonably be foreseen, the teacher will return to duty on the expiry of the leave and earn the leave granted.

A teacher to whom 'leave not due' is granted shall not be permitted to tender his/her resignation from service so long as the debit balance in his/her leave account is not wiped off by active service or he/she refunds the amount paid to him/her as pay and allowances for the period not so earned. If retirement is unavoidable due to ill health or incapacitating the teacher for further service, a refund of leave salary for the period of leave yet to be earned may be waived by the Executive Council/College Governing Body.

Provided that the Board of Management/College Governing Body may waive off, in any other exceptional case, for reasons to be recorded in writing, the refund of leave salary for the period of leave yet to be earned.

8) Maternity Leave

Full-paying maternity leave may be granted to a woman teacher for a period not exceeding 180 days, to be availed of twice in the entire career. Maternity leave may also be granted in case of miscarriage, including abortion, subject to the condition that the total leave granted in respect of this to a woman teacher in her career is not more than 45 days, and the application for leave is supported by a medical certificate.

Maternity leave may be combined with any earned leave, half-pay leave or extraordinary leave, but any leave applied for in continuation of the maternity leave may be granted if a medical certificate supports the request.

9) Child-care Leave

Women teachers having any minor child/children may be granted leave for up to a period of two years to take care of the minor child/children. The child-care leave for a maximum period of two years (730 days) may be granted to female teachers during the entire service period in line with the Central Government women employees. In the cases where the child-care leave is granted for more than 45 days, the University/College/Institution may appoint a part-time / guest substitute teacher with intimation to the UGC.

10) Paternity Leave

Male teachers may be granted 15 days of paternity leave during the confinement of their wives, and such leave shall be granted only to up to two children.

11) Adoption leave

Adoption leave may be provided as per the rules of the Central Government.

12) Surrogacy leaves

Leave for Surrogacy shall apply as per the Rules, Regulations and Norms laid down by the Government of India.

Registrar

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION * KUMARAKOIL - 629 180 *

Dr. P. THIRUMALVALAVAN,
Registrar,
Noorul Islam Centre for Higher Education,
Kumaracoil - 629 180, Thuckalay,
Kanyakumari District.

Dr.P.THIRUMALVALAVAN
REGISTRAR

NI/RG/25/GA/002,
8-12-2025.

Dear Sir,

Sub: Re-Constitution of **Anti-Drug Club**

Ref: VC's note order dated 18-10-2024.

I am by direction re-constitute the following **Anti-Drug Club** for Noorul Islam Centre for Higher Education.

Objectives and Functions of the Anti-Drug Club

1. **Raising Awareness about the Harmful Effects of Drug Abuse**
   - Conduct awareness campaigns through posters, newsletters, and social media platforms to inform students about the dangers of drug abuse.
   - Host guest speakers and experts in addiction prevention and mental health to provide insights and real-life experiences regarding the impact of drug abuse.
2. **Educating Students about Preventive Measures against Drug Addiction**
   - Organize workshops, seminars, and educational sessions focusing on preventive measures, identifying risky behaviours, and promoting healthier lifestyle choices.
   - Collaborate with health departments and law enforcement agencies to share knowledge on drug prevention strategies and safety measures.
3. **Encouraging a Drug-Free Lifestyle through Workshops, Seminars, and Activities**
   - Facilitate interactive events, such as peer counseling sessions, group discussions, and support groups, where students can engage in open dialogue about drug prevention and mental health.
   - Organize drug-free pledge ceremonies and anti-drug rallies to foster a sense of commitment among students and the community to lead a drug-free life.
4. **Providing Support and Guidance to Students Struggling with Substance Abuse**
   - Establish peer support programs and mentorship initiatives that enable students to seek help confidentially and receive guidance from trained peers or counselors.
   - Offer continuous support through counseling services and connect affected students with local rehabilitation centers and health professionals.

5. **Collaborating with External Organizations for Advocacy and Outreach**

   - Work with local health organizations, law enforcement agencies, and community groups to organize joint events, advocacy programs, and outreach efforts aimed at preventing drug abuse both on and off-campus.
   - Partner with rehabilitation centers, hospitals, and NGOs to provide resources for students and families affected by substance abuse, fostering a supportive network.

ANTI DRUG CLUB

Sl.No	Name	Designation with Department	Position
1.	Dr.M. Sankaranarayana Pillai	Director, Students Welfare	President
2.	, Dr.M. S. Shibi Chandrdas	Coordinator for the Centre for Excellence- Students Activities	Secretary
3.	Mr. Sunil Kumar K.O.	Resident Officer	Member
4.	Dr.R. Dharma Raj	Director, Physical Education	Member
5.	Mr.K. Suresh Babu	First year Activity Coordinator	Member
6.	Ms. K. Dilsha	Teaching Assistant, AHS (Physiology)	Member/ Counseling Issues
7.	Dr. S. Enoch	Medical Officer	Member/ Counseling Issues
8.	Mrs. N. Alex Dorwina	Assistant Professor, Civil	Member/Staff Representative
9.	Dr.D. Arthi	Assistant Professor, Chemistry	Member/Staff Representative
10.	Mr. Jinu Sam S.J	Teaching Assistant, English	Member/Staff Representative
11.	Mr. Ashik	S7 / AME	Student Representative
12.	Ms. Sree Lekshmi .S	S5 / RDT	Student Representative
13.	Mr.Mohammed Suhail .M	S3 / MBA	Student Representative
14.	Mr. Hassan M.D. Haneefa	S1 / Aerospace	Student Representative

Yours faithfully,

Dr.P.THIRUMALVALAVAN

To

The members of the Committee

Copy to:

1. P.A. to Chancellor
2. P.A. to the Pro-Chancellor
3. P.A. to Vice-Chancellor
4. Pro Vice-Chancellor (Administration)
5. Pro Vice-Chancellor (Academic)
6. COE
7. Finance Officer
8. All the HoDs

Dr.P. Thirumalvalavan,
Registrar.

NI/RG/25/GA/025,
2-9-2025.

Mandatory Disclosure System Information for Prevention of Ragging

1.	Name of the Institution	:	Noorul Islam Centre for Higher Education (NICHE)
2.	Address	:	Kumaracoil, Thuckalay – 629 180 Kanyakumari District, Tamil Nadu
3.	Name and address of Affiliating University	:	(Unitary) NICHE is a Deemed to-be University
4.	Name & Address of DTE or any other State Government Office	:	N.A.
5.	Date of reconstitution of Anti-Ragging Committee	:	2-9-2025
	Contact details of in-charge (name, address, phone no. email ID)	:	Dr.M. Sankaranarayana Pillai Director- Student Welfare 9442077787 msn.pillai@gmail.com
6.	Date of reconstitution of Anti Ragging Squad	:	2-9-2025
7.	Number of surprise raids conducted by squad	:	yet to start
8.	Number of Ragging incidents reported	:	Nil
9.	Action taken on reported ragging cases	:	Does not arise
10.	Number of monitoring Cell constituted	:	Three
11.	Incorporation of directions as provisioned under clause 11 (a) of the regulation in the prospectus / advertisement issued for admission	:	Yes
12.	Receipts of affidavits from the student and parents as envisaged under the regulation	:	Already obtained from senior students Being obtained from the Fresher's

Kumaracoil,
2-9-2025.

Registrar

Dr.P. Thirumalvalavan,
Registrar.

NI/RG/25/GA/025,
2-9-2025.

Appendix I

Anti Ragging Committee

Anti Ragging Hotline Numbers: 09486856100, 09486856107, 09486856102

S.No	Name	Designation	Position	Status
1	Dr. P.Thirumalvalavan	Registrar	Chairman	Registrar
2.	Dr.M. Sankaranarayana Pillai	Director- Student Welfare	Convener /	Faculty Rep.
3.	Dr.B. Bindhu	Director– Student Affairs	Nodal officer	Faculty Rep.
4.	Dr.. R. Dharmaraj	Director of Physical Edn.	Co-Convener	Faculty Rep.
5	Dr.K. Muthuvel	First Year Co-ordinator	Member	Faculty Rep.
6.	Dr. G. Arockia Selva Saroja	HOD/ AHS	”	Faculty Rep.
7	Dr.V.G. Ranjith	HoD/ CSE	”	Faculty Rep.
8	Dr.M. S. Shibi Chandradas	Coordinator for the Centre for Excellence- Students Activities	“	
9.	Ms. M. Madhurima	Assistant Professor, AHS, Students Counselor	”	Faculty Rep.
10.	The Thasildhar	Thasildhar, Kalkullam, Thuckalay	”	Civil Rep.
11.	The Inspector of Police	Inspector of Police, Thuckalay	”	Police Admin.
12	Mr. P. Reghu Kumar Advocate, Uthradam Keralapuram, Thuckalay – 629175	Legal Advisor	”	Legal Rep.
13	Mr. Syed Ali, Thuckalay	Dinakaran News Reporter	”	Local media
14	Mrs. Anitha Natarajan 515/A,Pioneer Subramoniar Illam, Vetturnimadam, Nagercoil-3	NGO	”	Rep. from NGO – Youth Activities
15	Mr. M. Pradeep Mohan	Assistant Physical Director	”	Non-teaching Rep.
16	Mr. Suresh Babu	First year Activity Coordinator	”	Non-teaching Rep.
17	Mrs.Fathima Aju. A		”	Parent
18	Mr. Xavier Pachianathan		”	Parent
19	Mr. Sajin	S7 Aero	”	Student
20	Ms. Jenisha.	S5, FS	”	Student
21	Mr. Suhail	S3 FMA	”	Student
22	Mr. Seigin Touthang	S3 Civil	”	Student

Kumaracoil,
2-9-2025.

Registrar

Dr.P. Thirumalvalavan, **NI/RG/25/GA/025,**
Registrar. **2-9-2025.**

Appendix II

Anti Ragging & Surveillance Committee

The following teachers are nominated as members for keeping surveillance and to prevent any type of ragging (Verbal, Mental, Psychological, Physical etc) directly or indirectly inside the NICHE campus, Hostel campus or neighbouring areas.

Convener

Dr.M. Sankaranarayana Pillai/Director, Students Welfare

Nodal Officer

Dr.B. Bindhu/ Director, Students Affairs

High power Committee Members

1. Dr.M. Sankaranarayana Pillai
2. Dr.B. Bindhu
3. Dr.J.P.Jayan
4. Dr.D. Kinslin
5. Dr. K. Uma Samundeswari
6. Dr. S.John Leon
7. Dr.M. Murugan
8. Dr. R. Dharma Raj
9. Dr. J. R.Jeba
10. Dr. Arockia Selva Sroja
11. Dr.M. S. Shibi Chandradas
12. Dr.J. Charles

Surveillance Squad Members

S.No.	NICHE Campus	Boy's Hostel	Ladies Hostel
1.	Dr.R. Rajesh (Convener)	Dr. R. Dharma Raj (Convener)	Dr.P.K. Praseetha (Convener)
2.	Dr.R. Jubi (co-convener)	Dr.R.Mathusoothana S. Kumar (co-convener)	Dr. K. Uma Samundeswari (Co-Convener)
3.	Dr.V.G. Ranjith	Dr.V. Mago Stalany	Dr.N.Shanthi
4.	Dr.N.C. Packia Lekshmi	Mr. A. Unni Krishnan	Dr.J.R. Jeba
5.	Dr.S.S.Kumar	Dr.J.P.Jayan	Ms.M. Madhurima
6.	Dr. T. Gopala Krishnan	Dr.S. Fenin Samuel	Dr.P. Deepa
7.	Dr. J. Arul Linsely	Dr.R. Sarath	Dr.S. Jerine
8.	Dr.J. Joseph	Dr. K. Muthuvel	Dr.S.Maria Celestin Vijila
9.	Dr. Stanly Jones Retnam	Mr.M. Rajapaul	Ms. Y. Jenusha Ananthy
10.	Dr.M. Murugan	Dr.J.Saji Soundara Raj	Dr.B. Ben Sujitha
11	Dr.A. Anitha	Dr.T.K. Danesh	Dr.M. Kohila
12	Dr. Lalu Gladson Robin	Dr.J.R. Inbasaharan	Dr.L. Nisha Evangelin

Kumaracoil,
2-9-2025. **Registrar**

Dr.P.THIRUMALVALAVAN
REGISTRAR

NI/RG/23/GA/012,
19-1-2023.

Dear Sir,

Sub: Constitution of Apex Research Committee.

Ref: VC's note order dated 19-1-2023.

I am by direction constitute the following committee.

Terms of Reference are:

1. To oversee the Research activities and give direction to the Director Research

APEX RESEARCH COMMITTEE:

Sl.No	Name	Designation/ Department	Status
1.	Dr.A.K. Kumaraguru	Vice-Chancellor	Chairman
2.	Dr.K.A.Janardhanan	Dean, Faculty of Management, Director, HRM	Convener
3.	Dr.R.C. Mehta	Dean Faculty of Aeronautical and Space Technology	Member
4.	Dr. B. Bindhu	Dean, Science and Humanities	Member
5.	Dr. M. Dev Anand	Director, Research	Member Secretary

Yours faithfully,

Dr.P.THIRUMALVALAVAN

To
The members of the Committee

Copy to:

1. P.A. to Chancellor
2. P.A. to Pro-Chancellor(Academic)
3. P.A. to Vice-Chancellor
4. Director (HRM)
5. Director Academic Affairs
6. Director (Administration)
7. Finance Officer
8. All the HoDs

Dr.P.THIRUMALVALAVAN
REGISTRAR

NI/RG/22/GA/012,
7-10-2022.

Dear Sir,

Sub: Constitution of the Committee for ARIIA Ranking process 2021.

Ref: VC's note order dated 7-10-2022.

I am by direction constitute the following committee.

Terms of Reference are:

1. To study the ARIIA Ranking process and to compare the ARIIA data of NICHE with other Universities and to suggest measures for improving NICHE Ranking for the year 2021.
2. To collect necessary data on different parameters and upload the same in the ARIIA - MHRD portal before the due date for the year 2022.

Committee for ARIIA Ranking 2021:

Sl.No	Name	Designation/ Department	Status
1.	Dr. N C J PackiaLekshmi	Assistant Professor, AHS	Nodal Officer
2.	Mr.R. Dinesh	Assistant Professor-Mechanical	
3.	Dr.T.V. Sindia	Assistant Professor –IT	Member
4.	Mr. N. Ajin	Assistant Professor – Civil	Member
5.	Ms. S. Shafrina	Assistant Professor-English	Member

All the faculty members are requested to co-operate.

Yours faithfully,

Dr.P.THIRUMALVALAVAN

To
The members of the Committee

Copy to:

1. P.A. to Chancellor
2. P.A. to Pro-Chancellor(Academic)
3. P.A. to Vice-Chancellor
4. Director (HRM)
5. Director Academic Affairs
6. Director (Administration)
7. Finance Officer
8. All the HoDs

BRDC Member List as on 31.07.2025

Sl. No.	Name of the Members	Designation
1.	**Dr. Tessy Thomas,** Vice-Chancellor, NICHE.	Chairman
2.	**Dr. K. A. Janardhanan,** Dean, Faculty of Management Studies, NICHE.	Member
3.	**Dr. A. Shajin Nargunam,** Dean, Faculty of ICE, NICHE	Member
4.	**Dr. M. K. Jeyakumar**, Dean, Faculty of Computer Science, NICHE.	Member
5.	**Dr. R.S. Vinod Kumar,** Dean, Faculty of EEE, NICHE.	Member
6.	**Dr. B. Bindhu**, Dean, Faculty of Humanities & Science, NICHE.	Member
7.	**Dr. M. Murugan,** Dean, Faculty of Technology, NICHE.	Member
8.	**Dr. R. C. Mehta,** Dean, Faculty of Aeronautical and Space Technology, NICHE.	Member
9.	**Dr. V. Narayanan Nair**, Dean, Faculty of Civil Engineering, NICHE.	Member
10.	**Dr. S. John Leon**, Dean, Faculty of Marine Engineering, NICHE.	Member
11.	**Dr. M. Sankaranarayana Pillai,** Dean, Faculty of Allied Health and Sciences, NICHE.	Member
12.	**Padma Shri. Dr. N. Vedachalam,** Distinguished Professor, Director-LPSC (Rtd.), VSSC, Trivandrum.	Member
13.	**Dr. N. Periasamy,** Professor, School of Chemistry, University of Hyderabad, Hyderabad.	Member
14.	**Dr. T. J. Pandian,** Emeritus Professor, School of Biological Sciences, M.K University, Madurai.	Member
15.	**Dr. M. Lakshmanan,** Profesor of Eminence & DST Ramanna Fellow, Centre for Nonlinear Dynamics, Bharathidasan University, Trichy.	Member
16.	**Dr. A. Kannan,** Professor & Head, Department of Information Science & Technology, Anna University, Chennai.	Member
17.	**Dr. T. J. Apren,** Head, R.F System and Development Division, VSSC, Thumba, Trivandrum - 695002	Member
18.	**Dr. M. Dev Anand,** Dean, Faculty of Mechanical Engineering, Director - Research, NICHE.	Member Secretary
19.	**Dr. P. Thirumalvalavan,** Registrar, NICHE	Invitee

Dr.P.THIRUMALVALAVAN
REGISTRAR

NI/RG/23/GA/012,
19-1-2023.

Dear Sir,

Sub: Constitution of Activities Budget Proposal Review Committee.

Ref: VC's note order dated 19-1-2023.

I am by direction constitute the following committee.

Terms of Reference are:

To review all the proposals for the conduct of the Seminars, Workshops, conferences and other functions and to submit recommendations to the Pro-Chancellor for approval.

ACTIVITIES BUDGET PROPOSAL REVIEW COMMITTEE:

Sl.No	Name	Designation/ Department	Status
1.	Dr. A. Shain Nargunam	Director, Students Affairs	Convener
2.	Dr. D. Kinslin	Professor, FMS	Co-Convener
3.	Dr. Mathusoothana S. Kumar	Professor & HoD, IT	Member

Yours faithfully,

Dr.P.THIRUMALVALAVAN

To
The members of the Committee

Copy to:

1. P.A. to Chancellor
2. P.A. to Pro-Chancellor(Academic)
3. P.A. to Vice-Chancellor
4. Director (HRM)
5. Director Academic Affairs
6. Director (Administration)
7. Finance Officer
8. All the HoDs

Kumaracoil, Thuckalay, Kanyakumari District, Tamil Nadu-629 180 | info@niuniv.com | +91 9486856101, 04651 250566

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/25/GA/001,
24-4-2025.

Dear Sir/ Madam,

Sub : Formation of Centre for Indian Knowledge Systems (CIKS)
Ref : VC's note order dated 24-4-2025.

I am by direction constitute the Centre for Indian Knowledge Systems (CIKS) with the following Director and members.

Terms of reference:

1. Title

Centre for Indian Knowledge Systems (CIKS)

2. Purpose

The CIKS is constituted to guide, promote, and oversee activities related to the research, documentation, teaching, and integration of India's traditional knowledge systems with contemporary education, research, and innovation in alignment with the objectives of the National Education Policy (NEP) 2020.

3. Objectives

- To identify, document, and preserve diverse streams of Indian Knowledge Systems (IKS) including but not limited to Yoga, Siddha, Indigenous Sciences, Mathematics, Astronomy, Architecture, Arts, Philosophy, Psychology, Engineering, Allied Health Sciences and Management .
- To advise on the inclusion of IKS content in curricula across various disciplines.
- To facilitate interdisciplinary research and collaboration with traditional scholars and practitioners.
- To support seminars, workshops, and conferences for the dissemination of IKS.
- To promote digitization and publication of manuscripts and knowledge resources.
- To develop a resource center and knowledge repository on Indian Knowledge Systems.

4. Composition

The committee shall comprise the following members:

Centre for Indian Knowledge Systems (CIKS) Committee Members

S. No.	Name	Designation/Dept.	Position
1.	Dr. R. S. Vinod Kumar	Dean, Faculty of Electrical & Electronics Engineering	Director
2.	Dr.A. Unni Krishnan	Assistant Professor, Mech	Nodal Officer
3.	Dr.M. Murugan	Dean, Dean-Faculty of Technology	Programme Officer
4.	Dr.R. Jubi	HoD/ FMS	Programme Officer
5.	Dr.Retheesh Palakkkuzhyil	Coordinator for the Centre for Excellence-Students Activities	Programme Officer
6.	Dr. V. N. Meena Devi	Associate Professor, Physics	Programme Officer
7.	Dr.C.Sagi Rani	Assistant Professor, Physics	Programme Officer

Yours faithfully,

(Dr.P. Thirumalvalavan)

To

All the Members

Copy to:

1. P.A. to the Chancellor
2. P.A. to the Pro-Chancellor
3. P.A. to the Pro-Chancellor (Academic)
4. P.A. to the Vice-Chancellor
5. Pro- Vice-Chancellor (Administration)
6. Pro-Vice-Chancellor (Academic)
7. COE
8. Director IQACs
9. All HoDs
10. Finance officer
11. File copy

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/23/GA/24,
14-7-2023.

Hostel Advisory Committee

S.No.	Name	Designation
1.	Dr.Tessy Thomas	Chairman / Vice-Chancellor
2.	Dr. K.A. Janardhanan	Member / Pro Vice-Chancellor (Administration)
3	Dr.M. Immaculate Mary	Dean, Faculty of Science and Humanities - Warden
4	Dr.R. Subramania Pillai	Member / Director – Grievance & Discipline
5	Dr.B. Bindhu	Member / Director, Students Affairs
6	Dr.K. Muthuvel	Member / Ist Year Co-ordinator
7	Dr.R. Dharmaraj	Member / Physical Director
8	Dr.P. Thirumalvalavan	Secretary / Registrar

Yours faithfully,

(Dr.P. Thirumalvalavan)

To

All the members

Copy to:

1. P.A. to the Chancellor
2. P.A to Pro Chancellor (Academic)
3. P.A. to the Vice-Chancellor
4. Pro Vice-Chancellor (Administration)
5. Pro Vice-Chancellor (Academic)
6. Addl. COE
7. Finance Officer
8. File copy

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/24/NEP/001,
21-2-2024.

Dear Sir/ Madam,

Sub : Reconstitution of Committee for **Implementation of National Education Policy 2020 (NEP)**

Ref : VC's note order dated **21-2-2024**

I am by direction to reconstitute the **Implementing National Education Policy 2020 (NEP)** Committee for the year 2024 with the following convener and members

Terms of reference:

To suggest measures for implement NEP 2020 and monitor the Implementation of NEP 2020

Implementation National Education Policy 2020 (NEP)

S. No.	Name	Designation/Dept.	Position
1	Dr.R. Mathusoothana S Kumar	Professor/ HoD, IT	Nodal Officer / Convener
2	Dr. Jeba Singh V K	Associate Professor/ Marine	Member
3	Dr. Jerine S	Associate Professor/ Software	Member
4	Dr. Prabu M	Assistant Professor/ Nanotechnology	Member
5	Dr. Mago Stalany V	Assistant Professor/ FTSE	Member
6	Dr. Ninisha Nels S	Assistant Professor/ AME	Member
7	Dr. T. S. Senthil	Assistant Professor/ Marine	Member
8	Mr. Anu Kuttan A	Assistant Professor/ Aeronautical	Member
9	Dr. John Arul Singh.J	Assistant Professor/ Maths	Member
10	Ms. Divya K M	Teaching Assistant/ AHS	Member

Yours faithfully,

(Dr.P. Thirumalvalavan)

To
All the members

Copy to:

1. P.A. to the Chancellor
2. P.A. to the Pro-Chancellor
3. P.A. to the Vice-Chancellor
4. Pro Vice-Chancellor (Administration)
5. Pro Vice-Chancellor (Academic)
6. COE
7. All HoDs / Directors / Deans
8. Finance Officer
9. File copy

Internal Complaints Committee (2025-26) w.e.f. 28-1-2025

Sl. No.	Name	Cell No	Email Id
1	Dr. K. Uma Samundesvari (Convener)	98940 71318	umasamundesvari@niuniv.com
2	Dr. J. R. Jeba (Member Secretary)	9442653616	jeba@niuniv.com
3	Ms. R. Ramani Kannan (External Expert)	9842133308	ramanikannanrrk@gmail.com
4	Mr. P. Reghu Kumar	9444230581	reghukumarp1@gmail.com
5	Dr. G. Arockia Selva Saroja (Faculty Member)	9443693268	arockiaselvasaroja@niuniv.com
6	Dr. S. S. Kumar (Faculty Member)	9789546665	kumarss@niuniv.com
7	Dr.H. Vennila (Faculty Member)	9994273837	vennilarajesh@yahoo.co.in
8	Dr.Venifa Mini(Faculty member)	9442634526	venifamini@yahoo.co.in
9	Ms. R. Sree Lekha (Admin Rep Member)	9487369806	adhulsri@gmail.com
10	Ms. V. Shyamala (Service Staff Rep Member)	9489822613	shyamalaa@yahoo.com
11	Ms. Aleena Rajeev (Student Representative- S5 AME)	7065438712	aleenarajeev07@gmail.com
12	Ms. Rifana H (Student Representative- S5 BBA)	7339520810	rifanahyder30@gmail.com
13	Ms. M. Priya (Student Representative- S5 BM)	8667319071	chithraachithramani@gmail.com
14	Ms. D. A. Dona (Student Representative – S5 CSE)	8870392814	donadathi@gmail.com
15	Neeraja (Full Time Research Scholar, Physics)	9496249486	neerajasm11@gmail.com

Kumaracoil – 629 180
28-1-2025

(Dr.P. Thirumalvalavan)
Registrar

Copy to:

1. P.A. to Chancellor
2. P.A. to the Pro-Chancellor
3. P.A. to Pro-Chancellor(Academic)
4. P.A. to Vice-Chancellor
5. Pro Vice-Chancellor (Administration)
6. Pro Vice-Chancellor (Academic)
7. Finance Officer
8. All the HoDs

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/25/GA/025,
4-12-2025.

Ladies Hostel Monitoring Committee (2025-26) w.e.f. 04/12/2025

S.No.	Name/ Designation	Position	Phone Number	Email.Id
1.	Dr. P.K. Praseetha Professor and Head, Nano Technology	Warden Convener	9486855091	nano@niuniv.com
2.	Dr.B. Bindhu Director Student Affairs Professor / HoD	Co-convener	9500427092	bindhub@niuniv.com
3	Dr.K. Uma Samundesvari Asso. Professor and Head(i/c) Mathematics	Secretary	9894071318	umasamundesvari@niuniv.com
4.	Dr. J. R. Jeba Asso. Professor and Head, Computer Applications	Joint Secretary	9442653616	jeba@niuniv.com
5.	Dr. G. Arockia Selva Saroja Asso. Professor and Head, Allied Health Sciences	Joint Secretary	9443693268	arockiaselvasaroja@niuniv.com
6.	Dr.P. Nageswari Asst. Professor, Maths	Member	9677318713	nageswari.kannan06@gmail.com
7.	Dr. T.V. Sindia Asst. Professor, IT	Member	9442332616	sindiatv@gmail.com
8.	Dr.P. Deepa Asst. Professor, English	Member	9994850845	deepam_nice@rediffmail.com
9.	Dr. T.M. Sharmila Asst. Professor, Chemistry	Member	9486089576	caalwinrs@gmail.com
10.	Dr. Jerine Asso. Professor Software Engineering	Member	6369516235	jerine@niuniv.com
11	Dr.V.S. Bindhu Asst. Professor, EEE	Member	9629209153	bindhuvs2003@gmail.com
12	Dr.J.R. Jothy Asst. Professor, CSE	Member	9443193263	crjothiesh@gmail.com
13	Ms. Madhurima Asst. Professor, Allied Health Sciences	Member	97443 15519	madhurima1551@gmail.com
14	Ms. Ashitha Nandan Asst. Professor, BASLP	Member	6238489207	ashitha.malu.12@gmail.com
15	Ms. Sandra Mol Teaching Assistant, AHS	Member	90725 12901	sandrasaju622@gmail.com

Kumaracoil–629 180
04-12-2025

(Dr.P. Thirumalvalavan)
Registrar

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/25/GA/003,
21-05-2025.

Dear Sir/ Madam,

Sub : Constitution of **Transport Committee**
Ref : UGC/AICTE Regulations and norms.

I am by direction re-constitute the **Transport Committee** with the following Convenor and members.

Terms of Reference:

A. Policy and Planning

1. Formulate and update transport policies in line with NICHEl goals.
2. Plan transportation routes, schedules, and stops to maximize efficiency and minimize travel time.
3. Recommend upgrades or additions to the transportation fleet.
4. Submit timey reports and suggest corrective measures.

B. Safety and Compliance

1. Ensure all vehicles comply with local traffic and safety regulations.
2. Monitor driver performance and ensure regular training programs are conducted.
3. Conduct periodic safety audits of the vehicles and infrastructure.
4. Maintain discipline during the transit of students and in the bus bay.

C. Monitoring and Maintenance

1. Oversee the regular maintenance and servicing of the vehicles to ensure safety and reliability.
2. Monitor records of fuel usage, vehicle performance, and operational expenses.
3. Address grievances or feedback regarding transportation services.

D. Financial Oversight

1. Prepare and recommend the annual budget for transport operations.
2. Monitor and control transport-related expenditures.
3. Suggest cost-saving measures while maintaining service quality.

E. Environmental Initiatives

1. Explore and implement green initiatives, such as transitioning to electric or hybrid vehicles.
2. Promote awareness campaigns on sustainable commuting practices.

TRANSPORT COMMITTEE

Sl. No.	Name	Contact No.
1	Mr.Pradeep Mohan (Convener, Heavy Vehicles)	9443503697
2	Mr.Jishan Ali (Convener, Light Vehicles)	8220077002
3	Dr.Tibbie Pon Symon. V.A	75982 83003
4	Mr.Jaya Ganesh	7373067774
5	Mr.Kumaraswamy	9944736066
6	Mr.Gokul D	7598526062

Yours faithfully,



(Dr.P. Thirumalvalavan)

To

All the members

Copy to:

1. P.A. to the Chancellor
2. P.A. to the Pro-Chancellor
3. P.A. to the Pro-Chancellor (Academic)
4. P.A. to the Vice-Chancellor
5. Pro Vice-Chancellor (Administration)
6. Pro Vice-Chancellor (Academic)
7. COE
8. Finance Officer
9. File copy



FINANCE COMMITTEE w.e.f. 13-11-2025

Sl. No.	Category	Name	Address
1	Chairperson	Dr. Tessy Thomas	Vice-Chancellor, NICHE.
2	UGC Nominee	Shri S Dehaleesan, CA	Shri S Dehaleesan, CA, Vivekanandan Associates, New No.4, Old No. zz, Raghavan Colony, Ashok Nagar, Chennai
3	Pro Vice-Chancellor (Administration) (Ex-officio)	Dr.K.A.Janardhanan	Pro Vice-Chancellor (Administration)
4	Pro Vice-Chancellor (Academic) (Ex-officio)	Dr.A. Shajin Nargunam	Pro Vice-Chancellor (Academic)
5	One person nominated by the Society or Trust	Mr. S.I. Sreenivas,	Accounts Officer, Parvaty Vilasam, Palliyadi
6	Nominee of the Executive Council	Shri. M.S. Faizal Khan	Pro-Chancellor, NICHE
7	Nominee of the Executive Council	Dr.G. Ramadas,	PRO, NICHE
8	Nominee of the Chancellor	Dr.M. Sankaranarayana Pillai	Director Students Welfare, NICHE
9	Nominee of the Chancellor	Dr.K. Kinslin	Professor, FMS, NICHE
10	Nominee of the Chancellor	Dr.P.K. Praseetha,	Professor, HoD, Nano, NICHE
11	Special Invitee (Ex-Officio)	Dr. P. Thirumalvalavan	Registrar, NICHE
12	**Secretary (Ex-Officio)**	**Mr.M. Viswanath**	**Finance Officer, NICHE**

Kumaracoil-629 180
13-11-2025

(Dr.P. Thirumalvalavan)
Registrar

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/23/GA/24,
18-1-2023.

Dear Sir/ Madam,

Sub : Constitution of **Committee for SC/ST**
Ref : UGC/AICTE Regulations and norms.

I am by direction constitute the **Committee for SC/ST** with the following convener and members.

S. No.	Name	Designation	Position	Phone no.	E-mail
1	Dr. V.P. Velmurugan	Associate Professor	Convener	9443211048	vpvharini@gmail.com
2	Mr. Anu Kuttan A	Assistant Professor	Member	8098005966	anukuttan95@gmail.com
3	Mr.Muniasamy M	Assistant Professor	Member	7373555565	munishsailor@gmail.com

Yours faithfully,

(Dr.P. Thirumalvalavan)

To

All the members

Copy to:

1. P.A. to the Chancellor
2. P.A. to the Pro-Chancellor (Academic)
3. P.A. to the Vice-Chancellor
4. Pro Vice-Chancellor (Administration)
5. Pro Vice-Chancellor (Academic)
6. Addl. COE
7. Finance Officer
8. File copy

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/25/GA/004,
5-8-2025.

Dear Sir/ Madam,

Sub : Constitution of **Security Committee**

Ref : UGC/AICTE Regulations and norms.

I am by direction constitute the **Security Committee** with the following Convener and members.

Terms of reference:

1. **Improving Physical Security**
   Check and strengthen all physical security measures like ID card checks, access gates, frisking, baggage scanners, and guard arrangements.
2. **Cyber Security Measures**
   Follow government cyber security guidelines (CERT-IN), implement software safety checks (SBOM), and regularly inspect IT systems for weaknesses.
3. **Emergency Plans**
   Create and update building-specific plans to handle emergencies like fires, floods, earthquakes, or terror threats, in coordination with relevant teams.
4. **Managing People on Campus**
   Ensure proper checks for all temporary workers, foreign visitors, and contractors. Speed up pending police verifications and strictly control casual labor access.
5. **Surveillance & Monitoring**
   Review and upgrade CCTV systems, patrolling routines, and control room operations to ensure round-the-clock monitoring.
6. **Vendor Security Checks**
   Thoroughly check the security background of all vendors and third-party service providers.
7. **Following Security Guidelines**
   Make sure everyone follows the issued safety instructions for general conduct, internet use, and handling of sensitive locations.
8. **Coordination & Quick Reporting**
   Set up a 24/7 control room to work with police and emergency services, and ensure all security breaches are reported immediately.

