

Noorul Islam College of Engineering

SELF ASSESSMENT REPORT(TIER - I) FOR Computer Science and Engineering

Part A : Institutional Information

1 Name and Address of the Institution

Noorul Islam College of Engineering,
Kumaracoil, Thuckalay

2 Type of the Institution:

☒ Deemed to be University	☐ Autonomous
☐ University	☐ Non-Autonomous (Affiliated)
☐ Institute of National Importance	☐ Any Other(Please Specify)

3 Year of establishment of the Institution:

1989

4 Ownership Status:

☐ Central Government	☐ Any Other(Please Specify)
☐ State Government	
☐ Government Aided	
☒ Self financing	

5 Name and Address of Affiliating University(if any)

6 Other Academic Institutions of the Trust/Society/Company etc., if any

Name of Institutions	Year of Establishment	Programs of Study	Location

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7 Details of all the programs being offered by the Institution under consideration:

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Information Technology	UG	1998	2025	30	Yes	90	Granted accreditation for 3 years for the period (specify period)	2007	2010		4
Cyber Security	PG	2013	2013	12	No	12	Not eligible for accreditation	--	--		2
Computer Science and Engineering	UG	1989	2024	30	Yes	60	Granted accreditation for 3 years for the period (specify period)	2007	2010		4
Computer Science and Engineering	PG	2002	2002	12	No	12	Not eligible for accreditation	--	--		2
Master of Computer Application	PG	1995	1995	20	Yes	60	Granted accreditation for 3 years for the period (specify period)	2007	2010	Yes	2
Master of Business Administration	PG	1994	1994	60	Yes	90	Granted accreditation for 3 years for the period (specify period)	2007	2010	Yes	2
Aeronautical Engineering	UG	2009	2009	60	Yes	30	Not eligible for accreditation	--	--	No	4
Sanctioned Intake for Last Five Years for the Aeronautical Engineering											
Academic Year						Sanctioned Intake					
2025-26						30					
2024-25						30					
2023-24						30					
2022-23						30					
2021-22						30					
2020-21						60					
Aerospace Engineering	UG	2011	2011	60	Yes	30	Not eligible for accreditation	--	--	0	4

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the Aerospace Engineering											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					30						
2023-24					30						
2022-23					30						
2021-22					30						
2020-21					60						
Aircraft Maintenance Engineering	UG	2013	2013	60	No	60	Not eligible for accreditation	--	--	0	4
Artificial Intelligence and Data Science	UG	2020	2020	30	Yes	60	Not eligible for accreditation	--	--	0	4
Sanctioned Intake for Last Five Years for the Artificial Intelligence and Data Science											
Academic Year					Sanctioned Intake						
2025-26					60						
2024-25					30						
2023-24					30						
2022-23					30						
2021-22					30						
2020-21					30						
Artificial Intelligence and Machine Learning	UG	2025	2025	60	No	60	Not eligible for accreditation	--	--	0	4
Automobile Engineering	UG	2009	2009	60	Yes	30	Not eligible for accreditation	--	--	0	4

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the Automobile Engineering											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					30						
2023-24					30						
2022-23					30						
2021-22					30						
2020-21					60						
Biomedical Engineering	UG	2009	2009	60	No	60	Not eligible for accreditation	--	--	0	4
Civil Engineering	UG	2007	2007	60	Yes	30	Not eligible for accreditation	--	--	0	4
Sanctioned Intake for Last Five Years for the Civil Engineering											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					30						
2023-24					30						
2022-23					30						
2021-22					30						
2020-21					60						
Computer Science and Engineering (Artificial Intelligence)	UG	2025	2025	60	No	60	Not eligible for accreditation	--	--	0	4
Computer Engineering (Software Engineering)	UG	2025	2025	30	No	30	Not eligible for accreditation	--	--	0	4
Electrical and Electronics Engineering	UG	1993	1993	60	Yes	30	Not eligible for accreditation	--	--	No	4

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the Electrical and Electronics Engineering											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					30						
2023-24					30						
2022-23					30						
2021-22					30						
2020-21					60						
Electronics and Communication Engineering	UG	1989	1989	30	Yes	30	Not eligible for accreditation	--	--	0	4
Electronics and Instrumentation Engineering	UG	1997	1997	60	Yes	30	Not eligible for accreditation	--	--	0	4
Fire Technology and Safety	UG	2011	2011	60	No	60	Not eligible for accreditation	--	--	0	4
Marine Engineering	UG	2008	2008	60	Yes	30	Not eligible for accreditation	--	--	0	4
Sanctioned Intake for Last Five Years for the Marine Engineering											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					30						
2023-24					30						
2022-23					30						
2021-22					30						
2020-21					60						
Mechanical Engineering	UG	1995	1995	60	Yes	60	Not eligible for accreditation	--	--	0	4

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the Mechanical Engineering											
Academic Year					Sanctioned Intake						
2025-26					60						
2024-25					60						
2023-24					30						
2022-23					30						
2021-22					30						
2020-21					60						
Nano Technology	UG	2009	2009	60	Yes	30	Not eligible for accreditation	--	--	0	4
Aeronautical Engineering	PG	2011	2011	18	Yes	9	Not eligible for accreditation	--	--	0	2
Applied Electronics	PG	2007	2007	18	Yes	9	Not eligible for accreditation	--	--	0	2
Automobile Engineering	PG	2014	2014	18	Yes	12	Not eligible for accreditation	--	--	0	2
Sanctioned Intake for Last Five Years for the Automobile Engineering											
Academic Year					Sanctioned Intake						
2025-26					12						
2024-25					12						
2023-24					12						
2022-23					12						
2021-22					12						
2020-21					18						
Communication Systems	PG	2007	2007	25	Yes	12	Not eligible for accreditation	--	--	0	2

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the Communication Systems											
Academic Year					Sanctioned Intake						
2025-26					12						
2024-25					12						
2023-24					12						
2022-23					12						
2021-22					12						
2020-21					25						
Control and Instrumentation	PG	2007	2007	18	Yes	12	Not eligible for accreditation	--	--	0	2
Sanctioned Intake for Last Five Years for the Control and Instrumentation											
Academic Year					Sanctioned Intake						
2025-26					12						
2024-25					12						
2023-24					12						
2022-23					12						
2021-22					12						
2020-21					18						
Nano Technology	PG	2009	2009	18	Yes	9	Not eligible for accreditation	--	--	0	2
Computer Manufacturing Integrated	PG	2007	2007	18	Yes	9	Not eligible for accreditation	--	--	No	2
Thermal Engineering	PG	2007	2007	18	Yes	9	Not eligible for accreditation	--	--	0	2
Structural Engineering	PG	2013	2013	18	Yes	12	Not eligible for accreditation	--	--	0	2

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the Structural Engineering											
Academic Year					Sanctioned Intake						
2025-26					12						
2024-25					18						
2023-24					18						
2022-23					18						
2021-22					18						
2020-21					18						
MBA – Logistics and Supply Chain Management	PG	2024	2024	30	No	30	Not eligible for accreditation	--	--	0	2
MBA – Aviation and Airport Management	PG	2024	2024	12	Yes	30	Not eligible for accreditation	--	--	0	2
Sanctioned Intake for Last Five Years for the MBA – Aviation and Airport Management											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					12						
2023-24					0						
2022-23					0						
2021-22					0						
2020-21					0						

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Post Graduate	Computer Application	Master of Computer Application
2	Post Graduate	Management	Master of Business Administration
3	Under Graduate	Engineering & Technology	Computer Science and Engineering
4	Under Graduate	Engineering & Technology	Information Technology

Table No. A8.2

S No	Name of the Department	Name of the Program	Name of Allied Departments/Cluster	Name of Allied Program
No record exist(s)				

9 Total Number of Faculty Members in Various Departments:

ID	Department Name	Number of faculty members in the Department (UG and PG)											
		2025-26 (CAY)				2024-25 (CAYm1)				2023-24 (CAYm2)			
		No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members
1	Aeronautical Engineering	1	2	5	8	1	2	5	8	1	2	5	8
2	Aerospace Engineering	0	1	5	6	0	1	5	6	0	1	5	6
3	Aircraft Maintenance Engineering	0	2	10	12	0	2	10	12	0	2	10	12
4	Automobile Engineering	0	4	4	8	0	4	4	8	1	4	3	8
5	Biomedical Engineering	1	2	9	12	1	2	9	12	1	2	9	12
6	Civil Engineering	1	0	8	9	0	1	9	10	0	1	7	8
7	Nano Technology	2	2	4	8	2	2	4	8	2	1	4	7
8	Electrical and Electronics Engineering	1	4	3	8	1	4	3	8	1	4	3	8
9	Electronics and Communication Engineering	1	4	3	8	1	4	3	8	1	4	2	7
10	Electronics and Instrumentation Engineering	0	5	3	8	0	5	3	8	0	5	2	7
11	Fire Technology and Safety Engineering	0	2	10	12	0	2	10	12	0	2	7	9
12	Marine Engineering	0	2	10	12	0	2	10	12	1	1	10	12
13	Mechanical Engineering	4	3	6	13	2	2	9	13	2	2	9	13

14	Artificial Intelligence	0	2	6	8	0	1	4	5	0	1	4	5

10 Total Number of Engineering Students in Various Departments:

ID	Department Name	Number of students in the Department (UG and PG)		
		2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)
1	Aeronautical Engineering	20	19	14
2	Aerospace Engineering	16	7	8
3	Aircraft Maintenance Engineering	31	17	11
4	Automobile Engineering	3	6	4
5	Biomedical Engineering	36	30	20
6	Civil Engineering	9	18	11
7	Nano Technology	3	2	1
8	Electrical and Electronics Engineering	13	7	6
9	Electronics and Communication Engineering	8	21	6
10	Electronics and Instrumentation Engineering	2	7	3
11	Fire Technology and Safety Engineering	9	9	12
12	Marine Engineering	16	2	1
13	Mechanical Engineering	26	27	20
14	Artificial Intelligence	60	35	32

11 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 nations progress

12 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.

13 Contact Information of the Head of the Institution and NBA coordinator, if designated:

Head of the Institution	
Name	Dr. Tessy Thomas
Designation	Vice Chancellor
Mobile No.	9363797458
Email ID	vc@niuniv.com

☒ **NBA Coordinator, If Designated**

Name	Dr. A. Shajin Nargunam
Designation	Pro Vice Chancellor
Mobile No.	9486856113
Email ID	pvcac@niuniv.com

PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	OUTCOME-BASED CURRICULUM	120	120.00
2	OUTCOME-BASED TEACHING LEARNING	120	120.00
3	OUTCOME-BASED ASSESSMENT	120	120.00
4	STUDENTS' PERFORMANCE	120	82.43
5	FACULTY INFORMATION	100	82.00
6	FACULTY CONTRIBUTIONS	120	82.79
7	FACILITIES AND TECHNICAL SUPPORT	100	100.00
8	CONTINUOUS IMPROVEMENT	80	80.00
9	STUDENT SUPPORT AND GOVERNANCE	120	113.00
	Total	1000	900

Part B : Criteria Summary

1 OUTCOME-BASED CURRICULUM (120)

Total Marks 120.00

1.1 Vision, Mission and Program Educational Objectives (PEOs) (35)

Total Marks 35.00

1.1.1 State the Vision and Mission of the Institute and the Department (5)

Institute Marks : 5.00

Vision of the institute	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 institute	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	To offer the most conducive environment for quality academic and research oriented undergraduate and postgraduate education in computer science and engineering and prepare the students for a globalized technological society and orient them towards serving the society								
Mission of the Department	<table border="1"> <thead> <tr> <th>Mission No.</th><th>Mission Statements</th></tr> </thead> <tbody> <tr> <td>M1</td><td>Impart high quality professional training at the undergraduate and postgraduate level with an emphasis on basic principles of computer science and engineering</td></tr> <tr> <td>M2</td><td>Empower the students with the required skills to solve the complex technological problems of modern society and also provide them with a framework for promoting collaborative and multidisciplinary activities</td></tr> <tr> <td>M3</td><td>Conduct research to advance the state of the art in computer science and integrate research results and innovations into other scientific disciplines</td></tr> </tbody> </table>	Mission No.	Mission Statements	M1	Impart high quality professional training at the undergraduate and postgraduate level with an emphasis on basic principles of computer science and engineering	M2	Empower the students with the required skills to solve the complex technological problems of modern society and also provide them with a framework for promoting collaborative and multidisciplinary activities	M3	Conduct research to advance the state of the art in computer science and integrate research results and innovations into other scientific disciplines
Mission No.	Mission Statements								
M1	Impart high quality professional training at the undergraduate and postgraduate level with an emphasis on basic principles of computer science and engineering								
M2	Empower the students with the required skills to solve the complex technological problems of modern society and also provide them with a framework for promoting collaborative and multidisciplinary activities								
M3	Conduct research to advance the state of the art in computer science and integrate research results and innovations into other scientific disciplines								

1.1.2 State PEOs of the Program (5)

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Graduates can leverage their technical skills in computer science to address real-world challenges while also demonstrates leadership in both technical and interpersonal aspects.
PEO2	Graduates can engage in innovative research and create solutions for socially significant issues.
PEO3	Graduates can thrive in a business setting by demonstrating teamwork, strong work ethics, adaptability, and a commitment to lifelong learning.
PEO4	Graduates can continue their education and research, embark on successful careers in fields related to Computer Science and Engineering, or become entrepreneurs.
PEO5	Graduates will have the capability and attitude to adapt to new technological developments.

1.1.3 Process of Defining Vision, Mission and PEOs (10)

Institute Marks : 10.00

The process of defining the Programme Vision, Programme Mission, and Program Educational Objectives (PEOs) of the B.E. Computer Science and Engineering programme is initiated by referring to the Vision and Mission of the Institution. So that it ensures alignment of the programme with the institution's long-term goals related to academic excellence, technological advancement, ethical values, and societal relevance.

Formulation of Programme Vision, Mission & PEOs in CSE



Inputs & Expectations Analysis

Input Collection



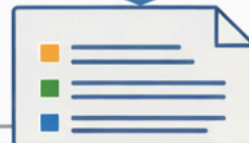
Analysis & Identification of Requirements

Programme Vision

Formulating Long-term Aspirations for CSE Graduates

Programme Mission

Defining Curriculum, Research & Industry Interaction



Drafting of Vision, Mission & PEOs



The following stakeholders are involved in the formulation of the Programme Vision, Mission, and PEOs:

- Faculty members of the CSE Department
- Industry experts and employers
- Alumni of the programme
- Current students
- Academic experts from reputed institutions

Their expectations and requirements are considered to ensure the relevance of the programme to industry, higher education, and society.

Inputs are collected through:

- Departmental meetings and faculty deliberations.
- Feedback from alumni and employers
- Suggestions from the Board of Studies
- Analysis of emerging trends in Computer Science and Engineering

The collected inputs are analyzed to identify the knowledge, skills, professional competencies, and ethical values required of graduates.

Based on the analyzed inputs:

The Programme Vision is formulated to reflect the long-term aspirations of the programme in producing competent and socially responsible engineering graduates.

The Programme Mission statements are framed to specify the means to achieve the vision through effective curriculum design, teaching-learning processes, research, industry interaction, and professional development activities.

The drafted Programme Vision, Mission, and PEOs are:

- Reviewed in departmental meetings
- Approved by the Board of Studies (BoS)
- Ratified by the Academic Council

1.1.4 Dissemination of Vision, Mission and PEOs (5)

Institute Marks : 5.00

Dissemination of Vision, Mission and PEOs (05)

The approved Programme Vision, Mission, and PEOs are disseminated to all stakeholders through:

- Institution websites
- Prospectus and brochures
- Display boards in the department and laboratories
- Student induction and orientation programs
- HOD Room
- Department Corridor
- Laboratories
- Curriculum / Syllabus books
- Record of Academic Work





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About Computer Science and Engineering

Vision of the Department:
To offer the most conducive environment for quality academic and research oriented undergraduate and postgraduate education in computer science and engineering and prepare the students for a globalised technological society and orient them towards serving the society

Mission of the Department:

- *Impart high quality professional training at the undergraduate and postgraduate level with an emphasis on basic principles of computer science and engineering.*
- *Empower the students with the required skills to solve the complex technological problems of modern society and also provide them with a framework for promoting collaborative and multidisciplinary activities.*
- *Conduct research to advance the state of the art in computer science and integrate research results and innovations into other scientific disciplines.*

The Department of Computer Science and Engineering was established in 1989 to fulfill the



Our Courses

- ✓ B.E. Computer Science & Engineering
- ✓ M.E. Computer Science And Engineering
- ✓ Ph.D. Computer Science and Engineering
- ✓ B.E. Artificial Intelligence and Data Science
- ✓ B.E. Artificial Intelligence and Machine Learning
- ✓ B.E. Computer Science (Software)





f t i y i n Ph.D. Entrance Examination 👤 👥 📺

1.1.5 Mapping of PEOs with Mission (10)

Institute Marks : 10.00

PEO Statements	M1	M2	M3
Graduates can leverage their technical skills in computer science to address real-world challenges while also demonstrates leadership in both technical and interpersonal aspects.	2 ▾	3 ▾	2 ▾
Graduates can engage in innovative research and create solutions for socially significant issues.	2 ▾	2 ▾	3 ▾
Graduates can thrive in a business setting by demonstrating teamwork, strong work ethics, adaptability, and a commitment to lifelong learning.	2 ▾	3 ▾	2 ▾
Graduates can continue their education and research, embark on successful careers in fields related to Computer Science and Engineering, or become entrepreneurs.	2 ▾	2 ▾	3 ▾
Graduates will have the capability and attitude to adapt to new technological developments.	2 ▾	3 ▾	2 ▾

Table No.1.1.5.1: Mapping of PEOs with mission

Programme Educational Objectives - PEO	Levels of Correlation		
	M1	M2	M3

PEO-01	Graduates can leverage their technical skills in computer science to address real-world challenges while also demonstrates leadership in both technical and interpersonal aspects.	2	3	2
PEO-02	Graduates can engage in innovative research and create solutions for socially significant issues.	2	2	3
PEO-03	Graduates can thrive in a business setting by demonstrating teamwork, strong work ethics, adaptability, and a commitment to lifelong learning.	2	3	2
PEO-04	Graduates can continue their education and research, embark on successful careers in fields related to Computer Science and Engineering, or become entrepreneurs.	2	2	3
PEO-05	Graduates will have the capability and attitude to adapt to new technological developments.	2	3	2

Justification of Mapping

PEO	Mission Statements Mapped	Level of Mapping	Justification
PEO1	M2, M3	Strong	PEO-01 focuses on applying technical knowledge and demonstrating leadership, which aligns strongly with M2 (fostering problem-solving and innovation) and M3 (promoting professional ethics, teamwork, and leadership).

PEO2	M2, M3	Strong	PEO-02 emphasizes research and creating solutions for societal issues, directly supporting M2 (research and problem-solving) and M3 (teamwork and ethical practices in professional scenarios).
PEO3	M2, M3	Strong	PEO-03 addresses professional and business skills, adaptability, and lifelong learning, which map strongly to M2 (applying knowledge to practical challenges) and M3 (professional ethics, teamwork, and leadership).
PEO4	M2, M3	Strong	PEO-04 focuses on higher education, careers, and entrepreneurship, which aligns strongly with M2 (innovation and problem-solving) and M3 (professional growth and ethical conduct).
PEO5	M2, M3	Strong	PEO-05 emphasizes adaptability to emerging technologies, which supports M2 (innovative solutions and technological competence) and M3 (lifelong learning and professional development).

1.2 Curriculum Structure and Features (30)

Total Marks 30.00

1.2.1 State the Process for Developing/Revising the Program Curriculum (10)

Institute Marks : 10.00

The Department of Computer Science and Engineering structures its curriculum to align with the demands of the IT industry, societal expectations, and the principles of lifelong learning. The curriculum is continuously updated to incorporate advancements in emerging technologies and industry practices. The design and development of the program aim to fulfill the following objectives:

- Alignment with the Vision and Mission of the Department
- Achievement of Programme Educational Objectives (PEOs)
- Compliance with Programme Outcomes (POs) as per NBA guidelines
- Attainment of Programme Specific Outcomes (PSOs)

The curriculum is organized into core components, including Basic Sciences, Engineering Sciences, Humanities and Social Sciences, Programme Core Courses, Programme Electives, Open Electives, Internships, and Project work. This structure ensures a balanced development of knowledge, technical skills, and professional attitudes.

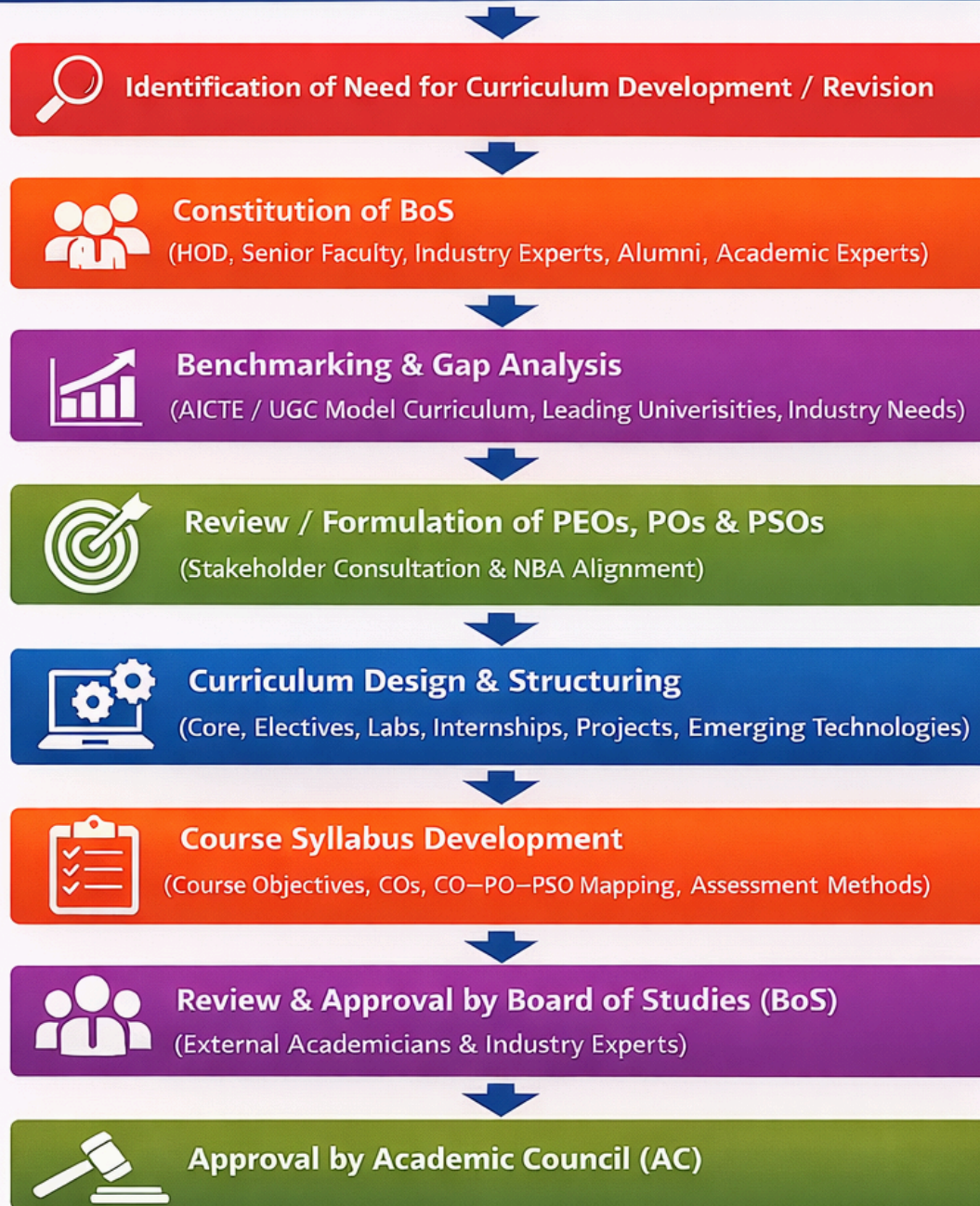
Course Outcomes (COs) are defined by individual course coordinators in consultation with the Board of Studies (BoS) Chairperson and other relevant stakeholders. Each CO is mapped to the corresponding POs and PSOs to maintain alignment with NBA standards and Washington Accord Graduate Attributes. Draft curricula are circulated among academic experts and industry professionals, and their feedback is carefully evaluated to make improvements that reflect current industry expectations and academic quality.

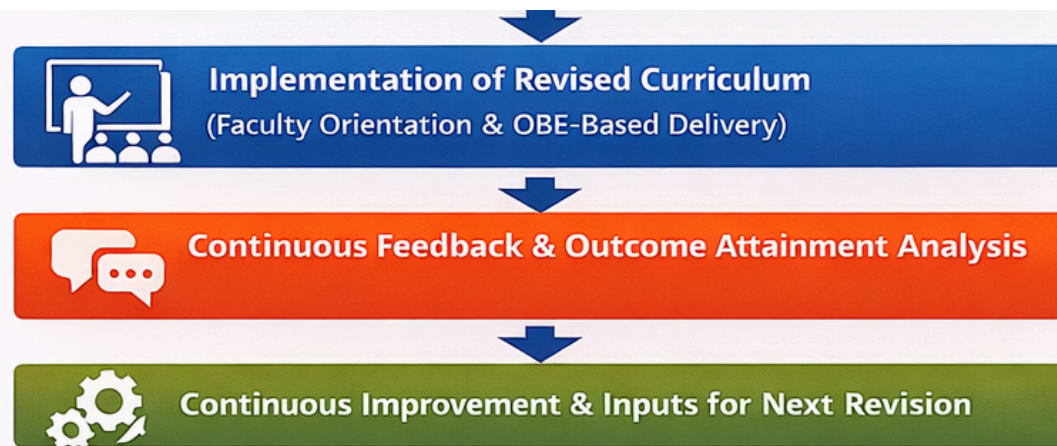
The attainment of POs and PSOs is measured annually using direct and indirect assessment tools, with results analyzed by the Board of Studies (BoS).

The curriculum revision process begins with the Department Vision, Mission, PEOs, POs, and PSOs, and incorporates recommendations from IQAC, AICTE, and UGC guidelines. The Board of Studies (BoS), chaired by the HoD, includes internal stakeholders such as faculty and students, and external stakeholders including employers, alumni, industry professionals, and academic experts. Feedback is collected each semester from students and faculty, while inputs from employers, alumni, and industry experts guide necessary updates.

The Board of Studies (BoS) meets annually to review and revise the curriculum. After deliberation, the revised curriculum is sent to the Academic Council, and finally to the Executive Council for implementation.

Process for Developing / Revising the B.E. CSE Curriculum





[Edit](#)

ID	Course Code	Course Title	Classroom Instruction (CI) (in hours per semester)		Lab Instruction (LI) (in hours per semester)	Term Work (TW) and Self Learning (SL) (TW+ SL) (in hours per semester)	Total no. of Hours per semester	Total Credits (C)* (Total Hours/30)
			L	T	P	SL		
1	EG3101	Technical English	60	30	0	30	120	4.00
2	MA3101	Engineering Mathematics – I	60	30	0	30	120	4.00
3	BS3101	Engineering Physics	60	0	0	30	90	3.00
4	BS3102	Engineering Chemistry	60	0	0	30	90	3.00
5	CS3101	Fundamentals of Computing and Python Programming	60	0	0	30	90	3.00
6	CS3171	Fundamentals of Computing and Python Programming Laboratory	0	0	60	0	60	2.00
7	BS3171	Physics and Chemistry Laboratory	0	0	30	30	60	2.00
8	EG3102	Communicative English	60	0	0	30	90	3.00
9	MA3102	Engineering Mathematics – II	60	30	0	30	120	4.00
10	BE3101	Basic Electrical and Electronics Engineering	60	0	0	30	90	3.00
11	BE3102	Basic Civil and Mechanical Engineering	60	0	0	30	90	3.00
12	ME3101	Engineering Graphics	60	0	30	30	120	4.00
13	BE3171	Basic Electrical and Electronics Engineering Laboratory	0	0	30	0	30	1.00
14	BE3172	Basic Civil and Mechanical Engineering Laboratory	0	0	30	0	30	1.00

15	MA3201	Engineering Mathematics – III	60	30	0	30	120	4.00
16	CS3201	Computer Organization and Architecture	60	0	0	30	90	3.00
17	CS3202	Data structures and Algorithms	60	0	0	30	90	3.00
18	CS3203	Digital Design Principles	60	0	0	30	90	3.00
19	CS3204	Object Oriented Programming	60	0	0	30	90	3.00
20	CS3271	Data structures and Algorithms Laboratory	0	0	60	0	60	2.00
21	CS3272	Digital Design Principles Laboratory	0	0	30	0	30	1.00
22	CS3273	Object Oriented Programming Laboratory	0	0	30	0	30	1.00
23	MA3205	Probability and Queuing Theory	60	30	0	0	90	3.00
24	BS3201	Environmental Science	45	0	0	15	60	2.00
25	CS3205	Computer Networks	60	0	0	30	90	3.00
26	CS3206	Database Management Systems	60	0	0	30	90	3.00
27	CS3207	Operating Systems	60	0	0	30	90	3.00
28	CS3208	Software Engineering	60	0	0	30	90	3.00
29	CS3274	Computer Networks Laboratory	0	0	60	0	60	2.00
30	CS3275	Database Management Systems Laboratory	0	0	60	0	60	2.00
31	CS3276	Operating Systems Laboratory	0	0	30	0	30	1.00
32	CS32P1	Summer Internship-I	0	0	0	60	60	2.00
33	CS3209	Block Chain Technologies	60	0	0	30	90	3.00
34	CS3210	Artificial Intelligence and Applications	60	0	0	30	90	3.00

35	CS3211	Web Technologies	60	0	0	30	90	3.00
36	CS3212	Microprocessors and Microcontrollers	60	0	0	30	90	3.00
37	MS3201	Professional and Business Ethics	60	0	0	0	60	2.00
38	CS32A3	FOUNDATIONS OF DATA SCIENCE	60	0	0	30	90	3.00
39	CS3277	Web Technologies Laboratory	0	0	60	0	60	2.00
40	CS3278	Microprocessors and Microcontrollers Laboratory	0	0	30	0	30	1.00
41	CS3213	Compiler Design	60	0	0	30	90	3.00
42	CS3214	Cloud Computing Techniques	60	0	0	30	90	3.00
43	CS32A5	NEURAL NETWORKS & DEEP LEARNING	60	0	0	30	90	3.00
44	CS32A9	VIRTUAL REALITY	60	0	0	30	90	3.00
45	ME32D1	SUPPLY CHAIN MANAGEMENT	60	0	0	30	90	3.00
46	CS3215	Cyber Security	60	0	0	30	90	3.00
47	CS3279	Compiler Design Laboratory	0	0	45	15	60	2.00
48	CS3280	Cloud Computing Laboratory	0	0	45	15	60	2.00
49	CS32P2	Summer Internship – II	0	0	0	60	60	2.00
50	MS3202	Principles of Management	45	0	0	15	60	2.00
51	AI3205	Internet of Things	60	0	0	30	90	3.00
52	CS32B5	CLOUD SERVICES MANAGEMENT	60	0	0	30	90	3.00
53	CS32B9	ETHICAL HACKING	60	0	0	30	90	3.00
54	BM32D4	TELEMEDICINE	60	0	0	30	90	3.00

55	CS3281	Data Science & Analytics Laboratory	0	0	30	0	30	1.00
56	CS32P3	Mini Project	0	0	45	45	90	3.00
57	CS32C4	DIGITAL MARKETING	60	0	0	30	90	3.00
58	CS3216	BIG DATA ANALYTICS	60	0	0	30	90	3.00
59	CS32P5	Project Work	0	0	150	150	300	10.00
		Total	2370	150	855	1485	4860	162.00

1.2.3 Components of Curriculum (5)

Institute Marks : 5.00

Course Components	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	13.17	66.00	22.00
Basic Engineering	5.98	30.00	10.00
Humanities and Social S	10.17	51.00	17.00
Program Core	31.13	156.00	52.00
Program Electives	7.1	36.00	12.00
Open Electives	3.59	18.00	6.00
Project(s)	8.38	42.00	14.00
Internships/Seminars	4.79	24.00	8.00
Any other (Please specif	15.56	78.00	26.00
Total number of Credits			167.00

1.2.4 Strategies for Education Reforms (5)

Institute Marks : 5.00

The Department of Computer Science and Engineering has implemented structured strategies to align with NBA standards, NEP-2020 directives, and international best practices. The focus of these reforms is on promoting flexible learning, fostering multidisciplinary skills, encouraging innovation, and supporting lifelong learning among students.

Multidisciplinary and Interdisciplinary Curriculum

The department’s curriculum is designed to encourage learning across multiple disciplines and domains. Key features include:

- Open Electives: Students can choose courses from allied areas such as Electronics, Mechanical Engineering, Management, Mathematics, and Humanities to broaden their knowledge.
- Interdisciplinary Program Electives: Specialized electives in cutting-edge areas such as Artificial Intelligence, Data Science, Cybersecurity, IoT, and Healthcare Informatics allow students to gain expertise in emerging fields.
- Project-Based Learning: Mini-projects and capstone projects are designed to integrate knowledge from various disciplines, fostering practical problem-solving skills.

These elements help students connect concepts across fields and prepare them to address real-world challenges effectively.

Linking Academic Activities to Outcomes

Learning experiences such as internships, industrial training, certifications, hackathons, workshops, seminars, and MOOCs are carefully mapped to Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs). This ensures that students gain hands-on experience, develop essential skills, and achieve the graduate attributes outlined by NBA and the Washington Accord.

Academic Bank of Credits (ABC)

The department embraces the Academic Bank of Credits (ABC) framework to enhance learning flexibility. Students have the opportunity to:

- Earn credits through approved online learning platforms, including NPTEL, SWAYAM, and Coursera.
- Transfer and accumulate credits according to institutional and regulatory policies.

This approach encourages personalized learning paths, academic mobility, and continued education throughout one’s career.

Academic Performance, Achievement, and Records (APAAR)

The department maintains comprehensive digital records of academic achievements, skill certifications, co-curricular activities, and extracurricular accomplishments. This system ensures transparency in monitoring students’ overall academic and professional growth.

Continuous Quality Enhancement (CQI)

Feedback collected from students, alumni, employers, and industry professionals is analyzed regularly through BOS. The insights gained are used to refine curriculum content, teaching methods, and assessment practices, ensuring continuous improvement and sustained relevance of the program.

