PERI INSTITUTE OF TECHNOLOGY

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

Part A : Institutional Information

1 Name and Address of the Institution

PERI INSTITUTE OF TECHNOLOGY,
PERI INSTITUTE OF TECHNOLOGY NO 1 MANNIVAKKAM WEST TAMBARAM CHENNAI 600048

2 Type of the Institution:

○ Self-Supported Institute	○ Autonomous
○ Deemed University	◉ Non-Autonomous (Affiliated)
○ University	○ Any Other(Please Specify)
○ Institute of National Importance	

3 Year of establishment of the Institution:

2010

4 Ownership Status:

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

5 Name and Address of Affiliating University

ANNA UNIVERSITY

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

Name of Institutions	Year of Establishment	Programs of Study	Location
PERI Institute of Technolog	2010	B.E. B.Tech. M.E.	Mannivakkam, Chennai
PERI College of Physiother	2024	B.P.T	Mannivakkam, Chennai

7 Details of all the programs being offered by the institution:

Program Name	Program Applied level	Year of Start	AICTE approval details	Sanctioned Intake	Increase/decrease in intake	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Computer Science and Engineering	UG	2010	2023	60	Yes	180	Not accredited (specify visit dates, year)	18/11/2022	20/11/2022		4

Sanctioned Intake for Last Five Years for the Computer Science and Engineering	
Academic Year	**Sanctioned Intake**
2024-25	180
2023-24	180
2022-23	120
2021-22	120
2020-21	120
2019-20	120

Computer Science and Engineering	PG	2012	2020	18	Yes	24	Not eligible for accreditation	--	--		2

Sanctioned Intake for Last Five Years for the Computer Science and Engineering	
Academic Year	**Sanctioned Intake**
2024-25	24
2023-24	24
2022-23	24
2021-22	24
2020-21	12
2019-20	24

Artificial Intelligence and Data Science	UG	2022	2024	30	Yes	60	Not eligible for accreditation	--	--		4

Sanctioned Intake for Last Five Years for the Artificial Intelligence and Data Science	
Academic Year	**Sanctioned Intake**
2024-25	60
2023-24	30
2022-23	30
2021-22	0
2020-21	0
2019-20	0

Program Name	Program Applied level	Year of Start	AICTE approval details	Sanctioned Intake	Increase/decrease in intake	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Computer Science and Business System	UG	2023	2023	60	No	60	Not eligible for accreditation	--	--		4
Computer Science and Design	UG	2025	2025	60	No	30	Not eligible for accreditation	--	--		4
Computer Science and Engineering (Artificial Intelligence & Machine Learning)	UG	2024	2024	30	No	30	Not eligible for accreditation	--	--		4
Computer Science and Engineering (Artificial Intelligence)	UG	2025	2025	60	No	60	Not eligible for accreditation	--	--		4
Computer Science and Engineering (Cyber Security)	UG	2024	2024	60	No	60	Not eligible for accreditation	--	--		4
Information Technology	UG	2023	2025	60	No	60	Not eligible for accreditation	--	--		4
Computer Science and Engineering (Data Science)	UG	2025	2025	60	No	60	Not eligible for accreditation	--	--		4

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Computer Science and Engineering
2	Under Graduate	Engineering & Technology	Electrical & Electronics Engineering
3	Under Graduate	Engineering & Technology	Electronics & Communication Engineering

Table No. A8.2

S No	Name of the Department	Name of the Program	Name of Allied Departments/Cluster	Name of Allied Program
1	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering
2	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering
3	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering
4	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering
5	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering
6	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering
7	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering
8	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering
9	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering	Computer Science and Engineering

9 Total Number of Faculty Members in Various Departments:

ID	Deparment Name	Number of faculty members in the Department (UG and PG)											
		2024-25 (CAY)				2023-24 (CAYm1)				2022-23 (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	Computer Science and Engineering (UG&PG)	4	11	30	45	4	10	27	41	4	7	25	36
2	Electronics and Communication Engineering (UG&PG)	3	6	14	23	3	6	15	24	4	6	19	29
3	Electrical and Electronics Engineering (UG&PG)	2	2	8	12	2	3	8	13	2	4	9	15
4	Civil Engineering	1	1	8	10	0	1	8	9	1	2	7	10
5	Mechanical Engineering	1	1	8	10	1	2	14	17	1	2	9	12
6	Computer Technology (AIML, CYS, AIDS, CSBS, IT)	2	4	10	16	1	2	6	9	1	1	2	4
7	First Year (Science & Humanities)	2	7	27	36	3	5	23	31	2	3	14	19

10 Total Number of Engineering Students in Various Departments:

ID	Deparment Name	Number of students in the Department (UG and PG)		
		2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)
1	Computer Science and Engineering (UG&PG)	373	369	355
2	Electronics and Communication Engineering (UG&PG)	140	163	156
3	Electrical and Electronics Engineering (UG&PG)	56	82	89
4	Civil Engineering	22	41	48
5	Mechanical Engineering	53	102	139
6	Computer Technology (AIDS, CSBS, IT)	120	32	0
7	First Year (Science & Humanities)	474	279	242

11 Vision of the Institution:

To be an internationally recognized seat of higher learning in Engineering, Technology, and Science in tfuture. It also visualizes being a research incubator for academicians, industrialists and researchers from across the country /world.

12 Mission of the Institution:

- It strives to provide quality Technical education at affordable cost.
- Providing state-of-the art infrastructure facilities to achieve excellence in Teaching-Learning, Research and Development.
- Aligning with leading industries to create competent engineers through internships and placement focused training.
- Create an environment which is conducive to learn skills which will solve pressing issues along with foundation in moral values and ethics.

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

Head of the Institution	
Name	Dr K A SUNDARARAMAN
Designation	PRINCIPAL
Mobile No.	8925995620
Email ID	principal@periit.com

NBA Coordinator, If Designated

Name	Mr. Anil Kumar
Designation	HOD/ Mechanical Engineering
Mobile No.	8973323396
Email ID	hodmech@peri.ac.in

PART B: Criteria Summary

Critera 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	99.10
5	FACULTY INFORMATION	100	96.12
6	FACULTY CONTRIBUTIONS	120	105.89
7	FACILITIES AND TECHNICAL SUPPORT	100	100.00
8	CONTINUOUS IMPROVEMENT	80	80.00
9	STUDENT SUPPORT AND GOVERNANCE	120	115.00
	Total	**1000**	**956**

Part B : Criteria Summary

1 OUTCOME-BASED CURRICULUM (120) Total Marks 120.00

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

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 an internationally recognized seat of higher learning in Engineering, Technology, and Science in tfuture. It also visualizes being a research incubator for academicians, industrialists and researchers from across the country /world.
Mission of the institute	• It strives to provide quality Technical education at affordable cost. • Providing state-of-the art infrastructure facilities to achieve excellence in Teaching-Learning, Research and Development. • Aligning with leading industries to create competent engineers through internships and placement focused training. • Create an environment which is conducive to learn skills which will solve pressing issues along with foundation in moral values and ethics.
Vision of the Department	Vision of the department is to prepare industry-ready competent professionals with moral values by imparting scientific knowledge and skill-based education.
Mission of the Department	

Mission No.	Mission Statements
M1	To provide exposure of latest tools and technologies in the broad area of computing.
M2	To promote research-based projects / activities in the emerging areas of technology
M3	To enhance Industry Institute Interaction program to get acquainted with corporate culture and to develop entrepreneurship skills.
M4	To induce ethical values and spirit of social commitment.

1.1.2 State PEOs of the Program (5)

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering or as entrepreneurs.
PEO2	To ensure that graduates will have the ability and attitude to adapt to emerging technological changes.
PEO3	To exhibit professional attitude, teamwork and practice code of ethics in the area of specialization.

1.1.3 Process of Defining Vision, Mission and PEOs (15)

Institute Marks : 15.00

A. **Process of Defining Department Vision and Mission**

- The Department Vision and Mission are formulated through a systematic and participative process involving management, administrators and senior professors of the department.
- Brainstorming sessions are conducted to prepare the draft Vision and Mission, considering the Engineering Graduate Attributes and industry requirements.
- The draft is refined based on feedback from employees, alumni, industry experts and parents. It is then benchmarked with reputed institutions such as IITs and NITs.
- Necessary modifications are incorporated based on the review, and the final draft is submitted to the Academic Advisory Committee experts for validation.
- After successful validation, the approved Vision and Mission are given wide publicity throughout the institution to ensure awareness among all stakeholders.
- The Vision and Mission are reviewed once every five years to ensure their continued relevance and alignment with institutional goals and industry requirements.

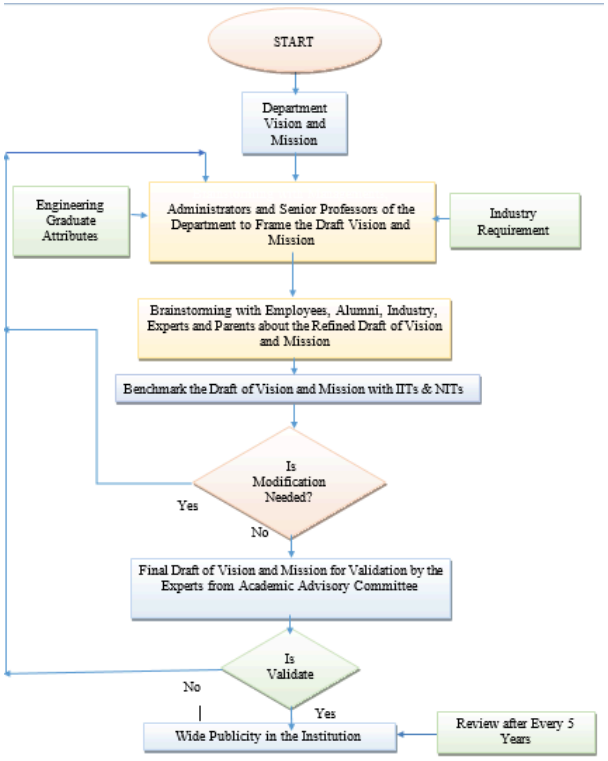


Figure 1.1.3.1: Department Vision and Mission Creation & Validation Process

B. Process of Defining PEOs

- The Program Educational Objectives are formulated by review the Anna University PEOs through a systematic and participative process involving management, administrators and senior professors of the department.

- Brainstorming sessions are conducted to prepare the draft PEOs, considering the Engineering Graduate Attributes and industry requirements.
- The draft is refined based on feedback from employees, alumni, industry experts and parents. It is then benchmarked with reputed institutions such as IITs and NITs.
- Necessary modifications are incorporated based on the review, and the final draft is submitted to the Academic Advisory Committee experts for validation.
- After successful validation, the approved PEOs are given wide publicity throughout the institution to ensure awareness among all stakeholders.
- The PEOs are reviewed once every four years to ensure their continued relevance and alignment with institutional goals and industry requirements.

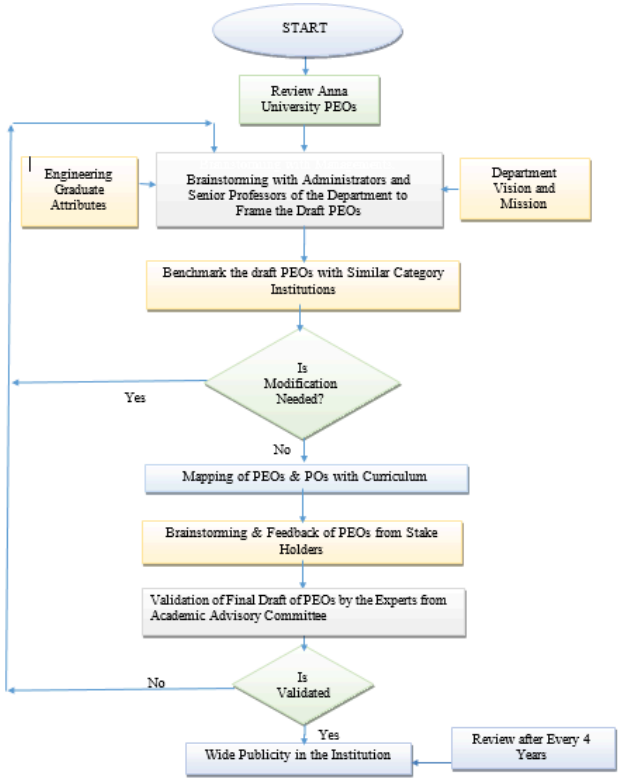


Figure 1.1.3.2: Program Educational Objectives Creation & Validation Process

1.1.4 Dissemination of Vision, Mission and PEOs (5)

Institute Marks : 5.00

A(i). The Vision, Mission and PEOs are adequately published as indicated below

Table 1.1.4.1

S.No	Vision, Mission and PEOs	Published
1.	Institution Website (https://peri.education/periit)	Yes
2.	Institution Prospectus	Yes
3.	Placement Brochure	Yes
4.	Department Magazine	Yes
5.	Department Newsletter	Yes

A(ii). The Vision, Mission and PEOs are disseminated as follows

Table 1.1.4.2

S.No	Vision, Mission and PEOs	Published
1.	Classrooms	Yes
2.	Laboratories	Yes
3.	Staff rooms	Yes
4.	HOD chamber	Yes
5.	Department notice board	Yes
6.	Department Library	Yes
7.	Department Corridor	Yes
8.	Laboratory manuals	Yes
9.	Course File	Yes

A(iii). The awareness of Vision, Mission and PEOs are created among the internal and external stakeholders through:

Table 1.1.4.3

S.No	Vision, Mission and PEOs	Published
1.	Induction program for fresher’s	Yes
2.	Semester Induction Program	Yes
3.	Class committee meetings	Yes
4.	Parent teacher meeting	Yes
5.	Placement Conclave	Yes
6.	Alumni meet	Yes
7.	Governing council meeting	Yes

PERI
INSTITUTE OF TECHNOLOGY

Approved by AICTE, Affiliated to Anna University
Accredited by NAAC | Recognized by UGC with 2(F)

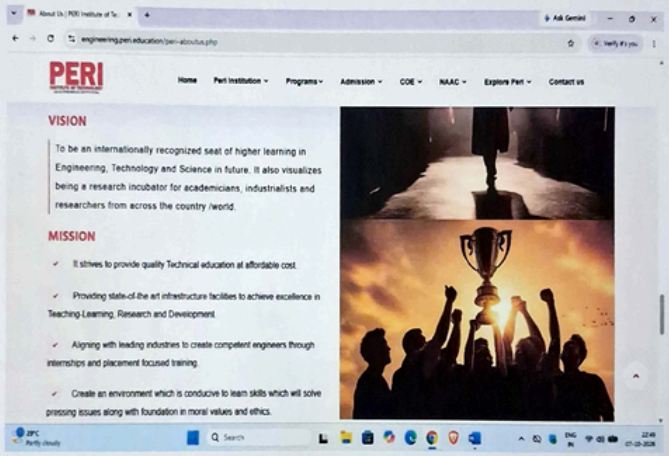


Fig 3: Publish on Institution Website

PRINCIPAL
PERI Institute of Technology (Autonomous)
PERI Knowledge Park,
Mannivakkam, Chennai-600 048.

PERI INSTITUTE OF TECHNOLOGY

Approved by AICTE, Affiliated to Anna University
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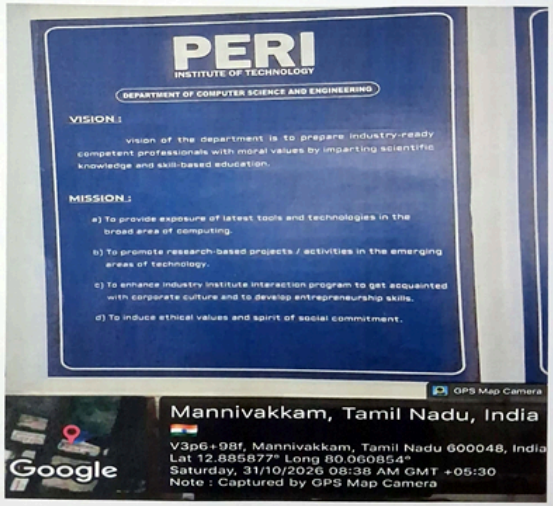


Fig 4: Dissemination of Department Vision and Mission in the Laboratory

PRINCIPAL
PERI Institute of Technology (Auto
PERI Knowledge Par
Mannivakkam, Chennai-600

PERI INSTITUTE OF TECHNOLOGY

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Fig.5 Dissemination of POs, PEOs in the Classroom

PRINCIPAL
PERI Institute of Technology (Autonomous)
PERI Knowledge Park,
Mannivakkam, Chennai-600 048.

1.1.5 Mapping of PEOs with Mission (10)

Institute Marks : 10.00

PEO Statements	M1	M2	M3	M4
To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering or as entrepreneurs.	3	2	3	2
To ensure that graduates will have the ability and attitude to adapt to emerging technological changes.	3	3	3	2
To exhibit professional attitude, teamwork and practice code of ethics in the area of specialization.	2	2	3	3

1.1.5 Mapping of PEOs with Mission

PEO Statements	M_1	M_2	M_3	M_4
PEO1: To enable graduates to pursue higher education and research, or have a successful career in industries associated with Computer Science and Engineering or as entrepreneurs.	3	2	3	2
PEO2: To ensure that graduates will have the ability and attitude to adapt to emerging technological changes.	3	3	3	2
PEO3: To exhibit professional attitude, teamwork and practice code of ethics in the area of specialization.	2	2	3	3

1.1.5.1 Justification and rationale of the mapping

PEO1 and M1	**Through the curriculum and the special training students are exposed to cutting edge technologies.**
PEO1 and M2	The value-added courses enable the students to a continuous learner and solve multifaceted problems.
PEO1 and M3	Project presentations participation in the global contest ascertains the industry readiness of a student.
PEO1 and M4	Work ethics, attitude and productivity are interrelated in the office environment. To maximize your employees productivity, you need to foster an environment in which positive attitudes dominate and people develop strong work ethics
PEO2 and M1	Learners are enabled to involve in solving research problems with the help of in-house trainings, implementing Projects and publishing research articles.
PEO2 and M2	The varied research focus groups by the faculty members of the department could able to identify and solve complex real time research problems by the students.

PEO2 and M3	Students are able to work as team and assign the responsibility mutually throughout the product development facilitates the leadership skills and entrepreneur.
PEO2 and M4	Highly Support to achieve for establishing the incubation centers to meet global research challenges
PEO3 and M1	Habit of Self Learning enables the continuous and vertical learning of a student.
PEO3 and M2	The team building and work in cohesion is trained during the project development and laboratory tasks.
PEO3 and M3	With the help of Industry expert’s suggestion during the project presentations enables the academia -industry linkage.
PEO3 and M4	In the course of study, students should be able to learn ethical behavior and team building very well.

1.2 Curriculum Structure and Features (30)

1.2.1 Program Curriculum Structure (5)

Institute Marks : 5.00

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	HS3152	Professional English - I	45	0	0	45	90	3.00
2	MA3151	Matrices and Calculus	60	0	0	60	120	4.00
3	PH3151	Engineering Physics	45	0	0	45	90	3.00
4	CY3151	Engineering Chemistry	45	0	0	45	90	3.00
5	GE3151	Problem Solving and Python Programming	45	0	0	45	90	3.00
6	GE3152	தமிழர் மரபு /Heritage of Tamils	15	0	0	15	30	1.00
7	GE3171	Problem Solving and Python Programming Laboratory	0	0	60	0	60	2.00
8	BS3171	Physics and Chemistry Laboratory	0	0	60	0	60	2.00
9	GE3172	English Laboratory	0	0	30	0	30	1.00
10	HS3252	Professional English - II	30	0	30	0	60	2.00
11	MA3251	Statistics and Numerical Methods	60	0	0	60	120	4.00
12	PH3256	Physics for Information Science	45	0	0	45	90	3.00
13	BE3251	Basic Electrical and Electronics Engineering	45	0	0	45	90	3.00
14	GE3251	Engineering Graphics	30	0	60	30	120	4.00
15	CS3251	Programming in C	45	45	0	0	90	3.00
16	GE3252	தமிழரும் தொழில்நுட்பமும் /Tamils and Technology	15	0	0	15	30	1.00
17	GE3271	Engineering Practices Laboratory	0	0	60	0	60	2.00
18	CS3271	Programming in C Laboratory	0	0	60	0	60	2.00

19	GE3272	Communication Laboratory / Foreign Language	0	0	60	0	60	2.00
20	MA3354	Discrete Mathematics	45	15	0	60	120	4.00
21	CS3351	Digital Principles and Computer Organization	45	30	0	45	120	4.00
22	CS3352	Foundations of Data Science	45	0	0	45	90	3.00
23	CS3301	Data Structures	45	0	0	45	90	3.00
24	CS3391	Object Oriented Programming	45	0	0	45	90	3.00
25	CS3311	Data Structures Laboratory	0	0	45	0	45	1.50
26	CS3381	Object Oriented Programming Laboratory	0	0	45	0	45	1.50
27	CS3361	Data Science Laboratory	0	0	60	0	60	2.00
28	GE3361	Professional Development	0	0	30	0	30	1.00
29	CS3452	Theory of Computation	45	0	0	45	90	3.00
30	CS3491	Artificial Intelligence and Machine Learning	45	0	30	45	120	4.00
31	CS3492	Database Management Systems	45	0	0	45	90	3.00
32	CS3401	Algorithms	45	0	30	45	120	4.00
33	CS3451	Introduction to Operating Systems	45	0	0	45	90	3.00
34	GE3451	Environmental Sciences and Sustainability	30	0	0	30	60	2.00
35	CS3461	Operating Systems Laboratory	0	0	45	0	45	1.50
36	CS3481	Database Management Systems Laboratory	0	0	45	0	45	1.50
37	CS3591	Computer Networks	45	0	30	45	120	4.00
38	CS3501	Compiler Design	45	0	30	45	120	4.00
39	CB3491	Cryptography and Cyber Security	45	0	0	45	90	3.00
40	CS3551	Distributed Computing	45	0	0	45	90	3.00

41	CCS366	Software Testing and Automation	30	0	15	45	90	3.00
42	CCS335	Cloud Computing	30	0	15	45	90	3.00
43	CCS356	Object Oriented Software Engineering	45	0	30	45	120	4.00
44	CS3691	Embedded Systems and IoT	45	0	30	45	120	4.00
45	OCE351	Environmental and Social Impact Assessment	45	0	0	45	90	3.00
46	CCS334	Big Data Analytics	30	0	15	45	90	3.00
47	CCS370	UI and UX Design	30	0	15	45	90	3.00
48	CCS372	Virtualization	30	0	15	45	90	3.00
49	CCS354	Network Security	30	0	15	45	90	3.00
50	GE3791	Human Values and Ethics	30	0	0	30	60	2.00
51	GE3754	Human Resource Management	45	0	0	45	90	3.00
52	AI3021	IT in Agricultutral System	45	0	0	45	90	3.00
53	OGI352	Geographical Information System	45	0	0	45	90	3.00
54	OHS351	English for Competitive Examinations	45	0	0	45	90	3.00
55	CS3711	Summer internship	0	0	0	60	60	2.00
56	CS3811	Project Work/Internship	0	0	150	150	300	10.00
		Total	**1710**	**90**	**1110**	**1950**	**4860**	**162.00**

1.2.2 Components of Program 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	15.43	375.00	25.00
Basic Engineering	11.11	270.00	18.00
Humanities and Social Scie	7.41	180.00	12.00
Program Core	37.65	915.00	61.00
Program Electives	11.11	270.00	18.00
Open Electives	7.41	180.00	12.00
Project(s)	6.17	150.00	10.00
Internships/Seminars	1.23	30.00	2.00
Any other (Please specify)	2.47	60.00	4.00
Total number of Credits			**162.00**

1.2.3 State the Process Used to Identify Extent of Compliance of the University Curriculum for Attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure II. Also Mention the Identified Curricular Gaps, if any (10)

Institute Marks : 10.00

Process Used to Identify the Extent of Curriculum Compliance

The Department of Computer Science and Engineering (CSE) follows the curricula prescribed by Anna University under Regulations 2017 (R2017) and 2021 (R2021), as applicable to the respective student batches. The department reviews the curriculum through the following process.

1. Review of the University Curriculum

The department shared the Anna University-prescribed curriculum with industry experts and alumni to obtain feedback on its relevance and adequacy in developing the knowledge, skills, and competencies required to attain the Program Outcomes (POs) and Program Specific Outcomes (PSOs).

2. Curriculum–PO/PSO Mapping

The courses were mapped to the relevant POs and PSOs to evaluate the contribution of each course towards outcome attainment. The mapping covered theory courses, laboratory courses, project work, and other relevant academic components.

3. Curriculum Gap Analysis

The department reviewed the feedback from industry experts and alumni, along with the curriculum–PO/PSO mapping, to identify areas where the prescribed curriculum could be supplemented. The review focused on strengthening program-specific competencies, technical knowledge, practical skills, and industry readiness. The findings provided a basis for identifying curricular gaps and planning appropriate measures to improve PO and PSO attainment. Further, these curricular gaps were communicated to the university by the Principal.

4. Industry-Oriented and Supplementary Learning Activities

To complement the university-prescribed curriculum and address identified learning needs, the department organized Supplementary Learning Activities such as Value-Added Courses, Guest Lecture, industrial visits, in-plant training, and technical workshops. These activities provided students with exposure to industrial practices, practical experience, and recent technological developments.

5. Assessment of PO and PSO Attainment through Supplementary Learning Activities

The department mapped Supplementary Learning Activities to the relevant POs and PSOs. Their contribution to PO and PSO attainment was assessed based on their objectives, technical content, student participation, and learning outcomes. Student learning was assessed through activity reports, presentations, assignments, participation records, and feedback from industry experts or training supervisors, as applicable. The assessment results were reviewed to determine the extent to which these activities contribute to the development of the targeted competencies and attainment of the mapped POs and PSOs. The feedback and assessment findings were used to improve subsequent activities.