9. **Security Equipment Check**

   Inspect all security devices (like scanners and alarms) regularly and ensure they are working. Repair or replace faulty ones without delay.

10. **Training & Awareness**

    Hold regular drills and awareness sessions for staff and students on safety practices, handling threats, and using social media responsibly.

SECURITY COMMITTEE

S.No	Name	Department/ Designation	Position	Cell No
1	Dr.B. Bindhu	Director, Students Affairs	Convener	9500427092
2	Dr.R. Rajesh	HoD/ Mechanical Engineering	Member	9488882073
3	Dr.D. Kinslin	Director- Faculty of Management Studies	Member	94420 75559
4	Dr.R. Dharma Raj	Director, Physical Education	Member	94868 56102
5	Dr. G Ramadas	PRO/ Campus Maintenance Officer	Member	94437 91763
6	Mr. Sunil Kumar	Resident officer	Member	80752 04511
7	Dr.M. S. Shibi Chandradas ,	Coordinator for the Centre for Excellence-Students Activities	Member	94476 54744
8	Mr.Pradeep Mohan	Sports Coordinator	Member	9443503697
9	Mr.Krishnan Nair	Security officer	Member	9952614711
10	Mr. Peer Mohamed	Junior Assistant/ Administrative Office	Member	9994436030

Yours faithfully,

(Dr.P. Thirumalvalavan)

Encl : 1. GOI – MOE- DHE communication on Security of Vital Installations

2. Law and Order Meeting for the month of July 2025 stepping up on Security measures in Higher Educational Institutions/ Universities - Instructions

To

All the members

Copy to:

1. P.A. to the Chancellor
2. P.A. to the Pro-Chancellor
3. P.A. to the Vice-Chancellor
4. Pro Vice-Chancellor (Administration)
5. Pro Vice-Chancellor (Academic)
6. COE
7. Finance Officer
8. File copy

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/25/GA/008,
08-10-2025.

Dear Sir/ Madam,

Sub: Constitution of Social Media Committee – Terms of Reference and Guidelines – Reg.

I am by direction to state that in order to effectively disseminate institutional activities, achievements and announcements through various social media platforms, and to enhance the visibility and branding of Noorul Islam Centre for Higher Education (NICHE), a **Social Media Committee** is hereby constituted with effect from **09-10-2025**.

Constitution of the Committee

The following faculty members are nominated to serve on the Social Media Committee:

S. No.	Name of the Member	Designation/ Department	Position	Contact Number	E-mail
1.	Dr. Arun K. Das	AP/AHS	Coordinator	75608 10023	arunjohn.das@gmail.com
2.	Dr. Shibi Chandradas	AP/FMS	Member	94476 54744	shibichandradas@gmail.com
3.	Dr. Jebin Bose. S	AP/CSE	Member	94880 71631	jebinboses@gmail.com
4.	Ms. M. Madhurima	AP /AHS	Member	97443 15519	madhurima1551@gmail.com
5.	Mr. S. J Jinu Sam	AP /English	Member	75980 13470	jinusam3@gmail.com

Terms of Reference

The Committee shall function with the following objectives and responsibilities:

1. Promote and disseminate institutional activities, achievements, academic events, and outreach programmes through official social media platforms such as Facebook, Instagram, X/Twitter, LinkedIn, and YouTube..
2. Strengthen NICHE's visibility and branding on major social media as above.
3. Create, curate, design posts, banners, short videos, and reels in coordination with departments and administrative units.
4. Ensure content is accurate, relevant and approved by the Registrar before publication of major announcements.

5. Monitor engagement on official platforms, respond to queries appropriately and submit periodic reports.
6. Maintain compliance with institutional policies, government regulations and uphold professional standards.

Guidelines

1. Posts shall be made only through official NICHE social media handles.
2. All content shall follow institutional branding guidelines and use appropriate language, logos and formats.
3. Event information should be posted at least 3 days in advance and highlights must be shared within 24 hours post-event.
4. The Coordinator shall maintain a content calendar and approve posts prior to uploading.
5. Departments shall nominate faculty representatives to share verified updates promptly with the committee.
6. A digital archive of all social media content shall be maintained for documentation and reporting purposes.
7. Committee members shall maintain confidentiality of drafts and internal communications.
8. Periodic meetings shall be held to review performance and plan communication strategies.
9. All the HoDs and faculty representatives of social media shall mandatorily share the necessary details, photographs and reports with the Coordinator immediately and instantly --before, during, and after the events.

Yours faithfully,





(Dr.P. Thirumalvalavan)

To

All the members

Copy to:

1. P.A. to the Chancellor
2. P.A. to the Pro-Chancellor
3. P.A. to the Vice-Chancellor
4. Pro Vice-Chancellor (Administration)
5. Pro Vice-Chancellor (Academic)
6. COE
7. Finance Officer
8. File copy
9. PRO
10. Mr.S. Jebin Bose with a request to upload in the website
11. Activity Coordinator

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/25/GA/002,
21-08-2025.

NICHE Students' Council – 2025-2026

Name	Designation	Position	E-Mail ID	Contact No
Dr. Tessy Thomas	Vice- Chancellor	Patron	vc@niuniv.com	9618315678
Dr. B.Bindhu	Director – Student Affairs	Convenor	bindhub@niuniv.com	9500427092
Dr. R. Dharmaraj	Director-Physical Education	Co-Convenor	sports@niuniv.com	9486856102
Dr. M. S. Shibi Chandradas	Coordinator, Centre for excellence & Students Activities	Member	shibichandradas@gmail.com	9447654744
Dr. Jubi R	Professor & Head, Management Studies	Member	jubir2005@gmail.com	9447472428
Dr. Stanly Jones Retnam B	Associate Professor & Head, Aeronautical	Member	stanlyjonesretnam@niuniv.com	9443791408
Mr. K. Suresh Babu	First Year Activity Coordinator & Coordinator – Student Welfare	Member	sureshktm966@gmail.com	9447007439
B. Jincy Bassilia (1122204008)	S7 BME	General Secretary	jincybassilia@gmail.com	9677422637
Unnikrishnan S P (1122204017)	S7 BME	Joint Secretary	unni86976@gmail.com	9487647080
Lani SJ (1122204013)	S7 BME	Academic Affairs Secretary	lanil6025@gmail.com	8072507040
Christilda X J (1123304901)	S7 BME	Research Affairs Secretary	christildaxj@gmail.com	9384320877
Fathima Diya K (1124209004)	S3- EEE	Cultural Affairs Secretary	fathimadiyak567@gmail.com	8848286964
Asif Mohammed A (1124204031)	S3 BME	Science and Technical Affairs Secretary	asifmohammedaf63@gmail.com	8592933360
Dheeraj R Krishnan (1123204004)	S5 BME	Hostel Affairs Secretary (for Boys Hostel)	msdheeraj91@gmail.com	8547121947
Fathimathu Zehra T K (1124204013)	S3 BME	Hostel Affairs Secretary (for Girls Hostel)	fathmazeh@gmail.com	9074914619
M Sharukhan (1123237026)	S5 AI & DS	Alumni Affairs Secretary	sharuksrk200418@gmail.com	8124162004
Krishna S Ayyappan (1122208016)	S7 CSE	Career and Placement Affairs Secretary	Krishnaofficial0112@gmail.com	8248572839
Rifana H (1123614021)	S5 BBA	Chief Editor	rifanahyder30@gmail.com	7339520810
Vishnu Kumar V (1125309002)	S3 EEE	Sports Secretary	vishnukumar4723@gmail.com	9498405106

Kumaracoil – 629 180
21-08-2025

Registrar

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/25/GA/25,
15-05-2025.

Dear Sir/Madam,

Sub : Constitution of University Research projects Committee- Reg.

Ref : . VC's note order dated. **15-05-2025**

I am by direction reconstitute the following University Research projects Committee as below

1. Preamble

The Research Project Committee (RPC) at NICHE Deemed University is constituted to foster, evaluate, and oversee all research projects initiated by faculty, researchers, and research centers within the university. The committee operates in alignment with national and international research priorities, funding agency norms, and the institutional research policy.

2. Objectives

The primary objectives of the Research Project Committee are to:

- Promote and facilitate research activities and funded projects across disciplines.
- Evaluate research project proposals for scientific merit, feasibility, and strategic alignment.
- Ensure adherence to ethical standards and regulatory compliances.
- Monitor the implementation, progress, and outcome of ongoing research projects.
- Encourage collaborative, interdisciplinary, and translational research.
- Provide strategic inputs to enhance the university's research output and funding portfolio.

3. Composition of the Committee

S. No.	Name	Designation/Dept.	Position
1	**Dr. Santhi N**	Associate Professor & HOD_ ECE	Convenor
2	**Dr. Mathusoothana S. Kumar R**	Prof & HOD - IT	Member
3	**Dr. Ranjith V.G**	Assistant Professor & HOD i/c-, CSE	Member
4	**Dr. Arul Linsely J**	Associate Professor & HOD- EEE	Member
5	**Dr. Kumar S S**	Associate Professor & HOD- EIE	Member
6	**Mr. James Dinakaran Williams I**	Associate Professor & HOD- FT&SE	Member
7	**Dr. Rajesh. R**	Associate Professor & HOD- MECH.	Member
8	**Dr. Joseph J**	Professor & HOD- CHEM.	Member
9	**Dr. Stanly Jones Retnam.B**	Associate Professor, HOD-AERO.	Member
10	**Dr. Praseetha. P.K**	Professor & HOD -(NT	Member
11	**Dr. Murugan M**	Professor & HOD-BME	Member

12	**Dr. Jubi R**	Professor & HOD-FMS	Member
13	**Mr. Allwin.D**	Assistant Professor- CIVIL	Member
14	**Dr. Rimal Isaac R S**	Associate Professor,- NT	Member
15	**Dr. B. Ben Sujitha**	Professor-CSE	Member

4. Scope of Work

The Research Project Committee shall perform the following functions:

4.1 Proposal Review and Approval

- Scrutinize research project proposals for technical soundness, feasibility, and alignment with institutional goals.
- Ensure completeness of documentation including budget, methodology, ethical clearance (if applicable), and timelines.
- Recommend proposals for submission to internal/external funding agencies.

4.2 Monitoring and Evaluation

- Conduct periodic reviews of ongoing projects through progress reports, presentations, and site visits if needed.
- Address issues related to project delays, fund utilization, or deviations from approved plans.
- Approve changes in project scope, timelines, or budget reallocations.

4.3 Resource Facilitation

- Recommend infrastructural and administrative support for smooth execution of approved projects.
- Suggest deployment of research scholars, assistants, or interns for project-related tasks.
- Liaise with industry, government, and funding bodies for collaborative projects.

4.4 Compliance and Ethics

- Ensure that all research projects adhere to ethical standards, institutional and national guidelines, and funding agency rules.
- Verify that necessary approvals from Human Ethics Committee are obtained prior to initiation.

4.5 Capacity Building and Awareness

- Organize capacity building programs, proposal writing workshops, and awareness sessions on funding opportunities.
- Facilitate training on research methodology, project management, and financial compliance.

4.6 Reporting and Documentation

- Maintain a central database of all funded research projects, including budget, duration, outcomes, and publications.
- Submit monthly reports on research project activities to the Pro Vice Chancellor(Academic) for review and Quarterly report to the Vice-Chancellor for further review.

5. Frequency of Meetings

- The Committee shall meet at least **once in a month**, or more frequently as required.
- Emergency meetings may be convened at the discretion of the Chairperson.
- A minimum quorum of one-third of the members shall be required for any meeting to take place.

6. Awards and Recognition:

Recommend deserving faculty and students for research awards and incentives based on meritorious performance.

7 Grievance Redressal:

Address grievances related to research activities, delays, fund disbursement, or ethical issues.

8. Confidentiality and Conflict of Interest

- Members shall maintain strict confidentiality on project evaluations and deliberations.
- Members must declare any conflict of interest and recuse themselves from discussions where applicable.

The concerned faculty members are requested to contact the convenor and do the needful.

Yours faithfully,



(Dr.P. Thirumalvalavan)

To
All the members

Copy to:

1. P.A. to the Chancellor
2. P.A. to the Pro- Chancellor
3. P.A. to the Pro Vice-Chancellor (Academic)
4. P.A. to the Vice-Chancellor
5. Pro-Vice-Chancellor (Administration)
6. Pro Vice-Chancellor (Academic)
7. COE
8. Director - Research
9. All HoDs / Directors / Deans
10. Finance Officer
11. File copy



WOMEN EMPOWERMENT CELL w.e.f 18-2-2025

S.No.	Name	Title	Designation	Department
1.	Dr. K.Uma Samundesvari	Convenor	HoD i/c.	Mathematics
2.	Dr. J. R. Jeba	Secretary	Professor/ HoD	Computer Applications
3	Dr. B. Bindhu	Member	Professor / HoD	Physics
4.	Dr. G. Arockia Selva Saroja	Member	Associate Professor/ HoD	Allied Health Sciences
5.	Dr. T.V. Sindia	Member	Associate Professor	IT
6.	Dr.H. Vennila	Member	Associate Professor	EEE
7	Dr.K. Asha	Member	Assistant Professor	MBA
8.	Dr. Rini Susan Alexander	Member	Deputy Director in Physical Education for Girls Students	
9.	Mrs. Sree Lekha	Member	Junior Assistant	Office
10.	Ms. Jefrin.L	Member	Research Scholar	Mathematics
11.	Ms. Shanika Shameem .S	Member	Student	S_4 B.E.(CSE)
12.	Ms. Alina Rajeev	Member	Student	S_4 B.E. (AME)
13	Ms. Shereena J	Member	Student	S_2 HGMB

Kumaracoil-629 180,
18-2-2025

Dr. P. Thirumalvalavan,
Registrar.

Copy to:

1. P.A. to the Chancellor
2. P.A to Pro Chancellor (Academic)
3. P.A. to the Vice-Chancellor
4. Pro Vice-Chancellor (Administration)
5. Pro Vice-Chancellor (Academic)
6. COE
7. All HoDs
8. Finance Officer
9. File copy

ANNEXURE 9.2

Financial Support for Startup Eco-System

NICHE
KANYAKUMARI
DEEMED-TO-BE UNIVERSITY

Innovation and Startup Policy

(Aligned with National Innovation and Start-up policy-2019)

INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education Initiative)

MoE's INNOVATION CELL
(GOVERNMENT OF INDIA)

AICTE

Kumaracoil, Thuckalay, Kanyakumari District, Tamil Nadu-629180 | info@niuniv.com | +91 9486856101, 04651 250566

Dr.P.Thirumalvalavan,
Registrar.

NI/RG/23/ST/011,
22-9-2023

Noorul Islam Centre for Higher Education - Innovation Start-up Policy (NICHE-ISP)

Innovation and entrepreneurship need to emerge as one of the focal points of our education system and it is essentially required for the development of the Indian economy. This document outlines the Innovation Start-up Policy (ISP) of the Noorul Islam Centre for Higher Education (NICHE). The policy was framed based on the guidelines of the Ministry of Education (MoE's) Innovation Cell for the active engagement of students and faculty in building, streamlining, and strengthening the innovation and start-up ecosystem in NICHE. Aspiring researchers and entrepreneur students are full of innovative ideas and often look for technical and business incubators to take their ideas to the next stage. The incubator helps start-ups grow and supports with the following: such as capital, funds, strategy, and providing a variety of other resources. NICHE has promoted the Institution's Innovation Council (IIC) to foster innovation and technology-based start-up ventures and to address societal challenges using science and technological interventions through the creation of working prototypes and commercial products and motivates a large group of students and faculty members to pursue entrepreneurship. It builds working relations with Govt. of India, Govt. of Tamil Nadu, Alumni start-ups, corporate, NGOs, industries, international bodies, and other academic and research institutions for a common goal of developing the innovation and start-up ecosystem.

PREAMBLE

In November 2016, the All India Council for Technical Education (AICTE) released a start-up policy document that addressed the need for the inculcation of innovation and entrepreneurial culture in HEIs. Inspired by the policy, the institute has designed and formulated the NICHE-ISP on different aspects by an eleven membered committee. It includes the following aspects: Intellectual property ownership, revenue sharing mechanisms, equity sharing mechanism, motivates a large group of students and faculty members to pursue entrepreneurship and other thrust area of ISP and it is also dedicated to promoting initiatives like hackathons, tech-fests, idea competition and start-up boot camps, etc.

VISION

Our vision is to ensure the innovation and Start-up culture by integrating innovation and entrepreneurial activities to attain the Innovative Centre of Excellence.

MISSION

Our mission is to transform innovative ideas into product development and commercial exploitation for strengthening the economic and intellectual growth of our nation by providing all sorts of assistance like infrastructure, space, legal advice, technical expertise, operations, market linkage, and networking to our creative student aspirants and faculty members.

This document broadly details the following thrust areas:

1. Strategies and governance for promoting innovation and entrepreneurship
2. Start-up enabling institutional infrastructure
3. Nurturing innovations and start-ups
4. IPR evaluation
5. Organization capacity, HR & Incentives
6. Creating innovation pipeline and pathways
7. Norms for faculty start-ups
8. Pedagogy and learning interventions for entrepreneurship development
9. Collaboration, co-creation, business relationships, and knowledge exchange
10. Periodic impact assessment

1. Strategies and governance for promoting innovation and entrepreneurship:

a. NICHE has established an Institution's Innovation Council (IIC) as per the guidelines of MoE's Innovation Cell. It is guiding the institution in conducting various activities related to innovation, start-ups, and entrepreneurship development.

b. NICHE has formulated a well-articulated vision and mission for the development of Innovation and Entrepreneurial (I & E) ecosystem in the campus. The specific objectives of 'I & E' activities are to support innovation, pre-incubation, and incubation infrastructure facilities for students, faculty members, and others. NICHE has also formulated a performance measuring indicator of Atal Ranking of Institution on Innovation Achievement (ARIIA) to assess and monitor the development of the entrepreneurial ecosystem in the organization.

c. The entrepreneurial agenda should be the responsibility of the Head of the Institution and the Institution's Innovation Council of NICHE. Heads of all departments and the IIC of NICHE shall work together to successfully implement the entrepreneurship culture.

d. Resource mobilization plan:

   i. NICHE has defined a sustainable financial strategy for the implementation of entrepreneurial agenda. It allocates 1% of its total annual budget for funding and supporting innovation and start-ups related activities.

   ii. The IIC will also take measures to generate funds from various externalsources like DST, DBT, MHRD, AICTE, TDB, TIFAC, DSIR, CSIR, BIRAC, NSTEDB, NRDC, Start-up India, Invest India, MSDE, MSME, etc., and non-government sources.

   iii. NICHE will also generate funds through sponsorships, donations from other agencies, and alumni networks for promoting 'I& E'.

   iv. IIC will approach private and corporate sectors to generate funds, under Corporate Social Responsibility as per Section 135 of the Company Act 2013.

e. IIC and its team are empowered to expedite the decision-making, minimize hierarchical barriers, and promote individual autonomy and ownership of initiatives through individual autonomy and ownership of initiatives.

f. NICHE will promote and highlight the importance of innovation and entrepreneurial concepts by incorporating appropriate courses in its curricula and also by institutional programs such as conferences, workshops, etc.

g. Institute endeavours to develop and implement 'I& E' strategy and policy for the entire institute in order to integrate the entrepreneurial activities across various centres, departments, and faculty, within the institutes, thus breaking the silos.

h. IIC will plan its own strategy in order to achieve its long-term vision by implementation of innovation and start-up policy objectives.

i. NICHE will act as the driving force in developing entrepreneurship culture in its vicinity at regional, social, and community levels and will extend its facilities to the needy outside start-ups.

j. NICHE develops strategic international partnerships and collaboration with national, and international Universities, relevant organizations, colleges, and industries by

exchange programs and internships through Memorandum of Understanding (MoU) and forms the international innovation clusters.

k. NICHE will invite its successful alumni entrepreneurs to share their success stories, start-up experiences, and operational and developmental procedures with students, staff, faculty members and IIC on regular basis to motivate the stake holders.

2. **Institutional Infrastructure:**

a. Infrastructure at NICHE will be developed to promote the start-up ecosystem.

b. The institution created pre-incubation and incubation centre and its facilities are accessible for students, faculty, alumni members and potential entrepreneurs who are interested in start-up activities.

c. NICHE encourages its IICs to organize programs related to innovation, IPR, start-ups, and entrepreneurship development.

d. NICHE will create facilities for supporting pre-incubation (e.g., IICs as per the guidelines by MoE's Innovation Cell, EDC, Innovation Cell, Start-up Cell, etc.) and Incubation by mobilizing resources from internal and external sources.

e. Establishment of labs / Makers' space in the Institute that will serve as a bridge between Innovators and Incubators and will be accessible 24 x 7 to students and faculty across the Institute.

f. Institution will offer mentoring and other relevant services through Pre-incubation/ Incubation unit's in-return for nominal consultancy fees initially (decided from time to time by the Head of the Institution). Later, the services will be offered on an equity-sharing basis.

g. Fees, operation royalty, or rental will be decided on a case-by-case basis depending upon the nature of services and support offered through IIC.

3. Nurturing Innovations and Start-ups:

a. The IIC and Incubation Cell (IC) have established the processes and mechanisms for easy creation and nurturing of start-up schemes with UG/PG/Ph.D. students and

faculty members including project staff. The IIC committee will monitor the progress of every start-up.

b. Student entrepreneurs will earn credits for working on innovative prototypes. The formal recommendations are tabulated below: UG/ PG Students

Particulars	Progress	Credits
Credits that can be earned, for progress made on innovative prototypes/Business Models, IPR. (As per the recommendation of Review Committee)	Prototypes	Up to maximum of 3 credits
	Business Models	Up to maximum of 3 credits
	IPR	Up to maximum 3 credits

c. Curriculum and syllabus related to innovation entrepreneurship development, venture development, and skill development courses are incorporated in UG and PG programs.

d. Student inventors will be allowed to opt for start-up in place of their mini project, seminars, and summer trainings.

e. The area in which the student wants to initiate a start-up may be interdisciplinary or multidisciplinary

f. Students can attend entrepreneurship training with no registration fee.

g. Students who are under incubation, but are pursuing some entrepreneurial ventures are allowed to use the institute address to register their company with due permission from the institution.

h. Students registered with pre-incubation or incubation centre (as certified by the in-charges) are considered for 10% relaxation of attendance per semester with necessary permission from the head of the Institution.

i. Re-Exams, can be permitted if students are requested for participating in very important 'I&E' activities.

j. On duty for a period of up to 10 days per year will be given to faculty and students working in pre-incubation units, start-up activities, and Incubation Centres.

k. Funding up to 1% of the Institute's total annual budget will be allotted for student start-up venture activities and this will be managed by IIC.

l. Students, who have deferred their placement opportunity while venturing into their start-ups, will be considered for another placement chance in case of failure of their venture based on their request.

m. NICHE will consider the request from students for a break in academic studies for a period of up to 12 months to work on their start-up company launched in the Incubation Centre or elsewhere and rejoin academics to complete the course.

n. The institute will provide hostel or guest room accommodation to the entrepreneurs within the campus for some period of time.

o. Incubatee can access technology development, ideation, creativity, and other infrastructure facility of the institute with a minimum or no charge depending upon the consumables and other material usage.

p. Regular in-house and external expert mentorship will be provided to incubatees.

q. The Incubation Centre will provide linkages to banks, seed-fund providers / agency funds/ venture funds / Govt. organizations. It is the responsibility of incubatees to avail the required support as per the funding bodies' norms and regulations

r. Faculty and staff are allowed to take off for a period of two-year sabbatical leave (unpaid) for working on start-ups and come back.

s. Faculty members involved in start-up and incubation do not spend more than 20% of office time. Hence, it will not affect their regular academic and administrative work and duties

t. Institute has a policy to extend this start-up facility to alumni of the institute.

u. Every faculty member is expected to encourage and motivate the student to carry out I&E activities

v. The Incubatee at any stage should not cause any damage to or degrade the reputation of NICHE and its Incubation Centre on and after executing the contract.

w. Start-up activity should not bring the institution into any liability at any condition.

x. Contributions towards start-ups will be considered for promotion while evaluating the annual performance of the faculty in addition to R&D projects, industrial consultancy, and management duties.

y. The progress of every start-up will be monitored by the IIC committee and progress presentations will be conducted for every start-up at the end of every academic year.

z. Institution will revise performance evaluation policies for faculty and staff.

aa. External Incubatees will undertake an agreement to become an incubator to utilize the Incubation Centre services.

4. Product Ownership Rights for Technologies Developed at NICHE:

a. When NICHE facilities and funds are used substantially or when IPR is developed as a part of the curriculum or academic activity, IPR is to be jointly owned by inventors and the institute.

b. Inventors and institute could together license the product or IPR to any commercial organisation, with inventors having the primary say. License fees could be either a mix of
1. Upfront fees or one-time technology transfer fees
2. Royalty as a percentage of sale-price
3. Shares in the company licensing the product

c. Any revenue generated from IPR activities will be shared in the ratio of 70% to the Inventors and 30% to the NICHE.

d. On the other hand, if the product/ IPR developed by the innovators are not using the institute facilities and funds, outside office hours (for staff and faculty), or not as a part of the curriculum by the student, then the product/ IPR will be entirely owned by inventors in proportion to the contributions made by them. In this case, inventors can decide to license the technology to third parties or use the technology the way they deem fit.

e. If there is a dispute in ownership, a minimum five-membered committee consisting of two faculty members (having developed sufficient IPR and translated to commercialization), two of the institute's alumni/ industry experts (having experience in technology commercialization), and one legal advisor with experience in IPR, will examine the issue after meeting the inventors and help them settle this.

f. Institute IPR cell or the Incubation centre will only be a coordinator and facilitator for providing services to faculty, staff, and students. They will have no say in how the invention is carried out, how it is patented, or how it is to be licensed.

5. Organizational Capacity, Human Resources (HR) and Incentives:

a. Faculty members with strong industrial experience, innovation & entrepreneurship (I&E) skills will be deputed for training the students, to promote I&E culture and institutional policy to achieve better engagement of staff with constant up-skilling.

b. Interdisciplinary departmental engagement, teaching, and research will be encouraged to gain maximum utilization of internal resources and knowledge.

c. External subject experts, entrepreneurs and industrial experts, guest lecturers, and alumni will be invited to get strategic guidance and bring in skills and knowledge sharing in order to strengthen 'I&E' activities.

d. Faculty and staff are to be encouraged to study courses on innovation, entrepreneurship management, and venture development related to 'I& E'.

e. Students involved in I&E activities will be considered for awards as 'Achievers' on the University Day function to motivate and recognize talented minds.

f. In order to attract and retain the right people, NICHE will honour the candidates with incentives, reduced teaching loads, awards, trainings and will also continuously develop strategies and reward mechanisms to reward all staff and stakeholders who actively contribute and support I&E activities.

6. Creating innovation pipeline and pathways

a. NICHE will establish an institution-level mechanism to maximize the exposure of students to innovation and pre-incubation activities at their early stage and also to support the pathway from ideation to innovation to market viability.

b. Students will be allowed to venture their start-up idea as their final year project and it will be academically graded to qualify for the award of degree.

c. NICHE will spread awareness among students, faculty, and staff about the value and importance of entrepreneurship and its role in career development or employability.

d. NICHE will link start-ups and companies with other entrepreneurial ecosystems both in India and abroad through their participation in competitions. Networking events will be organized to create a platform for budding entrepreneurs to meet investors and pitch their ideas.

e. Connecting student entrepreneurs with real-life entrepreneurs will help the students in understanding real challenges and also will increase the probability of success.

f. The students will be taught about 'I & E' mechanisms with a focus on marketing and it will be useful to solve the problems of society and consumers.

g. Students will be encouraged to develop an entrepreneurial mind set by routinely organizing periodic programs with experiential learning such as idea and innovation competitions, workshops, seminars, conferences, exhibitions, and mentoring from experts and it will be useful to alleviate the real-life challenges and develop their cognitive skills (e.g. design thinking, critical thinking, etc.). NICHE will award and recognize talented minds through the above initiatives with the help of academic and industry experts.

h. Integration of education with enterprise-related activities will boost in creation of start-up ideas into reality.

i. NICHE will provide business incubation facilities such as laboratories, research facilities, IT services, training, mentoring, etc., at free of cost to access the new start-ups.

j. NICHE will develop and publish ready- reference Innovation Tool Kit on the homepage of its website to answer the doubts and queries of the innovators and enlist the facilities available at the institute with respect to 'I & E'

k. Institute will acknowledge and guide the deserving faculty and students with ideas and innovations and support their entrepreneurial journey.

7. Norms for Faculty Start-ups at NICHE:

a. Norms for faculty start-ups will be created by the NICHE for better coordination of entrepreneurial activities.

b. Roles of faculty may vary from being an owner or direct promoter or mentor or consultant or as on-board member of the start-up. NICHE will safeguard the 'conflict of interests to ensure that the regular duties of the faculty don't suffer due to involvement in the start-up activities.

c. NICHE will venture into start-up with its faculty members, students and alumni, and other stakeholders. The stakeholders will be the students, staff members, faculty from another institute, and entrepreneurs.

d. Faculty will not involve research staff or other staff in the activities of start-up or vice versa.

e. Faculty start-ups will be selected from the existing innovation technologies that originated from the faculty research.

f. NICHE will permit an outside national or international accelerator in the faculty start-up with a maximum leave of one semester or year which will depend on the decision of the review committee.

g. The potential R&D activities of NICHE will be identified and supported for venturing into a start-up or technology transfer or commercialization.

h. NICHE will clearly separate and distinguish its ongoing research from the work conducted at the start-up.

i. Faculty and students will be allowed to do internships with eligible stakeholders based on their request. The internship will be considered for its appropriate academic grading.

j. Faculty will not accept gifts from the start-up and abide by the rules and regulations of NICHE.

8. Pedagogy and Learning Interventions for Entrepreneurship Development:

a. NICHE will conduct an induction program about the importance of 'I& E' at the beginning of every academic session so that freshly inducted students are made aware of the entrepreneurial agenda of the institute and available support systems. Incubatee student or alumni entrepreneurs will be invited to share their experiences and motivate the juniors.

b. Diversified approach will be adopted, including cross-disciplinary learning using mentors, labs, case studies, games, etc., instead of traditional lecture-based delivery to produce desirable learning outcomes.

c. Teaching methodology will be included based on case studies, business failure, and real-life experience reports by start-ups and it will sensitize students and will also help in reducing the social stigma associated with it.

d. Student innovators, start-ups, and experts will be engaged in the dialogue process while developing the strategy so that it becomes need-based

e. Entrepreneurship education will be imparted to students and the learning outcomes will be made available to the students.

f. Curriculum for entrepreneurship education will be continuously updated based on entrepreneurship research outcomes and it will also include case studies on failures.

g. Customized teaching and training materials will be developed for start-ups

h. External stakeholder's expertise in entrepreneurship education will be utilized for creating a collaborative culture and engagement with the external environment.

i. Industry personnel will be acquainted with conducting research and survey on trends in technology, research, innovations, and market intelligence. Sensitization of students will be done for their understanding of expected learning outcomes.

j. Student clubs, professional societies, and teams will be created for organizing competitions (like hackathons, ideation, codathon, and marathon, etc.), boot camps, workshops, awards, exhibitions, and hands-on training, etc., for improving the students' thinking and responding ability.

k. Innovation champions will be nominated from within the students, faculty and staff for each department of study.

l. NICHE will start an annual "I&E award" in an effort to recognize outstanding ideas, successful enterprises and contribution for promoting innovation and enterprises ecosystem in the institute.

m. The risk involved in entrepreneurship will be taught to everyone who wants to become an entrepreneur. The entrepreneur is a leader, who would convert an innovation successfully into a product.

n. NICHE will tolerate failures and it will be elaborately discussed and debated to realize that failure is a part of life and it will be a part of its philosophy and culture and also will help to reduce the social stigma associated with it.

o. Pedagogical review and update will be done to ensure the maximum number of student projects and innovations are based on real-life challenges.

9. Collaboration, Co-creation, Business Relationships, and Knowledge Exchange:

a. IIC will function as a 'single point of contact' for the students, faculty, collaborators, partners, and other stakeholders to share, support, and expertise all activities, effectively absorb information and knowledge from the external ecosystem, and do knowledge management related to 'I & E'.

b. NICHE will collaborate with industries, government, NGOs, MHRD, and other bodies for the exploitation of entrepreneurial opportunities.

c. NICHE encourages incubatees to collaborate with the following stakeholders: potential partners, resource organizations, micro, small and medium-sized enterprises, social enterprises, schools, alumni, entrepreneurs, and professional bodies to support entrepreneurship and co-design the programs.

d. Mutual exchange of knowledge will be achieved by involving the stakeholders in the academic process such as guest lecturers, project evaluators, mentors, chair of technical sessions and symposia, etc. Internal faculty will be engaged as consultants, mentors, technical experts, and solution providers in industries.

e. NICHE will organize networking events for better engagement of collaborators and creating opportunities for staff, faculty and students to allow constant bi-directional flow of ideas and knowledge through meetings, workshops, space for collaboration, lectures, etc.

f. Faculty, staff and students will be connected and accomplish cordial relationships with the stakeholders through formal and informal mechanisms such as internships, teaching and research exchange programmes, clubs, social gatherings and science parks etc., for absorbing information and experience from the external environment and ecosystem and also for ensuring maximum exploitation of entrepreneurial opportunities.

g. NICHE will frame policy and guidelines which will be useful for creating, managing, and exchanging knowledge through collaboration, fostering, and coordinating these relationships with external stakeholders including private industries.