1.3 PO, PSO and their Mapping with Courses (20)

Total Marks 20.00

1.3.1 POs and PSOs (5)

:

PSO1	Design, develop, and implement efficient computing systems using modern programming languages, algorithms, and software engineering principles
PSO2	Apply knowledge of emerging technologies such as AI, Machine Learning, Cybersecurity, and IoT to solve real world problems
PSO3	Innovate and contribute to research in computer science by leveraging interdisciplinary approaches and advanced computational techniques

1.3.2 Mapping between the Courses and POs/PSOs (15)

Institute Marks : 15.00

PO Number	List of Courses
PO1	Technical English, Engineering Mathematics – I, Engineering Physics, Engineering Chemistry, Fundamentals of Computing and Python Programming, Engineering Mathematics – II, Basic Electrical and Electronics Engineering, Basic Civil and Mechanical Engineering, Engineering Graphics, Engineering Mathematics – III, Computer Organization and Architecture, Data Structures and Algorithms, Digital Design Principles, Object Oriented Programming, Probability and Queuing Theory, Environmental Science, Computer Networks, Database Management Systems, Operating Systems, Software Engineering, Block Chain Technologies, Artificial Intelligence and Applications, Web Technologies, Microprocessors and Microcontrollers, Professional and Business Ethics, Compiler Design, Cloud Computing Techniques, Cyber Security, Internet of Things, Principles of Management, Big Data Analytics, Electives I–VI, Open Electives I–II
PO2	Engineering Mathematics – I, Engineering Mathematics – II, Engineering Mathematics – III, Computer Organization and Architecture, Data Structures and Algorithms, Digital Design Principles, Object Oriented Programming, Probability and Queuing Theory, Computer Networks, Database Management Systems, Operating Systems, Software Engineering, Block Chain Technologies, Artificial Intelligence and Applications, Web Technologies, Microprocessors and Microcontrollers, Compiler Design, Cloud Computing Techniques, Cyber Security, Big Data Analytics, Electives I–VI, Mini Project, Project Work
PO3	Data Structures and Algorithms, Object Oriented Programming, Digital Design Principles, Database Management Systems, Operating Systems, Software Engineering, Web Technologies, Microprocessors and Microcontrollers, Compiler Design, Cloud Computing Techniques, Cyber Security, Internet of Things, Big Data Analytics, Electives I–VI, Mini Project, Project Work
PO4	Data Structures and Algorithms, Digital Design Principles, Probability and Queuing Theory, Computer Networks, Database Management Systems, Operating Systems, Compiler Design, Cloud Computing Techniques, Cyber Security, Big Data Analytics, Mini Project, Project Work
PO5	Fundamentals of Computing and Python Programming Laboratory, Physics and Chemistry Laboratory, Data Structures and Algorithms Laboratory, Digital Design Principles Laboratory, Object Oriented Programming Laboratory, Computer Networks Laboratory, Database Management Systems Laboratory, Operating Systems Laboratory, Web Technologies Laboratory, Microprocessors and Microcontrollers Laboratory, Compiler Design Laboratory, Cloud Computing Laboratory, Data Science & Analytics Laboratory, Summer Internships I–II, Mini Project, Project Work
PO6	Professional and Business Ethics, Principles of Management, Environmental Science, Engineering Physics, Engineering Chemistry.
PO7	Environmental Science, Information Technology in Agricultural System, Renewable Energy System
PO8	Professional and Business Ethics, Web Technologies, Microprocessors and Microcontrollers.
PO9	Data Structures and Algorithms Laboratory, Digital Design Principles Laboratory, Object Oriented Programming Laboratory, Computer Networks Laboratory, Database Management Systems Laboratory, Operating Systems Laboratory, Web Technologies Laboratory, Microprocessors and Microcontrollers Laboratory, Compiler Design Laboratory, Cloud Computing Laboratory, Data Science & Analytics Laboratory, Mini Project, Project Work
PO10	Technical English, Communicative English, Principles of Management, Artificial Intelligence and Applications, Web Technologies, Mini Project, Project Work
PO11	Principles of Management, Mini Project, Project Work.
PO12	Engineering Mathematics – I, Engineering Mathematics – II, Engineering Mathematics – III, Fundamentals of Computing and Python Programming, Artificial Intelligence and Applications, Compiler Design, Cloud Computing Techniques, Big Data Analytics.

PSO:

PO Number	List of Courses
PSO1	Fundamentals of Computing and Python Programming Laboratory, Physics and Chemistry Laboratory, Data Structures and Algorithms Laboratory, Digital Design Principles Laboratory, Object Oriented Programming Laboratory, Computer Networks Laboratory, Database Management Systems Laboratory, Operating Systems Laboratory, Web Technologies Laboratory, Microprocessors and Microcontrollers Laboratory, Compiler Design Laboratory, Cloud Computing Laboratory, Data Science & Analytics Laboratory, Summer Internships I–II, Mini Project, Project Work
PSO2	Data Structures and Algorithms, Digital Design Principles, Probability and Queuing Theory, Computer Networks, Database Management Systems, Operating Systems, Compiler Design, Cloud Computing Techniques, Cyber Security, Big Data Analytics, Mini Project, Project Work
PSO3	Data Structures and Algorithms Laboratory, Digital Design Principles Laboratory, Object Oriented Programming Laboratory, Computer Networks Laboratory, Database Management Systems Laboratory, Operating Systems Laboratory, Web Technologies Laboratory, Microprocessors and Microcontrollers Laboratory, Compiler Design Laboratory, Cloud Computing Laboratory, Data Science & Analytics Laboratory, Mini Project, Project Work

1.4 Course Outcomes and Course Articulation Matrix (30)

Total Marks 30.00

1.4.1 Course Outcome (Semester Wise) (15)

Institute Marks : 15.00

No. of Core Courses : 6	C2 : 2	C3 : 2	C4 : 2
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Note : Number of Outcomes for a Course is expected to be around 6.

Course Code :	CS3101	Semester :	1
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Course Outcome	Statements
CS3101.1	Understand the basics of algorithmic problem solving.
CS3101.2	Ability to analyze various techniques for read and write simple Python programs.
CS3101.3	Introduce Python programs with conditionals and loops.
CS3101.4	Evaluate and Define Python functions, call them and use Python data structures – lists, tuples, dictionaries.
CS3101.5	Apply input/output with files in Python.

Course Code :	BS3101	Semester :	1
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Course Outcome	Statements
BS3101.1	Students will be able to understand and apply knowledge about the properties of materials.
BS3101.2	Students will be able to understand the types of oscillations and the wave nature of light in interference, diffraction and polarization phenomenon.
BS3101.3	Students will be able to state and explain the various laws of thermodynamics, understand entropy and its application.
BS3101.4	Students gain basic knowledge about quantum mechanics and will be able to solve time dependent and time independent Schrodinger equation for simple potentials.
BS3101.5	Students will be able to know the different types of crystal structures and also gain basic knowledge about nanomaterials and biomaterials.

Course Code :	BE3101	Semester :	2
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Course Outcome	Statements
BE3101.1	Understand the basic principle and operation of electrical circuits.
BE3101.2	Study the fundamental operations of measuring instruments and the layout of power system.
BE3101.3	Understand the fundamental operation and characteristics of semiconductor devices.
BE3101.4	Understand the implementation of Boolean expression using logic gates.
BE3101.5	Become familiar with basic concepts of Communication system.

Course Code :	BE3102	Semester :	2
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Course Outcome	Statements
BE3102.1	To understand surveying: Objects – types – classification – principles – measurements of distances – angles –levelling–determination
BE3102.2	To understand the types, bearing capacity– Requirement of good foundation
BE3102.3	To understand the statics –Basics concepts, Fundamental principles & concepts: Newton's laws, gravitation, force, couple
BE3102.4	To understand the introduction to IC Engines, working principle of Petrol and Diesel Engines – Four stroke and two stroke cycles
BE3102.5	To understand the foundry- Investment casting, Die casting, Centrifugal casting, Continuous casting, Stir casting, Squeeze casting.

Course Code :	CS3202	Semester :	3
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Course Outcome	Statements
CS3202.1	Understand C Programming fundamentals
CS3202.2	Analyze the various algorithms in design and analysis techniques
CS3202.3	Apply linear data structures – lists, stacks, and queues
CS3202.4	Analyze and implement various searching and sorting algorithms.
CS3202.5	Evaluate trees and apply graphs to solve problems.

Course Code :	CS3201	Semester :	3
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Course Outcome	Statements
CS3201.1	Identify various components of computer and their interconnection.
CS3201.2	Identify basic components and design of the CPU: the ALU and control unit.
CS3201.3	Compare and select various Memory devices as per requirement.
CS3201.4	Compare various types of IO mapping techniques
CS3201.5	Critique the performance issues of cache memory and virtual memory

1.4.2 Course Articulation Matrix (15)

:

1 . course name : C2CS3101

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C2CS3101.1	Understand	1 ✓	2 ✓	3 ✓	1 ✓	2 ✓	2 ✓	1 ✓	- ✓	- ✓	- ✓	- ✓
C2CS3101.2	Ability to ar	1 ✓	3 ✓	1 ✓	1 ✓	2 ✓	3 ✓	3 ✓	- ✓	- ✓	- ✓	- ✓
C2CS3101.3	Introduce F	2 ✓	1 ✓	3 ✓	2 ✓	1 ✓	1 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓
C2CS3101.4	Evaluate ar	2 ✓	1 ✓	1 ✓	3 ✓	2 ✓	2 ✓	1 ✓	- ✓	- ✓	- ✓	- ✓
C2CS3101.5	Apply input	2 ✓	1 ✓	1 ✓	1 ✓	2 ✓	3 ✓	1 ✓	- ✓	- ✓	- ✓	- ✓
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2 . course name : C2BS3101

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C2BS3101.1	Students w	3 ✓	3 ✓	3 ✓	3 ✓	3 ✓	1 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓
C2BS3101.2	Students w	3 ✓	3 ✓	3 ✓	2 ✓	1 ✓	1 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓
C2BS3101.3	Students w	3 ✓	3 ✓	3 ✓	3 ✓	3 ✓	2 ✓	1 ✓	- ✓	- ✓	- ✓	- ✓
C2BS3101.4	Students g:	3 ✓	2 ✓	3 ✓	3 ✓	1 ✓	3 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓
C2BS3101.5	Students w	3 ✓	3 ✓	2 ✓	2 ✓	1 ✓	1 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3 . course name : C3BE3101

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C3BE3101.1	Understand	2 ✓	3 ✓	2 ✓	3 ✓	3 ✓	2 ✓	2 ✓	2 ✓	3 ✓	3 ✓	2 ✓
C3BE3101.2	Study the fi	3 ✓	2 ✓	1 ✓	2 ✓	1 ✓	2 ✓	3 ✓	1 ✓	1 ✓	3 ✓	2 ✓
C3BE3101.3	Understand	3 ✓	1 ✓	3 ✓	3 ✓	1 ✓	1 ✓	3 ✓	3 ✓	2 ✓	2 ✓	3 ✓
C3BE3101.4	Understand	3 ✓	1 ✓	2 ✓	3 ✓	2 ✓	1 ✓	3 ✓	3 ✓	2 ✓	3 ✓	3 ✓
C3BE3101.5	Become far	3 ✓	1 ✓	2 ✓	2 ✓	2 ✓	1 ✓	2 ✓	3 ✓	2 ✓	2 ✓	2 ✓
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4 . course name : C3BE3102

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C3BE3102.1	To understa	3 ✓	2 ✓	1 ✓	1 ✓	2 ✓	1 ✓	1 ✓	1 ✓	2 ✓	2 ✓	1 ✓
C3BE3102.2	To understa	2 ✓	2 ✓	2 ✓	1 ✓	3 ✓	2 ✓	1 ✓	1 ✓	3 ✓	2 ✓	1 ✓
C3BE3102.3	To understa	3 ✓	2 ✓	1 ✓	1 ✓	2 ✓	2 ✓	1 ✓	1 ✓	1 ✓	3 ✓	2 ✓
C3BE3102.4	To understa	3 ✓	1 ✓	2 ✓	2 ✓	2 ✓	2 ✓	2 ✓	1 ✓	2 ✓	2 ✓	2 ✓
C3BE3102.5	To understa	3 ✓	1 ✓	2 ✓	2 ✓	3 ✓	2 ✓	1 ✓	1 ✓	2 ✓	2 ✓	2 ✓
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5 . course name : C4CS3202

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C4CS3202.1	Understand	1 ✓	3 ✓	2 ✓	1 ✓	2 ✓	3 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓
C4CS3202.2	Analyze the	3 ✓	2 ✓	1 ✓	1 ✓	2 ✓	1 ✓	3 ✓	- ✓	- ✓	- ✓	- ✓
C4CS3202.3	Apply linea	3 ✓	3 ✓	1 ✓	1 ✓	2 ✓	2 ✓	3 ✓	- ✓	- ✓	- ✓	- ✓
C4CS3202.4	Analyze an	2 ✓	3 ✓	1 ✓	1 ✓	2 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓
C4CS3202.5	Evaluate tre	3 ✓	3 ✓	1 ✓	2 ✓	2 ✓	3 ✓	3 ✓	- ✓	- ✓	- ✓	- ✓
Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

6 . course name : C4CS3201

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C4CS3201.1	Identify vari	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓
C4CS3201.2	Identify bas	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓
C4CS3201.3	Compare a	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓
C4CS3201.4	Compare v	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓
C4CS3201.5	Critique the	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓	Select ✓

1 . Course Name : C2CS3101

Course	PSO1	PSO2	PSO3
C2CS3101.1	2 ✓	3 ✓	1 ✓
C2CS3101.2	1 ✓	3 ✓	2 ✓
C2CS3101.3	2 ✓	2 ✓	2 ✓
C2CS3101.4	2 ✓	3 ✓	3 ✓
C2CS3101.5	3 ✓	2 ✓	2 ✓
Average	0.00	0.00	0.00

2 . Course Name : C2BS3101

Course	PSO1	PSO2	PSO3
C2BS3101.1	1 ✓	2 ✓	1 ✓
C2BS3101.2	2 ✓	2 ✓	1 ✓
C2BS3101.3	2 ✓	1 ✓	2 ✓
C2BS3101.4	1 ✓	1 ✓	1 ✓
C2BS3101.5	1 ✓	2 ✓	2 ✓
Average	0.00	0.00	0.00

3 . Course Name : C3BE3101

Course	PSO1	PSO2	PSO3
C3BE3101.1	2 ✓	1 ✓	2 ✓
C3BE3101.2	1 ✓	2 ✓	2 ✓
C3BE3101.3	1 ✓	1 ✓	2 ✓
C3BE3101.4	2 ✓	2 ✓	2 ✓
C3BE3101.5	1 ✓	2 ✓	2 ✓
Average	0.00	0.00	0.00

4 . Course Name : C3BE3102

Course	PSO1	PSO2	PSO3
C3BE3102.1	2 ✓	1 ✓	2 ✓
C3BE3102.2	2 ✓	2 ✓	2 ✓
C3BE3102.3	2 ✓	1 ✓	2 ✓
C3BE3102.4	2 ✓	2 ✓	1 ✓
C3BE3102.5	2 ✓	1 ✓	2 ✓
Average	0.00	0.00	0.00

5 . Course Name : C4CS3202

Course	PSO1	PSO2	PSO3
C4CS3202.1	2 ✓	2 ✓	2 ✓
C4CS3202.2	3 ✓	2 ✓	2 ✓
C4CS3202.3	2 ✓	2 ✓	3 ✓
C4CS3202.4	2 ✓	3 ✓	3 ✓
C4CS3202.5	2 ✓	2 ✓	3 ✓
Average	0.00	0.00	0.00

6 . Course Name : C4CS3201

Course	PSO1	PSO2	PSO3
C4CS3201.1	3 ✓	2 ✓	3 ✓
C4CS3201.2	3 ✓	2 ✓	3 ✓
C4CS3201.3	2 ✓	2 ✓	3 ✓
C4CS3201.4	3 ✓	2 ✓	2 ✓
C4CS3201.5	3 ✓	3 ✓	3 ✓
Average	0.00	0.00	0.00

1.5 Program Articulation Matrix (5)

Total Marks 5.00

Program Articulation Matrix

:

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
EG3101	2	2	1	2	3	1	1	0	0	0	0
MA3101	3	3	2	2	1	1	1	0	0	0	0
BS3101	2	2	1	2	1	2	1	0	0	0	0
BS3102	3	2	1	2	1	2	1	0	0	0	0
CS3101	3	3	3	2	2	3	2	0	0	0	0
CS3171	3	3	3	2	3	2	3	0	0	0	0
BS3171	2	2	1	2	2	1	2	0	0	0	0
EG3102	1	2	1	2	1	2	1	0	0	0	0
MA3102	3	3	2	2	1	1	2	0	0	0	0

Course Code	PSO1	PSO2	PSO3
xxxxx	PSO1	PSO2	PSO3

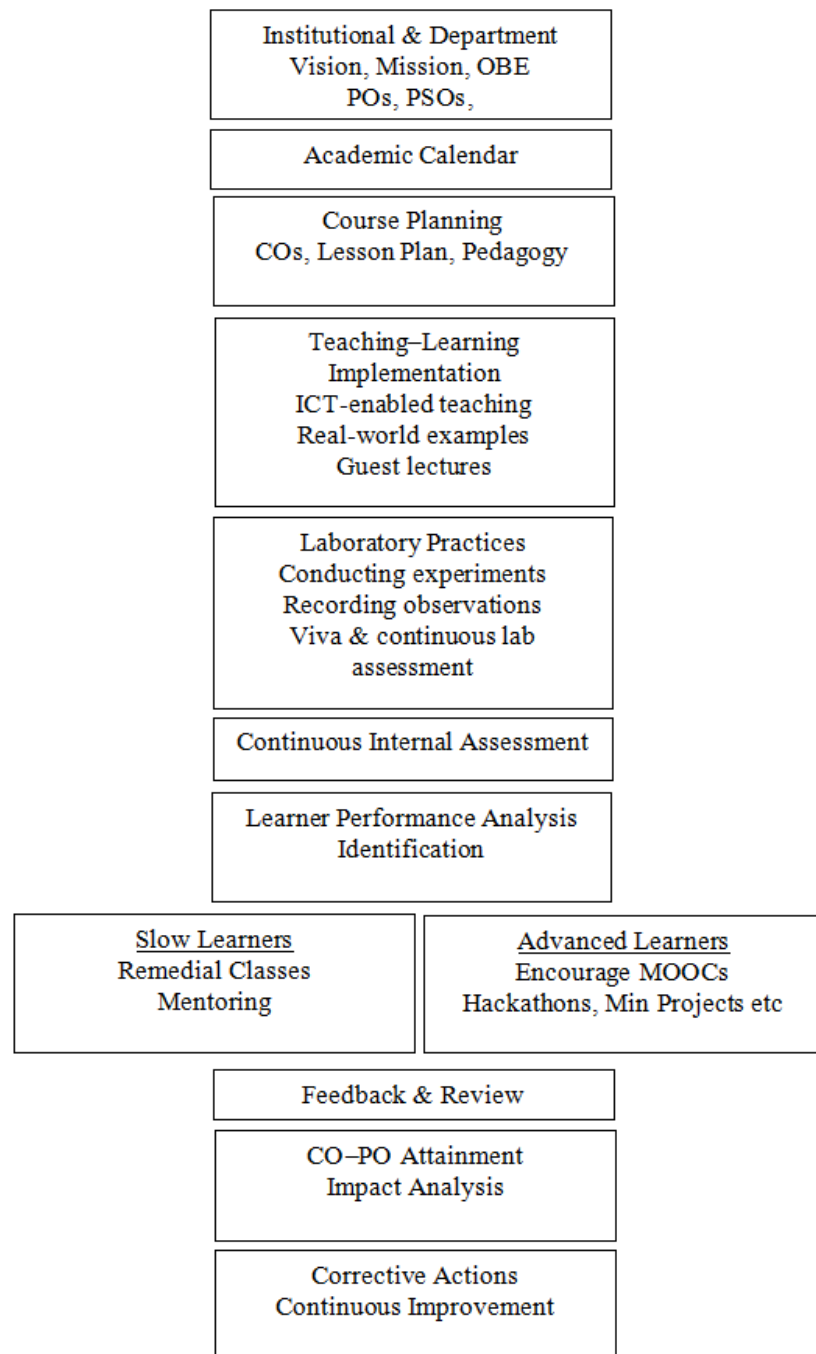
2 OUTCOME-BASED TEACHING LEARNING (120)

Total Marks 120.00

2.1 Describe Processes Followed to Ensure Quality of Teaching & Learning (20)

Total Marks 20.00

To strengthen the teaching-learning process, following initiatives have been taken:



Adherence to Academic calendar

Preparation of Academic Plan: Calendar of Events of the Department showing the schedule of the continuous internal examinations (tests), assignments, quizzes, payment of fees, syllabus coverage details and extracurricular activities in the Department is prepared in alignment with that of the Institute prior to the commencement of each semester, a sample of which is presented below for the consecutive 3 academic years.

 NICHE NATIONAL INSTITUTE FOR CONSTRUCTION EDUCATION 1000 UNIVERSITY DRIVE, SUITE 1000 ANN ARBOR, MI 48106-1500 TEL: 734/769-7000 FAX: 734/769-7001 WWW.NICHE.EDU	
MOHAMED ELAM CENTER FOR HIGHER EDUCATION 1000 UNIVERSITY DRIVE, SUITE 1000 ANN ARBOR, MI 48106-1500 TEL: 734/769-7000 FAX: 734/769-7001 WWW.NICHE.EDU	
Academic Year 2023-24 Odd Semester Academic Schedule - All NICE/PU & SACS	
Activity/Event	Date
First day of Instruction (Student Information Program)	27 September 2023 (Monday) to 28 September 2023 (Friday)
Commencement of Regular Classes	1 st September 2023 (Monday)
Examination of Class Program - Course Committee and Forwarding the committee members' list to the Academic Affairs Office	12 th September 2023 (Friday)
First Class Committee Meeting for reviewing the Regulations and Course Committee Meeting to discuss the syllabus of instruction	19 th September 2023 (Monday)
First Programme Committee Meeting to review the syllabus coverage details	17 th October 2023, Wednesday
Forwarding the syllabus coverage details to the concerned Authorities	17 th October 2023, Thursday
Commencement of First In-class Test	17 th October 2023, Friday
Review of First In-class Test Performance of Students and reporting academically poor students to the Student Monitor (Class Committee & Course Committee Meeting)	23 rd October 2023, Wednesday
Forwarding the academic performance of students and attendance details to the concerned Authorities by class committee chairman	23 rd October 2023, Wednesday
Commencement of First In-class Practical Test	19 th October 2023, Monday
Second Programme Committee Meeting to review the syllabus coverage details	16 th November 2023, Thursday
Forwarding the syllabus coverage details to the concerned Authorities	17 th November 2023, Friday
Commencement of Second In-class Test	20 th November 2023, Monday
Review of Second In-class Test Performance of Students and reporting academically poor students to the Student Monitor (Class Committee & Course Committee Meeting)	26 th November 2023, Tuesday
Forwarding the academic performance of students and attendance details to the concerned Authorities by class committee chairman	26 th November 2023, Tuesday
Payment of Odd Semester Examination Fee	27 th November 2023 to 1 st December 2023
Payment of Odd Semester Examination Fee with First	2 nd December 2023 to 10 th December 2023
Commencement of Second In-class Practical Test	27 th November 2023, Wednesday
Third Programme Committee Meeting to review syllabus coverage details	1 st January 2024, Friday
Forwarding the syllabus coverage details to the concerned Authorities	1 st January 2024, Friday
Commencement of Third In-class Test	8 th January 2024, Monday
Review of Third In-class Test Performance of Students (Class Committee & Course Committee Meeting)	12 th January 2024, Friday
First day of Instruction	12 th January 2024, Friday
Commencement of First In-class Practical Examination	13 th January 2024, Friday
Commencement of First In-class Theory Examination	14 th January 2024, Saturday
Commencement of First In-class Theory Examination	24 th January 2024, Wednesday
Commencement of First In-class Theory Examination	1 st February 2024, Wednesday

To: All Directors, Deans and Heads

Copy To:

1. P.A. to Chancellor
2. P.A. to Pro-Chancellor
3. P.A. to Pro-Chancellor (Academics)
4. P.A. to Vice-Chancellor
5. Pro-Vice-Chancellor (Academics)
6. The Registrar
7. Controller of Examinations

For Vice-Chancellor (Academics)

Fig 2.1.1: Academic Schedule(2023-2024) Odd Sem



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NOORUL ISLAM CENTRE
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Kanyakumari, Thoothukudi, Kanyakumari District, Tamil Nadu - 629 180 | info@nicheuniversity.com | +91 9486855101, 04651 250566

Academic Year 2023-24 (Even Semesters)

Academic Schedule
(S8 UG - Classes)

Academic Activities

Project work Data collection / Internship	10 th December 2023 - 31 st January 2024
Instruction begins for S8 UG - Classes	1 st February 2024, Thursday
Commencement of First Series Test for S8 UG - Classes	26 th February 2024, Monday
Payment of Even Semester Examination Fee	11 th March 2024 to 15 th March, 2024
Payment of Even Semester Examination Fee with fine	18 th March 2024 to 15 th March 2023
Commencement of Second Series Test for S8 UG Classes	18 th March 2024, Monday
Second Phase Project/Main Project Report Submission Date for S8 UG Students	15 th April 2024, Monday
Commencement of Third Series Test S8 UG Classes	17 th April 2024, Wednesday
Last day of instruction for S8 UG Classes	19 th April 2024, Friday
Commencement of University Examinations for S8 UG Classes	22 nd April 2024, Monday

To:

Copy To:

1. All HODs, Deans and Directors

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

Pro-Vice-Chancellor (Academic)

Fig 2.1.2: Academic Schedule(2023-2024) Even Sem



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Academic Year 2024-25 (Even Semesters)

Academic Schedule
(S8 UG, S6 B.Sc. FS Classes)

Academic Activities

Project work Data collection / Internship	December 2024 - 31 st January 2025
Instruction begins for S8 UG, S6 B.Sc. FS Classes	2 nd February 2025, Monday
Commencement of First Series Test for S8 UG, S6 B.Sc. FS Classes	27 th February 2025, Thursday
Payment of Even Semester Examination Fee	10 th March 2025 to 14 th March, 2025
Payment of Even Semester Examination Fee with fine	17 th March 2025 to 21 st March 2025
Commencement of Second Series Test for S8 UG, S6 B.Sc. FS Classes	20 th March 2025, Thursday
Second Phase Project/Main Project Report Submission Date for S8 UG Students	31 st April 2025, Monday
Commencement of Third Series Test S8 UG, S6 B.Sc. FS Classes	23 rd April 2025, Wednesday
Last day of instruction for S8 UG, S6 B.Sc. FS Classes	25 th April 2025, Friday
Commencement of University Examinations for S8 UG, S6 B.Sc. FS Classes	30 th April 2025, Wednesday

To:

Copy To:

1. All HODs, Deans and Directors

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

Pro-Vice-Chancellor (Academic)

Dr. A. SHAJIN NARAYANAN M.E (CSE), Ph.D.

Pro Vice-Chancellor - Academics

Noorul Islam Centre for Higher Education

Kanyakumari, Thoothukudi

Kanyakumari District, Tamil Nadu, India.

Fig 2.1.3: Academic Schedule(2024-2025) Odd Sem

	KANTAWADI EDUCATION GROUP	SCHOOL CENTRE FOR HIGHER EDUCATION Institutional Office info@kanteducationgroup.com , schoolcentre@kanteducationgroup.com , exam@kanteducationgroup.com www.kanteducationgroup.com 02-26111000 02-26111001
Academic Year 2024-25 (OOD Semesters)		
Academic Schedule - All SS, ST & UG Classes (Except SS BASLP)		
Academic Activities		Date
Description		
Instruction begins for All SS & ST UG Classes (Except SS BASLP)		3 rd July 2024, Wednesday
Parents of Class Programme / Course Coordinator and Forwarding the committee members to meet the Academic Affairs Officer.		3 rd July 2024, Friday
First Class Committee Meeting for reviewing the Regulations and Course Committee Meeting to discuss the syllabus details.		8 th July 2024, Monday
First Programme Committee Meeting to review the syllabus coverage details and forwarding the syllabus coverage details to the concerned Authorities.		1 st August 2024, Thursday
Commencement of First Semester Test for SS,ST & UG Classes (Except SS BASLP).		3 rd August 2024, Monday
Review of First Semester Test Performance of Students and reporting academically poor students to the Student Mentor (Class Coordinator & Centre Committee Meetings).		14 th August 2024, Wednesday
Forwarding the academic performance of students and attendance details to the University Authorities by class coordinator chairman.		16 th August 2024, Friday
Commencement of First Internal Practical Test		16 th August 2024, Monday
Second Programme Committee Meeting to review the syllabus coverage details and forwarding the syllabus coverage details to the concerned Authorities.		16 th August 2024, Thursday
Commencement of Second Semester Test for SS, ST UG Classes (Except SS BASLP).		23 rd September 2024, Monday
Payment of Old Semester Examination Fee		23 rd September 2024 to 23 rd September 2024
Furnish of Old Semester Examination Fee With Bill		30 th September 2024 to 4 th October 2024
Review of Second Semester Test Performance of Students and reporting academically poor students to the Student Mentor (Class Coordinator & Centre Committee Meetings).		3 rd October 2024, Thursday
Forwarding the academic performance of students and attendance details to the University Authorities by class coordinator chairman.		3 rd October 2024, Thursday
Commencement of Second Internal Practical Test		18 th October 2024, Wednesday
Third Programme Committee Meeting to review syllabus coverage details and forwarding the syllabus coverage details to the concerned Authorities.		4 th November 2024, Sunday
Commencement of Third Semester Test Model Examination for SS&T UG Classes (Except SS BASLP).		06 th November 2024, Wednesday
Review of Third Semester Test Model Examination Performance of Students (Class Committee & Course Committee Meeting).		13 th November 2024, Wednesday
Late day of Instruction for SS,ST & UG Classes (Except SS BASLP)		14 th November 2024, Wednesday
Commencement of Final Semester Examinations		18 th November 2024, Monday
Commencement of First Semester Classes		06 th January 2025, Monday

JAN 2026JAN 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 2026

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
	17	18	19	20	21	
8	9	10	11	12	13	14
	22	23	24	25	26	
15	16	17	18	19	20	21
	27	28	29	30	31	
22	23	24	25	26	27	28
	32	33	34	35	36	

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

Pedagogical Initiatives - Content Delivery / method of instruction

The Record of Academic Work includes

- Department Vision and Mission
- Programme Outcomes (POs)
- Course Outcomes (COs)
- Mapping of COs with POs
- Syllabus of the Subject
- Instructional Delivery Plan
- Evaluation Plan
- Course Delivery Plan
- Subject Coverage Details
- Textbooks, Reference Books, Web Resources
- Students Attendance Record
- Laboratory List of Experiments
- Major Equipments/Software required for conducting the Lab
- Laboratory Experiments Completion Details
- Course Outcome Distribution & Bloom's Taxonomy Distribution in Question Papers
- Remedial Actions Taken Report
- Course Attainment

Pedagogy play an important role in delivering contents of syllabus and it varies with the audience. Course allocation is made based on the choice and expertise of the faculty members in advance by following a well-defined process before the commencement of each semester. Each faculty member prepares a detailed lesson plan in accordance with the Record of Academic work. Various pedagogical methods adopted for effective teaching and learning process to achieve the expected outcomes of teaching are:

- **ICT based learning:** Use of LCD projectors, Smart boards and provision for interactive teaching learning
- **Collaborative / Cooperative teaching/ learning:** Students share knowledge by discussing topics in small group or in peer mode.
- **Laboratory/ video based demonstration:** Real world system or process / parts of whole system or process are demonstrated using modern tools.
- **Group discussion/ presentation:** Students learn through group discussion or asked to deliver short presentation on a topic.
- LMS (Learning Management System)



Fig 2.1.6: ICT BASED LEARNING



Fig2.1.7 : GROUP DISCUSSION

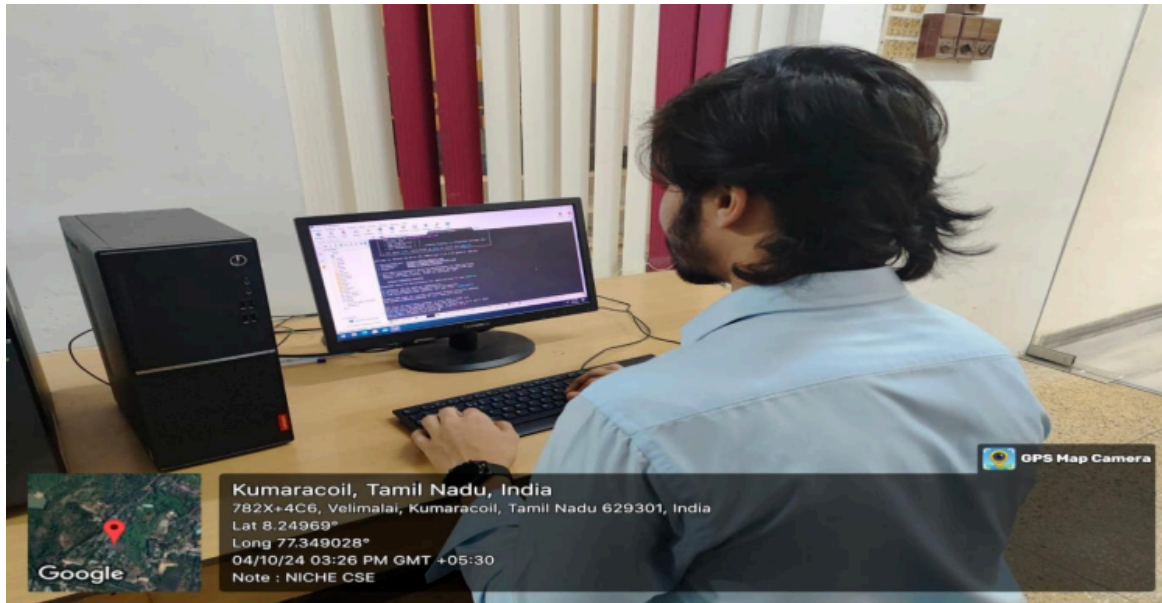


Fig2.1.8 : LABORATORY BASED DEMONSTRATION



Fig 2.1.11: Collaborative learning

2.2 Quality of Student Capstone Project (25)

Total Marks 25.00

Project Based Learning (PBL) is significantly more effective than traditional instruction to train competent and skilled practitioners and it promotes long-term retention of knowledge and skills. It is an innovative practice that is used to implement Outcome Based Education.

Students are compulsorily to take project work in 7th and 8th semesters. 2-4 students in a group are allowed to identify the project area / title, obtain the consent of faculty/industry professionals to guide hem. At the end of the each semester, projects are evaluated by the external faculty members.

Student Batch Formation

- Project Coordinators instruct students to form batches according to their area of interest, with a maximum of two students per batch.
- Batch-wise student details along with their domain interests are submitted to the Project Coordinator.

Project Guide Allocation

- The Head of the Department, in consultation with the Project Coordinator, appoints faculty members as project guides for each batch.
- Students are instructed to submit their finalized project titles and attend review meetings as scheduled by the Project Coordinator.

Initiatives

- Students, in consultation with their allotted project guides, explore and finalize project ideas within their chosen domain or area of interest.
- Copies of previous years' project reports are maintained in the Department library to encourage improvement over earlier work and to avoid repetition.

Faculty members further encourage students:

- To undertake in-house projects by utilizing the facilities available within the Department.
- To participate in project exhibitions by providing platforms to showcase their innovations and project outcomes.
- To publish their work in reputed journals and conferences.

Types and Relevance of Projects

- Based on the functional area and nature of work, projects are categorized as:
- Application-oriented projects
- Research-oriented projects
- Projects addressing industrial problem statements
- Students with the guidance of the supervisors undertake projects in research level, projects towards product and projects in applied engineering.