1.2.4 State the Delivery Details of the Content beyond the Syllabus for the Attainment of Program Outcomes and Program Specific Outcomes (10) Institute Marks : 10.00

Table No.1.2.4.1: Details of events organized to cover content beyond the syllabus.

(CAYm1) 2023-24

S.No	PO/PSO as Gap Identified	Name of The Event	Date (DD/MM/YYYY)of The Event	Resource Person	Organization	Relevance to POs, PSOs	Action
1	Applies embedded and Io	Workshop on Embedded	04/04/2024	Mr. J. Suresh	Director, Wiztech Automat	PO3, PO5, PSO1,PSO3	Delete
2	Promotes professional etl	Ethics in Life	27/02/2024	Ms. Jarene Georgina	HR Business Advisor, For	PO6, PO7, PO8	Delete
3	Develops skill in UI/UX de	UI/UX Design	22/02/2024	Mr.R. Sriram	Associate Lead (SDE), GU	PO3, PO5, PSO1	Delete
4	Provides practical web ap	Workshop on Web Applic	16/11/23	Mr.G.Palanikumar	Spring Boot Developer, ic	PO3, PO5, PSO1	Delete
5	Case studies show real-w	Machine Learning in the	27/10/2023	Dr.Doreen Robin	Founder & Director, Comp	PO2, PO4, PO6, PSO2	Delete
6	Builds security tools skills	Workshop on Cyber Secu	26/10/2023	Mr.C. Monish	Automation testing Engine	PO5, PO6, PO7, PSO1	Delete
7	Applies cloud computing I	Storage and Backup in C	18/10/2023	Mr.K. Prabhu	Consultant, Atos Global In	PO5, PSO1	Delete
8	Improves employability, e	Becoming Employable	29/09/2023	Mr. Ash Nan	Founder: School of Etique	PO9, PO11	Delete
9	Encourages ethical and p	How to Convert Life's Les	25/09/2023	Mr.Babu Charles	Earnest, Founder-Justart,	Earnest, Founder-Justart,	Delete
10	Builds hands-on cyber se	Workshop on Cyber Secu	19/09/2023	Dr.B. Ezhilavan	CEO & Cofounder, VEI Te	PO5, PO6, PO7, PSO1	Delete
11	Makes students aware of	Industry Expectations fro	12/09/2023	Mr. Gowthaman Sivakum	Chief Technology Officer. /	PO9, PO10, PO11, PSO3	Delete
12	Exposes students to eme	AR and VR	18/08/2023	Mr.Pugazenthi Ramakrish	Senior Game Developer, ,	PO3, PO5, PO11, PSO1	Delete

(CAYm2) 2022-23

S.No	PO/PSO as Gap Identified	Name of The Event	Date (DD/MM/YYYY)of The Event	Resource Person	Organization	Relevance to POs, PSOs	Action
1	Exposure to research pap	International Conference	19/04/2023	Dr.H.Khanna Nehemiah	Professor, Additional Direc	PO4, PO9, PO11, PSO2	Delete
2	Hands-on AI exposure ap	Workshop on Artificial Int	25/03/2023	Mr. Harish	Data Scientist, Tata Consu	PO5, PO11, PSO1,PSO2	Delete
3	Skill-enhancement trainin	NAAN MUDHALVAN Sch	31/03/2023	Mr.Raja	Pantech e-Learning Pvt. L	PO5, PO11, PSO1	Delete
4	Industry internship develc	Internship	30/12/2022	Mr. Prakesh	Aester India Pvt. Ltd., Che	PO8, PO9, PO10,PO11, F	Delete

(CAYm3) 2021-22

S.No	PO/PSO as Gap Identified	Name of The Event	Date (DD/MM/YYYY)of The Event	Resource Person	Organization	Relevance to POs, PSOs	Action
1	Exposes students to eme	Guest Leture on Enterpri	25/04/2022	Mrs. J. Roshan Santhosh	ERP Lead Consultant, Mp	P03,PO5,PO11,PSO1	Delete
2	Exposes students to Indu	Guest Leture on Roadma	23/04/2022	Mr. Sathish Chandran	Oracle Certified IT Expert,	PO2,P03,PO5,PO11,PSC	Delete
3	Hands on Emerging expc	Workshop on Real world	27/08/2021	Mr. V.S. Raman	Aadhithya Infomedia Tech	PO5,PO11,PSO1,PSO2	Delete
4	Encourages ethical and li	Guest Leture on Enterpri	19/03/2022	Mr. Raman Baskaran	Director, Infinite Solutions	PO6,PO7,PO8,PSO1	Delete

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

1.3.1 POs and PSOs (5) :

PSO1	To analyze, design and develop computing solutions by applying foundational concepts of Computer Science and Engineering.
PSO2	To apply software engineering principles and practices for developing quality software for scientific and business applications.
PSO3	To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

1.3.2 Mapping between the Courses and POs/PSOs (10) Institute Marks : 10.00

PO:

PO Number	List of Courses
PO1	Professional English - I, Matrices and Calculus, Engineering Physics, Engineering Chemistry, Problem Solving and Python Programming, Problem Solving and Python Programming Laboratory, Physics and Chemistry Laboratory, English Laboratory, Professional English - II, Statistics and Numerical Methods, Physics for Information Science, Basic Electrical and Electronics Engineering. Engineering Graphics, Programming in C, Engineering Practices Laboratory, Programming in C Laboratory, Communication Laboratory/Foreign Language, Discrete Mathematics, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Professional Development, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Algorithms, Introduction to Operating Systems, Environmental Sciences and Sustainability Operating Systems Laboratory, Database Management Systems Laboratory, Compiler Design, Cryptography and Cyber Security, Distributed Computing, Object Oriented Software Engineering, Embedded Systems and IoT, Project Work.
PO2	Professional English - I, Matrices and Calculus, Engineering Physics, Engineering Chemistry, Problem Solving and Python Programming, Problem Solving and Python Programming Laboratory, Physics and Chemistry Laboratory, English Laboratory, Professional English - II, Statistics and Numerical Methods, Physics for Information Science, Basic Electrical and Electronics Engineering. Engineering Graphics, Programming in C, Engineering Practices Laboratory, Programming in C Laboratory, Communication Laboratory/Foreign Language, Discrete Mathematics, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Professional Development, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Algorithms, Introduction to Operating Systems, Environmental Sciences and Sustainability Operating Systems Laboratory, Database Management Systems Laboratory, Computer Networks, Compiler Design, Cryptography and Cyber Security, Distributed Computing, Object Oriented Software Engineering, Embedded Systems and IoT, Project Work.
PO3	Professional English - I, Matrices and Calculus, Engineering Physics, Engineering Chemistry, Problem Solving and Python Programming, Problem Solving and Python Programming Laboratory, Physics and Chemistry Laboratory, English Laboratory, Professional English - II, Statistics and Numerical Methods, Physics for Information Science, Basic Electrical and Electronics Engineering. Engineering Graphics, Programming in C, Programming in C Laboratory, Communication Laboratory/Foreign Language, Discrete Mathematics, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Professional Development, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Algorithms, Introduction to Operating Systems, Environmental Sciences and Sustainability, Operating Systems Laboratory, Database Management Systems Laboratory, Compiler Design, Cryptography and Cyber Security, Distributed Computing, Object Oriented Software Engineering, Embedded Systems and IoT, Project Work
PO4	Professional English - I, Matrices and Calculus, Engineering Physics, Engineering Chemistry, Problem Solving and Python Programming, Problem Solving and Python Programming Laboratory, Physics and Chemistry Laboratory, English Laboratory, Professional English - II, Statistics and Numerical Methods, Physics for Information Science, Programming in C, Programming in C Laboratory, Communication Laboratory/Foreign Language, Discrete Mathematics, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Professional Development, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Algorithms, Introduction to Operating Systems, Environmental Sciences and Sustainability, Operating Systems Laboratory, Database Management Systems Laboratory, Compiler Design, Cryptography and Cyber Security, Distributed Computing, Object Oriented Software Engineering, Embedded Systems and IoT, Project Work.
PO5	Professional English - I, Engineering Physics, Problem Solving and Python Programming, Problem Solving and Python Programming Laboratory, Physics and Chemistry Laboratory, English Laboratory, Professional English - II, Statistics and Numerical Methods, Physics for Information Science, Engineering Graphics, Programming in C, Programming in C Laboratory, Communication Laboratory/Foreign Language, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Professional Development, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Algorithms, Introduction to Operating Systems, Operating Systems Laboratory, Database Management Systems Laboratory, Compiler Design, Cryptography and Cyber Security, Distributed Computing, Object Oriented Software Engineering, Embedded Systems and IoT, Project Work.
PO6	Programming, Physics and Chemistry Laboratory, English Laboratory, Professional English - II, Physics for Information Science, Engineering Graphics, Programming in C, Programming in C Laboratory, Communication Laboratory/Foreign Language, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Environmental Sciences and Sustainability, Project Work.

PO7	Professional English - I, English Laboratory, Professional English - II, Basic Electrical and Electronics Engineering, Programming in C, Communication Laboratory/Foreign Language, Digital Principles and Computer Organization, Project Work.
PO8	Professional English - I, Matrices and Calculus, English Laboratory, Professional English - II, Statistics and Numerical Methods, Programming in C, Programming in C Laboratory, Communication Laboratory/Foreign Language, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Introduction to Operating Systems, Operating Systems Laboratory, Database Management Systems Laboratory, Compiler Design, Cryptography and Cyber Security, Distributed Computing, Embedded Systems and IoT, Project Work.
PO9	Professional English - I, English Laboratory, Professional English - II, Engineering Graphics, Programming in C, Programming in C Laboratory, Communication Laboratory/Foreign Language, Discrete Mathematics, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Introduction to Operating Systems, Operating Systems Laboratory, Computer Networks, Database Management Systems Laboratory, Compiler Design, Distributed Computing, Object Oriented Software Engineering, Embedded Systems and IoT, Project Work.
PO10	Professional English - I, Matrices and Calculus, Problem Solving and Python Programming, Problem Solving and Python Programming Laboratory, English Laboratory, Professional English - II, Statistics and Numerical Methods, Programming in C, Engineering Graphics, Programming in C, Programming in C Laboratory, Communication Laboratory/Foreign Language, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Introduction to Operating Systems, Operating Systems Laboratory, Database Management Systems Laboratory, Compiler Design, Distributed Computing, Object Oriented Software Engineering, Embedded Systems and IoT, Project Work.
PO11	Professional English - I, Matrices and Calculus, Engineering Physics, Engineering Chemistry, Problem Solving and Python Programming, Problem Solving and Python Programming Laboratory, Physics and Chemistry Laboratory, English Laboratory, Professional English - II, Statistics and Numerical Methods, Physics for Information Science, Basic Electrical and Electronics Engineering. Engineering Graphics, Programming in C, Engineering Practices Laboratory, Programming in C Laboratory, Communication Laboratory/Foreign Language, Digital Principles and Computer Organization, Foundations of Data Science, Data Structures, Object Oriented Programming, Data Structures Laboratory, Object Oriented Programming Laboratory, Data Science Laboratory, Professional Development, Theory of Computation, Artificial Intelligence and Machine Learning, Database Management Systems, Algorithms, Introduction to Operating Systems, Environmental Sciences and Sustainability Operating Systems Laboratory, Database Management Systems Laboratory, Compiler Design, Cryptography and Cyber Security, Distributed Computing, Object Oriented Software Engineering, Embedded Systems and IoT, Project Work.

1.4 Course Outcomes and Course Articulation Matrix (30)

1.4.1 Course Outcome (Semester Wise) (15)

Institute Marks : 15.00

No. of Core Courses : 6	**C2 :** 2	**C3 :** 2	**C4 :** 2

Note : Number of Outcomes for a Course is expected to be around 6.

Course Code :	**CS3301**	**Semester :**	**3**

Course Outcome	**Statements**

Course Code :	**CS3492**	**Semester :**	**4**

Course Outcome	**Statements**

Course Code :	**CS3591**	**Semester :**	**5**

Course Outcome	**Statements**

Course Code :	**CCS356**	**Semester :**	**6**

Course Outcome	**Statements**

Course Code :	**GE3791**	**Semester :**	**7**

Course Outcome	**Statements**

Course Code :	**CS3811**	**Semester :**	**8**

Course Outcome	**Statements**

1.4.2 Course Articulation Matrix (10) :

1 . course name : C2CS3301

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11

2 . course name : C2CS3492

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11

3 . course name : C3CS3591

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11

4 . course name : C3CCS356

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11

5 . course name : C4GE3791

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11

6 . course name : C4CS3811

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11

1 . Course Name : CS3301

Course	PSO1	PSO2	PSO3

2 . Course Name : CS3492

Course	PSO1	PSO2	PSO3

3 . Course Name : CS3591

Course	PSO1	PSO2	PSO3

4 . Course Name : CCS356

Course	PSO1	PSO2	PSO3

5 . Course Name : GE3791

Course	PSO1	PSO2	PSO3

6 . Course Name : CS3811

Course	PSO1	PSO2	PSO3

1.5 Program Articulation Matrix (5)

Program Articulation Matrix

(10)

:

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
MA3151	3	3	1	1	0	0	0	2	0	2	3
HS3152	1.6	2.2	1.8	2.2	1.5	3	3	1.6	3	3	3
PH3151	3	3	1.6	1.2	1.8	1	0	0	0	0	1
CY3151	2.8	1.3	1.6	1	0	1.65	0	0	0	0	1.5
GE3151	2	3	3	3	2	0	0	0	0	2	2
GE3152	0	0	0	0	0	0	0	0	0	0	0
BS3171	3	2.4	2.6	1	1	0	0	00	0	0	0
GE3172	3	3	3	3	1	3	3	3	3	3	3
HS3252	3	3	3	3	2.75	3	3	2.2	3	3	3
MA3251	3	3	1	1	1	0	0	2	0	2	3
PH3256	3	1.3	2	1.3	2.3	1.15	0	0	0	2	0
BE3251	2	1.8	1	0	0	0	1	0	0	0	2
GE3251	3	1	2	0	2	0	0	0	3	0	2
CS3251	2	2	2	1	2	1	1	2	0	3	2
GE3252	0	0	0	0	0	0	0	0	0	0	0
GE3271	3	2	0	0	1	1	0	0	0	0	2
CS3271	2	2	3	2	1	2	0	2	1	2	2
GE3272	2.4	2.8	3	3	1.8	3	3	3	3	3	3
MA3354	1	3	2	1	0	0	0	0	1	0	0
CS3351	3	3	3	3	1.8	1.3	1	1	1	2.6	2.6
CS3352	2	2	1	2	2	1	0	1	1	1	2
CS3301	2	2	1	2	2	1	0	1	1	1	2
CS3391	2	1	2	2	2	0	0	2	2	1	2
CS3311	2	2	2	1	2	0	0	2	2	2	2
CS3381	2	2	2	2	2	0	0	2	2	2	2
CS3361	2	2	2	2	1	0	0	2	2	2	2
GE3361	0	0	0	0	0	0	0	0	0	0	0
CS3452	2	2	2	2	1	0	0	1	2	2	2
CS3491	2	1	2	2	1	0	0	2	2	2	3
CS3492	2	2	3	2	1	0	0	2	2	2	2

CS3401	2.67	1.8	3	1	0	1.33	0	0	0	0	1
CS3451	2	2	2	2	2	1	0	0	2	2	2
GE3451	2.8	1.8	1	1	0	2.3	0	0	0	0	1.8
CS3461	2	2	2	2	2	0	0	2	2	2	2
CS3481	2	3	2	2	1	0	0	2	1	3	2
CS3591	0	1	0	0	1	0	0	0	1	0	0
CS3501	3	2.8	2.6	2.2	2	0	0	2.6	2	1.6	2.4
CB3491	3	2.6	2.6	2.6	2.8	0	0	2	0	0	1.2
CS3551	1.8	2.4	1.8	2.4	2	0	0	2.6	2.2	2.2	1.6
CCS356	2	2	1	2	2	0	0	0	1	1	2
CS3691	2.6	2	3	2.4	1.5	0	0	1	2.2	2.2	2.4
GE3791	0	0	0	0	0	1.8	2	2	2	2	2
CS3711	3	3	3	3	3	3	3	3	3	3	3
CS3811	3	3	3	3	3	3	3	3	3	3	3

Course Code	PSO1	PSO2	PSO3
BE3251	0	0	1
BS3171	0	0	0
CB3491	2.8	2.8	3
CCS356	2	2	1
CS3251	2	2	0
CS3271	2	2	0
CS3301	2	2	2
CS3311	2	2	3
CS3351	1.4	2.6	1.6
CS3352	2	2	2
CS3361	2	3	2
CS3381	2	2	2
CS3391	3	2	2
CS3401	0	1	1
CS3451	1	2	2

CS3452	2	2	2
CS3461	2	2	2
CS3481	2	2	2
CS3491	2	2	2
CS3492	2	2	3
CS3501	1.8	1.8	2
CS3551	2	1.8	1.6
CS3591	0	1	1
CS3691	2.2	1.6	2.6
CS3711	3	3	3
CS3811	3	3	3
CY3151	0	0	0
GE3151	3	3	0
GE3152	0	0	0
GE3171	3	3	0
GE3172	0	0	0
GE3251	2	2	0
GE3252	0	0	0
GE3271	2	1	1
GE3272	0	0	0
GE3361	0	0	0
GE3451	0	0	0
GE3791	0	2	2
HS3152	0	0	0
HS3252	0	0	0
MA3151	0	0	0
MA3251	0	0	0
MA3354	0	0	0
PH3151	0	0	0
PH3256	0	0	0

2 OUTCOME-BASED TEACHING LEARNING (120)

Total Marks 120.00

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

Institute Marks : 20.00

2.1.DESCRIBE PROCESSES FOLLOWED TO ENSURE QUALITY OF TEACHING & LEARNING

The Department follows a planned approach to ensure the quality of teaching and learning through academic scheduling, appropriate teaching methods, individual academic support, effective classroom engagement and systematic laboratory practice. The process is implemented in accordance with the academic calendar and the applicable regulations of the affiliating University during the assessment period. The department monitors the implementation of planned academic activities and uses available assessment records, course-delivery information and student performance to identify areas requiring further attention.

2.1.1 ADHERENCE TO THE ACADEMIC CALENDAR

The academic calendar provides the basis for planning and implementing the academic activities of each semester. The institutional academic calendar is prepared with reference to the academic schedule prescribed by the affiliating University and is approved by the competent authorities. Based on this schedule, the department plans its academic activities, including semester commencement, syllabus coverage, internal assessment tests, class committee meetings, seminars, workshops, industrial visits and project reviews, as applicable.

Faculty members plan their course delivery in accordance with the prescribed schedule and maintain the relevant course-delivery records. The Head of the Department monitors the progress of academic activities and reviews deviations, wherever they occur, so that necessary adjustments can be made with appropriate approval. The implementation of the academic calendar is supported by the approved calendar, departmental schedules, lesson plans, assessment schedules, meeting minutes and records of completed activities.

PERI INSTITUTE OF TECHNOLOGY

ACADEMIC CALENDAR
2023-24 EVEN SEMESTER

IQAC

FEBRUARY 2024

Date	Day	Activity	Academic Day		Class Test	
			I, II	III, IV	I, II	III, IV
1	Thu			12		
2	Fri	IIC - Institutional Innovation Competition		13		
3	Sat			14		
4	Sun	Holiday				
5	Mon			15		
6	Tue			16		
7	Wed	R&D - Seminar on Introduction to problem statement Identification		17		
8	Thu			18		
9	Fri	R&D - Workshop on "Research paper writing skills"		19		
10	Sat	Completion of Zeroth review - III and IV year		20		
11	Sun	Holiday				
12	Mon	YRC - Pollution awareness rally		21		
13	Tue	NSS - Menstrual Hygiene Awareness Programme		22		
14	Wed	National Women's Day				
15	Thu	IIC - Innovation & Entrepreneurship Outreach Program in School		23		
16	Fri			24		
17	Sat	R&D - Hands on training in "Writing Research Proposal" Faculty Idea Fest - Innovation X 2024		25		
18	Sun	Holiday				
19	Mon	Commencement of Classes for I and II Year	1	27		
20	Tue	World Day of Social Justice	2	28		
21	Wed		3	29		
22	Thu	IIC - Expert talk on Process of Innovation Development	4	30		
23	Fri	YRC - Blood donation camp	5	31		
24	Sat	NSS - Fire and Emergency Rescue Training	6	32		
25	Sun	Holiday				
26	Mon	Class Committee Meeting Week - III and IV year	7	33		
27	Tue	Tamil Language Teaching Day	8	34		
28	Wed		9	35		
29	Thu	Monitoring Report Submission - III and IV Year	10	36		

Class Test 1

Class Test 2

Class Test 3

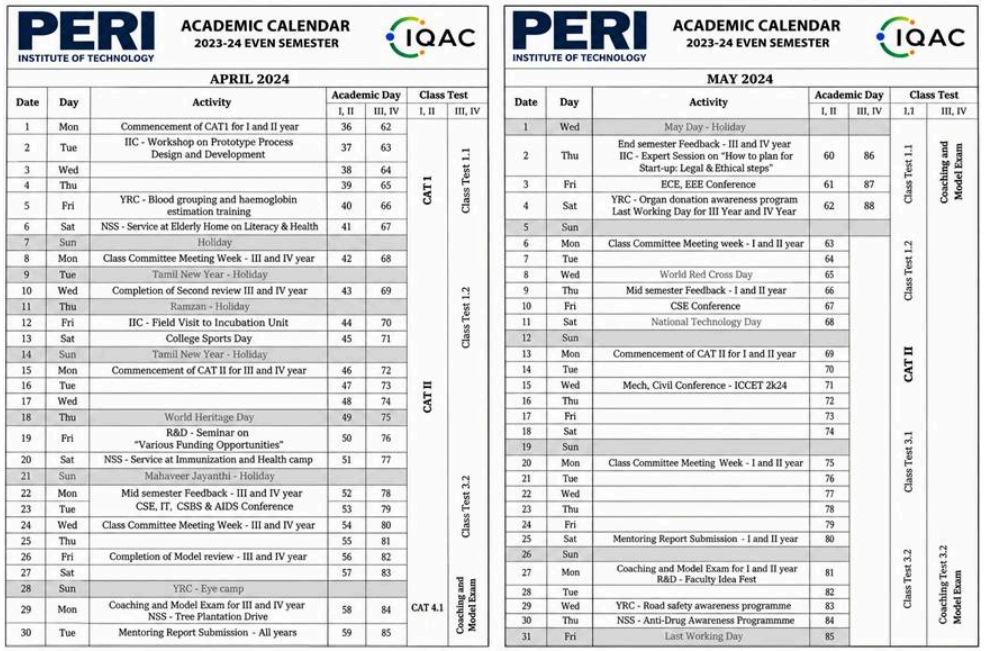
PERI INSTITUTE OF TECHNOLOGY

ACADEMIC CALENDAR
2023-24 EVEN SEMESTER

IQAC

MARCH 2024

Date	Day	Activity	Academic Day		Class Test	
			I, II	III, IV	I, II	III, IV
1	Fri	IIC - Workshop on Business Model Canvas YRC - Fire safety camp	11	37	Class Test1.1	Class Test - 1 2.1
2	Sat	NSS - Survey of Village/Slum	12	38		
3	Sun	Holiday				
4	Mon	Commencement of CAT1 for III and IV year	13	39		
5	Tue		14	40		
6	Wed		15	41		CAT - 1
7	Thu	R&D - Seminar on "Art of Writing Winning Research Proposal, Scientific Articles, Patents"	16	42		
8	Fri	International Women's Day	17	43		
9	Sat		18	44		
10	Sun	Holiday				
11	Mon		19	45		
12	Tue		20	46		
13	Wed	Completion of First review III and IV year	21	47	Class Test 1.2	
14	Thu		22	48		
15	Fri	College Culturals	23	49		
16	Sat	College Culturals	24	50		
17	Sun	Holiday				
18	Mon		25	51		
19	Tue		26	52		
20	Wed	IIC - Institutional Business Plan Competition	27	53	Class Test 2.1	Class Test 3.1
21	Thu		28	54		
22	Fri	World Water Day	29	55		
23	Sat	YRC - Practice of health habits NSS - Roads Repair work & Safety Awareness	30	56		
24	Sun	World Meteorological Day				
25	Mon		31	57		
26	Tue	Class Committee Meeting Week - I and II year	32	58	Class Test 2.2	Class Test 3.2
27	Wed		33	59		
28	Thu	Mentoring Report Submission - All years	34	60		
29	Fri	Good Friday - Holiday				
30	Sat		35	61		
31	Sun	Holiday				



PERI INSTITUTE OF TECHNOLOGY — ACADEMIC CALENDAR 2023-24 EVEN SEMESTER — IQAC

APRIL 2024

Date	Day	Activity	Academic Day I, II	Academic Day III, IV	Class Test I, II	Class Test III, IV
1	Mon	Commencement of CAT1 for I and II year	36	62		
2	Tue	IIC - Workshop on Prototype Process Design and Development	37	63		
3	Wed		38	64		
4	Thu		39	65	CAT1	Class Test 1.1
5	Fri	YRC - Blood grouping and haemoglobin estimation training	40	66		
6	Sat	NSS - Service at Elderly Home on Literacy & Health	41	67		
7	Sun	Holiday				
8	Mon	Class Committee Meeting Week - III and IV year	42	68		
9	Tue	Tamil New Year - Holiday				
10	Wed	Completion of Second review III and IV year	43	69		
11	Thu	Ramzan - Holiday				Class Test 1.2
12	Fri	IIC - Field Visit to Incubation Unit	44	70		
13	Sat	College Sports Day	45	71		
14	Sun	Tamil New Year - Holiday				
15	Mon	Commencement of CAT II for III and IV year	46	72		
16	Tue		47	73		
17	Wed		48	74	CAT II	
18	Thu	World Heritage Day	49	75		
19	Fri	R&D - Seminar on "Various Funding Opportunities"	50	76		
20	Sat	NSS - Service at Immunization and Health camp	51	77		
21	Sun	Mahaveer Jayanthi - Holiday				
22	Mon	Mid semester Feedback - III and IV year	52	78		
23	Tue	CSE, IT, CSBS & AIDS Conference	53	79		Class Test 3.2
24	Wed	Class Committee Meeting Week - III and IV year	54	80		
25	Thu		55	81		
26	Fri	Completion of Model review - III and IV year	56	82		
27	Sat		57	83		
28	Sun	YRC - Eye camp				
29	Mon	Coaching and Model Exam for III and IV year NSS - Tree Plantation Drive	58	84	CAT 4.1	Coaching and Model Exam
30	Tue	Mentoring Report Submission - All years	59	85		

PERI INSTITUTE OF TECHNOLOGY — ACADEMIC CALENDAR 2023-24 EVEN SEMESTER — IQAC

MAY 2024

Date	Day	Activity	Academic Day I, II	Academic Day III, IV	Class Test I,I	Class Test III, IV
1	Wed	May Day - Holiday				
2	Thu	End semester Feedback - III and IV year IIC - Expert Session on "How to plan for Start-up: Legal & Ethical steps"	60	86	Class Test 1.1	Coaching and Model Exam
3	Fri	ECE, EEE Conference	61	87		
4	Sat	YRC - Organ donation awareness program Last Working Day for III Year and IV Year	62	88		
5	Sun					
6	Mon	Class Committee Meeting week - I and II year	63			
7	Tue		64			
8	Wed	World Red Cross Day	65		Class Test 1.2	
9	Thu	Mid semester Feedback - I and II year	66			
10	Fri	CSE Conference	67			
11	Sat	National Technology Day	68			
12	Sun					
13	Mon	Commencement of CAT II for I and II year	69			
14	Tue		70			
15	Wed	Mech, Civil Conference - ICCET 2k24	71		CAT II	
16	Thu		72			
17	Fri		73			
18	Sat		74			
19	Sun					
20	Mon	Class Committee Meeting Week - I and II year	75		Class Test 3.1	
21	Tue		76			
22	Wed		77			
23	Thu		78			
24	Fri		79			
25	Sat	Mentoring Report Submission - I and II year	80			
26	Sun					
27	Mon	Coaching and Model Exam for I and II year R&D - Faculty Idea Fest	81		Class Test 3.2	Coaching Test 3.2 Model Exam
28	Tue		82			
29	Wed	YRC - Road safety awareness programme	83			
30	Thu	NSS - Anti-Drug Awareness Programmme	84			
31	Fri	Last Working Day	85			

Figure 2.1.1 Academic calendar

2.1.2 USES OF VARIOUS INSTRUCTIONAL METHODS AND PEDAGOGICAL INITIATIVES

The Department adopts a variety of instructional methods and pedagogical initiatives to enhance conceptual understanding, student engagement, critical thinking, and the practical application of engineering knowledge. Depending on the course requirements and learning outcomes, faculty members employ teaching approaches such as chalk-and-board instruction, presentations, multimedia resources, animations, video lectures, demonstrations, seminars, case studies, group discussions, quizzes, and interactive classroom activities. Real-world examples and engineering applications are incorporated into the teaching process to bridge the gap between theoretical concepts and practical implementation.