10. Periodic Impact Assessment:

NICHE entrepreneurial initiatives such as innovation, pre-incubation, incubation, and patent registrations will be measured regularly using the following evaluation parameters:

a. Quality and quantity of 'I&E' activities organized.

b. Evaluation of teaching, learning and other academic activities related to 'I& E' through outcome assessments.

c. Monitoring the sustained development and maintenance of infrastructure and other facilities that promote 'I& E' activities.

d. Number of achievements, awards, recognition, funding, and other support received.

e. Number of established ventures and registered start-ups with the support of the IIC and recognitions received.

f. Number of support systems provided at the institutional level and satisfaction of participants and new business relationships created.

g. No. of collaborations with industries, alumni start-ups and NGO, etc., related to 'I&E'.

h. Number of Intellectual Property (IP) generation and commercialization, industry linkages, and exposure to entrepreneurial ecosystem obtained.

COMMERCIAL success will be the REAL measure in the long run

Dr. A.K. Kumaraguru
Vice Chancellor
NICHE

Approved vide Item no: 50.24
in the 50th meeting of the BOM.
held on 5.10.23

Dr. P. Thirumalvalavan
Registrar
NICHE

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION * KUMARAKOIL - 629 180 *

Dr. P. THIRUMALVALAVAN,
Registrar,
Noorul Islam Centre for Higher Education,
Kumaracoil - 629 180, Thuckalay,
Kanyakumari District.

ANNEXURE 9.3

Financial Policy

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

(DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF THE UGC ACT 1956)

FINANCIAL POLICY

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

(DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF THE UGC ACT 1956)

KUMARACOIL - 629180

THUCKALAY

KANYAKUMARI DIST

TAMILNADU

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION ★ KUMARAKOIL - 629 180 ★

Dr. P. THIRUMALVALAVAN,
Registrar,
Noorul Islam Centre for Higher Education,
Kumaracoil - 629 180, Thuckalay,
Kanyakumari District.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

(DEEMED TO BE UNIVERSITY UNDER SECTION 3 OF THE UGC ACT 1956)

FINANCIAL POLICY

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I. ACCOUNTING PRINCIPLES AND POLICY

The financial statements of the NOORUL ISLAM CENTRE FOR HIGHER EDUCATION (NICHE) are prepared in accordance with the Accounting Principles Generally Accepted in India. The Accounting and financial reporting practices of educational Institutions are required to maintain the finance records in confirmations with the Acts and regulations of the Regulating authorities like UGC, AICTE, Income Tax act, Societies Registration Act., etc

A legally separate organisation should be reported as a component unit of the institution, which required to fulfill the following:

i. Economic resources received or held by NICHE is entirely for the direct benefit of the institution.
ii. Institutions or its component units are entitled to or has the ability to otherwise access, all of the entities economic resources based on the availability.
iii. Resources of NICHE is significant to the Institution

The final determination of the significance of the resources received or held by an individual entity is generally left to the Board of Management.

Inventories of all units and fund raising of the institution will be maintained by the Departments under the directions of the Vice-Chancellor for administrative services.

Direct benefit to the NICHE occurs if the entity holds and invests resources that will benefit the institution. This is not dependent upon actual transfer of resources but rather than resources are required to ultimately be used for the benefit of the institution, its component units or its constituents.

II. GENERAL ACCOUNTING POLICY

This policy provides the complete and accurate book keeping records of all transactions affecting the ledger are accruals and cash accounting method.

To ensure complete and effective communication of all policies and procedures which impact on the discharge of the financial responsibilities of the faculty and other staff members.

To ensure that all transactions are completely and accurately recorded in the books on accrual and cash accounting system as the basis for effective reporting of financial results.

The accounts of the Institute shall be maintained in Tally.ERP9 software. The Fee collection receipts are issued in the preset Billing Software as approved by the Computing Department of the Institute. The Account head codes are generated and issued by the Academic director who is controlling the software.

The accounting section of the admin office will be responsible for maintaining the financial records, evidences and books of accounts of the Institution for all financial transaction. The Cash section of the Admin Office is keeping the bills, evidences and other records of the student's fee collection, demands and other cash receipts and payments made. The employee's emoluments and other benefits are fixed by the Admin. Departments of the Institution and the detailed records for the payments and recoveries will be maintained by the Accounts Section.

Campus Accounting and Budgets will be monitored and maintained in the Accounts Section of the Admin. Department.

The journal entries of the transactions of the institution should be passed then and there by the Accounts Section.

The Bills/receipts for the collections in the Cash Section will be issued immediately the receipts of the collection.

The Chart of Accounts used to describe and classify transaction according to uses and/or regulations, restrictions or limitations in compliance with the financial reporting requirements of the UGC guidelines and other statutory bodies. The Institution uses separate ranges to designate the transactions as revenue, expenses, net assets, assets or liability.

The Receipts and Payments Accounts, Income and Expenditure Accounts, Funds Flow Statements and the Balance Sheet should be prepared by the Institution every financial year as per the deemed university regulations and should be audited by a qualified chartered accountant. The audited financial statements should be approved by the Board of Management as recommended by the Finance Committee.

III – BANK MATTERS AND OTHER FACILITIES – FISCAL RESPONSIBILITY POLICY

1. Objects:

To protect and deposit cash immediately in to the Institution's approved bank accounts and correctly record it in the NICHE books of accounts.

2. Cash handling and reporting:

NICHE receives many receipts through cash. The Fee Collection includes Tuition Fee, Hostel fee, Exam fee, Transport fee, Academic Auxiliary Fee etc., which can be remitted to the Institute accounts either directly through the student portal student login or through NEFT/RTGS/BHIM/Google pay/Card Swipe and Cash. The cashier shall issue the Receipt immediately on receipts of cash and for digital payments shall issue the receipts duly verified the evidence from the students in the Cash section.

Cash can be deposited to the NICHE bank account by the cashier from fee collection. The Students can also deposit to the NICHE Bank account.

The collections are closed by cashier and settled the account statement to the accounts section daily basis for entering transactions to the NICHE books of accounts.

Depends upon the forecast periodical cash requirements, the excess cash if any kept in the operating bank accounts, which shall be transferred to short term deposits.

Upon request of the funds from the external sources/organisation/student, the invoice number and campus department name must be included in the remittance instructions for easy identification of payment/receipts.

3. Controls:

The person prepares the bills and vouchers must get it approved from the authorized person for such payment. There must be a review process for all transactions which ensures the accuracy of the transactions and that all cash deposits are accounted for fulfilling the completeness objective. Monthly reconciliation statement between bank statement and NICHE account shall be prepared and follow up.

4. Internal Control:

Internal control is defined as a process effected by an entity's people designed to accomplish specified objectives. The definition is broad, encompassing all aspects of controlling a system, yet facilities a directed focus on specific objectives. Internal control consists of interrelated components that serve as criteria for determining whether the system is effective.

5. Detailed Policy and Procedure:

Every Officer/Director/Faculty/Head/Principal/Administrators of the Institute is responsible for the system and process that fall under their sphere of influence. As part of this responsibility Every Officer/Director/Faculty/Head/Principal/ Administrators of the Institute must ensure that every process contains activities that ensure certain key objectives are achieved. Accountants/ Accounting Officers must ensure that every process includes controls to achieve the following:

Completeness: That all of the transactions for a given period have been processed and that individual or groups of transactions have not been omitted or misdirected. A common control is to have transaction grouped by "batch" and to prove each batch as it is processed. Another example is to develop a control total of transactions that should be processed today and verifying that total against the totals reported on system reports, or verifying today's deposits against the transactions posted to the ledger.

Authorization: Only those transactions that meet management's criteria are processed. Ways to accomplish this objective are to require every Officer/Director/Faculty/Head/Principal/ Administrators of the Institute's initials on all transactions being processed, management review of transaction journals, edit checks within the system to detect "unreasonable" transactions etc.,

Accuracy: Transactions are accurate in amount chart of Accounts etc.,

Timeliness: Transactions are recorded within the appropriate reporting period. All transactions must be processed within the applicable accounting period and recorded before there is opportunity for amounts to be misdirected.

6. Safeguarding of Deposits/Investments:

Protect all the mentioned documents against shrinkage. This control objective is most common for inventories of supplies, cash, investments securities etc.

Managerial Review: Sufficient oversight of activities ensures controls are functioning as intended and that any errors or unauthorized activity is detected before the impacts becomes significant. Managerial review includes activities taken by the officers to gain assurance that controls are functioning or provide a warning before a malfunction significantly impacts operation. There are a number of tools a manager can employ to achieve this objective, including:

- Reviewing and testing reconcilements to ensure they are performed correctly.
- Reviewing an aged listing of reconciling items
- Performing balance fluctuations analysis
- Comparing rates of occurrence.

Every employee is responsible for following procedures outlined by management in the Accounting Policies Manual and any other policy or procedures pronouncements relating to their job.

7. Responsibility:

Every Employee:

- Is responsible to know and follow appropriate policies and procedures for their job.
- Has a responsibility for internal controls.
- Is responsible for the execution of control activities.
- Must be aware of opportunities to increase the reliability and integrity of the Institutes Accounting System.
- Notify Supervisors of weaknesses in and opportunities to enhance internal controls.

Officer/Director/Faculty/Head/Principal/Administrators of the Institute's

- Are responsible for establishing appropriate controls in your sphere of influence.
- Are responsible for monitoring the effectiveness and functioning of controls.

8. Segregation of Duties:

Segregation of duties is a basic key internal control and is used to prevent or detect errors or irregularities on a timely basis by employees in the normal course of operations. Senior administration and all individuals responsible for assignment and supervision of employees that carry out fiscal activities, budget and implementation of internal controls must ensure, there is adequate segregation of duties within their areas of responsibility, or provide compensating controls if required. Segregation of duties provides two benefits:

1. Deter fraud, as it is more difficult to commit fraud when it requires collusion of two or more persons.
2. The probability for detection of errors or irregularities increases when a second individual reviews or participates in the processing of transaction.

At the most basic level, no single individual should have responsibility to complete two or more phase of a transaction or process.

a) Authorization:

Meaning: Authorization is process of giving permission to someone to initiate a financial transaction, is also known as approval, indicating agreement that a transaction meets certain accounting and compliance requirements as defined by NICHE.
All transactions

b) Recording:

Recording is the process of creating and maintaining records of revenue, expenditures, assets and liabilities. These may be manual records or records maintained in the financial systems. Some examples include:

- Preparing cash receipts, billings and requisitions
- Entering charges or posting payments to an accounts receivable system
- Maintaining inventory records
- Creating journal entries
- Inputting time or absence records into payroll

c) Verification:

Verification of processing or recording of transactions ensures all transactions are valid, comply with authorization requirements, and are properly recorded on a timely basis. This includes resolving identified differences or discrepancies. This verification must be documented with a signature (electronic or manual) and date.

Examples include:

- Verifying cash collections and compare/reconcile to daily balancing reports
- Comparing cash receipts log to accounts receivable postings
- Comparing collection to deposits
- Reconciling departmental records of revenue, expenditure or payroll transactions to the financial system
- Comparing payroll transactions to payroll summaries
- Performing physical inventory counts periodically

d) Custody of Assets:

Custody of Assets is the access to or control over physical assets such as cash, cheques, equipments, supplies or materials. Includes:

- Access to any funds through the collection of funds, or processing of payments
- Access to safe, lock boxes, file cabinets or other places where money, cheques or other assets are stored.
- Receiving goods or services
- Maintaining inventories

In all cases, there is a level of review of the activity by managerial level personnel. This managerial review function provides assurance that segregation exists and that the transactions are appropriate. The frequency and extent required of the managerial review depends upon the degree to which duties are or are not segregated and other factors such as the rupee volume of transactions, the amount of cash involved, or the nature of the operation.

e) Mitigating Controls:

There are several other control mechanism that may mitigate a lack of segregation of duties:

- Reconciliation of applications increases the level of confidence that processes ran and/or interfaced successfully.
- Exceptional reports monitored at a supervisory level, supported by evidence that exceptions are reviewed, and if necessary, corrected timely. The review must be evidenced by signature of the supervisors and dated.
- Managerial review should periodically be performed through observations and inquiry to help detect errors and irregularities.

Responsibility:

Every employee:

- Is responsible to know and follow appropriate policies and procedures for their job.
- Is responsible for executing internal control activities.
- Should identify opportunities to increase the reliability and integrity of accounting system.
- Must notify supervisors of weaknesses in, and opportunities to enhance the internal control.

f) Bank Reconciliations:

The cash department makes deposits to bank from daily collections trough deposit slips are entered in the daily sheet of cash section. The accountant reconciles the daily deposits with bank statements.

The accountant prepares and sent the daily fees collection through bank from students on various modes to cash section on every succeeding day. The same is reconciled and issued receipts to the corresponding student who remitted the fee to NICHE bank account.

The Accountant reconciles all the receipts and payments with bank statements and prepares reconciliation monthly basis.

Responsibilities:

- Matches general ledger entries to entries in the bank accounts to assure accuracy, completeness, and timeliness of entries.
- Compare entries on both University and bank books for all bank accounts.
- Reconcile bank balance to institute cash balances.
- Prepares documentation of reconciliation for manager's review.

g) General Cash Transactions Guidelines:

This provides guidance to the both in depositing, recording and accounting for cash and cash equivalents. Its purpose is to ensure that these important assets are protected, accurately processed and properly reported.
The handling of cash represents an area of high risk. Handle cash must have both an awareness of and show a commitment to strong internal control. By doing so, the potential for mishandling of cash can be minimized.

h) Lost or Incorrect Cheques:

If a cheque is lost, never received or incorrectly written,(wrong name or Amount) the Institute offices should be notified immediately for further action.

i) Cash Receipts:

All funds must be deposited in to the bank on same day on which the cash/fund is received by the institute. Daily reconciliation compares cash receipts records with the day's receipts. If any difference arises the same must be documented and resolved promptly in time.

Cash handling operations are subject to daily supervisory review and management. To minimize potential for mistakes or misappropriation cash, the segregation of cash handling duties is recommended. The duties of collecting cash, maintaining documentation, preparing deposits and reconciling records should be separated among different individuals.

j) Cheque Run:

Cheque run means the payment to the vendors/employees expenses reimbursements either through NEFT/RTGS transfer or by Cheque. If the vendors have bank accounts, the payments must be made through NEFT/RTGS only. This condition is not applicable for statutory remittances.

Weekly one day shall be fixed for cheque run. There should be centralized process for cheque run. All the payments by cheque or online transfers shall be approved by authorized persons.

9. Code of Ethics Statements:

Office of finance staff shall;

1. Perform their duties in accordance with the appropriate recognized ethical and legal standards.
2. Practice honestly and integrity in all respect in their work.
3. Exhibit professionalism in the work place, and conduct themselves in a way that will continue to promote the public's confidence in the integrity of the NICHE.
4. Be fair-minded, non-discriminatory, and treat all individuals, both internal and external to the NICHE community equitably, with civility, respect and dignity.
5. Fulfill their assigned responsibilities and be proactive in developing the skills necessary to provide high job performance.
6. Exercise fiduciary responsibility with respect to safeguarding the NICHE's Assets.
7. Exercise custodial responsibility with respect to the use of NICHE property and Assets.
8. Exercise within the requirements of the NICHE confidentiality with respect to information, records and data management respecting the rights and privacy of individuals.
9. Take action to mitigate any real or perceived conflicts of interest and comply with NICHE rules and regulations of policies and procedures

IV. RECEIVABLES AND REVENUE RECOGNITION POLICY

The policy establishes when revenue must be recorded in the Institution. The Institute requires that the revenue must be recognized on dual accounting system. For Student Fee Collection revenues shall be recorded on the receipt basis and all other revenues shall be recorded on accrual basis (i.e.) not on receipts basis but on earned basis.

This method is followed for consistent treatment of accounting revenues.

Rules for revenue recognition:

Cash Basis:

Revenues are recognized under this system is only when the amount is received. All students' fee demand raised to the demand registers will be recognized as revenue only when the cash is received. This Method is followed for all Students fee collection includes: Tuition fee, academic auxiliary fee, Exam Fee, Hostel fee, Mess Fee, Transport Fee and other Misc. fee. The Fee for discontinued and terminated students will be eliminated from the demand periodically from the student's registers.

Accrual Basis:

Revenue are recognized under this system are on earned basis irrespective of its receipts. All revenue other than Students Fee collection is recorded on accrual basis. This method is followed for other collection includes: Bank Interest, Consultancy Collection etc.,

All revenue must reconciled and maintain supporting documents for all transactions either which are Received or Receivables. The same may be reviewed periodically and authenticate to the value for receivables and provide written offs wherever necessary.

The Finance Officer and the Registrar are the concerned officers to monitor this policy and the accompanying procedures.

V - VENDOR MANAGEMENT POLICY

This chapter provides guidance's on the policy for the accounting for Vendor Payables and vendor approvals.

The Institute shall recognize a payable only when it meets the definition of liability. A liability is defined as a 'present obligation of an entity arising from past transactions or events, the settlement of which is expected to result in an outflow from the entity embodying economic benefits'

An obligation may be legally enforceable under a binding contract or statutory obligation.

Recognition of Liability:

The following categories of payables are examples that may be relevant in the recognition of this liability:

Assets/Materials/Stationeries/Books/Consumable /Equipments Purchases:

The terms within the purchase order will determine when the risk and rewards of the purchases passes to the Institute. The Assets/Inventory should therefore be recognized on the buyers' books along with the liability. The liability should be recognized on accrual basis. The liability may be raised based on the invoices duly authenticated by the authorized person who made the order on verification of the supply of the product identity and condition of the materials. When goods received before invoice received should be recognized as liability for the goods received. This will usually base on the purchase order value.

In most cases the trade payables are valued as per invoiced amount.

Where we have agreed with the supplier for payment on bill of exchange, we should recognize a bill of exchange at invoice value and de recognize the trade payables.

When we make advance payment for supply to those who are not supply on credit terms, have to record it as Advances for Supply of Materials.

Accruals and Deferred Income:

Accruals are liabilities to pay for goods and services that have been received at the same time invoice from supplies/service providers have not been received in the same accounting period. This includes amount due to employees, rent and rates.

Based on the matching principles, an accrual for goods and services should be recognized in the same period regardless of when the cash transaction occurs. The general Idea is that economic events are recognized by matching revenues to expenses.

Deferred income will usually relate to cash received and should therefore be recognized at the point of time the cash is received and the value of cash received and subsequently reduced by any amount released to profit and loss account.

Capital payables:

Capital Payables are payables relating to Capital Expenditure incurred within/for Property, Plant & Equipment or Intangibles for which the goods have been received or expenditures invoiced but not yet paid. Time of recognition is at the point of time when the risk and reward of ownership of the assets passed, rather than the point at which the invoice of the assets is received.

Other Payables:

Other payables consist of any other types of payables that do not fit into any other categories described above.

Current and Non Current Liabilities:

The group is required to present Current and Non-current liabilities in the Balance Sheet.

Current Liabilities are those that are expected to be settled with in a period of 12 Months from the reporting date.

Non Current Liabilities are those that are expected to be settled by the entity beyond a period of 12 Months from the reporting date.

Payments of Trade Payables:

Cash Payments: Cash outflow should be recognized on the day that cash passes out of the control of the payer.

Cheque Payments: (current dated) cash out flow should be recognized on the day that the cheque is released to the supplier and passes out of the entity's control.

Cheque Payments: (Post dated) Normally banks will not allow post dated cheques being paid in until their payment date. Post dated cheques should be recognized in cash outflow on the date of the cheque.

Bank Transfers: That has nominated clearance date, normally at least two working days notice during which time the transaction can be withdrawn. The payers intention is to clear that settlement will take place on the nominated date and therefore the cash outflow should be recognized on this nominated payment date.

Direct Debit/ standing order payments: Cash outflow should be recognized on that date the payment features on the bank statement. Settlement by any other means (bill of exchange, promissory notes etc.,) where there is possibility of a cut off interpretation issue should be discussed with the Registrar/FO/AO before being recognized as a cash outflow.

VI – PAY ROLL – SALARIES POLICY

The Institute believes that there must be control in place regarding the control of all transaction on payroll and any movement that will have an impact on payroll data. Its Institutes policy to pay appropriate remuneration for time worked and to comply with all statutory salary deductions and administrative requirements. Net pay due to the employee will be directly transferred to the employee's bank account.

The new addition and deletion to payroll should be made based on the appointment letters/relieving orders from the competent authority.

The statutory deductions are as per Government norms and the other deduction is as per guidelines of the management or employee concerns.

If any employee has any discrepancy regarding the details of deductions and recoveries shall approach the Account section of the Admin Office.

VII – FIXED ASSETS POLICY

Fixed assets are utilised throughout the Institute to run the academic, research and consultancy services for the benefit of the Students, Researchers, Faculties and the Society. This ensures that assets are managed in such a way as to maximize their benefit to the Institute also being accounted for an accurate and consistent manner.

This best practice guide provides instruction and guidance regarding the correct accounting treatment of fixed assets throughout their lifetime to ensure consistent treatment across the departments of the Institute.

Property Plant and Equipment (PPE) is a class of tangible fixed assets used in the academic, administrative, research and consultancy services. These assets are classified as Non-current assets as they are expected to have a useful life of more than 12 months

Recognition: An item of PPE should only be recognized if its cost can be measured reliably and it is probable that future economic benefits associated with items will flow to the Institute.

Cost: Cost is the amount of cash or cash equivalents paid or the fair value and other considerations made to acquire the assets at the time of acquire the asset or construction of the assets.

Depreciation: It is the systematic allocation of depreciable amount of an asset over its useful life. Depreciation is recognized in the Income and expenditure Account on a periodic basis. The institute provide WDV basis of Depreciation as the rate provided in the Income Tax Act.

Useful Economic Life: The number of years that it is expected that the assets will generate economic benefits for the entity.

Impairment Loss: An impairment loss is the amount by which the carrying amount of an asset exceeds the realizable value of the asset.

Fixed Assets Register: Fixed assets registers should be maintained in all the departments. The fixed asset register must include the following:

Asset Number

Asset Type

Date of Acquisition

Asset description

Location

Original Cost

Period of Useful Economic Life

Accumulated Depreciation

Current Depreciation

Impairment charge

Impairment Date

Disposal date

Disposal Proceeds

Net Book Value

Physical Verification: A physical verification of fixed assets should be carried out every year. However, some asset classes should be confirmed on more regular basis e.g. portable assets may require more frequent confirmations than large capital assets. In order to perform this verification process can be undertaken all the PPE should be clearly tagged, so that they can be appropriately identified. When every verification is performed, a record should be kept of which assets were observed, who selected them, who performed the confirmation and when the confirmation performed.

Assets Insurances: Assets insurance enables smooth functioning of the Institute by providing it the much needed coverage against the unforeseen risks.

Acquiring asset insurance ensures,

- Protection against the risk of Asset Breakdown, Damage or theft.
- Protection against the risk of loss of income in unfortunate events like fire, explosion, floods or lightning that leads to complete or partial breakdown of equipments.
- Protection against law suits and claims

VIII. LOANS, ADVANCES AND DEPOSITS POLICY

This is for communicate the Loans, Deposits and advances entitlements and provide guidelines for availing these entitlements.

Loans: Loans means lender gives money to the borrower. The Institute should not give short term or long term loan.

Advances: The employees can avail short term advances for their necessities duly approved by the authorities and the same may be recovered from the salary of the succeeding month in full or in Installments based on the terms of advance.

Advances for Travel Academic Activities: Travel advances for designated programs as per approval of the authority are entitled for an advance and the same shall be settled with supporting document evidences for such travel and appearing the programs.

Advances to Vendors/Contractors: The advances are allowed to give advances to the contractors and vendors. This should be processed and paid with the prior approval of the competent authority.

IX. GIFTS AND DONATION POLICY

This policy guides for receipt and payment of Gifts and Donation.

Gifts shall be received from non employees include alumni, Parents, Corporations, Foundations and various other organisation and Individuals. The receipts may be directly received or through departments to the Institute. Cash department should issue cash receipts for such collections to the counter collections as well as bank transfers. The gift money should be utilised as per the wish of the Donor for the specific purposes.

The payment of Gift and Donation shall be made as per the requirements of transactions in compliance with the Law for such payment duly authorized by the competent authority. The major amount of gift or donation shall be made for educational and research. The minor amount of gift and donation shall be made for charitable philanthropic purposes duly approved by the competent authorities.

X. GRANTS POLICY

The higher education sector needs to be adequately funded keeping in view of the goals relating to expansion of the institute and also utilisation of funds properly to that particular grant.

The Institute must maintain separate bank account for project grants. These grants should not be utilised for any other purposes by the Institute.

The PI and Registrar shall be the operators for the project grants. The Project Establishment Overheads shall be transferred to R&D section. The same shall be utilised for the development of the R&D.

The PI shall maintain the books and records for expenses carried out for the project and shall submit the audit report and utilisation certificate to the authority who sanction the project in time and upload the same to the PFMS portal every financial year in time.

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
KUMARAKOIL - 629 180

Dr. P. THIRUMALVALAVAN,
Registrar,
Noorul Islam Centre for Higher Education,
Kumaracoil - 629 180, Thuckalay,
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ANNEXURE 9.4

Grievance Redressal Mechanism

Implementation of guidelines of statutory/regulatory bodies

GRIEVANCE REDRESSAL CELL (GRC) POLICIES

NICHE Grievance Redressal Cell (GRC) policies

As per the guidelines of AICTE and Gazette of India, the Grievance Redressal Cell has been formed to address the grievances, complaints, malpractices and problems of students Staff Teaching & Non-Teaching) of NICHE

This cell aims to provide students/ Staff (Teaching & Non-teaching) with a platform where they can share their academic related and other miscellaneous problems and seek the best advice. The cell ensures at the end that all the stakeholders should be satisfied and happy during the stay at NICHE

A Grievance Redressal Committee has been constituted for the redressal of the problems reported by the students/staff (Teaching & Non-teaching) of the university with the following objectives:

- To ensure a fair, impartial and consistent way for redressal of various issues faced by the stakeholders.
- To uphold the sanctity of the college by promoting good relationship amongst students and also a good professional relationship between students and staff (both teaching and teaching) and also amongst staff.
- To ensure that grievances are addressed and resolved promptly and in complete confidentiality.
- To ensure that the views of grievant and respondent are respected and that any party to a grievance is not discriminated or victimized.
- To ensure stakeholders to respect the rights and dignity of one another.

There is a Grievance Redressal Committees at the university level to deal with the grievances of the students and staff (Teaching & non-teaching).

Dr. P. THIRUMALVALAVAN,
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NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

(Dir / Grievance Cell

INTERNAL COMPLAINTS COMMITTEE (ICC) POLICY

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

(Deemed-to-be University u/s 3 of the UGC Act 1956)
Accredited by NAAC with 'A' Grade
Kumaracoil-629180, Kanyakumari District, Tamil Nadu.

INTERNAL COMPLAINTS COMMITTEE (ICC) - POLICY

In compliance with the instructions of National Commission for women and guidelines issued in implementation of the directives of Hon'ble Supreme Court to provide effective enforcement of the basic human right of gender equality and guarantee against sexual harassment and abuse, more particularly against sexual harassment at work places, the University Grants Commission (UGC) has issued circular since 1998, to all the Universities, advising them to establish a permanent cell and committee and to develop guidelines to combat sexual harassment, violence against woman and ragging at the Universities and Colleges. Also it has advised the Universities to be proactive by developing a conducive environment and atmosphere on the campus, where the status of women is respected and they are treated alike. The Internal Complaints Committee of Noorul Islam Centre for Higher Education (NICHE), Kumaracoil, was constituted in accordance with the provisions described in the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 and the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Rules, 2013.

The details with regard to the Act & rules, role, functions etc. of ICC areas given below:

1. Gender Sensitization:

The ICC will organize programmes for the gender sensitization of the University community through workshops, awareness programs, posters, seminars, film shows, elocution, debates, skits, etc. It may enlist the help of specialized NGOs and any campus body to carry out these programmes.

2. Grievance Redressal Mechanism:

The NICHE Executive authority constitutes an Internal Complaints Committee(ICC) with an inbuilt mechanism for gender sensitization against sexual harassment. As per NICHE, the Presiding Officer is the "**Convener**" who is a woman faculty member in the designation of Professor.

3. **The ICC shall have the following composition:-**

Convener, Member Secretary, one member from NGO who will be the External Expert, senior women faculty members, two non-teaching women employees and women students from each category i.e. Undergraduate, Masters and Research to ensure majority of women in the ICC.

4. **The process for making complaint and conducting Inquiry:**

(a) **Nature of complaints:** Complaints made by a student against a member of the academic or non-teaching staff or a co-student or service provider or outsider; or by a member of the academic or non-teaching staff against a student or another member of the academic or non-teaching staff or service provider or outsider.

(b) **Process of making complaint of sexual harassment:**

Complaint procedure: The complaints if any can be made through mail, phone or in writing within 90 days of incident. The complaint must contain date and time of the incident, place where it occurred, name and contact information of the accused, name and contact information of witnesses and detailed description of the incident. As per the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Rules, 2013, in case the aggrieved woman is unable to make a complaint on account of her physical incapacity, a complaint may be filed inter alia by her relative or friend or her co-worker or an officer of the National Commission for Woman or State Women's Commission or any person who has knowledge of the incident, with the written consent of the aggrieved woman. Performa for filing of complaints is annexed as **Form I** at the end of these guidelines.

(c) **Process of conducting inquiry:**

Inquiry Committees will be constituted by the Convener of ICC with the following composition.The Inquiry Committee may include one ICC woman member, who will be the convener of the Inquiry committee, one woman student representative of the ICC if the case involves students or one woman member of ICC if the case involves teaching, non-teaching staff and one male member of ICC. If the case involves outsider (other than student, teaching and non-teaching staff), the composition and number of members of the Inquiry Committee will be decided by the Convener, ICC.

All information related to the complaint will be kept strictly confidential.

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REGULATION ON CURBING THE MENACE OF RAGGING

Anti — Ragging

DRAFT

UNIVERSITY GRANTS COMMISSION
BAHADURSHAH ZAFAR MARG
NEW DELHI – 110 002

NO. F 1-16/2007 (CPP-II)
April, 2009

UGC REGULATION ON CURBING THE MENACE OF RAGGING IN HIGHER EDUCATIONAL INSTITUTIONS, 2009

In exercise of the powers conferred by Clause (g) of Sub-Section (1) of Section 26 of the University Grants Commission Act, 1956, the University Grants Commission hereby makes the following Regulations, namely -

1. **Title, commencement and applicability:-**

   1.1. These regulations shall be called the "UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009".

   1.2. They shall come into force with immediate effect.

   1.3. They shall apply to all the universities established or incorporated by or under a Central Act, a Provincial Act or a State Act, to all institutions deemed to be university under Section 3 of the UGC Act, 1956, to all other higher educational institutions, including the departments, constituent units and all the premises (academic, residential, sports, canteen, etc) of such universities, deemed universities and other higher educational institutions, whether located within the campus or outside, and to all means of transportation of students whether public or private.

2. **Objective:-**

   To root out ragging in all its forms from universities, colleges and other educational institutions in the country by prohibiting it by law, preventing its occurrence by following the provisions of these Regulations and punishing those who indulge in ragging as provided for in these Regulations and the appropriate law in force.

3. **Definitions:-** For the purposes of these Regulations:-

   3.1. "college" means any institution, whether known as such or by any other name, which provides for a programme of study beyond 12 years of schooling for obtaining qualification from a university and which, in accordance with the rules and regulations of such university, is recognized as competent to provide for such programme of study and present students undergoing such programme of study for the examination for the award of such qualification.

3.2. "Head of the institution" means the 'Vice-Chancellor' in case of a university/deemed to be university, 'Principal' in case of a college, 'Director' in case of an institute.

3.3. "institution" means a higher educational institution (HEI), like a university, a college, an institute, etc. imparting higher education beyond 12 years of schooling leading to a degree (graduate, postgraduate and/or higher level) and/or to a university diploma.

3.4. "Ragging" means the following:

Any conduct whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness any other student, indulging in rowdy or undisciplined activities which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear or apprehension thereof in a fresher or a junior student or asking the students to do any act or perform something which such student will not in the ordinary course and which has the effect of causing or generating a sense of shame or embarrassment so as to adversely affect the physique or psyche of a fresher or a junior student.

3.5. "Statutory/Regulatory body" means a body so constituted by a Central/ State Government legislation for setting and maintaining standards in the relevant areas of higher education, such as the All India Council for Technical Education (AICTE), the Bar Council of India (BCI), the Dental Council of India (DCI), the Distance Education Council (DEC), the Indian Council of Agricultural Research (ICAR), the Indian Nursing Council (INC), the Medical Council of India (MCI), the National Council for Teacher Education (NCTE), the Pharmacy Council of India (PCI), etc. and the State Higher Education Councils.

3.6. "University" means a university established or incorporated by or under a Central Act, a Provincial Act or a State Act, an institution deemed to be university under Section 3 of the UGC Act, 1956, or an institution specially empowered by an Act of Parliament to confer or grant degrees.

4. Punishable ingredients of Ragging:-

- Abetment to ragging;
- Criminal conspiracy to rag;
- Unlawful assembly and rioting while ragging;
- Public nuisance created during ragging;
- Violation of decency and morals through ragging;
- Injury to body, causing hurt or grievous hurt;
- Wrongful restraint;
- Wrongful confinement;
- Use of criminal force;
- Assault as well as sexual offences or unnatural offences;
- Extortion;
- Criminal trespass;
- Offences against property;
- Criminal intimidation;

- Attempts to commit any or all of the above mentioned offences against the victim(s);
- Physical or psychological humiliation;
- All other offences following from the definition of "Ragging".

5. Measures for prohibition of ragging at the institution level:-

5.1 The institution shall strictly observe the provisions of the Act of the Central Government and the State Governments, if any, or if enacted, considering ragging as a cognizable offence under the law on a par with rape and other atrocities against women and ill-treatment of persons belonging to the SC/ST, and prohibiting ragging in all its forms in all institutions.