Table 2.2.1 -B. E Project Details 2023-2024

Batch No	Register Number & Name of Students	Project Title	Guide Name
1	Mohamed Ashik M 1120208010	Train accident prevention system using wireless sensor network	Dr. J. E. Judith
	Naveen Kumar K 1120208021		

2	Riya Rajeevan C 1120208016	Automatic speed limiter for ordinary vehicles using RFID technology and obstacle detection	Dr. A. Anitha
3	Nithin V N 1120208014 Sumith John S 1120208018	STREET LIGHT AUTOMATION WITH MOTION DETECTION	Dr. A. Anitha
4	Asan Methap.M 1120208002 Bala Surya B 1121308001	IOT based smart agriculture model with alert system and sms bot	Dr. J. E. Judith
5	Murugan G 1120208013 Ritesh R 1121308004	SENTIMENTAL ANALYSIS OF PRODUCT BASED REVIEWS USING MACHINE LEARNING	Ms. C. R. Jothy
6	Jeolin Sibi S 1120208005 Krithiya T 1120208008	TOM & NIRAL-C TOUCHLESS OXYGEN MONITORING FOR FEVER TYPE DIAGNOSIS	Dr. B. Ben Sujitha
7	Sijinmon S 1120208017 Hareesh Kumar S 1120208004	SMART IRRIGATION USING IOT WITH PREDITION MODEL REAL TIME CLOUD DATABASE	Ms. C. R. Jothy
8	Rishigesh V 1120208015 Jerin S J 1120208006	Sewage gas monitoring& overflow blockage detection using iot with sms bot and alert system	Dr. G. Venifa Mini

9	Nithin Krishnan S 1121308003	ELECTRIC VEHICLE CHARGING STATION IDENTIFICATION	Mr. G. Jelintaric
	Sreeraj S 1122308907		
10	Mohamed Riyaz K 1120208011	DEEP LEAF DISEASE PREDICTION NETWORK FOR AUTOMATIC LEAF DETECTION SYSTEM	Dr. G. Beni
	Akshai Prasad P S 1120208001		
12	Donal Jose 1122308911	FARMMATE Empowering farmers with essential agricultural information	Mr. G. Jelintaric
	Akshai S Kumar 1122308905		
13	Jovin Jayas J 1120208007	AIR POLLUTION DETECTION	Dr. V. G. Ranjith
14	Jino R 1120237001	Engineering: Comprehensive learning platform for diverse engineering disciplines using flutter	Dr. G. Venifa Mini
	Md Belal Ansari 1120237002		
15	Tommy Durai 1120208019	Privacy preserving storage and retrieval in cloud image repositories	Dr. B. Ben Sujitha

Tab 2.2.2 List of students undertaking field projects 2024-2025 [EVEN]

Programme name	Name of the student undertaking field projects	Title of the Project/ Internship/Field Visit (Project)	Place of Work	Duration
B. E. CSE	Adarsh S	Prediction and Analysis of Air Quality Index based on improved Neural Network	NICHE Campus	6 months
B. E. CSE	Ajimsha M	AI – Based Virtual Try-Ons in Jewellery E-Commerce Applications	NICHE Campus	6 months

B. E. CSE	Arnold Jansson S	Unity 3D Survival Shooter Game	NICHE Campus	6 months
B. E. CSE	Godferry Lexto A	Intelligent Petition System for Efficient Categorization and Tracking	NICHE Campus	6 months
B. E. CSE	Jayden Jass M	Unity 3D Survival Shooter Game	NICHE Campus	6 months
B. E. CSE	Mehek S	Web-based Mental Health Detection Using NLP & Machine Learning	NICHE Campus	6 months
B. E. CSE	Mohamed Parvez M	AI-Powered Deaf Companion System for Inclusive Communication between Deaf and Hearing Individuals	NICHE Campus	6 months
B. E. CSE	Pratheesh G	Unity 3D Survival Shooter Game	NICHE Campus	6 months
B. E. CSE	Rudra B R	Design and Fabrication of AI-Based Pest Detection and Ra Fruit Scan Machine	NICHE Campus	6 months
B. E. CSE	Sanu T	A Real-time Cybersecurity Dashboard for Threat Monitoring and Vulnerability Management	NICHE Campus	6 months
B. E. CSE	Sarika S	Design and Fabrication of AI-Based Pest Detection and Ra Fruit Scan Machine	NICHE Campus	6 months
B. E. CSE	Varsha J H	AI-Powered Deaf Companion System for Inclusive Communication between Deaf and Hearing Individuals	NICHE Campus	6 months

B. E. CSE	Abi Shalin J	AI-Powered Deaf Companion System for Inclusive Communication between Deaf and Hearing Individuals	NICHE Campus	6 months
B. E. CSE	Jerald Jebin J	Intelligent Petition System for Efficient Categorization and Tracking	NICHE Campus	6 months
B. E. CSE	Nikhil Nagu S J	AI-Powered Deaf Companion System for Inclusive Communication between Deaf and Hearing Individuals	NICHE Campus	6 months
B. E. CSE	Rabel Sakthiraj J	Intelligent Petition System for Efficient Categorization and Tracking	NICHE Campus	6 months
B. E. CSE	Raghul Blesson G	Design and Fabrication of AI-Based Pest Detection and Ra Fruit Scan Machine	NICHE Campus	6 months
B. E. CSE	Thilipan A	Prediction and Analysis of Air Quality Index based on improved Neural Netwrok	NICHE Campus	6 months
B. E. CSE	Ebish R	Prediction and Analysis of Air Quality Index based on improved Neural Netwrok	NICHE Campus	6 months
B. E. CSE	Abisheak B	Intelligent Petition System for Efficient Categorization and Tracking	NICHE Campus	6 months
B. E. CSE	Siva Chanthru K	Terminating-AWS Instances using TAG	NICHE Campus	6 months

B. E. CSE	Akhieal John A S	Prediction and Analysis of Air Quality Index based on improved Neural Netwrok	NICHE Campus	6 months
B. E. CSE	Jogan Roy K	Unity 3D Survival Shooter Game	NICHE Campus	6 months
B. E. CSE	Adshaya Shanu J	Design and Fabrication of AI-Based Pest Detection and Ra Fruit Scan Machine	NICHE Campus	6 months
	Anson Gharvi R J	Web-based Mental Health Detection Using NLP & Machine Learning	NICHE Campus	6 months
	Hari Sankar S	AI – Based Virtual Try-Ons in Jewellery E-Commerce Applications	NICHE Campus	6 months

Process for Monitoring and Evaluation

Each project group is assigned a faculty guide for continuous monitoring and mentoring throughout the project duration. Periodic reviews are conducted at predefined stages such as problem definition, literature survey, system design, implementation, testing, and final demonstration. The evaluation process includes assessment of project documentation, progress presentations, and demonstration of working models or prototypes, wherever applicable. This structured review mechanism ensures timely completion of projects and continuous quality improvement.

A review panel comprising two to three faculty members from different domains is constituted for project evaluation. A total of four reviews are conducted during the project development period.

Zeroth Review

During the Zeroth Review, the project team identifies the project domain and defines the problem within the selected domain. The following documents, duly approved by the Project Guide, are submitted to the Project Coordinator:

- Project Title
- Abstract

Literature Review

The project literature review is carried out in the relevant project area. The reviewed literature, along with the Project Guide's approval, is submitted to the Project Coordinator.

First Review

In the First Review, the project team delivers a detailed presentation on the problem identified based on the literature survey. The list of project modules, work plan, and details of collected data are discussed and evaluated.

Second Review

In the Second Review, the team presents the selected technical stack, partial implementation of the project, and incorporates the suggestions provided during the First Review.

Final Review

The Final Review consists of a comprehensive project presentation along with a live demonstration of the working model or prototype. The team presents conclusions, outcomes, and possible future enhancements of the project. The project is demonstrated to the review panel for final evaluation.

Upon successful completion of all reviews, students are permitted to prepare the project report in the prescribed format.

- The project report is reviewed and corrected by the respective faculty guides to ensure accuracy, authenticity, and proper structure.
- After successful completion of corrections, students are permitted to bind and submit the final project report.
- Students are asked to publish their project work and present the project in Conferences/Symposium.
- Internal assessment marks are awarded based on the cumulative evaluation scores obtained during the periodic reviews.
- End-semester project examination is conducted with internal and external examiners appointed by the COE.

Process to Assess Student Project Performance

The performance of individual team members is assessed during review presentations based on the following criteria:

- Communication skills
- Confidence and clarity in project work
- Overall individual contribution to the project

The overall project performance is evaluated based on:

- Depth of knowledge and individual student contributions
- Team coordination and integration of work
- Time management and adherence to schedules
- Quality and effectiveness of the final project output

2.3 Internship/Industrial Training (10)

Total Marks 10.00

At the end of every semester or in vacation time students are allowed to carry out internship in reputed industries/companies to get practical exposure from industries . It helps the students to bridge the gap between the subject's studies and industrial need.

Process

The department ensures that all students undergo Internship / Industrial Training as part of the curriculum to gain practical exposure and industry-oriented skills.

The process is as follows:

1. The department identifies reputed industries, R&D organizations, startups, and government organizations through MoUs and industry networks.
2. Students are informed about internship opportunities through notices, emails, and mentoring sessions.
3. Students apply to industries relevant to their domain with approval from the Internship Coordinator / Head of Department.
4. Mentor provides guidance and monitoring and assure the participation of all the students
5. On completion, students submit:
 - i. Internship report
 - ii. Completion certificate from the industry
 - iii. Presentation/Viva-voce evaluated by a departmental committee
6. Minimum duration:
 - i. For Sem 3 : Minimum 2 weeks
 - ii. For Sem 6: Minimum 4 weeks
7. When conducted:
 - i. Summer vacation after II/III year
 - ii. Semester break
8. Credits: 2
9. Assessment Method

Evaluation is carried out based on:

- i. Internship report quality
- ii. Industry supervisor feedback
- iii. Student presentation and viva-voce

POs/PSOs Addressed

POs: PO7,PO8,PO9,PO10,PO11,PO12

PSOs: PSO2,PSO3

Internship Details

Academic Year :2023-2024 III YEAR

Table 2.3.1: List of students undertaking Field projects/internships/Research projects/Field visit 2023-2024

Sl. No	Name of the Student	Name of the Organization	Title	Period
1.	Adarsh S	Acutro Technologies	AI&ML	3/6/24-19/6/24
2.	Ajimsha M	Shrishti Innovative Computer Systems	AI&ML	24/6/24-3/7/24
3.	Arnold Jansson S	Acutro Technologies	AI&ML	3/6/24-19/6/24
4.	Godferry Lexto A	Avelva IT india Pvt.Ltd	AI&ML	1/6/24-15/6/24
5.	Jayden Jass M	Acutro Technologies	AI&ML	3/6/24-19/6/24
6.	Mehek S	Acutro Technologies	AI&ML	3/6/24-19/6/24
7.	Mohamed Parvez M	Oqtis soft	Flutter	1/6/24-15/6/24
8.	Pratheesh G	Acutro Technologies	AI&ML	3/6/24-19/6/24
9.	Rudra B R	Acutro Technologies	AI&ML	3/6/24-19/6/24
10.	Sanu T	Karka Software Academy	Python Development	1/6/24-17/6/24
11.	Sarika S	Acutro Technologies	AI&ML	3/6/24-19/6/24
12.	Varsha J H	Acutro Technologies	AI&ML	3/6/24-19/6/24
13.	Abi Shalin J	Acutro Technologies	AI&ML	3/6/24-19/6/24
14.	Nikhil Nagu S J	Acutro Technologies	AI&ML	3/6/24-19/6/24
15.	Rabel Sakthiraj J	Acutro Technologies	AI&ML	3/6/24-19/6/24
16.	Thilipan A	Acutro Technologies	AI&ML	3/6/24-19/6/24
17.	Ebish R	Acutro Technologies	AI&ML	3/6/24-19/6/24

18.	Siva Chanthru K	AK Infopark	Devops	4/6/24-18/6/24
19.	Jogan Roy K	Acutro Technologies	AI&ML	3/6/24-19/6/24
20.	Adshaya Shanu J	Acutro Technologies	AI&ML	3/6/24-19/6/24
21.	Anson Gharvi R J	Acutro Technologies	AI&ML	3/6/24-19/6/24

Academic Year :2023-2024 IV YEAR**Table 2.3.2: List of students undertaking Field projects/internships/Research projects/Field visit 2023-2024**

Sl. No	Name of the Student	Name of the Organization	Title	Period
1.	Akshai Prasad P S	GENZEE Technologies LLP	Hybrid Mobile Application Development	1/8/23-15/8/23
2.	Aswin. S	GENZEE Technologies LLP	Hybrid Mobile Application Development	1/8/23-15/8/23
3.	Jeolin Sibi S	Shrishti Innovative computer systems	React JS Web Development	4/9/23-8/9/23
4.	Jovin Jayas J	GENZEE Technologies LLP	Hybrid Mobile Application Development	1/8/23-15/8/23
5.	Krithiya T	Shrishti Innovative computer systems	React JS Web Development	4/9/23-8/9/23
6.	Mohamed Riyaz K	GENZEE Technologies LLP	Hybrid Mobile Application Development	1/8/23-15/8/23
7.	Nithin V N	Emglitz Technologies	IoT	15/7/23-28/7/23
8.	Akshai S Kumar	GENZEE Technologies LLP	Hybrid Mobile Application Development	19/7/23-2/8/23
9.	Donal Jose	GENZEE Technologies LLP	Hybrid Mobile Application Development	19/7/23-2/8/23

Academic Year :2023-2024 II YEAR**Table 2.3.3: List of students undertaking Field projects/internships/Research projects/Field visit 2023-2024**

Sl. No	Name of the Student	Name of the Organization	Title	Period
1.	Jinoslin S	Extazee software solutions	Python	3/6/24-29/6/24
2.	M A Anvar Sha	Shrishti Innovative computer solutions	MERN Stack	10/6/24-25/6/24
3.	Mefin S R	Ether Infotech	Data Science	10/6/24-28/6/24
4.	Mohamed Haaris Ahamed S	Wizbees	Web developer	11/6/24-25/6/24
5.	Mohammed Arsath M	Skycrave-The Digital Marketing Company	Web Development	10/6/24-24/6/24
6.	Sanosh Safeer	Shrishti Innovative computer solutions	Python	5/6/24-20/6/24
7.	Shehanaz Begum S	Extazee software solutions	Python	3/6/24-29/6/24
8.	Mohamed aashik S	Wizbees	Web developer	11/6/24-25/6/24
9.	Tenish J K Rajan	Skycrave-The Digital Marketing Company	UI/UX designing	10/6/24-24/6/24

Academic Year :2023-2024 II YEAR**Table: List of students undertaking Field projects/internships/Research projects/Field visit 2023-2024**

Sl. No	Name of the Student	Name of the Organization	Title	Period
1.	Abin Santo M	Dagslore Technology solutions	IoT	3/6/24-20/6/24
2.	Ashir N	Shrishti Innovative computer solutions	Python	5/6/24-20/6/24
3.	Faheema Joohi S	Brassy Technologies	Mobile App Development	10/6/24-28/6/24

4.	Godson Manuel S R			
5.	Govind G	Synnefo Solutions	System Administration	3/6/24-20/6/24
6.	Jefin V	Skycrave-The Digital Marketing Company	UI/UX designing	10/6/24-24/6/24
7.	J.F. JERISH FRANK	Dagslore Technology solutions	IoT	3/6/24-20/6/24
8.	Krishna S Ayyappan	Techneat info solutions private limited	Full stack Development	5/6/24-27/6/24
9.	M.M. Aslam	Shrishti Innovative computer solutions	Python	5/6/24-20/6/24
10.	Midhunsha S J	Synnefo Solutions	System Administration	3/6/24-20/6/24
11.	Milan R C	Skycrave-The Digital Marketing Company	UI/UX designing	10/6/24-24/6/24
12.	Najmal N S	Dagslore Technology solutions	IoT	3/6/24-20/6/24
13.	Nithish Kumar S	AK Infopark	Full stack Web Development	10/6/24-25/6/24
14.	Ronald Roy L	Skycrave-The Digital Marketing Company	UI/UX designing	10/6/24-24/6/24
15.	Sandra S	Shrishti Innovative computer solutions	Python	17/6/24-1/7/24
16.	Shahanas S	Shrishti Innovative computer solutions	MERN Stack	10/6/24-25/6/24
17.	Shibu	Dagslore Technology solutions	IoT	3/6/24-20/6/24
18.	Soofiya A	Synnefo Solutions	System Administration	3/6/24-20/6/24

19.	Syed Muhammad Mehdi S	Acutro Technologies pvt Ltd	AI&ML	3/6/24-19/6/24
20.	Ubanesh K	Skycrave-The Digital Marketing Company	Web Development	10/6/24-24/6/24
21.	Vaishnavi S	Acutro Technologies pvt Ltd	AI&ML	3/6/24-19/6/24
22.	Vishanth V	Acutro Technologies pvt Ltd	AI&ML	3/6/24-19/6/24
23.	Kodhar Meeran Halith P	Wizbees	Web developer	11/6/24-25/6/24
24.	Ragul R	Skycrave-The Digital Marketing Company	Web Development	10/6/24-24/6/24





2.4 Seminar and Mini/Micro Projects (10)

Total Marks 10.00

Mini projects are slightly larger Micro Projects and more structured projects that integrate multiple concepts from a subject. They usually take 1–3 weeks to complete and involve planning, design, implementation, and testing. Seventh semester students are allowed to do their Mini projects based on their PO/CO mentioned in the Curriculum. Mini projects help students develop problem-solving skills, teamwork, documentation skills, and real-world application knowledge.

Process:

Students are required to select seminar topics and mini/micro project ideas relevant to their programme outcomes and emerging trends in technology. Seminar topics are finalized in consultation with faculty mentors, followed by in-depth literature review, preparation of technical content, and formal presentation. Mini/Micro projects are carried out individually or in small teams under faculty supervision, involving problem identification, requirement analysis, design, implementation, and documentation. Continuous monitoring, periodic reviews, and final evaluation are conducted using well-defined rubrics focusing on innovation, technical depth, implementation quality, teamwork, and presentation skills.

POs/PSOs Addressed:

- **PO-A:** Application of engineering knowledge and analytical skills through topic analysis and project execution.
- **PO-B:** Effective use of modern tools, technologies, and software platforms.
- **PO-C & PO-D:** Design and development of feasible solutions for real-world or domain-specific problems.
- **PO-E:** Investigation and research skills through literature survey, data collection, and analysis.
- **PO-F:** Emphasis on plagiarism-free reports, ethical referencing, and responsible use of information.
- **PO-G & PO-H:** Teamwork, communication, and presentation skills through seminars and collaborative projects.
- **PO-I & PO-J:** Promotion of self-learning and lifelong learning skills by exploring recent advancements.
- **PSOs:** Domain-specific skills are strengthened through projects aligned with programme specialization and industry-relevant applications.

CS22P1-MINI PROJECT (2024-2025)

SEVENTH SEMESTER

Batch No	Register Number & Name of Students	Project Title	Guide Name
1	Sarika. S	Design and fabrication of pest scan bot	Dr. B. Ben Sujitha
	Adshaya Shanu. J		
	Rudra. BR		
	Raghul Blesson. G		
2	Mehek. S	Solar Powered Smart Home Gardening System Using IOT	Dr. B. Ben Sujitha
	Anson Gharvi. R		
	Varsha. JH		
	Adarsh. S		

3	Mohamed Parvez. M	Medilab-Virus testing management system	Ms. C. R. Jothy
	Nikhil Nagu. SJ		
	Abishalin. J		
4	Arnold Jansson. S	Intelligent Automation Tower and Resources Allocation in Unity3D Tower defense games	Dr. G.BENI
	Pratheesh. G		
	Jogan Roy. K		
5	Abisheak. B	Flight Price Prediction Using ML	Dr. S.JEBIN BOSE
	Jayden Jass. M		
	Jerald Jebin. J		
6	God Ferry Lexto. A	Credit card Fraud Detection using ML	Mr.G.JELIN TARIC
	Rabel Sakthiraj. J		
	Akhieal John. AS		
7	Siva Chanthru. K	Terminating Instance using AWS	Dr.G.VENIFA MINI
8	Sanu. T	IoT based home automation system using Esp32 and Blynk	Dr.A.Anitha

CS22P1-MINI PROJECT-AIDS (2024-2025)

Batch No	Register Number & Name of Students	Project Title	Guide Name
1	Karthik Madhu	Online Dental System	Dr.G.VENIFA MINI
	Mohamed Haleem. N		
	Mohamed Zaheer. S		
	Shoaib Shaik Mohamed		

List of students undertaking field projects 2024-2025 [ODD]

(Project)

Programme name	Name of the student undertaking field projects	Title of the Project/ Internship/Field Visit (Mini Project)	Place of Work	Duration
B. E. CSE	Adarsh S	Solar-Powered Smart Home Gardening System using IoT	NICHE Campus	6 months
B. E. CSE	Ajimsha M	E-Commerce Application for Jewellery	NICHE Campus	6 months
B. E. CSE	Arnold Jansson S	Intelligence Automation of Tower and Resource Allocation in Unity 3D Tower Defence Games	NICHE Campus	6 months
B. E. CSE	Godferry Lexto A	Credit Card Fraud Detection Using Machine Learning	NICHE Campus	6 months
B. E. CSE	Jayden Jass M	Web-based Application for Flight Price Prediction using Machine Learning	NICHE Campus	6 months
B. E. CSE	Mehek S	Solar-Powered Smart Home Gardening System using IoT	NICHE Campus	6 months
B. E. CSE	Mohamed Parvez M	Medilab-Virus Management System	NICHE Campus	6 months
B. E. CSE	Pratheesh G	Intelligence Automation of Tower and Resource Allocation in Unity 3D Tower Defense Games	NICHE Campus	6 months
B. E. CSE	Rudra B R	Design and Fabrication of AI Pest Scan BOT	NICHE Campus	6 months
B. E. CSE	Sanu T	IoT – based Smart Home Automation using ESP32 and Blynk	NICHE Campus	6 months
B. E. CSE	Sarika S	Design and Fabrication of AI Pest Scan BOT	NICHE Campus	6 months

B. E. CSE	Varsha J H	Solar-Powered Smart Home Gardening System using IoT	NICHE Campus	6 months
B. E. CSE	Abi Shalin J	Medilab-Virus Management System	NICHE Campus	6 months
B. E. CSE	Jerald Jebin J		NICHE Campus	6 months
B. E. CSE	Nikhil Nagu S J	Medilab-Virus Management System	NICHE Campus	6 months
B. E. CSE	Rabel Sakthiraj J	Credit Card Fraud Detection Using Machine Learning	NICHE Campus	6 months
B. E. CSE	Raghul Blesson G	Design and Fabrication of AI Pest Scan BOT	NICHE Campus	6 months
B. E. CSE	Thilipan A	AI-driven Predictive system for Financial and Commodity Market Insights using Machine Learning	NICHE Campus	6 months
B. E. CSE	Ebish R	AI-driven Predictive system for Financial and Commodity Market Insights using Machine Learning	NICHE Campus	6 months
B. E. CSE	Abisheak B	Web-based Application for Flight Price Prediction using Machine Learning	NICHE Campus	6 months
B. E. CSE	Siva Chanthru K	Terminating Instance using AWS Services	NICHE Campus	6 months
B. E. CSE	Akhieal John A S	AI-driven Predictive system for Financial and Commodity Market Insights using Machine Learning	NICHE Campus	6 months
B. E. CSE	Jogan Roy K	Intelligence Automation of Tower and Resource Allocation in Unity 3D Tower Defense Games	NICHE Campus	6 months

B. E. CSE	Adshaya Shanu J	Design and Fabrication of AI Pest Scan BOT	NICHE Campus	6 months
B. E. CSE	Anson Gharvi R J	Solar-Powered Smart Home Gardening System using IoT	NICHE Campus	6 months
B. E. CSE	Hari Sankar S	E-Commerce Application for Jewellery	NICHE Campus	6 months

Through seminars and mini/micro projects, students gain hands-on experience, improve technical communication, and demonstrate measurable attainment of Programme Outcomes (POs) and Programme Specific Outcomes (PSOs)

2.5 Case Studies and Real-Life Examples (10)

Total Marks 10.00

Case studies and real-time examples are integrated into the teaching–learning process to strengthen students' understanding of theoretical concepts and their application in real-world scenarios. This approach encourages students to analyze practical problems, identify system requirements, and apply appropriate design methodologies. By working on real-time case studies, students develop analytical, design, and implementation skills, thereby enhancing higher-order cognitive abilities in line with Bloom's Taxonomy.

Real-time examples from industry-oriented applications are discussed during classroom sessions to help students understand the relevance of object-oriented concepts in software development. Case-based learning promotes active participation, teamwork, and problem-solving skills, contributing effectively to Course Outcome (CO) and Programme Outcome (PO) attainment.

Case Study Given to Students

Title: IoT Based Wearable Device for Heart Rate Monitoring

Programme / Semester: S4 M.E CSE

Description:

With the rapid growth of **Internet of Things (IoT)** and **wearable healthcare technologies**, monitoring vital parameters like heart rate has become more accessible and efficient. Wearable devices are widely used in healthcare, fitness, and remote patient monitoring systems. Protecting the **unique design** of such devices is essential to prevent imitation and ensure commercial advantage.

This case highlights how innovators have legally protected the design aspect of a wearable healthcare device through design registration.

PATENT

This case study has applied for Design patent

The registered design relates to the **external appearance** of an IoT-enabled wearable device intended for **heart rate monitoring**. The design focuses on:

- Compact and ergonomic structure
- Wearability and user comfort
- Aesthetic appeal suitable for continuous use
- Practical form factor supporting sensor integration

Real-Time Relevance and Applications

The registered design can be applied in:

- Smart healthcare monitoring systems
- Fitness and wellness tracking devices
- Remote patient monitoring platforms
- Elderly healthcare assistance systems
- IoT-based medical diagnostics



Fig 6.2.1 Certificate of Registration of Design Patent

CO-PO Mapping and Outcomes:

This case study addresses Course Outcomes CO1, CO2, CO3, and CO5. It is mapped to the Programme Outcomes PO-A, PO-B, PO-C, PO-G, PO-H, PO-I, and PO-J.

Learning Outcomes from the Case Study

- Demonstrates the practical implementation of IPR concepts
- Highlights the role of design protection in IoT products
- Encourages students and researchers to pursue design registration
- Shows the relevance of IPR in healthcare innovations

2.6 SWAYAM/NPTEL/MOOC/Self Learning (10)

Total Marks 10.00

POs/PSOs Addressed:

- **PO-9 & PO-12:** Promotion of self-learning and lifelong learning skills by exploring recent advancements.
- **PSO2:** Apply knowledge of emerging technologies such as AI, Machine Learning, Cybersecurity, and IoT to solve real world problems.

In order to have lifelong learning, third and final year students are provided with NPTEL/ MOOC/ SWAYAM courses which may highlight their relevance and contribution to POs and PSOs, is presented in the Table.

Tab 2.6.1 List of Students Enrolled in Online Certificate Courses (2023-2024)

Sl.No	Name of the Student	Class	Course Name	Date/ Duration	Organizer Details
1.	Krithiya T	S8 B. E CSE	Get Started with Python	21/04/2024	Coursera
2.	Krithiya T	S8 B. E CSE	Foundations of Data Science	07/04/2024	Coursera
3.	Faheema Joohi S	S4 B. E. CSE	Machine Learning	8 weeks (Jan-Mar'24)	NPTEL
4.	Faheema Joohi S	S4 B. E. CSE	Introduction to HTML	05/02/2024	Sololearn
5.	Faheema Joohi S	S4 B. E. CSE	Introduction to Node Js	27/01/2024	Geekster
6.	Faheema Joohi S	S4 B. E. CSE	Python for Machine Learning	Jan'2024	Great Learning
7.	Faheema Joohi S	S4 B. E. CSE	Web Development	4 weeks 15/11/2023 to 15/12/2023	CodSoft
8.	Asan Metap M	S8 B. E CSE	Human Resource Management	6 weeks 18/08/2023	INTERNSHALA

Tab 2.6.2 List of Students Enrolled in Online Certificate Courses (2024-2025)

Sl.No	Name of the Student	Class	Course Name	Date/ Duration	Organizer Details
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1.	Lina Nashwa	S4 B. E. CSE	Data Science	09/04/2024 – 09/06/2024	Acmegrade
2.	Faheema Joohi S	S6 B. E. CSE	iON Career Edge – Young Professional	07/06/2024 – 22/06/2024	Tata Consultancy Services
3.	Faheema Joohi S	S6 B. E. CSE	Stack Web Development	01/04/2024 – 30/06/2024	Tata Consultancy Services
4.	Faheema Joohi S	S6 B. E. CSE	HTML & CSS	13/12/2024	GUVI
5.	Faheema Joohi S	S6 B. E. CSE	JavaScript	13/12/2024	GUVI
6.	Faheema Joohi S	S6 B. E. CSE	Mobile App Development	10/06/2024 – 28/06/2024	GUVI

2.7 Solving Complex Engineering Problems Incorporating Sustainability Goals (20)

Total Marks 20.00

Batch No	Register Number & Name of Students	Project Title	Guide Name
1	Mehek. S	Solar Powered Smart Home Gardening System Using IOT	Dr. B. Ben Sujitha
	Anson Gharvi. R		
	Varsha. JH		
	Adarsh. S		

The above project comes under **SDG 12 – Responsible Consumption and Production**

- Optimizes **water usage** through IoT-based monitoring
- Prevents wastage of resources like water and energy

Batch No	Register Number & Name of Students	Project Title	Guide Name
2	Jovin Jayas J 1120208007	AIR POLLUTION DETECTION	Dr. V. G. Ranjith

This project comes under **SDG 11 – Sustainable Cities and Communities**

- Monitoring air quality improves **urban living conditions**
- **Supports smart and sustainable city planning**

Batch No	Register Number & Name of Students	Project Title	Guide Name
3	Sijinmon S 1120208017	SMART IRRIGATION USING IOT WITH PREDITION MODEL REAL TIME CLOUD DATABASE	Ms. C. R. Jothy

The above project comes under **SDG 2 – Zero Hunger**

- Improves **agricultural productivity**
- **Supports sustainable food production systems**

2.8 Steps Taken for Enhancing Industry Institute Partnerships (15)

Total Marks 15.00

INTEL UNNATI LAB

Intel® Unnati Lab is an industry-supported academic lab initiative by **Intel** aimed at improving students' **practical skills, employability, and innovation capacity**. It is mainly used in engineering and technology institutions. We have organised 5 days Intel Unnati FDP on “Empowering smart Educators and Research with AI and IoT: Strategies for the Future”



Fig 2.8.1 Intel Unnati Artificial Intelligence Lab

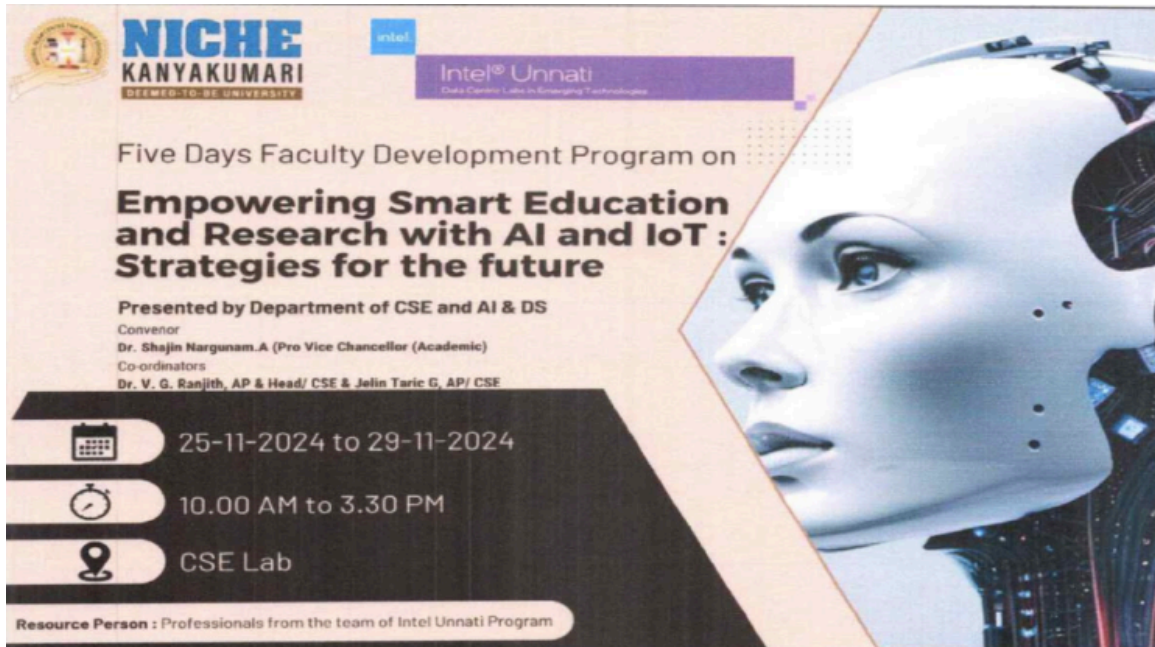


Fig 2.8.2 Intel unnati 5 Days FDP

iOS LAB

An **iOS Lab** is used for teaching and hands-on training in **mobile application development for Apple devices**. It helps students gain practical skills aligned with industry needs.

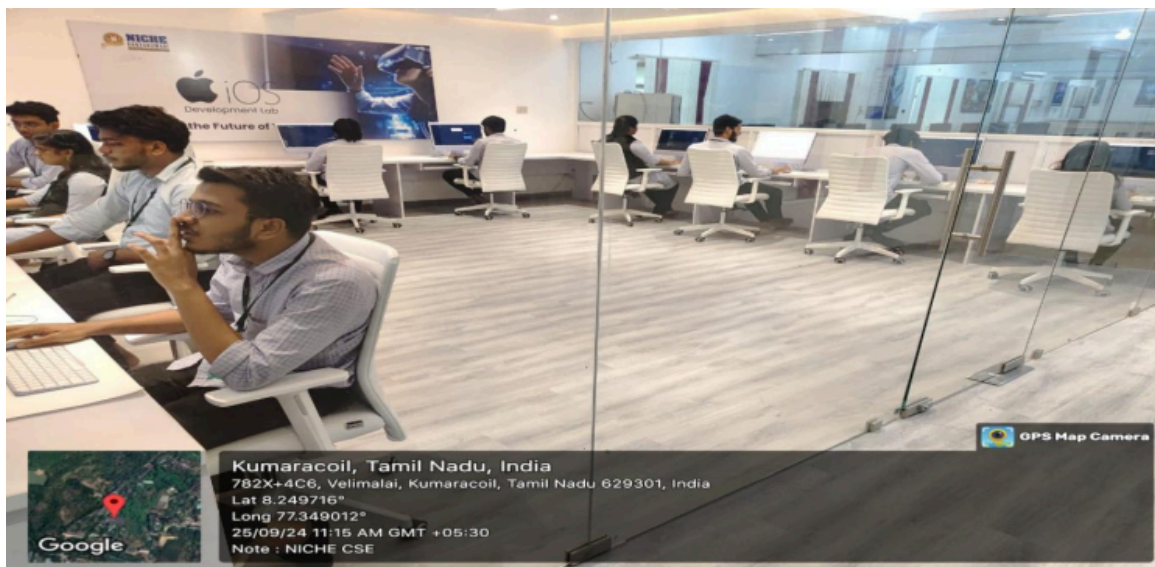


Fig 2.8.3 IoS Lab**MOU**

The institute has signed MoUs with reputed industries, startups, R&D organizations, and professional bodies to facilitate:

- Student internships and industrial training
- Joint research and consultancy
- Faculty industrial exposure
- Guest lectures and workshops

LIST OF MOU**Tab 2.8.1 List of MOU's**

S.NO	NAME OF THE COMPANY	DATE OF MOU	Academic Year
1	SREE BUDDHA COLLEGE OF ENGINEERING,ALAPPUZHA	24-02-2020	2019-2020
2	INBOX INFO SOLUTIONS,NAGERCOIL	24-04-2023	2022-2023
3	AK INFOPARK ,NAGERCOIL	23-04-2024	2023-2024
4	Feathers Software, Nagercoil	08-08-2024	2024-2025
5	Scope India Suffix Solutions	20-03-2025	2024-2025
6	ALO	24-11-2025	2025 - 2026
7	Fortura Tech	25-11-2025	2025 - 2026

3 OUTCOME-BASED ASSESSMENT (120)**Total Marks 120.00****3.1 Evaluation of Continuous Assessment: Assignments, Unit Tests, Mid-Term, etc. (10)****Total Marks 10.00**

The Department follows a well-defined, systematic, and transparent Continuous Assessment (CA) framework to ensure academic quality, fairness, and effective alignment with Course Outcomes (COs), Programme Outcomes (POs), and Programme Specific Outcomes (PSOs). Continuous assessment is designed to continuously monitor and evaluate students' conceptual understanding, analytical skills, problem-solving ability, and practical application of knowledge throughout the semester.