The Department identifies students requiring additional academic support, as well as students capable of undertaking advanced learning activities, through continuous assessment performance, classroom participation, faculty observations, practical work, and other academic records. Students who experience difficulties in understanding course concepts are provided with suitable academic support through remedial coaching, additional explanations, individual mentoring, practice exercises, and clarification of fundamental concepts.

Students demonstrating higher levels of academic achievement are encouraged to pursue advanced learning opportunities such as independent study, technical projects, advanced assignments, internships, participation in professional events, and skill development programmes. Faculty members continuously monitor the progress of both categories of learners through assessments, assignments, laboratory performance, project work, and classroom participation. Records of learner identification, remedial measures, advanced-learning activities, and subsequent performance are maintained wherever applicable. These initiatives ensure that every student receives appropriate academic support and opportunities for holistic growth.

2.1.2.1 EXPERIENTIAL LEARNING

The Department promotes experiential learning to enhance students creativity, problem-solving ability, practical knowledge, and professional competency. Students are encouraged to learn through hands-on experiences that complement classroom instruction.

2.1.2.2 PROJECT-BASED LEARNING:

Students undertake mini projects and major projects from the third year onwards. Through these projects, students develop skills in problem identification, idea generation, solution design, implementation, testing, and evaluation. Faculty mentors guide students throughout the project development process and provide continuous support to achieve the desired learning outcomes.

In addition, the Department facilitates the following experiential learning practices:

- Internships are provided to enable students to gain hands-on training and exposure to emerging technologies and industry practices.
- Industrial Visits are organized to provide practical exposure to industrial processes, equipment, and professional work environments.
- Workshops, Seminars, Webinars, and Conferences at national and international levels encourage students to interact with experts and gain exposure to recent technological developments.
- Guest Lectures by eminent academicians, researchers, and industry experts enrich the learning process by sharing practical insights and contemporary trends.



2.1.1 Experiential learning

2.1.2.3 ICT-ENABLED LEARNING

The Department effectively integrates Information and Communication Technology (ICT) tools into the teaching-learning process to enhance student engagement and learning outcomes. In addition to traditional chalk-and-board teaching, faculty members utilize various ICT-enabled resources such as:

- PowerPoint presentations
- Interactive smart boards
- Video lectures and online learning resources
- Online quizzes and assignments

- Virtual laboratory platforms
  These ICT tools facilitate interactive learning, improve conceptual understanding, and provide students with access to a wide range of learning resources. Interaction with experts and resource persons through online platforms enables students to gain broader perspectives on academic and professional topics. Virtual laboratories are also utilized, wherever applicable, to support better understanding of concepts and experimental procedures.

2.1.2.4 MODERN TEACHING TOOLS

To enhance the effectiveness of classroom instruction, faculty members employ modern teaching tools and digital learning resources. Audio-visual content, educational videos, demonstrations, and lectures by eminent academicians are integrated into the teaching process to improve understanding of complex concepts.

Students are encouraged to utilize digital learning resources such as NPTEL lectures, simulation-based learning tools, and online assessment platforms. Online quizzes and assignments are regularly conducted to strengthen analytical and problem-solving skills while promoting self-directed learning.



Figure 2.1.2 Usage of Smart Board

2.1.2.5 ONLINE COURSES AND MOOCS

Students are encouraged to enroll in online courses offered through platforms such as NPTEL, SWAYAM, and other recognized learning portals. Eligible students may choose such courses as Professional Electives, Open Electives, or additional certification programmes subject to institutional regulations.

These courses provide opportunities for self-learning, exposure to emerging technologies, and acquisition of interdisciplinary knowledge. Faculty mentors guide students in course selection, learning strategies, and successful completion of the programmes. Credit transfer provisions are available for eligible courses as per the applicable academic regulations.

2.1.2.6 COLLABORATIVE AND PARTICIPATIVE LEARNING

The Department promotes collaborative and participative learning practices to develop teamwork, communication, leadership, and interpersonal skills among students. Students actively engage in learning through:

- Group assignments
- Team-based project activities
- Peer learning sessions

- Group discussions
- Technical presentations
- Problem-solving exercises
- Student seminars

ICT-enabled learning platforms are utilized to share course materials, communicate academic requirements, and support collaborative learning activities. Guest lectures, technical workshops, industrial interactions, project-based learning activities, and departmental technical events provide additional opportunities for students to participate actively in the learning process and apply their knowledge in practical contexts.

The implementation of these pedagogical initiatives is documented through course files, lesson plans, attendance records, teaching materials, activity reports, project reports, student submissions, and other relevant records maintained by the Department.

2.1.3 SUPPORT TO STUDENTS BASED ON THEIR ABILITY

The department identifies students requiring additional academic assistance and students who are able to undertake advanced learning activities through assessment performance, classroom participation, faculty observations, and other available academic records. Students who experience difficulty in understanding course concepts are provided with suitable support, such as additional explanations, remedial sessions, individual guidance, practice exercises, and clarification of fundamental concepts.

Students who demonstrate stronger academic performance are encouraged to extend their learning through advanced assignments, independent study, technical activities, project work and participation in relevant academic programmes. Faculty members provide guidance according to the learning needs of students and review their progress through subsequent assessments, assignments, practical performance and classroom participation. Records of learner identification, remedial activities, advanced-learning opportunities, and follow-up performance are maintained wherever these activities are implemented.

The support process aims to address learning difficulties and provide appropriate opportunities for students to strengthen their knowledge and skills.

2.1.3.1 Encouraging Fast Learners

Fast learners require additional challenges and opportunities to extend their knowledge and skills. This can be achieved through:

- Advanced Assignments: Providing fast learners with more challenging assignments that require them to apply their knowledge in new and creative ways.
- Independent Study Projects: Allowing fast learners to pursue independent study projects on topics of their interest.
- Mentorship Opportunities: Pairing fast learners with mentors who can provide guidance and support.
- Encouraging fast learners helps them reach their full potential and develop their talents. It also promotes a culture of excellence and innovation.

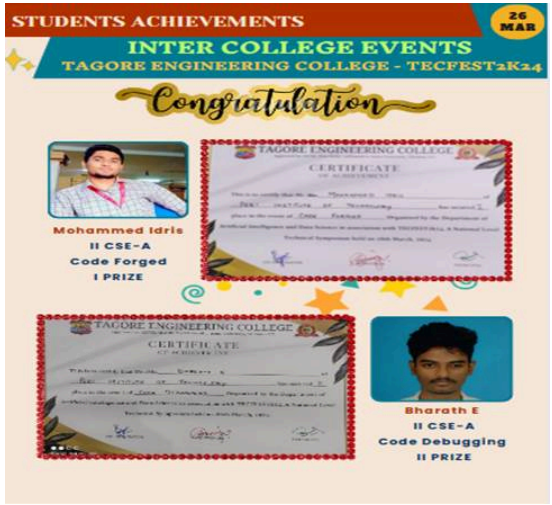


Figure 2.1.3 Fast Learners Achievements

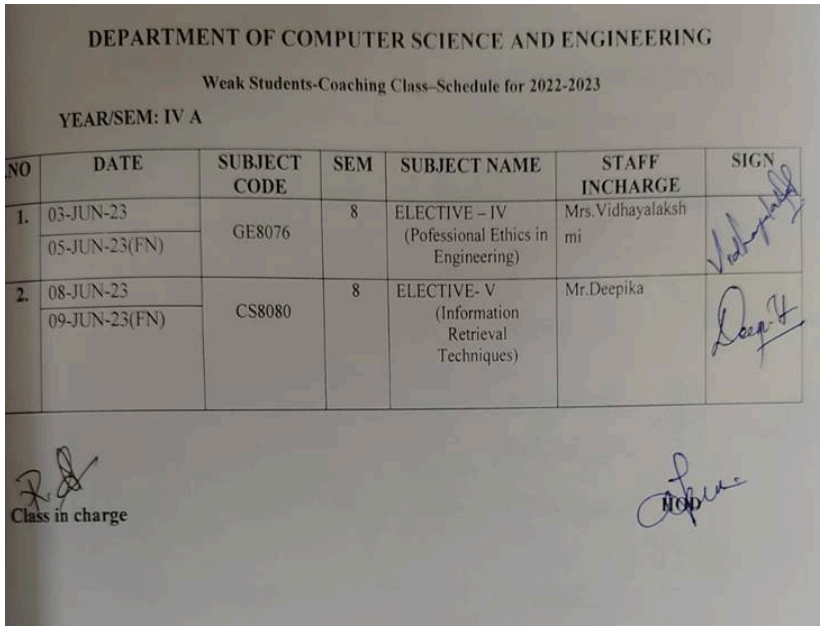
2.1.3.2 Assisting Slow Learners

Slow learners require additional support and guidance to keep up with the course material. This can be achieved through:

- One-on-One Tutoring: Providing slow learners with one-on-one tutoring to address their specific learning needs.
- Remedial Classes: Offering remedial classes to review fundamental concepts and skills.
- Extended Time on Assignments: Providing slow learners with extended time on assignments to allow them to complete their work at their own pace.

Assisting slow learners helps them overcome their learning challenges and achieve academic success. It also promotes a culture of inclusivity and support.

By implementing these processes, educational institutions can create a more engaging, effective, and equitable learning environment for all students. Adherence to the academic calendar provides structure and predictability, while pedagogical initiatives such as real-world examples and collaborative learning enhance student engagement and understanding. High-quality laboratory experiences develop practical skills, and strategies for encouraging fast learners and assisting slow learners ensure that all students have the opportunity to reach their full potential. Continuous monitoring and analysis of the impact of these processes are essential for ongoing improvement and ensuring the best possible learning outcomes for all students.



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Weak Students-Coaching Class–Schedule for 2022-2023

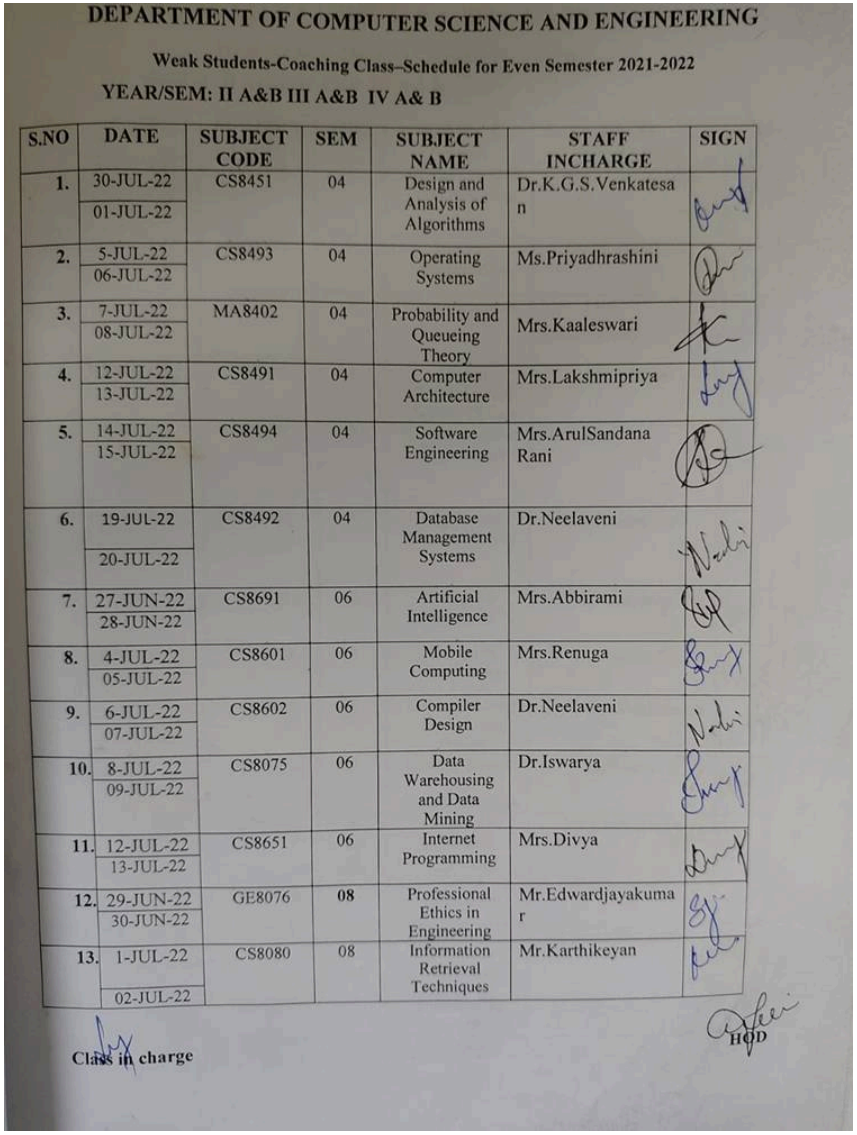
YEAR/SEM: IV A

NO	DATE	SUBJECT CODE	SEM	SUBJECT NAME	STAFF INCHARGE	SIGN
1.	03-JUN-23 05-JUN-23(FN)	GE8076	8	ELECTIVE – IV (Pofessional Ethics in Engineering)	Mrs.Vidhayalakshmi	
2.	08-JUN-23 09-JUN-23(FN)	CS8080	8	ELECTIVE- V (Information Retrieval Techniques)	Mr.Deepika	

Class in charge

HOD

Figure 2.1.4 Slow Learner Schedule -2022-2023



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Weak Students-Coaching Class–Schedule for Even Semester 2021-2022

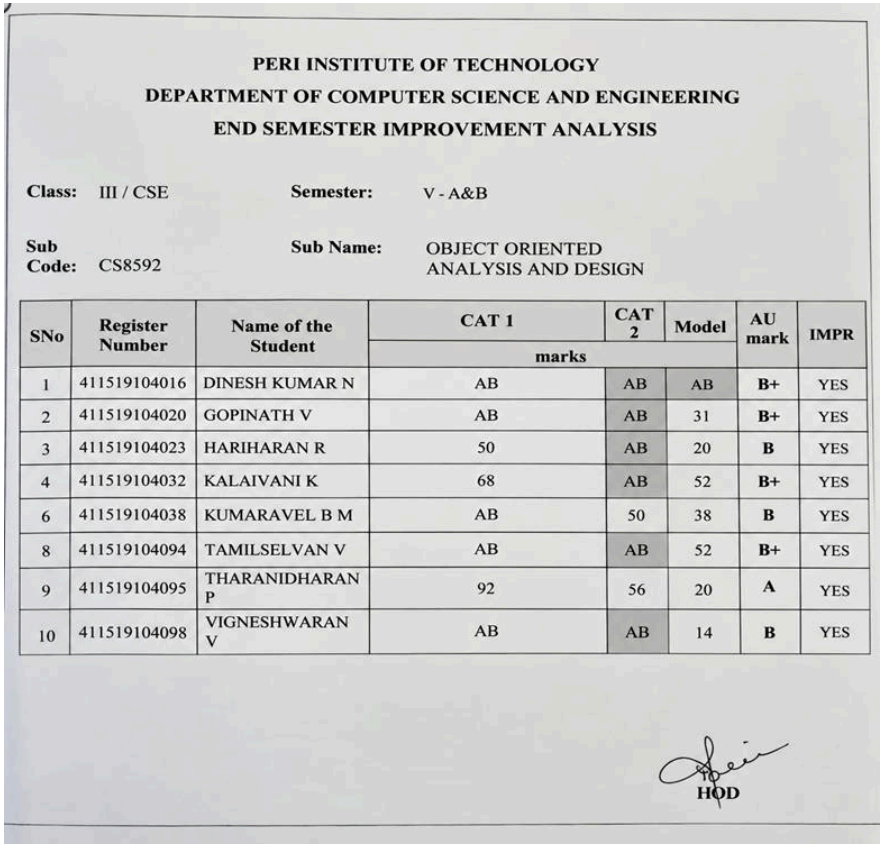
YEAR/SEM: II A&B III A&B IV A& B

S.NO	DATE	SUBJECT CODE	SEM	SUBJECT NAME	STAFF INCHARGE	SIGN
1.	30-JUL-22 01-JUL-22	CS8451	04	Design and Analysis of Algorithms	Dr.K.G.S.Venkatesan	
2.	5-JUL-22 06-JUL-22	CS8493	04	Operating Systems	Ms.Priyadhrashini	
3.	7-JUL-22 08-JUL-22	MA8402	04	Probability and Queueing Theory	Mrs.Kaaleswari	
4.	12-JUL-22 13-JUL-22	CS8491	04	Computer Architecture	Mrs.Lakshmipriya	
5.	14-JUL-22 15-JUL-22	CS8494	04	Software Engineering	Mrs.ArulSandana Rani	
6.	19-JUL-22 20-JUL-22	CS8492	04	Database Management Systems	Dr.Neelaveni	
7.	27-JUN-22 28-JUN-22	CS8691	06	Artificial Intelligence	Mrs.Abbirami	
8.	4-JUL-22 05-JUL-22	CS8601	06	Mobile Computing	Mrs.Renuga	
9.	6-JUL-22 07-JUL-22	CS8602	06	Compiler Design	Dr.Neelaveni	
10.	8-JUL-22 09-JUL-22	CS8075	06	Data Warehousing and Data Mining	Dr.Iswarya	
11.	12-JUL-22 13-JUL-22	CS8651	06	Internet Programming	Mrs.Divya	
12.	29-JUN-22 30-JUN-22	GE8076	08	Professional Ethics in Engineering	Mr.Edwardjayakumar	
13.	1-JUL-22 02-JUL-22	CS8080	08	Information Retrieval Techniques	Mr.Karthikeyan	

Class in charge

HOD

Figure 2.1.5 Slow Learner Schedule -2021-2022



PERI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

END SEMESTER IMPROVEMENT ANALYSIS

Class: III / CSE **Semester:** V - A&B

Sub Code: CS8592 **Sub Name:** OBJECT ORIENTED ANALYSIS AND DESIGN

SNo	Register Number	Name of the Student	CAT 1	CAT 2	Model	AU mark	IMPR
			marks				
1	411519104016	DINESH KUMAR N	AB	AB	AB	B+	YES
2	411519104020	GOPINATH V	AB	AB	31	B+	YES
3	411519104023	HARIHARAN R	50	AB	20	B	YES
4	411519104032	KALAIVANI K	68	AB	52	B+	YES
6	411519104038	KUMARAVEL B M	AB	50	38	B	YES
8	411519104094	TAMILSELVAN V	AB	AB	52	B+	YES
9	411519104095	THARANIDHARAN P	92	56	20	A	YES
10	411519104098	VIGNESHWARAN V	AB	AB	14	B	YES

HOD

2.1.4 QUALITY OF CLASSROOM TEACHING (OBSERVATION IN A CLASS)

Classroom teaching is planned with reference to the prescribed syllabus, course outcomes, lesson plans and the academic schedule. Faculty members select teaching methods and learning resources appropriate to the nature of the subject and the expected level of student understanding. Classroom explanations are supported, wherever appropriate, by worked examples, illustrations, demonstrations, real-life applications, questions and discussions to encourage active participation.

Student engagement is promoted through interaction during lectures, clarification of doubts, short assessment activities, assignments and discussions related to the topics taught. Faculty members monitor the progress of syllabus coverage and use assessment performance and classroom observations to identify topics requiring further explanation or practice. The quality of classroom teaching is supported by lesson plans, course materials, assessment records, classroom activity records and other available evidence. The effectiveness of teaching methods should be demonstrated through documented examples of student participation, understanding and performance rather than through general statements alone.

2.1.5 CONDUCT OF EXPERIMENTS

Laboratory learning provides students with opportunities to apply theoretical concepts, follow experimental procedures, use the prescribed equipment or software, record observations and analyse results. Laboratory sessions are conducted according to the applicable syllabus, laboratory schedule and prescribed experimental requirements. Faculty members and laboratory staff provide the necessary instructions concerning experimental procedures, equipment handling, safety requirements and the preparation of laboratory records, as applicable.

Students are expected to perform the prescribed experiments, record observations systematically, interpret results and prepare laboratory records. Faculty members assess practical work through observation of experimental performance, verification of records, viva voce, practical assessments and other prescribed methods. Wherever applicable, laboratory exercises are supplemented by additional practice, application-oriented tasks and exposure to relevant tools or technologies. Laboratory manuals, completed observation records, experiment assessments, practical examination records and available student work provide evidence of the quality of laboratory learning.

2.1.6 REVIEW AND CONTINUOUS IMPROVEMENT

The department reviews the implementation of teaching-learning activities using available academic records, including academic calendars, lesson plans, assessment results, remedial-session records, classroom activities and laboratory performance. The review helps identify areas in which additional explanation, practice or changes in teaching methods may be required. The department should document specific examples showing how the findings from assessment or faculty review led to corrective action and how the subsequent performance was examined. This process supports the continuous improvement of classroom instruction, laboratory learning and academic support for students.

2.2 Quality of Student Capstone Project (25)

Institute Marks : 25.00

2.2 QUALITY OF STUDENT CAPSTONE PROJECT

The department follows a structured process for the identification, allocation, execution, monitoring and evaluation of student capstone or major projects. The project work provides students with an opportunity to apply the knowledge acquired through coursework to engineering problems and application-oriented tasks. The departments project process includes faculty guidance, periodic review, assessment of technical progress and evaluation of the completed work. Project activities are planned in accordance with the applicable University regulations and institutional academic requirements during the assessment period.

2.2.1 IDENTIFICATION OF CAPSTONE/MAJOR PROJECT AND ALLOCATION OF GUIDES

The project process begins with the identification of suitable project areas and the selection of topics in accordance with the students academic background, programme requirements and available technical resources. Students identify project problems individually or in teams, as permitted by the applicable regulations. Faculty members provide guidance in refining the problem statement, defining objectives, determining the proposed methodology and identifying the expected outcomes.

Project guides are allocated by the department based on the project area, faculty expertise, workload and availability, following the departments established procedure. The allocated guide supports students in preparing the project proposal, planning the work, identifying the resources required and establishing a schedule for implementation. The project title, team details, guide allocation, objectives and approved proposal are documented through the relevant departmental records.

2.2.2. TYPES AND RELEVANCE OF PROJECTS AND CONTRIBUTION TOWARDS PO/PSO ATTAINMENT

Student projects may address application-oriented problems, product or prototype development, research-based investigations, design and development activities, or other project categories relevant to the programme. The project topic is examined with reference to its technical relevance, feasibility, expected learning outcomes and relationship to the knowledge and skills prescribed in the curriculum. Wherever appropriate, projects are selected with reference to problems encountered in industry, society, engineering practice or emerging technological areas.