5.2 Ragging in all its forms shall be totally banned in the entire institution, including its departments, constituent units, all its premises (academic, residential, sports, canteen, etc) whether located within the campus or outside and in all means of transportation of students whether public or private.

5.3 The institution shall take strict action against those found guilty of ragging and/or of abetting ragging.

6 Measures for prevention of ragging at the institution level:-

6.1 Before admissions:-

6.1.1 The advertisement for admissions shall clearly mention that ragging is totally banned in the institution, and anyone found guilty of ragging and/or abetting ragging is liable to be punished appropriately (for punishments, ref. section 8 below).

6.1.2 The brochure of admission/instruction booklet for candidates shall print in block letters these Regulations in full (including Annexures).

6.1.3 The 'Prospectus' and other admission related documents shall incorporate all directions of the Supreme Court and /or the Central or State Governments as applicable, so that the candidates and their parents/ guardians are sensitized in respect of the prohibition and consequences of ragging. If the institution is an affiliating university, it shall make it mandatory for the institutions under it to compulsorily incorporate such information in their 'Prospectus'.

6.1.4 The application form for admission/ enrolment shall have a printed undertaking, preferably both in English/Hindi and in one of the regional languages known to the institution and the applicant (English version given in Annexure I, Part I), to be filled up and signed by the candidate to the effect that he/she is aware of the law regarding prohibition of ragging as well as the punishments, and to the effect that he/she has not been expelled and/or debarred from admission by any institution and that he/she, if found guilty of the offence of ragging and/or abetting ragging, is liable to be punished appropriately.

6.1.5 The application form shall also contain a printed undertaking, preferably both in English/Hindi and in one of the regional languages known to the institution and the parent/ guardian (English version given in Annexure I, Part II), to be signed by the parent/ guardian of the applicant to the effect that he/ she is also aware of the law in this regard and agrees to abide by the punishment meted out to his/ her ward in case the latter is found guilty of ragging and/or abetting ragging.

6.1.6 The application for admission shall be accompanied by a document in the form of the School Leaving Certificate/Transfer Certificate/ Migration Certificate/ Character Certificate which shall include a report on the behavioral pattern of the applicant, so that the institution can thereafter keep intense watch upon a student who has a negative entry in this regard.

6.1.7 A student seeking admission to the hostel shall have to submit additional undertaking in the form of Annexure I (both Parts) along with his/ her application for hostel accommodation.

6.1.8 At the commencement of the academic session the Head of the Institution shall convene and address a meeting of various functionaries/agencies, like Hostel Wardens, representatives of students, parents/ guardians, faculty, district administration including police, to discuss the measures to be taken to prevent ragging in the Institution and steps to be taken to identify the offenders and punish them suitably.

6.1.9 To make the community at large and the students in particular aware of the dehumanizing effect of ragging, and the approach of the institution towards those indulging in ragging, big posters (preferably multicolored with different colours for the provisions of law, punishments, etc.) shall be prominently displayed on all Notice Boards of all departments, hostels and other buildings as well as at vulnerable places. Some of such posters shall be of permanent nature in certain vulnerable places.

6.1.10 The institution shall request the media to give adequate publicity to the law prohibiting ragging and the negative aspects of ragging and the institution's resolve to ban ragging and punish those found guilty without fear or favour.

6.1.11 The institution shall identify, properly illuminate and man all vulnerable locations.

6.1.12 The institution shall tighten security in its premises, especially at the vulnerable places. If necessary, intense policing shall be resorted to at such points at odd hours during the early months of the academic session.

6.1.13 The institution shall utilize the vacation period before the start of the new academic year to launch wide publicity campaign against ragging through posters, leaflets. seminars, street plays, etc.

6.1.14 The faculties/ departments/ units of the institution shall have induction arrangements (including those which anticipate, identify

and plan to meet any special needs of any specific section of students) in place well in advance of the beginning of the academic year with a clear sense of the main aims and objectives of the induction process.

6.2 On admission:-

6.2.1 Every fresh student admitted to the institution shall be given a printed leaflet detailing when and to whom he/she has to turn to for help and guidance for various purposes (including Wardens, Head of the institution, members of the anti-ragging committees, relevant district and police authorities), addresses and telephone numbers of such persons/authorities, etc., so that the fresher need not look up to the seniors for help in such matters and get indebted to them and start doing things, right or wrong, at their behest. Such a step will reduce the freshers' dependence on their seniors.

6.2.2 The institution through the leaflet mentioned above shall explain to the new entrants the arrangements for their induction and orientation which promote efficient and effective means of integrating them fully as students.

6.2.3 The leaflet mentioned above shall also inform the freshers about their rights as bona fide students of the institution and clearly instructing them that they should desist from doing anything against their will even if ordered by the seniors, and that they have nothing to fear as the institution cares for them and shall not tolerate any atrocities against them.

6.2.4 The leaflet mentioned above shall contain a calendar of events and activities laid down by the institution to facilitate and complement familiarization of freshers with the academic environment of the institution.

6.2.5 The institution shall also organize joint sensitization programmes of 'freshers' and seniors.

6.2.6 Freshers shall be encouraged to report incidents of ragging, either as victims, or even as witnesses.

6.3 At the end of the academic year:-

6.3.1 At the end of every academic year the Vice-Chancellor/ Dean of Students Welfare/ Director/ Principal shall send a letter to the parents/ guardians of the students who are completing the first year informing them about the law regarding ragging and the punishments, and appealing to them to impress upon their wards to desist from indulging in ragging when they come back at the beginning of the next academic session.

6.3.2 At the end of every academic year the institution shall form a 'Mentoring Cell' consisting of Mentors for the succeeding academic year. There shall be as many levels or tiers of Mentors as

the number of batches in the institution, at the rate of 1 Mentor for 6 freshers and 1 Mentor of a higher level for 6 Mentors of the lower level.

6.4 Setting up of Committees and their functions:-

6.4.1 The Anti-Ragging Committee:- The Anti-Ragging Committee shall be headed by the Head of the institution and shall consist of representatives of faculty members, parents, students belonging to the freshers' category as well as seniors and non-teaching staff. It shall monitor the anti-ragging activities in the institution, consider the recommendations of the Anti-Ragging Squad and take appropriate decisions, including spelling out suitable punishments to those found guilty.

6.4.2 The Anti-Ragging Squad:- The Anti-Ragging Squad shall be nominated by the Head of the institution with such representation as considered necessary and shall consist of members belonging to the various sections of the campus community. The Squad shall have vigil, oversight and patrolling functions. It shall be kept mobile, alert and active at all times and shall be empowered to inspect places of potential ragging and make surprise raids on hostels and other hot spots. The Squad shall investigate incidents of ragging and make recommendations to the Anti-Ragging Committee and shall work under the overall guidance of the said Committee.

6.4.3 Monitoring Cell on Ragging:- If the institution is an affiliating university, it shall have a Monitoring Cell on Ragging to coordinate with the institutions affiliated to it by calling for reports from the Heads of such institutions regarding the activities of the Anti-Ragging Committees, Squads, and Mentoring Cells, regarding compliance with the instructions on conducting orientation programmes, counseling sessions, etc., and regarding the incidents of ragging, the problems faced by wardens and other officials, etc. This Cell shall also review the efforts made by such institutions to publicize anti-ragging measures, cross-verify the receipt of undertakings from candidates/students and their parents/guardians every year, and shall be the prime mover for initiating action by the university authorities to suitably amend the Statutes or Ordinances or Bye-laws to facilitate the implementation of anti ragging measures at the level of the institution.

6.5 Other measures:-

6.5.1 The Annexures mentioned in sub-clauses 6.1.4, 6.1.5 and 6.1.7 of these Regulations shall be furnished at the beginning of each academic year by every student, that is, by freshers as well as seniors.

6.5.2 The institution shall arrange for regular and periodic psychological counseling and orientation for students (for freshers separately, as well as jointly with seniors) by professional counselors during the first three months of the new academic year. This shall be done at the institution and department/ course levels. Parents and teachers shall also be involved in such sessions.

6.5.3 Apart from placing posters mentioned in sub-clause 6.1.9 above at strategic places, the institution shall undertake measures for extensive publicity against ragging by means of audio-visual aids, by holding counseling sessions, workshops, painting and design competitions among students and other methods as it deems fit.

6.5.4 If the institution has B.Ed. and other Teacher training programmes, these courses shall be mandated to provide for anti-ragging and the relevant human rights appreciation inputs, as well as topics on sensitization against corporal punishments and checking of bullying amongst students, so that every teacher is equipped to handle at least the rudiments of the counseling approach.

6.5.5 Wardens shall be appointed as per the eligibility criteria laid down for the post reflecting both the command and control aspects of maintaining discipline, as well as the softer skills of counseling and communicating with the youth outside the class-room situations. Wardens shall be accessible at all hours and shall be provided with mobile phones. The institution shall review and suitably enhance the powers and perquisites of Wardens and authorities involved in curbing the menace of ragging.

6.5.6 The security personnel posted in hostels shall be under the direct control of the Wardens and assessed by them.

6.5.7 Private commercially managed lodges and hostels shall be registered with the local police authorities, and this shall be done necessarily on the recommendation of the Head of the institution. Local police, local administration and the institutional authorities shall ensure vigil on incidents that may come within the definition of ragging and shall be responsible for action in the event of ragging in such premises, just as they would be for incidents within the campus. Managements of such private hostels shall be responsible for not reporting cases of ragging in their premises.

6.5.8 The Head of the institution shall take immediate action on receipt of the recommendations of the Anti-Ragging Squad. He/ She shall also take action suo motto if the circumstances so warrant.

6.5.9 Freshers who do not report the incidents of ragging either as victims or as witnesses shall also be punished suitably.

6.5.10 Anonymous random surveys shall be conducted across the 1st year batch of freshers every fortnight during the first three months of the academic year to verify and cross-check whether the campus is indeed free of ragging or not. The institution may design its own methodology of conducting such surveys.

6.5.11 The burden of proof shall lie on the perpetrator of ragging and not on the victim.

6.5.12 The institution shall file an FIR with the police / local authorities whenever a case of ragging is reported, but continue with its own enquiry and other measures without waiting for action on the part of the police/ local authorities. Remedial action shall be initiated and completed within the one week of the incident itself.

6.5.13 The Migration / Transfer Certificate issued to the student by the institution shall have an entry, apart from those relating to general conduct and behaviour, whether the student has been punished for the offence of committing or abetting ragging, or not, as also whether the student has displayed persistent violent or aggressive behaviour or any inclination to harm others.

6.5.14 Preventing or acting against ragging shall be the collective responsibility of all levels and sections of authorities or functionaries in the institution, including faculty, and not merely that of the specific body/ committee constituted for prevention of ragging.

6.5.15 The Heads of institutions other than universities shall submit weekly reports to the Vice-chancellor of the university the institution is affiliated to or recognized by, during the first three months of new academic year and thereafter each month on the status of compliance with anti-ragging measures. The Vice Chancellor of each university shall submit fortnightly reports of the university, including those of the Monitoring Cell on Ragging in case of an affiliating university, to the Chancellor.

6.5.16 Access to mobile phones and public phones shall be unrestricted in hostels and campuses, except in class-rooms, seminar halls, library etc. where jammers shall be installed to restrict the use of mobile phones.

6.6 Measures for encouraging healthy interaction between freshers and seniors:-

6.6.1 The institution shall set up appropriate committees including the course-in-charge, student advisor, Warden and some senior students to actively monitor, promote and regulate healthy interaction between the freshers and senior students.

6.6.2 Freshers' welcome parties shall be organized in each department by the senior students and the faculty together soon after admissions, preferably within the first two weeks of the beginning of the academic session, for proper introduction to one another and where the talents of the freshers are brought out properly in the presence of the faculty, thus helping them to shed their inferiority complex, if any, and remove their inhibitions.

6.6.3 The institution shall enhance the student-faculty interaction by involving the students in all matters of the institution, except those relating to the actual processes of evaluation and of faculty appointments, so that the students shall feel that they are responsible partners in managing the

affairs of the institution and consequently the credit due to the institution for good work/ performance is due to them as well.

7. Measures at the UGC/ Statutory/ Regulatory body level:-

7.1 Regulatory measures:-

7.1.1 The UGC and other Statutory /Regulatory bodies shall make it mandatory for the institutions to compulsorily incorporate in their 'Prospectus' the directions of the Supreme Court and/or the Central or State Governments with regard to prohibition and consequences of ragging, and that non-compliance with the directives against ragging in any manner whatsoever shall be considered as lowering of academic standards by the erring institution making it liable for appropriate action.

7.1.2 The UGC (including NAAC and UGC Expert Committees visiting institutions for various purposes) and similar Committees of other Statutory/Regulatory bodies shall cross-verify that the institutions strictly comply with the requirement of getting the undertakings from the students and their parents/ guardians as envisaged under these Regulations.

7.1.3 The UGC and other funding bodies shall make it one of the conditions in the Utilization Certificate for sanctioning any financial assistance or aid to the institution under any of the general or special schemes that the institution has strictly complied with the anti-ragging measures and has a blemish-less record in terms of there being no incidents of ragging during the period pertaining to the Utilization Certificate.

7.1.4 The NAAC and other accrediting bodies shall factor in any incident of ragging in the institution while assessing the institution in different grades.

7.2 Incentives for curbing ragging:-

7.2.1 The UGC shall consider providing special/ additional annual financial grants-in-aid to those eligible institutions which report a blemish-less record in terms of there being no incidents of ragging.

7.2.2 The UGC shall also consider instituting another category of financial awards or incentives for those eligible institutions which take stringent action against those responsible for incidents of ragging.

7.2.3 The UGC shall lay down the necessary incentive for the post of Warden in order to attract the right type of eligible candidates, and motivate the incumbents.

7.3 Monitoring mechanism to ensure compliance:-

Apart from the monitoring mechanism built in under different sub-clauses of these Regulations, there shall also be the following monitoring mechanism:

7.3.1 The UGC shall constitute an Inter-Council Committee for prevention of Ragging consisting of representatives of the AICTE, the IITs, the NITs, the IIMs, the MCI, the DCI, the NCI, the ICAR and such other bodies which have to deal with higher education to coordinate and monitor the anti-ragging movement across the country and to make certain policy decisions. The said Committee shall meet at least twice a year in the normal course.

7.3.2 The UGC shall also have an Anti-Ragging Cell within the Commission as an institutional mechanism to provide secretarial support for collection of information and monitoring, and to coordinate with the State level and university level Committees for effective implementation of anti-ragging measures.

8 Punishments:-

8.1 At the institution level:-

Depending upon the nature and gravity of the offence as established by the Anti-Ragging Committee of the institution, the possible punishments for those found guilty of ragging at the institution level shall be any one or any combination of the following:

8.1.1 Suspension from attending classes and academic privileges
8.1.2 Withholding/ withdrawing scholarship/ fellowship and other benefits
8.1.3 Debarring from appearing in any test/ examination or other evaluation process
8.1.4 Withholding results
8.1.5 Debarring from representing the institution in any regional, national or international meet, tournament, youth festival, etc.
8.1.6 Suspension/ expulsion from the hostel
8.1.7 Cancellation of admission
8.1.8 Rustication from the institution for period ranging from 1 to 4 semesters
8.1.9 Expulsion from the institution and consequent debarring from admission to any other institution for a specified period
8.1.10 Fine ranging between Rupees 25,000/- and Rupees 1 lakh
8.1.11 Collective punishment: When the persons committing or abetting the crime of ragging are not identified, the institution shall resort to collective punishment.

8.2 At the university level in respect of institutions under it:-

If an institution under a university (being constituent of, affiliated to or recognized by it) fails to comply with any of the provisions of these Regulations

and fails to curb ragging effectively, the university may impose any one or any combination of the following penalties on it:

8.2.1 Withdrawal of affiliation/ recognition or other privileges conferred on it

8.2.2 Prohibiting such institution from presenting any students then undergoing any programme of study therein for the award of any degree/diploma of the university

8.2.3 Withholding grants allocated to it by the university, if any

8.2.4 Withholding any grants chanellised through the university to the institution

8.2.5 Any other appropriate penalty within the powers of the university.

8.3 At the appointing authority level:-

The authorities of the institution, particularly the Head of the institution, shall be responsible to ensure that no incident of ragging takes place in the institution. In case any incident of ragging takes place, the Head shall take prompt and appropriate action against the person(s) whose dereliction of duty lead to the incident. The authority designated to appoint the Head shall, in its turn, take prompt and appropriate action against the Head.

8.4 At the UGC/Statutory/Regulatory body level:-

If an institution fails to curb ragging, the UGC/Statutory/Regulatory body concerned may impose any one or any combination of the following penalties on it:

8.4.1 Delisting the institution from section 12B of the UGC Act or any similar provision in the Act of the Statutory/Regulatory body concerned

8.4.2 Withholding any grants allocated to it

8.4.3 Declaring the institution ineligible for consideration for any assistance under any of the general or special assistance programmes of the UGC/Statutory/ Regulatory body concerned

8.4.4 Declaring that the institution does not have the minimum academic standards and warning the potential candidates for admission accordingly through public notice and posting on the UGC Website/ Website of the Statutory/Regulatory body concerned.

8.4.5 Taking such other action within its powers as it may deem fit and impose such other penalties as provided till such time as the institution achieves the objective of curbing ragging.

8.4.6 Collaborating with one another to work out other possible deterrents.

-:o:-

ANNEXURE I, Part I

UNDERTAKING BY THE CANDIDATE/STUDENT

1. I, _____
S/o. D/o. of Mr./Mrs./Ms. _____
have carefully read and fully understood the law prohibiting ragging and the directions of the Supreme Court and the Central/State Government in this regard.

2. I have received a copy of the UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009, and have carefully gone through it.
3. I hereby undertake that
    - I will not indulge in any behavior or act that may come under the definition of ragging,
    - I will not participate in or abet or propagate ragging in any form,
    - I will not hurt anyone physically or psychologically or cause any other harm.
4. I hereby agree that if found guilty of any aspect of ragging, I may be punished as per the provisions of the UGC Regulations mentioned above and/or as per the law in force.
5. I hereby affirm that I have not been expelled or debarred from admission by any institution.

Signed this _____day of _____ month of _____year

Signature

Name: Address:

ANNEXURE I, Part II

UNDERTAKING BY PARENT/GUARDIAN

1. I, _____
F/o. M/o. G/o_____,
have carefully read and fully understood the law prohibiting ragging and the directions of the Supreme Court and the Central/State Government in this

regard as well as the UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009.

2. I assure you that my son/ daughter/ ward will not indulge in any act of ragging.
3. I hereby agree that if he/she is found guilty of any aspect of ragging, he/she may be punished as per the provisions of the UGC Regulations mentioned above and/or as per the law in force.

Signed this _____ day of _____ month of _____ Year

Signature

Name: Address:

ANNEXURE 9.5

Audited Statement for the year 2024
Audited Statement for the year 2025

FRANK & CO
CHARTERED ACCOUNTANTS
KALLUVEETTIL TEENU CENTRE
82, Court Road, Nagercoil - 629 001, INDIA
OFF : (04652) 231889, 230504
FAX : (04652) 232085
RES : (04651) 230504, 230604
Email : franknco@gmail.com

Ref: FC/N-7/ 290

14/09/2024

FORM NO.10 B
(See rule 17B)

Audit report under section12A (b) of the Income-tax Act,1961,

We have examined the Balance Sheet of **NOORUL ISLAM CENTRE FOR HIGHER EDUCATION** as at 31-03-2024 and the Income and Expenditure Account for the year ended that date which are in agreement with the books of account maintained by the said institution.

We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of audit. In our opinion proper books of account have been kept by the above named institution so far appears from our examination of the books, subject to the comments given below:

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

In our opinion and to the best of our information and according to information given to us the said accounts give a true and fair view:

1. In the case of the Balance Sheet of the State of affairs of the above named institution as at 31-03-2024.
2. In the case of the Income and Expenditure Account of the Income or Loss of its accounting year ended 31-03-2024

The prescribed particulars are annexed hereto.

for **FRANK& CO**
Chartered Accountants

FRANKLIN FERNANDEZ FCA
Membership No. 012517
UDIN: 24012517BKEJCS6892

FRANK & CO
CHARTERED ACCOUNTANTS
NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

BALANCE SHEET AS AT 31st MARCH 2024

Note No	LIABILITIES	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
1	CAPITAL FUND	25,09,99,219.88	29,27,38,503.03
2	LOAN FROM BANK AND FINANCE COMPANY	8,43,25,589.00	8,22,73,020.21
3	CURRENT LIABILITIES	6,04,46,701.83	4,62,39,896.30
	TOTAL	**39,57,71,510.71**	**42,12,51,419.54**
	ASSETS		
4	FIXED ASSETS	24,57,07,049.18	23,75,94,407.18
5	CURRENT ASSETS, LOANS AND ADVANCES:		
	1. Deposits	2,77,49,358.84	2,69,51,054.84
	2. Staff Advances	1,70,886.00	1,86,636.00
	3. Loans & Advances	2,23,34,559.81	4,29,02,086.30
	4. Cash and Bank Balances	9,87,76,959.88	11,31,49,225.22
	5. Tax Deducted at Sources	10,32,697.00	4,68,010.00
	TOTAL	**39,57,71,510.71**	**42,12,51,419.54**

14-09-2024
Nagercoil

VIDE OUR REPORT ATTACHED
For FRANK & CO
Chartered Accountants

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

FRANKLIN FERNANDEZ FCA
M. NO.012517
UDIN: 24012517BKEJCS6892

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NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2024

Note No	EXPENDITURE	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
6	To Salary & Allowances	11,52,16,818.00	11,83,54,066.00
7	" Administrative Expenses	1,70,32,699.59	1,68,49,329.02
14	" Annual Day & Convocations	19,46,302.96	18,25,240.00
8	" Bus Service Expenses	2,09,03,704.36	1,93,02,851.20
9	" Establishment Expenses	3,85,13,428.35	1,31,19,823.41
10	" Examination Expenses	40,85,722.89	28,92,311.80
11	" Expert Committee's Meeting Expenses	3,52,873.00	2,05,493.00
12	" Book Store	12,78,010.00	9,34,739.00
13	" Facilities to Students	1,18,51,629.00	1,02,36,024.00
15	" Promotion of Science	10,46,568.00	12,43,390.00
16	" Repairs & Maintenance	1,10,09,092.00	1,44,53,899.00
17	" Research & Faculty Trainning	81,02,569.00	25,51,138.00
18	" Educational Welfare Activities	93,64,850.00	60,42,930.00
19	" Staff Welfare Expenses	75,52,525.00	58,35,964.00
20	" Hostel Expenses	2,22,64,779.50	2,38,89,668.75
4	" Depreciation	3,42,14,514.00	2,97,57,658.00
	Excess of Income over Expenditure	-	1,62,81,764.40
	TOTAL	**30,47,36,085.65**	**28,37,76,289.58**
	INCOME		
21	By Fee Collection	19,73,23,371.00	21,90,16,470.00
22	" Projects Funds	36,83,635.30	13,48,450.00
23	" Hostel Income	3,33,34,728.00	3,44,76,197.00
24	" Annual Day & Convocation Collection	11,60,350.00	16,75,350.00
25	" Other Receipts	85,27,393.20	72,42,421.58
26	" Exam Fee	1,86,92,325.00	2,00,17,401.00
	Excess of Expenditure over Income	4,20,14,283.15	-
	TOTAL	**30,47,36,085.65**	**28,37,76,289.58**

14-09-2024
Nagercoil

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

VIDE OUR REPORT ATTACHED
For FRANK & CO
Chartered Accountants

FRANKLIN FERNANDEZ FCA
M. NO.012517
UDIN: 24012517BKEJCS6892

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NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st MARCH 2024

Note No	RECEIPTS	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
	To OPENING BALANCES	11,31,49,225.22	9,43,38,114.31
21	" Fee Collection	19,73,23,371.00	21,90,16,470.00
22	" Projects Funds	36,83,635.30	13,48,450.00
23	" Hostel Income	3,33,34,728.00	3,44,76,197.00
24	" Annual Day & Convocation Collection	11,60,350.00	16,75,350.00
25	" Other Receipts	85,27,393.20	72,42,421.58
26	" Exam Fee	1,86,92,325.00	2,00,17,401.00
27	" Loan from Bank and Finance Company	39,05,883.00	54,67,458.00
28	" Creditors for Expenses Payable	1,98,68,203.43	22,30,417.34
4	" Fixed Assets -Sales	11,80,400.00	1,86,769.00
29	" Creditors for Others	6,13,352.40	4,04,209.00
30	" Staff Advances	56,80,190.00	74,30,227.00
31	" Loans & Advances	2,12,48,002.82	1,36,02,397.25
	" TDS Refund	-	9,32,635.00
	TOTAL	**42,83,67,059.37**	**40,83,68,516.48**
	PAYMENTS		
6	By Salary & Allowances	11,52,16,818.00	11,83,54,066.00
7	" Administrative Expenses	1,70,32,699.59	1,68,49,329.02
14	" Annual Day & Convocations	19,46,302.96	18,25,240.00
8	" Bus Service Expenses	2,09,03,704.36	1,93,02,851.20
9	" Establishment Expenses	3,85,13,428.35	1,31,19,823.41
10	" Examination Expenses	40,85,722.89	28,92,311.80
11	" Expert Committee's Meeting Expenses	3,52,873.00	2,05,493.00
12	" Book Store	12,78,010.00	9,34,739.00
13	" Facilities to Students	1,18,51,629.00	1,02,36,024.00
15	" Promotion of Science	10,46,568.00	12,43,390.00
16	" Repairs & Maintenance	1,10,09,092.00	1,44,53,899.00
17	" Research & Faculty Trainning	81,02,569.00	25,51,138.00
18	" Educational Welfare Activities	93,64,850.00	60,42,930.00
19	" Staff Welfare Expenses	75,52,525.00	58,35,964.00
20	" Hostel Expenses	2,22,64,779.50	2,38,89,668.75
4	" Fixed Assets - Additions	4,35,07,556.00	1,37,48,754.50
32	" Repayment of Loan from Bank and Finance Co	18,53,314.21	16,30,414.00
33	" Creditors for Expenses paid	33,06,596.80	2,94,94,411.30
34	" Creditors for Others	21,68,153.50	12,12,382.88
35	" Staff Advances	56,64,440.00	73,71,336.00
36	" Loans & Advances	14,80,476.33	35,41,875.40
	" Deposits	5,23,304.00	15,240.00
	" TDS and TCS	5,64,687.00	4,68,010.00
5.4	" Cash and Bank Balances	9,87,76,959.88	11,31,49,225.22
	TOTAL	**42,83,67,059.37**	**40,83,68,516.48**

VIDE OUR REPORT ATTACHED
For FRANK & CO
Chartered Accountants

14-09-2024
Nagercoil

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

FRANKLIN FERNANDEZ FCA
M. NO.012517
UDIN: 24012517BKEJCS6892

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NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

FUNDS FLOW STATEMENT FOR THE YEAR ENDED 31st MARCH 2024

Note No	SOURCES OF FUNDS	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
37	FUNDS FROM OPERATION	-77,99,769.15	4,60,39,422.40
4	SALE OF FIXED ASSETS	11,80,400.00	1,86,769.00
38	LOAN FROM BANK AND FINANCE COMPANY	39,05,883.00	69,66,181.71
39	CHANGES IN NET WORKING CAPITAL - INCREASE IN CL & DECREASE IN CA	4,80,74,356.36	-
	TOTAL	**4,53,60,870.21**	**5,31,92,373.11**
	APPLICATION OF FUNDS		
4	PURCHASE OF FIXED ASSETS	4,35,07,556.00	1,37,48,754.50
39	CHANGES IN NET WORKING CAPITAL - INCREASE IN CA & DECREASE IN CL	-	3,63,14,480.90
40	LOAN REPAYMENT TO BANK AND FINANCE COMPAN	18,53,314.21	31,29,137.71
	TOTAL	**4,53,60,870.21**	**5,31,92,373.11**

VIDE OUR REPORT ATTACHED
For FRANK & CO
Chartered Accountants

14-09-2024
Nagercoil

FRANKLIN FERNANDEZ FCA
M. NO.012517
UDIN: 24012517BKEJCS6892

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORMS PART OF BALANCE SHEET AS AT 31ST MARCH 2024

Note No	LIABILITIES	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
1	**A. CAPITAL FUND:**		
	As per Last Balance Sheet	26,31,89,999.03	23,11,08,234.63
	Add: Transfer during the year - Salary payable	-	1,58,00,000.00
	Less: Excess of Expenditure over Income	4,20,14,283.15	1,62,81,764.40
		22,11,75,715.88	26,31,89,999.03
	B. STUDENTS WELFARE FUND:		
	As per Last Balance Sheet	50,84,198.00	50,84,198.00
		50,84,198.00	50,84,198.00
	C. STAFF GRATUITY FUND	2,47,39,306.00	2,44,64,306.00
	Total	**25,09,99,219.88**	**29,27,38,503.03**
2	**LOAN FROM BANK AND FINANCE COMPANY**		
	TMB Vehicle Loan : 063700850100033	8,78,686.00	15,40,841.00
	TMB LOD A\c No: 026700400103972	-	7,91,04,183.00
	TMB LOD A/C. No. 026700400104086	8,07,48,975.00	
	TMB OD A\cNo:026700080900008	13,01,091.00	-
	TMB Vech.LoanA\cNo:026700850100135	9,60,000.00	-
	Shriram Transport Veh.Loan No:THCLY2210260003	1,37,154.00	11,96,952.21
	Shriram Transport Veh.loan No:THCLYT910310001	2,99,683.00	4,31,044.00
		8,43,25,589.00	**8,22,73,020.21**
3	**CURRENT LIABILITIES:**		
	Creditors for Expenses - Annexure - I	4,50,18,517.27	2,92,56,910.64
	Creditors for Others - Annexure - II	1,54,28,184.56	1,69,82,985.66
		6,04,46,701.83	**4,62,39,896.30**



Note No	LIABILITIES	Figures as at 31-03-2024	Figures as at 31-03-2023
3	**CURRENT LIABILITIES:**	₹	₹
	Creditors for Expenses - Annexure - I		
	Ad ON Wheels	2,75,232.00	-
	Chandrika Daily	88,368.00	63,368.00
	D Ads	1,00,615.00	2,83,488.00
	Deshabhimani Publications	84,200.00	84,200.00
	Dinamalar	1,93,634.00	2,69,794.00
	Efficient Advertising	59,40,413.90	38,05,231.90
	Express Publication Ltd.	1,12,816.00	85,050.00
	Janmabhumi	30,000.20	1,25,744.20
	Kal Publication	1,56,448.40	2,24,045.70
	Kerala Kaumudi Private Ltd	2,09,701.00	-
	Keziah Publications	-	7,351.00
	Madhyamam	11,10,000.00	-
	Meenu Advertisers	2,800.00	-
	Rakhi L	1,28,392.00	-
	Rozgar Samachar	-	33,120.00
	Soori Combines	45,70,574.00	20,73,234.00
	Subramanina Advertising Agency	37,800.00	-
	Suprabhaatham Daily	10,000.00	-
	The Daily Thanthi	2,00,948.43	41,579.00
	Thina Murasu	-	894.00
	Exam Dept. Expenses Payable	27,95,363.00	27,95,363.00
	Abhishek Electrical Agency	73,190.00	-
	Aeon Renewable Energy Solution Pvt Ltd	4,99,055.00	4,99,055.00
	Ajith S	83,000.00	-
	A.J.S.Plywood&Glasses	7,433.00	-
	Alampara Aluminum Fabricatiors	94,130.00	90,846.00
	Ali Pumping Works	48,000.00	-
	Althaf Hussain	-	2,74,560.00
	Amyntor Tech Solution Pvt LTd	15,340.00	-
	Anbu Pharmaceuticals	20,992.00	-
	Ani Petroleum	-	15,000.00
	Antony Coolers&Refrigeration	86,090.00	-
	Arasu Paper Mart	92,122.00	4,605.00
	ARK Construction	14,000.00	-
	Arrow Express	91,054.00	
	Arseno TEch	-	-
	Associated Agencies	37,177.45	1,47,500.45
	Automation Asia Associates	47,851.00	-
	Axeninc Systems	4,58,554.00	4,58,554.00
	BioZone Research Technologies Pvt Ltd	-	75,520.00
	CADMAXX Solutiond Private Ltd	-	80,000.00
	Cherukara Vehicles Private Limited	65,682.00	-
	Coastal Star Private Limited	78,636.00	-
	DATA Patterns	14,60,956.00	18,10,956.00
	Dept. Programmes	-	51,468.00
	Devadhas Granites&Tiles	2,24,022.00	3,93,537.00
	Dosthen Enterprise	60,000.00	-
	Ellipse Technologies Pvt,Ltd	6,24,145.00	6,24,145.00
	Balance C/F	**2,02,28,735.38**	**1,44,18,209.25**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**2,02,28,735.38**	**1,44,18,209.25**
Entertainment Network(India)Ltd	61,200.00	-
Flash ID Technologies	1,26,587.00	17,889.00
Fortune FUrniture&Interiors	1,50,000.00	-
Frank &Co	3,15,667.00	-
Friends Grafix Copier Service	1,01,375.00	2,35,025.00
Furnishing Avenue	64,850.00	-
Gems Water Solution	4,90,172.00	30,172.00
George Stephen	79,825.00	-
G.Manikandan	-	35,150.00
Golden Computers	6,580.00	-
HCL Infosystems Ltd	4,65,472.00	4,65,472.00
Higgin Bothams Ltd	25,164.00	25,164.00
Invitrogen BioService India Pvt LTd	2,60,538.49	2,60,538.49
JJ Glass Emporium	1,19,500.00	24,900.00
Kamaraj Indane Gas Agencies	4,80,080.00	3,73,010.00
Kandasamy & Sons	6,26,777.65	5,74,234.65
Kanyakumari District Co-OPerative Milk Producer Union	1,97,284.50	2,39,945.00
Karthika Printers	-	3,23,898.00
Kiddies Centre	-	10,860.00
Kochupillai M	3,77,000.00	5,47,535.00
Lingam&Co	19,000.00	-
Llyod's Register Marine and Offshore India LLP	2,473.00	2,473.00
Majori Health Care	9,00,000.00	-
EPF Contributions Payable	42,03,469.00	9,05,490.00
ESI Contributions Payable	10,51,815.00	3,79,333.00
Mani Earth Movers	89,425.00	-
Manoj Graphic Designer	-	13,000.00
Maruthi Scientific Investigation Products	63,809.00	63,809.00
Minayil Industries P Ltd	1,86,118.00	-
M P Hardware	1,37,597.00	-
Mukundan Photography	39,000.00	-
Nagarja Store - Provision	14,69,687.00	10,78,102.00
Nathan Agencies (Hardware)	39,24,025.25	26,27,224.25
Nathan Traders	7,65,535.00	7,14,180.00
Natural RO	2,997.00	-
New Indian Sports Academy	30,000.00	-
New World Solution	-	11,916.00
Nims Medicity	48,817.00	-
Orient Color Art Printers(P)Ltd	1,952.00	-
Palpap Ichinichi Softwars International Ltd	3,69,000.00	3,69,000.00
Pearl Generators	-	50,000.00
Perfect Power System	2,16,500.00	2,16,500.00
Pitney Bowers India Pvt Ltd	-	11,210.00
Balance C/F	**3,76,98,027.27**	**2,40,24,239.64**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**3,76,98,027.27**	**2,40,24,239.64**
Pravasi Bharathi	-	20,000.00
Priyas Furniture Gallery	25,300.00	25,300.00
Prodi Miller	49,728.00	-
Queens	2,81,700.00	3,57,670.00
Rainbow Printers	1,16,331.00	665.00
Raksha Aluminium Materials	73,111.00	-
RetanaSwamy Tiles	14,94,700.00	14,94,700.00
Revathy Enterprise	68,740.00	-
R.K.Publishers	1,24,000.00	-
Russel Raj Power System	6,64,750.00	1,51,350.00
Sainaba Chicken,Mutton Home	54,806.00	48,765.00
Salary Payable	11,09,130.00	14,72,402.00
Spaco Technologies	36,000.00	-
SR Agency	18,100.00	-
Star Industries	62,510.00	-
Star Industry	1,94,054.00	5,29,835.00
Sun Associates	12,91,300.00	-
Sundaram Industries Private Ltd	1,28,264.00	40,199.00
Technogen	1,77,501.00	-
The Industrial & Laboratory Equipment Co	3,59,181.00	3,59,181.00
The Precision Scientific	5,256.00	-
Tossed Stone Construction	1,18,650.00	-
Ubal Raj Agency	6,49,378.00	6,49,378.00
Variety Marbles	16,800.00	-
Varnam Beauty Lounge&Stiching Centre	1,88,225.00	-
Varnam Paints&Hardware	35,380.00	-
Vars Medicare	12,938.00	-
Voice and Speech System	-63,900.00	-
Voltaz Electronics & Ledplant	-	11,564.00
Wowels - (2022-23)	28,557.00	71,662.00
	4,50,18,517.27	**2,92,56,910.64**