1. Components of Continuous Assessment

Series Tests

Three series tests are conducted during each semester to assess the attainment of defined Course Outcomes.

- **Series Test I:** Covers Unit I and the first half of Unit II, mapped to CO1 and CO2
- **Series Test II:** Covers the second half of Unit II and Unit III, mapped to CO2 and CO3
- **Series Test III:** Covers Units IV and V, mapped to CO4 and CO5

Each test is conducted for 50 marks, which are standardized to 100 marks. The average of the best two series test scores is calculated and scaled to 20 marks for internal assessment. An additional 5 marks are allotted for attendance, resulting in a total of 25 internal marks.

If any Course Outcome is found to be inadequately attained, corrective actions such as remedial classes, focused tutorials, guided practice sessions, and mentoring are implemented to improve student performance in subsequent assessments and the end-semester examination.

Assignments (Individual/Group / Problem-Based / Case Studies / Mini Projects)

Assignments serve as qualitative assessment tools that evaluate students' understanding, analytical thinking, problem-solving ability, and application of engineering concepts. These assessments are aligned with Bloom's Taxonomy and are designed to measure higher-order cognitive skills. Student performance is evaluated based on accuracy, methodology, and depth of understanding. Assignments complement series tests by providing insight into students' practical and conceptual competence.

Laboratory Assessment

Laboratory courses emphasize experiential learning and the practical application of theoretical concepts. Student assessment focuses on both the execution process and experimental outcomes to ensure comprehensive evaluation.

Components of Laboratory Assessment include:

- **Experiment Performance:** Accuracy, procedural correctness, and safe handling of laboratory equipment
- **Laboratory Records / Journals:** Documentation of procedures, observations, calculations, and results
- **Viva-Voce:** Evaluation of conceptual understanding and analytical reasoning related to experiments
- **Lab Assignments / Mini Projects:** Assessment of creativity, problem-solving skills, and integration of concepts

Internal Practical Tests:

- Two internal practical tests are conducted, each for 100 marks
 - **Practical Test I:** Covers the first half of the experiments.
 - **Practical Test II:** Covers the remaining experiments.
- The average of the two tests is converted to 20 marks.
- An additional 5 marks are awarded for attendance, totalling 25 internal marks.

This assessment structure ensures continuous evaluation of students' skills, understanding, and consistent laboratory performance.

2. Constructive Alignment with COs, POs, and PSOs

- Course Outcomes are clearly defined and approved by the Board of Studies

- All assessment instruments are explicitly mapped to relevant COs
- Questions are framed at appropriate Bloom's Taxonomy levels (L1–L6)
- CO–PO/PSO mapping ensures that assessments directly contribute to program-level outcome attainment

3. Quality Assurance in Question Paper Design

- Question papers follow a standardized model ensuring balanced coverage of syllabus, COs, and cognitive levels
- Peer review of question papers is conducted at the department level to ensure academic rigor and consistency
- Outcome-oriented, clear, and unambiguous questions are emphasized

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
COMMON TO AI AND DS
B.E/B.TECH DEGREE EXAMINATIONS
SECOND SERIES TEST- OCTOBER 2023
THIRD SEMESTER
CS3202- DATA STRUCTURES AND ALGORITHMS

Duration:1:30 Hrs

Marks:50

Q.No	Questions	CO	Blooms Level	Marks
PART-A				18
1	Define Stack ADT.Specify its operations.	CO3	L1	2
2	Differentiate Circular Queue and Priority Queue?	CO3	L5	2
3	List some applications of Stack.	CO3	L1	2
4	Specify the characteristics of a Priority Queue.	CO3	L2	2
5	Convert (a+b)*(c-d) to postfix.	CO3	L3	2
6	What is an expression? List the types specifying suitable examples.	CO3	L1	2
7	Specify some applications of Queues.	CO3	L1	2
8	What is a double-ended queue?	CO3	L1	2
9	Compare Single Linked list and Doubly Linked List.	CO2	L5	2
PART-B				32
10.a	What is a doubly linked list? Explain in detail the operations of a doubly linked list.	CO2	L2	16
OR				
10.b	Write a C program for implementing a List ADT using Linked List implementation.	CO2	L4	16
11.a	Specify the steps involved in the conversion of an infix expression to postfix expression. Convert the following expression to its postfix form: (A+B)*C/D+E/F	CO3	L2	16
OR				
11.b	What is a Queue ADT? Explain in detail the array implementation of Queue ADT.	CO3	L4	16

Fig 3.3.1 : Sample Series Test Question Paper.

4. Evaluation Process and Transparency

- Answer scripts are evaluated using predefined rubrics and marking schemes aligned with Course Outcomes

- Common evaluation criteria ensure fairness, consistency, and objectivity
- Students are informed in advance about evaluation methods and CO mappings

Marks allotment indicatively for CO assessment for Theory Courses

COs	Internal Assessment			External Assessment
	ST1	ST2	ST3	End Semester Exam
CO1	30			20
CO2	20	20		20
CO3		30		20
CO4			25	20
CO5			25	20
Total	50	50	50	100

Marks allotment indicatively for CO assessment for Lab Courses

COs	Lab Internal Assessment		External Assessment
	IT1	IT2	End Semester Lab Exam
CO1	20	20	20
CO2	20	20	20
CO3	20	20	20
CO4	20	20	20
CO5	20	20	20
Total	100	100	100

Fig 3.4.1 : Sample Series Test Analysis

- Evaluated answer scripts are reviewed and discussed in class
- CO-wise performance analysis is conducted after each assessment
- Remedial instruction, tutorial sessions, and mentoring are organized for slow learners based on assessment results

- All assessment-related documents, including question papers, answer keys, and mark statements, are systematically maintained in course files
- These records support continuous improvement initiatives and accreditation requirements

- Assessment outcomes are periodically reviewed in departmental and class committee meetings
- Feedback from assessments is used to refine teaching methodologies, assessment strategies, and question design in future course offerings

3.2 Evaluation of the Semester End Exam (SEE) Question Paper (10)

Total Marks 10.00

The Semester End Examination (SEE) is designed, conducted, and evaluated through a well-structured and quality-oriented process to ensure fairness, transparency, and effective alignment with Course Outcomes (COs), Programme Outcomes (POs), and Programme Specific Outcomes (PSOs).

1. Preparation of the SEE Question Paper

- The SEE question paper is framed in accordance with the approved syllabus and institutional academic regulations.
- A detailed question paper blueprint from COE is followed to ensure uniform coverage of all units, Course Outcomes, and Bloom's Taxonomy levels.
- Each question is explicitly mapped to the relevant COs, which are in turn aligned with the corresponding POs and PSOs.
- Questions are designed to assess multiple cognitive levels, including understanding, application, analysis, and problem-solving abilities.

2. Quality Assurance in Question Paper Design

- The question paper is prepared by experienced internal faculty members, and faculty from other institutions are also involved in question paper setting and review to ensure objectivity and academic breadth.
- All SEE question papers undergo expert review and moderation to eliminate ambiguity, repetition, and factual errors.
- Appropriate weightage is allotted to each unit and Course Outcome as specified in the blueprint, ensuring balanced difficulty and academic rigor.
- A judicious mix of theoretical, numerical, and application-oriented questions is included to comprehensively evaluate students' learning and skills.

3. Conduct of the Semester End Examination

- The SEE is conducted in strict adherence to institutional examination guidelines to maintain fairness, transparency, and confidentiality.
- The examination timetable and schedule are prepared and published by the Institution's Examination Cell to ensure systematic planning and smooth execution.
- Standard examination protocols, including seating arrangements, invigilation, and compliance with examination rules, are rigorously followed to uphold the integrity of the assessment process.

4. Evaluation of Answer Scripts

- Answer scripts are evaluated using predefined marking schemes and rubrics, ensuring consistency and clarity in the award of marks.
- Evaluation emphasizes conceptual understanding, accuracy, methodology, and quality of presentation, as outlined in the marking scheme.
- Answer scripts are assessed by a combination of internal faculty members and external examiners from other institutions.
- To ensure impartiality and objectivity, 50% of the evaluators are external faculty members, resulting in a uniform and unbiased evaluation process.

5. CO-wise Performance Analysis

- After evaluation, student performance is analysed on a Course Outcome-wise basis to determine the level of attainment of each CO.
- CO attainment levels are further mapped to Programme Outcomes and Programme Specific Outcomes to assess overall program effectiveness.

[illegible]

	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
CD-01	3	2	2	3	2	3	3						
CD-02	3	3	2	3	3	3	3						
CD-03	3	3	2	3	3	3	3						
CD-04	3	2	2	3	3	3	3						
CD-05	3	2	3	3	3	3	3						
Average	3	2.4	2.2	3	2.8	3	3						
Course PO Attainment	2.28	1.824	1.672	2.78	2.128	2.28	2.28	0	0	0	0	0	0
	Strong -3	Medium-2	Low-1	Not Relevant-0									
CD PO Attainment	2.28	2.28888889	2.2606061	2.28	2.2571429	2.28	2.28						

- Examination results and CO attainment analyses are reviewed at the departmental level.
- Based on the analysis, appropriate corrective and preventive actions—such as curriculum refinement, enhanced teaching methodologies, and additional academic support—are planned and implemented.

For quality assurance and accreditation purposes, the following documents are systematically maintained in the course files:

- SEE question paper with CO mapping
- Question paper blueprint
- Marking schemes and rubrics
- CO attainment analysis and PO/PSO mapping

Thus, the Semester End Examination question paper design and evaluation process ensures a robust, transparent, and outcome-based assessment system that effectively measures student learning and supports continuous improvement.

3.3 Evaluation of Laboratory Work and Workshop (Continuous and SEE) (10)

Total Marks 10.00

The Department of Computer Science and Engineering evaluates laboratory learning through a well-defined rubric-based assessment framework to ensure objective, transparent, and outcome-oriented evaluation. Laboratory performance is assessed through two Internal Practical Test (IPT-1 and IPT-2) and one Semester End Practical Examination conducted every semester. The same rubric and mark distribution are consistently applied for both continuous assessment and SEE to maintain uniformity and fairness in evaluation.

Each Internal Practical Examination and SEE is conducted for 100 marks, with evaluation based on clearly defined criteria aligned with Laboratory Course Outcomes (Lab COs) and Programme Outcomes (POs). The final laboratory marks consist of 25 marks from Internal Practical Examinations, 75 marks from the SEE. The detailed rubrics for laboratory evaluation is given below

Assessment Component	Total Marks	Performance Indicators	Excellent	Good	Poor
Algorithm / Logic Design	20	Correct formulation of algorithm, logical flow, and stepwise problem-solving approach	Clear, correct, and well-structured (20)	Minor logical issues (15)	Incorrect / unclear (0)
Program Implementation	25	Correct coding practices, syntax accuracy, modularity, and adherence to programming standards	Error-free and logically correct (25)	Minor syntax / logical errors (20)	Program not working (0)
Output / Execution	25	Successful compilation and execution, correctness of output for given test cases	Correct output obtained (25)	Partially correct output (15)	Incorrect / no output (0)
Viva Voce	10	Conceptual clarity, explanation of code logic, and ability to answer questions confidently	Answers confidently with strong conceptual clarity (10)	Answers basic questions (5)	Unable to answer satisfactorily (0)

Record	20	Completeness of record, proper documentation, correctness of experiments, and neat presentation	Complete, neat, and properly documented (20)	Minor errors or incomplete documentation (15)	Poorly maintained / not submitted (0)
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[illegible]

3.4 Evaluation of Industrial Training/ Internship (Continuous and SEE) (10)

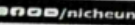
Total Marks 10.00

The Department of Computer Science and Engineering adopts a structured, rubric-based evaluation mechanism to assess student learning during internships, ensuring alignment with the targeted Programme Outcomes (POs). Students are required to complete two mandatory internships, namely Summer Internship I during Semester IV and Summer Internship II during Semester VI, each with a duration of minimum two weeks. These internships provide students with practical exposure to industry practices, professional work environments, and application of theoretical knowledge to real-world problems.

The Semester End Evaluation (SEE) of the internship is carried out through a comprehensive assessment process involving submission of a written report, internship write-up, presentation, and viva-voce examination. The evaluation is conducted by an external evaluator to ensure impartiality and industry relevance. Students are required to submit a detailed internship report and a concise write-up highlighting the work carried out, learning outcomes achieved, tools and technologies used, and challenges faced during the internship. Additionally, students are required to deliver a presentation summarizing their internship experience, followed by a viva-voce to assess their understanding and learning.

Assessment Component	Marks	Performance Indicators	Mapped POs	Mapped PEOs
Internship Write-Up	25	Clarity in description of organization profile, problem domain, tasks performed, technologies used, and learning outcomes	PO-A, PO-E	PEO-04, PEO-05
Internship Report	25	Structured documentation, technical depth, methodology followed, analysis of work carried out, and adherence to report format	PO-A, PO-E, PO-G	PEO-01, PEO-02, PEO-07
Presentation	30	Effectiveness of oral presentation, clarity of slides, explanation of technical work, confidence, and ability to respond to queries	PO-E, PO-C	PEO-04, PEO-06
Viva-Voce	20	Demonstration of conceptual understanding, practical knowledge gained, problem-solving ability, and professional attitude	PO-B, PO-E	PEO-02, PEO-04, PEO-06

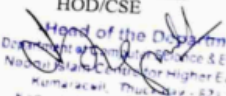

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Department of Computer Science and Engineering
Internship Details

Academic Year :2023-2024 III YEAR

Sl. No	Name of the Student	Name of the Organization	Title	Period
1.	Adarsh S	Acutro Technologies	AI&ML	3/6/24-19/6/24
2.	Ajimsha M	Shrishti Innovative Computer Systems	AI&ML	24/6/24-3/7/24
3.	Arnold Jansson S	Acutro Technologies	AI&ML	3/6/24-19/6/24
4.	Godferry Lexto A	Avelva IT india Pvt.Ltd	AI&ML	1/6/24-15/6/24
5.	Jayden Jass M	Acutro Technologies	AI&ML	3/6/24-19/6/24
6.	Mehek S	Acutro Technologies	AI&ML	3/6/24-19/6/24
7.	Mohamed Parvez M	Oqtis soft	Flutter	1/6/24-15/6/24
8.	Pratheesh G	Acutro Technologies	AI&ML	3/6/24-19/6/24
9.	Rudra B R	Acutro Technologies	AI&ML	3/6/24-19/6/24
10.	Sanu T	Karka Software Academy	Python Development	1/6/24-17/6/24
11.	Sarika S	Acutro Technologies	AI&ML	3/6/24-19/6/24
12.	Varsha J H	Acutro Technologies	AI&ML	3/6/24-19/6/24
13.	Abi Shalin J	Acutro Technologies	AI&ML	3/6/24-19/6/24
14.	Nikhil Nagu S J	Acutro Technologies	AI&ML	3/6/24-19/6/24
15.	Rabel Sakthiraj J	Acutro Technologies	AI&ML	3/6/24-19/6/24
16.	Thilipan A	Acutro Technologies	AI&ML	3/6/24-19/6/24
17.	Ebish R	Acutro Technologies	AI&ML	3/6/24-19/6/24
18.	Siva Chanthru K	AK Infopark	Devops	4/6/24-18/6/24
19.	Jogan Roy K	Acutro Technologies	AI&ML	3/6/24-19/6/24
20.	Adshaya Shanu J	Acutro Technologies	AI&ML	3/6/24-19/6/24
21.	Anson Gharvi R J	Acutro Technologies	AI&ML	3/6/24-19/6/24

HOD/CSE

 Head of the Department
 Department of Computer Science & Engineering
 Noorul Islam Centre for Higher Education
 Kumarakudi, Thuckalay - 629 180

3.5 Evaluation of Projects (20)

Total Marks 20.00

The Department of Computer Science and Engineering evaluates student learning in projects through a structured, rubric-based assessment framework to ensure attainment of targeted Programme Outcomes (POs). As per the curriculum, students undertake a Mini Project in Semester VII and a Main Project in Semester VIII. While the scope and complexity differ, the evaluation pattern, assessment criteria, and rubrics remain uniform for both projects to ensure consistency, transparency, and fairness in assessment

Project evaluation is carried out through multiple review stages and a final assessment, focusing on problem identification, design methodology, implementation, analysis, documentation, teamwork, communication, and societal relevance. The assessment emphasizes both individual contribution and team performance, in alignment with Outcome-Based Education principles.

Assessment Criterion	Performance Indicators	Mapped POs	Mapped PEOs
Problem Identification & Objectives	Ability to clearly define the problem, identify real-world relevance, and formulate achievable objectives	PO-A, PO-B	PEO-01, PEO-02, PEO-07
Literature Review & Background Study	Review of relevant research papers, tools, and technologies with proper citations	PO-G, PO-B	PEO-01, PEO-05
Methodology & Design Approach	Selection of appropriate architecture, algorithms, models, and systematic design methodology	PO-A, PO-F	PEO-02, PEO-03, PEO-07
Implementation & Technical Work	Development of modules, correctness of implementation, integration, and use of modern tools	PO-F, PO-A	PEO-02, PEO-03
Creativity & Innovation	Originality in approach, innovative solution design, and value addition beyond standard methods	PO-G	PEO-03, PEO-06, PEO-07
Analysis & Results	Validation of results, performance analysis, interpretation of outcomes, and identification of limitations	PO-B	PEO-02, PEO-07
Presentation & Documentation	Quality of project report, clarity of presentation, organization of content, and technical writing	PO-E	PEO-04, PEO-05

Teamwork & Individual Contribution	Effective collaboration, role distribution, responsibility sharing, and contribution to project goals	PO-C	PEO-04, PEO-06
Communication & Viva-Voce Performance	Conceptual clarity, explanation of design and implementation, and response to technical questions	PO-E	PEO-04, PEO-06
Project Impact & Applicability	Societal, industrial, or research relevance and potential for future enhancement	PO-D, PO-G	PEO-03, PEO-06, PEO-07

Performance Levels Used in Project Rubrics:

Each criterion is assessed using defined performance levels to ensure objectivity:

Excellent (4) - Comprehensive understanding, strong execution, and clear justification

Good (3) - Adequate understanding with minor gaps

Satisfactory (2) - Basic understanding with limited depth

Needs Improvement (1) - Inadequate or incomplete demonstration

Marks are allotted proportionately based on the performance level achieved in each criterion, as followed by the project evaluation committee

Batch No.	Student Name	Register Number	Marks for 0th / 1st / 2nd / 3rd Review held on					Total Marks (25)	Guide Signature
			Powerpoint (05)	Concept Explanation (05)	Periodic Report Submission (05)	Viva Voce (05)	Guide Review (05)		
9.	Abinaya A	1121308901	5	4	4	4	3		
	Arunima P J	0113208901	5	4	4	4	2		
10.	Sanath S	1119208014	5	4	4	4	4		
	Nikhil S George	1120308901	5	4	4	4	4		
11.	Mohammed Iqbal Shalabi V K	1119208009	5	5	5	5	5		
	Sajith Ahamed S	1119208019	5	4	5	4	5		
12.	Sidney George P Thomas	1120308001	A	A	A	A	0		
13.	Aswin B	1119208018	5	4	5	5	4	23	
14.	MD. Shahnawaz Alam	1119208006	5	4	4	4	3		
	Nyijil Meharaj	1119208012	5	3	4	3	2		
15.	Manu Sathish Mullakal	1119208005	5	4	4	4	4		
	Akshay Shinto	1119208002	5	4	4	4	4		


Project Coordinator


HOD/CSE
Head of the Department
Department of Computer Science and Engineering
Neelam Santhosh College of Engineering
Kannur District, Kerala

Fig:3.5 Sample students review analysis.

3.6 Evidence of Addressing Sustainable Development Goals (SDG) (10)

Total Marks 10.00

The student projects undertaken within the department are strategically integrated with the Sustainable Development Goals (SDGs), with focused contributions toward Zero Hunger, Good Health and Well-being, Affordable and Clean Energy, Industry, Innovation and Infrastructure, Sustainable Cities and Communities, Climate Action, and Peace, Justice and Strong Institutions.

These initiatives exemplify the students' ability to translate advanced engineering and computing concepts into impactful, real-world solutions, addressing critical societal, environmental, and economic challenges. Collectively, the projects underscore the department's commitment to responsible innovation, inclusive growth, and sustainable development, while nurturing globally competent graduates with a strong sense of social and ethical responsibility.

1. Student Project Work Aligned with SDGs

Good Health and Well-being – SDG 3

- Blind Person Walking Stick with Obstacle Detection and Voice Feedback
- Multi-class Classification of Malignant Brain Tumor Using Machine Learning
- An outcome based analysis on heart disease prediction
- Patient Diabetes Prediction System Based on Machine Learning Models
- Drowsiness Detection with Artificial Intelligence
- Medicine Reminder Application
- TOM & NIRAL-C Touchless Oxygen Monitoring for Fever Type Diagnosis

Zero Hunger – SDG 2

- Small Holder Farmers in Sustainable Supply Chain Using Blockchain
- IoT Based Smart Agriculture Model with Alert System and SMS Bot
- Smart Irrigation Using IoT with Prediction Model Real-Time Cloud Database
- Deep Leaf Disease Prediction Network for Automatic Leaf Detection System
- FarmMate – Empowering Farmers with Essential Agricultural Informa Sustainable Cities and Communities

Sustainable Cities and Communities - SDG 11

- Autonomous Waste Collecting Boat
- Street Light Automation with Motion Detection
- Electric Vehicle Charging Station Identification
- Air Pollution Detection
- Sewage Gas Monitoring & Overflow Blockage Detection using IoT with SMS Bot and Alert System

Affordable and Clean Energy – SDG 7

- Street Light Automation with Motion Detection
- Electric Vehicle Charging Station Identification

Industry, Innovation and Infrastructure – SDG 9

- VoteChain – A Blockchain Based E-Voting System for Secure and Reliable Voting
- Train Accident Prevention System using Wireless Sensor Network
- Automatic Speed Limiter for Ordinary Vehicles using RFID Technology and Obstacle Detection
- Privacy Preserving Storage and Retrieval in Cloud Image Repositories

- Engineering: Comprehensive Learning Platform for Diverse Engineering Disciplines using Flutter
- Sentimental Analysis of Product Based Reviews using Machine Learning
- Restaurant Recommendation System using Machine Learning Algorithm
- Music Suggestion Using Facial Emotion Recognition
- House Price Prediction

Evidence maintained:

- Project reports and abstracts

2. Research and Innovation Activities

- Students participate in research-oriented projects, paper publications, and poster presentations focusing on sustainability and societal impact.
- Faculty-guided student research addresses energy optimization, sustainable technologies, and digital solutions for social good.

Evidence maintained:

- Published papers and conference proceedings
- Certificates of participation

3. Activity-Based Learning and Student Initiatives

Students actively engage in SDG-oriented activities such as:

- Hackathons, ideathons, and innovation challenges focusing on climate action, smart solutions, and social welfare
- Awareness programs, seminars, and workshops on environmental sustainability, ethics, and social responsibility
- NSS/extension activities including tree plantation, cleanliness drives, water conservation, and community outreach.

4. Curriculum Integration and Skill Development

- Sustainability concepts are embedded in core and elective courses through case studies, assignments, and project-based learning.
- Students are encouraged to consider ethical practices, environmental impact, safety, and cost effectiveness in all project work.

Evidence maintained:

- Course plans

3.7 Attainment of Course Outcomes (25)**Total Marks 25.00**

3.7.1. Describe the Assessment Tools and Processes Used to Gather the Data for the Evaluation of Course Outcome (5)

Institute Marks : 5.00

The evaluation of Course Outcomes (COs) is carried out using a systematic and well-defined assessment process that includes both direct and indirect assessment tools. These tools are designed to measure the level of attainment of course objectives in alignment with program outcomes.

Direct assessment tools include internal examinations, assignments, laboratory experiments, mini-projects, and end-semester examinations. Internal assessments such as internal exams, and model examinations are conducted periodically to evaluate student's understanding of theoretical concepts. Laboratory assessments and workshop activities are used to assess practical skills, problem-solving ability, and application of concepts. Each assessment component is mapped to specific course outcomes, and rubrics are used to ensure uniform and transparent evaluation.

Indirect assessment tools include course exit surveys, student feedback, and alumni feedback. These tools help in understanding student's perception of their learning and the effectiveness of the teaching-learning process. The feedback collected is analyzed to complement the results obtained from direct assessment methods. The assessment procedure involves setting target attainment levels for each course outcome. Marks obtained by students in various assessment tools are analyzed, and attainment levels are calculated based on predefined criteria. The consolidated attainment results are reviewed by the department, and necessary corrective actions such as curriculum improvement, teaching methodology enhancement, and additional learning support are implemented to improve overall course outcome attainment.

Assessment Parameters:

The performance of a student in each semester shall be evaluated Course-wise with

* 100 marks for theory course

* 100 marks for laboratory and other courses.

Theory course: For theory courses, the distribution shall be

- 25 marks for Internal Examinations
- 75 marks for External End-Examinations

Process of conducting internal examinations:

For Regulation 2021 theory courses, each semester shall have three internal assessments. Each internal examination shall be conducted for 50 marks with a duration of 90 minutes. The question paper shall consist of 2-mark questions totaling 18 marks and 16-mark questions with either-or choice totaling 32 marks. Each question in the internal examination shall be mapped to specific Course Outcomes (COs) and framed in accordance with Bloom's Taxonomy. For the final calculation of internal assessment marks out of 25, the best two performances out of the three internal examinations shall be considered for 20 marks, and the remaining 5 marks shall be allotted for attendance. The figure shows the scanned copy of a sample internal examination question paper.

For Regulation 2025 theory courses, each semester shall have three internal assessments. Each internal examination shall be conducted for 50 marks with a duration of 90 minutes. The question paper shall include 1-mark questions totaling 6 marks in the form of multiple-choice questions, fill-in-the-blanks, or true/false; 2-mark questions totaling 16 marks; 4-mark questions with either-or choice totaling 8 marks; and 10-mark questions with either-or choice totaling 20 marks. Each question in the internal examination shall be mapped to specific Course Outcomes (COs) and framed in accordance with Bloom's Taxonomy. For the final calculation of internal assessment marks out of 40, the best two performances out of the three internal examinations shall be considered for 20 marks, while the remaining 20 marks shall consist of 10 marks for attendance and 10 marks for assignments.

Process of conducting external examinations:

Each examination shall be conducted for 100 marks with a duration of 180 minutes. For Regulation 2021, the question paper shall include 2-mark questions totaling 20 marks and 16-mark questions with either-or choice totaling 80 marks. Each question in the external examination shall be mapped to specific Course Outcomes (COs) and framed in accordance with Bloom's Taxonomy. Each course shall consist of five units of syllabus,

and the student shall answer a total of five questions. The figure shows the scanned copy of the external examination question paper.

Each examination shall be conducted for 100 marks with a duration of 180 minutes. For Regulation 2025. The question paper shall include 1-mark questions totaling 10 marks in the form of multiple-choice questions, fill-in-the-blanks, or true/false; 2-mark questions totaling 20 marks; 4-mark questions with either-or choice totaling 20 marks; and 10-mark questions with either-or choice totaling 50 marks. Each question in the internal examination shall be mapped to specific Course Outcomes (COs) and framed in accordance with Bloom's Taxonomy

Finally, the CO assessment value is calculated by scaling the marks obtained each

student to 75 for regulation 2021.

The Final CO attainment is calculated by combining the Internal attainment and External attainment. For each CO, as per regulations,

- The marks obtained in internal exam questions is scaled to 25.
- The marks obtained in External exams questions is scaled to 75.

The total marks for each CO is calculated in this manner.

Final CO-wise mark = 25% of Internal Exam + 75% of External Exam

2. Laboratory Courses:

(i) Pattern for Internal Lab Examinations: For practical subjects, continuous internal evaluation shall be carried out during the semester for a total of 25 internal marks. Two internal laboratory examinations shall be conducted in each semester. The syllabus shall be divided equally, with half of the prescribed portion covered in the first internal laboratory examination and the remaining portion covered in the second internal laboratory examination. Of the 25 internal marks, 5 marks shall be awarded for attendance and 20 marks shall be awarded based on performance in the internal laboratory examinations.

(ii) Pattern for External Examinations: For practical subjects exam is to be held for 100 marks. The end examination shall be conducted by the teacher concerned and external examiner from outside the college.

(iii) Overall CO-wise mark: The Final CO attainment is calculated by combining the

Internal attainment and External attainment. Then the total mark is scaled to 100.

3.7.2 Record the Attainment of Course Outcomes of all Courses with Respect to Set Attainment Levels (20)

Institute Marks : 20.00

The attainment of Course Outcomes (COs) for all courses is systematically recorded with respect to the predefined attainment levels. For each course, target attainment levels are set at the beginning of the academic session based on institutional guidelines and program requirements. These targets define the expected level of student performance for each course outcome. Course Outcome attainment is calculated using data collected from both direct and indirect assessment tools. Direct assessment includes internal tests, assignments, laboratory evaluations, workshops, mini-projects, and end-semester examinations, while indirect assessment comprises course exit surveys and student feedback. The marks obtained are analysed, and the percentage of students achieving the set performance criteria is determined. The calculated attainment levels for each Course Outcome are documented course-wise and semester-wise. Fig is the scanned copy of Course Outcome. These records are maintained by the department and reviewed periodically to monitor student performance and learning effectiveness. If the attained levels fall below the set targets, corrective measures such as remedial classes, additional tutorials, revision of teaching strategies, and enhancement of learning resources are implemented. The documented attainment records serve as an important input for continuous improvement of the curriculum and teaching-learning process and ensure alignment with program outcomes and institutional quality standards. The target percentage of marks scored by the students is set by the course coordinator after approval by Program Advisory Board at the beginning of the semester. Table shows the CO attainment for the batch 2021-2025

Fig 3.7.2 PO Calculation

Semester	Subject Code	PO-A	PO-B	PO-C	PO-D	PO-E	PO-F	PO-G	Course PO-A	Course PO-B	Course PO-C	Course PO-D	Course PO-E	Course PO-F	Course PO-G
3	MA3201	1.6	1.6	0.6	1	0.6	1.4	1	1.077333	1.077333	0.404	0.673333	0.404	0.94267	0.673333
	CS3201	2.4	2.4	2.2	3	2.8	3	3	2.2	1.78	1.61	2.2	2.05	2.2	2.2
	CS3202	1.6	1.6	0.6	1	0.6	1.4	1	1.130667	1.130667	0.424	0.70667	0.424	0.989333	0.70667
	CS3203	2.4	2.4	2.2	3	2.8	3	3	2.28	1.824	1.672	2.28	2.128	2.28	2.28
	CS3204	1.8	2.2	2.4	2.2	2.4	2.6	2.6	1.728	2.112	2.304	2.112	2.304	2.496	2.496
	CS3271	3	2	3	3	1	3	3	3	2	2	2	3	3	3
	CS3272	3	3	3	3	3	3	3	2	2	3	3	3	2	2
	CS3273	2	3	3	3	2	3	3	3	3	3	3	3	3	3
4	MA3205	2.6	2.6	2.6	2.8	2.6	2.6	2.6	1.964444	1.964444	1.964444	2.11556	1.96444	1.96444	1.96444
	BS3201	2.2	2.2	2	2.4	2.4	2.4	3	1.525	1.525	1.387	1.664	1.664	1.664	2.08
	CS3205	1.6	1.4	1	1.6	0.6	1.4	3	1.26	1.101	0.78	1.26	0.472	1.101	2.36
	CS3206	3	2.4	2.2	3	2.8	3	3	2.3	1.84	1.687	2.3	2.15	2.3	2.3
	CS3207	1.8	2.2	2.4	2.2	2.4	2.6	2.6	1.656	2.024	2.208	2.024	2.208	2.392	2.392
	CS3208	2.4	2.4	2.4	2.8	2.4	2.4	2.4	1.557333	1.557333	1.557333	1.81689	1.55733	1.55733	1.55733
	CS3274	2.6	2.6	2	2.4	2.6	2.6	2.8	1.629333	1.629333	1.253333	1.504	1.62933	1.62933	1.75467
	CS3275	3	3	3	2	2	3	2	2	3	3	3	2	1	2
	CS3276	3	3	2	2	3	3	2	3	3	2	2	3	3	2
5	CS3209	2	1.8	2	2.2	2	2	2.6	1.253333	1.128	1.253333	1.37867	1.25333	1.25333	1.62933
	CS3210	2.2	2	2	2	2	2	2.6	1.251556	1.13778	1.13778	1.13778	1.13778	1.47911	1.47911
	CS3211	3	2.4	2.2	3	2.8	3	3	2.76	2.208	2.024	2.76	2.576	2.76	2.76
	CS3212	1.8	1.8	1.8	2.2	2.2	2.4	2.6	1.02	1.02	1.02	1.24667	1.24667	1.36	1.47333
	MS3201	1.8	2.2	2	1.6	2.2	2.2	3	1.378	1.682	1.53	1.223	1.682	1.682	1.682
	CS32A3	3	2.4	2.2	3	2.8	3	3	2.172	1.7376	1.593	2.172	2.0272	2.172	2.172
	CS3277	2	3	3	3	2	2	1	2	2	3	3	2	2	3
	CS3278	2	3	3	3	3	3	3	3	3	3	3	3	3	3
6	CS3213	3	2.4	2.2	3	2.8	3	3	2.32	1.856	1.701333	2.32	2.16533	2.32	2.32
	CS3214	2.4	2.4	2	2.4	2.4	2.4	3	1.536	1.536	1.28	1.536	1.536	1.536	1.92
	CS2A5	1.8	2	1.8	1.8	2.2	2.2	2.6	1.224	1.36	1.224	1.224	1.496	1.496	1.768
	CS32A9	1.8	2.2	2.4	2.2	2.4	2.6	2.6	1.56	1.91	2.08	1.91	2.08	2.25	2.25
	CS3215	1.8	2.2	2.4	2.2	2.4	2.6	2.6	1.632	1.99467	2.176	1.99467	2.176	2.35733	2.35733
	CS3279	2.2	2.2	2	2.4	2.4	2.4	3	1.525	1.525	1.387	1.664	1.664	1.664	2.08
	CS3280	3	3	3	3	3	3	3	3	3	3	3	3	3	3
7	MS2202	1.6	1.4	1	0	3	0.2	1	1.194667	1.04533	0.746667	0	2.24	0.14933	0.74667
	CS2218	2.6	2.6	2	2.4	2.6	2.6	2.8	1.629333	1.629333	1.253333	1.504	1.62933	1.62933	1.75467
	CS2219	3	2.4	2.2	3	2.8	3	3	2.313333	1.85067	1.696444	2.31333	2.15911	2.31333	2.31333
	CS2220	1.2	1.6	1.2	1	1	2.2	2.6	0.835	1.113	0.835	0.691	0.691	0.151	1.808
	CS22A7	1.8	2.2	2.4	2.2	2.4	2.6	2.6	1.204	2.08	2.272	2.08	2.272	2.46	2.46
	CS22B3	1.8	2.2	2.4	2.2	2.4	2.2	3	1.152	1.408	1.536	1.408	1.536	1.664	1.664
	CS22B3	3	2	3	2	3	2	3	2	2	3	3	2	3	3
	CS22B6	3	3	3	2	2	2	3	2	2	2	3	3	3	2
	CS22P1	3	3	3	3	3	3	3	3	3	2	3	3	3	3
8	CS22B4	1.8	2.2	2.4	2.2	2.4	2.6	2.6	1.56	1.91	2.08	1.91	2.08	2.25	2.25
	CS22B5	3	2.4	2.2	3	2.8	3	3	2.333333	1.86667	1.711111	2.33333	2.17778	2.33333	2.33333
	CS22P5	3	3	3	3	3	3	3	3	3	3	3	3	3	2
	Average	2.35909	2.318181818	2.23636	2.32727	2.31818	2.49091	2.57273	1.301356	1.89871	1.730639	1.98779	1.97229	1.96488	2.06785