The department examines the relationship between the project objectives and the Programme Outcomes (POs) and Programme Specific Outcomes (PSOs). The mapping should be supported by a clear explanation of the knowledge, design, investigation, problem-solving, teamwork, communication or other relevant competencies demonstrated through the project. The project proposal and evaluation records should establish the basis for the mapping rather than relying on a general statement that every project contributes equally to all outcomes. The department maintains project titles, classifications, objectives, relevant PO/PSO mappings and supporting justifications in the prescribed records.

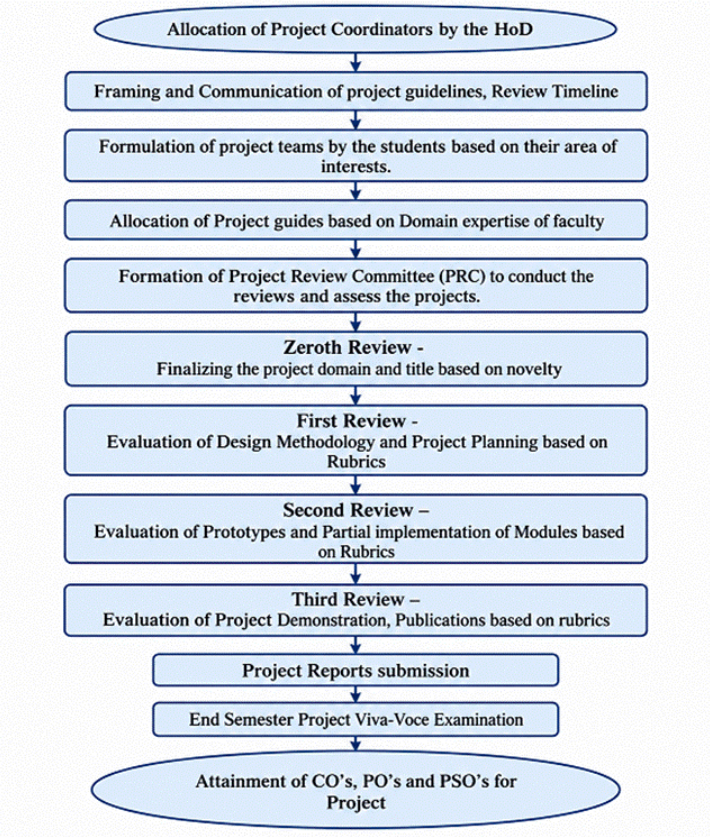


Figure 2.2.1 Flowchart of Student Capstone Project Workflow

2.2.3. CONTINUOUS MONITORING PROCESS

Project progress is monitored by the assigned faculty guide and the departmental project review mechanism. Students present their work at scheduled review stages, as prescribed by the applicable project guidelines. The reviews examine the progress achieved against the approved objectives, the adequacy of the proposed methodology, the use of technical resources, difficulties encountered, and the plan for the next stage of work.

Faculty guides provide suggestions for resolving technical issues and improving the quality of the work. Review committees, wherever constituted, assess the progress and provide feedback in accordance with the prescribed evaluation procedure. Students are expected to incorporate relevant suggestions and demonstrate progress at subsequent reviews. Project review schedules, attendance, progress presentations, review marks, guide meeting records and feedback or corrective-action records provide evidence of continuous monitoring. The frequency of reviews and the actual review procedure should be reported in accordance with the departments documented practice.

2.2.4. QUALITY OF COMPLETED PROJECTS, WORKING MODELS AND PROTOTYPES

The completed project is evaluated with reference to the approved objectives, technical soundness, implementation or experimental results, documentation, demonstration and the extent to which the proposed problem has been addressed. Where a working model, prototype, software application, design or experimental setup is developed, its functioning and performance are examined using appropriate criteria. Projects that involve analysis or investigation are evaluated with reference to the methodology, data or evidence used, interpretation of results and conclusions.

The department also considers relevant engineering responsibilities in project selection, design and execution. These include environmental implications, sustainability, safety, ethical considerations, estimated or actual cost, applicable technical standards and the responsible use of data, materials and resources, as relevant to the nature of each project. These considerations should be demonstrated through the project report, design decisions, testing records, cost estimates, risk or safety

considerations and other appropriate evidence. The final evaluation considers the quality of the completed work and the extent to which the project demonstrates the intended technical and professional competencies.

2.2.4.1 REVIEW AND IMPROVEMENT OF THE PROJECT PROCESS:

The department reviews the project process through project proposals, guide allocation records, progress reviews, final evaluation results, project reports and demonstrations. The review helps identify recurring difficulties in topic selection, resource availability, implementation, documentation and technical performance. Where review findings lead to changes in guidance, project planning or evaluation, the department documents the action taken and the relevant evidence. Completed projects and their documented PO/PSO relationships provide a basis for examining the contribution of project work to the intended programme outcomes.

Table 2.2.2 Evaluation Parameters for Each Review

Project Review	**Evaluation Parameters for each review**	**Percentage of Completion of the project**
Zeroth Review - Proposed project titles are validated and approved by project Coordinator	Reference the research paper	10%
First-Review Literature Review	a. Understanding background and topic. Specifies project goals. Knowledge about the existing system. Proposed Methodology. Objective of the project. b. Phases of Completion of project. c. Role of each individual person. Question & answer. Presentation Skills.	40%
Second Review Proposed Overall System Design Architecture	a. Objective and Abstract Architecture /System Design. Summarizes the techniques implemented / to be implemented. Details of simulation Contribution of the candidate. Results (Intermediate) Summarize the ultimate findings of the project. Question and Answer. Presentation Skills. Questions and Answers.	80%

Third Review	a. Final output of the proposed work is verified and validated. Project Report submission and evaluation. b. Demonstration of the prototype. Contribution of the candidate. c. Presentation Skills. Questions and Answers	100%

PERI
INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
Mannivakkam, Chennai-600 048
(Approved by AICTE, Affiliated to Anna University & Accredited by NAAC)

Department of Computer Science and Engineering

CS8811 - Project Work Schedule

Circular

Circular No: **PERI/CSE/CIR/2024-25/4**

Date: 18/04/2025

Dear Students,

This is to inform you all that second review for the VIII semester project work has been scheduled. It will be conducted on 22/04/2025 and 23/04/2025 as per the provided schedule.

- **Documents to be Submit:**
  - Methodology
  - Data Collection
  - Calculation
  - Project progress
  - Models (if any)

Date	Time	Batch
22/04/2025	9.00 am to 11.45 am	Batch 1 to Batch 10
22/04/2025	12.30 pm to 3.40 pm	Batch 11 to Batch 20
23/04/2025	9.00 am to 11.45 am	Batch 21 to Batch 30
23/04/2025	12.30 pm to 3.40 pm	Batch 31 to Batch 42

Venue: BT8

Copy To:

- To all the staff members
- IV Year students
- Notice Board

18/4/25 18/04/25

Project Co-ordinator **HoD/CSE** **Vice Principal** **Principal**

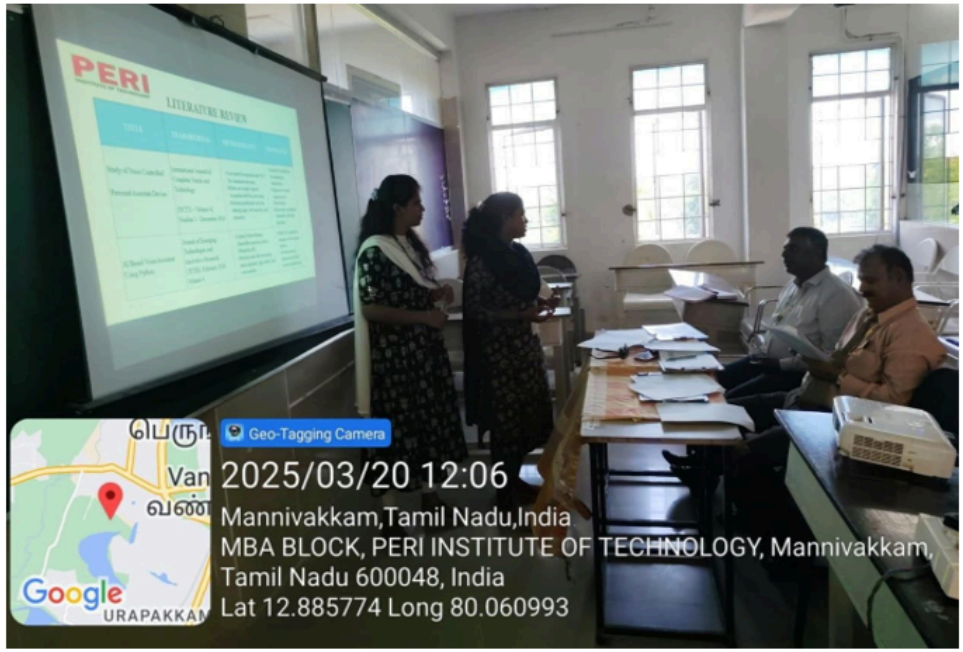


Figure 2.2.3 Project Demonstration

PROJECT REVIEW EVALUATION CONSOLIDATED RUBRICS TABLE

Review Panel	Novelty & Literature Survey	Architecture Design	Algorithm / Techniques	Code Implementation	Viva Voce	Total Marks
RPM 1	10	10	10	10	10	50
RPM 2	10	10	10	10	10	50
RPM 3	10	10	10	10	10	50
Final Evaluation	–	–	–	–	–	100

Final Evaluation Rule: The best two RPM totals will be considered, and the lowest RPM total will be excluded.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
IV YEAR BATCH(2021-2025)
ACADEMIC YEAR - 2024-2025 EVEN SEM
Date : 18.02.2025 and 19.02.2025
PROJECT - FIRST REVIEW-EVALUATION

Batch No	Register No	Student Name	Project Title	Evaluation of Reviewer																										TOT (150)
				RPN 1							RPN 2							RPN 3												
				Novelty & Literature Survey (10)	Formulation / Study of Problem / Problem	Algorithm / Technology (10) (10)	Code Implementation (10)	Testing	TOTAL (50)	Signature	Novelty & Literature Survey (10)	Formulation / Study of Problem / Problem	Algorithm / Technology (10) (10)	Code Implementation (10)	Testing	TOTAL (50)	Signature	Novelty & Literature Survey (10)	Formulation / Study of Problem / Problem	Algorithm / Technology (10) (10)	Code Implementation (10)	Testing	TOTAL (50)	Signature	
1	411521104082	DINESHKUMAR. L	RAILWAY TRACK CROSSING ANIMALS USING RADAR AND TEMPERATURE SENSOR	8	8	8	8	8	40		8	8	8	8	8	40		8	8	8	8	8	40		120
	411521104045	JAGAN. M		7	7	7	7	7	35		7	7	7	7	7	35		7	8	7	7	7	36		71
	411521104087	KEERTHIVASAN. S		7	7	7	7	7	35		7	8	7	7	7	36		7	8	7	7	7	36		71
2	411521104027	DINESH CHAUDHARY D	ASSESSMENT PLATFORM WITH AI	8	8	8	8	8	40		9	8	9	8	9	43		8	9	9	9	8	42		84
	411521104046	JANA R		8	8	8	8	8	40		9	9	8	8	9	43		8	9	9	9	8	43		86
	411521104012	BHUVANESH G		8	8	8	8	8	40		9	9	8	8	8	42		8	9	9	9	8	43		85
3	411521104025	DHARANI.T	GYM WORKOUT TRACKING PROJECT WITH AI	9	9	8	9	7	42		9	9	9	9	9	45		8	9	9	9	9	44		81
	411521104035	GAYATHRI.B		8	9	9	9	9	44		8	9	9	8	9	43		8	9	9	9	9	44		83
4	411521104032	K. ELADIYA	APPLYING MACHINE LEARNING IN RECOGNITION OF THE CLASSIFICATION OF SLEEPING DISORDER	9	9	9	9	9	45		10	10	9	9	9	47		9	9	9	9	9	45		91
	411521104033	K.ELAKYA		9	10	9	9	9	46		9	10	9	9	9	46		9	9	9	9	9	45		91
	411521104058	R BOWSALYA		9	10	9	9	9	46		9	9	9	9	9	45		9	9	9	9	9	45		91

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
IV YEAR BATCH(2021-2025)
ACADEMIC YEAR - 2024-2025 EVEN SEM
Date : 18.02.2025 and 19.02.2025
PROJECT -FIRST REVIEW-EVALUATION

Batch No	Register No	Student Name	Project Title	Evaluation of Reviewer																										TOT AL (100)
				RPM 1							RPM 2							RPM 3												
				Novelty & Literature Survey (10)	Architecture Design for Proposed System (10)	Algorithm/ Techniques Used(10)	Code Implementation(10)	Viva (10)	TOTAL (50)	Signature	Novelty & Literature Survey (10)	Architecture Design for Proposed System (10)	Algorithm/ Techniques Used(10)	Code Implementation(10)	Viva (10)	TOTAL (50)	Signature	Novelty & Literature Survey (10)	Architecture Design for Proposed System (10)	Algorithm/ Techniques Used(10)	Code Implementation(10)	Viva (10)	TOTAL (50)	Signature	
1	411521104028	DINESHKUMAR. L	RAILWAY TRACK CROSSING ANIMALS USING RADAR AND TEMPERATURE SENSOR	8	8	8	8	8	40		8	8	8	8	8	40		8	8	8	8	8	40		80
	411521104045	JAGAN. M		7	7	7	7	7	35		7	7	7	7	7	35		7	8	7	7	7	36		71
	411521104057	KEERTHIVASAN. S		7	7	7	7	7	35		7	8	7	7	7	36		7	8	7	7	7	36		71
2	411521104027	DINESH CHAUDHARY D	ASSESSMENT PLATFORM WITH AI	8	8	8	8	8	40		9	8	9	8	9	43		8	9	9	9	8	43		84
	411521104046	JANA R		8	8	8	8	8	40		9	9	8	8	9	43		8	9	9	9	8	43		86
	411521104012	BHUVANESH G		8	8	8	8	8	40		9	9	9	8	8	43		8	9	9	9	8	43		84
3	411521104025	DHARANI.T	GYM WORKOUT TRACKING PROJECT WITH AI	9	9	8	9	7	42		9	9	9	9	9	45		8	9	9	9	9	44		81
	411521104035	GAYATHRI.B		8	9	9	9	9	44		8	9	9	8	9	43		8	9	9	9	9	44		83
4	411521104032	K ELAKIYA	APPLYING MACHINE LEARNING ALGORITHM FOR THE CLASSIFICATION OF SLEEPING DISORDER	9	9	9	9	9	45		10	10	9	9	9	47		9	9	9	9	9	45		91
	411521104033	R ELAKYA		9	10	9	9	9	46		9	10	9	9	9	46		9	9	9	9	9	45		91
	411521104058	B KOWSALYA		9	10	9	9	9	46		9	9	9	9	9	45		9	9	9	9	9	45		91

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

IV YEAR BATCH(2021-2025)

ACADEMIC YEAR - 2024-2025 EVEN SEM

Date : 18.02.2025 and 19.02.2025

PROJECT -FIRST REVIEW-EVALUATION

| Batch No | Register No | Student Name | Project Title | Evaluation of Reviewer | | |

Table 2.2.5 Projects and their contribution towards attainment of Pos and PSOs

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING 2024-2025 PROJECT LIST - POs AND PSOs MAPPING				
BATCH NO	**REGISTER NO**	**STUDENT NAME**	**PROJECT TITLE**	**RELEVANCES TO POs AND PSOs**
1	411521104028	Dineshkumar. L	Railway Track Crossing Animals Using Radar And Temperature Sensor	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PSO1, PSO3
	411521104045	Jagan. M		
	411521104057	Keerthivasan. S		
2	411521104027	Dinesh Chaudhary D	Plant Identifying Website	PO1, PO2, PO3, PO5, PO8, PO10, PO12, PSO1, PSO2
	411521104046	Jana R		
	411521104012	Bhuvanesh G		
3	411521104025	Dharani.T	Gym Workout Exercise Validation And Rep Count Prediction Using Opencv	PO1, PO2, PO3, PO4, PO5, PO8, PO12, PSO1, PSO2
	411521104035	Gayathri.B		
4	411521104032	K Elakiya	Applying Machine Learning Algorithm For The Classification Of Sleeping Disorder	PO1, PO2, PO3, PO4, PO5, PO8, PO12, PSO1, PSO2
	411521104033	R Elakya		
	411521104058	B Kowsalya		
5	411521104041	Harini.M	Driver Drowsiness Detection System	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PSO1, PSO2
	411521104013	Chandrakala.V		
	411521104060	Lavanya.B		
6	411521104007	Archana. B	Development Of A Personal Virtual Assistant For Windows	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PSO1, PSO3
	411521104059	Lakshmi Priya. M		
7	411521104005	Akash Jebaraj.I	Machine Learning Based Credit Card Fraud Detection For Enhanced Financial Security	PO1, PO2, PO3, PO5, PO8, PO10, PO12, PSO1, PSO2
	411521104018	Deepak Kumar K		
	411521104029	Dinesh Kumar M		
8	411521104001	Abdul Majith A	Detecting IoT Cyber Network Attack Using Machine Learning	PO1, PO2, PO3, PO4, PO5, PO8, PO12, PSO1, PSO2
	411521104037	Gokul R		
	411521104036	Gokul D		
9	411521104044	P. Ishasri	Secure Framework For Government Tender Allocation Using Blockchain	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO11, PSO1, PSO2
	411521104055	V. Kavitha		
	411521104011	A. V. Bargavi		
10	411521104008	Arokia Anushya.A	Heart Disease Prediction Using Machine Learning	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO12, PSO1, PSO2
	411521104022	Devatharshini. B		
	411521104052	Karthika. E		

11	411521104004	S.Adnan Mohammed	Comprehensive Kidney Disease Classification Using Deep Learning	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO12, PSO1, PSO2
	411521104002	S.Abinash		
	411521104003	K.B.Abhishek Raj		
12	411521104039	Guberan T	Smart Accident Data Logging System	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO10, PSO1, PSO3
	411521104042	Harish S		
	411521104701	Mohamed Sirajudeen.I		
13	411521104030	Dinesh Kumar S	Secure And Integrated Healthcare Management System With Encrypter Prescription Handling	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO10, PSO1, PSO2
	411521104023	Dhanush V		
	411521104047	Jeffrin Nelson J		
14	411521104020	Deepan Chakkaravarthi K	Cybersecurity Risk Assessment Of Dos Attacks In V2x Communication System	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO12PSO1, PSO2
	411521104048	Jitto M		
	411521104017	Deepak J		
15	411521104016	Dayana M	Teachers Subject Allocation Management System	PO1, PO2, PO3, PO5, PO8, PO9, PO10, PO11, PSO1, PSO2
	411521104054	Kavitha S		
16	411521104038	Gowsalya D	Topic Modelling Using Lda	PO1, PO2, PO3, PO4, PO5, PO8, PO12, PSO1, PSO2
	411521104056	Keerthika M		
	411521104010	Ashwin V		
17	411521104006	Annamalai M	Ecommerce Website-[Direct Dealing With Farmer And Customer]	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO10, PO11, PSO1, PSO2
	411521104015	Damodaren V		
	411521104051	Karthi S		
18	411521104009	Arul Pandian P	Predicting Childhood Survival: A Machine learning Approach To Forecasting Child Mortality"	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO12, PSO1, PSO2
	411521104040	Harikrishnan U		
	411521104053	Karthikeyan N		
19	411521104304	Christopher Daniel	Iot Enabled Water Monitoring In Smart Cities With Retrofit And Solar Based Energy Harvesting	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO12, PSO1, PSO2
	411521104311	Pradeepraj		
	411521104306	Harish.P		
20	411521104097	Saiprasanth. A	Anamoly Detection Of Concrete Cracks	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO12, PSO1, PSO2
	411521104111	Suchit. R		
	411521104070	Mohamed Abdul Rahim. P		

21	411521104106	Sivakumar Es	Azure-Etl-Scales-Analysis	PO1, PO2, PO3, PO4, PO5, PO8, PO11, PO12, PSO1
	411521104071	Mohan Raj M		
	411521104113	Sunil Kumar Ka		
22	411521104105	Siva S	Ai Chat box Based Human Depression Diagonosis System Using Symptomatic Neural Network And Nlp	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PSO1, PSO2
	411521104063	Little Jacob P		
	411521104123	Yuhan		
23	411521104061	Lavanya P	Heart Disease(Fetus) Prediction With Solution In Ml	PO1, PO2, PO3, PO4, PO5, PO6, PSO1, PSO2
	411521104108	Sneha P S		
	411521104115	Sushthi R		
24	411521104112	Sudharshan B	Ai-Powered Text Analyzer: Summarization, Emotion Detection, And Title Generation	PO1, PO2, PO3, PO4, PO5, PO8, PSO1, PSO2
	411521104086	Pugazhenthi J		
	411521104114	Suriya M		
25	411521104083	Pradeep Kumar M	Ecg Arrythmia Classification	PO1, PO2, PO3, PO4, PO5, PO6, PSO1, PSO2
	411521104088	Rahul A D		
	411521104116	Tharun M		
26	411521104100	Shifa Shamim	Hybrid Machine Learning Model For Efficient Botnet Attack Detection In Iot Environment	PO1, PO2, PO3, PO4, PO5, PO8, PSO2
	411521104099	Shaajini Arul A		
27	411521104074	Navya Vijayan	Diabetic Retinopathy Detection Empowered With Deep Semantic Vision Transformer	PO1, PO2, PO3, PO4, PO5, PO6, PSO1, PSO2
	411521104077	Nivedya V		
28	411521104064	Madhumitha. S	Next Generation Smart Traffic Management System	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PSO1, PSO3
	411521104102	Sibe. M		
29	411521104065	Mageswari. D	Online Voting Using Aadhaar Card With Multifactor Verification	PO2, PO3, PO5, PO8, PO9, PSO1, PSO3
	411521104067	Maluni.B		
	411521104084	M. Priya		
30	411521104078	Nivetha .R	Lung Paranchyma Segmentation Using U-Net And Alex-Net	PO1, PO2, PO3, PO4, PO5, PSO1, PSO2, PSO3
	411521104080	Pavithra. U		
	411521104117	Thejasri. H		

31	411521104066	Mahalakshmi M	Insurance Amount Prediction Based On Accidental Car Damage Level Using Ai	PO1, PO2, PO3, PO4, PO5, PO8, PSO1, PSO2
	411521104081	Pooja B		
	411521104093	Reshma A		
32	411521104085	R Priyadharshini	Real-Time Construction Worker Safety Detection Using Yolo And Flask	PO2, PO3, PO4, PO5, PO6, PSO1, PSO3
	411521104092	Rathmikaa V.V		
33	411521104091	Ranjith S	Malware Detection	PO1, PO2, PO3, PO4, PO5, PSO1, PSO2
	411521104076	Nithish Kumar		
	411521104109	Stalin.M		
34	411521104118	Veena P G	Quantifying Uncertainty In Slum Detection: Advancing Transfer Learning With Limited Data In Noisy Urban Environment	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PSO2, PSO3
	411521104096	Sagana R		
	411521104082	Poojasree A		
35	411521104121	Vinothini.V	Injecting Linguistic Knowledge Into Bert For Dialogue State Tracking	PO1, PO2, PO3, PO4, PO5, PO8, PO10, PO12, PSO1, PSO2
	41152110475	P.Nimmi Hassan		
36	411521104069	R.Meenatchigunavathi	Sematic Slam Using Environment Landmarks For Unsupervised Indoor Localization	PO1, PO2, PO3, PO4, PO5, PO6, PSO1, PSO2
	411521104110	Stephen I		
	411521104314	Sakthivel B		
	411521104098	Shakthi Ashwin S		
37	411521104068	Mariya Joshwa S	Accurate Wheat Yield Predicition Using Ml And Climate-Ndvi Data Fusion	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PSO1, PSO2
	411521104087	Pushparaj E		
	411521104089	Rajaram D		
38	411521104031	Divya.S	Fracturent Revolutionizing Bone Fracture Detection Using Deep Learning Cnn Architecture	PO1, PO2, PO3, PO4, PO5, PO6, PSO1, PSO2
	411521104120	Vinodha.V		
39	411521104090	Ramya.R	Pet Pulse : Detecting Dog Disease With Tflite, Booking Vet Consults	PO2, PO3, PO5, PO6, PO8, PO9, PSO1, PSO3
	411521104122	Yogavarshini.R		
40	411521104072	Mohan Raji.S	Decentralized Plasma Marketplace Web App	PO2, PO3, PO5, PO6, PO8, PO9, PSO1, PSO3
	411521104095	Sabarivasan.M		
	411521104104	Siva.M		

41	411521104303	Baskar C	Smart Budget: A Personal Finance Tracker	PO2, PO3, PO5, PO8, PO10, PSO1, PSO3
	411521104315	Sam Francis Xavier R P		
	411521104320	Thomson Jayakumar		
42	411521104312	Praveen V	Face Recognition Based Attendance System	PO2, PO3, PO4, PO5, PO6, PSO1, PSO3
	411521104316	Saravanan B		
	411521104501	Hemanraj		

2.3 Internship/Industrial Training (10)

Institute Marks : 10.00

2.3INTERNSHIP/INDUSTRIAL TRAINING

The department facilitates students' exposure to professional engineering practice through internships and industrial training undertaken in industries, organizations, research establishments and other relevant professional settings. These activities are intended to help students understand the practical application of concepts studied in the curriculum, gain exposure to workplace practices, and develop technical, communication, teamwork and professional skills.

The process includes identifying suitable training opportunities, communicating relevant information to students, facilitating applications and placements wherever applicable, obtaining the necessary approvals, and collecting supporting documents after completion. The department maintains records of students who participated, the organizations in which they undertook training, the training area, duration, and completion status. The nature and extent of these activities are reported on the basis of verifiable departmental records for the assessment period.