Creditors for Others - Annexure - II		
TDS Payable	1,19,061.00	1,85,555.00
Unclaimed Bank Fee Collection	25,18,890.24	19,05,537.84
Alumni Fund	24,62,127.00	24,62,127.00
Caution Deposits	32,45,702.00	32,45,702.00
Hostel Deposit	14,64,000.00	14,64,000.00
Library Deposit	10,000.00	10,000.00
Loan From Mrs.Rajeena.	5,00,000.00	9,00,000.00
Mess Adavance	48,48,064.32	65,49,723.82
Nagendraprasad Project	2,49,885.00	2,49,885.00
Scholarship Payable	10,455.00	10,455.00
	1,54,28,184.56	**1,69,82,985.66**



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION - KUMARACOIL

SCHEDULE TO BALANCE SHEET AS AT 31-03-2024

NOTE No. 4

ASSETS : FIXED ASSETS:

Sl. No.	Name of the Assets	W.D.V. as on 01-04-2023	Additions during the year		Sales and Adjustments	Total	Rate of Depreciation	Depreciation for the year	W.D.V.as on 31-03-2024
			01.04.2023 to 30.09.2023	01.10.2023 to 31.03.2024					
			Addition	Addition less than 180 days					
		₹	₹	₹	₹	₹		₹	₹
1	LAND	3,58,60,021.00	-	-	-	3,58,60,021.00	-	-	3,58,60,021.00
2	BUILDINGS	10,47,92,158.40	1,06,73,982.00	-	-	11,54,66,140.40	10%	1,15,46,614.00	10,39,19,526.40
3	COMPUTER & SOFTWARE	67,78,321.74	1,47,54,398.00	3,86,900.00	-	2,19,19,619.74	40%	86,90,468.00	1,32,29,151.74
4	CLOUD COMPUTING ASSET	3,16,275.00	-	-	-	3,16,275.00	40%	1,26,510.00	1,89,765.00
5	ELECTRONIC EQUIPMENTS	1,57,24,343.90	16,81,017.00	9,74,971.00	45,400.00	1,83,34,931.90	15%	26,77,117.00	1,56,57,814.90
6	FURNITURE & FITTINGS	2,39,46,202.50	42,92,548.00	6,54,434.00	-	2,88,93,184.50	10%	28,56,597.00	2,60,36,587.50
7	ELECTRICAL FITTINGS	19,63,479.00	10,45,195.00	6,34,117.00	-	36,42,791.00	10%	3,32,573.00	33,10,218.00
8	LAB EQUIPMENTS	56,81,454.42	15,89,548.00	18,00,000.00	-	90,71,002.42	15%	12,25,650.00	78,45,352.42
9	LIBRARY BOOKS	2,47,148.00	2,451.00	3,91,292.00	-	6,40,891.00	40%	1,78,098.00	4,62,793.00
10	MACHINERY & EQUIPMENTS	1,05,72,263.17	17,16,987.00	10,15,830.00	-	1,33,05,080.17	15%	19,19,575.00	1,13,85,505.17
11	MOTOR VEHICLE	1,19,39,958.00	-	10,86,035.00	11,35,000.00	1,18,90,993.00	15%	17,02,196.00	1,01,88,797.00
12	NANO EQUIPMENTS	41,73,923.00	-	-	-	41,73,923.00	15%	6,26,088.00	35,47,835.00
13	ROAD WORKS	17,37,791.00	-	-	-	17,37,791.00	10%	1,73,779.00	15,64,012.00
14	FIRE & SAFETY EQUIPMENTS	1,58,339.05	-	5,47,851.00	-	7,06,190.05	15%	64,840.00	6,41,350.05
15	CYBER SECURITY	98,846.00	-	-	-	98,846.00	15%	14,827.00	84,019.00
16	SATELITE CENTRE	1,31,33,866.00	-	-	-	1,31,33,866.00	15%	19,70,080.00	1,11,63,786.00
17	RENEWABLE ENERGY EQUIPME	1,33,662.00	-	-	-	1,33,662.00	15%	20,049.00	1,13,613.00
18	ROBOT CENTRE ASSETS	35,756.00	-	-	-	35,756.00	15%	5,363.00	30,393.00
19	WATER TREATMENT PLANT	3,00,599.00	2,60,000.00	-	-	5,60,599.00	15%	84,090.00	4,76,509.00
	TOTAL	23,75,94,407.18	3,60,16,126.00	74,91,430.00	11,80,400.00	27,99,21,563.18		3,42,14,514.00	24,57,07,049.18
	PREVIOUS YEAR	25,37,90,079.68	76,26,962.50	61,21,792.00	1,86,769.00	26,73,52,065.18		2,97,57,658.00	23,75,94,407.18

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FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION - KUMARACOIL

SCHEDULE TO BALANCE SHEET AS AT 31-03-2024

NOTE No. 4

ASSETS : FIXED ASSETS - GROSS BLOCK

Sl. No.	Name of the Assets	Balance as on 01/04/2023	Additions during the year	Sales and Adjustments	Balance as on 31/03/2024	Depreciation as on 01/04/2023	Depreciation during the year	Accumulated depreciation on 31/03/2024	W.D.V as on 31/03/2024
		₹	₹	₹	₹	₹	₹	₹	₹
1	LAND	3,58,60,021.00	-	-	3,58,60,021.00	-	-	-	3,58,60,021.00
2	BUILDINGS	34,93,61,385.40	1,06,73,982.00	-	36,00,35,367.40	24,45,69,227.00	1,15,46,614.00	25,61,15,841.00	10,39,19,526.40
3	COMPUTER & SOFTWARE	4,85,25,716.74	1,51,41,298.00	-	6,36,67,014.74	4,17,47,395.00	86,90,468.00	5,04,37,863.00	1,32,29,151.74
4	CLOUD COMPUTING ASSET	35,38,124.00	-	-	35,38,124.00	32,21,849.00	1,26,510.00	33,48,359.00	1,89,765.00
5	ELECTRONIC EQUIPMENTS	4,48,14,715.90	26,55,988.00	45,400.00	4,74,25,303.90	2,90,90,372.00	26,77,117.00	3,17,67,489.00	1,56,57,814.90
6	FURNITURE & FITTINGS	6,41,65,255.50	49,46,982.00	-	6,91,12,237.50	4,02,07,703.00	28,56,597.00	4,30,64,300.00	2,60,47,937.50
7	ELECTRICAL FITTINGS	23,35,447.00	16,79,312.00		40,14,759.00	3,83,318.00	3,32,573.00	7,15,891.00	32,98,868.00
8	LAB EQUIPMENTS	2,08,54,135.42	33,89,548.00	-	2,42,43,683.42	1,51,72,681.00	12,25,650.00	1,63,98,331.00	78,45,352.42
9	LIBRARY BOOKS	97,86,642.00	3,93,743.00	-	1,01,80,385.00	95,39,494.00	1,78,098.00	97,17,592.00	4,62,793.00
10	MACHINERY & EQUIPMENTS	6,38,41,879.17	27,32,817.00	-	6,65,74,696.17	5,32,69,616.00	19,19,575.00	5,51,89,191.00	1,13,85,505.17
11	MOTOR VEHICLE	5,65,92,188.00	10,86,035.00	11,35,000.00	5,65,43,223.00	4,46,52,230.00	17,02,196.00	4,63,54,426.00	1,01,88,797.00
12	NANO EQUIPMENTS	1,50,38,086.00	-	-	1,50,38,086.00	1,08,64,163.00	6,26,088.00	1,14,90,251.00	35,47,835.00
13	ROAD WORKS	61,52,152.00	-	-	61,52,152.00	44,14,361.00	1,73,779.00	45,88,140.00	15,64,012.00
14	FIRE & SAFETY EQUIPMENTS	3,99,651.05	5,47,851.00	-	9,47,502.05	2,57,978.00	64,840.00	3,22,818.00	6,24,684.05
15	CYBER SECURITY	5,49,955.00	-	-	5,49,955.00	4,34,443.00	14,827.00	4,49,270.00	1,00,685.00
16	SATELITE CENTRE	4,57,87,792.00	-	-	4,57,87,792.00	3,26,53,926.00	19,70,080.00	3,46,24,006.00	1,11,63,786.00
17	RENEWABLE ENERGY EQUIPME	2,00,000.00	-		2,00,000.00	66,338.00	20,049.00	86,387.00	1,13,613.00
18	ROBOT CENTRE ASSETS	58,222.00	-	-	58,222.00	22,466.00	5,363.00	27,829.00	30,393.00
19	WATER TREATMENT PLANT	3,24,972.00	2,60,000.00	-	5,84,972.00	24,373.00	84,090.00	1,08,463.00	4,76,509.00
	TOTAL	76,81,86,340.18	4,35,07,556.00	11,80,400.00	81,05,13,496.18	53,05,91,933.00	3,42,14,514.00	56,48,06,447.00	24,57,07,049.18
	PREVIOUS YEAR	75,46,24,354.68	1,37,48,754.50	1,86,769.00	76,81,86,340.18	50,08,34,275.00	2,78,38,911.00	52,86,73,186.00	23,95,13,154.18



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORMS PART OF BALANCE SHEET AS AT 31ST MARCH 2024

Note No	ASSETS	Figures as at 31-03-2024	Figures as at 31-03-2023
5.	**CURRENT ASSETS, LOANS AND ADVANCES:**	₹	₹
1	**Deposits (Asset)**		
	Air India Engineering Services Ltd	3,00,000.00	3,00,000.00
	Elelctricity Deposit	17,23,729.00	14,75,425.00
	EPF Deposit	4,71,505.84	1,96,505.84
	Gas Deposit	11,000.00	11,000.00
	Gratuity Fund with LIC	2,47,39,306.00	2,44,64,306.00
	MILK Deposit	1,50,000.00	1,50,000.00
	Postal Dept. Deposit	40,000.00	40,000.00
	Telephone Deposit	2,99,568.00	2,99,568.00
	Water Deposit	14,250.00	14,250.00
		2,77,49,358.84	**2,69,51,054.84**
2	**Loans & Advances (Staff)**	**1,70,886.00**	**1,86,636.00**
3	**Loans and Advances:**		
	Annai Petroleum	-	8,000.00
	Appi Petroleum	-	7,000.00
	Asir B Regin	-	2,35,000.00
	Mr. Basheer A	-	1,00,000.00
	Dr. Bindhu B	-	20,000.00
	Casablanca Shipping Private Ltd	-	1,00,000.00
	Concept	2,94,749.08	5,32,000.00
	Dr. Dev Anand	9,300.00	9,300.00
	Enviro Care India Private Limited	3,90,000.00	-
	Followme Broadcasting	22,85,800.00	22,85,800.00
	Genesis Solar World	1,06,000.00	1,06,000.00
	Global Aviation	3,50,000.00	3,50,000.00
	Glob Enterprises	-	34,000.00
	Green Fuel - Ramarpillai	2,98,000.00	2,98,000.00
	H Media	-	7,38,000.00
	Innocorp Ltd	2,25,000.00	2,25,000.00
	Infor Edge(India)Ltd	4,50,000.00	-
	Jebasingh V.K	-	20,000.00
	Dr. J.P.Jayan	-	4,500.00
	Loan to NIET	67,66,635.40	2,51,82,212.30
	Mr. Mahesh M K	-	6,50,000.00
	Balance C/F	**1,11,75,484.48**	**3,09,04,812.30**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

	Balance B/F	**1,11,75,484.48**	**3,09,04,812.30**
	Mr.Dharmaraj	-	25,000.00
	Prof.Joseph	11,350.00	7,000.00
	P.Manikandan-Lift Service	-	3,50,000.00
	Murugan T A - Carpenter	87,000.00	87,000.00
	Rashtra Deepika Ltd	-	1,00,000.00
	Mr. Santhosh Kumar R-Ceiling Work	-	8,00,000.00
	National Skill Development Corporation	4,50,026.33	-
	Shajin Narguunam	6,500.00	-
	Shinu VK	1,75,000.00	-
	Soorya S	4,600.00	-
	SundaraRajan	8,000.00	8,000.00
	TECQUE Academy	-	2,00,000.00
	Thara Traders	1,76,599.00	1,76,599.00
	Universl Motion Inc	25,000.00	25,000.00
	Dr. Vennila H	-	3,675.00
	V.K.N Aviation Academy	1,00,00,000.00	1,00,00,000.00
	Zuji Elevator	2,15,000.00	2,15,000.00
		2,23,34,559.81	**4,29,02,086.30**
4	**Cash and Bank Balances:**		
	Cash-in-hand	71,443.35	25,479.35
	Tamilnad Mercantile Bank - 026100050310431	1,902.20	850.20
	Tamilnad Mercantile Bank -02610050307589	2,64,954.40	2,57,195.40
	Tamilnad Mercantile Bank-026150050302543	7,159.83	55,959.58
	Tamilnad Mercantile Bank-026150050303415	1,95,691.26	1,14,965.72
	Tamilnad Mercantile Bank-026150050800131	7,223.58	1,56,46,384.06
	Tamilnad Mercantile Bank-026150050800192	1,99,358.00	1,99,358.00
	Tamilnad Mercantile Bank-026150050800193	9,058.00	9,058.00
	Tamilnad Mercantile Bank -026150050800194	19,348.00	19,348.00
	Tamilnad Mercantile Bank-026150050800195	88,258.00	88,258.00
	Tamilnad Mercantile Bank -026150050800196	1,551.35	1,551.35
	Tamilnad Mercantile Bank -026150050800200	1,27,711.65	11,41,839.59
	Tamilnad Mercantile Bank -026150050800309	9,966.07	21,640.10
	Tamilnad Mercantile Bank-026150320885001	19,075.05	95,856.25
	Tamilnad Mercantile Bank-026100050307516	4,45,446.83	25,55,090.10
	Tamilnadu Mercantile Bank SBA\cNo:026100050300857	17,909.00	17,909.00
	HDFC-50100607665599 - IT	70,035.00	5,003.00
	HDFC-50100607678281 - AME	15.00	3,504.00
	HDFC-50100607678341 - CA	10,432.52	6,004.00
	HDFC-50100607678354 - AHS	8,155.00	9,511.00
	HDFC-50100607678404 - MATHS	18,458.52	13,512.00
	HDFC-50100607865540 - EEE	657.52	1,244.00
	HDFC-50100607888810 - FSTE	14,861.52	9,229.00
	HDFC-50100607891011 - CIVIL	13,436.52	10,005.00
	HDFC-50100607896170 - AUTO	9,284.76	2,673.00
	HDFC-50100607909289 - ECE	38,122.00	2,003.00
	HDFC-50100608512273 - BME	29,074.00	25,774.00
	HDFC-50100609951776-CSE	1,548.00	3.00
	HDFC--50100609960966-CHEM	20,829.00	3.00
	HDFC-50100609961064-EIE	15,590.00	4.00
	HDFC-50100609972323-ENG	3.00	3.00
	Balance C/F	**17,36,558.93**	**2,03,39,217.70**

Balance B/F	**17,36,558.93**	**2,03,39,217.70**
HDFC-50100609973619 - MGT	12,126.76	5,449.00
HDFC-50100610023951 - SE	2,059.00	1,503.00
HDFC-50100610026921 - MECH	1,07,143.28	72,057.00
HDFC-50100610029972-AERO	515.00	3.00
HDFC-50100610254163 - PHYSICS	17,079.00	2,003.00
HDFC-50100610258712-MARINE	515.00	3.00
HDFC-50100610288244 - NANO	3,73,872.06	976.00
HDFC Bank S.B A/c. No-18781450000068	31,222.56	12,29,403.99
HDFC SB A\c No:50100650226429-R&D	5,68,025.76	-
Indian Overseas Bank -017701000025316	29,605.95	1,97,909.95
State Bank of India -30766890656	30,763.28	28,412.28
State Bank of India-11206265259	4,81,053.04	4,81,702.04
State Bank of India-11206265260	47,236.50	47,885.50
State Bank of India-11206265271	61,116.75	61,116.75
State Bank of India-11206271137	17,399.91	17,399.91
State Bank of India-11206269865	6,481.24	6,481.24
Canara Bank-61802200033597	9,113.30	8,853.30
Canara Bank -61802200033582	11,588.86	1,58,456.86
TMB FD No.026200400104991	2,25,009.00	2,12,352.00
TMB FD No.026200400105061	84,699.00	79,742.00
TMB FD No.026200400105219	2,68,591.00	2,51,875.00
TMB FD No.026200400105226	3,03,809.00	2,84,857.00
TMB FD No.026200400105227	91,289.00	85,592.00
TMB FD No.026200400105234	2,33,814.00	2,19,176.00
TMB FD No.026200400105238	2,96,052.00	2,82,019.00
TMB FD No.026200400105262	3,40,174.00	3,20,695.00
TMB FD No.026200400105354	3,52,123.00	3,30,786.00
TMB FD No.026200050105364	3,00,000.00	3,03,005.00
TMB FD NO:026200400106919	12,04,362.00	11,44,002.00
TMB FD No.026200050103423	9,15,09,933.00	8,69,53,336.00
Federal Bank SB A\cNo:14400100044102	23,628.70	22,954.70
Bank of Maharastra SB A\cno:60429881019	-	-
	9,87,76,959.88	**11,31,49,225.22**

5 Tax Deducted at Sources:

Tax deducted at Sources - 2023-24	5,64,080.00	-
Tax Collected at Sources - 2022-23	2,508.00	1,901.00
Tax deducted at Sources - 2022-23	4,66,109.00	4,66,109.00
	10,32,697.00	**4,68,010.00**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORM PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2024

Note No	EXPENDITURE	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
6	**Salary & Allowances:**		
	Salary & Allowances	11,52,16,818.00	11,83,54,066.00
		11,52,16,818.00	**11,83,54,066.00**
7	**Administrative Expenses:**		
	Affiliation FEE	10,98,800.00	2,30,000.00
	Audit Fee	6,72,600.00	6,49,000.00
	Bank Charges	1,03,128.71	1,59,098.83
	Bank Charges - Online Merchant	4,55,832.59	3,21,284.39
	Bank Interest Paid	61,28,599.29	61,18,155.00
	Land & Building Tax	1,02,069.00	6,60,380.00
	Legal Expenses	1,69,000.00	26,000.00
	Membership Fee	2,36,840.00	2,36,000.00
	Miscellaneous Expenses	80,548.00	2,50,017.80
	Postage	4,06,156.00	1,19,808.00
	Printing & Stationery	26,38,992.00	33,12,222.00
	Professional Fee	19,47,762.00	5,15,700.00
	PTA Meeting Expenses	-	1,315.00
	Public Relation Expenses	12,90,259.00	20,05,413.00
	Refereshment Expenses	1,31,557.00	5,72,868.00
	Registration & Inspection Expenses	13,79,412.00	13,75,478.00
	School Connect Programme Exp	1,77,144.00	1,74,089.00
	Stability Certificate	14,000.00	1,22,500.00
		1,70,32,699.59	**1,68,49,329.02**
8	**BUS Service Expenses:**		
	Driver & Conductors Bata	10,25,900.00	4,55,685.00
	Contract Service-Bus	12,94,500.00	-
	Diesel - Bus Service	80,95,704.36	1,00,33,941.20
	Insurance &Taxes-Bus	21,67,584.00	14,51,501.00
	Maintenance -Bus Service.	16,67,558.00	17,64,965.00
	Permit & Entry Fee	1,59,215.00	3,32,590.00
	Staff Salary	64,93,243.00	52,64,169.00
		2,09,03,704.36	**1,93,02,851.20**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

9	**Establishment Expenses:**		
	Advertisement Expenses.	2,43,13,946.79	40,59,736.07
	Consultancy Service Expenses	1,33,592.00	61,790.00
	Electricity Charges	76,01,911.00	65,07,060.00
	Fuel	10,70,348.52	14,28,455.34
	Guest Expenses	1,31,058.00	2,81,468.00
	Guest Lecture	1,41,167.00	67,266.00
	Security Charges - Private	43,18,521.00	-
	Telephone Charges	1,67,618.36	1,86,590.00
	Transportation Expenses	50,161.68	37,260.00
	Travelling Expenses	5,02,098.00	3,82,445.00
	Uniform Expenses	83,006.00	1,07,753.00
		3,85,13,428.35	**1,31,19,823.41**
10	**Examination Expenses:**		
	Bank Charges -Exam	1,752.89	1,014.80
	Central Valuation of Theory	2,50,045.00	1,40,980.00
	Central Valuation TA&DA	43,423.00	33,026.00
	Equipment Maintenance-Exam	74,200.00	20,450.00
	General Expenditure - Exam	25,616.00	2,90,662.00
	Practical Exam Remuneration	1,95,397.00	1,27,801.00
	Practical Exam TA&DA	90,667.00	51,235.00
	Printing&Stationery -Exam.	15,10,742.00	12,35,396.00
	Question Pape Setting	6,28,040.00	-
	Refreshment Exp-Exam	73,745.00	-
	Staff Salary	6,96,941.00	7,73,384.00
	Theory Exam Remuneration.	3,13,105.00	2,18,363.00
	Viva Voce	1,82,049.00	-
		40,85,722.89	**28,92,311.80**
11	**Expert Committee's Meeting Expenses:**		
	Academic Council	15,474.00	11,700.00
	Board of Management	53,021.00	52,501.00
	Board of Studies	1,58,877.00	1,40,932.00
	Other Committee Expenses	1,25,501.00	360.00
		3,52,873.00	**2,05,493.00**
12	**Book Store Payment:**		
	Book Store Payment	8,98,882.00	5,71,095.00
	Staff Salary	3,79,128.00	3,63,644.00
		12,78,010.00	**9,34,739.00**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

13	**Facilities to Students:**		
	Alumni Assn Expenses	-	1,32,756.00
	Cash Awards	12,000.00	-
	Green Energy&Eco Club Acitivity	4,915.00	-
	Entrepreneuship Programme	-	11,170.00
	Health Centre Expenses	96,592.00	99,804.00
	Institution Innovation Council Exp	32,821.00	24,325.00
	Internet & Cable Charges	1,21,738.00	72,300.00
	NCC & N S S Programme	1,17,552.00	3,250.00
	Salary Health Centre Staff	9,62,414.00	9,14,767.00
	Periodicals & Journels	13,86,478.00	11,98,468.00
	Placement Expenses	1,53,677.00	1,44,753.00
	Sports Expenses	5,71,682.00	1,11,385.00
	Students Insurance Policy	1,12,820.00	1,21,515.00
	Students Online Learning & Exam System	75,200.00	40,000.00
	Students Training Programme	69,35,818.00	68,05,925.00
	Uniform to Student	12,67,922.00	-
	Workshop Programme	-	9,389.00
	Wushu Programme Expenses	-	5,46,217.00
		1,18,51,629.00	**1,02,36,024.00**
14	**Annual Day & Convocation:**		
	Auspicious Day Celebration	99,000.00	-
	Convocation A\c	13,42,841.96	17,17,425.00
	Inaguration Expenses	5,04,461.00	1,07,815.00
		19,46,302.96	**18,25,240.00**
15	**Promotion of Science:**		
	Inspire Fellowship Programme	10,46,568.00	8,13,450.00
	Young Student Scientist Programme	-	4,29,940.00
		10,46,568.00	**12,43,390.00**
16	**Repairs & Maintenance:**		
	Building Maintenance	32,32,277.00	57,64,200.00
	Campus Maintenance	28,00,500.00	29,81,591.00
	Computer Maintenace	1,42,890.00	-
	Electrical Maintenance	5,54,079.00	7,03,307.00
	Environmental Expenses	-	1,430.00
	Equipment Maintenance	10,25,320.00	18,03,822.00
	Furniture Maintenace	9,15,817.00	6,04,658.00
	Garden Maintenance	-	7,04,302.00
	House Keeping Charges	3,97,339.00	-
	Insurance Premium	98,982.00	1,15,050.00
	Lab Components	3,41,882.00	1,00,345.00
	Land Maintenance	2,29,500.00	5,25,975.00
	Studio Establishment Expenses	-	3,96,250.00
	Vehicle Maintenance	12,70,506.00	7,52,969.00
		1,10,09,092.00	**1,44,53,899.00**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

17	**Research & Faculty Trainning:**		
	Workshop, Seminar & Conferences	7,43,580.00	-
	Appreciation & Awards	1,90,500.00	59,400.00
	Conference Expenses	-	54,000.00
	Doctoral Committee	44,41,820.00	19,81,826.00
	Faculty Development Programme	3,34,314.00	33,982.00
	National Skill Development - PMKVY Project	2,05,519.00	-
	Physics - (NCMSGT2023)	61,345.00	-
	R & D Expenses	7,55,171.00	2,00,695.00
	Seed Money	10,00,000.00	-
	Seminar Expenses	-	1,02,350.00
	Staff Training Expenses	86,307.00	1,18,885.00
	TNFD Project Expenses	2,58,921.00	-
	TNSCST Project	25,092.00	-
		81,02,569.00	**25,51,138.00**
18	**Educational Welfare Activities:**		
	Adoption of Govt.School	3,10,550.00	2,59,219.00
	Fee Concession to Merit Students	24,57,500.00	12,40,000.00
	Fee Concession to Students	58,93,750.00	41,36,250.00
	Gift & Donation Paid	1,93,300.00	1,89,814.00
	Help to Cancer Patient	4,42,000.00	1,30,000.00
	Help to Poor	65,000.00	42,057.00
	Public Awareness Program	1,876.00	12,370.00
	Social Welfare Activities	874.00	-
	Medical Help	-	3,220.00
	Laptop Cost Reverted	-	30,000.00
		93,64,850.00	**60,42,930.00**
19	**Staff Welfare Expenses:**		
	Festival Allowance to Staff	2,65,500.00	35,000.00
	Management Cont'bn to EPF.	52,54,146.00	34,30,037.00
	Management Cont'bn to ESI	14,87,784.00	14,04,921.00
	Management Cont'bn to Gratuity	2,75,000.00	1,75,000.00
	Management Cont'bn to LIC	2,70,095.00	7,91,006.00
		75,52,525.00	**58,35,964.00**
20	**Hostel Expenses:**		
	Mess Expenses	2,22,64,779.50	2,38,89,668.75
		2,22,64,779.50	**2,38,89,668.75**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
10-47A, HAJI MANZIL
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NOTES FORM PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2024

Note No	INCOME	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
21	**Fee Collection:**		
	Tuition Fee	15,42,16,325.00	16,63,72,668.00
	Amenities Fee	1,30,10,679.00	2,18,43,733.00
	Bus Fee Collection	1,19,12,780.00	1,07,11,904.00
	Certificate Fee	3,69,901.00	3,84,075.00
	Certificate Verification Fee	37,700.00	66,000.00
	Development Fee	1,12,000.00	8,30,000.00
	Lab Utitlization Fee	97,11,120.00	57,59,295.00
	Migration Certificate Fee	9,450.00	16,800.00
	Miscellaneous Fee & ID Card	70,250.00	-
	Processing Fee	25,000.00	3,85,000.00
	Sale of Application Form	5,22,460.00	6,11,500.00
	Students Training Fee	73,25,706.00	1,20,35,495.00
		19,73,23,371.00	**21,90,16,470.00**
22	**Projects Funds:**		
	AICTE Grant in aid	2,50,000.00	-
	DST - CSIR Extra Mutual Research	25,000.00	8,13,450.00
	Dst Grant for Inspire	10,46,568.00	-
	Entrepreneurship Development Institute of India	-	15,000.00
	Grant From Private Institution - Infrastructure	10,00,000.00	-
	National Skill Development Corporation	13,47,067.30	-
	Tamilnadu State Council for Science & Technology	15,000.00	50,000.00
	Govt.of Tamilnadu Forest Department	-	4,70,000.00
		36,83,635.30	**13,48,450.00**
23	**Hostel Income:**		
	Hostel Admn. & Entrance Fee	8,59,000.00	8,20,000.00
	Hostel Rent	53,85,350.00	68,57,700.00
	Mess Income	2,70,90,378.00	2,67,98,497.00
		3,33,34,728.00	**3,44,76,197.00**
24	**Annual Day & Convocation Collection:**		
	Convocation Collection	11,60,350.00	16,75,350.00
		11,60,350.00	**16,75,350.00**
26	**Exam Fee:**		
	Exam Fee	1,61,45,915.00	1,73,68,901.00
	Exam Fee - Dc Meeting	1,41,100.00	1,75,500.00
	Exam Fee - Synopsis & Viva Voce	24,05,310.00	24,73,000.00
		1,86,92,325.00	**2,00,17,401.00**



25	**Other Receipts:**		
	Department Programmes Collection	6,69,397.00	2,05,282.00
	Bank Interest	54,09,866.00	46,36,501.00
	Book Store Receipts	5,54,420.00	7,09,190.00
	Conference Income	-	34,400.00
	Consultancy Service	5,55,000.00	6,94,400.00
	Electricity - Staff Quarters	41,740.00	64,710.00
	FDP Collection	98,119.00	-
	Interest on TDS	-	61,265.00
	Miscellaneous Income	9,03,277.20	6,18,193.58
	Placement Income	91,640.00	67,230.00
	Sale of Waste & E-Waste	32,934.00	44,500.00
	Sponsors Collcetion	1,71,000.00	44,000.00
	Tamilnadu Wushu Association	-	27,500.00
	Workshop Programme Collection	-	35,250.00
		85,27,393.20	**72,42,421.58**



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NOTES FORM PART OF RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2024