Table 3.7.2 : Course PO Attainment for the batch 2021-2025

Program Outcome	Keywords	Target Limit	Attainment Level	Observation	Action to be taken	Course PO Attainment
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A	Knowledge of mathematical foundations and computer science & engineering concepts to solve complex problems	2	2.33	Good	-	1.9
B	Identify, formulate and analyze complex problems in computer based applications.	2	2.29	Good	-	1.9
C	Manage effectively on teams to accomplish a common goal.	2	2.24	Good	-	1.8
D	Apply professional ethics and agree to the norms or responsibilities in engineering practice of computer science.	2	2.32	Good	-	1.93
E	Communicate effectively and prepare technical documents and oral presentations.	2	2.31	Good	-	1.92
F	Ability to use current techniques, skills and state-of-art tools for computing system.	2	2.49	Good	-	1.92

G	Ability to apply design and development principles in the construction of software systems and in the allied engineering application domains.	2	2.55	Good	-	2
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Table 3.7.3 : Course PO Attainment for the batch 2020-2024

Program Outcome	Keywords	Target Limit	Attainment Level	Observation	Action to be taken	Course PO Attainment
A	Knowledge of mathematical foundations and computer science & engineering concepts to solve complex problems	2	1.79	Good	-	1.62
B	Identify, formulate and analyze complex problems in computer based applications.	2	1.97	Good	-	1.81
C	Manage effectively on teams to accomplish a common goal.	2	2.19	Good	-	2.01

D	Apply professional ethics and agree to the norms or responsibilities in engineering practice of computer science.	2	2.41	Good	-	2.23
E	Communicate effectively and prepare technical documents and oral presentations.	2	2.61	Good	-	2.45
F	Ability to use current techniques, skills and state-of-art tools for computing system.	2	2.78	Good	-	2.63
G	Ability to apply design and development principles in the construction of software systems and in the allied engineering application domains.	2	2.89	Good	-	2.82

3.8 Attainment of Program Outcomes and Program Specific Outcomes (25)

Total Marks 25.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
MA3201	1.6	1.6	0.6	1	0.6	1.4	1	PO8	PO9	PO10	PO11	PO12
CS3201	3	2.4	2.2	3	2.8	3	3	PO8	PO9	PO10	PO11	PO12
CS3202	1.6	1.6	0.6	1	0.6	1.4	1	PO8	PO9	PO10	PO11	PO12
CS3203	3	2.4	2.2	3	2.8	3	3	PO8	PO9	PO10	PO11	PO12
CS3204	1.8	2.2	2.4	2.2	2.4	2.6	2.6	PO8	PO9	PO10	PO11	PO12
CS3271	3	2	3	3	1	3	3	PO8	PO9	PO10	PO11	PO12
CS3272	3	3	3	3	3	3	2	PO8	PO9	PO10	PO11	PO12
CS3273	2	3	3	3	2	3	3	PO8	PO9	PO10	PO11	PO12
MA3205	2.6	2.6	2.6	2.8	2.6	2.6	2.6	PO8	PO9	PO10	PO11	PO12
BS3201	2.2	2.2	2	2.4	2.4	2.4	3	PO8	PO9	PO10	PO11	PO12
CS3205	1.6	1.4	1	1.6	0.6	1.4	3	PO8	PO9	PO10	PO11	PO12
CS3206	3	2.4	2.2	3	2.8	3	3	PO8	PO9	PO10	PO11	PO12
CS3207	1.8	2.2	2.4	2.2	2.4	2.6	2.6	PO8	PO9	PO10	PO11	PO12
CS3208	2.4	2.4	2.4	2.8	2.4	2.4	2.4	PO8	PO9	PO10	PO11	PO12
CS3274	2.6	2.6	2	2.4	2.6	2.6	2.8	PO8	PO9	PO10	PO11	PO12
CS3275	3	3	3	2	2	3	2	PO8	PO9	PO10	PO11	PO12
CS3276	3	3	2	2	3	3	2	PO8	PO9	PO10	PO11	PO12
CS3209	2	1.8	2	2.2	2	2	2.6	PO8	PO9	PO10	PO11	PO12
CS3210	2.2	2	2	2	2	2	2.6	PO8	PO9	PO10	PO11	PO12
CS3211	3	2.4	2.2	3	2.8	3	3	PO8	PO9	PO10	PO11	PO12
CS3212	1.8	1.8	1.8	2.2	2.2	2.4	2.6	PO8	PO9	PO10	PO11	PO12
MS3201	1.8	2.2	2	1.6	2.2	2.2	3	PO8	PO9	PO10	PO11	PO12
CS32A3	3	2.4	2.2	3	2.8	3	3	PO8	PO9	PO10	PO11	PO12
CS3277	2	3	3	3	2	2	1	PO8	PO9	PO10	PO11	PO12
CS3278	2	2	3	3	3	3	2	PO8	PO9	PO10	PO11	PO12

CS3213	3	2.4	2.2	3	2.8	3	3	PO8	PO9	PO10	PO11	PO12
CS3214	2.4	2.4	2	2.4	2.4	2.4	3	PO8	PO9	PO10	PO11	PO12
CS32A5	1.8	2	1.8	1.8	2.2	2.2	2.6	PO8	PO9	PO10	PO11	PO12
CS32A9	1.8	2.2	2.4	2.2	2.4	2.6	2.6	PO8	PO9	PO10	PO11	PO12
CS3215	1.8	2.2	2.4	2.2	2.4	2.6	2.6	PO8	PO9	PO10	PO11	PO12
CS3279	2.2	2.2	2	2.4	2.4	2.4	3	PO8	PO9	PO10	PO11	PO12
CS3280	3	3	3	2	2	3	3	PO8	PO9	PO10	PO11	PO12
MS3202	1.6	1.4	1	0	3	0.2	1	PO8	PO9	PO10	PO11	PO12
AI3205	2.6	2.6	2	2.4	2.6	2.6	2.8	PO8	PO9	PO10	PO11	PO12
CS32B5	3	2.4	2.2	3	2.8	3	3	PO8	PO9	PO10	PO11	PO12
CS32C1	1.2	1.6	1.2	1	1	2.2	2.6	PO8	PO9	PO10	PO11	PO12
BM32D4	1.8	2.2	2.4	2.2	2.4	2.6	2.6	PO8	PO9	PO10	PO11	PO12
CS3281	1.8	2.2	2.4	2.2	2.4	2.2	3	PO8	PO9	PO10	PO11	PO12
CS32P3	3	2	3	2	3	2	3	PO8	PO9	PO10	PO11	PO12
CS32C8	1.8	2.2	2.4	2.2	2.4	2.6	2.6	PO8	PO9	PO10	PO11	PO12
CS3216	3	2.4	2.2	3	2.8	3	3	PO8	PO9	PO10	PO11	PO12
CS32P5	3	3	3	3	3	3	2	PO8	PO9	PO10	PO11	PO12

PO Attainment Indirect

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Graduate Sur	3	3	2	3	3	2	3	PO8	PO9	PO10	PO11	PO12
Employer Sur	3	2	3	3	3	3	3	PO8	PO9	PO10	PO11	PO12
Non CGPA	3	3	3	3	3	3	3	PO8	PO9	PO10	PO11	PO12
Alumni Surve	3	3	3	3	3	3	3	PO8	PO9	PO10	PO11	PO12

PO Attainment Level

Note: The Institution can fix the weightage of the indirect attainment maximum up to 20%.

Define the Weightage for Indirect Attainment: 20.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.33	2.29	2.2	2.38	2.31	2.49	2.55	0	0	0	0	0
InDirect Attainment	3	2.75	2.75	3	3	2.75	3	0	0	0	0	0
Overall Attainment	2.46	2.38	2.31	2.50	2.45	2.54	2.64	0	0	0	0	0

PSO Attainment

Course	PSO1	PSO2	PSO3
MA3201	0.94	0.9	0.49
CS3201	2.05	2.05	1.95
CS3202	0.99	0.94	0.52
CS3203	2.13	2.13	2.03
CS3204	2.11	2.37	2.24
CS3271	2.33	2.33	2.33
CS3272	2.33	2.33	2.67
CS3273	3	3	3
MA3205	1.96	1.96	2.01
BS3201	1.71	1.76	1.53
CS3205	1.57	1.52	0.84
CS3206	2.15	2.15	2.09
CS3207	2.02	2.27	2.15
CS3208	1.56	1.56	1.66
CS3274	1.67	1.67	1.46
CS3275	2.33	2	2.67
CS3276	2.67	2.67	2.33
CS3209	1.34	1.34	1.29
CS3210	1.29	1.25	1.14
CS3211	2.58	2.58	2.52
CS3212	1.17	1.29	1.18
MS3201	1.58	1.65	1.48

CS32A3	2.03	2.03	1.93
CS3277	2.33	2	2.33
CS3278	2.67	2.33	3
CS3213	2.17	2.17	2.06
CS3214	1.66	1.66	1.45
CS32A5	1.45	1.54	1.31
CS32A9	1.91	2.14	1.97
CS3215	2.06	2.19	2.1
CS3279	1.71	1.76	1.57
CS3280	2.67	2.33	2.67
MS3202	1	0.65	0.99
AI3205	1.84	1.84	1.55
CS32B5	2.16	2.16	2.06
CS32C1	0.92	0.69	0.74
BM32D4	2.08	2.27	2.21
CS3281	1.41	1.58	1.45
CS32P3	2.33	2.67	2.67
CS32C8	1.91	2.08	2.03
CS3216	2.16	2.16	2.11
CS32P5	2.67	2.33	3

PSO Attainment Indirect

Survey	PSO1	PSO2	PSO3
Graduate Survey	3	2.67	2.67
Employer Survey	2.67	2.67	3
Alumni Survey	3	3	3
Non-CGPA	3	3	3

PSO Attainment Level

Course	PSO1	PSO2	PSO3
--------	------	------	------

Direct Attainment	1.92	1.91	1.88
InDirect Attainment	2.92	2.84	2.92
Overall Attainment	2.12	2.10	2.09

4 STUDENTS' PERFORMANCE (120)

Total Marks 82.43

Table No. 4A: Admission details for the program excluding those admitted through multiple entry and exit points.

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	30	30	25	25	25
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	31	65	44	36	19	20	20
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	0	7	13	8	6
N3=Separate division if any	0	0	0	0	0	0	0

N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	31	65	44	43	32	28	26

Table No. 4B: Admission details for the program through multiple entry and exit points.

	Item (No. of students admitted/exited through multiple entry and exit points) in the respective batch	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (LYG)	2020-21 (LYGm1)	2019-20 (LYGm2)
N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N5=N52+N53+N54	N5=N52+N53+N54	0	0	0	0	0	0	0
N61=No. of students exits after 1st year via multiple entry and exit points in same batch	N61=No. of students exits after 1st year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N62=No. of students exit after 2nd year via multiple entry and exit points	N62=No. of students exit after 2nd year via multiple entry and exit points	0	0	0	0	0	0	0
N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N6=N61+N62+N63	N6=N61+N62+N63	0	0	0	0	0	0	0

Table No. 4C: No. of students graduated within the stipulated period of the program.

Year of entry	Total no. of students (N1 + N2 + N3+ N4 + N5 - N6 as defined above)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2025-26 (CAY)	31				
2024-25 (CAYm1)	65	61			
2023-24 (CAYm2)	44	41	45		
2022-23 (CAYm3)	43	34	35	35	
2021-22 (LYG)	32	16	29	26	15
2020-21 (LYGm1)	28	21	24	24	17
2019-20 (LYGm2)	26	20	23	23	16

4.1 Enrolment Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

Get Details from Table 4.1

Table No.4.1.1: Student enrolment ratio in the 1st year.

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2025-26 (CAY)	60	31	0	51.67
2024-25 (CAYm1)	60	65	0	108.33
2023-24 (CAYm2)	30	44	0	146.67

Average [(ER1 + ER2 + ER3) / 3] = 102.22 $\approx$ 100

Assessment : 20.00

4.2 Success Rate of the Students in the Stipulated Period of the Program (15)

Total Marks 7.13

Table No.4.2.1: The success rate in the stipulated period of a program.

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	38.00	33.00	31.00
B=No. of students who graduated from the program in the stipulated course duration	15.00	17.00	16.00
Success Rate (SR)= (B/A) * 100	39.47	51.52	51.61

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 47.53

SR Points : 7.13

Note *: If the value of A in Table No. 4.2.1 is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of A in Table No. 4.2.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2).

4.3 Academic Performance of the First-Year Students of the Program (10)

Total Marks 6.85

Institute Marks : 6.85

Table No.4.3.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1(2024-25)	CAYm2(2023-24)	CAYm3 (2022-23)
X=(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)	7.14	6.86	6.54
Y=Total no. of successful students	60.00	46.00	35.00
Z=Total no. of students appeared in the examination	60.00	46.00	35.00
API [X*(Y/Z)]	7.14	6.86	6.54

Average API[(AP1+AP2+AP3)/3] : 6.85

Assessment = Average API : 6.85

4.4 Academic Performance of the Second Year Students of the Program (10)

Total Marks 6.84

Table No.4.4.1: Academic Performance of the Second Year Students of the Program.

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(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)	7.00	6.92	6.94
Y=Total no. of successful students	45.00	35.00	29.00
Z=Total no. of students appeared in the examination	41.00	41.00	29.00
API [X * (Y/Z)]	7.68	5.91	6.94

Average API [(AP1 + AP2 + AP3)/3] : 6.84

Assessment [AverageAPI] : 6.84

4.5 Academic Performance of the Third Year Students of the Program (10)

Total Marks 6.85

Institute Marks : 6.85

Table No.4.5.1: Academic Performance of the Third Year Students of the Program

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd 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 3rd year/10)	7.02	7.14	7.13
Y=Total no. of successful students	35.00	26.00	24.00
Z=Total no. of students appeared in the examination	35.00	29.00	24.00
API [X*(Y/Z)]:	7.02	6.40	7.13

Average API [(AP1 + AP2 + AP3)/3] : 6.85

Assessment [1.5 * AverageAPI] : 6.85

4.6 Placement, Higher Studies and Entrepreneurship (30)

Total Marks 14.76

Table No. 4.6.1: Placement, higher studies, and entrepreneurship details.

Item	LYG (2021-22)	LYGm1(2020-21)	LYGm2(2019-20)
FS*=Total no. of final year students	38.00	33.00	31.00
X=No. of students placed	14.00	11.00	24.00
Y=No. of students admitted to higher studies	0.00	0.00	0.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = $((X + Y + Z)/FS) * 100$:	36.84	33.33	77.42

Average Placement Index = $(P_1 + P_2 + P_3)/3$: 49.20

Placement Index Points: 14.76

4.7 Professional Activities (25)

Total Marks 20.00

4.7.1 Professional Societies/ Bodies, Chapters, Clubs, and Professional Engineering Events Organized (5)

Institute Marks : 5.00

Table No. 4.7.1.1: List of active professional societies/bodies/chapters/clubs.

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs
1	Coding and Google developer club

Table No. 4.7.1.2: List of events/programs organized.**(CAYm1) 2024-25**

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Professional Event	A Workshop on Exploratory Data Analysis And Visualization	National	01/08/2024
2	Professional Event	A Seminar On Automation And It's Applications	National	14/08/2024
3	Professional Event	Seminar Ethical Hacking and Cyber Security	National	19/08/2024
4	Professional Event	Workshop Web Design Standards with Bootstrap	National	28/08/2024
5	Professional Event	Workshop on Image Classification using CNN and Pre Trained Models	National	29/08/2024
6	Professional Event	Workshop on UI & UX Design	National	26/09/2024
7	Professional Event	Workshop on Deep Learning for classifying images of clothing using TensorFlow	National	27/09/2024
8	Professional Event	Workshop on Python Programming	National	25/10/2024
9	Professional Event	Seminar on Essentials of Data Science, AI & ML	National	28/10/2024
10	Professional Event	Industrial Visit to Srishti Innovative Computer Systems, Trivandrum	National	29/10/2024
11	Professional Event	Seminar on AI in Advanced Technology	National	04/11/2024
12	Professional Event	FDP on Empowering Smart Education and Research with AI and IoT: Strategies for the future	National	25/11/2024
13	Professional Event	Alumni Meet 2024	National	27/11/2024
14	Professional Event	Workshop On Introduction To Dot Com Business	National	22/01/2025
15	Professional Event	Seminar On Future Forward Design Process (UI/UX)	National	18/02/2025
16	Professional Event	Guest Lecture On Design Thinking : An Insight Into Reality	National	27/02/2025

(CAYm2) 2023-24

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Professional Event	Pongal Celebration	National	12/01/2024
2	Professional Event	Careers with Product Based companies for Success	National	29/02/2024
3	Professional Event	Alumni Interaction	National	01/03/2024
4	Professional Event	Seminar on Firebase in Android Development	National	21/03/2024
5	Professional Event	Seminar on Firebase in Android Development	National	26/03/2024
6	Professional Event	Industrial Visit to GTTC	National	02/04/2024
7	Professional Event	Symposium Bytefestz'24	National	22/04/2024
8	Professional Event	Faculty Development Program on Harnessing AI : Tools, Applications and its Innovations	National	20/05/2024
9	Professional Event	Professional Development Program on Innovating Education : The rise of AI in schools and Universities	National	22/05/2024
10	Professional Event	Workshop on Web Design and Development	National	15/11/2023
11	Professional Event	Alumni Meeting	National	27/10/2023
12	Professional Event	Webinar on Data Visualization using Python	National	13/10/2023
13	Professional Event	Seminar "Agile Basics and Scrum"	National	15/09/2023
14	Professional Event	Seminar "Scope of python in Web Application and AI"	National	10/08/2023
15	Professional Event	Guest Lecture "AI Over Healthcare – What, Why & How"	National	11/07/2023

(CAYm3) 2022-23

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Professional Event	Webinar on Digital Marketing	National	19/04/2023
2	Professional Event	National Conference NCIRAC'23	National	11/04/2023
3	Professional Event	Guest Lecture on Transformations of Computer Graphics	National	18/03/2023
4	Professional Event	Workshop on Web Application Development	National	15/03/2023
5	Professional Event	Seminar on Artificial Intelligence	National	13/03/2023
6	Professional Event	Alumni Interaction	National	03/03/2023
7	Professional Event	Seminar on "MACHINE LEARNING"	National	03/01/2023

4.7.2 Student's Participations in Professional Events (10)

Institute Marks : 10.00

Table No. 4.7.2.1: List of students participated in professional events.**(CAYm1) 2024-25**

S.No	Name of the Student	Name of the Event	State /State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1					

(CAYm2) 2023-24

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Jinoslin S	Hackathon	NICHE	26/09/2023	NIL
2	Shehanaz Begum S	Hackathon	NICHE	26/09/2023	NIL
3	Krishna S Ayyappan	Hackathon	NICHE	26/09/2023	NIL
4	Faheema Joohi S	Hackathon	NICHE	26/09/2023	NIL

(CAYm3) 2022-23

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1					

4.7.3 Publication of Journals, Magazines, Newsletters, etc. in the Department (5)

Institute Marks :

Table No. 4.7.3.1: List of students involved in publication of journals, magazines, and newsletters, etc. in the Department.**(CAYm1) 2024-25**

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1						

(CAYm2) 2023-24

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1						

(CAYm3) 2022-23

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1						

4.7.4 Student Publications (5)

Institute Marks : 5.00

Table No. 4.7.4.1: List of student publications.**(CAYm1) 2024-25**

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Naveen Kumar K	8	Springer	International conference on soft computing and pattern recognition	4	1	Nil
2	Dona D A	4	ICIET	Proceeding of international conference on innovations in engg and tech	1	1	Nil

(CAYm2) 2023-24

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Binu Stalin S	2	IEEE	Advanced coumputing and communication technologies for high performance applications	1	1	Nil
2	Subiksha R P	2	ICCIDA 2024	International conference on computational intelligence and data analytics	1	1	Nil

(CAYm3) 2022-23

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Sneha pradeep	2	ICSERET	International conference on smart engineering for renewable energy technologies	1	1	Nil

5 FACULTY INFORMATION (100)**Total Marks 82.00**

Sr.No	Name of the Faculty	PAN No.	APAAR faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Ben Sujitha B	AXVPB0617L	NA	M.E. and Ph.D.	Anna University	Cyber Security, Data Analytics	14/08/2023	2.3	Professor	Professor		Regular	Yes		No
2	Mary Amala Bai V	AEMPV3087N	NA	M.E. and Ph.D.	Anna University	Data Mining	10/12/2004	20.11	Lecturer	Associate Professor	01/02/2018	Regular	Yes		No
3	Judith J E	AMUPJ1554A	NA	M.E. and Ph.D.	Noorul Islam Centre for Higher Education	Machine Learning	07/07/2006	19.5	Lecturer	Associate Professor	15/02/2018	Regular	Yes		No
4	Anitha A	ARQPA0695N	NA	M.E. and Ph.D.	Noorul Islam Centre for Higher Education	Wireless networks	19/02/2008	17.9	Lecturer	Associate Professor	07/09/2019	Regular	Yes		No
5	Beni G	AIXPB8609F	NA	M.E. and Ph.D.	Anna University	Networks	10/08/2023	2.3	Associate Professor	Associate Professor		Regular	Yes		No
6	Nisha Evangelin L	ANPPN2331P	NA	M.E. and Ph.D.	Sathyabhama University	Image Processing	19/08/2024	1.3	Associate Professor	Associate Professor		Regular	Yes		No
7	Ranjith V.G	AJNPR7513G	NA	M.E. and Ph.D.	Noorul Islam Centre for Higher Education	Image Processing	10/08/2002	23.4	Lecturer	Assistant Professor		Regular	Yes		Yes
8	Venifa Mini G	AJOPV3297P	NA	M.E. and Ph.D.	Noorul Islam Centre for Higher Education	Cloud Computing	18/01/2008	17.10	Lecturer	Assistant Professor		Regular	Yes		No
9	Safrin S	HIKPS2075C	NA	M.E.	Anna University	AI and DS	18/11/2019	6	Assistant Professor	Assistant Professor		Regular	Yes		No

10	Jebin Bose S	GPAPS7896F	NA	M.E. and Ph.D.	Noorul Islam Centre for Higher Education	Data Analytics and Network Security	30/03/2021	4.8	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Jelintaric G	BICPJ9322B	NA	M.Tech	SRM Institute of Science and Technology	Data Science	18/06/2022	3.5	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Jothy C R	BCUPJ6025R	NA	M.E.	Anna University	Blockchain	18/07/2022	3.4	Assistant Professor	Assistant Professor		Regular	Yes		No
13	A. Shajin Nargunam	ARHPS6666A	NA	M.E. and Ph.D.	National Institute of Technology Calicut	Wireless networks	04/08/1997	28.4	Lecturer	Professor	10/08/2009	Regular	Yes		No
14	S.Athira	BOWPA7826P	NA	M.E.	Anna University	CSE	11/11/2025	0	Assistant Professor	Assistant Professor		Regular	Yes		No

5.1 Student-Faculty Ratio (SFR) (30)**Total Marks 22.00**

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):
UG1=1st UG program
UGn=nth UG program
B= No. of Students in UG 2nd year (ST)
C= No. of Students in UG 3rd year (ST)
D= No. of Students in UG 4th year (ST)
No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):
PG1=1st PG program.
PGm=mth PG program
A= No. of Students in PG 1st year
B= No. of Students in PG 2nd year
Student Faculty Ratio (**SFR**) = S/F
S= No. of students of all programs in the Department including all students of allied departments/clusters.
No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)
Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.
F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

UG

No. of UG(Engineering) programs in Department including allied departments/clusters(UGn):

Computer Science and Engineering						
Year of Study	CAY		CAYm1		CAYm2	
	(2025-26)		(2024-25)		(2023-24)	
	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students
2nd Year	60	0	60	5	60	4
3rd Year	60	5	60	4	60	6
4th Year	60	4	60	6	60	6
Sub-Total	180	9	180	15	180	16
Total	189		195		196	
Grand Total		189	195		196	

PG

No. of PG Programs in the Department

Computer Science and Engineering			
Year of Study	CAY(2025-26)	CAYm1(2024-25)	CAYm2 (2023-24)
	Sanction Intake	Sanction Intake	Sanction Intake
1st Year	12	12	12
2nd Year	12	12	12
Total	24	24	24
Grand Total	24	24	24

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 1

Computer Science and EngineeringComputer Science and Engineering

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	60	65	64
UG1.C	65	64	66
UG1.D	64	66	66
UG1: Computer Science and Engineering	189	195	196
PG1.A	12	12	12
PG1.B	12	12	12
PG1: Computer Science and Engineering	24	24	24
DS=Total no. of students in all UG and PG programs in the Department	213	219	220
AS=Total no. of students of all UG and PG programs in allied departments	0	0	0
S=Total no. of students in the Department (DS) and allied departments (AS)	S1= 213	S2= 219	S3= 220
DF=Total no. of faculty members in the Department	13	13	12
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 13	F2= 13	F3= 12
FF=The faculty members in F who have a 100% teaching load in the first-year courses	1	1	1
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 17.75	SFR2= 18.25	SFR3= 20.00
Average SFR for 3 years	SFR= 18.67		

Average SFR for three assessment years : 18.67

Assessment SFR : 22

5.2 Faculty Qualification (25)

Total Marks 25.00

Institute Marks : 25.00

Year	X	Y	RF	$FQ = 2.5 \times [(10X + 4Y) / RF]$
2025-26(CAY)	10	3	10.00	28.00
2024-25(CAYm1)	9	4	10.00	26.50
2023-24(CAYm2)	8	4	10.00	24.00

Average Assessment : 26.17

5.3 Faculty Cadre Proportion (25)

Total Marks 25.00

Institute Marks : 25.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2025-26)	1.00	2.00	2.00	5.00	7.00	6.00
CAYm1(2024-25)	1.00	2.00	2.00	5.00	7.00	6.00
CAYm2(2023-24)	1.00	2.00	2.00	4.00	7.00	6.00
Average Numbers	1.00	2.00	2.00	4.67	7.00	6.00

Cadre Ratio Marks $[(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 25.00$

5.4 Visiting/Adjunct/Emeritus Faculty etc. (10)

Table No. 5.4.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

(CAYm1) 2024-25

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1					

(CAYm2) 2023-24

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1					

(CAYm3) 2022-23

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1					

5.5 Faculty Retention (10)

Total Marks 10.00

Description	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section 5.1 of SAR; (RF=S/20).	10	11	5
AF=The no. of available faculty members in the Department including allied Departments	13	12	10
A= The no. of faculty members at the current institute with less than 1 year of experience (A in AF)	0	0	2
B= The no. of faculty members at the current institute with more than 1 year and less than 2 years of experience (B in AF)	1	0	1
C= The no. of faculty members at the current institute with more than 2 years and less than 3 years of experience (C in AF)	2	2	1
D= The no. of faculty members at the current institute with more than 3 years and less than 4 years of experience (D in AF)	2	2	0
E= The no. of faculty members at the current institute with more than 4 years of experience (E in AF)	8	8	6
FR=((A*0) +(B*1)+(C*2)+(D*3)+(E*4))/RF) *2.50 (points limited to 10)	10	10	10

Average : 10.00

Assessment Marks : 10.00

6 FACULTY CONTRIBUTIONS (120)

Total Marks 82.79

6.1 Professional Development Activities (60)

Total Marks 54.79

6.1.1 Memberships in Profession Societies at National/International Levels (5)

Institute Marks : 5.00

Table No. 6.1.1.1: List of faculty members and their memberships.

S.No	Name of the Faculty	Name of the Professional Society /Body at National and International Level	Name of the Grade/ Level/Position
1	Dr. V. G. Ranjith	ISTE	Life Time Member
2	Dr. Jebin Bose S	Institute of Scholars (InSc)	Professional / Life Time
3	Dr.L Nisha Evangelin	International Association of Engineers (IAENG)	Member

6.1.2 Faculty as Resource Persons or Participants in STTPs/FDPs (10)

Institute Marks : 5.00

6.1.2.1 Faculty as Resource Persons in STTPs/FDPs (5)

**Table No. 6.1.2.1: List of faculty members as resource person in STTP/FDP events.
(CAYm1) 2024-25**

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Mr.Jebin Bose	A Five Day Wokshop on Machine Learning and Deep Learning	3/3/2025	Valliyoor, Tamil Nadu	PET Engineering College,Valliyoor
2	Dr.B Ben Sujitha	Faculty Development Programme on Exploratory Data Analysis and Visualization	9/9/2024	Online	Electronics and ICT Academy, IIT Roorkee
3	Dr.B Ben Sujitha	Professional Development Programme on Edge Computing Powered Artificial Intelligence of Things	16/11/2024	Kumaracoil	Department of CA, NICHE
4	Dr.B Ben Sujitha	FDP on Next Generation Technology on Aviation, Intelligent Systems and Green Computing	26/5/2025	Kumaracoil	Department of Mechanical Engineering,NICHE
5	Dr.B Ben Sujitha	ACN International Conference	24/5/2025	Online	Gurgoan,India

(CAYm2) 2023-24

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr.J.E Judith	FDP on Applications of AI in academic and research	21/5/2024	NICHE	Department of Automobile/FTSE /Mechanical,NICHE
2	Dr.G Venifa Mini	FDP on Applications of AI in academic and research	21/5/2024	NICHE	Department of Automobile/FTSE /Mechanical,NICHE

(CAYm3) 2022-23

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr.A Anitha	Five Days National Level Workshop on Fundamental Concepts of Computer and Logic Design	9/1/2023	Oorgaum	Dr.T Thimmaiah Institute of Technology,Oorgaum

6.1.2.2 Faculty Members' Participation in STTPs/FDPs (5)

Institute Marks : 4.79

Name of the faculty	Max 5 Per Faculty		
	2024-25(CAYm1)	2023-24(CAYm2)	2022-23(CAYm3)
Dr.V G Ranjith	0.00	3.00	0.00
Dr.B Ben Sujitha	5.00	5.00	0.00
Dr.J.E Judith	5.00	5.00	5.00
Dr.A Anitha	5.00	5.00	3.00
Dr.G Beni	5.00	5.00	0.00
Dr.L Nisha Evangelin	5.00	0.00	0.00
Dr.G Venifa Mini	5.00	3.00	3.00
Ms.S Safrin	0.00	0.00	3.00
Dr.S Jebin	0.00	5.00	5.00
Mr.Jelin Taric	5.00	5.00	0.00
Ms.C R Jothy	5.00	5.00	5.00
Sum	40.00	41.00	24.00
RDF = Number of faculty required to comply with the 20:1 student - faculty ratio in the Department alone, as per section 5.1 of SAR(RDF= DS / 20).	10.65	10.95	11.00
Assessment Points (AP)= (Sum/(0.5* RDF)) (Points limited to 5 for each assessment year)	5.00	5.00	4.36

Average assessment over 3 years: 4.79

6.1.3 Faculty Contribution in Development of SWAYAM MOOCs and other E-Content (5)

Institute Marks :

Table No. 6.1.3.1: List of faculty members developed MOOC course for the past 3 years.

S.No	Name of the Faculty	Name of the Course Developed and available online on Swayam platform by your Department faculty
1		

6.1.4 Faculty Certification of MOOCs through SWAYAM, etc. (10)

Institute Marks : 10.00

Table No. 6.1.4.1: List of faculty members obtained certification of MOOCs for the past 3 years.

S.No	Name of the Faculty	Name of Course Passed	Course Offered by (agency)	Grade obtained if any
1	Dr.J.E Judith	Cloud Computing	NPTEL	81
2	Dr.G Beni	Cloud Computing	NPTEL	77
3	Dr. G Venifa Mini	Cloud Computing	NPTEL	88
4	Ms.C R Jothy	Cloud Computing	NPTEL	87
5	Dr.A Anitha	Foundation of Cloud IoT Edge ML	NPTEL	72
6	Dr.L Nisha Evangelin	Software Engineering	NPTEL	51

6.1.5 FDP/STTP Organized by the Department (10)

Institute Marks : 10.00

Table No. 6.1.5.1: List of FDPs/STPs organized by Department for the past 3 years.**(CAYm1) 2024-25**

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Faculty Development Program on Empowering Smart Education with AI and IoT	25/11/2024	5 days	Mr.Abdhul Kalam,Trainee,Edgate,Bangalore.	43

(CAYm2) 2023-24

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Faculty Development Program on Harnessing AI:Tools, Applications and its Innovations	20/05/2024	6 days	Dr.R Ramalakshmi,Professor,KARE,Krishnancoil	45

(CAYm3) 2022-23

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	0	0	0	0	0

6.1.6 Faculty Support in Student Innovative Projects (10)

Institute Marks : 10.00

Table No. 6.1.6.1: List of faculty members involved in student innovative projects.**(CAYm1) 2024-25**

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr.B Ben Sujitha	❖ BBG 1.0-BIT BATTLEGROUND 48HR HACKATHON	22/03/2025	Telangana	-

(CAYm2) 2023-24

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	0	0	0	0	0

(CAYm3) 2022-23

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	0	0	0	0	0

6.1.7 Faculty Internship/Training/Collaboration with Industry (10)

Institute Marks : 10.00

Table No. 6.1.7.1: Faculty internship/training/collaboration details.

S.No	Name of the Faculty	Name of the Internship/ Training/ Collaboration	Name of the Company & Place	Duration	Outcomes of Internship/ Training/ Collaboration
1	Dr.L Nisha Evangelin	Train the Trainer Workshop on Artificial Intelligence, Machine Learning & Deep Learning	Intel Unnati Lab	6 days	Enhanced teaching skills, improved research capabilities, better career advancement opportunities
2	Dr.J.E Judith	Train the Trainer Workshop on Artificial Intelligence, Machine Learning & Deep Learning	Intel Unnati Lab	6 days	Enhanced teaching skills, improved research capabilities, better career advancement opportunities
3	Ms.C R Jothy	Train the Trainer Workshop on Artificial Intelligence, Machine Learning & Deep Learning	Intel Unnati Lab	6 days	Enhanced teaching skills, improved research capabilities, better career advancement opportunities
4	Dr.Ben Sujitha	Train the Trainer Workshop on Artificial Intelligence, Machine Learning & Deep Learning	Intel Unnati Lab	6 days	Enhanced teaching skills, improved research capabilities, better career advancement opportunities
5	Dr.G Beni	Train the Trainer Workshop on Artificial Intelligence, Machine Learning & Deep Learning	Intel Unnati Lab	6 days	Enhanced teaching skills, improved research capabilities, better career advancement opportunities
6	Dr.B Ben Sujitha	Microsoft Power BI Data Analyst Associate	ICT Academy,Nagercoil	5 days	Enhanced employability through industry-relevant technical and soft-skill training.
7	Dr.V G Ranjith	Idea Generation Methods	ICT Academy,Nagercoil	5 days	Enhanced employability through industry-relevant technical and soft-skill training.
8	Dr.G Beni	Paloalto Cloud Security Fundamentals	ICT Academy,Nagercoil	5 days	Enhanced employability through industry-relevant technical and soft-skill training.
9	Ms.C R Jothy	Microsoft BI Data Analyst	ICT Academy,Nagercoil	5 days	Enhanced employability through industry-relevant technical and soft-skill training.
10	Dr.G Venifa Mini	Cloud Practitioner(AWS)	ICT Academy,Nagercoil	5 days	Enhanced employability through industry-relevant technical and soft-skill training.