2.3.1PROCESS OF INTERNSHIP / INDUSTRIAL TRAINING FOR STUDENTS

The department follows a documented process for facilitating internships and industrial training. Relevant opportunities are communicated to students, and students are guided in selecting training opportunities that are appropriate to their programme of study and technical interests. Wherever applicable, the department coordinates with the Training and Placement Cell, industry representatives and other relevant organizations to facilitate suitable opportunities.

The department records the organization's name, training area, duration, student details and completion status. Supporting documents may include permission letters, internship offer letters, joining and completion certificates, training reports, attendance records and feedback forms, as applicable. Industrial visits and short-duration exposure programmes should be recorded separately and should not be represented as internships or industrial training unless they satisfy the applicable requirements.

The department reviews the participation and completion records to ensure that the reported activities are supported by documentary evidence. Internship or industrial training duration and other conditions are verified against the applicable NBA requirements before he details are included in the SAR.

2.3.2MAPPING OF INDUSTRIAL TRAINING / INTERNSHIPS WITH POS AND PSOS

The department examines the learning achieved through each internship or industrial training activity and relates it to the Programme Outcomes (POs) and Programme Specific Outcomes (PSOs). The mapping is based on the training objectives, work assigned to students, technical activities performed, skills developed and learning documented in the internship report or completion assessment.

A project or training activity may contribute to different POs and PSOs depending on its nature. For example, activities involving problem-solving, engineering tools, design, investigation, teamwork, communication or professional responsibility may be mapped to the relevant outcomes where evidence supports the relationship. Programme-specific mapping is prepared separately for CSE, ECE and EEE, taking account of the respective curriculum and the actual training undertaken by students.

The department maintains a mapping statement with a brief justification for the outcomes selected. The mapping is checked against the internship objectives, student reports and available assessment records to ensure that it reflects actual learning rather than a uniform mapping applied to every student. The evidence demonstrates the connection between industrial exposure and the expected programme outcomes.

2.3.3STUDENT FEEDBACK ON TRAINING / INTERNSHIPS AND ITS ANALYSIS

Student feedback is collected to evaluate the usefulness and quality of the internship or industrial training experience. Feedback may address the relevance of the training to the programme, opportunities for practical learning, exposure to current technologies and workplace practices, guidance provided by the organization, duration and overall learning experience.

The department consolidates the feedback received and analyses the responses to identify strengths, recurring difficulties and areas requiring improvement. The analysis may identify the need for more relevant training opportunities, better coordination with organizations, clearer training objectives, improved student preparation or closer monitoring during the training period.

Where the analysis identifies improvement needs, the department records the actions proposed or taken and reviews their implementation in subsequent activities. Feedback summaries, analysis sheets, meeting minutes and action-taken records are retained as applicable. Claims regarding satisfaction levels, improvements or the effectiveness of actions are included only when supported by the corresponding records.

2.3.3 a)Review and Continuous Improvement

The department reviews internship and industrial training records periodically to identify participation gaps, assess the relevance of training areas, verify PO/PSO mapping and examine student feedback. The findings are used to improve the identification of training opportunities, student guidance, documentation and coordination with organisations. The department maintains traceability between student participation, training completion, outcome mapping, feedback analysis and the improvement actions recorded during the assessment period.

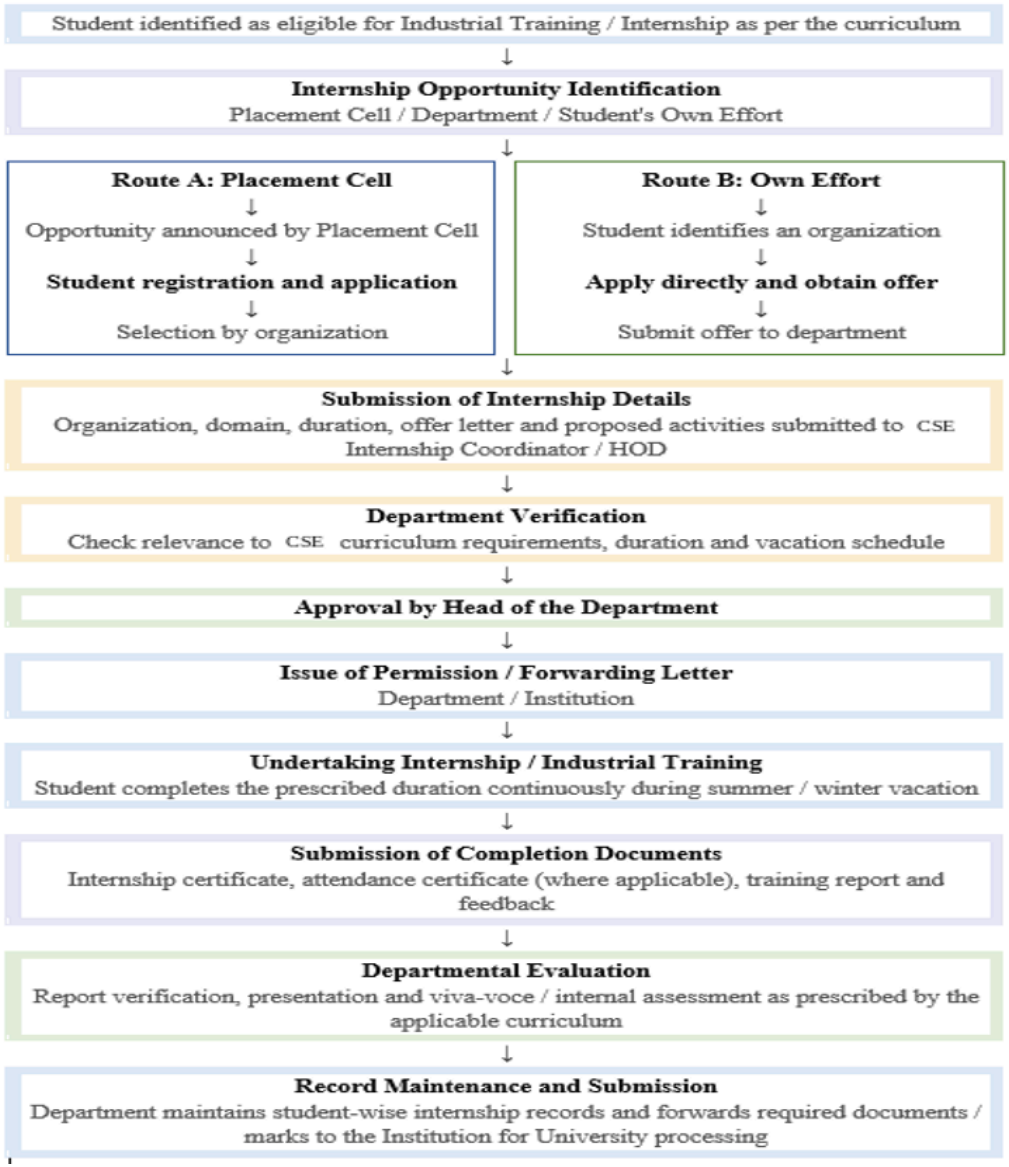


Figure 2.3.1 SOP Flowchart for Internship/Industrial Training

Table No. 2.3.2 2024-2025 Student Name List for Internship with Relevance Pos & PSOs

NO	Name of the students	Year	Company Name	Duration	Relevance to Pos & PSOs

1.	ACHSAH AUGUSTIN A	III	PRODIGY INFOTECH	15/01/2025 to 15/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
2.	ACHSAH AUGUSTIN A	III	CODSOFT	20/01/2025 to 20/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
3.	AYESHA	III	NAVODITA INFOTECH	25/01/2025 to 24/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
4.	AYESHA	III	CODSOFT	20/01/2025 to 20/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
5.	KALAIVANI S	III	CODSOFT	15/01/2025 to 15/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
6.	KALAIVANI S	III	TECHNOHACKS SOLUTIONS PVT.LTD	15/01/2025 to 14/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12 PSO1, PSO2
7.	C N LOGESH KUMAR	III	CODSOFT	20/01/2025 to 20/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
8.	C N LOGESH KUMAR	III	CODSOFT	15/01/2025 to 15/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
9.	LOGESH M	III	CODECTECHNOLOGIESPVT.LTD	26/01/2025 to 26/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12 PSO1, PSO2
10.	MADHUMITHA S	III	CODSOFT	25/01/2025 to 25/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2

11.	M.MOHAMEED IDRIS	III	CODSOFT	15/07/2024 to 15/08/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
12.	MONISHA P	III	CODSOFT	15/01/2025 to 15/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
13.	S DINESH RAM	III	CODSOFT	25/01/2025 to 25/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
14.	S.NANCY	III	CODSOFT	20/01/2025 to 20/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
15.	S.VARSHINI	III	TECHNOHACK SOLUTION PVT.LTD.	8/7/2024 to 7/8/2024	PO1,PO2, PO3, PO5, PO6, PSO2
16.	S.VARSHINI	III	CODSOFT	10/8/2024 to 10/9/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
17.	S.VARSHINI	III	NOVANECTOR SERVICES PVT.LTD	1/7/2024 to 1/8/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
18.	S.VARSHINI	III	NOVITECH R&D PRIVATE LIMITED	15/05/2025 to 15/06/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
19.	SRINIVASAN P	III	PRODIGY INFOTECH	15/07/2024 to 15/08/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12 PSO1, PSO2
20.	SRINIVASAN P	III	CODSOFT	15/07/2024 to 15/08/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
21.	SRI SARASWATHI M	III	CODSOFT	10/8/2024 to 10/9/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2

22.	SRI SARASWATHI M	III	TECHNOHACK SOLUTION PVT.LTD.	8/8/2024 to 7/9/2024	PO1,PO2, PO3, PO5, PO6, PO11,PSO2
23.	SRI SARASWATHI M	III	NOVANECTOR SERVICES PVT.LTD	1/7/2024 to 1/8/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
24.	SIVA S	III	LINKENIN LEARNING	26/03/2025 to 26/03/2025	PO1,PO2, PO3, PO5, PO6,PO7, PSO2
25.	SIVA S	III	TATA	26/1/2025 to 26/1/2025	PO1,PO2, PO3, PO5, PO6,PO7, PSO2
26.	SATHISH	III	SKILL FORGE	15/8/2024 to 15/10/2024	PO1, PO2, PO3, PO5, PO6, PO10, PO12 PSO1, PSO2
27.	ROHITH RAM H	III	RAMCO CEMENTS	21/01/2025 to 14/02/2025	PO1, PO2, PO5, PO6, PO8, PO9, PO10, PO11, PO12,PSO1, PSO2
28.	REVATHI V	III	PRODIGY INFOTECH	15/08/2024 to 15/09/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
29.	REVATHI V	III	CODSOFT	15/1/2025 to 15/2/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
30.	PRIYA S	III	NOVANECTORSERVICESPVT.LTD	10/7/2024 to 10/8/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
31.	PRIYA S	III	TECHNOHACK SOLUTION PVT.LTD.	15/08/2024 to 14/09/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12 PSO1, PSO2
32.	NAGALAKSHM I	III	PRODIGY INFOTECH	15/10/2024 to 15/11/2024	PO1,PO2, PO3, PO5, PO6,PO7, PSO2
33.	SWATHY S	III	TECHNOHACK SOLUTION PVT.LTD.	8/8/2024 to 7/9/2024	PO1,PO2, PO3, PO5, PO6,PO7, PSO2

34.	SWATHY S	III	NOVANECTOR SERVICES PVT.LTD	1/7/2024 to 1/8/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
35.	SWATHY S	III	CODSOFT	10/8/2024 to 10/9/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
36.	SHALINI VIJIPAUL	III	CODSOFT	15/01/205 to 15/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
37.	SHALINI VIJIPAUL	III	CODSOFT	15/8/2024 to 15/09/2024	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
38.	SANGEETHA SEKAR	III	CODSOFT	15/01/205 to 15/02/2025	PO1, PO2, PO3, PO5, PO6, PO9, PO10, PO12,PSO1, PSO2
39.	SAYED SALMAN	III	SKILL FORGE	15/8/2024 to 15/10/2024	PO1, PO2, PO3, PO5, PO6, PO10, PO12 PSO1, PSO2

Table No. 2.3.3 2023-2024 Sample Student Name List for Internship

S.No	Name of The Students	Year/Sec	Company Name	Topic	Duration	Date
1.	ABDUL MAJITH A	III CSE A&B	RETECH SOLUTION	Full Stack Development	15 Days	26.06.2023-10.07.2023
2.	ABINASH S	III CSE A&B	RETECH SOLUTION	Full Stack Development	15 Days	26.06.2023-10.07.2023
3.	ADNAN MOHAMMMED S	III CSE A&B	RETECH SOLUTION	Full Stack Development	15 Days	26.06.2023-10.07.2023
4.	AKASH JEBARAJ I	III CSE A&B	ADVENTURE TECHNOLOGY SOLUTION PVT LTD	Python With Machine Learning	21 Days	27.06.2023-17.07.2023

5.	ARCHANA B	III CSE A&B	KODACY	Robotics	15 Days	22.06.2023-02.07.2023
6.	ARUL PANDIAN P	III CSE A&B	ADVENTURE TECHNOLOGY SOLUTION PVT LTD	Web Development	18 Days	26.06.2023-13.07.203
7.	BARGAVI AV	III CSE A&B	RETECH SOLUTION	Python	15 Days	22.06.2023-06.07.2023
8.	BHUVANESH G	III CSE A&B	KODACY	Robotics	15 Days	06.05.2023-22.06.2023
9.	CHANDRAKALA V	III CSE A&B	IIIT ALLAHABAD	Ethical Hacking	1 Month	27.06.2023-26.07.2023
10.	POOJA B	III CSE A&B	RETECH SOLUTION	Core Java	15 Days	26.06.2023-10.07.2023

Figure 2.3.4 Sample Certificate Image for Internship 2023-2024

Table No. 2.3.5 Sample Student Name List for Internship - 2022-2023

S.NO	Name of The Student	Year/Sec	Company Name	Topic	Duration	Dates
1.	ARUN KISHORE E	III CSE	AESTER INDIA PVT LTD	PYTHON	20 Days	30.12.22 to 19.01.23
			BOLT	IOT	6weeks	01.07.22to 15.08.22
2.	GODDUMUR RAJU	III CSE	ED SPREAD	PYTHON	30 Days	09.04.22 to 12.05.22
3.	KAVIDHARSHINI R	III CSE	FOREVIEW TECHNOLOGIES PVT LTD	JAVA	15 Days	1.02.23 to 15.02.23
			TRIOS TECHNOLOGIES PVT LTD	CLOUD COMPUTING	12 Days	29.07.22 to 09.08.22

4.	DURGA V	III CSE	FOREVIEW TECHNOLOGIES PVT LTD	JAVA	15 Days	1.02.23 to 15.02.23
5.	KARTHICK A	III CSE	FOREVIEW TECHNOLOGIES PVT LTD	JAVA	15 Days	1.02.23 to 15.02.23
6.	CALEB J	III CSE	AESTER INDIA PVT LTD	BACKEND USING NODEJS	20 Days	04.1.23 to 22.01.23
			PRAKSHEP PVT LTD	FRONT END DEVELOPER	60 Days	20.2.23 to 20.04.23
7.	JEEVANTHAM D	III CSE	AESTER INDIA PVT LTD	PYTHON	20 Days	30.12.22 to 19.01.23
8.	NALINI.R	II CSE	SKILLAP	MACHINE LEARNING	30 Days	11.01.2023 to 10.02.2023
9.	KARUPPIAH K	III CSE	FOREVIEW TECHNOLOGIES PVT LTD	JAVA	15 Days	1.02.23 to 15.02.23
10.	DHINESH D	III CSE	FOREVIEW TECHNOLOGIES PVT LTD	JAVA	15 Days	1.02.23 to 15.02.23



CERTIFICATE NO Pan_MLMOPART_0223_0731

Pantech e Learning
DIGITAL LEARNING SIMPLIFIED

PANTECH SOLUTIONS
Technology Beyond The Dreams

Skill AP
APSSDC

CERTIFICATE
OF PARTICIPATION

NAME NALANI.R

COLLEGE PERI INTITUTE OF TECHNOLOGY

has Successfully Completed
30 Days Masterclass on Machine Learning

at Pantech e Learning Pvt Ltd, Chennai

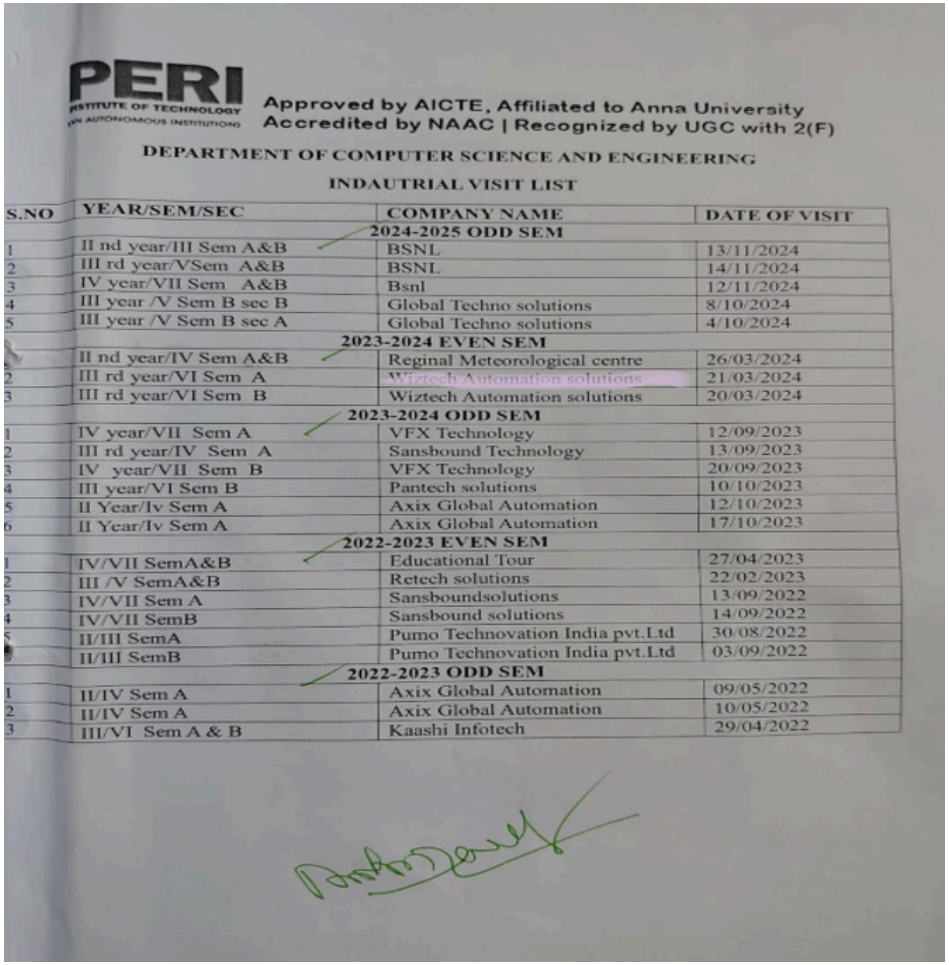
From 11.01.2023 to 10.02.2023

Dr.Rajiv Gujala
Chief General Manger(Technical)
APSSDC

M.Malaiyappan
Director
Pantech e learning

Figure

2.3.6 Sample Student List for Internship 2022-2023



PERI INSTITUTE OF TECHNOLOGY (AN AUTONOMOUS INSTITUTION)

Approved by AICTE, Affiliated to Anna University
Accredited by NAAC | Recognized by UGC with 2(F)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

INDAUTRIAL VISIT LIST

S.NO	YEAR/SEM/SEC	COMPANY NAME	DATE OF VISIT
		2024-2025 ODD SEM	
1	II nd year/III Sem A&B	BSNL	13/11/2024
2	III rd year/VSem A&B	BSNL	14/11/2024
3	IV year/VII Sem A&B	Bsnl	12/11/2024
4	III year /V Sem B sec B	Global Techno solutions	8/10/2024
5	III year /V Sem B sec A	Global Techno solutions	4/10/2024
		2023-2024 EVEN SEM	
	II nd year/IV Sem A&B	Reginal Meteorological centre	26/03/2024
2	III rd year/VI Sem A	Wiztech Automation solutions	21/03/2024
3	III rd year/VI Sem B	Wiztech Automation solutions	20/03/2024
		2023-2024 ODD SEM	
1	IV year/VII Sem A	VFX Technology	12/09/2023
2	III rd year/IV Sem A	Sansbound Technology	13/09/2023
3	IV year/VII Sem B	VFX Technology	20/09/2023
4	III year/VI Sem B	Pantech solutions	10/10/2023
5	II Year/Iv Sem A	Axix Global Automation	12/10/2023
6	II Year/Iv Sem A	Axix Global Automation	17/10/2023
		2022-2023 EVEN SEM	
1	IV/VII SemA&B	Educational Tour	27/04/2023
2	III /V SemA&B	Retech solutions	22/02/2023
3	IV/VII Sem A	Sansboundsolutions	13/09/2022
4	IV/VII SemB	Sansbound solutions	14/09/2022
5	II/III SemA	Pumo Technovation India pvt.Ltd	30/08/2022
6	II/III SemB	Pumo Technovation India pvt.Ltd	03/09/2022
		2022-2023 ODD SEM	
1	II/IV Sem A	Axix Global Automation	09/05/2022
2	II/IV Sem A	Axix Global Automation	10/05/2022
3	III/VI Sem A & B	Kaashi Infotech	29/04/2022

Industrial Visit

Figure 2.3.7 Consolidated list of

2.4 Seminar and Mini/Micro Projects (10)

Institute Marks : 10.00

Table 2.4.1 2024-2025 Seminar List

Sl. No	Date	Subjects	Seminar/ Workshop	Resource Person	Relevance to Pos & PSOs
1	07.11.2024	UI/UX Design	Seminar	S. **Vikram**	PO1,PO2, PO3, PO5, PO6,PO7, PSO2
2	29.10.2024	Source code management	Seminar	**Shanmuga Sundaram**	PO1,PO2, PO3, PO5, PO6,PO7,PSO2
3	29.10.2024	Advanced Data Structure	Seminar	**G.Jarina Banu**	PO1,PO2, PO3, PO5, PO6,PO7,PSO2
4	07.10.2024	Artificial Intelligence	Seminar	**A.Sanjay**	PO1,PO2, PO3, PO5, PO6,PO7, PSO2
5	20.09.2024	Software Testing	Seminar	**Preethi .R**	PO1,PO2, PO3, PO5, PO6,PO7, PSO2
6	27.08.2024	Python Framework	Seminar	**S, Kannan**	PO1,PO2, PO3, PO5, PO6,PSO2

Table 2.4.2 2023-2024

Sl. No	Date	Subjects	Seminar/ Workshop	Resource Person with Designation	Relevance to Pos & PSOs
1	16.11.2023	Web Application Development	Workshop	Mr.Palanikumar.G Spring Boot Developer, IconGen IT Solutions, Chennai	PO1,PO2, PO3, PO5, PO6,PO7, PSO2
2	27.10.2023	Machine learning in the Real World case studies and Industry Applications	Guest lecture	Dr.D.Doreen Robin Founder & Director,Computational Intelligence Research Foundation(CIRF), Chennai	PO1,PO2, PO3, PO5, PO6,PO7, PSO2

3	25.09.2023	How to convert Life's Lesson to Learning and Meaningful Career	Guest lecture	Mr.Babu Charles Earnest Founder-Justart,Mental Health Advocate,TEDx Organizer	PO1,PO2, PO3, PO5, PO10,PO11,PSO2