Note No	RECEIPTS	Figures as at 31-03-2024	Figures as at 31-03-2023
27	**Loan from Bank and Finance Company:**	₹	₹
	TMB LOD-026700400103860	-	10,851.00
	TMB LOD-026700400103861	-	10,925.00
	TMB LOD-026700400103972	-	53,32,972.00
	TMB LOD A/C. No. 026700400104086	16,44,792.00	-
	TMB OD A\cNo:026700080900008	13,01,091.00	-
	TMB Vech.LoanA\cNo:026700850100135	9,60,000.00	-
	Shriram Finance V.Loan No:THCLY2210260003	-	1,12,710.00
	Total	**39,05,883.00**	**54,67,458.00**
28	**Creditors for Expenses:**		
	Dinamalar	-	88,504.00
	Ad ON Wheels	2,75,232.00	-
	Chandrika Daily	25,000.00	-
	Efficient Advertising	21,35,182.00	-
	Express Publication Ltd.	27,766.00	-
	Althaf Hussain - Biryani	-	2,74,560.00
	Ani Petroleum	-	15,000.00
	Associated Agencies	-	1,71,818.14
	BioZone Research Technologies Pvt Ltd	-	75,520.00
	Kerala Kaumudi Private Ltd	2,09,701.00	-
	Madhyamam	11,10,000.00	-
	Meenu Advertisers	2,800.00	-
	Rakhi L	1,28,392.00	-
	Soori Combines	24,97,340.00	-
	Subramanina Advertising Agency	37,800.00	-
	Suprabhaatham Daily	10,000.00	-
	The Daily Thanthi	1,59,369.43	-
	Abhishek Electrical Agency	73,190.00	-
	Ajith S	83,000.00	-
	A.J.S.Plywood&Glasses	7,433.00	-
	Alampara Aluminum Fabricatiors	3,284.00	-
	Ali Pumping Works	48,000.00	-
	Amyntor Tech Solution Pvt LTd	15,340.00	-
	Anbu Pharmaceuticals	20,992.00	-
	Antony Coolers&Refrigeration	86,090.00	-
	Arasu Paper Mart	87,517.00	-
	ARK Construction	14,000.00	-
	Arrow Express	91,054.00	-
	Automation Asia Associates	47,851.00	-
	Cherukara Vehicles Private Limited	65,682.00	-
	Coastal Star Private Limited	78,636.00	-
	CADMAXX Solutions Private Ltd	-	80,000.00
	Dept. Programmes	-	51,468.00
	Balance C/F	**73,40,651.43**	**7,56,870.14**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**73,40,651.43**	**7,56,870.14**
Devadhas Granites&Tiles	-	3,93,537.00
Dosthen Enterprise	60,000.00	-
Entertainment Network(India)Ltd	61,200.00	-
EPF Contributions Payable	32,97,979.00	-
ESI Contribution Payable	6,72,482.00	-
Flash ID Technologies	1,08,698.00	-
Fortune Furniture&Interiors	1,50,000.00	-
Frank &Co	3,15,667.00	-
Friends Grafix Copier Service	-	1,74,549.00
Furnishing Avenue	64,850.00	-
Gems Water Solution	4,60,000.00	14,972.00
George Stephen	79,825.00	-
Global Books Syndicate	-	50,000.00
Golden Computers	6,580.00	-
G.Manikandan	-	36,150.00
JJ Glass Emporium	94,600.00	24,900.00
Kamaraj Indane Gas Agencies	1,07,070.00	3,50,310.00
Kandasamy&Sons	52,543.00	60,580.20
Kanyakumari District Co-OPerative Milk Producer Union	-	23,575.00
Kiddies Centre	-	10,860.00
Kochu Pillai	-	1,44,750.00
Lingam&Co	19,000.00	-
Majori Health Care	9,00,000.00	-
Mani Earth Movers	89,425.00	-
Minayil Industries P Ltd	1,86,118.00	-
M P Hardware	1,37,597.00	-
Mukundan Photography	39,000.00	-
Llyod's Register Marine and Offshore India LLP	-	2,473.00
Manoj Graphic Designer	-	13,000.00
Nagarja Store-Provision	3,91,585.00	-
Nathan -Hardware	12,96,801.00	-
Nathan Traders	51,355.00	
Natural RO	2,997.00	-
New Indian Sports Academy	30,000.00	-
New World Solution	-	11,916.00
Nims Medicity	48,817.00	-
Orient Color Art Printers(P)Ltd	1,952.00	-
Pitney Bowers India Pvt Ltd	-	11,210.00
Prodi Miller	49,728.00	-
Rainbow Printers	1,15,666.00	-
Raksha Aluminium Materials	73,111.00	-
Revathy Enterprise	68,740.00	-
R.K.Publishers	1,24,000.00	-
Russel Raj Power System	5,13,400.00	-
Sainaba Chicken,Mutton Home	6,041.00	-
Santhosh Kumar R-Ceiling Work	8,00,000.00	-
Spaco Technologies	36,000.00	-
SR Agency	18,100.00	-
Star Industries	62,510.00	59,005.00
Sun Associates	12,91,300.00	-
Balance C/F	**1,92,25,388.43**	**21,38,657.34**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

	Balance B/F	**1,92,25,388.43**	**21,38,657.34**
	Sundaram Industries Private Ltd	88,065.00	8,534.00
	Technogen	1,77,501.00	-
	The Precision Scientific	5,256.00	-
	Tossed Stone Construction	1,18,650.00	-
	Variety Marbles	16,800.00	-
	Varnam Beauty Lounge&Stiching Centre	1,88,225.00	-
	Varnam Paints&Hardware	35,380.00	-
	Vars Medicare	12,938.00	-
	Voltaz Electronics&Ledplant	-	11,564.00
	Wowels-(2022-23)	-	71,662.00
	Total	**1,98,68,203.43**	**22,30,417.34**
29	**Creditors for Others:**		
	TDS Payable	-	1,54,324.00
	Nagendraprasad Project	-	2,49,885.00
	Unclaimed Amount	6,13,352.40	-
	Total	**6,13,352.40**	**4,04,209.00**
30	**Staff Advances:**	**56,80,190.00**	**74,30,227.00**
31	**Loans & Advances:**		
	Annai Petroleum	8,000.00	-
	Appi Petroleum	7,000.00	-
	Asir B Regin	2,35,000.00	-
	Basheer A	1,00,000.00	-
	Bindhu B - Physics	20,000.00	-
	Casablanca Shipping Private Ltd	1,00,000.00	-
	Concept	2,37,250.92	-
	Glob Enterprises	34,000.00	-
	H Media	7,38,000.00	-
	Jebasingh V.K	20,000.00	-
	Jishan Ali	-	620.00
	J.R.Book Publishers&Distributors	-	42,000.00
	J.P.Jayan	4,500.00	-
	Loan From NIET	1,84,15,576.90	1,35,45,862.30
	Mahesh M K	6,50,000.00	-
	Mr.Dharmaraj	25,000.00	-
	Mr.Joseph	-	3,000.00
	P.Manikandan-Lift Service	3,50,000.00	-
	Murshitha Mess	-	5,803.95
	Over Billed -Amal A Rahim	-	50.00
	R.Ramesh Kumar	-	2,500.00
	Rashtra Deepika Ltd	1,00,000.00	-
	SundaraRajan	-	2,561.00
	TECQUE Academy	2,00,000.00	-
	Vennila H	3,675.00	-
	Total	**2,12,48,002.82**	**1,36,02,397.25**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

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NOTES FORM PART OF RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2024

Note No	PAYMENTS	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
32	**Loan from Bank and Finance Company**		
	TMB Loan - 063700850100033	6,62,155.00	6,14,604.00
	TMB LOD A/C.No:026700400103972		-
	TMB LOD-026700400103860	-	2,56,794.50
	TMB LOD-026700400103861	-	2,58,527.50
	Shriram Transport FinanceVLoanA\cNo:THCLY22102600(	10,59,798.21	-
	Shriram Transport VehloanNo:THCLYT910310001	1,31,361.00	5,00,488.00
	Total	**18,53,314.21**	**16,30,414.00**
33	**Creditors for Expenses:**		
	D Ads	1,82,873.00	96,896.00
	Dinamalar	76,160.00	-
	Efficient Advertising	-	13,19,430.00
	Express Publication Ltd.	-	(2,495.00)
	Hayyak Communication	-	40,000.00
	Janmabhumi	95,744.00	7,040.00
	Kal Publication	67,597.30	(22,601.70)
	Kerala Kaumudi Private Ltd	-	10,000.00
	Keziah Publications	7,351.00	-
	Madhyamam	-	14,75,189.00
	Rozgar Samachar	33,120.00	-
	Soori Combines	-	42,68,367.00
	Suprabhaatham Daily	-	15,000.00
	The Daily Thanthi	-	3,47,994.00
	Thina Murasu	894.00	84,915.00
	Vandanam Malayalam News	-	20,000.00
	Exam Dept. Expenses Payable	-	1,36,577.00
	A.J.S.Plywood&Glasses	-	35,900.00
	Alampara Aluminum Fabricatiors	-	1,58,753.00
	Alert Security Services	-	2,09,456.00
	Althaf Hussain - Biryani	2,74,560.00	-
	Anbu Pet Industries	-	6,390.00
	Ani Petroleum	15,000.00	-
	Arasu Paper Mart	-	19,923.00
	ASP Infotech	-	10,000.00
	Associated Agencies	1,10,323.00	-
	BioZone Research Technologies Pvt Ltd	75,520.00	-
	Bovas-Tar Work	-	58,506.00
	CADMAXX Solutiond Private Ltd	80,000.00	-
	Carmel Granites&Tiles	-	72,653.00
	DATA Patterns	3,50,000.00	-
	Dept. Programmes	51,468.00	-
	Devadhas Granites&Tiles	1,69,515.00	-
	Balance C/F	**15,90,125.30**	**83,67,892.30**



Balance B/F	**15,90,125.30**	**83,67,892.30**
Flash ID Technologies	-	3,49,870.00
Frank & Co	-	4,26,778.00
Friends Grafix Copier Service	1,33,650.00	-
G.Manikandan	35,150.00	-
G.S.Communications	-	31,110.00
Jersha Seat Cover&Bag Work	-	12,500.00
John Power Unit&Sounds	-	63,150.00
Jothi Marine Engineering	-	52,934.00
Kanyakumari District Co-OPerative MilkProducer Unio	42,660.50	-
Karthika Printers	3,23,898.00	-
Kiddies Centre	10,860.00	-
Kochu Pillai	1,70,535.00	-
Management Cont.EPF-Payable	-	2,24,483.00
Management Cont.to ESI Payable	-	37,718.00
Manoj Graphic Designer	13,000.00	-
Mani Earth Movers	-	61,200.00
MATRICS	-	10,000.00
Mr.Dharmaraj-PD	-	13,455.00
N5 Security Service	-	2,24,082.00
NagarajaStore-Provision	-	1,26,974.00
Nathan -Hardware	-	8,433.00
Nathan Traders	-	15,905.00
New World Solution	11,916.00	-
Padma Electricals	-	3,89,048.00
Panaroa Tech Pvt.Ltd	-	9,34,715.00
Pearl Generators	50,000.00	-
Perfect Power System	-	7,500.00
Pitney Bowers India Pvt Ltd	11,210.00	-
Pothys	-	1,37,894.00
Prabha Cafe I Bakery	-	23,600.00
Pravasi Bharathi	20,000.00	-
Queens	75,970.00	-
Rainbow Printers	-	68,492.00
Russel Raj-UPS	-	5,67,700.00
Sainaba Chicken,Mutton Home	-	5,53,352.00
Salary Payable	3,63,272.00	1,64,40,942.00
Sanjay Cool Systmes&Solutions	-	1,26,498.00
Shanti Books	-	31,173.00
Siva Infotech	-	12,744.00
Star Industry	3,35,781.00	-
Subramania Industries	-	17,680.00
T S Rajam Tyres Private Ltd	-	49,689.00
Voice and Speech System	63,900.00	-
Voltaz Electronics&Ledplant	11,564.00	-
Wowels-(2022-23)	43,105.00	-
YorkMedia's	-	1,02,000.00
Zennatra Systems	-	4,900.00
	33,06,596.80	**2,94,94,411.30**



34	**Creditors for Others:**		
	Mess Advance	17,01,659.50	65,458.00
	TDS Payable	66,494.00	-
	Unclaimed Fee Receipts	-	8,91,124.88
	Excess Collection	-	55,800.00
	Loan From Mrs.Rajeena.	4,00,000.00	2,00,000.00
		21,68,153.50	**12,12,382.88**
35	**Staff Advances:**	**56,64,440.00**	**73,71,336.00**
36	**Loans & Advances:**		
	Anju	-	1,908.40
	Annai Petroleum	-	8,000.00
	Appi Petroleum	-	7,000.00
	Asir B Regin - Automobile Seed Money	-	2,35,000.00
	Basheer A	-	1,00,000.00
	Bindhu B	-	20,000.00
	Concept	-	5,32,000.00
	Enviro Care India Private Limited	3,90,000.00	-
	Genesis Solar World	-	1,06,000.00
	H Media	-	7,38,000.00
	Infor Edge(India)Ltd	4,50,000.00	-
	Jebasingh V.K	-	20,000.00
	J.P.Jayan	-	4,500.00
	Mr.Joseph	4,350.00	-
	Mahesh M K	-	6,50,000.00
	Mr.Dharmaraj	-	25,000.00
	Murugan T A - Carpenter	-	87,000.00
	National Skill Development Corporation	4,50,026.33	-
	Neeraja-Mess	-	3,792.00
	Santhosh Kumar R-Ceiling Work	-	8,00,000.00
	Shajin Narguunam	6,500.00	-
	Shinu VK	1,75,000.00	-
	Soorya S	4,600.00	-
	TECQUE Academy	-	2,00,000.00
	Vennila H	-	3,675.00
	Total	**14,80,476.33**	**35,41,875.40**



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

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NOTES FORM PART OF FUNDS FLOW STATEMENT FOR THE YEAR ENDED 31 MARCH 2024

Note No	SOURCES OF FUNDS	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
37	**Funds from operation:**		
	Net income from Income & Expenditure Account	-4,20,14,283.15	1,62,81,764.40
	Add back: Depreciation	3,42,14,514.00	2,97,57,658.00
	Total	**-77,99,769.15**	**4,60,39,422.40**
38	**Loan from Bank and Finance Company**		
	TMB Loan - 063700850100033	-	1,79,487.50
	TMB LOD-026700400103860	-	10,851.00
	TMB LOD-026700400103861	-	10,925.00
	TMB LOD-026700400103972	-	53,32,972.00
	TMB LOD A\cNo:1026700400103867	-	13,40,930.21
	TMB LOD A/C. No. 026700400104086	16,44,792.00	-
	TMB OD A\cNo:026700080900008	13,01,091.00	-
	TMB Vech.LoanA\cNo:026700850100135	9,60,000.00	-
	Shriram Transport Veh.loan No:THCLYT910310001	-	91,016.00
	Total	39,05,883.00	69,66,181.71

39 **Changes in Working Capital:**

Current Liabilities	Figures as at 31-03-2023	Figures as at 31-03-2024	Increase/ -Decrease
	₹	₹	₹
Creditors for Expenses	2,92,56,910.64	4,50,18,517.27	1,57,61,606.63
Creditors for Others	1,69,82,985.66	1,54,28,184.56	- 15,54,801.10
Staff Gratuity Fund	2,44,64,306.00	2,47,39,306.00	2,75,000.00
Total (A)	7,07,04,202.30	8,51,86,007.83	**1,44,81,805.53**
Current Assets			**Increase/ -Decrease**
1. Deposits	(1,33,13,251.16)	(1,25,14,947.16)	7,98,304.00
2. Staff Advances	1,86,636.00	1,70,886.00	- 15,750.00
3. Loans & Advances	4,29,02,086.30	2,23,34,559.81	- 2,05,67,526.49
4. Cash and Bank Balances	11,31,49,225.22	9,87,76,959.88	- 1,43,72,265.34
5. Tax Deducted at Sources	4,68,010.00	10,32,697.00	5,64,687.00
Total (B)	14,33,92,706.36	10,98,00,155.53	**-3,35,92,550.83**
Net Working Capital - Increase in Current Assets (A-B)			**4,80,74,356.36**
Decrease in Current Liabilities - Previous Year			**- 33,02,147.49**



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION
10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORM PART OF FUNDS FLOW STATEMENT FOR THE YEAR ENDED 31 MARCH 2024

Note No	APPLICATION OF FUNDS	Figures as at 31-03-2024	Figures as at 31-03-2023
		₹	₹
40	**Loan from Bank and Finance Company**		
	TMB Loan - 063700850100033	6,62,155.00	-
	TMB Loan - 063700850100033	-	7,94,091.50
	TMB LOD-026700400103860	-	2,56,794.50
	TMB LOD-026700400103861	-	2,58,527.50
	Shriram Transport FinanceVLoanA\cNo:THCLY22102600(	-	1,43,978.00
	Shriram Transport VehLoanNo:THCLYO709140003	10,59,798.21	10,84,242.21
	Shriram Transport VehloanNo:THCLYT910310001	1,31,361.00	5,91,504.00
	Total	18,53,314.21	31,29,137.71



FRANK & CO
CHARTERED ACCOUNTANTS
KALLUVEETTIL TEENU CENTRE
82, Court Road, Nagercoil - 629 001, INDIA
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RES : (04651) 230504, 230604
Email : franknco@gmail.com

Ref: FC/N – 7/ 342

04.09.2025

FORM NO.10 B
(See rule 17B)

Audit report under section 12A(b) of the Income-tax Act, 1961, in the Case of charitable or religious trusts or institutions

We have examined the Consolidated Balance Sheet of **NOORUL ISLAM CENTRE FOR HIGHER EDUCATION** as at 31-03-2025 and the Income and Expenditure Account for the year ended that date which are in agreement with the books of account maintained by the said institution.

We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of audit. In our opinion proper books of account have been kept by the above named institution so far appears from our examination of the books, subject to the comments given below:

In our opinion and to the best of our information and according to information given to us the said accounts give a true and fair view:

1. In the case of the Consolidated Balance Sheet of the State of affairs of the above named institution as at 31-03-2025.
2. In the case of the Consolidated Income and Expenditure Account of the Income or Loss of its accounting year ended 31-03-2025.

The prescribed particulars are annexed hereto.

For **FRANK & CO**
Chartered Accountants

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

FRANKLIN FERNANDEZ FCA
Membership No. 012517
UDIN: 25012517BMOQPH6504

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION - KUMARACOIL
ACCOUNTING YEAR ENDED 31.03.2025

ANNEXURE

STATEMENT OF PARTICULARS

I. Application of Income for charitable or religious purposes.	
1. Amount of income of the previous year applied to charitable or religious purpose in India during that year	Rs.28,95,07,763/-
2. Whether the trust / institution has exercised the option under clause (2) of the Explanation to Section 11 (1) If so, the details of the amount income deemed to have bee supplied to charitable or religious purpose in India during the previous year.	YES
3. Amount of income Accumulated or set apart / finally set apart for application to charitable or religious purposes, to the extent it does not exceed 15 percent of the income derived from property held under trust Wholly / in part only for such purposes	RS.1,91,53,145/-
4. Amount of income eligible for exemption under Section 11 (1) (c) (Give details)	Nil
5. Amount of income, in addition to the amount referred to in item above, accumulated or set apart for specified purposes under section 11(2)	NIL
6. Whether the amount of income mentioned in item 5 above has been invested or deposited in the manner laid down in Sec 11 (2) (b)? If so, the details there of.	NOT APPLICABLE
7. Whether any part of the income in respect of which an option was exercised under clause (2) of the Explanation to section 11 (1) in any earlier year is deemed to be income of the previous year under section 1(B) ? If so, the details there of	No
8. Whether during the previous year, any part of income accumulated or set apart for specified purposes under section 11 (2) in any earlier year	No
a. has been applied for purposes other than charitable or religious purposes or has ceased to be accumulated or set apart for application thereto, or	No
b. has ceased to remain invested in any security referred to in sec 11 (2) (b) (i) or deposited in any account referred to in sec 11 (2) (b) (ii) or Sec 11 (2) (b) (iii), or	No
c. has not been utilised for purpose for which it was accumulated or set apart during the period for which it was to be accumulated or set apart, or in the year immediately following the expiry thereof? If so, details thereof.	No

Contd...2

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

II. Application of use of income or property for the benefit of persons referred to in Sec 13 (3)	
1. Whether any part of the income or property of the trust / institution was lent, or continuous to be lent, in the previous year to any person referred to in Sec.13 (3) (herein after referred to in his Annexure as such person) ? If so, give details of the amount, rate of interest charged and the nature of security if any	No
2. Whether any land, building or other property of the trust / institution was made, or continued to be made, available for use of any such person during he previous year? If so, give details of the property and the amount of rent or compensation charged, if any	No
3. Whether any payment was made to any such person during the previous year by way of salary allowance or otherwise? If so, give details	No
4. Whether the services of the trust / institution were made available to any such person during the previous year? If so, give details there of together with remuneration or compensation received, if any	No
5. Whether any share, security or other property was purchased by or on behalf of the trust / institution during the previous year from any such person? If so give details there of together with consideration paid	No
6. Whether any share, security or other property was sold by or on behalf of the trust / institution during the previous year to any such person? If so, give details thereof together with the consideration received.	No
7. Whether any income or property of the trust / institution was diverted during the previous year in favour of any such person? If so, give details thereof together with the amount of income or value of property so diverted	No
8. Whether the income or property of the trust / institution was used or applied during the previous year for the benefit of any such person in any other manner? If so, give details	No

III. Investment held at any time during the previous year (s) in concerns in which persons referred to in Section 13 (3) have a substantial interest.

Sl. No.	Name and address of the Concern	Where the concern is a Company No. and class of Shares held	Nominal Value of the investment	Income from investment	Whether the amount in Col.4 exceeded 5 % of the capital of the concern during the previous year say Yes / No
1	2	3	4	5	6
			NIL		
Total					

Place: NAGERCOIL

Date:04.09.2025

for FRANK & CO
Chartered Accountants

FRANKLIN FERNANDEZ FCA
Membership No.012517
UDIN:25012517BMOQPH6504

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

P.A.NO - AAAAN5265H
STATUS - AOP (SOCIETY)

INCOME TAX ASSESSMENT YEAR - 2025-2026
ACCOUNTING YEAR ENDED - 31-03-2025

MEMO OF INCOME

Aggregate of income referred to in section u/s 11 and 12 derived during the previous year excluding Voluntary contribution forming part of corpus as per section 11(1)(d) and voluntary contributions:

Receipts from main objects			28,63,32,065
Government Grant - Projects Funds			1,36,07,089
Interest income			74,08,904
Sale of Fixed Assets			13,12,850
			30,86,60,908
Less: Income applied for Charitable purposes:			
As per Income and Expenditure Account		30,93,45,332	
Less: Loan from Bank - Interest	77,62,443		
Less: Creditors for Expenses Payable	7,48,89,798	8,26,52,241	
		22,66,93,092	
Add: Creditors for Expenses paid		1,16,95,403	
		23,83,88,494	
Add: Capital Expenditure		4,99,30,904	
Add: Repayment of Bank Loan		11,88,365	**28,95,07,763**
	SURPLUS		**1,91,53,145**
	LESS: EXEMPTION U/S 11(1)(a)		**1,91,53,145**
Tax on Total Income			NIL
Tax Deducted At Sources		7,98,300	
Tax Collected at Sources		2,339	8,00,639
Tax Payable			NIL
Refund Due			**8,00,639**

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

P.A.NO - AAAAN5265H | INCOME TAX ASSESSMENT YEAR - 2025-2026

STATUS - AOP (SOCIETY) | ACCOUNTING YEAR ENDED - 31-03-2025

Receipts from main objects:			
Fee Collection	21,13,92,468		
Hostel Income	4,41,67,930		
Annual Day & Convocation Collection	11,70,750		
Other Receipts	1,10,67,843		
Exam Fee	1,85,33,074	28,63,32,065	
Interest income		74,08,904	
Projects Funds		1,36,07,089	
			30,73,48,058
Expenditures towards main objects:			
As per Income & Expenditure statement:			
Salary & Allowances		12,08,21,921	
Administrative Expenses		2,00,98,585	
Annual Day & Convocations		20,16,312	
Bus Service Expenses		2,18,37,857	
Establishment Expenses		3,68,58,550	
Examination Expenses		35,25,730	
Expert Committee's Meeting Expenses		2,74,652	
Book Store		9,01,459	
Facilities to Students		1,31,44,908	
Promotion of Science		15,44,839	
Repairs & Maintenance		82,20,823	
Research & Faculty Trainning		91,55,468	
Educational Welfare Activities		4,36,48,695	
Hostel Expenses		2,72,95,534	**30,93,45,332**
Expenditures towards Addition to Capital Assets:			
As per Fixed Assets schedule to Balance Sheet:			
BUILDINGS		1,54,44,807	
COMPUTER & SOFTWARE		1,28,63,393	
ELECTRONIC EQUIPMENTS		46,74,445	
ELECTRONIC VEHICLE		2,80,000	
FURNITURE & FITTINGS		64,23,695	
ELECTRICAL FITTINGS		36,35,268	
LAB EQUIPMENTS		5,19,316	
LIBRARY BOOKS		1,93,415	
MACHINERY & EQUIPMENTS		32,96,574	
MOTOR VEHICLE		13,23,000	
FIRE & SAFETY EQUIPMENTS		12,76,991	**4,99,30,904**
Sale of Fixed Assets			
MOTOR VEHICLE		12,77,250	
ELECTRONIC EQUIPMENTS		35,600	**13,12,850**

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

P.A.NO - AAAAN5265H
STATUS - AOP (SOCIETY)

INCOME TAX ASSESSMENT YEAR - 2025-2026
ACCOUNTING YEAR ENDED - 31-03-2025

Repayment of Loan:

TMB Loan - 063700850100033	7,35,341
TMB Vech.LoanA\cNo:026700850100135	1,53,341
Shriram Transport VehloanNo:THCLYT910310001	2,99,683
	11,88,365

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

BALANCE SHEET AS AT 31st MARCH 2025

Note No	LIABILITIES	Figures as at 31-03-2025	Figures as at 31-03-2024
1	CAPITAL FUND	21,32,86,111.87	25,09,99,219.88
2	LOAN FROM BANK AND FINANCE COMPANY	9,08,99,667.00	8,43,25,589.00
3	CURRENT LIABILITIES	11,67,23,074.61	6,04,46,701.83
	TOTAL	**42,09,08,853.48**	**39,57,71,510.71**
	ASSETS		
4	FIXED ASSETS	25,86,09,269.04	24,57,07,049.18
5	CURRENT ASSETS, LOANS AND ADVANCES:		
	1. Deposits	2,78,15,121.84	2,77,49,358.84
	2. Staff Advances	25,828.00	1,70,886.00
	3. Loans & Advances	2,12,81,018.73	2,23,34,559.81
	4. Cash and Bank Balances	11,23,76,976.87	9,87,76,959.88
	5. Tax Deducted at Sources	8,00,639.00	10,32,697.00
	TOTAL	**42,09,08,853.48**	**39,57,71,510.71**

VIDE OUR REPORT ATTACHED
For FRANK & CO
Chartered Accountants

FRANKLIN FERNANDEZ FCA
M. NO.012517
UDIN: 25012517BMOQPH6504

4-09-2025
Nagercoil

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2025

Note No	EXPENDITURE	Figures as at 31-03-2025	Figures as at 31-03-2024
6	To Employee Benefit Expenses	12,08,21,920.98	12,27,69,343.00
7	" Administrative Expenses	2,00,98,585.31	1,70,32,699.59
14	" Annual Day & Convocations	20,16,312.00	19,46,302.96
8	" Bus Service Expenses	2,18,37,856.92	2,09,03,704.36
9	" Establishment Expenses	3,68,58,549.90	3,85,13,428.35
10	" Examination Expenses	35,25,729.55	40,85,722.89
11	" Expert Committee's Meeting Expenses	2,74,652.00	3,52,873.00
12	" Book Store	9,01,459.29	12,78,010.00
13	" Facilities to Students	1,31,44,907.50	1,18,51,629.00
15	" Promotion of Science	15,44,839.00	10,46,568.00
16	" Repairs & Maintenance	82,20,822.81	1,10,09,092.00
17	" Research & Faculty Trainning	91,55,467.75	81,02,569.00
18	" Educational Welfare Activities	4,36,48,695.00	93,64,850.00
19	" Hostel Expenses	2,72,95,534.00	2,22,64,779.50
4	" Depreciation	3,57,15,834.00	3,42,14,514.00
	TOTAL	**34,50,61,166.01**	**30,47,36,085.65**
	INCOME		
20	By Fee Collection	21,13,92,468.00	19,73,23,371.00
21	" Projects Funds	1,36,07,088.90	36,83,635.30
22	" Hostel Income	4,41,67,930.00	3,33,34,728.00
23	" Annual Day & Convocation Collection	11,70,750.00	11,60,350.00
24	" Exam Fee	1,85,33,074.00	1,86,92,325.00
25	" Other Receipts	1,84,76,747.10	85,27,393.20
	Excess of Expenditure over Income	3,77,13,108.01	4,20,14,283.15
	TOTAL	**34,50,61,166.01**	**30,47,36,085.65**

4-09-2025

Nagercoil

For FRANK & CO

Chartered Accountants

FRANKLIN FERNANDEZ FCA

M. NO.012517

UDIN: 25012517BMOQPH6504

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL

KOLLENVILAI, THUCKALAY

KANYAKUMARI DIST

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st MARCH 2025

Note No	RECEIPTS	Figures as at 31-03-2025	Figures as at 31-03-2024
	To OPENING BALANCES	9,87,76,959.88	11,31,49,225.22
20	" Fee Collection	21,13,92,468.00	19,73,23,371.00
21	" Projects Funds	1,36,07,088.90	36,83,635.30
22	" Hostel Income	4,41,67,930.00	3,33,34,728.00
23	" Annual Day & Convocation Collection	11,70,750.00	11,60,350.00
24	" Exam Fee	1,85,33,074.00	1,86,92,325.00
25	" Other Receipts	1,84,76,747.10	85,27,393.20
26	" Loan from Bank and Finance Company	88,64,415.50	39,05,883.00
27	" Creditors for Expenses Payable	7,48,89,797.50	3,82,83,780.33
4	" Fixed Assets -Sales	13,12,850.00	11,80,400.00
28	" Creditors for Others	8,96,735.26	6,13,352.40
29	" Staff Advances	56,26,475.00	56,80,190.00
30	" Loans & Advances	11,90,136.50	28,32,425.92
	" TDS and TCS	10,32,697.00	-
	TOTAL	**49,99,38,124.64**	**42,83,67,059.37**
	PAYMENTS		
6	By Employee Benefit Expenses	12,08,21,920.98	12,27,69,343.00
7	" Administrative Expenses	2,00,98,585.31	1,70,32,699.59
14	" Annual Day & Convocations	20,16,312.00	19,46,302.96
8	" Bus Service Expenses	2,18,37,856.92	2,09,03,704.36
9	" Establishment Expenses	3,68,58,549.90	3,85,13,428.35
10	" Examination Expenses	35,25,729.55	40,85,722.89
11	" Expert Committee's Meeting Expenses	2,74,652.00	3,52,873.00
12	" Book Store	9,01,459.29	12,78,010.00
13	" Facilities to Students	1,31,44,907.50	1,18,51,629.00
15	" Promotion of Science	15,44,839.00	10,46,568.00
16	" Repairs & Maintenance	82,20,822.81	1,10,09,092.00
17	" Research & Faculty Trainning	91,55,467.75	81,02,569.00
18	" Educational Welfare Activities	4,36,48,695.00	93,64,850.00
19	" Hostel Expenses	2,72,95,534.00	2,22,64,779.50
4	" Fixed Assets - Additions	4,99,30,903.86	4,35,07,556.00
31	" Repayment of Loan from Bank and Finance Co	22,90,337.50	18,53,314.21
32	" Creditors for Expenses paid	1,16,95,402.50	33,06,596.80
33	" Creditors for Others	3,30,173.00	21,68,153.50
34	" Staff Advances	54,54,617.00	56,64,440.00
35	" Loans & Advances	76,47,979.90	14,80,476.33
	" Deposits	65,763.00	5,23,304.00
	" TDS and TCS	8,00,639.00	5,64,687.00
5.4	" Cash and Bank Balances	11,23,76,976.87	9,87,76,959.88
	TOTAL	**49,99,38,124.64**	**42,83,67,059.37**

VIDE OUR REPORT ATTACHED

For FRANK & CO

Chartered Accountants

FRANKLIN FERNANDEZ FCA

M. NO.012517

UDIN: 25012517BMOQPH6504

4-09-2025

Nagercoil

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

FUNDS FLOW STATEMENT FOR THE YEAR ENDED 31st MARCH 2025

Note No	SOURCES OF FUNDS	Figures as at 31-03-2025	Figures as at 31-03-2024
36	FUNDS FROM OPERATION	-19,97,274.01	-77,99,769.15
4	SALE OF FIXED ASSETS	13,12,850.00	11,80,400.00
37	LOAN FROM BANK AND FINANCE COMPANY	88,64,415.50	39,05,883.00
38	CHANGES IN NET WORKING CAPITAL - INCREASE IN CL & DECREASE IN CA	4,40,41,249.87	4,80,74,356.36
	TOTAL	**5,22,21,241.36**	**4,53,60,870.21**
	APPLICATION OF FUNDS		
4	PURCHASE OF FIXED ASSETS	4,99,30,903.86	4,35,07,556.00
39	LOAN REPAYMENT TO BANK AND FINANCE COMPA	22,90,337.50	18,53,314.21
	TOTAL	**5,22,21,241.36**	**4,53,60,870.21**

VIDE OUR REPORT ATTACHED
For FRANK & CO
Chartered Accountants

4-09-2025
Nagercoil

FRANKLIN FERNANDEZ FCA
M. NO.012517
UDIN: 25012517BMOQPH6504

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORMS PART OF BALANCE SHEET AS AT 31ST MARCH 2025

Note No	LIABILITIES	Figures as at 31-03-2025	Figures as at 31-03-2024
1	**A. CAPITAL FUND:**		
	As per Last Balance Sheet	22,11,75,715.88	26,31,89,999.03
	Add:Excess Expenditure over Income	3,77,13,108.01	4,20,14,283.15
		18,34,62,607.87	22,11,75,715.88
	B. STUDENTS WELFARE FUND:		
	As per Last Balance Sheet	50,84,198.00	50,84,198.00
		50,84,198.00	50,84,198.00
	C. STAFF GRATUITY FUND	2,47,39,306.00	2,47,39,306.00
	Total	**21,32,86,111.87**	**25,09,99,219.88**
2	**LOAN FROM BANK AND FINANCE COMPANY**		
	TMB Vehicle Loan : 063700850100033	1,43,345.00	8,78,686.00
	TMB LOD A/C. No. 026700400104086	8,82,36,791.00	8,07,48,975.00
	TMB OD A\cNo:026700080900008	13,63,096.00	13,01,091.00
	TMB Vech.Loan A\c No:026700850100135	8,06,659.00	9,60,000.00
	Shriram Transport Veh.Loan No:THCLY2210260003	3,49,776.00	1,37,154.00
	Shriram Transport Veh.loan No:THCLYT910310001	-	2,99,683.00
		9,08,99,667.00	**8,43,25,589.00**
3	**CURRENT LIABILITIES:**		
	Creditors for Expenses - Annexure - I	9,62,04,626.30	4,50,18,517.27
	Creditors for Others - Annexure - II	2,05,18,448.31	1,54,28,184.56
		11,67,23,074.61	**6,04,46,701.83**