6.2 Research and Development Activities (60)**Total Marks 28.00**

6.2.1 Academic Research (10)

Institute Marks : 10.00

Table No. 6.2.1.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	38	13	17
2	No. of peer reviewed conference papers published	37	29	31
3	No. of books/book chapters published	17	8	2

6.2.2 Ph.D. Student Details (5)

Institute Marks : 5.00

Table No. 6.2.2.1: Ph.D. details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of students enrolled for Ph.D. in the Department	6	19	14
2	No. of Ph.D. students graduated in the Department	8	5	7

6.2.3 Development Activities (10)

Institute Marks : 10.00

Patent Details (2024-2025)					
Sl.No	Name of the Faculty	Application No.	Title of Invention	Duration	Status
1	Dr. B. Ben Sujitha	L-153515/2024	AI Powered Framework For Predictive Maintenance In Industrial Iot Networks	Granted	11-09-2024
2	Dr. B. Ben Sujitha	6447088	Smart with Integrated AR Display for Health Monitoring	Published	26/05/2025
3	Dr. G. Venifa Mini	412904-001	An Iot Based Solar Power Agricultural Robot	Published	04/07/2024
4	Dr. J. E. Judith	412904-001	An Iot Based Solar Power Agricultural Robot	Published	04/07/2024
5	Dr. G. Beni	412904-001	An Iot Based Solar Power Agricultural Robot	Published	04/07/2024
6	Ms. C. R. Jothy	412904-001	An Iot Based Solar Power Agricultural Robot	Published	04/07/2024

Patent Details (2023-2024)					
Sl.No	Name of the Faculty	Application No.	Title of Invention	Duration	Status
1	Dr. v. G. Ranjith	387021-001	Food Processor	Published	04/09/2023
2	Dr. v. G. Ranjith	391919-001	Climate Forecasting Device	Published	27/09/2023

3	Dr. V. G Ranjith, Dr. A. Anitha Dr. B. Ben Sujitha Mr. G. Jelin Taric Ms. Krithiya T	411761-001	lot Based Wearable Device For Heart Rate Monitoring	Applied	27/03/2024
4	Dr. V. G Ranjith, Dr. A. Anitha Dr. B. Ben Sujitha Mr. G. Jelin Taric Ms. Krithiya T	411761-001	lot Based Wearable Device For Heart Rate Monitoring	Published	03/05/2024
5	Dr. B. Ben Sujitha	414581-001	Ai Based Device For Skin Cancer Detection Using Image Processing	Applied	23/04/2024
6	Dr. B. Ben Sujitha	414581-001	Ai Based Device For Skin Cancer Detection Using Image Processing	Published	30/05/2024
7	Dr. B. Ben Sujitha	410991-001	Ai-powered Device For Employee Efficiency Monitoring	Applied	19/03/2024
8	Dr. B. Ben Sujitha	410991-001	Ai-powered Device For Employee Efficiency Monitoring	Published	22/05/2024
9	Mr. S. J. Jebin Bose	202441034120 A	Method And System For Task Scheduling In A Cloud-fog Network Operating In Space Via Computing Offloading	Applied	03/05/2024
10	Dr. G. Venifa Mini, Dr. J. E. Judith, Dr. G. Beni Ms. C. R. Jothy	412904-001	An lot Based Solar Power Agricultural Robot	Applied	08/04/2024

Patent Details (2022-2023)

Sl.No	Name of the Faculty	Application No.	Title of Invention	Duration	Status
1.	Dr. A. Shajin Nargunam	422922	Trusted Computing based Security architecture for Mobile Cloud computing	Granted	23/02/2023 [20 years from 28/10/2015]
2.	Dr. V. G. Ranjith	387021-001	Food Processor	applied	25/05/2023
3.	Dr. V. G. Ranjith	391919-001	Climate Forecasting Device	published	27/09/2023

6.2.4 Sponsored Research Project (15)

Institute Marks :

2024-25 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

2023-24 (CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

2022-23 (CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

Total Amount (Lacs) Received for the Past 3 Years:

Note*:

- Only sponsored research projects will be considered. Infrastructure-based projects will not be considered here.

6.2.5 Consultancy Work (15)

Institute Marks :

2024-25 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

2023-24 (CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

2022-23 (CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

Total amount (Lacs) received for the past 3 years:

Note*:

- Only consultancy projects will be considered. Infrastructure-based projects will not be considered here.

6.2.6 Institution Seed Money or Internal Research Grant to its Faculty for Research Work(5)

Institute Marks : 3.00

6.2.6 A Amount received (3)

2024-25 (CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
			Amount received (Rs.): 0		

2023-24 (CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
J. E. Judith	Unveiling the IoT's dark corners: anomaly detection enhanced by ensemble modelling	2	100000.00		
			Amount received (Rs.): 100000.00		

2022-23 (CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project

Total amount (Lacs) received for the past 3 years :

6.2.6 B Amount utilized (2)

Institute Marks :

7 FACILITIES AND TECHNICAL SUPPORT (100)

Total Marks 100.00

7.1 Adequate and well equipped laboratories, and technical manpower (40)

Total Marks 40.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Computer Lab	50	SERVER - 1 Co	CS3273 OBJE	V. Viji Kumar	Lab Assistant	COPA
2	Computer Lab	50	SERVER 1 Cor	CS3285 COMF	V. Viji Kumar	Lab Assistant	COPA
3	Micro Process	30	8084-51,8086-	CS3278 - Micr	J. Jeya Sheeb	Lab Assistant	Diploma in Cor

7.2 Additional Facilities Created for Improving the Quality of Learning Experience in Laboratories (20)

Total Marks 20.00

Institute Marks : 20.00

Sr. No	Name of the Facility	Details	Purpose for creating facility	Utilization	Relevance to POs/PSOs
1	IOS Lab	11 Systems	Enable iOS App Development. Support Research and Innovation. Hands-On Practical Learning.	Innovation and Startup. Support for Students. Prepare Hackathons and Competition.	PO1,PO2,PO4,PO5 and PO9
2					
3					

7.3 Maintenance of laboratories and overall ambiance (10)

Total Marks 10.00

The Department maintains all laboratories in a clean, organized, and fully functional condition to ensure a productive learning environment. Regular preventive maintenance is carried out for computer systems, networking equipment, and software resources to minimize downtime. Each lab, including the Cloud Lab, Intel Unnati Lab, and iOS Lab, is equipped with updated tools, licensed software, and high-speed connectivity to support both academic requirements and project-based learning.

Technical staff monitor lab functioning, ensure timely system upgrades, and assist students during practical sessions. The overall ambiance of the laboratories reflects a student-friendly and professional atmosphere with proper ventilation, lighting, ergonomic seating, safety signage, and ICT-enabled environments. Display boards showcasing achievements and project outcomes further enhance the academic culture and promote innovation within the department.

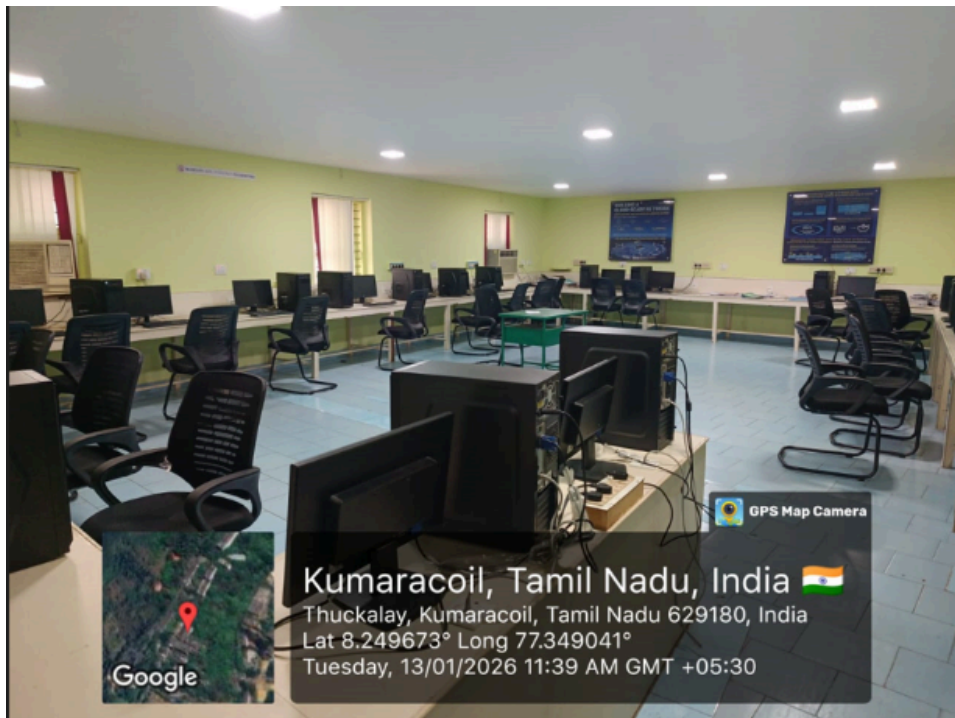
Computer Laboratory I



Computer Laboratory II



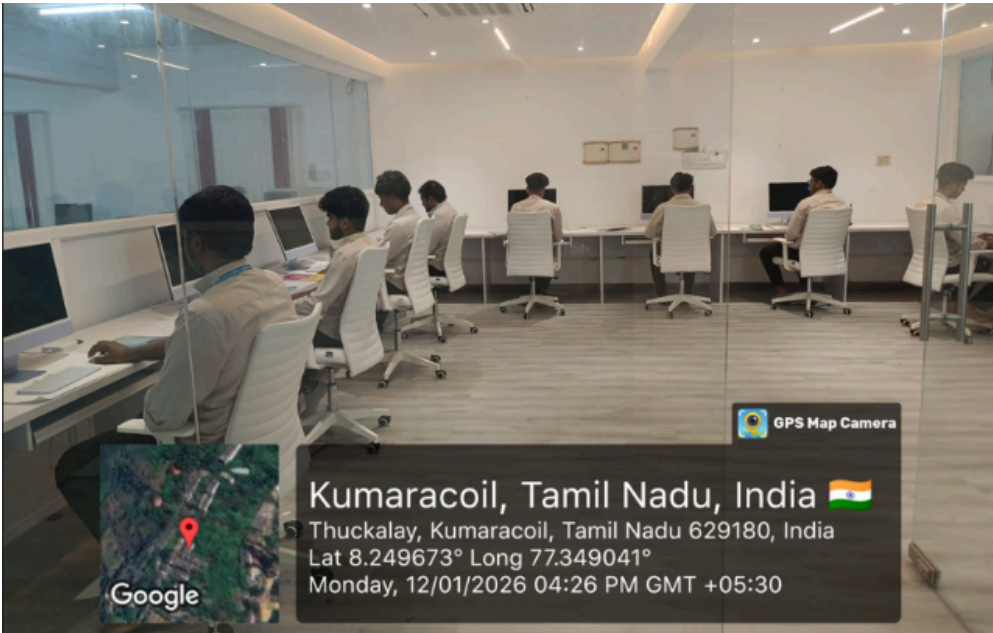
Cloud Computing Laboratory



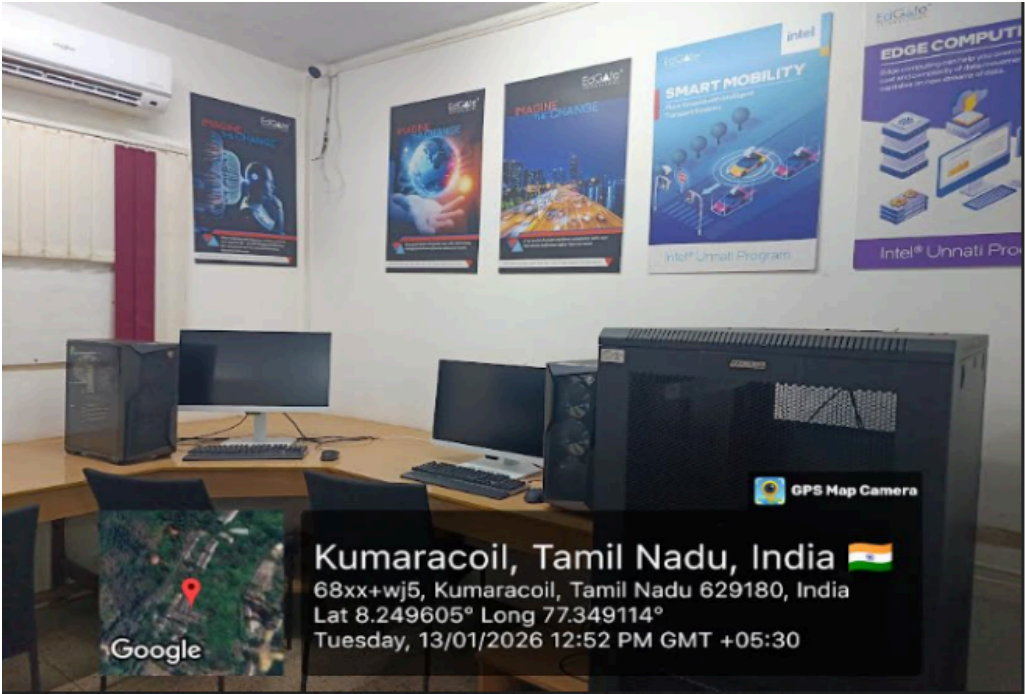
Micro Processor and Micro Controller Lab



IOS Laboratory



Intel Unnati Laboratory



7.4 Safety measures in laboratories (10)

Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Computer Lab I	Emergency Exit Fire Extinguisher

7.5 Project laboratory/research laboratory /centre of excellence (20)

Total Marks 20.00

The **Intel Unnati Lab and Cloud Computing Lab** is utilized to support advanced learning, innovation, and research activities. The lab provides students and faculty with access to industry-standard hardware, software tools, and Intel-supported frameworks for emerging technologies.

It is actively used for:

1. Student projects (mini projects, final year projects, capstone projects)
2. Research and development activities by faculty and students
3. Hands-on training in AI, Machine Learning, Data Science, IoT, and High-Performance Computing
4. Innovation, prototyping, and proof-of-concept development
5. Industry-oriented problem solving and collaborative research
6. Skill development programs, workshops, and hackathons
7. Research and development activities in cloud computing, virtualization, containerization, and distributed systems
8. Hands-on training on cloud platforms, virtual machines, storage, networking, and DevOps tools
9. Design and deployment of cloud-based applications and services

The **Intel Unnati Lab and Cloud Computing Lab** functions as a Centre of Excellence, fostering industry-academia collaboration, enhancing research culture, and improving students' employability and readiness for advanced technological roles.

Fig 7.5.1 Intel Unnati Lab

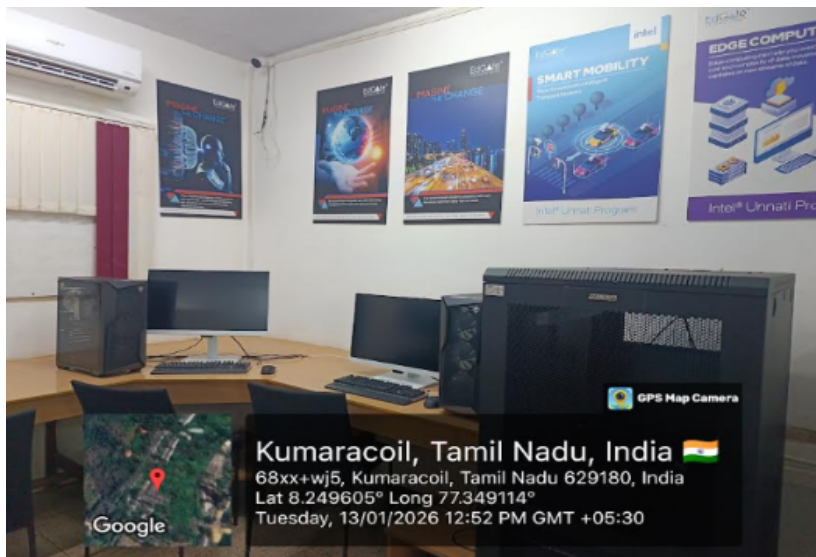
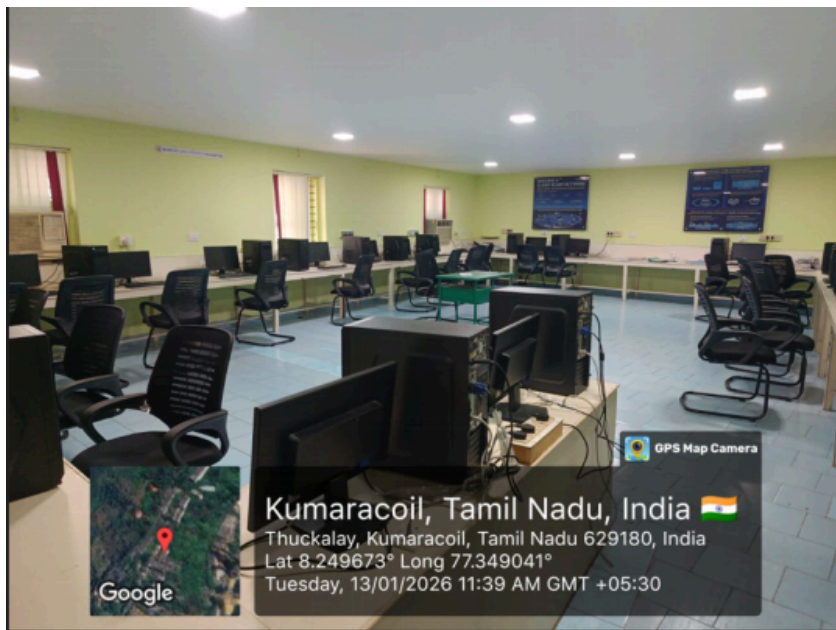


Fig 7.5.1 Cloud Computing Lab



8 CONTINUOUS IMPROVEMENT (80)

Total Marks 80.00

8.1 Actions taken based on the results of evaluation of each of the COs, POs & PSOs (40)

Total Marks 40.00

8.1.1 Actions Taken Based on the Results of Evaluation of the COs Attainment (20)

Institute Marks : 20.00

COs	Target Level	Attainment Level	Observation	Actions Taken for Improvement (CAYm1)
CO1	2.0	1.8	Target partially achieved. Students showed adequate understanding of basic concepts but lacked confidence in applying fundamentals to problem-solving.	Action 1: Additional tutorial and remedial classes were conducted to strengthen fundamental concepts. Action 2: Use of NPTEL video lectures and flipped classroom approach was encouraged to reinforce theoretical understanding.
CO2	2.0	1.9	Target partially achieved. Students need improvement in analytical and problem formulation skills.	Action 1: Problem-Based Learning (PBL) activities were introduced in classroom sessions. Action 2: Analytical and higher-order questions were included in internal assessments.
CO3	2.0	1.9	Target partially achieved. Design and development skills require further enhancement.	Action 1: Mini-projects and case-study-based assignments were incorporated. Action 2: Students were motivated to undertake internships and real-world project development.
CO4	2.0	1.8	Target partially achieved. Students showed limited exposure to research-based and investigative learning.	Action 1: Workshops on research methodology and data analysis were conducted. Action 2: Students were encouraged to participate in project expos, symposiums, and paper presentations.
CO5	2.0	1.9	Target achieved. Students demonstrated satisfactory communication and professional skills.	Action 1: Value Added Courses on modern tools and platforms were organized.

8.1.2 Actions Taken Based on the Results of Evaluation of the POs/PSOs Attainment (20)

Institute Marks : 20.00

POs / PSOs	Target Level	Attainment Level	Observation	Actions Taken for Improvement (CAYm2 & CAYm3)
PO-A	2.0	1.79	Target achieved. Strong understanding of mathematics, science, and engineering fundamentals.	Action 1: Students encouraged to use NPTEL, Infosys Springboard, and e-resources to strengthen core concepts. Action 2: Flipped classroom approach adopted to promote deeper conceptual learning.
PO-B	2.0	1.97	Target achieved. Scope to further enhance analytical and real-world problem-solving skills.	Action 1: Value Added Courses on programming and emerging technologies were conducted. Action 2: Students motivated to participate in coding contests and hackathons.
PO-C	2.0	2.19	Target achieved. Design skills improved; exposure to multidisciplinary projects needed.	Action 1: Students encouraged to undertake internships to gain design exposure. Action 2: Project-based learning and multidisciplinary project development promoted.
PO-D	2.0	2.41	Target achieved. Research aptitude improved; further exposure recommended.	Action 1: Workshops on research methodology and data analysis were conducted. Action 2: Students encouraged to present papers in symposiums and conferences.

PO-E	2.0	2.61	Target achieved. Need to continuously update skills with latest tools.	Action 1: Value Added Courses on modern tools and platforms organized. Action 2: Hands-on training using Code Tantra, Infosys Springboard, and IBM SkillsBuild. Action 3: Internship participation encouraged.
PO-F	2.0	2.78	Target achieved. Students understand societal, health, and safety responsibilities.	Action 1: Students guided to select socially relevant final-year projects. Action 2: Industrial visits arranged to understand societal implications.
PO-G	2.0	2.89	Target achieved. Awareness on sustainable development improved.	Action 1: Project Expo conducted focusing on environmental and sustainability issues. Action 2: Industrial visits emphasizing sustainable engineering practices.

8.2 Academic Audit and actions taken thereof during the period of Assessment (15)
Total Marks 15.00

Academic audit by IQAC

- IQAC conducts the academic assessment audit in the following aspects
 - Curricular Aspects
 - Teaching Learning process
 - Research consultancy and extension activities
 - The AAC committee comprises of IQAC coordinator and faculty members from various department nominated by the IQAC.
 - Infrastructure and learning resources
 - Student support and progression

Sl. No.	Stage of Academic Audit Process	Implementation Details	Actions Taken for Continuous Improvement
1	Academic Calendar Framing	Academic calendar is prepared at the beginning of each semester as per University schedule.	Ensures timely completion of syllabus, assessments, and academic activities without deviation.
2	Publishing and Dissemination	The approved academic calendar is published on the college website and circulated to faculty and students.	Improves transparency and preparedness among faculty and students.
3	Subject Allocation	Subjects are allocated to faculty members based on expertise and experience by the HoD.	Enhances quality of course delivery through appropriate faculty–course matching.
4	Finalizing Workload	Teaching workload is finalized ensuring equitable distribution among faculty members.	Avoids overload and ensures effective teaching-learning process.
5	Preparation of Lesson Plan, Course Materials & Lab Manuals	Faculty prepare lesson plans, course materials, and lab manuals before commencement of semester.	Ensures structured teaching, uniform syllabus coverage, and outcome-based delivery.
6	Evaluation by HoD	HoD reviews lesson plans, course materials, and lab manuals and provides suggestions.	Faculty incorporate suggestions to improve content quality and teaching methodology.

7	Issuance of Log Books	Class log books are issued to student representatives for monitoring daily class activities.	Maintains accurate records of syllabus coverage and class engagement.
8	Daily Update by Student Representatives	Student representatives submit daily updates on classes conducted to the HoD.	Helps in early identification and correction of deviations in class conduct.
9	Internal Academic Audit by IQAC	IQAC conducts internal academic audit periodically through inspections, reviews, and audits.	Identifies gaps in teaching, evaluation, and documentation practices.
10	Course Plan & Course Delivery Evaluation	Course delivery is evaluated based on syllabus completion, assessment quality, student performance, and feedback.	Corrective actions such as remedial classes, pedagogical improvements, and faculty training are implemented.
11	Audit Report Submission	Audit findings are documented and submitted to HoD.	Ensures accountability and systematic follow-up.



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

Internal Quality Assurance Cell (IQAC)

ACADEMIC ASSESSMENT AUDIT (2022 - 2023)

Name of the Department: CSE

Date: 19.10.2023

Sl.No	Description	Five Point Scale				
I	CURRICULAR ASPECTS	A	B	C	D	E
1	Lecture Plan / Syllabus coverage details / Course Attainment	/				
2	Lab Plan / Lab Manual / Lab coverage details	/				
3	Incorporation of BOS Meetings Recommendations	/				
4	New Course / Electives Introduced	/				
5	Class Committee	/				
6	Programme Committee	/				
7	Academic - Course Registration	/				
8	Intramural - Course Registration	/				
9	Certificate / Value-added / Online courses	/				
10	Field projects/Research projects/ Internships	/				
11	Student feedback about faculty	/				
12	Feedback from Student regarding curriculum	/				
13	Feedback from Staff regarding curriculum	/				
14	Feedback from Alumni regarding curriculum	/				
15	Feedback from Experts (Academic / Industry)	/				
	$75 + 0 + 0 + 0 + 0 = 75 / 75 \times 100 = 100$					
II	TEACHING LEARNING PROCESS	A	B	C	D	E
1	Students Enrolment details		/			
2	Seats filled against reserved categories (SC,ST,OBC)					/
3	Student-Fulltime teacher ratio	/				
4	Pass percentage of students		/			
5	Remedial Course details / Slow learner details	/				
6	Student participation in Seminar / Conference / Symposium	/				
7	Project Work details	/				
8	Student Publications	/				
9	Invited Experts / Eminent Professor / Guest Lecture / Scientist details		/			
10	Seminar / Workshop / Training Programme / Technical Symposium organized	/				
11	Industrial visit					/

12	Annual Sports / Cultural Meet participation		/			
13	NCC/ NSS /others				/	
14	Internal Assessment details	/				
15	End Semester details, Result Analysis, Student Arrear details and Rank list	/				
	$40 + 16 + 0 + 2 + 1 = 78.6$					

III	RESEARCH, CONSULTANCY AND EXTENSION ACTIVITIES	A	B	C	D	E
1	Teachers receiving national / international fellowship / financial support by various agencies for advanced studies / research					✓
2	JRFs, SRFs among the enrolled PhD scholars					✓
3	National and International conferences organized	✓				
4	Patents published	✓				
5	Research Projects completed and grants received					✓
6	Faculty publications (SCI / Web of Science / Scopus)	✓				
7	Faculty publications (UGC)	✓				
8	Faculty h-index	✓				
9	Book Chapter details	✓				
10	Research Awards received by faculty and students					✓
11	Consultancy Services provided and funds received					✓
12	Promotion of Industry Institute Interaction and R&D					✓
13	E-content developed by teachers					✓
14	Extension Activities					✓
15	Functional MoUs	✓				
	$35+8 = 57$					
IV	Infrastructure and Learning Resources	A	B	C	D	E
1	Library Details	✓				
2	Smart Room usage register	✓				
3	Industry Tie-up programmes					✓
4	Learning Materials provided	✓				
5	Other Interactive materials prepared / used, NPTEL course content used			✓		
	$15+3+1 = 19 / 25 \times 100 = 76$					
V	STUDENT SUPPORT AND PROGRESSION	A	B	C	D	E
1	Students benefited by scholarships and freeships provided by the institution, Government and non-government bodies, industries, individuals, etc					✓
2	Capacity development and skills enhancement courses					✓
3	Placement details of outgoing students	✓				
4	Students who have progressed to higher education		✓			
5	Students qualifying instate / National / International level Examination					✓
6	Number of awards / medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events	✓				
7	Alumni Interaction programme conducted	✓				
8	Alumni contribution					✓

9	Student Counselling details						
10	Student Membership details IEEE, IET, ISTE, CSI, NCSSS and other professional bodies						
	$15+8+5=28/50 \times 100 = 56$						

The department performance index (Relative) P_r :

$$P_r = P_a / \text{Max } (P_a) = 75.1 / 76.8 = 0.977$$

Observations of the Academic Audit Committee Members

- * Curricular Aspects; Institutional values and Best practices are Excellent and Monumental.
- * Teaching Learning Process; Infrastructure and Learning Resources; Governance, Leadership and Management are Good and can be improved.
- * Special Care should be given in Research, Consultancy and Extension Activities; Student Support and Progression.

Name & Signature

Dr. P. FELIX STEPHEN

Name & Signature

Dr. J.P. JAYAN

Director IQAC

Joorul Islam Centre for Higher Education
umaracoll - 629180, Kanyakumari District
Tamil Nadu.

Overall Observations

- * Create opportunities for academic advising, mentorship and career guidance to enhance student engagement and success.
- * Conduct faculty development programs focused on innovative teaching methodologies, interactive learning techniques and the integration of practical applications into the curriculum.
- * Strengthen partnership with industries to bridge the gap between the industry and academics.

Name & Signature

Name & Signature

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.

4

VI	Governance, Leadership and Management	A	B	C	D	E
1	Teachers provided with financial support to attend conferences / workshops					✓
2	Teachers undergoing online / face-to-face Faculty Development Programmes (FDP) / Management Development Programs (MDP)	✓				
3	Industry Academic Collaborations	✓				
4	Parent Teacher Meeting details	✓				
5	Training Programme organized for Professional Development of Teaching / Non-Teaching staff					✓
	$15+2 = 17 / 25 \times 100 = 68$					
VII	Institutional Values and Best Practices	A	B	C	D	E
1	Alternate sources of energy and energy conservation measures	✓				
2	Water conservation facilities	✓				
3	Annual awareness programmes on Code of Conduct organized				✓	
4	Professional ethics programmes for students, teachers organized			✓		
5	Department Best Practices	✓				
	$15+3+2 = 20 / 25 \times 100 = 80$					

Letter grade	Weightage
A	5
B	4
C	3
D	2
E	1

Category wise percentage is calculated with the following formula

$$C_1 = (C_a \times 5 + C_b \times 4 + C_c \times 3 + C_d \times 2 + C_e \times 1) / 75 \times 100 \text{ ---- (1)}$$

$$C_2 = (C_a \times 5 + C_b \times 4 + C_c \times 3 + C_d \times 2 + C_e \times 1) / 75 \times 100 \text{ ---- (2)}$$

$$C_3 = (C_a \times 5 + C_b \times 4 + C_c \times 3 + C_d \times 2 + C_e \times 1) / 75 \times 100 \text{ ---- (3)}$$

$$C_4 = (C_a \times 5 + C_b \times 4 + C_c \times 3 + C_d \times 2 + C_e \times 1) / 25 \times 100 \text{ ---- (4)}$$

$$C_5 = (C_a \times 5 + C_b \times 4 + C_c \times 3 + C_d \times 2 + C_e \times 1) / 50 \times 100 \text{ ---- (5)}$$

$$C_6 = (C_a \times 5 + C_b \times 4 + C_c \times 3 + C_d \times 2 + C_e \times 1) / 25 \times 100 \text{ ---- (6)}$$

$$C_7 = (C_a \times 5 + C_b \times 4 + C_c \times 3 + C_d \times 2 + C_e \times 1) / 25 \times 100 \text{ ---- (7)}$$

C_a – Number of times 'A' rating has obtained in that category

C_b – Number of times 'B' rating has obtained in that category

C_c – Number of times 'C' rating has obtained in that category

C_d – Number of times 'D' rating has obtained in that category

C_e – Number of times 'E' rating has obtained in that category

The department performance index (Absolute) P_a :

$$F_1 = [(C_1 \times Z) + (C_2 \times Z) + (C_3 \times Z) + (C_4 \times 1) + (C_5 \times 1) + (C_6 \times 1) + (C_7 \times 1)] / 10$$
$$800 + 157 + 114 + 76 + 156 + 68 + 80 / 10 = 75.1$$

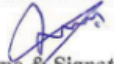
3

The department performance index (Relative) P_r :

$$P_r = P_a / \text{Max}(P_a) = 75.1 / 76.8 = 0.977$$

Observations of the Academic Audit Committee Members

- * Curricular Aspects; Institutional values and Best practices are Excellent and Monumental.
- * Teaching Learning Process; Infrastructure and Learning Resources; Governance, Leadership and Management are Good and can be improved.
- * Special Care should be given in Research, Consultancy and Extension Activities; Student Support and Progression.


Name & Signature
Dr. P. Felix Stephen


Name & Signature
Dr. J.P. Jayan
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umaracoll - 629180, Kanyakumari District
Tamil Nadu.

Overall Observations

- * Create opportunities for academic advising, mentorship and career guidance to enhance student engagement and success.
- * Conduct faculty development programs focused on innovative teaching methodologies, interactive learning techniques and the integration of practical applications into the curriculum.
- * Strengthen partnership with industries to bridge the gap between the industry and academics.

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4

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOH
(Declared as Deemed-to-be-University under section 3 of the UGC Act 1956)

ACADEMIC ASSESSMENT AUDIT

Name of the Department: Computer Science & Engineering (2021-2022) Date: 20/1/23

SLNo	Description	Five Point Scale	A	B	C	D	E
I	CURRICULAR ASPECTS						
1	Location Plan						
2	Lab Plan						
3	Incorporation of BOS Meetings Recommendations						
4	New Electives Introduced						
5	Class Content						
6	Programme Committee						
7	Academic - Course Registration						
8	Internal - Course Registration						
9	Extension Activities						
10	Lab Manual						
	$C_1 = C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10} / 10 \times 100$						
II	FEEDBACK						
1	Student feedback about faculty						
2	Feedback from Student regarding curriculum						
3	Feedback from Staff regarding curriculum						
4	Feedback from Alumni regarding curriculum						
5	Feedback from Experts (Academic / Industry) student regarding curriculum						
	$C_1 = C_1 + C_2 + C_3 + C_4 + C_5 / 5 \times 100$						
III	TEACHING LEARNING PROCESS						
1	Rational course details						
2	Share learning details						
3	Student participation in Seminar / Conference / Symposium						
4	Seminar / Workshop / Training Programme organized						
5	Technical Symposium organized						
6	Invited Experts / Eminent Professor / Guest Lecture / Scholar details						
7	Project Work details						
8	Student Publications						
9	Faculty Training Programme						
10	Faculty participation in Seminar / Conference						
11	Industrial visit / NSS / Annual Sports Meet participation						
12	Internship Training details						
13	Syllabus coverage details						
14	Lab coverage details						
15	Course Assessment						

Name of the Department: Computer Science & Engineering (2021-2022) Date: 20/1/23

16	Internal Assessment details						
17	Session Test Marks and Analysis						
18	End Semester details, Result Analysis and Rank list						
19	Students Award details						
	$75/80 \times 100 = 93.75 \times 100 = 93.75$						
IV	RESEARCH, CONSULTANCY AND EXTENSION ACTIVITIES						
1	National and International conferences organized						
2	Patents registered						
3	Patents published						
4	On-going Research Project details						
5	Research Projects completed and grants received						
6	Faculty publications (SCI / Web of Science / Scopus)						
7	Faculty h-index						
8	Faculty i10-index						
9	Book, Chapter details						
10	Research Awards received by faculty and students						
11	Consultancy Services provided and funds received						
12	Promotion of Industry Institute Interaction and R & D						
	$250/250 \times 100 = 100 \times 100 = 100$						
V	INTERACTIVE USE OF ICT						
1	PPT prepared by faculty						
2	Smart Board usage register						
3	Industry Tie-up programmes						
4	Learning Materials provided						
5	Other interactive materials prepared / used, NPTEL course content used						
	$16/16 \times 100 = 100 \times 100 = 100$						
VI	STUDENT SUPPORT AND PROGRESSION						
1	Mentoring details						
2	Alumni Interaction programme conducted						
3	Question Bank						
4	Placement details						
5	Student Counselling details						
6	Student Mentorship details (BTL, HFL, HFL, CHL, NCSS and other professional bodies)						
	$18/18 \times 100 = 100 \times 100 = 100$						
VII	GOVERNANCE AND LEADERSHIP						
1	Faculty Awards						
2	Industry Academic Collaborations						
3	Faculty Ph.D details						
4	Parent Teacher Meeting details						
5	Training Programme organized for Professional Development of Faculty (Workshop, etc)						
	$10/10 \times 100 = 100 \times 100 = 100$						

Name of the Department: Computer Science & Engineering (2021-2022) Date: 20/1/23

Letter grade	Weightage
A	5
B	4
C	3
D	2
E	1

Category wise percentage is calculated with the following formula

$$C_1 = (C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10}) / 10 \times 100 \quad (1)$$

$$C_2 = (C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10}) / 10 \times 100 \quad (2)$$

$$C_3 = (C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10}) / 10 \times 100 \quad (3)$$

$$C_4 = (C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10}) / 10 \times 100 \quad (4)$$

$$C_5 = (C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10}) / 10 \times 100 \quad (5)$$

$$C_6 = (C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10}) / 10 \times 100 \quad (6)$$

$$C_7 = (C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10}) / 10 \times 100 \quad (7)$$

C_1 - Number of times 'A' rating has obtained in that category
 C_2 - Number of times 'B' rating has obtained in that category
 C_3 - Number of times 'C' rating has obtained in that category
 C_4 - Number of times 'D' rating has obtained in that category
 C_5 - Number of times 'E' rating has obtained in that category

The department performance index (Absolute) P_1 :

$$P_1 = (C_1 + C_2 + C_3 + C_4 + C_5 + C_6 + C_7 + C_8 + C_9 + C_{10}) / 10$$

$$= (100 + 100 + 100 + 100 + 100 + 100 + 100 + 100 + 100 + 100) / 10 = 1000 / 10 = 100$$

$$P_2 = P_1 / \text{Max } (P_1) = 100 / 100 = 1$$

Observations of the Academic Audit Committee Members

- * Curricular Aspects, Feedback, Teaching Learning Process, Use of ICT, Student Support and Progression, Governance and Leadership are Excellent and Monumental

Name of the Department: Computer Science & Engineering (2021-2022) Date: 20/1/23

Overall Observations
1. Research, Consultancy and Extension activities has to be improved.
2. Motivate the Faculty members to apply for Research related projects.
3. Use of NPTEL course contents are less and need to be improved.