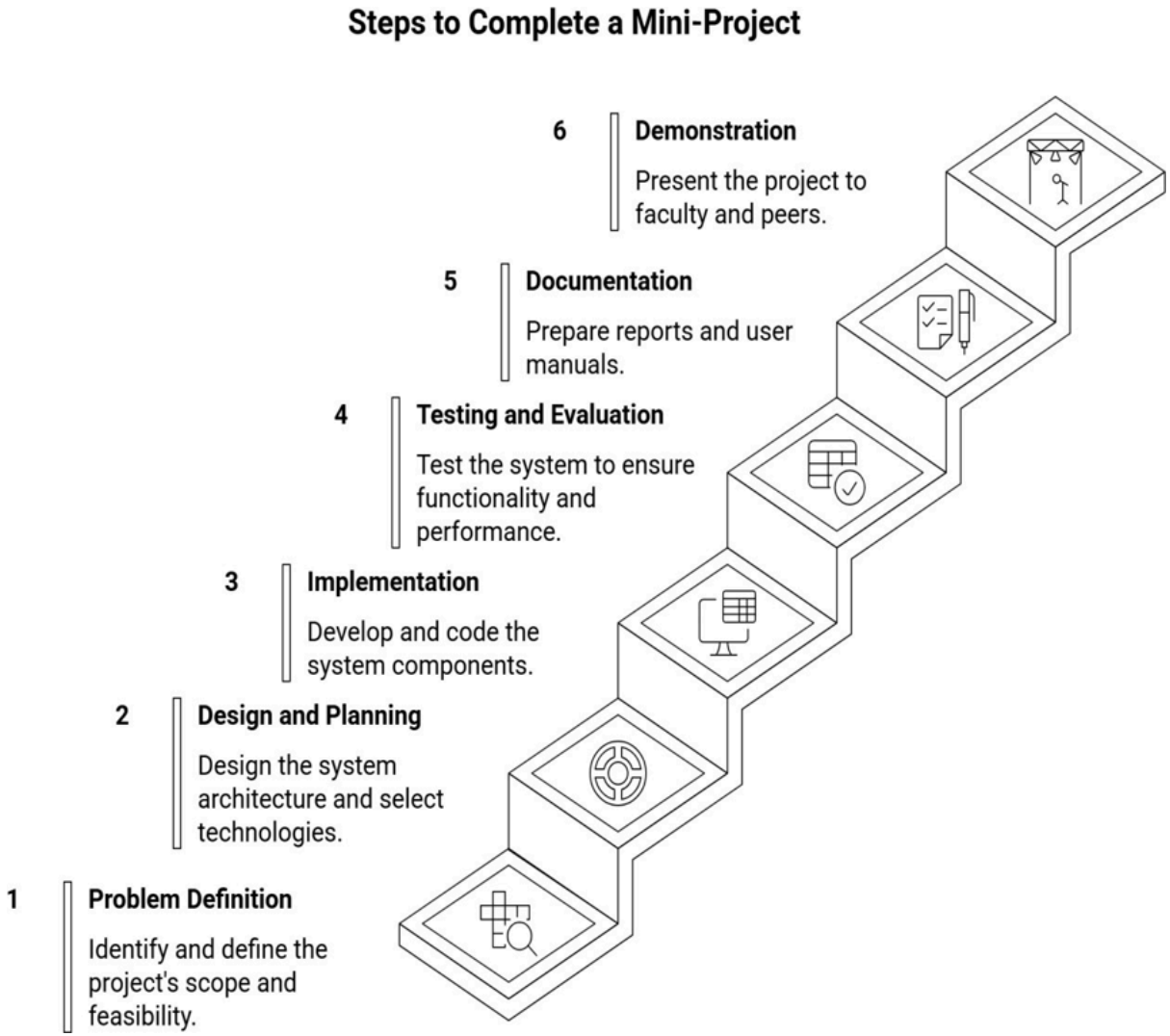
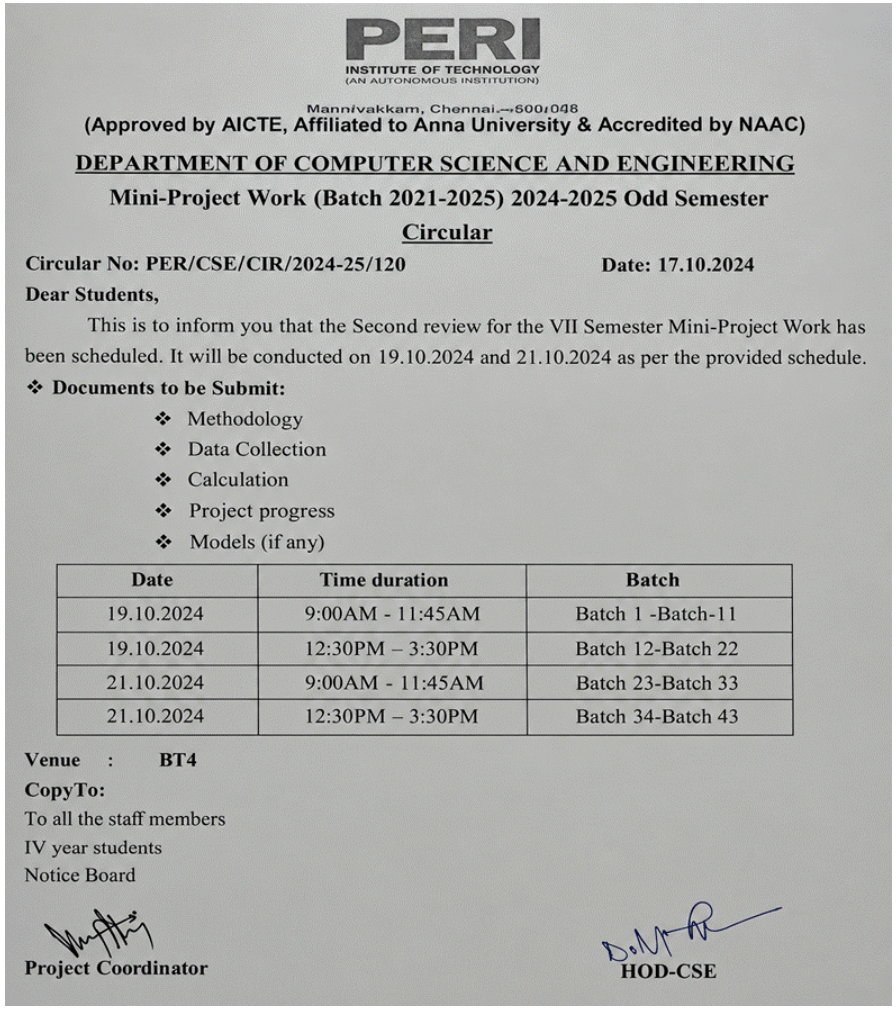


Figure 2.4.3 Process of Mini-Project



PERI
INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)

Mannivakkam, Chennai-600048
(Approved by AICTE, Affiliated to Anna University & Accredited by NAAC)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Mini-Project Work (Batch 2021-2025) 2024-2025 Odd Semester

Circular

Circular No: PER/CSE/CIR/2024-25/120 **Date: 17.10.2024**

Dear Students,

This is to inform you that the Second review for the VII Semester Mini-Project Work has been scheduled. It will be conducted on 19.10.2024 and 21.10.2024 as per the provided schedule.

❖ **Documents to be Submit:**

- ❖ Methodology
- ❖ Data Collection
- ❖ Calculation
- ❖ Project progress
- ❖ Models (if any)

Date	Time duration	Batch
19.10.2024	9:00AM - 11:45AM	Batch 1 -Batch-11
19.10.2024	12:30PM – 3:30PM	Batch 12-Batch 22
21.10.2024	9:00AM - 11:45AM	Batch 23-Batch 33
21.10.2024	12:30PM – 3:30PM	Batch 34-Batch 43

Venue : BT4

CopyTo:

To all the staff members
IV year students
Notice Board

Project Coordinator **HOD-CSE**

Figure 2.4.4 Sample circular for Second Review- Mini-Project

2.5 Case Studies and Real-Life Examples (10)

Institute Marks : 10.00

2.5 CASE STUDIES AND REAL-LIFE EXAMPLES

The department incorporates case studies and real-life examples into the teaching-learning process to help students connect theoretical concepts with practical engineering applications. These approaches enable students to examine actual or realistic situations, identify technical problems, interpret available information, compare possible solutions and understand the relevance of engineering principles in professional practice.

Faculty members use case studies and real-life examples, wherever appropriate to the course content, to encourage analytical thinking, application of knowledge and informed decision-making. The examples may be drawn from industrial applications, engineering systems, technological developments, practical failures, design situations, maintenance issues, field observations or other relevant contexts. The selection of examples depends on the course outcomes and the nature of the subject.

The department documents the case studies and real-life examples used in relevant courses and establishes their contribution to the Programme Outcomes (POs) and Programme Specific Outcomes (PSOs). The mapping is based on the learning activity, the engineering context presented, the analysis expected from students and the outcomes demonstrated through their responses or assignments.

2.5.1 Use of Case Studies and Real-Life Examples in Teaching

Case studies are used to present students with engineering situations that require interpretation, analysis or evaluation. Real-life examples are used to illustrate how engineering concepts and principles are applied in practical settings. Depending on the subject, these activities may be conducted through classroom discussions, problem-solving exercises, assignments, group activities, presentations, demonstrations or other documented teaching-learning methods.

The department maintains course-wise records identifying the subject, topic, case study or real-life example, learning purpose and mode of implementation. Supporting evidence may include teaching materials, case documents, lesson plans, assignments, student responses, discussion records and assessment sheets, wherever available. These records demonstrate that the examples were integrated into teaching rather than merely listed as supplementary topics.

2.5.2 Mapping with Programme Outcomes and Programme Specific Outcomes

The department maps each documented case study or real-life example to the relevant POs and PSOs, based on the learning demonstrated by the activity. The justification explains how the activity supports the application of engineering knowledge, problem analysis, investigation, design considerations, communication, professional responsibility or programme-specific technical competence, wherever relevant.

The mapping is prepared with reference to the applicable programme outcomes and the course or topic in which the activity was used. The department avoids assigning the same outcomes to every case study without considering its actual content and learning purpose. Supporting evidence is maintained to establish a clear relationship between the teaching activity, student engagement, expected learning and mapped outcomes.

Review and Continuous Improvement

The department reviews the use of case studies and real-life examples to identify opportunities for strengthening practical relevance and student engagement. Faculty observations, student responses, assessment results and feedback, where available, may be used to improve the selection of examples and the way they are integrated into course delivery. The department maintains relevant records of implementation, PO/PSO mapping and improvement actions, wherever documented.

The extent of implementation and the contribution reported under this metric are based on the actual activities and supporting evidence available for the applicable assessment period.

Real-world problem Project

After so many analyses our third year student found a solution for a real world problem. Two samples are listed here

1.Development of a smart Electric line detection and Alert system for Enhanced Safety in tipper vehicles.

Patent Title: Development of a Smart Electric Line Detection and Alert System for Enhanced Safety in Tipper Vehicles.

Applicant: PERI Institute of Technology, Chennai, Tamil Nadu, India.

Application Type: Indian Patent Application.

Filing Date: 25 March 2025.

Publication Date: 11 April 2025

This invention relates to the field of vehicle safety systems, specifically to a smart electric line detection and alert mechanism for tipper vehicles. The system is designed to prevent accidents caused by contact between the trailer portion of the vehicle and overhead high-voltage power lines during hydraulic lifting operations. It integrates infrared (IR) sensor technology, electromagnetic field (EMF) detection, and a control unit with an alarm alert mechanism to enhance safety. The invention is particularly useful in sectors such as construction, mining, logistics, and waste management, where such vehicles are commonly used. This patent was developed in response to a real-life problem identified during the academic year 2024–2025, with support provided to aspiring student entrepreneurs through the College's Entrepreneurship Development Cell (EDC).



(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :25/03/2025
(21) Application No.202541027617 A
(43) Publication Date : 11/04/2025

(54) Title of the invention : DEVELOPMENT OF A SMART ELECTRIC LINE DETECTION AND ALERT SYSTEM FOR ENHANCED SAFETY IN TIPPER VEHICLES

(51) International classification :G08G0000/1160000, B60Q0005000000, B60Q0009000000, G08B0021180000, B60W0030090000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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Address of Applicant : NA
(72)Name of Inventor :
1)[redacted] S
Address of Applicant :Computer Science and Engineering PERI Institute of Technology Chennai Tamil Nadu India 600048 ---------- ----------
2)Janaki M
Address of Applicant :Computer Science and Engineering PERI Institute of Technology Chennai Tamil Nadu India 600048 ---------- ----------
3)Dr. Paben Kennedy R
Address of Applicant :PERI Institute of Technology Chennai Tamil Nadu India 600048 ---------- ----------
4)Dr. Mohamed Abbas S
Address of Applicant :Mechanical Engineering PERI Institute of Technology Chennai Tamil Nadu India 600048 ---------- ----------

(57) Abstract :
ABSTRACT The present invention relates to a Smart Electric Line Detection and Alert System designed to enhance the safety of tipper vehicles during unloading operations. Tipper vehicles, commonly used in industries such as construction, mining, and logistics, face significant risks when their trailer portion is hydraulically lifted near overhead electrical lines. Accidental contact with these lines can lead to severe accidents, including electrical shocks, fires, equipment damage, and fatalities. To address this issue, the proposed system integrates infrared (IR) sensors and electromagnetic field (EMF) detectors for real-time monitoring and detection of overhead power lines. The IR sensors are positioned on the upper edges of the trailer to detect physical proximity to obstacles, while the EMF detectors sense the presence of high-voltage electromagnetic fields. The system's control unit processes sensor inputs and activates an alert mechanism, which includes an audio buzzer and visual indicators, to warn the vehicle operator. This innovative solution is designed to reduce the risk of accidents, improve operational safety, and provide a cost-effective safeguard for industries where tipper vehicles are widely used
No. of Pages : 13 No. of Claims : 10

The Patent Office Journal No. 15/2025 Dated 11/04/2025 35245

Figure 2.5.1 Patent for Development of a smart Electric line detection and Alert system for Enhanced Safety in tipper vehicles

2.Automatic Glucose level identification and alert system

TITLE: AUTOMATIC GLUCOSE LEVEL IDENTIFICATION AND ALERT SYSTEM FOR PREVENTING BLOOD CLOTS IN PATIENTS

ABSTRACT

The invention provides an automated system for monitoring glucose levels during intravenous therapy. This system addresses a critical issue in intravenous (IV) therapy caused by the depletion of glucose in IV containers. When medical staff or caregivers fail to stop the IV flow before the glucose is entirely consumed, it can lead to blood clots in the vein, causing significant pain and complications in locating alternative veins for future treatments.

The proposed solution utilizes load cell sensors strategically positioned at the base of the IV stand to continuously monitor the glucose levels in the bottle. When the glucose concentration falls below a predefined threshold, an alarm system activates a buzzer, alerting both the patient and caregivers to shut off the IV valve promptly. This timely intervention prevents the formation of blood clots, enhances patient safety, and ensures smoother IV therapy administration. By offering a simple yet effective alert mechanism, this innovation significantly improves the reliability and safety of IV therapy procedures.

Date : 06/12/24

Dr. Mohamed Abbas S

Athirayan S

Mullai E

Merin Priya R

Supriya P

Keerthana T

Manasa M

2024/144670/202441096342/Form 2(Title Page)

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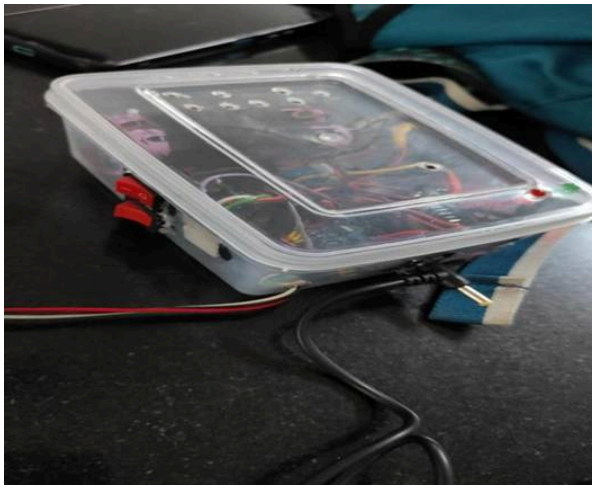
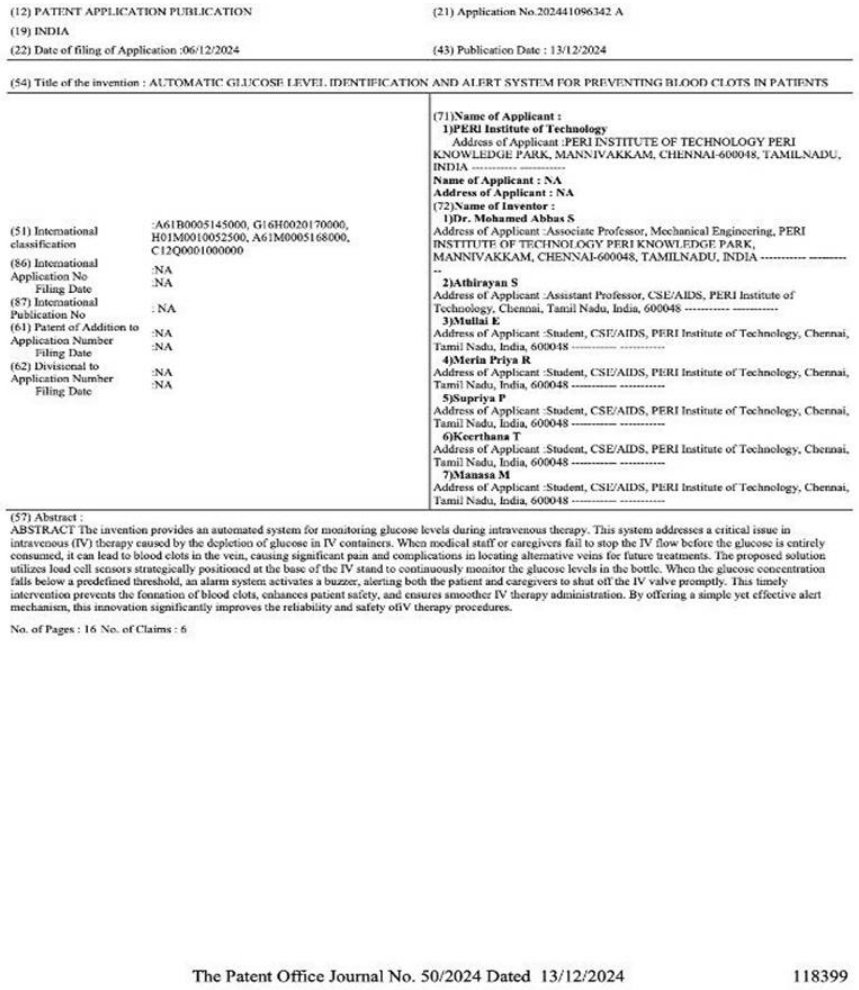




Figure 2.5.2 Prototype of Automatic Glucose level identification and alert system



(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :06/12/2024

(21) Application No.202441096342 A
(43) Publication Date : 13/12/2024

(54) Title of the invention : AUTOMATIC GLUCOSE LEVEL IDENTIFICATION AND ALERT SYSTEM FOR PREVENTING BLOOD CLOTS IN PATIENTS

(51) International classification :A61B0005145000, G16H0020170000, H01M0010052500, A61M0005168000, C12Q0001000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :
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Address of Applicant :PERI INSTITUTE OF TECHNOLOGY PERI KNOWLEDGE PARK, MANNIVAKKAM, CHENNAI-600048, TAMILNADU, INDIA ---------- ----------
Name of Applicant : NA
Address of Applicant : NA
(72)Name of Inventor :
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6)Keerthana T
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7)Manasa M
Address of Applicant :Student, CSE/AIDS, PERI Institute of Technology, Chennai, Tamil Nadu, India, 600048 ---------- ----------

(57) Abstract :
ABSTRACT The invention provides an automated system for monitoring glucose levels during intravenous therapy. This system addresses a critical issue in intravenous (IV) therapy caused by the depletion of glucose in IV containers. When medical staff or caregivers fail to stop the IV flow before the glucose is entirely consumed, it can lead to blood clots in the vein, causing significant pain and complications in locating alternative veins for future treatments. The proposed solution utilizes load cell sensors strategically positioned at the base of the IV stand to continuously monitor the glucose levels in the bottle. When the glucose concentration falls below a predefined threshold, an alarm system activates a buzzer, alerting both the patient and caregivers to shut off the IV valve promptly. This timely intervention prevents the formation of blood clots, enhances patient safety, and ensures smoother IV therapy administration. By offering a simple yet effective alert mechanism, this innovation significantly improves the reliability and safety ofiV therapy procedures.

No. of Pages : 16 No. of Claims : 6

The Patent Office Journal No. 50/2024 Dated 13/12/2024 118399

Figure 2.5.3 Patent for Automatic Glucose level identification and alert system

Table No. 2.5.4 List of Student Real World Projects

S.No	Name of the Real life project	Number of students registered	Academic Year	Relevance to Pos & PSOs

1.	Smart and Real time surveillance system for construction site safety using yolo object detection and flask framework	2	2024-2025	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
2.	Development of a smart Electric line detection and Alert system for Enhanced Safety in tipper vehicles	1	2024-2025	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
3.	Intelligent Pillow for Real-Time vital sign monitoring with emergency alert System	4	2024-2025	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
4.	Automatic Glucose level identification and alert system	5	2023-2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2

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

Institute Marks : 10.00

2.7 Solving Complex Engineering Problems Incorporating Sustainability Goals (20)

Institute Marks : 20.00

2.7 SOLVING COMPLEX ENGINEERING PROBLEMS INCORPORATING SUSTAINABILITY GOALS

The department promotes activity-based learning through which students apply engineering knowledge to complex problems and consider relevant sustainability goals while developing possible solutions. Such activities may be undertaken through core courses, project-based learning, problem-based learning, mini projects, integrated design projects, capstone projects, hackathons and other documented academic activities.

The department identifies suitable engineering problems that require students to integrate knowledge from relevant subjects, analyse constraints, evaluate alternatives and propose technically appropriate solutions. Where applicable, students are encouraged to consider environmental impact, resource utilisation, energy efficiency, safety, economic feasibility, social relevance and long-term sustainability. The nature and complexity of each problem are established from the actual requirements of the activity and the work undertaken by students.

The department documents the identified problems, the learning activities through which students address them, the solutions or outputs developed and the Sustainable Development Goals (SDGs) relevant to the problem. The relationship between the engineering problem and the selected SDG is justified with reference to the problem context and the intended contribution of the proposed solution.

2.7.1 Identification of Complex Engineering Problems

The department identifies engineering problems through relevant courses and student activities that require more than routine application of a single concept. Depending on the discipline, such problems may involve multiple technical considerations, analysis of data, design constraints, selection of appropriate tools, evaluation of alternatives or consideration of practical limitations.

Problem statements, project proposals, course assignments and activity records are maintained to establish the nature of the problem and the technical challenges involved. Student reports, calculations, design documents, simulations, experimental results, models or other outputs provide evidence of the approach adopted and the solution developed. The department includes only those activities for which the complexity and student contribution can be substantiated.

2.7.2 Incorporation of Sustainability Goals

The department identifies the Sustainable Development Goals relevant to each selected engineering problem. The SDG mapping is based on the actual problem addressed and the expected or demonstrated contribution of the solution. Sustainability considerations may include efficient use of resources, energy conservation, environmental protection, waste reduction, safe engineering practice, responsible use of technology or improved access to essential services, wherever relevant.

A problem-wise mapping statement identifies the selected SDG and provides a brief justification explaining the connection between the engineering activity and the sustainability goal. The mapping is supported by the problem statement, design considerations, student analysis and available technical outputs. An SDG is not assigned merely because a project mentions sustainability; the relationship must be supported by the actual work undertaken.

2.7.3 Student Solutions and Supporting Evidence

The department maintains records of student participation and the solutions developed through the identified activities. Evidence may include project reports, design calculations, technical drawings, source code, simulation results, experimental data, prototypes, working models, testing records, presentations and evaluation sheets, as applicable to the activity.

Where feasible and supported by evidence, the department reviews the suitability of the proposed solution in relation to the engineering problem and its sustainability considerations. The documented analysis may address technical feasibility, resource efficiency, environmental implications, safety or other relevant constraints. Claims concerning measurable benefits or impact are reported only when supported by actual results or documented analysis.

Review and Continuous Improvement

The department reviews the identified engineering problems, student outputs and SDG mapping to improve the relevance and depth of activity-based learning. Faculty observations, project evaluations, student feedback and documented outcomes, where available, may be used to refine problem selection and strengthen sustainability considerations in subsequent activities.

The department maintains traceability between the course or activity, problem statement, student work, selected SDG, justification and supporting evidence. The activities reported under this metric are restricted to those undertaken during the applicable assessment period and supported by verifiable departmental records



Figure 2.7 UN SDG mapped with Computer Science and Engineering Department

Core Courses with Activity-Based Learning

The CSE curriculum incorporates activity-based learning methodologies across several core courses to foster practical skills and problem-solving abilities.

i.Project-Based Learning (PBL) Courses

PBL courses are structured around extended projects that require students to apply theoretical knowledge to real-world scenarios. These projects often span an entire semester or academic year.

- **Data Science for Social Good:** Students work on projects involving data analysis and machine learning to address social issues aligned with SDGs, such as poverty reduction (SDG 1), quality education (SDG 4), and sustainable cities (SDG 11). For example, students might develop predictive models to identify at-risk communities or analyze data to improve resource allocation for educational programs.
- **Smart and Sustainable Systems:** This course focuses on developing intelligent systems for sustainable development. Projects may involve designing smart grids for efficient energy distribution (SDG 7), creating IoT-based solutions for water management (SDG 6), or building intelligent transportation systems to reduce carbon emissions (SDG 13).
- **Mobile App Development for Healthcare:** Students develop mobile applications that address healthcare challenges, such as remote patient monitoring (SDG 3), disease outbreak tracking, or health education for underserved communities.



Figure 2.7.2 Guest Lecture on “Becoming Employable” on 29.09.2023

Problem-Based Learning (PrBL) Courses

PrBL courses present students with complex, ill-defined problems that require them to research, analyze, and propose solutions collaboratively.

- **Cybersecurity for Critical Infrastructure:** Students tackle cybersecurity challenges related to critical infrastructure, such as power grids, water treatment plants, and transportation systems. They learn to identify vulnerabilities, develop security protocols, and implement countermeasures to protect these systems from cyberattacks, contributing to SDG 9 (Industry, Innovation, and Infrastructure).
- **AI for Climate Action:** This course explores the application of artificial intelligence to address climate change. Students work on problems such as optimizing energy consumption, predictingextreme weather events, and developing carbon capture technologies, directly addressing SDG 13 (Climate Action).

- **Ethical and Responsible AI:** Students analyze the ethical implications of AI technologies and develop solutions to mitigate potential biases and ensure fairness. Projects may involve developing algorithms for fair resource allocation, designing AI systems that respect privacy, or creating frameworks for responsible AI development, contributing to SDG 16 (Peace, Justice, and Strong Institutions).



Figure 2.7.3 Guest Lecture on “How to convert a Life Lessons to Learning and Meaningful Career” on 25.09.2023

1. **Mini-Projects**

   Mini-projects are smaller-scale projects integrated into various courses to provide hands-on experience and reinforce theoretical concepts.

- **Introduction to Programming:** Students develop simple applications that address local community needs, such as a website for a local charity or a mobile app for community event scheduling.
- **Database Management Systems:** Students design and implement databases for managing resources related to specific SDGs, such as a database for tracking food waste (SDG 12) or a database for monitoring water quality (SDG 6).
- **Computer Networks:** Students configure and manage network infrastructure for supporting remote learning in underserved communities (SDG 4) or for connecting healthcare facilities in rural areas (SDG 3).

1. **Integrated Design Projects**

   Integrated design projects involve multidisciplinary teams of students working on complex engineering problems that require the integration of knowledge from multiple domains.