Note No.	LIABILITIES	Figures as at 31-03-2025	Figures as at 31-03-2024
3	**CURRENT LIABILITIES:**		
	Creditors for Expenses - Annexure - I		
	Ad ON Wheels	2,75,232.00	2,75,232.00
	Chandrika Daily & Periodicals	88,368.00	88,368.00
	Concept	14,69,050.44	-
	D Ads	1,00,615.00	1,00,615.00
	Deshabhimani Publications	1,36,700.00	84,200.00
	Dinamalar	28,759.50	1,93,634.00
	Efficient Advertising	51,27,544.90	59,40,413.90
	Express Publication Ltd.	3,69,300.00	1,12,816.00
	Janmabhumi	55,000.20	30,000.20
	Kal Publication	3,83,874.87	1,56,448.40
	Kerala Kaumudi Private Ltd	3,76,452.00	2,09,701.00
	Madhyamam	1,40,000.00	11,10,000.00
	Meenu Advertisers	-88,784.00	2,800.00
	News Malayalam Private Limited	65,000.00	
	Rakhi L	-	1,28,392.00
	Soori Combines	45,70,574.00	45,70,574.00
	Subramanina Advertising Agency	-	37,800.00
	Suprabhaatham Daily	28,900.00	10,000.00
	The Daily Thanthi	2,93,185.84	2,00,948.43
	The Mathrubhumi Print&Publishing Co Ltd	1,60,596.00	-
	Vandanam Malayalam News	25,000.00	
	Exam Dept. Expenses Payable	27,95,363.00	27,95,363.00
	IMA Broilers	94,913.00	-
	Kamaraj Indane Gas Agencies	6,19,914.00	4,80,080.00
	Kandasamy & Sons	13,70,037.65	6,26,777.65
	Kanyakumari District Co-OPerative Milk Producer Union	3,03,521.00	1,97,284.50
	Nagaraja Store-Provision	21,14,899.00	14,69,687.00
	Sainaba Chicken,Mutton Home	48,622.00	54,806.00
	Sri Jothi Gas Stove	2,850.00	
	T.A. Broilers	2,867.00	-
	Abhishek Electrical Agency	1,18,970.00	73,190.00
	ACE Graphics & Offset Press	-3,100.00	
	Aeon Renewable Energy Solution Pvt Ltd		4,99,055.00
	Ajith S	-	83,000.00
	A.J.S.Plywood&Glasses	13,570.00	7,433.00
	Alampara Aluminum Fabricatiors	-7,568.00	94,130.00
	Ali Pumping Works	-	48,000.00
	Alson R - Sports	-50.00	
	Amyntor Tech Solution Pvt LTd	39,412.00	15,340.00
	Anas Automotive Centre	74,660.00	-
	Anbu Pharmaceuticals	1,394.00	20,992.00
	Ani Petroleum	40,138.00	-
	Annai Petroleum	24,000.00	-
	Antony Coolers & Refrigeration	2,10,223.00	86,090.00
	Antony Motors	1,71,405.00	-
	Arasu Paper Mart	50.00	92,122.00
	Arjun Vehicle Pollution Testing Centre	19,750.00	-
	Balance C/F	**2,16,61,209.40**	**1,98,95,293.08**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**2,16,61,209.40**	**1,98,95,293.08**
ARK Construction	-	14,000.00
Arrow Express	-5,142.00	91,054.00
Asirvatham Nadar&Sons	16,000.00	-
Associated Agencies	3,21,276.10	37,177.45
Automation Asia Associates	3,11,626.00	47,851.00
Axeninc Systems	-	4,58,554.00
Ben Sujitha	5,000.00	
Better Furniture	11,360.00	
Binu S	-20,300.00	-
Body Plus	2,47,890.00	-
BS Traders	-	-
BVM Motor Works	2,350.00	-
Canaan Fuels	26,367.00	-
Cherukara Vehicles Private Limited	-	65,682.00
Coastal Star Private Limited	-	78,636.00
Devadhas Granites & Tiles	2,26,082.00	2,24,022.00
DATA Patterns	-	14,60,956.00
Dev Petroleums	21,901.00	-
Digital Media	-15,000.00	-
Dosthen Enterprise	-	60,000.00
Ellipse Technologies Pvt,Ltd	-	6,24,145.00
Entertainment Network(India)Ltd	61,200.00	61,200.00
Entuple Technologies Private Limited	6,07,600.00	-
EPF Contributions Payable	-	42,03,469.00
ESI Contribution Payable	8,65,747.00	10,51,815.00
Er.G.Johnsly Moses Petroleum	42,000.00	-
Flash ID Technologies	7,316.00	1,26,587.00
Formen Health Care Ltd	-3,957.00	-
Fortune FUrniture&Interiors	2,41,329.00	1,50,000.00
Frank & Co	-	3,15,667.00
Friends Grafix Copier Service	98,000.00	1,01,375.00
Furnishing Avenue	64,850.00	64,850.00
Gems Water Solution	1,25,172.00	4,90,172.00
George Stephen	1,48,325.00	79,825.00
Golden Computers	53,800.00	6,580.00
Higgin Bothams Ltd	25,164.00	25,164.00
HCL Infosystems Ltd	-	4,65,472.00
Hotel Vasanth Krishna	1,100.00	-
Indo Sales	39,000.00	-
Instruments India	14,750.00	-
Info Edge(India)Ltd	14,38,000.00	
Invitrogen BioService India Pvt LTd	-	2,60,538.49
JJ Glass Emporium	1,19,500.00	1,19,500.00
Karthika Granite&Saitary Ware	77,480.00	
Karthika Printers	1,25,264.00	-
Khadhi Boutique	8,24,810.00	-
Kochu Pillai	3,06,500.00	3,77,000.00
Lingam&Co	19,000.00	19,000.00
Llyod's Register Marine and Offshore India LLP	2,473.00	2,473.00
L V Paper Store&Stationery	9,705.00	-
Majori Health Care	3,87,500.00	9,00,000.00
Mani Earth Movers	125.00	89,425.00
Manoj Graphic Designer	-	-
Balance C/F	**2,85,12,372.50**	**3,19,67,483.02**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**2,85,12,372.50**	**3,19,67,483.02**
Maruthi Scientific Investigation Products	63,809.00	63,809.00
Minayil Industries P Ltd	1,86,118.00	1,86,118.00
M P Hardware	1,37,597.00	1,37,597.00
Mr.Dharmaraj-PD	6,360.00	-
Mukundan Photography	-91,000.00	39,000.00
Nathan Agencies (Hardware)	42,02,415.25	39,24,025.25
Nathan Traders	7,48,070.00	7,65,535.00
Nims Centre for Genomic Medicine	8,09,480.00	
Natural RO	-	2,997.00
New Indian Sports Academy	-	30,000.00
Nims Medicity	48,817.00	48,817.00
NS Printers	-21,600.00	-
Orange Printers Private Ltd	64,900.00	
Orient Color Art Printers(P)Ltd	-	1,952.00
Panaro Tech Pvt.Ltd	-1,94,700.00	-
Palpap Ichinichi Softwars International Ltd	-	3,69,000.00
Perfect Power System	2,16,500.00	2,16,500.00
Priyas Furniture Gallery	25,300.00	25,300.00
Prodi Miller	-	49,728.00
Punitha Enterprises	-3,60,000.00	-
Queens	2,81,700.00	2,81,700.00
Radhakrishna Electical&Plumbilng	1,57,367.00	-
Rainbow Printers	9,651.00	1,16,331.00
Raksha Aluminium Materials	-	73,111.00
RetanaSwamy Tiles	14,94,700.00	14,94,700.00
Revathy Enterprise	-	68,740.00
R.K.Publishers	2,57,000.00	1,24,000.00
RO6 Aerotech	599.00	
Russel Raj-UPS	8,76,650.00	6,64,750.00
R.V.Electronics	68,500.00	-
Salary Payable	8,04,958.00	11,09,130.00
Sathyam Super Market	9,125.00	-
Septa Milles Private Limited	2,72,980.00	-
Shajin Raj News Agent	3,330.00	-
Sigma Medicare Systems	-10,080.00	-
Spaco Technologies	-	36,000.00
SR Agency	18,100.00	18,100.00
Sree Ayyappa Steel Industries	3,91,980.00	-
Star Industries		62,510.00
Star Industry	9,54,554.00	1,94,054.00
Sun Associates	7,48,430.00	12,91,300.00
Sundaram Industries Private Ltd	60,089.00	1,28,264.00
Suresh	-20,800.00	-
S,VEE.Sun Petroleum	40,000.00	-
Syed Ali	61,719.00	-
Techno Digital	3,000.00	-
Technogen	3,501.00	1,77,501.00
The Industrial&Laboratory Equipment Co	-	3,59,181.00
Thara Hollow Bricks&Blocks	5,000.00	-
The Precision Scientific	-	5,256.00
Tossed Stone Construction	1,18,650.00	1,18,650.00
Trident Medtech	-4,032.00	-
Balance C/F	**4,09,61,109.75**	**4,41,51,139.27**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**4,09,61,109.75**	**4,41,51,139.27**
Loan from NIET	5,45,63,280.55	
Ubal Raj Agency	6,49,378.00	6,49,378.00
Variety Marbles	3,68,300.00	16,800.00
Varnam Beauty Lounge&Stiching Centre	-	1,88,225.00
Varnam Paints&Hardware	35,380.00	35,380.00
Vars Medicare	37,438.00	12,938.00
Vasan Auto Consultants	5,350.00	-
Zigmastag Stage Decorations	-4,15,610.00	-
Voice and Speech System	-	-63,900.00
Wowels - (2022-23)	-	28,557.00
	9,62,04,626.30	**4,50,18,517.27**

Creditors for Others - Annexure - II

TDS Payable	1,37,898.00	1,19,061.00
Unclaimed Bank Fee Collection	31,52,829.50	25,18,890.24
Advance from NIMS Hospital	45,649.00	
Aeon Renewable Energy Solution Pvt Ltd	4,99,055.00	-
Alumni Fund	24,62,127.00	24,62,127.00
Axeninc Systems	4,58,554.00	-
Caution Deposits	32,45,702.00	32,45,702.00
DATA Patterns	14,60,956.00	-
Ellipse Technologies Pvt,Ltd	6,24,145.00	-
HCL Infosystems Ltd	4,65,472.00	-
Hostel Deposit	14,64,000.00	14,64,000.00
Invitrogen BioService India Pvt LTd	2,60,538.49	-
Library Deposit	10,000.00	10,000.00
Loan From Mrs.Rajeena.	5,00,000.00	5,00,000.00
Mess Adavance	45,17,891.32	48,48,064.32
Nagendraprasad Project	2,49,885.00	2,49,885.00
Palpap Ichinichi Softwars International Ltd	3,69,000.00	-
Scholarship Payable	10,455.00	10,455.00
The Industrial&Laboratory Equipment Co	3,59,181.00	-
MK Biologicals	1,98,310.00	-
Bindhu VS	2,000.00	-
Mary Synthia Regis Prabha	23,000.00	-
Mohanan T	1,800.00	-
	2,05,18,448.31	**1,54,28,184.56**



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORMS PART OF BALANCE SHEET AS AT 31ST MARCH 2025

Note	ASSETS	Figures as at 31-03-2025	Figures as at 31-03-2024
5.	**CURRENT ASSETS, LOANS AND ADVANCES:**		
1	**Deposits (Asset)**		
	Air India Engineering Services Ltd	3,00,000.00	3,00,000.00
	Elelctricity Deposit	17,89,492.00	17,23,729.00
	EPF Deposit	4,71,505.84	4,71,505.84
	Gas Deposit	11,000.00	11,000.00
	Gratuity Fund with LIC	2,47,39,306.00	2,47,39,306.00
	MILK Deposit	1,50,000.00	1,50,000.00
	Postal Dept. Deposit	40,000.00	40,000.00
	Telephone Deposit	2,99,568.00	2,99,568.00
	Water Deposit	14,250.00	14,250.00
		2,78,15,121.84	**2,77,49,358.84**
2	**Loans & Advances (Staff)**	**25,828.00**	**1,70,886.00**
3	**Loans and Advances:**		
	Al Arab	-45,000.00	-
	Anzarudeen	1,75,000.00	-
	Appi Petroleum	15.00	-
	ARIS Digital Magics	15,50,000.00	-
	Betty Elziabeth-Garden Work	10,00,000.00	-
	Bhima Jewellery	-	-
	Concept	-	2,94,749.08
	Dev Anand	9,300.00	9,300.00
	Diagnostic Equipment	42,284.00	-
	Edwinson Maria Amburose	-3,78,802.00	-
	Enviro Care India Private Limited	3,90,000.00	3,90,000.00
	Followme Broadcasting	22,85,800.00	22,85,800.00
	Fortune IAS Academy	5,00,000.00	-
	Four O'Clock Studio Pvt Ltd	1,00,000.00	-
	Genesis Solar World	1,06,000.00	1,06,000.00
	Girnarsoft Education Services Pvt Ltd	3,50,000.00	-
	Global Aviation	3,50,000.00	3,50,000.00
	Global Scientific Supplies	-5,33,902.00	-
	Goyalo Spares Pvt Ltd	3,50,000.00	-
	Green Fuel - Ramarpillai	2,98,000.00	2,98,000.00
	ILHam Clothing	-75,497.50	-
	Infor Edge(India)Ltd	-	4,50,000.00
	Innocorp Ltd	2,25,000.00	2,25,000.00
	Jishan Ali	-208.00	-
	Jothi Marine Engineering	-50,250.00	-
	Lensview News	34,000.00	-
	Balance C/F	**66,81,739.50**	**44,08,849.08**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**66,81,739.50**	**44,08,849.08**
Loan to NIET	-	67,66,635.40
Mahesh G	46,450.00	-
Major Ravis Training Academy	2,00,000.00	-
Mr.Joseph	-	11,350.00
Mr S Muthukumaraperumal	10,000.00	-
Murugan T A - Carpenter	87,000.00	87,000.00
National Skill Development Corporation	8,89,654.23	4,50,026.33
ONYX Green Tech	-80,000.00	-
Orb Energy Private Limited	2,50,000.00	-
Prasad Psycho Private Limited	64,323.00	-
Radhakrishnan B	-	-
Sajan S D	8,00,000.00	-
Shajin Narguunam	-	6,500.00
Shinu VK	3,25,000.00	1,75,000.00
Soorya S	-	4,600.00
Sreekumar K	10,000.00	-
SundaraRajan	3,973.00	8,000.00
Thara Traders	1,76,599.00	1,76,599.00
Universl Motion Inc	25,000.00	25,000.00
V.K.N Aviation Academy	1,00,00,000.00	1,00,00,000.00
Vmedulife Private Limited	5,40,000.00	-
Zuji Elevator	2,15,000.00	2,15,000.00
Anjali JP	2,40,000.00	-
Badusha	1,50,000.00	-
Insight Media	5,90,000.00	-
Right Click Inforech	50,000.00	-
TN Gvt.Forest Department Grant	6,280.00	
	2,12,81,018.73	**2,23,34,559.81**



4 Cash and Bank Balances:

Cash-in-hand	69,704.35	71,443.35
Canara Bank - 61802200033597	9,422.30	9,113.30
Canara Bank - 61802200033582	11,981.86	11,588.86
HDFC-50100607665599 - IT	44,378.00	70,035.00
HDFC-50100607678281 - AME	0.01	15.00
HDFC-50100607678341 - CA	12,381.52	10,432.52
HDFC-50100607678354 - AHS	46,790.00	8,155.00
HDFC-50100607678404 - MATHS	12,261.52	18,458.52
HDFC-50100607865540 - EEE	2,371.52	657.52
HDFC-50100607888810 - FSTE	15,323.52	14,861.52
HDFC-50100607891011 - CIVIL	16,444.52	13,436.52
HDFC-50100607896170 - AUTO	19,113.76	9,284.76
HDFC-50100607909289 - ECE	23,436.00	38,122.00
HDFC-50100608512273 - BME	28,459.00	29,074.00
HDFC-50100609951776 - CSE	65,952.92	1,548.00
HDFC-50100609960966 - CHEM	15,315.00	20,829.00
HDFC-50100609961064 - EIE	15,250.00	15,590.00
HDFC-50100609972323-ENG	3.00	3.00
HDFC-50100609973619 - MGT	3,12,481.76	12,126.76
HDFC-50100610023951 - SE	6,091.00	2,059.00
HDFC-50100610026921 - MECH	1,86,279.28	1,07,143.28
HDFC-50100610029972 - AERO	4,452.00	515.00
HDFC-50100610254163 - PHYSICS	56,704.00	17,079.00
HDFC-50100610258712-MARINE	532.00	515.00
HDFC-50100610288244 - NANO	4,67,548.57	3,73,872.06
HDFC-50100646678108-Aerospace	530.00	
HDFC Bank S.BA/cNo:18781450000068	14,925.70	31,222.56
HDFC SB A\c No:50100650226429-R&D	10,33,222.76	5,68,025.76
INDIAN OVERSEAS BANK	29,605.95	29,605.95
SBI AHS FD 43583336389	10,19,472.00	-
SBI AHS FD 43583413549	10,19,472.00	-
SBI AHS FD 43583414441	10,19,472.00	-
SBIA\cNo:42886041923-Endowment	10,57,554.00	-
State Bank of India CA -30766890656	3,73,650.80	30,763.28
State Bank of IndiaCAA\c-11206265259	4,81,053.04	4,81,053.04
State Bank of IndiaCAA\c-11206265260	47,236.50	47,236.50
State Bank of IndiaCAA\c-11206265271	61,116.75	61,116.75
State Bank of IndiaSBA\c-11206271137	17,399.91	17,399.91
State Bank of IndiaSBA\C-11206269865	6,481.24	6,481.24
Tamilnad Mercantil Bank A\cNo:026150050800468	1,64,821.54	-
Tamilnad Mercantile Bank - 026100050310431	2,193.20	1,902.20
Tamilnad Mercantile Bank -02610050307589	2,64,954.40	2,64,954.40
Tamilnad Mercantile BankCA-026150050302543	9,781.83	7,159.83
Tamilnad Mercantile BankCAA\c--026150050303415	-3,603.19	1,95,691.26
Tamilnad Mercantile Bank CAA\c- 026150050800131	2,32,862.54	7,223.58
Tamilnad Mercantile BankCAA\c-026150050800192	1,99,358.00	1,99,358.00
Tamilnad Mercantile BankCAA\c-026150050800193	9,058.00	9,058.00
Tamilnad Mercantile BankCAA\c -026150050800194	19,348.00	19,348.00
Tamilnad Mercantile BankCAA\C-026150050800195	88,258.00	88,258.00
Tamilnad Mercantile BankCAA\c-026150050800196	7,051.35	1,551.35
Balance C/F	86,17,953.73	29,23,367.58

Balance B/F	**86,17,953.73**	**29,23,367.58**
Tamilnad Mercantile BankCAA\c -026150050800200	9,79,117.20	1,27,711.65
Tamilnad Mercantile BankCAA\c -026150050800309	2,85,609.59	9,966.07
Tamilnad Mercantile BankCAA\c-026150320885001	21,697.82	19,075.05
Tamilnad Mercantile BankSBA\c-026100050307516	5,48,930.83	4,45,446.83
Tamilnadu Mercantile Bank SBA\cNo:026100050300857	17,909.00	17,909.00
TMB 026200050103423	9,77,60,223.00	9,15,09,933.00
TMB-026200400104991	2,39,521.00	2,25,009.00
TMB-026200400105061	89,961.00	84,699.00
TMB-026200400105219	2,86,208.00	2,68,591.00
TMB-026200400105226	3,23,404.00	3,03,809.00
TMB-026200400105227	97,178.00	91,289.00
TMB-026200400105234	2,48,921.00	2,33,814.00
TMB-026200400105238	3,16,080.00	2,96,052.00
TMB-026200400105262	3,62,642.00	3,40,174.00
TMB-026200400105354	3,76,559.00	3,52,123.00
TMB-026200400107559	1,04,488.00	-
TMB FD-026200050105364 - Endowment	3,00,000.00	3,00,000.00
TMB FD NO:026200400106919	12,67,907.00	12,04,362.00
TMB FD No:026200400902221	1,09,917.00	-
Federal Bank SB A\cNo:14400100044102	22,749.70	23,628.70
	11,23,76,976.87	**9,87,76,959.88**

5 **Tax Deducted at Sources:**

Tax deducted at Sources - 2023-24	-	5,64,080.00
Tax Collected at Sources - 2023-24	-	2,508.00
Tax deducted at Sources - 2022-23	-	4,66,109.00
Tax deducted at Sources - 2024-25	7,98,300.00	
Tax Collected ar Sources - 2024-25	2,339.00	
	8,00,639.00	**10,32,697.00**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORM PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025

Note No	EXPENDITURE	Figures as at 31-03-2025	Figures as at 31-03-2024
6	**Employee Benefit Expenses:**		
	Salary & Allowances	11,43,98,396.00	11,52,16,818.00
	Staff Welfare Expenses:		
	Festival Allowance to Staff	2,65,290.00	2,65,500.00
	Management Cont'bn to EPF.	44,20,922.00	52,54,146.00
	Management Cont'bn to ESI	13,90,926.00	14,87,784.00
	Management Cont'bn to Gratuity	-	2,75,000.00
	Management Cont'bn to LIC	3,46,386.98	2,70,095.00
		12,08,21,920.98	**12,27,69,343.00**
7	**Administrative Expenses:**		
	Advance Written Off	97,500.00	-
	Affiliation FEE	12,39,500.00	10,98,800.00
	Audit Fee	6,49,000.00	6,72,600.00
	Bank Charges	1,16,273.86	1,03,128.71
	Bank Charges - Online Merchant	1,41,293.66	4,55,832.59
	Bank Interest Paid	88,61,960.00	61,28,599.29
	Entrance Exam Remuneration	22,100.00	-
	ISO /Crisil	33,040.00	-
	Land & Building Tax	6,86,204.00	1,02,069.00
	Legal Expenses	-	1,69,000.00
	Membership Fee	4,32,026.17	2,36,840.00
	Miscellaneous Expenses	76,866.00	80,548.00
	Postage	3,26,337.00	4,06,156.00
	Printing & Stationery	28,99,657.00	26,38,992.00
	Professional & Technical Fee	24,82,202.00	19,47,762.00
	PTA Meeting Expenses	16,816.00	-
	Public Relation Expenses	6,77,960.00	12,90,259.00
	Refereshment Expenses	1,24,848.00	1,31,557.00
	Registration & Inspection Expenses	9,60,219.62	13,79,412.00
	School Connect Programme Exp	1,94,782.00	1,77,144.00
	Stability Certificate	60,000.00	14,000.00
		2,00,98,585.31	**1,70,32,699.59**
8	**BUS Service Expenses:**		
	Bata - Driver & Conductors	10,36,460.00	10,25,900.00
	Contract Service-Bus	16,68,500.00	12,94,500.00
	Diesel - Bus Service	81,79,141.76	80,95,704.36
	Insurance &Taxes-Bus	22,79,759.16	21,67,584.00
	Maintenance -Bus Service.	17,09,697.00	16,67,558.00
	Permit & Entry Fee	16,790.00	1,59,215.00
	Staff Salary	69,47,509.00	64,93,243.00
		2,18,37,856.92	**2,09,03,704.36**



9 Establishment Expenses:		
Advertisement Expenses	2,05,03,000.90	2,43,13,946.79
Consultancy Service Expenses	1,00,237.00	1,33,592.00
Electricity Charges	83,34,532.00	76,01,911.00
Fuel	19,56,920.00	10,70,348.52
Guest Expenses	66,364.00	1,31,058.00
Guest Lecture	60,936.00	1,41,167.00
Security Charges - Private	47,44,058.00	43,18,521.00
Telephone Charges	1,67,319.00	1,67,618.36
Transportation Expenses	1,34,765.00	50,161.68
Travelling Expenses	7,54,203.00	5,02,098.00
Vehicle Insurance	36,215.00	83,006.00
	3,68,58,549.90	**3,85,13,428.35**
10 Examination Expenses:		
Bank Charges -Exam	1,147.55	1,752.89
Central Valuation of Theory	5,67,789.00	2,50,045.00
Central Valuation TA&DA	39,718.00	43,423.00
Equipment Maintenance-Exam	51,850.00	74,200.00
General Expenditure - Exam	1,99,211.00	25,616.00
Postage-Exam	390.00	-
Practical Exam Remuneration	2,58,025.00	1,95,397.00
Practical Exam TA&DA	1,11,689.00	90,667.00
Printing&Stationery -Exam.	3,84,635.00	15,10,742.00
Question Pape Setting	7,51,500.00	6,28,040.00
Refreshment Exp-Exam	47,946.00	73,745.00
Staff Salary	7,49,522.00	6,96,941.00
Theory Exam Remuneration.	3,61,001.00	3,13,105.00
Theory Exam TA&DA	1,306.00	-
Viva Voce	-	1,82,049.00
	35,25,729.55	**40,85,722.89**
11 Expert Committee's Meeting Expenses:		
Academic Council	14,985.00	15,474.00
Board of Management	37,925.00	53,021.00
Board of Studies	1,62,114.00	1,58,877.00
Executive Committe Meeting Exp	50,280.00	-
IQAC Meeting Exp	7,408.00	-
Other Committee Expenses	1,940.00	1,25,501.00
	2,74,652.00	**3,52,873.00**
12 Book Store Payment:		
Book Store Payment	5,22,502.29	8,98,882.00
Staff Salary	3,78,957.00	3,79,128.00
	9,01,459.29	**12,78,010.00**



13 Facilities to Students:		
Alumni Assn Expenses	13,720.00	-
Club Activity	1,70,270.00	
Cash Awards		12,000.00
Green Zenergy & All Other Club Activities	-	4,915.00
Guest Faculty	15,750.00	-
Health Centre Expenses	3,006.00	96,592.00
Institution Innovation Council Exp	-	32,821.00
Internet & Cable Charges	1,84,094.00	1,21,738.00
Internship Fee	6,27,000.00	-
Inter Universtiy Programme Exp	3,00,000.00	-
Literacy Camp & Club Exp	5,985.00	-
NCC & N S S Programme	1,05,134.00	1,17,552.00
Periodicals & Journels	12,37,285.00	13,86,478.00
Placement Expenses	3,90,187.00	1,53,677.00
Salary Health Centre Staff	9,54,641.00	9,62,414.00
Seed Money for Innovative Student	45,000.00	75,200.00
Sports Expenses	4,83,704.00	5,71,682.00
Student Material	2,57,000.00	-
Students Insurance Policy	1,55,689.00	1,12,820.00
Students Training Programme	53,65,493.00	69,35,818.00
Uniform to Student	28,30,949.50	12,67,922.00
	1,31,44,907.50	**1,18,51,629.00**
14 Annual Day & Convocation:		
Auspicious Day Celebration	12,478.00	99,000.00
Convocation A\c	12,26,850.00	13,42,841.96
Cultural Fest	1,32,774.00	-
Inaguration Expenses	6,44,210.00	5,04,461.00
	20,16,312.00	**19,46,302.96**
15 Promotion of Science:		
Inspire Fellowship Programme	15,44,839.00	10,46,568.00
	15,44,839.00	**10,46,568.00**
16 Repairs & Maintenance:		
Building Maintenance	-	32,32,277.00
Building Insurance	44,100.00	-
Building & Campus Maintenance	37,44,769.81	28,00,500.00
Computer Maintenace	-	1,42,890.00
Electrical Maintenance	-	5,54,079.00
Equipment Maintenance	-	10,25,320.00
Furniture Maintenace	7,64,667.00	9,15,817.00
Ground Maintenance - Marine & Sports	1,78,850.00	-
House Keeping Charges	10,62,920.00	3,97,339.00
Insurance Premium	18,754.00	98,982.00
Lab Components & Maintenance	7,70,829.00	3,41,882.00
Land Maintenance	6,48,582.00	2,29,500.00
Pond	1,64,900.00	-
Vehicle Maintenance	8,22,451.00	12,70,506.00
	82,20,822.81	**1,10,09,092.00**

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17 :search & Faculty Trainning:		
Workshop, Seminar & Conferences	7,84,762.00	7,43,580.00
Appreciation & Awards	-	1,90,500.00
ATAL Faculty Development Programme	1,08,833.75	-
Doctoral Committee	26,55,475.00	44,41,820.00
DST-SHRI Project	42,57,588.00	-
Faculty Development Programme	-	3,34,314.00
National Skill Development - PMKVY Project	1,80,442.00	2,05,519.00
Physics - (NCMSGT2023)	-	61,345.00
R & D Expenses	82,600.00	7,55,171.00
Seed Money	-	10,00,000.00
Research Allowance	4,95,900.00	-
Revenue Sharing	4,50,000.00	-
Staff Training Expenses	58,080.00	86,307.00
Startup Initiative	61,577.00	-
TNFD Project Expenses	-	2,58,921.00
TBI-NICHE	2,960.00	-
TNSCST Project	17,250.00	25,092.00
	91,55,467.75	**81,02,569.00**
18 Educational Welfare Activities:		
Adoption of Govt.School	3,65,175.00	3,10,550.00
Fee Concession to Merit Students	-	24,57,500.00
Fee Concession to Students	3,21,83,780.00	58,93,750.00
Gift & Donation	1,06,73,294.00	1,93,300.00
Help to Cancer Patient	3,38,000.00	4,42,000.00
Help to Poor	88,446.00	65,000.00
Public Awareness Program	-	1,876.00
Social Welfare Activities	-	874.00
	4,36,48,695.00	**93,64,850.00**
19 Hostel Expenses:		
Mess Expenses	1,97,58,420.00	2,22,64,779.50
Salary to hostel Staff	75,37,114.00	
	2,72,95,534.00	**2,22,64,779.50**



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NOTES FORM PART OF INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025

Note No	INCOME	Figures as at 31-03-2025	Figures as at 31-03-2024
20	**Fee Collection:**		
	Tuition Fee	17,14,89,822.00	15,42,16,325.00
	Amenities Fee	1,23,54,310.00	1,30,10,679.00
	Bus Fee Collection	1,67,43,725.00	1,19,12,780.00
	Certificate Fee	3,38,700.00	3,69,901.00
	Certificate Verification Fee	72,300.00	37,700.00
	Development Fee	5,97,000.00	1,12,000.00
	Lab Utitlization Fee	68,14,941.00	97,11,120.00
	Migration Certificate Fee	5,600.00	9,450.00
	Miscellaneous Fee & ID Card	19,880.00	70,250.00
	Processing Fee	85,000.00	25,000.00
	Sale of Application Form	5,49,400.00	5,22,460.00
	Stationery Fee	840.00	-
	Students Training Fee	23,20,950.00	73,25,706.00
		21,13,92,468.00	**19,73,23,371.00**
21	**Projects Funds:**		
	AICTE Grant in aid	33,510.00	2,50,000.00
	DST - CSIR Extra Mutual Research	-	25,000.00
	Dst Grant for Inspire	15,44,839.00	10,46,568.00
	DST Shri Project Grant	76,93,180.00	-
	Govt.of Tamilnadu Forest Department	3,14,000.00	
	Grant From Other Agencies	3,00,000.00	
	Grant From Private Institution - Infrastructure	30,50,000.00	10,00,000.00
	National Skill Development Corporation	6,54,309.90	13,47,067.30
	Tamilnadu State Council for Science & Technology	17,250.00	15,000.00
		1,36,07,088.90	**36,83,635.30**
22	**Hostel Income:**		
	Hostel Admn. & Entrance Fee	19,53,000.00	8,59,000.00
	Hostel Rent	1,45,61,200.00	53,85,350.00
	Mess Income	2,76,53,730.00	2,70,90,378.00
		4,41,67,930.00	**3,33,34,728.00**
23	**Annual Day & Convocation Collection:**		
	Convocation Collection	9,93,650.00	11,60,350.00
	University Day	1,77,100.00	-
		11,70,750.00	**11,60,350.00**
24	**Exam Fee:**		
	Exam Fee	1,56,86,474.00	1,61,45,915.00
	Exam Fee - Dc Meeting	82,100.00	1,41,100.00
	Exam Fee - Synopsis & Viva Voce	27,64,500.00	24,05,310.00
		1,85,33,074.00	**1,86,92,325.00**



25 Other Receipts:

Consultancy Service	40,31,940.00	5,55,000.00
Department Programmes Collection	43,52,551.50	6,69,397.00
Admission Income	8,41,000.00	-
Alumini Contribution	5,64,850.00	-
Bank Interest	74,08,904.00	54,09,866.00
Book Store Receipts	6,55,517.00	5,54,420.00
Conference Income	84,000.00	
Interest on TDS	37,513.00	-
Electricity - Staff Quarters	29,679.00	41,740.00
FDP Collection	-	98,119.00
Miscellaneous Income	2,24,374.60	9,03,277.20
Postage Income	30,500.00	
Placement Income	-	91,640.00
Sale of Waste & Old Vessals	1,04,418.00	32,934.00
Workshop Collection	1,11,500.00	1,71,000.00
	1,84,76,747.10	**85,27,393.20**

26 Loan from Bank and Finance Company:

TMB Loan - 063700850100033	58,750.50	
TMB LOD A/C. No. 026700400104086	74,87,816.00	16,44,792.00
TMB OD A\cNo:026700080900008	1,28,005.00	13,01,091.00
TMB Vech.LoanA\cNo:026700850100135	95,478.00	9,60,000.00
Shriram Transport Finance Vehicle Loan A/C No: THCLY2210260003	7,40,622.00	
Shriram Transport VehloanNo:THCLYT910310001	3,53,744.00	
Total	**88,64,415.50**	**39,05,883.00**



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NOTES FORM PART OF RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025