Name and Signature

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Director (IAC)
Noorul Islam Centre for Higher Education
Kumaracoh - 629100, Kanyakumari District,
Tamil Nadu.

Prof. Dr. A. Shaji Nigam, M.A., Ph.D.,
Director-Academic Affairs
Noorul Islam Centre for Higher Education
Kumaracoh, Tamil Nadu.

* Research, Consultancy and Extension Activities are Good and Can be improved

Actions taken by the faculty

- Faculty members will incorporate the necessary changes suggested by the academic committee in order to ensure better quality of teaching.
- Faculty members have to cover the syllabus at a consistent pace as per the expectations of the student considering the time available for syllabus completion in accordance with academic planner.
- Faculty members are also encouraged to attend STTP/FDP for academic courses handled by them in the ensuing semester in order to improve their concept clarity so that they can handle those courses with confidence

8.3 Improvement in Faculty Qualification/Contribution (15)

Total Marks 15.00

Institute Marks : 15.00

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
No. of faculty members with Ph.D. degree	8.00	7.00	4.00
No. of publications in peer reviewed journals	35.00	13.00	17.00
No. of publications in conferences	38.00	29.00	31.00

8.4 Improvement in Academic Performance (10)

Total Marks 10.00

Institute Marks : 10.00

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
Academic Performance Index (API) of the First-Year Students in the Program (Refer to section 4.3)	7.14	6.86	6.54
Academic Performance Index (API) of the Second-Year Students in the Program (Refer to section 4.4)	7.68	5.91	6.94
Academic Performance Index (API) of the Third-Year Students in the Program (Refer to section 4.5)	7.02	6.40	7.13

9 STUDENT SUPPORT AND GOVERNANCE (120)

Total Marks 113.00

9.1 First Year Student-Faculty Ratio (FYSFR) (5)

Total Marks 3.00

Please provide First year faculty information considering load

Name of the faculty member	PAN No.	Qualification	From Engineering Courses	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
Dr. Anitha A	ARQPA0695N	Ph.D	Yes	24/09/2016	Wireless networks	Associate Professor	19/02/2008	Yes	Regular	
Dr P.S.Lekshm	ANHPL3604M	Ph.D	No	07/10/2024	Psychology and childrens literature	Assistant Professor	19/03/2025	Yes	Regular	
Dr J John Arul	AWMPJ5230D	Ph.D	No	06/02/2012	Graph Theory and Algebra	Assistant Professor	15/07/2011	Yes	Regular	
S Siga Selvin	FRAPS5808C	M.E.	Yes	01/01/2012	Manufacturing	Assistant Professor	01/09/2025	Yes	Regular	
Dr. B. Bindhu	AOGPB7107R	Ph.D	No	01/01/2013	Phyics	Professor	21/08/2006	Yes	Regular	
Dr C. Sagirani	DXYPS5484Q	Ph.D	No	03/01/2020	Nan materials and composite	Assistant Professor	26/01/2009	Yes	Regular	
Chithra R	GZIPR3513J	M.Tech	Yes	11/11/2013	Networking	Assistant Professor	26/09/2025	Yes	Regular	
Uma Devi	ACOPU0961E	Ph.D	No	03/08/2015	Fuzzy Algebra	Assistant Professor	04/01/2008	Yes	Regular	
V N Meena De	BJEPM4493H	M.Sc. and PhD	No	21/04/2010	Environmental physics	Associate Professor	01/10/2009	Yes	Regular	
E.H.Edinsha Gl	APWPH7527L	Ph.D	No	23/03/2023	Inorganic Chemistry	Assistant Professor	05/07/2017	Yes	Regular	
J. SHEILA	BRPPS5756J	Ph.D	No	19/06/2019	English Literature Canadian Studies	Assistant Professor	01/02/2010	Yes	Regular	
Dr Vennila	AEMPV3088D	Ph.D	Yes	13/12/2013	Power systems	Associate Professor	19/07/2019	Yes	Regular	
Dr Judson	BBOPJ8344L	Ph.D	Yes	23/11/2019	Mechanical engineering	Assistant Professor	15/07/2013	Yes	Regular	

Sharmila T M	DXBPS2334J	M.Sc. and Ph.D. (Chemistry)	No	30/08/2016	Environmental Chemistry	Assistant Professor	04/09/2008	Yes	Regular	
Deepa P	AZOPD9754D	M.A and Ph.D	No	28/01/2020	English language	Assistant Professor	21/01/2008	Yes	Regular	
Vijula Grace K	ADSPV4096N	M.E. and Ph.D.	Yes	16/01/2015	Embedded systems and VLSI	Associate Professor	11/02/2011	Yes	Regular	
Rabin R	CNNPR0126G	M.E.	Yes	23/04/2018	Mechanical engineering	Assistant Professor	07/08/2018	Yes	Regular	
DR Abisha Y	BOVPA0352K	M.E. and Ph.D.	Yes	26/11/2025	Civil Engineering	Assistant Professor	18/03/2022	Yes	Regular	
Dr P Nageswar	ATWPP5014G	Ph.D	No	20/05/2015	Graph Theory	Assistant Professor	27/06/2007	Yes	Regular	
Dr Gopalakrish	ALYPG8714G	M.E. and Ph.D.	Yes	24/08/2021	Image Processing	Assistant Professor	04/04/2005	Yes	Regular	
Dr Bindhu V S	ARDPG9335N	Ph.D	Yes	20/11/2022	Power Electronics	Assistant Professor	28/01/2010	Yes	Regular	

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage=((NS1*0.8) +(NS2*0.2))/RF
2023-24(CAYm2)	300	15	10	8	64
2024-25(CAYm1)	300	15	10	8	64
2025-26(CAY)	240	12	11	8	87
Average Percentage					71.56

9.2 Mentoring system (5)

Total Marks 5.00

"Mentoring is to support and encourage people to manage their own learning in order that they may maximize their potential, develop their skills, improve their performance and become the person they want to be." Mentoring is a powerful personal development and empowerment tool. It is an effective way of helping students to progress in their careers and is becoming increasingly popular as its potential is realized. It is a partnership between two people (mentor and mentee) normally working in a similar field or sharing similar experiences. It is a helpful relationship based upon mutual trust and respect. A mentor is a guide who can help the mentee to find the right direction and who can help them to develop solutions to career issues. Mentoring provides the mentee with an opportunity to think about career options.

Mentoring Process in NICHE

Figure.9.2.1. Mechanism of the mentoring process

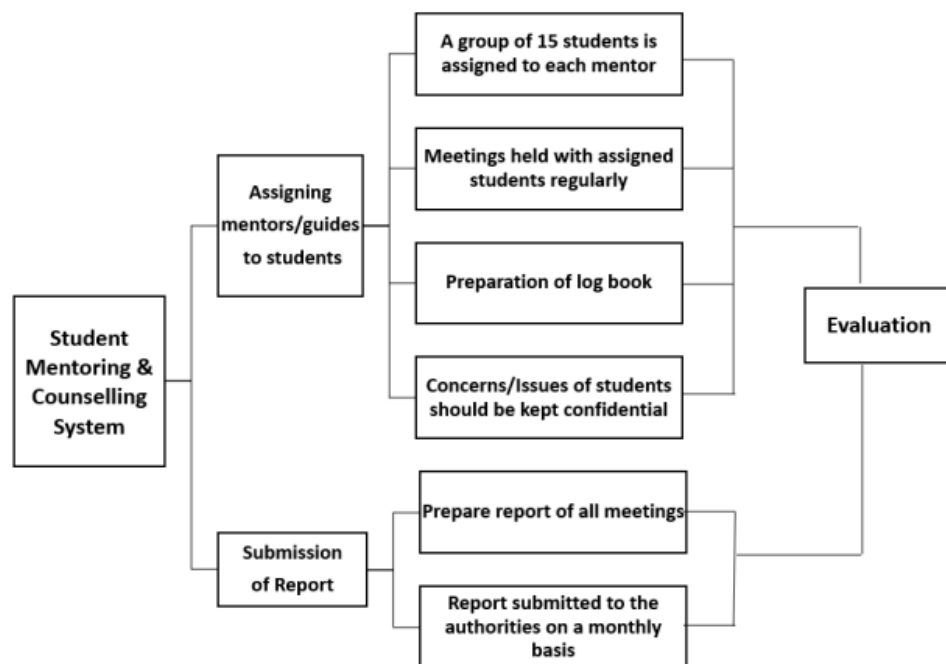


Table 9.2.1.1 LIST OF ACTIVITIES

Efficacy of the Mentoring System

- The prevailing mentoring system helps us in the following ways:
- Enhances the teaching-learning process making it more student-centric
- Provides impartial advice and encouragement to students
- Assists in problem solving and improves self-confidence of students
- Provides individual and personal care to the students
- Improves students' performance in internal assessment test and end semester exam

- Reduces the risk of failures and drop-outs and improves academic performance.
- Promotes improvement in attendance percentage of students
- Helps to identify student's interests and create opportunities of growth in relevant areas.
- Motivates students to participate in various co-curricular and extracurricular activities
- Promotes decision making abilities that support students' goals, abilities and aspirations and helps students to take better control of their career
- Develops a supportive relationship between students and staff
- Creates a positive work environment
- Facilitates information gathering and dissemination
- Promotes effective utilization of college infrastructure and resources.
- Facilitates better placement.

Type of Mentoring: All-round Development

The all-round development student mentoring system focuses on the following four Progresses:

- Academic progress
- Co-curricular progress
- Extra-curricular progress
- Career progress

Mentor Responsibilities

- Provide continuous academic, professional, and personal guidance to support the holistic development of students.
- Monitor students' academic progress and conduct regular mentor-mentee meetings to review performance and address challenges.
- Offer counselling related to career planning, skill development, and personal concerns as needed.
- Identify slow learners and ensure special academic support through timely interventions.
- Encourage advanced learners to engage in research, paper publications, conferences, hackathons, and certification courses.
- Maintain regular communication with parents to keep them informed about their wards' progress and overall well-being.

Number of faculty mentors: 08

Number of students per mentor: 15

Frequency of meeting: Monthly or Need based

9.3 Feedback Analysis (10)

Total Marks 10.00

9.3.1 Feedback on Teaching and Learning Process and Corrective Measures Taken, if any (5)

Institute Marks : 5.00

Feedback Collection Process:

- Feedback on the Teaching and Learning Process is collected at the end of each semester.
- The process is conducted through paper based and online feedback forms to ensure confidentiality and unbiased responses.

Feedback is collected on various parameters such as (Figure 9.3.1.1):

- Clarity of concepts
- Teaching methodology
- Subject knowledge of faculty
- Student engagement
- Use of ICT tools
- Fairness in evaluation
- Support for higher studies and competitive examination

Feedback Analysis Process

- The collected feedback is compiled and analyzed by:

Head of the Department

IQAC

- Quantitative analysis is carried out using rating scales.
- Faculty-wise and course-wise performance reports are generated.
- Strengths and areas for improvement are identified based on (Figure 9.3.1.2):
- Mean score
- Percentage distribution
- Trend analysis

Corrective Measures and Reward System

Based on the analysis:

- Corrective Measures
- Faculty members with lower feedback scores are:
 - Counseled by the Head of the Department
 - Advised to attend Faculty Development Programs (FDPs)
 - Encouraged to adopt innovative teaching methodologies
 - Peer mentoring and classroom observations are arranged where required.
 - During the assessment period, 12 corrective measures were initiated.

Reward Measures

- Faculty members with consistently high feedback scores are:
 - Appreciated during staff meetings
 - Recommended for best teacher awards
 - Given preference for academic responsibilities and leadership roles

Figure 9.3.1.1 . Feedback Form

ANNEX :07 01 00

NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, KUMARACOIL
STUDENT'S EVALUATION OF INSTRUCTOR

Please ✓ mark in appropriate place)

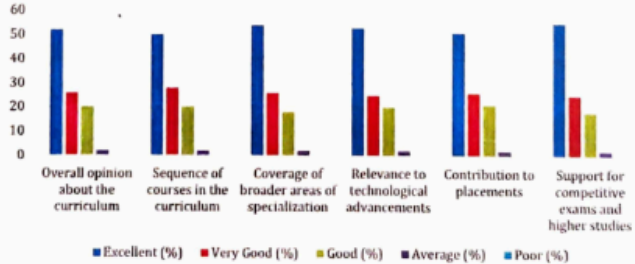
S.No	Detail	Quality	1	2	3	4	5	6
1.	Knowledge of Teacher in the subject	Excellent						
		Good						
		Fair						
		Poor						
2.	Clarity and understandability of <u>teachers</u> explanations	Excellent						
		Good						
		Fair						
		Poor						
3.	<u>Teachers</u> willingness to help	Excellent						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

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
REPORT OF ANALYSIS OF FEEDBACK ON CURRICULUM
ACADEMIC YEAR 2024 – 2025 (EVEN SEMESTER)
ANALYSIS OF STUDENTS FEEDBACK ON CURRICULUM

This survey was conducted to collect feedback from students regarding their satisfaction with the curriculum for the programme offered by the Department of Computer Science and Engineering. Feedback was collected from 24 students and evaluated using a five-point scale.

S. No	Evaluation Criteria	Excellent (%)	Very Good (%)	Good (%)	Average (%)	Poor (%)
1	Overall opinion about the curriculum	52	26	20	2	0
2	Sequence of courses in the curriculum	50	28	20	2	0
3	Coverage of broader areas of specialization	54	26	18	2	0
4	Relevance to technological advancements	53	25	20	2	0
5	Contribution to placements	51	26	21	2	0
6	Support for competitive exams and higher studies	55	25	18	2	0

Students Feedback on curriculum 2024-2025 Even



9.3.2 Feedback on Academic Facilities (5)

Institute Marks : 5.00

The institution has a well-defined mechanism to collect and analyze feedback on academic facilities to ensure a conducive learning environment and continuous quality enhancement.

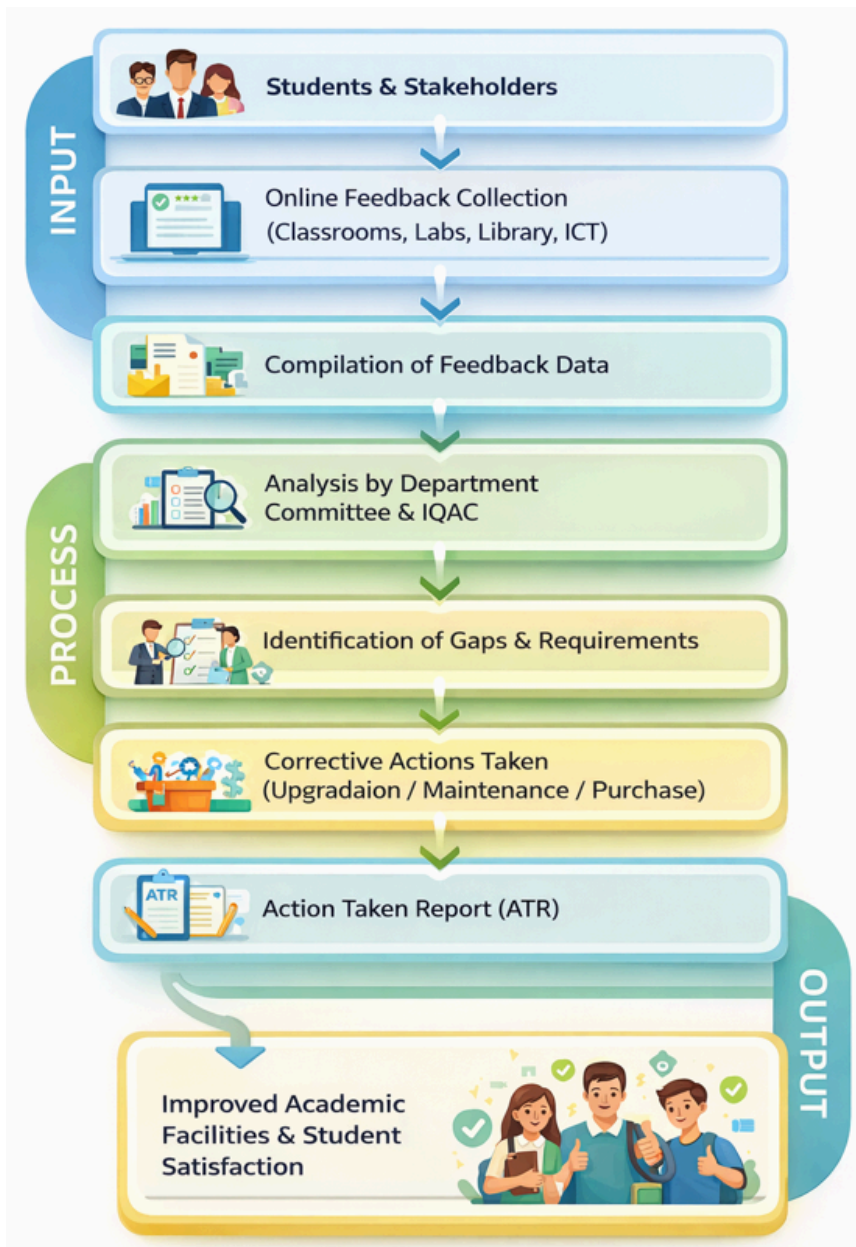
Feedback Collection Process

- Feedback on academic facilities is collected once every academic year from students through a structured online feedback system.
- The feedback form covers key academic facilities such as:
 - Classrooms and seating arrangements
 - Laboratories and equipment
 - Library resources (books, journals, e-resources)
 - ICT facilities (smart classrooms, Wi-Fi, LMS)
 - Computing facilities and software tools
- The feedback process ensures anonymity to obtain honest and unbiased responses.

Corrective Actions Taken During the Assessment Period

- Based on the feedback analysis, the following corrective actions were implemented:
 - Upgradation of laboratory equipment and replacement of obsolete systems
 - Improvement in classroom infrastructure including lighting and ventilation
 - Enhancement of library resources with additional textbooks and e-journals
 - Strengthening of ICT facilities through installation of smart boards and improved internet bandwidth
 - Regular maintenance and calibration of laboratory equipment

Figure 9.3.2. Feedback process on Academic Facilities



Noorul Islam Centre for Higher Education (NICHE) has a well-structured and proactive Placement Cell that plays a vital role in shaping students' career pathways. The centre consistently bridges the gap between academia and industry by providing focused training in technical skills, aptitude, communication, and professional ethics. Through strong industry tie-ups, campus recruitment drives, internships, and career guidance programs, NICHE ensures students are well prepared to meet evolving industry demands. Continuous mentoring, skill-development workshops, and alumni interaction further enhance employability, enabling students to secure placements in reputed organizations and pursue higher studies with confidence. The Training and Placement Cell is headed by a fulltime Training and Placement Officer (TPO) and supported by the Department Placement coordinators. The Class wise student coordinators support the Placement Team in the overall coordination of all the activities as Figure 9.4.1. From the second year onwards, two hours are allotted in the regular timetable as Finishing School hours for students.

Figure: 9.4.1. Placement Team activities



Figure 9.4.2. Placement and Training Team

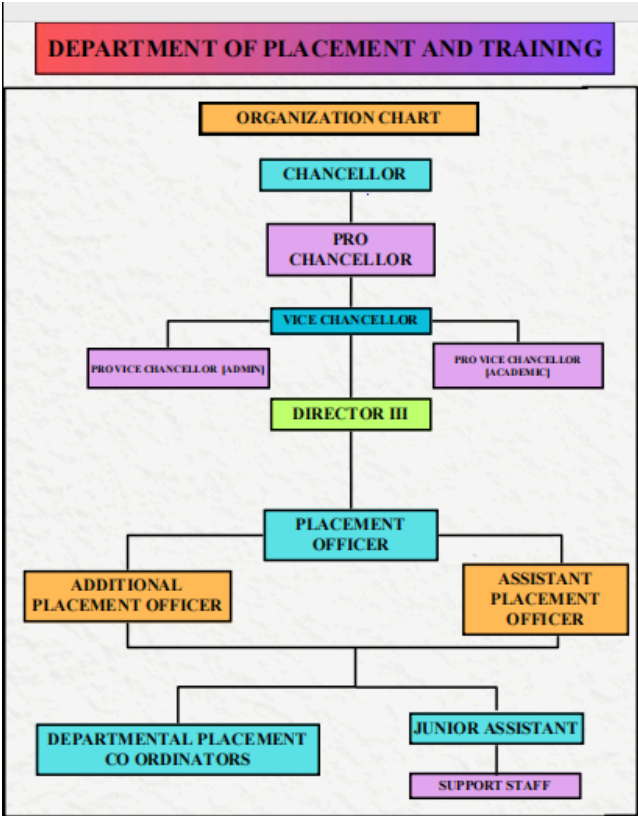


Table 9.4.1.Career Guidance Programmes

S.No.	Date	Name of the Programme	Resource Persons
1	22.08.2025	Career Guidance on Overseas Prospects in Higher Education	Dr.C.Selvamony, Managing Director, ACS International Educational Consultancy, Nagercoil. Mob: 9443358904.
2	10.10.2025	Scopes and Prospects of Higher Studies	Mr.P.Mervin Prasanth, Centre Director, Parvathipuram, Nagercoil. Mob: 9487589513.

Mr. Vishnu Prasad,

Sr.HR Manager & Corporate
Trainer,Srishti Innovative,
Technopark, Trivandrum.

Mob: 7593852498.

3 27.10.2025 Artificial Intelligence:
Shaping the Future
Landscape and Emerging
Career Opportunities

Table 9.4.2.Capacity Development Programmes

S.No.	Date	Name of the Programme	Resource Persons
1	22.08.2025	Mastering Salesforce Sales Cloud: A Beginner's Guide	Mr. Kuldeep Sharma, Vice president, Vanshiv Technologies, Jaipur. Mob: 7737476911
2	09.09.2025	Pre Interview Warmup	Mr.Mahesh.G, Managing Director, Kaattaala Academy, Azhakiamandapam. Mob: 7974221921.

Table 9.4.3.Career Guidance Programmes

S.No.	Date	Name of the Programme	Resource Persons
1	17.10.24	Career Guidance on Exploring International Education: A World of Possibilities	Mrs. Raji, Branch Head, Universal Migration, Bakery Junction, Tvm. Dr.C.Selvamony, Managing Director, ACS International Educational Consultancy, Nagercoil.
2	11.11.2024	Career Guidance on Overseas Prospects in Higher Education	

3 14.02.2022
5 Winning Strategy for Job Interviews

Mr. G.Suresh
Gopal, Software
Professional,
Kumarapuram.
Mob: 9962567291

Table 9.4.4.Capacity Development Programmes

S.No.	Date	Name of the Programme	Resource Persons
1	27.08.2024	Pre placement Training Session on Get Ready for the Corporate Environment	Mr.S.Gopal, Managing Director, Blue Jain Information Tech, Pvt Ltd., Chennai.
2	03.09.2024	How to Crack Interviews	Mr.G.Suresh Gopal, Project Consultant & Freelance Trainer, Chennai.
3	26.09.2024	Technical Seminar	Mr.Gershon.S, CTO, Ops Monsters, Software Solutions, Bangalore.
4	07.10.2024	Virtual Preplacement Training for CTS	Ms. Archana Pandey
5	10.02.2025	Pre Placement Training Session for TCS	Mr. Vishnu Lal M.P & Ramu Sugathan, Faculty of Career Maker, Career Maker, Trivandrum. Mob: 9188007008
6	12.02.2025	Pre Placement Training Session for TCS	Mr. Akhildethan.S Reasoning Faculty, Career Maker, Trivandrum. Mob: 9496053731
7	13.2.2025	Pre Placement Training Session for TCS	Mr. Vishnu Lal M.P Faculty of Career Maker, Career Maker, Trivandrum. Mob: 9188007008

8	14.02.2025	Pre Placement Training Session for TCS	Mr. Akhildethan.S Reasoning Faculty, Career Maker, Trivandrum. Mob: 9496053731
9	17.02.2025	Pre Placement Training Session for TCS	Mr. Ramu.S.S Faculty, Career Maker, Trivandrum. Mob: 9496053731
10	18.02.2025	Pre Placement Training Session for TCS	Mr. Akhildethan.S Reasoning Faculty, Career Maker, Trivandrum. Mob: 9496053731
11	19.02.2025	Pre Placement Training Session for TCS	Mr. Vishnu Lal M.P Faculty of Career Maker, Career Maker, Trivandrum. Mob: 9188007008

Table 9.4.5.Career Guidance Programmes

S.No.	Date	Name of the Programme	Resource Persons
1	21.08.2023	Barclays Life Skills Training On Employability Skills and Interview Skills	A.Kumaraguru, Softskills Trainer, 3/1337,New Housing Board, Kanban Nagar, Karaikudi Cell:9176601822
2	22.08.2023	Barclays Life Skills Training On Employability Skills and Interview Skills	A.Kumaraguru, Softskills Trainer, 3/1337,New Housing Board, Kanban Nagar, Karaikudi, Cell:9176601822
3	23.08.2023	Barclays Life Skills Training On Employability Skills and Interview Skills	A.Kumaraguru, Softskills Trainer, 3/1337,New Housing Board, Kanban Nagar, Karaikudi, Cell:9176601822
4	07.11.2023	Career Guidance on Overseas Prospects in Higher Education	Dr.C.Selvamony, Managing Director, ACS International, Educational, 1-A,Muthamizh Street, Nagercoil, Cell:9443358904

5 16.2.2024 Seminar on Overseas
Education

Anitha Thomas, Assistant
Destination, Manager,IDP,
Pattom,
Trivandrum
Cell:0471-4411888

Table 9.4.6.Steve Jobs Scholarship Programme Schedule

S.No.	Date	Resource Persons
1	15.02.2024	Dr. Ajith Sankar,Director,COX Academy & ResearchCentre, Trivandrum.
2	11.07.2024	Dr. Ajith Sankar,Director,COX Academy & Research Centre,Trivandrum.
3	12.07.2024	Mr.Sumesh P Kumar,Director, COX Academy & ResearchCentre, Trivandrum.
4	18.07.2024	Dr. Ajith Sankar,Director,COX Academy & Research Centre,Trivandrum.
5	19.07.2024	Mr.Sumesh P Kumar,Director,COX Academy & ResearchCentre, Trivandrum.
6	22.07.2024	Mr. Shanish Babu.R,Faculty,COX Academy & ResearchCentre, Trivandrum.
7	23.07.2024	Mr. Shanish Babu.R,Faculty, COX A cademy & Research Centre, Trivandrum.

Table 9.4.7.Capacity Development Programmes

S.No.	Date	Name of the Programme	Resource Persons
1	20.09.2023	Pre-Placement Training On”Interview Skills”	Dr.Ajith Sankar Academician,HRD Consultant,Author & Psychosocial Analyst Cell:9895238190

		Pre-Placement Training On	Dr.C.Sekar Associate Professor(Rtd) M.S.University 10/61A,Vijayanagar Swamy Thoppu-629704 Cell:9442307148
2	03.11.2023	Interview Skills and Professional Etiquette	
		Pre-Placement Training On	Dr.Ajith Sankar Academician,HRD Consultant,Author & Psychosocial Analyst Cell:9895238190
3	06.02.2024	Get Ready for the Corporate Environment	
		Pre – placement Training On	Dr.Ajith Sankar Org.Psycologist Kowdiar. P.O TVM - 3
4	04.04.2024	Corporate Readiness	
		Pre – placement Training On	Dr.A.Shajin Nargunam Pro Vice –Chancellor NICHE
5	25.04.2024	Corporate Connect	

9.5 Start-up and Entrepreneurship Activities (5)

Institute Marks :

9.6 Governance and Transparency (25)

Total Marks 25.00

9.6.1 Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring (10)

Institute Marks : 10.00

Strategic Plan and Implementation

Institution established as an Engineering College in 1989, had a vision to transform into a distinguished center of excellence in higher education through uncompromising standards of discipline and ethics. The institutions commitment to excellence was recognized in 2006 by Anna University with a ranking as the 19th Best Engineering College.

In 2007 subsequently in 2008, Institution received accreditation from the National Board of Accreditation (NBA) and was designated as a Scientific and Industrial Research Organization (SIRO). It achieved ISO 9001:2000 certification, further attesting to its commitment to quality and academic excellence. The pivotal journey came in 2008 when NICHE was accorded Deemed-to-be- University status and was awarded Grade 'A' by the National Assessment and Accreditation Council (NAAC) in 2015 and reaccredited by NAAC in 2022.

In the year 2016, ranking by NIRF, NICHE secured 66th Rank in the Engineering Stream and 75th Rank in the University Stream, affirming its position, as a leading educational institution. Presently, NICHE has 11 faculties and 24 departments offering a diverse array of undergraduate, postgraduate and research programs in the field of Engineering, Arts, Science and Management disciplines.

All academic programs offered by NICHE have approvals from relevant statutory bodies such as the All-India Council for Technical Education (AICTE), University Grants Commission (UGC), Director General of Shipping (DGS) and Rehabilitation Council of India (RCI). NICHE is a proud member of esteemed organizations like International Association of Universities (IAU), Association of Indian Universities (AIU), National Academic Depository (NAD) and National Digital Library of India (NDL).

NICHE has made significant strides in research and innovation, with 3016 publications indexed in Scopus, with an impressive h index of 56, accompanied by more than 10583 citations. Moreover, NICHE has 179 files and published patents and 31 patents have already been granted, emphasizing its commitment to pioneering research and technological advancement.

Education not only enrich the minds with invaluable knowledge but also enhance the capacity for critical thinking, analysis and understanding of the world around. It serves as a gateway to new perspectives, ideologies, beliefs and cultures, broadening the horizons and enriching human lives.

Noorul Islam Centre for Higher Education (NICHE) has established itself as a beacon of collaborative learning, drawing upon the best practices from around the globe to foster innovation and creativity. We are committed to provide students with ample opportunities to apply their knowledge as innovators and to be valuable contributors to society.

With over 70 years of dedicated service in education, NICHE has emerged as one of the premier Deemed University, accredited for the second cycle by NAAC. NICHE mission extends beyond academic excellence to encompass the holistic development of the students, promoting inclusivity, diversity and provides an excellent learning environment.

Under the visionary leadership of the Honorable Chancellor, Dr. A. P. Majeed Khan, NICHE aspires to be a world-class center of excellence in training, research, and innovation. NICHE commitment to excellence is exemplified by the successful launch of NIUSAT, a nano-satellite developed by the faculty and students.

NICHE offers a welcoming and supportive atmosphere where students are encouraged to share their opinions and ideas. Dedicated faculty members are committed to nurture the next generation of leaders and provide the latest technological tools and resources to maximize their potential.

NICHE, is a vibrant academic community, where academic excellence is coupled with strong emphasis on personal growth and development. The higher education journey at NICHE promises an enriching and rewarding career with plethora of opportunities for academic and extracurricular pursuits.

NICHE, being the temple of learning where innovation meets excellence, and embarks on a journey of knowledge, growth, and transformation.

1. Goals and Objectives

Short-term Goals

- Work closely with academic departments and faculties to ensure effective coordination of outreach activity to enhance undergraduate and postgraduate admissions processes.
- Support student well-being by providing the greatest opportunity for all students to excel and strengthen the collaboration between academic departments and faculties and central services.
- Device effective means and mechanisms to portray the academic strengths, facilities and services of NICHE to the aspirants through print and electronic media and proper policies to monitor the activity and make improvements.
- Open avenues for providing excellent academic experience for all the students and ensure that NICHE fully equips graduates to excel.
- Design methods to improve the discovery-led research undertaken to the highest standards of rigour and integrity and provide freedom to investigate problems of significance, work with to be curiosity-driven or challenge-led.
- Enhance faculty development programs to ensure teaching staff are equipped with emerging technologies and pedagogical advancements.
- Upgrade campus infrastructure and facilities to provide a modern and conducive learning environment for students and faculty.
- Increase industry-academia collaborations through partnerships, internships, and joint research projects and networking.
- Strengthen student support services, including counselling, career guidance, and academic advising, to promote holistic student development.
- Improve research funding acquisition strategies to support faculty research initiatives and infrastructure development.
- Expand outreach efforts to attract more foreign students and foster diversity within the student body.
- Enhance ICT tools and resources in academic and administrative areas to streamline processes and improve efficiency.
- Develop and implement a strategic plan for increasing high-impact factor publications by faculty members.
- Establish consultancy services and outreach programs to engage with industries and corporates, fostering collaboration and knowledge exchange.

Long-term Goals

- Enhance the opportunities and support for early-career researchers.
- Invest substantially in the research environment, both human assets and physical infrastructure.
- Increase the scale and scope of central research fund to grow in capacity to fund major research initiatives.
- Work with partners to create a world-class regional innovation ecosystem to enable NICHE to attract the best researchers and students from around the world.
- Establish interdisciplinary research centers and institutes to address pressing societal challenges and contribute to knowledge creation and dissemination.
- Implement sustainable practices across campus operations, including energy efficiency measures, waste reduction initiatives, and environmental education programs.
- Continuously assess and adapt strategic initiatives based on feedback from stakeholders, emerging trends, and evolving needs to ensure long-term relevance and impact.
- Engage with local communities through outreach programs, volunteer initiatives, and partnerships to address social, economic, and environmental issues.
- Contribute to society through teaching and research activities.

2. Academic Excellence

Faculty Development Programs: Implement comprehensive faculty development programs to enhance teaching effectiveness, research productivity, and professional growth. This can include workshops, seminars, and mentoring programs to support faculty members in staying updated with the latest pedagogical techniques and disciplinary methods.

Curriculum Enhancement: Continuously review and update academic curricula to ensure relevance to industry needs, emerging trends, and technological advancements. Encourage interdisciplinary collaboration and experiential learning opportunities to make students in mastering education.

Quality Assurance Mechanisms: Establish robust quality assurance mechanisms, including internal and external assessment processes, to monitor and evaluate the quality of academic programs, teaching methodologies and student learning outcomes. Regularly review accreditation standards and benchmark against peer institutions to maintain high standards of academic excellence.

Research Culture Promotion: Foster a vibrant research culture by providing resources, infrastructure and incentives to support faculty research initiatives. Encourage interdisciplinary collaboration and promote a supportive environment for scholarly inquiry and knowledge creation.

Student-Centred Learning: Prioritize student-centred learning approaches that cater to diverse learning styles and preferences. Implement active learning strategies, collaborative projects and hands-on experiences to engage students and foster critical thinking, creativity and problem-solving skills.

Academic Support Services: Strengthen academic support services, including tutoring, advising and academic counselling, to provide personalized assistance and guidance to students. Ensure accessibility of support services for students with diverse backgrounds and learning needs.

Assessment and Feedback Mechanisms: Implement effective assessment and feedback mechanisms to evaluate student progress, identify areas for improvement and provide timely feedback for continuous learning and development. Encourage a culture of self-reflection and continuous improvement among students and faculty.