- **Smart Agriculture System:** Students from CSE, Electrical Engineering, and Agricultural Science collaborate to design a smart agriculture system that optimizes resource utilization, reduces environmental impact, and increases crop yields, contributing to SDG 2 (Zero Hunger) and SDG 15 (Life on Land).
- **Sustainable Energy Microgrid:** Students from CSE, Electrical Engineering, and Mechanical Engineering design a microgrid powered by renewable energy sources to provide electricity to a remote community, addressing SDG 7 (Affordable and Clean Energy).
- **Water Quality Monitoring System:** Students from CSE, Environmental Engineering, and Chemistry develop a system for monitoring water quality in real-time, using sensors, data analytics, and communication technologies to ensure access to clean water and sanitation (SDG 6).

1. **Capstone Projects**

Capstone projects are culminating projects that allow students to apply their accumulated knowledge and skills to solve a significant engineering problem. These projects often involve collaboration with industry partners or research institutions.

- **Development of a Smart City Platform:** Students design and implement a platform that integrates various smart city applications, such as traffic management, energy optimization, and waste management, to improve the quality of life in urban areas (SDG 11).
- **AI-Powered Disaster Response System:** Students develop an AI-powered system that uses data from various sources to predict and respond to natural disasters, such as floods, earthquakes, and wildfires, contributing to SDG 13 (Climate Action).
- **Personalized Learning Platform:** Students design and implement a personalized learning platform that adapts to individual student needs and learning styles, improving educational outcomes and promoting lifelong learning (SDG 4).

1. **Hackathons**

Hackathons are intensive, collaborative events where students work in teams to develop innovative solutions to specific problems within a limited time frame.

- **SDG Hackathon:** A hackathon focused on developing solutions that address specific SDGs, such as developing mobile apps for promoting sustainable consumption (SDG 12), creating platforms for connecting volunteers with social causes (SDG 17), or designing tools for monitoring environmental pollution (SDG 15).
- **AI for Good Hackathon:** A hackathon focused on using AI to solve social and environmental problems, such as developing AI-powered tools for detecting fake news (SDG 16), creating AI models for predicting disease outbreaks (SDG 3), or designing AI algorithms for optimizing resource allocation in humanitarian aid (SDG 1).
- **Smart City Hackathon:** A hackathon focused on developing innovative solutions for smart cities, such as developing smart parking systems, creating platforms for citizen engagement, or designing energy-efficient building management systems (SDG 11).

Table No. 2.7.4 List of Students Participated in Hackathon- 2024-2025

https://drive.google.com/file/d/1vBEMIYIMjK29hiIpaC--BqtF0N_RMRq6/view?usp=sharing (https://drive.google.com/file/d/1vBEMIYIMjK29hiIpaC--BqtF0N_RMRq6/view?usp=sharing)

Team No.	Name of the Student	Date of Event	Relevance to Pos & PSOs
1	i. Archana B ii. Chandrakala V iii. Shaileshwaran A.V.K iv. Shalini V P v. Naveen Kumar M vi. Naveen Raj D	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2

2	i. Dinesh Chaudhary D ii. Elakiya K iii. Sayed Salman S iv. Yashwin Raj M v. Vasanth S vi. Sangeetha S	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
3	i. Gowsalya D ii. Ishasri P iii. Sunil Kumar M iv. Srinivasan P v. Scholastica B vi. Pavithra S	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
4	i. Madhumitha S ii. Mageswari D iii. Sathish S iv. Sathish Kumar M v. Akash Kummar I vi. Harish A	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
5	i. Maha Lakshmi M ii. Meenatshigunavathi R iii. Rohit K iv. Rohit Ram H v. Revathi V vi. Rithika L	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
6	i. Nivedhya V ii. Navya Vijayan iii. Perarulalan V iv. Poorna Chandra D v. Srisaraswathi M vi. Srividhya M	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2

7	i. Mohammed Abdul Rahim P ii. Rahul A.D iii. Premchand P iv. Bashini M v. Bharath E vi. Swathy S	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
8	i. Rathmikaa V.V ii. Priyadharshini R iii. Dhinesh M iv. Dinesh Kumar K v. Dinesh Ram S vi. Jesheeba Fathima M	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
9	i. Pooja B ii. Reshma A iii. Gokulraj A iv. Harisri R v. Jothika S vi. Lavanya M	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
10	i. Sushthi R ii. Veena P.G iii. Ayesha K iv. Achsah Augusti N A v. Nancy S vi. Periyannan C	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2
11	i. Sai Prasanth A ii. Siva M iii. Abdul Samad M iv. Chinnasamy S v. Jana Priyanka P vi. Kavya S	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2

12	i. Sudharsan B ii. Sunilkumar K A iii. Karan Raj S iv. Kawin V B v. Madhumitha S vi. Mohameed Idris M	18 /09/2024	PO1,PO2, PO3, PO5, PO6,PO7, PO9,PO10,PO11,PSO2

2.7.5 Other Activity-Based Learning Initiatives

- **Coding Bootcamps:** Intensive coding bootcamps focused on specific technologies or domains, such as web development, data science, or cybersecurity.
- **Industry Internships:** Opportunities for students to gain practical experience by working on real-world projects in industry settings.
- **Research Projects:** Opportunities for students to participate in research projects with faculty members, contributing to the advancement of knowledge in specific areas.
- **Guest Lectures and Workshops:** Seminars and workshops led by industry experts and researchers, providing students with insights into current trends and challenges in the field.

By integrating these activity-based learning initiatives into the CSE curriculum, the department aims to equip students with the skills and knowledge necessary to address complex engineering problems and contribute to the achievement of the Sustainable Development Goals. The focus on practical application, collaboration, and real-world problem-solving ensures that graduates are well-prepared to make a positive impact on society.

2.8 Steps Taken for Enhancing Industry Institute Partnerships (15)

Institute Marks : 15.00

2.8Steps Taken for Enhancing Industry Institute Partnerships

The department undertakes industry–institute interaction activities to strengthen the relevance of engineering education and provide students with exposure to current industrial practices, technologies and professional expectations. These initiatives may include industry participation in the delivery of regular courses, industry-offered training programmes, industry-supported laboratory facilities and other documented collaborative activities.

The department identifies opportunities for engagement with industries relevant to its programme and facilitates interaction between industry professionals, faculty members and students. The activities are documented with details of the industry partner, nature of engagement, duration, student or faculty participation and supporting records. The department reviews the implementation and effectiveness of these initiatives to identify opportunities for strengthening industry collaboration.

2.8.1 Industry Involvement in the Partial Delivery of Regular Courses

The department facilitates industry participation in the delivery of relevant portions of regular courses wherever such arrangements have been implemented. Industry professionals may contribute through specialised lectures, technical sessions, demonstrations, practical instruction or delivery of selected course topics aligned with their professional expertise.

The department maintains records identifying the course, course code, topic or portion delivered, name and designation of the industry professional, organisation, date and duration of the engagement. Supporting evidence may include approved schedules, course delivery plans, session materials, attendance records, feedback and relevant correspondence.

The documented evidence establishes that the industry professional contributed to the delivery of a portion of a regular course. Guest lectures or general industry interactions should be reported accurately and should not be described as partial course delivery unless the records establish the connection with the course content and its implementation.

1. **Industry-Offered Courses and Training**

The department facilitates student participation in courses and training programmes offered or delivered by industries to develop skills relevant to current engineering practice. These programmes may cover specialised technologies, industry tools, technical processes, professional practices or other competencies relevant to the programme.

The department maintains records of the industry partner, programme title, training objectives, dates, duration, participating students and completion status. Supporting evidence may include programme bro chures, training schedules, attendance sheets, course materials, certificates and feedback records, as applicable. The department reviews the relevance of these programmes to the curriculum and student learning needs. The reported activities distinguish industry-offered courses and training from ordinary guest lectures, industrial visits or other exposure activities.

2.8.3 Impact Analysis and Actions Taken

The department reviews the effectiveness of industry–institute partnership activities to determine their contribution to teaching-learning quality, practical exposure, technical skill development and curriculum relevance. The review may consider student participation, training completion, feedback, laboratory utilisation, industry observations and other indicators for which reliable records are available. Based on the review, the department identifies strengths, gaps and opportunities for improvement. Actions may include refining training content, identifying additional industry partners, improving laboratory utilisation, strengthening technical sessions or aligning future activities more closely with curriculum requirements. The department maintains the analysis, relevant meeting records, identified actions and available follow-up evidence. Claims of improvement or impact are reported only when supported by actual data or documented observations.

2.8.4 Review and Continuous Improvement

The department periodically reviews its industry–institute engagement activities and identifies opportunities for sustained collaboration. The review considers the implementation of course delivery contributions, industry-offered training, supported laboratory facilities and the documented outcomes of partnership initiatives. The resulting actions are recorded wherever such review has taken place.

The department organises the evidence so that each reported partnership activity can be traced to its industry partner, implementation records, student or faculty participation, evaluation and impact analysis, as applicable. The SAR reports only activities supported by verifiable records for the applicable assessment period.

2.8.5 Impact Analysis of industry institute interaction and actions taken thereof

- Signing of MOU with various reputed companies.
- Students update themselves on the latest developments in industrial technology and have a hands-on experience.
- Students get internship and placement opportunities

Table No. 2.8.1 List of MOU Signed

S.No.	Academic Year	Company Name
1.	2024-2025	GUVI
2.	2024-2025	TECHKNOTS ACADEMY LLP

3.	2023-2024	EDUREKA LEARNING CENTRE
4.	2022-2023	INFYCLE TECHNOLOGIES, VEI TECHNOLOGIES
5.	2021 – 2022	PANTECH E LEARNING







Figure 2.8.2 MOU Signed for "GUVI"

2.8.6 Specialized training session from Industry

A specialized training session was organized in collaboration with "GUVI", a leading industry-based learning platform.An expert trainer from GUVI conducted hands-on sessions focusing on current industry-relevant skills and tools. Students received practical exposure through live demonstrations and interactive problem-solving activities. The session helped bridge the gap between academic learning and real-time industry expectations. Overall, the training significantly enhanced students' technical competence and confidence in pursuing industry roles.



Figure 2.8.3 Specialized training session in GUVI

2.8.7 Guest Lecture for Industry expectations from engineering graduates

Modern industries expect engineering graduates to possess not only strong theoretical knowledge but also practical, hands-on skills. Companies seek individuals who can adapt to rapidly evolving technologies and solve real-world problems efficiently. Effective communication, teamwork, and project management abilities are highly valued alongside technical expertise. Graduates are expected to be proficient in relevant software tools, industry standards, and sustainable practices. Above all, industries look for self-driven learners with a positive attitude and readiness to contribute from day one.



Figure 2.8.4 Guest Lecture for **Industry expectations from engineering graduates**

2.8.8 A hands-on training session on Cyber Security

A hands-on training session on Cyber Security was conducted to enhance students' awareness of digital threats and data protection techniques. Participants were introduced to real-time scenarios involving phishing attacks, password cracking, and network vulnerabilities. The trainer demonstrated the use of basic ethical hacking tools and preventive security measures. Students actively engaged in practical exercises to understand secure browsing practices and system defense strategies. The session greatly improved their understanding of cyber safety and prepared them to tackle online security challenges responsibly.



Figure 2.8.5 A hands-on training session for Cyber Security

3 OUTCOME-BASED ASSESSMENT (120) Total Marks 120.00

3.1 Evaluation of Continuous Assessment: Assignments, Unit Tests, Mid-Term, etc. (10)

Institute Marks : 10.00

3.1 Evaluation of Continuous Assessment: Unit Tests, Mid-Term, Assignments, etc..

1. Process for Setting and Evaluating Internal Question Papers

The Examination Cell conducts three centralised assessments for theory courses under Anna University Regulation 2017 (R2017): Continuous Assessment Test 1 (CAT-1), Continuous Assessment Test 2 (CAT-2), and the Model Examination (ME), each carrying 100 marks. R2017 applies to the 2019–2023 and 2020–2024 batches. The assessment schedule is published in the academic calendar at the beginning of each semester.

CAT-1 covers the first 2.5 units, addressing CO1, CO2, and CO3, while CAT-2 covers the remaining 2.5 units, addressing CO3, CO4, and CO5. The Model Examination covers all five units and all five COs.

The course-handling faculty member or course coordinator prepares two sets of question papers and corresponding answer keys for each course. Questions are designed with appropriate cognitive levels based on Bloom's Taxonomy and mapped to the relevant Course Outcomes (COs). The Head of the Department reviews the question papers, followed by verification by IQAC, before submission to the Examination Cell. The Examination Cell randomly selects one set for each assessment.

2. Quality of Questions and CO–PO/PSO Mapping

Question papers are designed to assess students' knowledge, understanding, application, analytical ability, and problem-solving skills, as appropriate to the course. Each question is mapped to the relevant CO to ensure alignment between assessment and intended learning outcomes. The COs are mapped to the Programme Outcomes (POs) and Programme Specific Outcomes (PSOs), enabling the department to analyse the contribution of course-level learning towards programme level outcome attainment.

3. Assessment Coverage and Evaluation

The three assessments provide progressive syllabus coverage: CAT-1 assesses the first 2.5 units,CAT-2 assesses the remaining 2.5 units, and the Model Examination assesses the complete syllabus. Answer scripts are evaluated using the corresponding answer keys to promote consistency and fairness.

4. Post-Evaluation Feedback and Performance Improvement

Evaluated answer scripts are returned to students or discussed with them. Faculty members explain the correct answers, communicate marks and errors, and provide feedback to help students identify learning gaps and improve their performance.

5. Calculation of Internal Assessment Marks

Each of the three assessments carries equal weightage. The marks obtained in CAT-1, CAT-2, and the Model Examination are aggregated out of 300 and proportionately converted to 20 marks, rounded to the nearest integer. The resulting score constitutes the internal assessment mark for the course.

PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Mannivakkam, Chennai-6000048

B.E/B.TECH 5th SEMESTER CAT-I EXAMINATION TIMETABLE, SEPTEMBER -2024

TIME: 9.00AM - 12.00 NOON

Branch/ Date	23-09-2024 MONDAY	24-09-2024 TUESDAY	25-09-2024 WEDNESDAY	26-09-2024 THURSDAY	27-09-2024 FRIDAY	28-09-2024 SATURDAY
CE	Structural Analysis I CE 3502	Foundation Engineering CE 3503	Airports and Harbors CE 3025	Air and Noise Pollution Control Engineering CCE 331	Design of Reinforced concrete Structural Elements CE 3501	
EEE	Power Electronics EE3591	Energy Storage Systems EE3032	Smart Grid (PE) EE3007	Power System Analysis EE3501	Control Systems EE3503	Power Electronics for renewable energy systems EE3014
ME	Design of Machine Elements ME3591	Metrology and Measurements ME8592	Automobile Engineering CME380	Renewable Energy Technologies CME365	Process Planning and Cost Estimation CME396	
ECE	Wireless Communication EC3501	Image Processing CEC366	Transmission Lines and RF Systems EC3551	Satellite Communication CEC352	VLSI And Chip Design EC3552	Optical Communication Network CEC345
CSE	Computer Networks CS3591	Compiler Design CS3501	Cloud Computing CCS335	Cryptography and Cyber Security CB3491	Distributed Computing CS3551	Software Testing and Automation CCS366
AIDS	Deep Learning AD3501	Data and Information Security CW3551	Cloud Computing CCS335	Big Data Analytics CCS334	Distributed Computing CS3551	Software Testing and Automation CCS366

Principal Vice Principal Controller of Examinations

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th sem students

Fig 3.1.1 Sample CAT I Timetable for 5

PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Mannivakkam, Chennai-6000048

B.E., 7th SEMESTER CAT-I EXAMINATION TIMETABLE, SEPTEMBER -2024

TIME: 9.00 AM – 12.00 NOON

Branch/ Date	23-09-2024 MONDAY	24-09-2024 TUESDAY	25-09-2024 WEDNESDAY	26-09-2024 THURSDAY	27-09-2024 FRIDAY	28-09-2024 SATURDAY
CE	Hydrology and Water resource Engineering AI 3404	Drinking Water Supply and Treatment OEN 351	Human Values and Ethics GE3791	Total Quality Management GE3752	Estimation, Costing and Valuation Engineering CE3701	Geographical Information System OGI 352
EEE	High Voltage Engineering EE8701	Restructured Power Market EE3008	Human Values and Ethics GE3791	Total Quality Management GE3752	Renewable Energy Technologies CME365	Energy Technology OCH353
ME	Mechatronics & IOT ME3791	Industrial Management GE3792	Human Values Ethics GE3791	Computer Integrated Manufacturing ME3792	Drinking Water Supply & Treatment OEN351	Production Planning Control OIM353
ECE			Human Values and Ethics GE3791	Principles of Management GE3751	IT In Agricultural System AI3021	Mechatronics OMR351
CSE			Human Values and Ethics GE3791	Human Resource Management GE3754	IT In Agricultural System AI3021	Geographical Information System OGI352

Principal Vice Principal Controller of Examinations

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Fig 3.1.2 Sample CAT I Timetable for 5 th sem students

PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Mannivakkam, Chennai-6000048

B.E/B.TECH, 3rd SEMESTER CAT-I EXAMINATION TIMETABLE, SEPTEMBER -2024

TIME: 9.00AM - 12.00 NOON

Branch/ Date	23-09-2024 MONDAY	24-09-2024 TUESDAY	25-09-2024 WEDNESDAY	26-09-2024 THURSDAY	27-09-2024 FRIDAY	28-09-2024 SATURDAY
CE	Transforms and Partial Differential Equations MA 3351	Engineering Mechanics ME 3351	Construction Materials and Technology CE 3302	Fluid Mechanics CE 3301	Water Supply and Wastewater Engineering CE 3303	Surveying and Levelling CE 3351
EEE	Probability and Complex Functions MA3303	Electromagnetic Fields EE3301	Electrical Machines I EE3303	Electron Devices and Circuits EC3301	Digital Logic Circuits EE3302	C Programming and Data structures CS3353
ME	Transforms and Partial Differential Equations MA3351	Engineering Mechanics ME3351	Engineering Thermodynamics ME3391	Fluid Mechanics and Machinery CE3391	Engineering Materials and Metallurgy ME3392	Manufacturing Processes ME3393
ECE	Random Processes and Linear Algebra MA3355	Control System EC3351	Digital System Design EC3352	Electronic Devices and Circuits EC3353	Signals and Systems EC3354	C Programming and Data Structures CS3353
CSE	Discrete Mathematics MA3354	Digital System Design and Computer Organization CS3351	Object Oriented Programming CS3391	Data Structures CS3301	Foundations of Data Science CS3352	
AIDS	Discrete Mathematics MA3354	Digital System Design and Computer Organization CS3351	Database Design and Management AD3391	Design and Analysis of Algorithms AD3351	Data Exploration and Visualization AD3301	Artificial Intelligence AL3391
IT	Discrete Mathematics MA3354	Digital System Design and Computer Organization CS3351	Object Oriented Programming CS3391	Data Structures and Algorithms CD3291	Foundations of Data Science CS3352	
CSBS	Discrete Mathematics MA3354	Digital System Design and Computer Organization CS3351	Object Oriented Programming CS3391	Design and Analysis of Algorithms AD3351	Fundamentals of Economics CW3301	Fundamentals of Data Science and Analytics AD3491

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Fig 3.1.3 Sample CAT I Timetable for 3rd sem students

PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Mannivakkam, Chennai-6000048

B.E/B.TECH, 3rd SEMESTER CAT-I EXAMINATION TIMETABLE, SEPTEMBER -2024

TIME: 9.00AM - 12.00 NOON

Branch/ Date	23-09-2024 MONDAY	24-09-2024 TUESDAY	25-09-2024 WEDNESDAY	26-09-2024 THURSDAY	27-09-2024 FRIDAY	28-09-2024 SATURDAY
CE	Transforms and Partial Differential Equations MA 3351	Engineering Mechanics ME 3351	Construction Materials and Technology CE 3302	Fluid Mechanics CE 3301	Water Supply and Wastewater Engineering CE 3303	Surveying and Levelling CE 3351
EEE	Probability and Complex Functions MA3303	Electromagnetic Fields EE3301	Electrical Machines I EE3303	Electron Devices and Circuits EC3301	Digital Logic Circuits EE3302	C Programming and Data structures CS3353
ME	Transforms and Partial Differential Equations MA3351	Engineering Mechanics ME3351	Engineering Thermodynamics ME3391	Fluid Mechanics and Machinery CE3391	Engineering Materials and Metallurgy ME3392	Manufacturing Processes ME3393
ECE	Random Processes and Linear Algebra MA3355	Control System EC3351	Digital System Design EC3352	Electronic Devices and Circuits EC3353	Signals and Systems EC3354	C Programming and Data Structures CS3353
CSE	Discrete Mathematics MA3354	Digital System Design and Computer Organization CS3351	Object Oriented Programming CS3391	Data Structures CS3301	Foundations of Data Science CS3352	
AIDS	Discrete Mathematics MA3354	Digital System Design and Computer Organization CS3351	Database Design and Management AD3391	Design and Analysis of Algorithms AD3351	Data Exploration and Visualization AD3301	Artificial Intelligence AL3391
IT	Discrete Mathematics MA3354	Digital System Design and Computer Organization CS3351	Object Oriented Programming CS3391	Data Structures and Algorithms CD3291	Foundations of Data Science CS3352	
CSBS	Discrete Mathematics MA3354	Digital System Design and Computer Organization CS3351	Object Oriented Programming CS3391	Design and Analysis of Algorithms AD3351	Fundamentals of Economics CW3301	Fundamentals of Data Science and Analytics AD3491

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Fig 3.1.3 Sample CAT I Timetable for 3rd sem students



PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS) Set.No. A
Mannivakkam, Chennai-48

B.E./B.Tech.DEGREE CAT -I EXAMINATION MARCH 2025 Set.No. B
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
Regulations 2021

Semester:VI Date:
SubjectCode: CS3691 Time: Three Hours
Subject Name: Embedded Systems and IOT Maximum Marks: 100

Answer all Questions

PART-A(10x 2=20Marks)

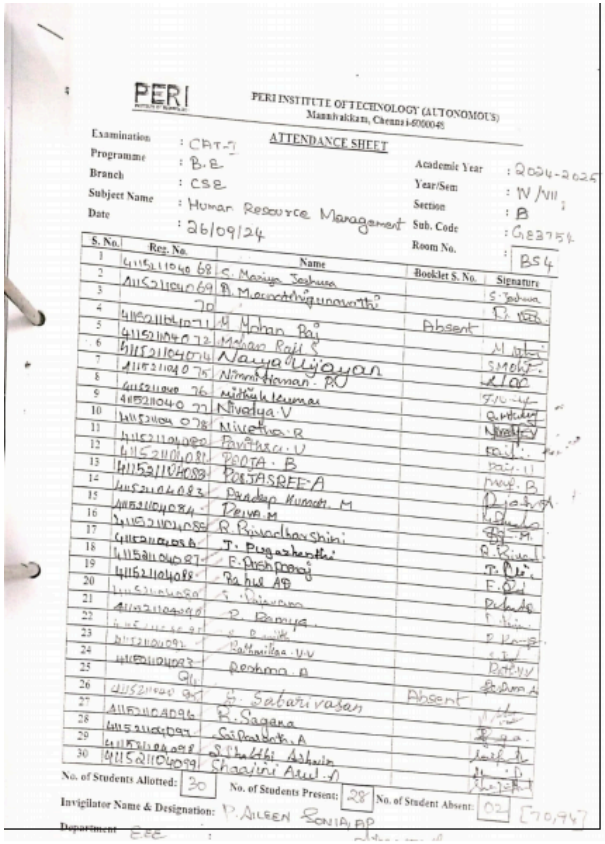
Q. No.		CO	CL
1	What is the size of RAM in 8051?	1	L1
2	List the flags of 8051 and give their usage.	1	L2
3	What is the significance of EA line of 8051 microcontroller?	1	L1
4	Mention some of the 8051 special function register.	1	L1
5	What does the mnemonics "LCALL" and "ACALL" stands for?	1	L2
6	What is the need for RTOS?	2	L1
7	Difference between c language and embedded c language.	2	L2
8	Define context switching.	2	L1
9	What are the ways of communication in process?	2	L2
10	Define earliest deadline first scheduling?	2	L1

PART-B (5 x 13 = 65Marks)

Q. No.				Split up	CO	CL
11	(a)		Explain in detail the different addressing modes supported by 8051	13	1	L1
			[OR]			
	(b)		Describe in detail about architecture of 8051 microcontrollers	13	1	L1
12	(a)		Explain the different modes of operation of microcontroller 8051 Timer	13	1	L2
			[OR]			
	(b)		Describe the difference between the microprocessor and microcontroller	13	1	L2
13	(a)	(i)	Write a program to receive message from PC to 8051.Message sting is "Hello". After this microcontroller sends message to PC "Fine".	7	1	L4
		(ii)	Write 8051 ALP to transmit "Hello World" to PC at 9600 baud for external crystal frequency of 11.0592MHz.	6		
			[OR]			
	(b)	(i)	Write a program to add two 16 bit BCD numbers.	7	1	L4
		(ii)	Write an 8051 assembly language program to copy the value 55H into RAM memory location 40H using register indirect addressing with a loop	6		
14	(a)		Write an assembly language program to display counters 0 on 7 segment LEDs. Assume that clock input is connected to pin (p3.4)	13	2	L1
			[OR]			
	(b)		Explain in detail about 8051 connection to RS232.	13	2	L2
15	(a)		Explain about basic structure of embedded C programming	13	2	L2
			[OR]			
	(b)		Define RTOS? Explain in detail about Real time operating system(RTOS)	13	2	L2

PART-C (1 x 15 = 15Marks)