Note No	RECEIPTS	Figures as at 31-03-2025	Figures as at 31-03-2024
27	**Creditors for Expenses:**		
	Concept	17,63,799.52	-
	Ad ON Wheels	-	2,75,232.00
	Chandrika Daily	-	25,000.00
	Efficient Advertising	-	21,35,182.00
	Deshabhimani Publicatios	52,500.00	-
	Express Publication Ltd.	2,56,484.00	27,766.00
	Janmabhumi	25,000.00	-
	Kal Publication	2,27,426.47	-
	Kerala Kaumudi Private Ltd	1,66,751.00	2,09,701.00
	Madhyamam	-	11,10,000.00
	Meenu Advertisers	-	2,800.00
	News Malayalam Private Limited	65,000.00	
	Rakhi L	-	1,28,392.00
	Soori Combines	-	24,97,340.00
	Subramanina Advertising Agency	-	37,800.00
	Suprabhaatham Daily	18,900.00	10,000.00
	The Daily Thanthi	92,237.41	1,59,369.43
	The Mathrubhumi Prinint&Publishing Co Ltd	1,60,596.00	-
	Vandanam Malayalam News	25,000.00	
	IMA Broilers	94,913.00	-
	Kamaraj Indane Gas Agencies	1,39,834.00	
	Kandasamy&Sons	7,43,260.00	52,543.00
	Kanyakumari District Co-OPerative MilkProducer Unio	1,06,236.50	
	NagarajaStore-Provision	6,45,212.00	3,91,585.00
	Sri Jothi Gas Stove	2,850.00	-
	T.A. Broilers	2,867.00	-
	Abhishek Electrical Agency	45,780.00	73,190.00
	Ajith S	-	83,000.00
	A.J.S.Plywood&Glasses	6,137.00	7,433.00
	Alampara Aluminum Fabricatiors	-	3,284.00
	Amyntor Tech Solution Pvt LTd	24,072.00	15,340.00
	Anas Automotive Centre	74,660.00	-
	Ali Pumping Works		48,000.00
	Ani Petroleum	40,138.00	
	Annai Petroleum	24,000.00	-
	Antony Coolers&Refrigeration	1,24,133.00	86,090.00
	Antony Motors	1,71,405.00	-
	Arjun Vehicle Pollution Testing Centre	19,750.00	-
	Anbu Pharmaceuticals	-	20,992.00
	Arasu Paper Mart	-	87,517.00
	ARK Construction	-	14,000.00
	Balance C/F	**51,18,941.90**	**75,01,556.43**



Balance B/F	**51,18,941.90**	**75,01,556.43**
Arrow Express	-	91,054.00
Asirvatham Nadar&Sons	16,000.00	-
Associated Agencies	2,84,098.65	-
Automation Asia Associates	2,63,775.00	47,851.00
Ben Sujitha	5,000.00	
Better Furniture	11,360.00	
Body Plus	2,47,890.00	-
BVM Motor Works	2,350.00	
Canaan Fuels	26,367.00	
Cherukara Vehicles Private Limited	-	65,682.00
Coastal Star Private Limited	-	78,636.00
Devadhas Granites & Tiles	2,060.00	-
Dev Petroleums	21,901.00	-
Dosthen Enterprise	-	60,000.00
Entuple Technologies Private Limited	6,07,600.00	-
Er.G.Johnsly Moses Petroleum	42,000.00	-
Entertainment Network (India) Ltd	-	61,200.00
EPF Contributions Payable	-	32,97,979.00
ESI Contribution Payable	-	6,72,482.00
Flash ID Technologies	-	1,08,698.00
Fortune Furniture & Interiors	91,329.00	1,50,000.00
Frank & Co	-	3,15,667.00
Furnishing Avenue	-	64,850.00
George Stephen	68,500.00	-
Golden Computers	47,220.00	-
Gems Water Solution	-	4,60,000.00
George Stephen	-	79,825.00
Golden Computers	-	6,580.00
Hotel Vasanth Krishna	1,100.00	-
Indo Sales	39,000.00	-
Infor Edge(India)Ltd	18,88,000.00	-
Instruments India	14,750.00	-
JJ Glass Emporium	-	94,600.00
Karthika Granite&Saitary Ware	77,480.00	
Karthika Printers	1,25,264.00	-
Kamaraj Indane Gas Agencies	-	1,07,070.00
Khadhi Boutique	8,24,810.00	-
Lingam&Co	-	19,000.00
L V Paper Store&Stationery	**9,705.00**	-
Loan From NIET	6,13,29,915.95	1,84,15,576.90
Mr.Dharmaraj-PD	**6,360.00**	-
Majori Health Care	-	9,00,000.00
Mani Earth Movers	-	89,425.00
Minayil Industries P Ltd	-	1,86,118.00
M P Hardware	-	1,37,597.00
Mukundan Photography	-	39,000.00
Nathan -Hardware	2,78,390.00	12,96,801.00
Nathan Traders	-	51,355.00
Natural RO	-	2,997.00
New Indian Sports Academy	-	30,000.00
Nithik CCTV&Lights		-
Balance C/F	**7,14,51,167.50**	**3,44,31,600.33**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**7,14,51,167.50**	**3,44,31,600.33**
Nims Centre for Genomic Medicine	8,09,480.00	
Nims Medicity	-	48,817.00
Orange Printers Private Ltd	64,900.00	
Orient Color Art Printers(P)Ltd	-	1,952.00
Prodi Miller	-	49,728.00
Rainbow Printers	-	1,15,666.00
Raksha Aluminium Materials	-	73,111.00
Radhakrishna Electical&Plumbilng	1,57,367.00	-
Revathy Enterprise	-	68,740.00
R.K.Publishers	1,33,000.00	1,24,000.00
RO6 Aerotech	599.00	
Russel Raj-UPS	2,11,900.00	5,13,400.00
R.V.Electronics	68,500.00	
Sainaba Chicken,Mutton Home	-	6,041.00
Santhosh Kumar R-Ceiling Work	-	8,00,000.00
Sathyam Super Market	9,125.00	-
Septa Milles Private Limited	2,72,980.00	-
Shajin Raj News Agent	3,330.00	-
Spaco Technologies	-	36,000.00
Sree Ayyappa Steel Industries	3,91,980.00	-
SR Agency	-	18,100.00
S,VEE.Sun Petroleum	40,000.00	-
Syed Ali	61,719.00	
Star Industries	-	62,510.00
Star Industry	7,60,500.00	-
Sun Associates	-	12,91,300.00
Sundaram Industries Private Ltd	-	88,065.00
Techno Digital	3,000.00	-
Technogen	-	1,77,501.00
Thara Hollow Bricks&Blocks	5,000.00	-
The Precision Scientific	-	5,256.00
Tossed Stone Construction	-	1,18,650.00
Variety Marbles	3,51,500.00	16,800.00
Varnam Beauty Lounge&Stiching Centre	-	1,88,225.00
Varnam Paints&Hardware	-	35,380.00
Vars Medicare	24,500.00	12,938.00
Vasan Auto Consultants	5,350.00	-
Voice and Speech System	63,900.00	-
Total	**7,48,89,797.50**	**3,82,83,780.33**

28 Creditors for Others:

Unclaimed Fee Receipts	6,33,939.26	-
Tds Payable	18,837.00	
Unclaimed Amount	-	6,13,352.40
Advance from NIMS Hospital	45,649.00	
MK Biologicals	1,98,310.00	
Total	**8,96,735.26**	**6,13,352.40**



29 Staff Advances:	**56,26,475.00**	**56,80,190.00**

30 Loans & Advances:

Al Arab	45,000.00	
Annai Petroleum	-	8,000.00
Appi Petroleum	-	7,000.00
Asir B Regin	-	2,35,000.00
Basheer A	-	1,00,000.00
Bindhu B - Physics	-	20,000.00
Casablanca Shipping Private Ltd	-	1,00,000.00
Concept	-	2,37,250.92
Edwinson Maria Amburose	3,78,802.00	
Global Scientific Supplies	5,33,902.00	
Glob Enterprises	-	34,000.00
H Media	-	7,38,000.00
ILHam Clothing	75,497.50	
Jishan Ali	208.00	
Jebasingh V.K	-	20,000.00
J.P.Jayan	-	4,500.00
Jothi Marine Engineering	50,250.00	-
Mr.Joseph	11,350.00	
Mahesh M K	-	6,50,000.00
Mr.Dharmaraj	-	25,000.00
Noorul Islam Alumini Association	-	
ONYX Green Tech	80,000.00	
P.Manikandan-Lift Service	-	3,50,000.00
Rashtra Deepika Ltd	-	1,00,000.00
Shajin Narguunam	6,500.00	
Soorya S	4,600.00	-
SundaraRajan	4,027.00	-
TECQUE Academy	-	2,00,000.00
Vennila H	-	3,675.00
Total	**11,90,136.50**	**28,32,425.92**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

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NOTES FORM PART OF RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025

Note No	PAYMENTS	Figures as at 31-03-2025	Figures as at 31-03-2024
31	**Loan from Bank and Finance Company**		
	TMB Loan - 063700850100033	7,94,091.50	6,62,155.00
	TMB OD A\cNo:026700080900008	66,000.00	-
	TMB Vech.LoanA\cNo:026700850100135	2,48,819.00	-
	Shriram Transport Finance Vehicle		
	Loan A/C No: THCLY2210260003	5,28,000.00	10,59,798.21
	Shriram Transport VehloanNo:THCLYT910310001	6,53,427.00	1,31,361.00
	Total	**22,90,337.50**	**18,53,314.21**
32	**Creditors for Expenses:**		
	D Ads	-	1,82,873.00
	Dinamalar	1,64,874.50	76,160.00
	Efficient Advertising	8,12,869.00	-
	Janmabhumi	-	95,744.00
	Kal Publication	-	67,597.30
	Keziah Publications	-	7,351.00
	Madhyamam	9,70,000.00	-
	Meenu Advertisers	91,584.00	-
	Rozgar Samachar	-	33,120.00
	Rakhi L	1,28,392.00	-
	Subramanina Advertising Agency	37,800.00	-
	Thina Murasu	-	894.00
	Kanyakumari District Co-OPerative MilkProducer Unio		42,660.50
	Sainaba Chicken, Mutton Home	6,184.00	-
	ACE Graphics & Offset Press	3,100.00	
	Ajith S	83,000.00	-
	Alampara Aluminum Fabricatiors	1,01,698.00	-
	Ali Pumping Works	48,000.00	
	Alson R - Sports	50.00	
	Anbu Pharmaceuticals	19,598.00	-
	Althaf Hussain - Biryani	-	2,74,560.00
	Ani Petroleum	-	15,000.00
	Arasu Paper Mart	92,072.00	-
	ARK Construction	14,000.00	-
	Arrow Express	96,196.00	-
	Associated Agencies	-	1,10,323.00
	Binu S	20,300.00	-
	Balance C/F	**26,89,717.50**	**9,06,282.80**



Balance B/F	**26,89,717.50**	**9,06,282.80**
BioZone Research Technologies Pvt Ltd	-	75,520.00
CADMAXX Solutiond Private Ltd	-	80,000.00
Cherukara Vehicles Private Limited	65,682.00	-
Coastal Star Private Limited	78,636.00	
DATA Patterns	-	3,50,000.00
Dept. Programmes	-	51,468.00
Devadhas Granites&Tiles	-	1,69,515.00
Digital Media	15,000.00	-
Dosthen Enterprise	60,000.00	-
EPF Contributions Payable	42,03,469.00	-
ESI Contribution Payable	1,86,068.00	-
Flash ID Technologies	1,19,271.00	-
Formen Health Care Ltd	3,957.00	-
Frank & Co	3,15,667.00	-
Friends Grafix Copier Service	3,375.00	1,33,650.00
Gems Water Solution	3,65,000.00	-
G.Manikandan	-	35,150.00
Karthika Printers	-	3,23,898.00
Kiddies Centre	-	10,860.00
Kochu Pillai	70,500.00	1,70,535.00
Majori Health Care	5,12,500.00	-
Mani Earth Movers	89,300.00	-
Manoj Graphic Designer		13,000.00
Mukundan Photography	1,30,000.00	-
Nathan Traders	17,465.00	-
Natural RO	2,997.00	-
New Indian Sports Academy	30,000.00	-
New World Solution	-	11,916.00
NS Printers	21,600.00	-
Orient Color Art Printers(P)Ltd	1,952.00	-
Panaroa Tech Pvt.Ltd	1,94,700.00	-
Pearl Generators	-	50,000.00
Pitney Bowers India Pvt Ltd	-	11,210.00
Prodi Miller	49,728.00	-
Punitha Enterprises	3,60,000.00	-
Pravasi Bharathi	-	20,000.00
Queens	-	75,970.00
Rainbow Printers	1,06,680.00	-
Raksha Aluminium Materials	73,111.00	-
Revathy Enterprise	68,740.00	-
Salary Payable	3,04,172.00	3,63,272.00
Sigma Medicare Systems	10,080.00	-
Spaco Technologies	36,000.00	-
Star Industries	62,510.00	-
Star Industry	-	3,35,781.00
Sun Associates	5,42,870.00	-
Sundaram Industries Private Ltd	68,175.00	-
Suresh	20,800.00	-
Technogen	1,74,000.00	-
The Precision Scientific	5,256.00	-
Trident Medtech	4,032.00	-
Varnam Beauty Lounge&Stiching Centre	1,88,225.00	-
Balance C/F	**1,12,51,235.50**	**31,88,027.80**

FRANK & CO CHARTERED ACCOUNTANTS NAGERCOIL

Balance B/F	**1,12,51,235.50**	**31,88,027.80**
Voice and Speech System	-	63,900.00
Voltaz Electronics&Ledplant	-	11,564.00
Wowels-(2022-23)	28,557.00	43,105.00
Zigmastag Stage Decorations	4,15,610.00	-
	1,16,95,402.50	**33,06,596.80**

33 Creditors for Others:

Mess Advance	3,30,173.00	17,01,659.50
TDS Payable	-	66,494.00
Loan From Mrs.Rajeena.	-	4,00,000.00
	3,30,173.00	**21,68,153.50**

34 Staff Advances:	**54,54,617.00**	**56,64,440.00**

35 Loans & Advances:

Anzarudeen	1,75,000.00	-
Appi Petroleum	15.00	-
ARIS Digital Magics	15,50,000.00	-
Betty Elziabeth-Garden Work	10,00,000.00	-
Diagnostic Equipment	42,284.00	-
Enviro Care India Private Limited	-	3,90,000.00
Fortune IAS Academy	5,00,000.00	-
Four O'Clock Studio Pvt Ltd	1,00,000.00	-
Girnarsoft Education Services Pvt Ltd	3,50,000.00	-
Goyalo Spares Pvt Ltd	3,50,000.00	-
Infor Edge(India)Ltd	-	4,50,000.00
Lensview News	34,000.00	-
Mr.Joseph	-	4,350.00
Mahesh G	46,450.00	-
National Skill Development Corporation	4,39,627.90	4,50,026.33
Major Ravis Training Academy	2,00,000.00	-
Mr S Muthukumaraperumal	10,000.00	-
Orb Energy Private Limited	2,50,000.00	-
Prasad Psycho Private Limited	64,323.00	-
Sajan S D	8,00,000.00	-
Shajin Narguunam	-	6,500.00
Shinu VK	1,50,000.00	1,75,000.00
Soorya S	-	4,600.00
Sreekumar K	10,000.00	-
Vmedulife Private Limited	5,40,000.00	-
Anjali JP	2,40,000.00	
Badusha	1,50,000.00	
Insight Media	5,90,000.00	
Right Click Inforech	50,000.00	
TN Gvt.Forest Department Grant	6,280.00	
Total	**76,47,979.90**	**14,80,476.33**



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORM PART OF FUNDS FLOW STATEMENT FOR THE YEAR ENDED 31 MARCH 2025

Note No	SOURCES OF FUNDS	Figures as at 31-03-2025	Figures as at 31-03-2024
36	**Funds from operation:**		
	Net income from Income & Expenditure Account	-3,77,13,108.01	-4,20,14,283.15
	Add back: Depreciation	3,57,15,834.00	3,42,14,514.00
	Total	**-19,97,274.01**	**-77,99,769.15**
37	**Loan from Bank and Finance Company**		
	TMB Loan - 063700850100033	58,750.50	-
	TMB LOD A/C. No. 026700400104086	74,87,816.00	16,44,792.00
	TMB OD A\cNo:026700080900008	1,28,005.00	13,01,091.00
	TMB Vech.LoanA\cNo:026700850100135	95,478.00	9,60,000.00
	Shriram Transport Finance Vehicle Loan A/C No: THCLY2210260003	7,40,622.00	-
	Shriram Transport VehloanNo:THCLYT910310001	3,53,744.00	-
	Total	88,64,415.50	39,05,883.00

38 **Changes in Working Capital:**

Current Liabilities	Figures as at 31-03-2024	Figures as at 31-03-2025	Increase/ -Decrease
Creditors for Expenses	4,50,18,517.27	9,62,04,626.30	5,11,86,109.03
Creditors for Others	1,54,28,184.56	2,05,18,448.31	50,90,263.75
Staff Gratuity fund	2,47,39,306.00	2,47,39,306.00	-
Total (A)	8,51,86,007.83	14,14,62,380.61	**5,62,76,372.78**
Current Assets			Increase/ -Decrease
1. Deposits	2,77,49,358.84	2,78,15,121.84	65,763.00
2. Staff Advances	1,70,886.00	25,828.00	- 1,45,058.00
3. Loans & Advances	2,23,34,559.81	2,12,81,018.73	- 10,53,541.08
4. Cash and Bank Balances	9,87,76,959.88	11,23,76,976.87	1,36,00,016.99
5. Tax Deducted at Sources	10,32,697.00	8,00,639.00	- 2,32,058.00
Total (B)	15,00,64,461.53	16,22,99,584.44	**1,22,35,122.91**
Net Working Capital - Increase in Current Assets (A-B)			**4,40,41,249.87**

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION

10-47A, HAJI MANZIL
KOLLENVILAI, THUCKALAY
KANYAKUMARI DIST

NOTES FORM PART OF PROVISIONAL FUNDS FLOW STATEMENT FOR THE YEAR ENDED 31 MARCH 2025

Note No	APPLICATION OF FUNDS	Figures as at 31-03-2025	Figures as at 31-03-2024
39	**Loan from Bank and Finance Company**		
	TMB Loan - 063700850100033	7,94,091.50	6,62,155.00
	TMB OD A\cNo:026700080900008	66,000.00	-
	TMB Vech.LoanA\cNo:026700850100135	2,48,819.00	-
	Shriram Transport Finance Vehicle Loan A/C No: THCLY2210260003	5,28,000.00	10,59,798.21
	Shriram Transport VehloanNo:THCLYT910310001	6,53,427.00	1,31,361.00
		22,90,337.50	18,53,314.21



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION - KUMARACOIL

SCHEDULE TO BALANCE SHEET AS AT 31-03-2025

NOTE No. 4

ASSETS : FIXED ASSETS - GROSS BLOCK

Sl. No.	Name of the Assets	Balance as on 01/04/2024	Additions during the year	Sales and Adjustments	Balance as on 31/03/2025	Depreciation as on 01/04/2024	Depreciation during the year	Accumulated depreciation on 31/03/2025	W.D.V as on 31/03/2025
1	LAND	3,58,60,021.00	-	-	3,58,60,021.00	-	-	-	3,58,60,021.00
2	BUILDINGS	36,00,35,367.40	48,74,619.00	-	36,49,09,986.40	25,61,15,841.00	1,07,07,263.00	26,68,23,104.00	9,80,86,882.40
3	COMPUTER & SOFTWARE	6,36,67,014.74	1,13,80,733.00	-	7,50,47,747.74	5,04,37,863.00	93,89,748.00	5,98,27,611.00	1,52,20,136.74
4	CLOUD COMPUTING ASSET	35,38,124.00	-	-	35,38,124.00	33,48,359.00	75,906.00	34,24,265.00	1,13,859.00
5	ELECTRONIC EQUIPMENTS	4,74,25,303.90	30,44,045.00	35,600.00	5,04,33,748.90	3,17,67,489.00	27,34,737.00	3,45,02,226.00	1,59,31,522.90
6	FURNITURE & FITTINGS	6,91,12,237.50	64,23,695.00	-	7,55,35,932.50	4,30,64,300.00	31,24,784.00	4,61,89,084.00	2,93,46,848.50
7	ELECTRICAL FITTINGS	40,14,759.00	13,58,673.00	-	53,73,432.00	7,15,891.00	4,20,724.00	11,36,615.00	42,36,817.00
8	LAB EQUIPMENTS	2,42,43,683.42	2,23,820.00	-	2,44,67,503.42	1,63,98,331.00	12,09,482.00	1,76,07,813.00	68,59,690.42
9	LAB EQUIPMENTS - AHS	-	20,496.00	-	20,496.00	-	1,537.00	1,537.00	18,959.00
10	LAB EQUIPMENTS - BASLP	-	2,75,000.00	-	2,75,000.00	-	41,250.00	41,250.00	2,33,750.00
11	LIBRARY BOOKS	1,01,80,385.00	1,93,414.66	-	1,03,73,799.66	97,17,592.00	2,43,836.00	99,61,428.00	4,12,371.66
12	MACHINERY & EQUIPMENTS	6,65,74,696.17	32,96,574.00	-	6,98,71,270.17	5,51,89,191.00	20,80,968.00	5,72,70,159.00	1,26,01,111.17
13	MOTOR VEHICLE	5,65,43,223.00	13,23,000.00	12,77,250.00	5,65,88,973.00	4,63,54,426.00	14,35,957.00	4,77,90,383.00	87,98,590.00
14	NANO EQUIPMENTS	1,50,38,086.00	-	-	1,50,38,086.00	1,14,90,251.00	5,32,175.00	1,20,22,426.00	30,15,660.00
15	ROAD WORKS	61,52,152.00	-	-	61,52,152.00	45,88,140.00	1,56,401.00	47,44,541.00	14,07,611.00
16	FIRE & SAFETY EQUIPMENTS	9,47,502.05	12,76,991.00	-	22,24,493.05	3,22,818.00	2,07,372.00	5,30,190.00	16,94,303.05
17	CYBER SECURITY	5,49,955.00	-	-	5,49,955.00	4,49,270.00	17,603.00	4,66,873.00	83,082.00
18	SATELITE CENTRE	4,57,87,792.00	-	-	4,57,87,792.00	3,46,24,006.00	16,74,568.00	3,62,98,574.00	94,89,218.00
19	RENEWABLE ENERGY EQUIPMENT	2,00,000.00	-	-	2,00,000.00	86,387.00	17,042.00	1,03,429.00	96,571.00
20	ROBOT CENTRE ASSETS	58,222.00	-	-	58,222.00	27,829.00	4,559.00	32,388.00	25,834.00
21	WATER TREATMENT PLANT	5,84,972.00	-	-	5,84,972.00	1,08,463.00	71,476.00	1,79,939.00	4,05,033.00
	INFRASTUCTURE AUGUMENTATION								
	BUILDING	-	1,05,70,188.00	-	1,05,70,188.00	-	8,03,533.00	8,03,533.00	97,66,655.00
22	ELECTRICAL & ELECTRONICS	-	22,76,595.00	-	22,76,595.00	-	2,57,557.00	2,57,557.00	20,19,038.00
23	COMPUTER & SOFTWARE	-	2,34,660.00	-	2,34,660.00	-	54,696.00	54,696.00	1,79,964.00
24	ELECTRONIC EQUIPMENTS - BASLP		3,30,400.00	-	3,30,400.00		49,560.00	49,560.00	2,80,840.00
25	ELECTRONIC VEHICLE	-	2,80,000.00	-	2,80,000.00		56,000.00	56,000.00	2,24,000.00
	DST - PROJECT ASSET								
26	COMPUTER & SOFTWARE	-	12,48,000.20	-	12,48,000.20	-	2,49,600.00	2,49,600.00	9,98,400.20
27	ELECTRONIC EQUIPMENT	-	13,00,000.00	-	13,00,000.00	-	97,500.00	97,500.00	12,02,500.00
	TOTAL	**81,05,13,496.18**	**4,99,30,903.86**	**13,12,850.00**	**85,91,31,550.04**	**56,48,06,447.00**	**3,57,15,834.00**	**60,05,22,281.00**	**25,86,09,269.04**
	PREVIOUS YEAR	**76,81,86,340.18**	**4,35,07,556.00**	**11,80,400.00**	**81,05,13,496.18**	**53,05,91,933.00**	**3,42,14,514.00**	**56,48,06,447.00**	**24,57,07,049.18**



NOORUL ISLAM CENTRE FOR HIGHER EDUCATION - KUMARACOIL

SCHEDULE TO BALANCE SHEET AS AT 31-03-2025

4.ASSETS : FIXED ASSETS:

Sl. No.	Name of the Assets	W.D.V. as on 01-04-2024	Additions during the year		Sales and Adjustments	Total	Rate of Depreciation	Depreciation for the year	W.D.V.as on 31-03-2025
			01.04.2024 to 30.09.2024	01.10.2024 to 31.03.2025					
			Addition	Addition less than 180 days					
1	LAND	3,58,60,021.00	-	-	-	3,58,60,021.00	-	-	3,58,60,021.00
2	BUILDINGS	10,39,19,526.40	14,31,589.00	34,43,030.00	-	10,87,94,145.40	10%	1,07,07,263.00	9,80,86,882.40
4	COMPUTER & SOFTWARE	1,32,29,151.74	91,09,706.00	22,71,027.00	-	2,46,09,884.74	40%	93,89,748.00	1,52,20,136.74
5	CLOUD COMPUTING ASSET	1,89,765.00	-	-	-	1,89,765.00	40%	75,906.00	1,13,859.00
6	ELECTRONIC EQUIPMENTS	1,56,57,814.90	21,74,689.00	8,69,356.00	35,600.00	1,86,66,259.90	15%	27,34,737.00	1,59,31,522.90
7	ELECTRONIC EQUIPMENTS - BASLP	-	3,30,400.00	-	-	3,30,400.00	15%	49,560.00	2,80,840.00
8	FURNITURE & FITTINGS	2,60,59,287.50	39,53,402.00	24,70,293.00	-	3,24,82,982.50	10%	31,24,784.00	2,93,58,198.50
9	ELECTRICAL FITTINGS	32,87,518.00	4,80,775.00	8,77,898.00	-	46,46,191.00	10%	4,20,724.00	42,25,467.00
	DST - PROJECT ASSET								
11	COMPUTER & SOFTWARE	-	-	12,48,000.20	-	12,48,000.20	40%	2,49,600.00	9,98,400.20
12	ELECTRONIC EQUIPMENT	-	-	13,00,000.00	-	13,00,000.00	15%	97,500.00	12,02,500.00
	INFRASTUCTURE AUGUMENTATION								
13	BUILDING	-	55,00,474.00	50,69,714.00	-	1,05,70,188.00	10%	8,03,533.00	97,66,655.00
14	ELECTRICAL & ELECTRONICS	-	11,57,494.00	11,19,101.00	-	22,76,595.00	15%	2,57,557.00	20,19,038.00
15	COMPUTER & SOFTWARE	-	38,821.00	1,95,839.00	-	2,34,660.00	40%	54,696.00	1,79,964.00
16	LAB EQUIPMENTS	78,45,352.42	2,11,899.00	11,921.00	-	80,69,172.42	15%	12,09,482.00	68,59,690.42
17	LAB EQUIPMENTS - AHS	-	-	20,496.00	-	20,496.00	15%	1,537.00	18,959.00
18	LAB EQUIPMENTS - BASLP	-	2,75,000.00	-	-	2,75,000.00	15%	41,250.00	2,33,750.00
19	LIBRARY BOOKS	4,62,793.00	1,00,177.66	93,237.00	-	6,56,207.66	40%	2,43,836.00	4,12,371.66
20	MACHINERY & EQUIPMENTS	1,13,85,505.17	16,78,650.00	16,17,924.00	-	1,46,82,079.17	15%	20,80,968.00	1,26,01,111.17
21	MOTOR VEHICLE	1,01,88,797.00	-	13,23,000.00	12,77,250.00	1,02,34,547.00	15%	14,35,957.00	87,98,590.00
22	ELECTRONIC VEHICLE	-		2,80,000.00		2,80,000.00	40%	56,000.00	2,24,000.00
23	NANO EQUIPMENTS	35,47,835.00	-	-	-	35,47,835.00	15%	5,32,175.00	30,15,660.00
24	ROAD WORKS	15,64,012.00	-	-	-	15,64,012.00	10%	1,56,401.00	14,07,611.00
25	FIRE & SAFETY EQUIPMENTS	6,08,018.05	2,71,939.00	10,05,052.00	-	18,85,009.05	15%	2,07,372.00	16,77,637.05
26	CYBER SECURITY	1,17,351.00	-	-	-	1,17,351.00	15%	17,603.00	99,748.00
27	SATELITE CENTRE	1,11,63,786.00	-	-	-	1,11,63,786.00	15%	16,74,568.00	94,89,218.00
28	RENEWABLE ENERGY EQUIPMENT	1,13,613.00	-	-	-	1,13,613.00	15%	17,042.00	96,571.00
29	ROBOT CENTRE ASSETS	30,393.00	-	-	-	30,393.00	15%	4,559.00	25,834.00
30	WATER TREATMENT PLANT	4,76,509.00	-	-	-	4,76,509.00	15%	71,476.00	4,05,033.00
	TOTAL	**24,57,07,049.18**	**2,67,15,015.66**	**2,32,15,888.20**	**13,12,850.00**	**29,43,25,103.04**		**3,57,15,834.00**	**25,86,09,269.04**
	PREVIOUS YEAR	**23,75,94,407.18**	**3,60,16,126.00**	**74,91,430.00**	**11,80,400.00**	**27,99,21,563.18**		**3,42,14,514.00**	**24,57,07,049.18**

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION - KUMARACOIL

Notes forming part of the Financial Statements for the year ended 31st March, 2025

Property, Plant and Equipment and Intangible Assets (owned assets)

(Amount in Rs.)

Particulars /Assets	TANGIBLE ASSETS							
	Freehold land	Buildings	Plant and Equipment	Office equipment	Furniture & Fixtures	Vehicles	Computer and Equipment	Total
Opening as at 1 April 2024	3,58,60,021.00	10,54,83,538.40	3,52,88,362.64	1,56,57,814.90	2,93,46,805.50	1,01,88,797.00	1,38,81,709.74	24,57,07,049.18
Additions								
- from 01.04.2024 to 30.09.2024	-	69,32,063.00	35,94,982.00	25,05,089.00	44,34,177.00	-	92,48,704.66	2,67,15,015.66
- from 30.09.2024-31.03.2025	-	85,12,744.00	37,74,494.00	21,69,356.00	33,48,191.00	13,23,000.00	40,88,103.20	2,32,15,888.20
Deletions	-	-	-	35,600.00	-	12,77,250.00	-	13,12,850.00
At 31 March 2025	3,58,60,021.00	12,09,28,345.40	4,26,57,838.64	2,02,96,659.90	3,71,29,173.50	1,02,34,547.00	2,72,18,517.60	29,43,25,103.04
Rate of Depreciation		10.00%	15.00%	15.00%	10.00%	15.00%	40.00%	
Depreciation for the year		1,16,67,197.00	61,15,589.00	28,81,797.00	35,45,508.00	14,35,957.00	1,00,69,786.00	3,57,15,834.00
WDV as on 31.03.2025		**10,92,61,148.40**	**3,65,42,249.64**	**1,74,14,862.90**	**3,35,83,665.50**	**87,98,590.00**	**1,71,48,731.60**	**25,86,09,269.04**



Declaration

The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self-Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.

Head of the Institute

Name : Dr. Tessy Thomas

Designation : Vice Chancellor

Signature :



Seal of The Institution :



Place : **Kumaracoil**

Date : **10.02.2026**

Instruction !

SAR once submitted can not be altered. It can be viewed once the application is submitted. Please ensure that the SAR is filled properly before submission.

ANNEXURE I

(A). Programme Outcomes (POs)

Programme Outcomes – POs	
PO-A	Apply the knowledge of mathematics and computing fundamentals to various real life applications for any given requirement.
PO-B	Analyze and review literatures to invoke the research skills to design, interpret and make inferences from the resulting data.
PO-C	Design applications for any desired needs with appropriate considerations for any specific need on societal and environmental aspects
PO-D	Design and develop applications to analyze and solve all computer science related problems
PO-E	Involve in perennial learning for a continued career development and progress as a computer professional
PO-F	Integrate and apply efficiently the contemporary IT tools to all computer applications
PO-G	Function effectively both as a team leader and team member on multi-disciplinary projects to demonstrate computing and management skills
PO-H	Solve and work with a professional context pertaining to ethics, social, cultural and cyber regulations
PO-I	Utilize the computing knowledge efficiently in projects with concern for societal, environmental, and cultural aspects
PO-J	Create and design innovative methodologies to solve complex problems for the betterment of the society
PO-K	Function competently as an individual and as a leader in multidisciplinary projects

PO-L	Communicate effectively and present technical information in oral and written reports
PO-M	Apply the inherent skills with absolute focus to function as an successful entrepreneur.

(B) Programme Specific Outcomes (PSOs)

Programme Specific Outcomes – PSOs	
PSO1	**Application Development Skills –** Graduates will be able to design, develop and implement computer applications using various programming languages and software development tools.
PSO2	**Database Management and Data Handling –** Graduates will gain proficiency in managing databases including designing, creating, querying and maintaining database systems.
PSO3	**Software Engineering and Problem Solving –** Graduates will be able to apply software engineering principles, algorithms and data structures to solve real world problems effectively.
PSO4	**Web and Mobile Technologies** – Graduates will demonstrate skills in designing and developing web and mobile applications using current technologies.
PSO5	**Understanding of IT Infrastructure –** Graduates will understand Computer networks, operating system and information security to manage and maintain IT infrastructure.
PSO6	**Adaptability to Emerging Technologies** – Graduates will have the ability to adapt and learn emerging technologies and trends in computing field for continuous professional development