Integration of Technology: Leverage technology to enhance teaching and learning experiences, facilitate 24x7 learning opportunities and provide access to digital resources and online learning platforms. Invest in educational technologies and infrastructure to support blended learning approaches and virtual collaboration.

Collaboration and Partnerships: Foster collaboration and partnerships with industry, government agencies and other educational institutions to enrich academic programs, provide real-world learning experiences and facilitate research collaborations.

Continuous Improvement Culture: Cultivate a culture of continuous improvement by encouraging innovation, experimentation, and reflection among faculty, staff, and students. Promote a growth mind-set and a commitment to lifelong learning and professional development to sustain academic excellence over the long term.

Infrastructure Development

Comprehensive Infrastructure Assessment: Conduct a thorough assessment of existing infrastructure facilities, including academic buildings, laboratories, libraries, student accommodations, sports facilities, and administrative offices. Identify areas requiring immediate upgrades or expansion to meet the emerging needs.

Long-Term Infrastructure Master Plan: Develop a long-term infrastructure master plan outlining the vision, goals, and timelines for enhancing campus infrastructure to Institutions of Eminence standards. This plan should encompass new construction projects, renovation initiatives and technology upgrades to create a modern and sustainable campus environment.

Budget Allocation and Resource Mobilization: Allocate sufficient financial resources and establish mechanisms for resource mobilization to fund infrastructure development projects. Explore opportunities for public-private partnerships, government grants and philanthropic donations and alumni contributions to supplement institutional funds.

Prioritize Critical Infrastructure Projects: Prioritize critical infrastructure projects based on their strategic importance, impact on academic programs, and alignment with NICHE objectives. Develop a prioritization framework to guide decision-making and ensure optimal utilization of resources.

Sustainable and Green Infrastructure Practices: Incorporate sustainable and environment-friendly design principles for infrastructure development projects to minimize ecological impact and promote energy efficiency, water conservation and waste reduction. Adopt green building standards and seek certifications such as LEED (Leadership in Energy and Environmental Design) to demonstrate commitment to sustainability.

Stakeholder Engagement and Consultation: Engage stakeholders including faculty, staff, students, alumni and community members in the planning and decision-making process for infrastructure development. Solicit feedback, ideas and suggestions to ensure that infrastructure projects meet the diverse needs and preferences of the campus community.

Project Management and Monitoring: Establish a dedicated project management office or committee responsible for overseeing infrastructure development initiatives. Implement project management practices including project planning, budgeting, scheduling, risk management and quality assurance. Regularly monitor progress, identify bottlenecks and take corrective actions to ensure timely completion of projects.

Quality Assurance and Compliance: Adhere to relevant regulatory requirements, building codes and safety standards in all infrastructure development activities. Implement quality assurance mechanisms to ensure that construction projects meet specified quality standards and comply with contractual obligations. Conduct regular inspections and audits to monitor compliance and address any deviations promptly.

Technological Integration and Innovation: Leverage technology and innovation to enhance infrastructure development processes and improve the functionality, efficiency and sustainability of campus facilities. Explore opportunities for smart infrastructure solutions, digitalization and automation to optimize resource utilization and enhance user experience.

Student Support Services

Career Counseling and Guidance: Develop comprehensive career counseling and guidance services to help students navigate the rapidly evolving job market and identify career paths aligned with their interests, skills and aspirations. Provide resources, workshops and one-on-one counseling sessions to assist students in making informed career decisions.

Industry-Relevant Skill Development: Offer industry-relevant skill development programs and workshops to equip students with the practical skills and competencies demanded by the evolving job market. Collaborate with industry partners to design training modules, internships and certification programs that address emerging trends and technologies.

Internship and Placement Assistance: Establish robust internship and placement assistance programs to facilitate experiential learning opportunities and transition students seamlessly into the workforce. Forge partnerships with leading companies and organizations to secure internship placements and job opportunities for students across diverse sectors.

Entrepreneurship and Innovation Support: Foster an entrepreneurial mind-set among students and provide support for start-up ventures through entrepreneurship development programs, incubation centres, and mentorship initiatives. Encourage students to develop innovative solutions to real-world challenges and provide resources for business planning, funding and networking.

Mental Health and Well-being Services: Prioritize mental health and well-being services to support students emotional and psychological needs amidst the pressures of academic life and career uncertainty. Offer counseling services, stress management workshops and mindfulness programs to promote mental resilience and self-care.

Technology Integration for Student Services: Leverage technology to enhance student support services, including online counseling platforms, virtual career fairs, and interactive learning resources. Implement digital tools and platforms for academic planning and access to academic resources to streamline administrative processes and improve student experience.

Financial Aid and Scholarships: Expand financial aid and scholarship opportunities to ensure access to higher education for students from economically disadvantaged backgrounds. Establish scholarship programs based on merit, financial need and diversity criteria to support students educational aspirations and alleviate financial barriers.

Alumni Engagement and Networking: Harness the potential of alumni networks to provide mentorship, career guidance, and networking opportunities for current students. Organize alumni events, industry panels and networking sessions to facilitate meaningful connections and knowledge sharing between students and alumni working in various industries.

Research and Innovation

Establish Research Centre of Excellence: Create specialized research centres within NICHE focusing on key areas of strength and expertise. These centres should foster interdisciplinary collaboration, attract renowned researchers and drive impactful research projects aligned with national priorities and industry needs.

Encourage Collaborative Research Projects: Foster collaboration between faculty members, industry partners and other academic institutions to undertake collaborative research projects. Facilitate networking opportunities, joint grant applications and research consortia to leverage collective expertise and resources.

Strengthen Research Infrastructure: Invest in state-of-the-art research facilities, equipment and technology platforms to support cutting-edge research across disciplines. Upgrade existing infrastructure and establish centralized research facilities to enhance accessibility and utilization by faculty and students.

Support for Early-Career Researchers: Provide targeted support and funding opportunities for early-career researchers to kick-start their research careers and establish independent research programs. Offer mentorship, training and grant writing workshops to assist researchers in securing external funding and advancing their research agendas.

Seed Funding for Pilot Projects: Allocate seed funding grants to support the initiation of pilot projects, proof-of-concept studies and preliminary research investigations. Encourage faculty members to explore innovative research ideas and generate preliminary data to strengthen future grant applications.

Capacity Building Programs: Develop capacity building programs and workshops to enhance research skills, grant writing capabilities and research ethics among faculty members and research students. Provide resources and support for professional development activities such as attending conferences, workshops and specialized training programs.

Streamlined Grant Application Process: Streamline the grant application process and provide assistance to faculty members in navigating funding opportunities, preparing grant proposals and complying with funding agency requirements. Establish a dedicated research support office or committee to provide guidance and administrative support throughout the grant application process.

Collaboration with Funding Agencies: Forge strategic partnerships and collaborations with government funding agencies, research councils, industry associations and philanthropic organizations to access funding opportunities and research grants. Actively engage with funding agencies to understand their priorities, funding mechanisms and application requirements.

Community Engagement

Needs Assessment and Stakeholder Consultation: Conduct a comprehensive needs assessment to understand the challenges, priorities, and aspirations of the nearby community and underdeveloped villages. Engage stakeholders, including community leaders, local government officials and residents, in the planning process to ensure their voices are heard and their needs are addressed.

Collaborative Partnerships: Establish collaborative partnerships with local community organizations, NGOs, government agencies and other stakeholders to leverage resources, expertise and networks for community development initiatives. Foster trust, transparency and mutual respect in partnerships to ensure effective collaboration and sustainable outcomes.

Community-Based Projects: Develop and implement community-based projects that address identified needs and priorities, such as healthcare, education, sanitation, infrastructure development and livelihood enhancement. Involve community members in project planning, implementation and monitoring to promote ownership and sustainability.

Skill Development and Capacity Building: Offer skill development programs, vocational training, and capacity-building workshops to empower community members with the knowledge, skills and resources needed for economic empowerment and self-reliance. Provide training in areas such as entrepreneurship, agriculture, healthcare and technology to enhance livelihood opportunities and improve quality of life.

Education and Literacy Initiatives: Support education and literacy initiatives in the nearby community and underdeveloped villages by establishing community learning centres, libraries and adult education programs. Provide access to educational resources, digital literacy training and scholarships to promote lifelong learning and educational attainment.

Health and Wellness Programs: Promote health and wellness initiatives through awareness campaigns, health screenings and preventive healthcare services targeting common health issues in the community. Collaborate with healthcare providers, NGOs, and government agencies to improve access to healthcare services and promote healthy behaviors.

Environmental Sustainability Projects: Implement environmental sustainability projects focused on conservation, waste management, renewable energy and climate resilience to protect natural resources and promote sustainable development in the community. Raise awareness about environmental issues and engage community members in conservation efforts through tree planting, clean-up drives and eco-friendly practices.

Cultural and Heritage Preservation: Preserve and promote the cultural heritage and traditions of the local community through cultural festivals, art exhibitions, storytelling sessions and heritage preservation initiatives.

Monitoring and Evaluation: Define clear and measurable Key Performance Indicators (KPIs) for each strategy, reflecting the desired outcomes, outputs and impacts. Develop specific KPIs tailored to the objectives of academic excellence, infrastructure development, student support services, research and innovation and community engagement initiatives.

Monitoring and Evaluation Framework: Develop a comprehensive monitoring and evaluation framework outlining the scope, objectives, methodologies, timelines and responsibilities for monitoring and evaluating the implementation of each strategy. Align the framework with institutional goals, strategic priorities and stakeholder expectations to ensure relevance and effectiveness.

Data Collection and Reporting Mechanisms: Establish protocols and tools for collecting, managing and analyzing data related to the implementation of each strategy. Utilize a combination of quantitative and qualitative methods, including surveys, interviews, focus groups, observations, document reviews and performance metrics, to capture relevant information. Regularly compile, analyze and report monitoring data to stakeholders through progress reports, dashboards and presentations.

Baseline Assessment: Conduct baseline assessments to establish the current status, strengths, weaknesses, opportunities, and threats related to academic excellence, infrastructure development, student support services, research and innovation and community engagement. Use baseline data to set benchmarks, track progress and measure changes over time.

Regular Progress Reviews: Conduct regular progress reviews to assess the implementation status, achievements, challenges, and lessons learned for each strategy. Hold periodic meetings or review sessions with key stakeholders to review progress against objectives, identify bottlenecks and make informed decisions to address gaps or deviations from the plan.

Performance Evaluation and Impact Assessment: Evaluate the performance and impact of each strategy based on the predefined KPIs and evaluation criteria. Assess the effectiveness, efficiency, relevance, sustainability and equity of interventions in achieving desired outcomes and impacts. Use evaluation findings to identify successes, areas for improvement and actionable recommendations for future planning and decision-making.

Knowledge Sharing and Dissemination: Document and disseminate monitoring and evaluation findings, lessons learned, success stories and best practices to internal and external stakeholders. Share knowledge and insights through reports, presentations, publications and online platforms to promote learning, collaboration, and replication of effective approaches.

Research and innovation initiatives are central to NICHE's mission, and seek to advance knowledge, drive innovation and address persistent societal challenges through cutting- edge research and collaborative partnerships. Finally, NICHE commitment to community engagement reflects the importance of social responsibility and active citizenship in helping local communities to address their needs, foster mutual learning and promote sustainable development. Together, these strategic plans form a cohesive framework for advancing NICHE's institutional vision and creating positive impact to the society.

9.6.2 Governing Body, Administrative Setup, Functions of Various Bodies, Service Rules, Recruitment procedures and Promotion Policies (10)

Institute Marks : 10.00

- The governance structure of NICHE is designed to achieve the institution's vision and mission.
- The Chancellor, as the highest authority, provides strategic direction and ensures the advancement of the institutional objectives. The Pro-Chancellor assists the Chancellor and supports the overall governance of the institution.
- The Vice-Chancellor serves as the principal academic and executive officer of the institution and functions as the Chairperson of all statutory bodies. The Vice-Chancellor is responsible for academic leadership, governance, and administration in accordance with statutory regulations and by laws. The Pro Vice-Chancellor assists the Vice-Chancellor in academic planning, implementation of policies, monitoring academic standards, and coordinating academic and administrative activities.
- The Registrar, acting as the Secretary to the Board of Management and Academic Council, oversees day-to-day administrative operations, statutory compliance, record maintenance, and official correspondence, and reports directly to the Vice-Chancellor.
- Financial governance is ensured by the Finance Officer, who is responsible for budgeting, financial planning, fund mobilization, and effective utilization of financial resources.
- The Controller of Examinations manages the conduct of examinations and evaluation processes, ensuring fairness, transparency, and academic integrity.
- Various Directors coordinate institution-wide academic, research, quality assurance, accreditation, and student development activities.
- At the academic unit level, Deans and Heads of Departments oversee curriculum delivery, research initiatives, and departmental administration.

Functioning of the Institutional Bodies

- The EC is the principal executive body of the University with powers to make rules of the Institution and is the final decision-making body related to academic, administrative, personnel, financial and developmental matters
- The Academic Council (AC) is the principal academic body of the Institution and is responsible for the maintenance of standard of teaching, research and training, approval of syllabus, co-ordination of research activities and examinations.
- The Anti-Ragging Committee is a statutory body constituted in accordance with UGC guidelines to prevent, prohibit, and eliminate ragging in the institution.
- The Disciplinary Committee is constituted to investigate cases of misconduct and to take appropriate disciplinary action in order to maintain institutional discipline.
- Grievance redressal committee is formed in accordance with the UGC guidelines to address and resolve day-to-day grievances of students and parents.
- The Internal Complaints Committee (ICC) at NICHE is constituted in accordance with the Sexual Harassment of Women at Workplace Act, 2013 and the UGC Regulations. The ICC is responsible for preventing, prohibiting, and redressing complaints of sexual harassment of women students and employees within the University campus. The Committee ensures a safe, secure, and respectful academic and work environment.
- The prime task of the IQAC is to develop a system for conscious, consistent, and catalytic improvement in the overall performance of institutions. For this, IQAC channelizes all efforts and measures of the institution towards promoting its holistic academic excellence. The work of the IQAC is the first step towards internalization and institutionalization of quality enhancement initiatives. Its success depends upon the sense of belongingness and participation it can inculcate in all the constituents of the institution. It will not be yet another hierarchical structure or a record-keeping exercise in the institution. It will be a facilitative and participative voluntary system/unit/organ of the institution. It has the potential to become a vehicle for ushering in quality enhancement by working out planned interventionist strategies to remove deficiencies and enhance quality like the "Quality Circles" in industries.
- The Board of Studies (BoS) is the basic constituent of the academic system of the Institution which includes framing the content of various courses, reviewing and updating the syllabus from time to time, introducing new courses of study etc.
- The Institution has clearly documented service rules governing appointment, probation, duties, workload, leave, pay conduct, performance appraisal, disciplinary procedures and grievance redressal mechanisms. Provisions related to transfer, training, retirement, and termination are also clearly specified. These rules are communicated to all employees to ensure fairness, consistency, and transparency in service conditions.

- The Committee details, including composition and functions, are documented and enclosed as Annexure IX.

9.6.3 Transparency (5)

Institute Marks : 5.00

- NICHE ensures transparency in institutional governance by systematically documenting and disseminating information related to academic, administrative, financial, and student welfare policies through its official website (niuniv.com).
- The institution provides open access to key policy documents, rules, procedures, and codes of conduct, enabling stakeholders to clearly understand institutional processes and responsibilities.
- Details of committees, including anti-ragging and internal compliance cells, along with contact information of responsible officials, are publicly displayed to promote accountability.
- Regular circulars and notifications regarding academic schedules, examinations, scholarships, and other institutional matters are communicated through official channels. This structured and accessible dissemination of information ensures transparency, enhances stakeholder trust, and supports participative and effective institutional governance.

9.7 Budget Allocation, Utilization, and Public Accounting at Institute Level (12)

Total Marks 12.00

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY : (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2024-2025

Total Income 2887.78				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
2740	0	136.07	11.71	3592.76	1887	1.90

Table 2 - CFYm1 2023-2024

Total Income 3073.48				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
2740.93	0	136.07	196.48	3592.76	1887	1.90

Table 3 - CFYm2 2022-2023

Total Income 2627.21				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
2493.50	0	36.84	96.87	3140.30	1586	1.98

Table 4 - CFYm3 2021-2022

Total Income 2837.75				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
2737.15	0	13.48	87.12	2514.84	1860	1.35

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
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	0.10
Laboratory equipment	100.00	0.17	110.04	5.19	25.00	33.90	20.00	3.47
Teaching and non-teaching sta	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 Indust	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
Others, specify	2525.72	1366.66	2110.27	1768.43	1353.82	1519.89	1109.39	1084.77
Total	5002.55	2548.94	4118.37	3592.76	2999.79	3140.30	2697.24	2514.84

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9.8 Program Specific Budget Allocation, Utilization (8)

Total Marks 8.00

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY: (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2024-2025

Total Budget 6500000		Actual expenditure (till...): 6345910		Total No. Of Students 174
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
7000000	6500000	6345910	97.62	36470.75

Table 2 :: CFYm1 2023-2024

Total Budget		Actual expenditure (till...):		Total No. Of Students
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student

Table 3 :: CFYm2 2022-2023

Total Budget 4600000		Actual expenditure (till...): 4499267		Total No. Of Students 133
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
4800000	4600000	4499267	97.81	33829.08

Table 4 :: CFYm3 2021-2022

Total Budget 2300000		Actual expenditure (till...): 2269388		Total No. Of Students 121
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
2500000	2300000	2269388	98.66	18755.27

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
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Laboratory equipment	7000000	6345910	0	0	4800000	4499267	2500000	2269388
Software	0	0	0	0	0	0	0	00
SDGs	0	0	0	0	0	0	0	0
Support for faculty developmei	0	0	0	0	0	0	0	0
R & D	0	0	0	0	0	0	0	0
Industrial Training, Industry exp	0	0	0	0	0	0	0	0
Miscellaneous Expenses*	0	0	0	0	0	0	0	0
Total	7000000	6345910	0	0	4800000	4499267	2500000	2269388

9.9 Quality of Learning Resources (Hard/Soft) (5)

Total Marks 5.00

Institute Marks : 5.00

The primary digital library in Kanyakumari related to "NICHE" is the **NICHE Central Digital Library** (https://www.google.com/search?q=NICHE+Central+Digital+Library&oeq=about+digital+library+in+niche+kanyakumari&gs_lcrp=EgZjaHJvbWUyBggAEEUYOdIBCjExMjcxaJBqMTWoAgiwAgHxBf-UAsKFCVWs&sourceid=chrome&ie=UTF-8&mstk=AUTExfC6ZeLUVPAChkgPII3Z8g8zSeR3fVxjL5wmzVIVVBgXOJF7v9M7Fzt82jc8qIHNIxDo-hT7nt9JTizpd57hMXyq32qFDZXYx_fkKiKHNeel5RICOljqgf_G52wUkAjb3h3Glc57kvng23fWPNDdgOVOerRWEFj3nXxFMprKfZUoLA&csui=3&ved=2ahUKEwjypunKqfuRAxVqSWwGHskqlAYQgK4QegQIARAB) at Noorul Islam Centre for Higher Education (NICHE), offering vast e-books, e-journals, databases, and automated systems (OPAC, circulation) for students and researchers, supporting academic excellence with Wi-Fi, quiet zones, and online access to global knowledge, aligning with NICHEs vision as a Centre of Excellence in higher education. Its an integrated part of the university, providing a modern, technology-driven learning environment. It goes beyond physical books, offering online access to resources without time or space limitations, a core benefit of digital libraries.

Key Features of NICHEs Digital Library:

- **Vast Digital Collection:** Access to thousands of e-books, journals, and digital databases.
- **Automated Operations:** Fully automated system for acquisitions, circulation (renewal/reservation), and serial control, accessible via a web-based Public Access Catalogue (web-OPAC).
- **Research Support:** Provides Wi-Fi, networked computers, and assistance for literature searches, fostering research and innovation. An annual subscription of rupees 10 lakh is made for IEEE.
- **Academic Focus:** Aims to support higher education, advance knowledge, and contribute to scientific innovation, making it central to NICHEs academic mission.

9.10 E-Governance (5)

Total Marks 5.00

E-governance initiatives :

- NICHE has implemented a comprehensive ERP-based e-governance system that integrates administrative, academic, financial, examination, admission, and library operations. In administration, staff and student records, attendance, communication, notifications, and cashless transactions are fully supported through digital platforms, reducing paper usage and improving real-time access to information
- The Finance and Accounts section is e-governed using Tally ERP 9.0, enabling transparent financial management, digital salary disbursement, online fee collection through payment gateways, UPI, and card-based systems, along with SMS alerts for dues and salary credits
- The student admission process is fully automated, from online application and fee payment to entrance tests, hall tickets, merit list generation, and creation of register and roll numbers. Similarly, academic processes such as timetable generation, course management, attendance, internal assessments, electives, and fee status tracking are managed through the institutional automation system
- The examination system is completely digitized, covering internal assessment entry, hall ticket generation, mark statements, provisional certificates, and maintaining confidentiality and accuracy. The Central Library uses AutoLib Library Management Software supported by a private cloud infrastructure, enabling cataloguing, circulation, OPAC search, alerts, reminders, and access to digital resources.

Sustainable Practices:

- 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.
- 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 and Wi-Fi connections across the campus. Nine Wi-Fi towers are erected at different locations to create wireless hotspots and campus is 100% Wi-Fi enabled, providing secured access to all the students, faculty and other staff through a state-of-the art hardware firewall system.
- The computing facility is distributed across the University campus in various locations, 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 inherent potential.
- 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 the resources to the user. The following are the salient features of the IT policy:
 - 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.
- A centralized **Learning Management System (LMS)** supports blended and online learning by providing facilities for uploading lecture materials, e-content, assignments, quizzes, and internal assessments, thereby enabling continuous interaction between faculty and students beyond

classroom hours.

- Integrated software systems for admissions, student information, attendance, examinations, result processing, payroll, finance, and human resources. Online portals for students and faculty to access academic records, timetables, notices, and administrative services. Classrooms are equipped with LCD projectors, smart boards, audio-visual systems, and internet connectivity.

9.11 Initiatives and Implementation of Sustainable Development Goals (SDGs) (10)

Total Marks 10.00

The institution actively promotes and implements the **United Nations Sustainable Development Goals (SDGs)** by integrating sustainability principles into **academics, research, campus operations, and community outreach**. Special emphasis is placed on **green energy, waste management, water conservation, net-zero practices, quality education, reuse–recycle principles, and renewable energy adoption**.

Green Energy and Net-Zero Initiatives

The institution is proud to have received the Green University Accreditation Certificate from Green Mentors for the period 2021–2023.

The International Green University Award- 2022 is presented to Noorul Islam Centre for higher Education at Green School Conference 2022.

1.Solar Energy

A 10kW off-grid solar photovoltaic energy production system has been installed in marine hostel. It has been installed in the year 2014 by Aeon Renewable Energy Solution Private limited. It produces about 30 units per day and the generated power is used in Marine kitchen.

A 660W solar photovoltaic energy production system has been installed in the Allied Health Science (AHS) Department and the power generated is used for the lights and fans in the laboratories of AHS department.

2.Biogas Plant

A 6 cubic meter biogas plant has been constructed in gent's hostel. Food wastes from hostel and cow dung are used as feed materials. The biogas thus produced is also used as an alternate source of cooking fuel in gent's hostel.

3.Wind Energy

A 1.5kW wind mill has been installed in the AHS department. The street lights around the department are powered by the same.

The institution make use of LED bulbs as a part of efficient energy saving techniques at various blocks including AC Auditorium.

Waste Management and Reuse–Recycle Practices

The institution follows a **systematic waste management policy**. Waste segregation (wet, dry, and e-waste) is practiced across the campus. Organic waste is composted, while e-waste is disposed of through authorized vendors. Awareness programs promote **reuse and recycling** and reduced single-use plastics.

1.VERMICOMPOSER

A vermicompost of size 3m x 3m x 2m has been installed near the marine block exclusively earmarked for organic solid waste management. The most commonly used species of earthworm (or composting worms) are red wigglers.

2.Liquid Waste Management

Sewage treatment plants (STPs) are installed in the ladies and gents hostel.

Quality Education and SDG Integration

Supporting **SDG 4 (Quality Education)**, sustainability and SDG concepts are integrated into the **curriculum**. Students are encouraged to undertake **problem-based learning and interdisciplinary projects** addressing real-world sustainability challenges.

POs and PSOs related to sustainability and quality Education

POs : PO7,PO8,PO12

PSOs: PSO3

The institution actively conducts outreach programs throughout the Bachelor degree programme.

Outreach and Community Engagement

Through **NSS and extension programs**, the institution conducts **tree plantation drives, cleanliness campaigns, water conservation awareness programs, and renewable energy awareness camps** in nearby community.

9.12 Innovative Educational Initiatives and Implementation (5)

Total Marks 5.00

NICHE has introduced several innovative educational initiatives to enhance the quality of teaching–learning processes and to ensure holistic student development. These initiatives focus on outcome-based education, experiential learning, industry readiness, and technology-enabled instruction.

Key Innovative Initiatives Implemented:**Outcome Based Education (OBE) Framework**

The curriculum is designed and delivered in alignment with Outcome Based Education principles. Course Outcomes (COs), Program Outcomes (POs), and Program Specific Outcomes (PSOs) are clearly defined, mapped, and assessed using direct and indirect assessment tools to ensure continuous improvement.

Experiential and Project-Based Learning

Students are encouraged to learn through mini-projects, capstone projects, case studies, problem-based assignments, and real-time applications. Industry-oriented projects and interdisciplinary learning approaches are promoted to bridge the gap between theory and practice.

Industry Interaction and Skill-Oriented Programs

The Institution collaborates with industries, professional bodies, and technology partners through MoUs to offer value-added courses, certification programs, internships, industrial visits, expert lectures, and hands-on training on emerging technologies.

ICT-Enabled and Blended Learning Practices

Smart classrooms, Learning Management Systems (LMS), virtual labs, online resources, MOOCs (NPTEL, SWAYAM, Coursera), and digital content are effectively integrated into the teaching–learning process to support blended and flipped classroom models.

Innovation, Research, and Entrepreneurship Promotion

Innovation clubs, coding clubs, research forums, incubation support, hackathons, ideathons, and student project competitions are organized to nurture creativity, problem-solving skills, and entrepreneurial mindset among students.

Continuous Assessment and Mentoring System

Continuous Internal Assessment (CIA), formative assessments, remedial classes, bridge courses, and a structured mentor–mentee system are implemented to support slow learners and encourage advanced learners for higher achievements.

Student-Centric and Inclusive Learning Practices

Learner-centric pedagogies such as peer learning, collaborative learning, presentations, seminars, technical workshops, and extension activities are adopted to ensure inclusive and participative learning.

Impact of the Initiatives:

1. Improved student engagement and learning outcomes
 2. Enhanced employability and industry readiness
 3. Increased participation in research, innovation, and competition
 4. Strengthened academic performance and skill development
- Noorul Islam Centre for Higher Education (NICHE) has fully put in place the Academic Bank of Credits (ABC) system. This system gives students more flexibility in their studies through easy credit transfer. Students can take subjects from other departments within the university, and the earned credits are automatically added to their main academic record. If students join NICHE from other universities, the credits they earned earlier from recognized institutions are accepted and included in their final certificates.

- NICHE promotes the Indian Knowledge System by offering the course “**Heritage of Tamil**” in the curriculum, which can be studied in **English or Tamil**, and emphasizes holistic development by integrating **human values, ethics, social responsibility, and environmental consciousness** through courses such as **Environmental Science , Professional and Business Ethics**.
- NICHE has well defined policy on equity which ensures that all students, faculty and staff members have equal opportunities for admission, employment and growth regardless of their gender, caste , religion, disability , or socio-economic background.
- NICHE ensures differently-abled, barrier free environment to differently-abled students and provide opportunities to them to access the benefits, rights and privilege of services. Ramps and rails are provided for easy access to various locations. Ramps are built with handle on both sides to suit for the need.



9.13 Faculty Performance Appraisal and Development System (FPADS (10)

Total Marks 10.00

The Faculty Performance Appraisal and Development System is implemented through a well-defined and systematic mechanism to ensure academic rigor, accountability, and quality enhancement.

Faculty members are required to complete 100% of the prescribed syllabus for each course, and the details of syllabus coverage are meticulously documented in the Record of Academic Work. These records are periodically verified by the Head of the Department (HOD) and reviewed by the Pro Vice-Chancellor (Academics) to ensure compliance with academic standards.

Faculty strictly adheres to the academic calendar and schedule prescribed by the university, which governs the conduct of classes, internal assessments, tutorials, seminars, and workshops. In addition to regular teaching, faculty members are encouraged to organize and participate in seminars, workshops, tutorial sessions, and other academic enrichment activities to enhance student learning outcomes.

The university strongly promotes a research-oriented culture by motivating faculty to apply for sponsored research projects from both Government and non-Government funding agencies. Faculty are also encouraged to contribute to scholarly advancement through patents, publications in SCI and Scopus indexed journals, and the publication of books and book chapters. All such academic and research contributions are systematically recorded in the university management system/website, and faculty members are required to submit documentary evidence for verification.

These verified academic, teaching, and research contributions form a key component of the Academic Performance Indicator (API) assessment and are carefully reviewed by the concerned committees. Outstanding and consistent contributions are duly recognized through the Faculty Appreciation Award, thereby reinforcing a culture of excellence, continuous improvement, and professional growth within the university.

Academic Performance Indicator (API)

The Academic Performance Indicator (API) is calculated annually to evaluate faculty performance in a systematic and transparent manner. The assessment is based on Teaching, Learning and Evaluation-related activities, Co-curricular and Extension activities, Professional Development-related activities, and Research, Publications, and Academic Contributions.



This comprehensive evaluation framework ensures objectivity and accountability in performance assessment, encourages effective teaching practices, promotes research and innovation, and motivates continuous professional development. The API system helps in identifying strengths and areas for improvement, supports career advancement and recognition, and aligns individual faculty performance with institutional goals and quality enhancement initiatives.

Noorul Islam Centre for Higher Education (Noorul Islam University)
PART A: ACADEMIC PERFORMANCE INDICATORS (APIs)
 (To be filled by the TEACHING FACULTY/Equivalent cadres)

1. Name (in Block Letters) : Dr. A. ANITHA
2. Father's Name/Mother's Name: Mr.S. Arulappan/Mrs.S. Lathika
3. Department: CSE Current Designation: Associate Professor
4. Date of Joining: 19-02-2008
5. Grade Pay: 37400 - 67000 Date of Last Promotion: 01/04/2019
6. Date and Place of Birth: 17/09/1982 & Kerala Sex: Female
7. Marital Status: Married Nationality: Indian
8. Address for correspondence (with Pincode):
 Kattuvilai Veedu,
 Chirayankuzhi,
 Kanjiracode (p.o)
 K.K.Dist
 Pin:629155
9. Permanent Address (with Pincode):
 Kattuvilai Veedu,
 Chirayankuzhi,
 Kanjiracode (p.o)
 K.K.Dist
 Pin:629155
10. Contact Numbers: 9486473593
11. E-Mail which you browse daily-in capitals: anithadathi@gmail.com

Summary of API Score for the Assessment Period: 2022-2023

S.No.	Type of activity	Details
1.	Teaching Learning, Evaluation for last year of assessment period (category I)	125
2.	Co-curricular, Extension and Profession for last year of assessment period (category II)	25
3.	Total of category I and II of last academic year of assessment period*	150
4.	Total average under category I and II*	75

5.	Research & Academic Contribution for assessment period (Category III)	248
6.	% Weightage of Category I+II	
7.	% Weightage of Category III	
8.	Total of 6 and 7 above	
9.	Percentage Distribution of Weightage Points in the Expert Assessment (Total Weightage = 100. Min. Required for promotion is 50)	

Dated: 15/07/2023

(Name & Signature)

[Dr. A. Anitha]

**Teacher may score additional 10 points from either Category I or II to achieve minimum score required under category I + II*

Notes: Please refer to instructions/Annual PBAS for calculating API score and filling up this form provided along with this application form.

9.14 Outreach Activities (5)

Total Marks 5.00

Extension Activity at CSI Transitional Resource Centre

CSI Transitional Resource Centre, Neyyoor

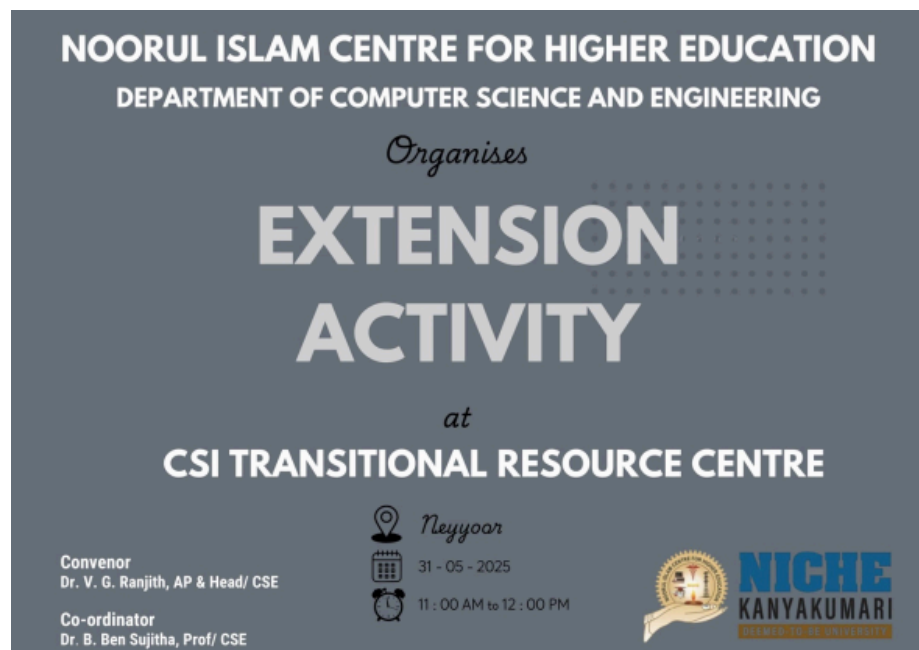
To extend institutional support to the CSI Transitional Resource Centre, Neyyoor by engaging with inmates through a socially responsible outreach programme.

The Department of Computer Science and Engineering, Noorul Islam Centre for Higher Education, organized an Extension Activity at the CSI Transitional Resource Centre, Neyyoor, on 31st May 2025, from 11:00 AM to 12:00 PM. The programme was conducted with the objective of extending academic and social support to the community while fostering social responsibility among faculty members.

The programme was convened by Dr. V. G. Ranjith, AP & Head/CSE, and coordinated by Dr. B. Ben Sujitha, Professor/CSE. Faculty members actively participated in the visit and interacted with the inmates of the resource centre in a friendly and empathetic manner.

During the visit, the team engaged the inmates through interaction sessions aimed at motivation, emotional support, and awareness about positive life practices. Essential materials were distributed to the beneficiaries as a gesture of care and support. The interaction created a warm and encouraging environment, helping the inmates feel valued and supported.

The programme concluded with mutual appreciation from both the institution and the resource centre authorities. The extension activity proved to be meaningful and impactful, reinforcing the importance of community engagement and social outreach as an integral part of higher education.





Annexure I
(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

PO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO3: Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

PO6: The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO7: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO8: Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO10: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

(B) PROGRAM SPECIFIC OUTCOME (PSOs)
Program should specify 2-4 program specific outcomes.

PSO1	Design, develop, and implement efficient computing systems using modern programming languages, algorithms, and software engineering principles
PSO2	Apply knowledge of emerging technologies such as AI, Machine Learning, Cybersecurity, and IoT to solve real world problems
PSO3	Innovate and contribute to research in computer science by leveraging interdisciplinary approaches and advanced computational techniques

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 in force as on date and the institution shall 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 Institution will be initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit 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 19:58:55