Q. No.				Split up	CO	CL
16	(a)	(i)	Write an assembly language program to display counters 0 on 7 segment LEDs. Assume that clock input is connected to pin.	15	1	A
			[OR]			
	(b)	(i)	Design an interface circuit to connect a 4 sevan segment multiplexed display	15	1	A



PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Mannivakkam, Chennai-6000048

ATTENDANCE SHEET

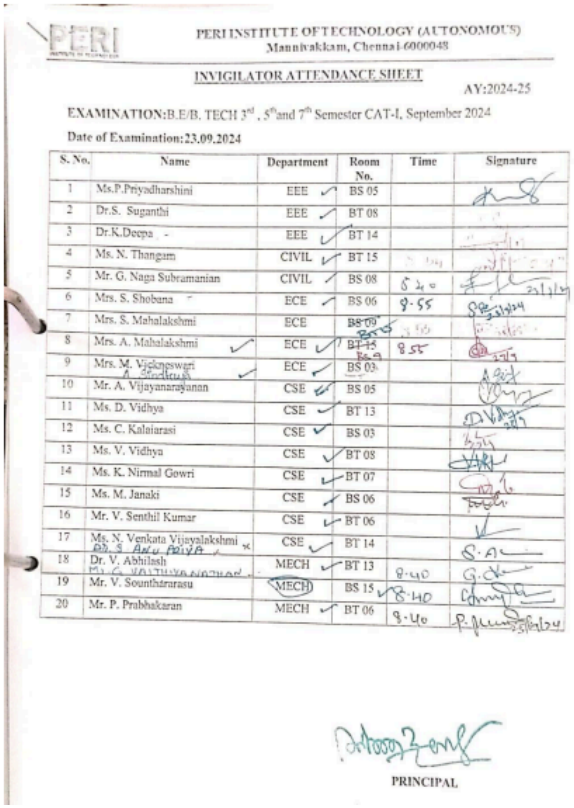
Examination : CAT-I
Programme : B.E
Branch : CSE
Subject Name : Human Resource Management
Date : 26/09/24
Academic Year : 2024-2025
Year/Sem : IV/VII
Section : B
Sub. Code : GE8751
Room No. : BS4

S. No.	Reg. No.	Name	Booklet S. No.	Signature
1	411521110468	S. Mariya Joshuva		S. Joshuva
2	411521104069	R. Manoranjinanath		R. [illegible]
3				
4	411521104070	M Mohan Raj	Absent	
5	411521104072	Mohan Raj S		M Mohan
6	411521104074	Nanjan Vijayan		S Mohan
7	411521104075	Nimmi Hannah. RJ		NHJ
8	411521104076	Nithish Kumar		Nithish
9	411521104077	Nivatya V		Nivatya
10	411521104078	Niranjan. R		Niranjan
11	411521104080	Pavithra. V		Pavithra
12	411521104081	PONTA. B		Ponta. B
13	411521104082	PONTASREE A		Ponta. B
14	411521104083	Pradeep Kumar. M		Pradeep
15	411521104084	Priya M		Priya M
16	411521104085	R. Priyadharshini		R. Priya
17	411521104086	T. Pugazhenthi		T. Pugazhenthi
18	411521104087	E. Prathipraj		E. Prathipraj
19	411521104088	Ra hul AB		Rahul AB
20	411521104089	S. Rajavarman		Rajavarman
21	411521104090	R. Ramya		R. Ramya
22	411521104091	[illegible]		[illegible]
23	411521104092	Rathnitha. V.V		Rathnitha
24	411521104093	Renkma R		Renkma R
25	411521104094	[illegible]		[illegible]
26	411521104095	S. Sabarivasan	Absent	Sabarivasan
27	411521104096	K. Sagana		K. Sagana
28	411521104097	Sai Prakash. A		Sai Prakash
29	411521104098	S Shakthi Ashwin		Shakthi
30	411521104099	Shaalini Arul. A		Shaalini

No. of Students Allotted: 30 | No. of Students Present: 28 | No. of Student Absent: 02

Invigilator Name & Designation: P. AILEEN SONIA AP

Department : EEE



PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Mannivakkam, Chennai-6000048

INVIGILATOR ATTENDANCE SHEET

AY:2024-25

EXAMINATION: B.E/B. TECH 3rd, 5th and 7th Semester CAT-I, September 2024

Date of Examination: 23.09.2024

S. No.	Name	Department	Room No.	Time	Signature
1	Ms.P.Priyadharshini	EEE	BS 05		
2	Dr.S. Suganthi	EEE	BT 08		
3	Dr.K.Deepa	EEE	BT 14		
4	Ms. N. Thangam	CIVIL	BT 15		
5	Mr. G. Naga Subramanian	CIVIL	BS 08	8.40	23/9/24
6	Mrs. S. Shobana	ECE	BS 06	9.55	23/9/24
7	Mrs. S. Mahalakshmi	ECE	BS 09		
8	Mrs. A. Mahalakshmi	ECE	BT 15	8.55	
9	Mrs. M. Vijayaeswari	ECE	BS 03		
10	Mr. A. Vijayanarayanan	CSE	BS 05		
11	Ms. D. Vidhya	CSE	BT 13		
12	Ms. C. Kalaiarasi	CSE	BS 03		
13	Ms. V. Vidhya	CSE	BT 08		
14	Ms. K. Nirmal Gowri	CSE	BT 07		
15	Ms. M. Janaki	CSE	BS 06		
16	Mr. V. Senthil Kumar	CSE	BT 06		
17	Ms. N. Venkata Vijayalakshmi	CSE	BT 14		
18	Dr. V. Abhilash	MECH	BT 13	8.40	
19	Mr. V. Sounthararasu	MECH	BS 15	8.40	
20	Mr. P. Prabhakaran	MECH	BT 06	9.40	23/9/24

PRINCIPAL

PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS) SET A
Mannivakkam, Chennai-48

B.E./B.Tech.DEGREECAT -I EXAMINATION MARCH 2025
DEPARTMENTOF AIDS,CSE
Regulations2021

Semester:VI
SubjectCode: CS3691
Subject Name: Embedded Systems and IOT

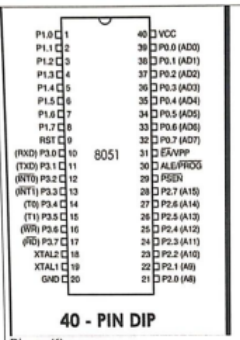
Date: 03/03/2025
Time: Three Hours
Maximum Marks: 100

PART A(10x2=20)

1.	**Discuss the salient features of 8051 family of controllers?** The Key features of the 8051 Microcontroller – 4 KB on-chip ROM (Program memory). 128 bytes on-chip RAM (Data memory). The 8-bit data bus (bidirectional). 16-bit address bus (unidirectional). Two 16-bit timers. Instruction cycle of 1 microsecond with 12 MHz crystal. Four 8-bit input/output ports. 128 user-defined flags.	R	CO1
2.	**How to select the register bank of Intel 8051.** Register bank 0 is the default when the 8051 is powered up. We can switch to the other banks using PSW register. D4 and D3 bits of the PSW are used to select the desired register bank, since they can be accessed by the bit addressable instructions SETB and CLR.	U	CO1
3.	**What is the function of DPTR register?** The Data PointerThe Accumulator, R0–R7 registers and B register are 1-byte value registers. DPTR is meant for pointing to data. It is used by the 8051 to access external memory using the address indicated by DPTR. DPTR is the only 16-bit register available and is often used to store 2-byte values.	R	CO1
4.	**What are the different ways of operand addressing in 8051?** **Addressing modes of 8051** • Immediate addressing mode. • Register addressing mode. • Direct addressing mode.	R	CO1
	• Indirect addressing mode. • Indexed addressing mode. •		
5.	**How is RAM memory space allocated in 8051?** RAM Memory Space Allocation in 805180 bytes from 30H to 7FH locations are used for read and writes storage; it is called as scratch pad. These 80 locations RAM are widely used for the purpose of storing data and parameters by 8051 programmers.	U	
6.	**What are the qualities of RTOS.** 1. Performance 2. Error-free 3. Maximum Consumption 4. Task shifting is very less.	R	C
7.	**What are tasks?** There are four types of task classes in real-time operating systems viz. Periodic Tasks, Dynamic Tasks. (Dynamic tasks are further classified into two types Aperiodic Tasks and Sporadic tasks), Critical Task and Non-critical Task.	R	CO
8.	**What are scheduling policies?** Scheduling policies determine how the processes are selected for execution. Scheduling policies can also deliver higher CPU utilization. Right scheduling policies meet all the timing requirements and also properly utilize the CPU.	R	CO2
9.	**Define PCB.** Process Control Block (PCB) is a data structure maintained by the operating system to store information about each process. The role of PCB is to give identity to each process so that the Operating System can easily distinguish between processes.	R	CO2
10.	**Define non-preemptive scheduling?** Non-preemptive Scheduling is used when a process terminates, or a process switches from running to the waiting state. In this scheduling, once the resources (CPU cycles) are allocated to a process, the process holds the CPU till it gets terminated or reaches a waiting state.	R	CO2

PART B(5x13=65)

11.a)	**Draw and explain the pin configuration of 8051 in detail.(OR)**	R	CO1

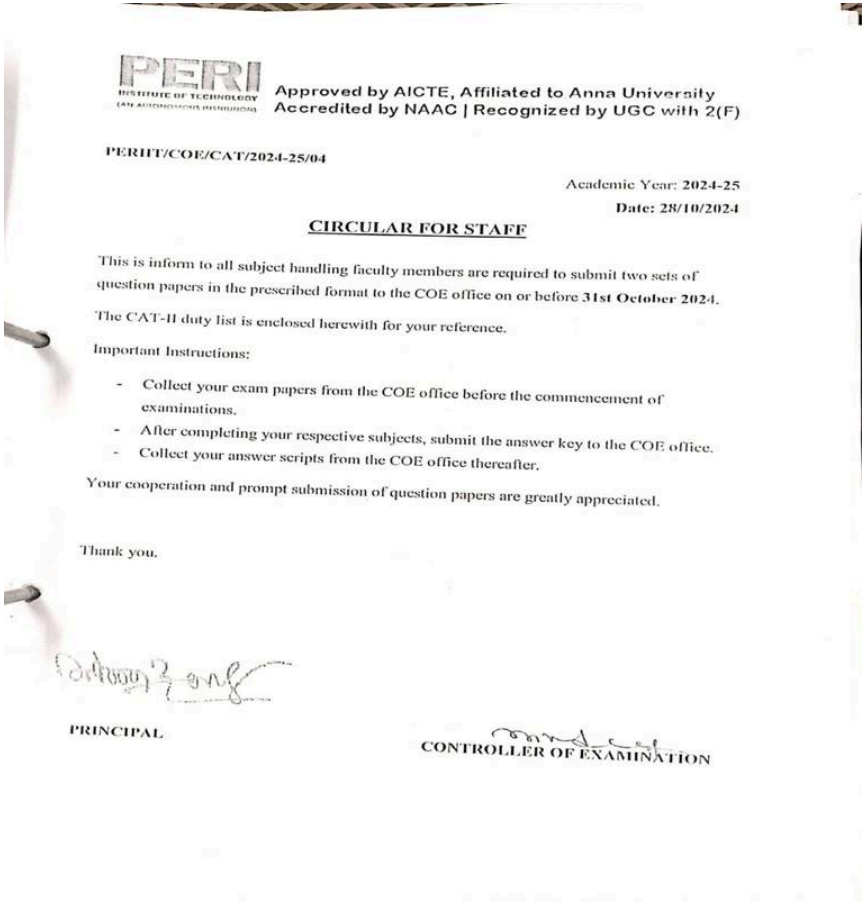


Diagram(6)
Explanation(7)

11.b)	**Explain in detail about the 8051 register bank and stack..** The stack is an area of random access memory (RAM) allocated to hold temporarily all the parameters of the variables. The stack is also responsible for reminding the order in which a function is called so that it can be returned correctly. Whenever the function is called, the parameters and local variables associated with it are added to the stack (PUSH). When the function returns, the parameters and the variables are removed ("POP") from the stack. This is why a program's stack size changes continuously while the program is running.	R	CO1

3.1.1 Continuous Assessment Test 2 (CAT-2):

The Continuous Assessment Test II (CAT-2) is conducted after the completion of Unit III , UnitIV and Unit V. The question paper is structured to assess both lower-order and higher-ordercognitive skills in accordance with Bloom's Taxonomy, thereby evaluating students'understanding, analytical thinking, and problem-solving ability. All questions are mapped to the relevant Course Outcomes (COs) of Units III , IV and V, which are in turn aligned with the
Program Outcomes (POs) and Program Specific Outcomes (PSOs). The test is conducted for duration of three hours (as per regulations) and carries a maximum of 100 marks, following the institute's assessment norms.



PERI INSTITUTE OF TECHNOLOGY
(An Autonomous Institution)

Approved by AICTE, Affiliated to Anna University
Accredited by NAAC | Recognized by UGC with 2(F)

PERIIT/COE/CAT/2024-25/04

Academic Year: 2024-25

Date: 28/10/2024

CIRCULAR FOR STAFF

This is inform to all subject handling faculty members are required to submit two sets of question papers in the prescribed format to the COE office on or before **31st October 2024.**

The CAT-II duty list is enclosed herewith for your reference.

Important Instructions:

- Collect your exam papers from the COE office before the commencement of examinations.
- After completing your respective subjects, submit the answer key to the COE office.
- Collect your answer scripts from the COE office thereafter.

Your cooperation and prompt submission of question papers are greatly appreciated.

Thank you.

PRINCIPAL

CONTROLLER OF EXAMINATION

3.13Model Examination

The Model Examination is conducted after the completion of the entire syllabus, covering all five units of the course. The question paper is designed to comprehensively evaluate students across cognitive levels of Bloom's Taxonomy, ranging from basic understanding to application, analysis, and synthesis of concepts. The questions are carefully mapped to all Course Outcomes (COs) of the course, which are constructively aligned with the corresponding Program Outcomes (POs) and Program Specific Outcomes (PSOs). The examination is conducted for duration of three hours (as per regulations) and is evaluated for a maximum of 100 marks, in line with institute norms.

PERI INSTITUTE OF TECHNOLOGY (AUTONOMOUS)
Mannivakkam, Chennai-6000048

PERIIT/COE/CAT/2024-25/EVEN/N05

Academic Year: 2024-25

Date: 05.05.2025

NOTICE

By direction, it is informed to all Heads of the Department that the MODEL examination is scheduled from 09.05.2025 to 23.05.2025 according to the academic calendar.

Additionally, you are asked to instruct your faculty member to submit two sets of question papers through department CAT co-ordinators before 08.05.2025.

The questions must cover the course outcomes appropriately and ensure applicable cognitive levels.

CHIEF CONTROLLER OF EXAMINATIONS

CONTROLLER OF EXAMINATIONS

PERI INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)

Approved by AICTE, Affiliated to Anna University
Accredited by NAAC | Recognized by UGC with 2(F)

MODEL Examination Seating Arrangements

Academic Year 2024 - 2025 ODD SEM

DATE : 22.11.2024 TO 25.11.2024 TIME : 12.45 PM TO 3.45 PM

S.NO	Room No	Block Name	Floor	DEPT	YEAR	SEC	FROM	TO	TOTAL	NET TOTAL
1	BT 06	BETA	III	MECH	III	NA	411522114001	411522114013 , 4309	10	50
				MECH	II	NA	411523114001	411523114007	7	
				CIVIL	III	NA	411522103002	411522103007 , 3301 - 3302	8	
				ECE	III	NA	411522106001	411522106020	18	
				EEE	III	NA	411522105023	411522105024, 5301 - 5305	7	
2	BT 08	BETA	III	EEE	III	NA	411522105001	411522105022	20	50
				CIVIL	II	NA	411523103002	411523103006 , MONISH	5	
				ECE	III	NA	411522106021	411522106052	25	
3	BT 13	BETA	III	CIVIL	IV	NA	411521103002	411521103013, 3301 - 3303	12	37
				ECE	III	NA	411522106053	411522106063, 6301 -6302	9	
				CSBS	II	NA	411523244001	411523244018	16	
4	BT 14	BETA	III	CIVIL	IV	NA	411521103304	411521103312	9	66
				MECH	IV	NA	411521114001	411521114028	16	
				AI&DS	II	NA	411523243001	411523243017	17	
				CSBS	II	NA	411523244019	411523244030	8	
				EEE	II	NA	411523105001	411523105008	8	
				CSE	III	B	411522104099	411522104107	8	

5	BT 15	BETA	III	MECH	IV	NA	411521114029	411521114037, 4318 - 4324	11	45
				EEE	IV	NA	411521105001	411521105015	11	
				IT	II	NA	411523205001	411523205016	15	
				AI&DS	II	NA	411523243019	411523243025, RITHESHWARAN	8	
6	BS 03	BETA	II	EEE	IV	NA	411521105017	411521105025, 5305 -5311, 5501	13	50
				ECE	IV	NA	411521106001	411521106012	12	

Page 1 of 3

Scrutinizing the question paper is the follow-up process. The two question papers for a course will be scrutinized by the Scrutiny Committee recommended by the Head of the Department. During the scrutiny process, the question paper is checked for quality by ensuring that:

1. Questions are within the syllabus (or noting any deviations),
2. Grammar and spelling are correct,
3. Questions align with the Course Outcomes (COs),
4. Questions are appropriate according to Blooms Taxonomy levels, and
5. COs are appropriately distributed

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

Institute Marks : 10.00

3.1 Evaluation of Semester End Examination (SEE) Question Papers

1. Process for Conducting and Evaluating Semester End Examinations

As an Anna University-affiliated institution, the college conducts Semester End Examinations (SEE) in accordance with the examination regulations and guidelines prescribed by Anna University. The University prepares and provides the question papers through its designated authorities. The question paper packets are received by the respective Anna University Representative (AUR) appointed by the Anna University Zonal Office.

The question paper packets are opened and acknowledged in the presence of the Chief Superintendent, AUR, and the external and internal invigilators. The college examination cell makes the necessary arrangements for the examination halls, appoints invigilators, verifies student attendance, and ensures the smooth, fair, and transparent conduct of examinations under the supervision of the Chief Superintendent.

Upon completion of the examinations, the answer scripts are securely packed, sealed, and dispatched to the designated University evaluation centre in accordance with the prescribed procedures. The evaluation of answer scripts and processing of results are carried out by Anna University through its established examination system.

2. Assessment of Question Paper Quality, Analysis of SEE Performance and CO Attainment

The department analyses the SEE question papers after the examinations to assess syllabus coverage, clarity of questions, and the appropriate level of difficulty. Any discrepancies identified during this analysis are recorded and reported through the prescribed Anna University portal.

Anna University releases the consolidated grades/marks obtained by the students. Accordingly, the SEE performance is considered along with the internal assessment results to evaluate Course Outcome (CO) attainment, in accordance with the institutions prescribed assessment methodology.

3. Transparency of the Post-Evaluation Process

The SEE results declared by Anna University are communicated to students through the prescribed channels. Students are informed about the Universitys provisions for obtaining photocopies of evaluated answer scripts, applying for revaluation, and following other applicable result-related procedures. The department facilitates students in accessing these procedures and maintains the relevant records. To ensure fairness and transparency in the evaluation process, students are provided with the following provisions, in accordance with the applicable Anna University regulations

Tier 1 – Photocopy of Answer Script: Students who are not satisfied with their examination results may apply for and obtain a digital or physical photocopy of their evaluated answer scripts, as per the Universitys prescribed procedure.

Tier 2 – Scrutiny and Revaluation: The photocopy of the answer script can be examined to identify possible errors, such as mistakes in mark totalling, unvalued sub-questions, or other evaluation discrepancies. Eligible students may subsequently apply for revaluation, wherein the answer script is evaluated by an examiner appointed by Anna University, in accordance with its prescribed procedures.

Tier 3 – Review / Challenge Valuation: Where applicable under the Universitys examination regulations, students may seek further review or challenge valuation of their results through the prescribed University mechanism. The process is carried out by designated examiners under the supervision of an officially appointed University Review Board, which finalizes the students grade.

Table 3.2.1 Anna University Grade marks

O	A+	A	B+	B	C	*U*
91 - 100	81 - 90	71 - 80	61 - 70	56 - 60	50 – 55	< 50

Table 3.2.2 Anna University Grade letter and points

Letter Grade	Grade Points*
O (Outstanding)	10
A + (Excellent)	9
A (Very Good)	8
B + (Good)	7
B (Average)	6
C (Satisfactory)	5
U (Re-appearance)	0
SA (Shortage of Attendance)	0
WD (Withdrawal)	0

Reg. No. :

Question Paper Code : 20424

B.E./B.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2022.

Sixth Semester

Computer Science and Engineering

CS 8603 — DISTRIBUTED SYSTEMS

(Regulations 2017)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. List out the features of distributed systems.
2. Differentiate between synchronous and asynchronous execution.
3. What is meant by group communication in distributed systems?
4. Write the applications of causal order.
5. Name the two types of messages used by Ricart-agrawala algorithm.
6. What are the conditions for deadlock?
7. Write the purpose of using checkpoints.
8. What do you mean by agreement problem in distributed system?
9. List the characteristics of peer to peer system.
10. Mention the three types of consistency model in DSM.

PART B — (5 × 13 = 65 marks)

11. (a) Discuss the design issues and challenges in distributed system from a system perspective.

Or

(b) Explain how a parallel system differs from a distributed system.

12. (a) Discuss in detail about Message ordering paradigms.

Or

(b) Explain the Chandy-Lamport snapshot algorithm.

13. (a) Explain Maekawa's algorithm for Mutual Exclusion in Distributed system and its drawback.

Or

(b) Discuss with suitable example to show that a deadlock cannot occur if any one of the four conditions is absent.

14. (a) Discuss the issues in failure recovery with an example.

Or

(b) List the agreement statements that should be followed in synchronous systems with failure.

15. (a) Define overlays and explain content addressable network.

Or

(b) Discuss the types of stronger consistency models. How do they differ from the weaker consistency models.

PART C — (1 × 15 = 15 marks)

16. (a) Show that in the Ricart-Agrawala algorithm the critical section is accessed in increasing order of timestamp.

Or

(b) What is consistency? Differentiate between sequential and causal consistency model. Discuss the strategies employed for replacement while the shared memory gets filled with replicated or migratory data.

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

Institute Marks : 10.00

3.1Evaluation of Laboratory Work and Workshop (Continuous and SEE)

3.1.1Evaluation of Experiments Conducted in Workshops/Laboratories

Laboratory and workshop sessions are conducted for three hours per session, twice a week, with student batches attending on alternate weeks. These sessions aim to develop practical skills, reinforce theoretical concepts, and enhance students analytical and problem-solving abilities. Each laboratory experiment or workshop exercise is mapped to the relevant Course Outcomes (COs), which are further aligned with the corresponding Program Outcomes (POs) and Program Specific Outcomes (PSOs).

Internal Assessment and Semester End Examination (SEE)

Students performance in laboratory and workshop sessions is continuously assessed based on attendance, execution of prescribed experiments or exercises, completion of observations, maintenance of record notebooks, and performance in viva voce. Two model practical examinations are conducted to assess students ability to perform experiments independently and apply the relevant theoretical concepts.

The Semester End Examination (SEE) is conducted with internal and external examiners, as prescribed by Anna University. Students are assessed on their experimental skills, practical execution, adherence to procedures, observation and result analysis, and subject knowledge through viva voce.

a)Anna University Regulation 2017 (R2017)

Laboratory courses are evaluated for a maximum of 100 marks, comprising 20 marks for Continuous Internal Assessment and 80 marks for the Semester End Examination.

- **Continuous Internal Assessment (20 marks):** A maximum of 75 marks is awarded for the successful completion of all prescribed laboratory experiments, and 25 marks for the model practical examination. The aggregate is proportionately converted to 20 marks and rounded to the nearest integer.
- **Semester End Examination (80 marks):** The examination is conducted by internal and external examiners to assess students experimental skills, practical execution, result analysis, and subject knowledge through viva voce. The examination is conducted for 100 marks and proportionately converted to the prescribed 80 marks.

b)Anna University Regulation 2021 (R2021)

Laboratory courses are evaluated for a maximum of 100 marks, comprising 60 marks for Continuous Internal Assessment and 40 marks for the Semester End Examination.

Continuous Internal Assessment (60 marks): A maximum of 75 marks is awarded for the successful completion of all prescribed laboratory experiments, and 25 marks for the model practical examination. The aggregate is proportionately converted to 60 marks and rounded to the nearest integer.

- **Semester End Examination (40 marks):** The examination is conducted by internal and external examiners to assess students experimental skills, practical execution, result analysis, and subject knowledge through viva voce. The examination is conducted for 100 marks and proportionately converted to the prescribed 40 marks.

Thus, internal assessment and the SEE collectively evaluate students practical competencies, experimental skills, conceptual understanding, and ability to apply theoretical knowledge to practical problems.

Table 3.3.1: Assessment Rubric for Laboratory/Workshop Performance

S. No.	Assessment Parameter	Performance Level and Evaluation Criteria	Marks
1	Attendance	Level 5 – Present for the session	5
		Absent – Not present for the session	0

2	Observation Result Accuracy	Level 5 – Completed promptly and accurately	5
		Level 4 – Completed on time with minor omissions	4
		Level 3 – Completed with some delay and minor omissions	3
		Level 2 – Incomplete observations with significant omissions	2
		Level 1 – Minimal observations recorded	1
		Level 0 – Not submitted	0
		Level 5 – Correct result with accurate calculations	5
		Level 4 – Correct result with minor calculation errors	4
		Level 3 – Result with minor deviations	3
		Level 2 – Result with significant deviations	2
		Level 1 – Incorrect result with limited understanding	1
		Level 0 – No valid result obtained	0
3	Record Maintenance	Level 5 – Complete, neat documentation and regular submission	5
		Level 4 – Complete documentation with minor presentation issues	4
		Level 3 – Complete record submitted with delay	3
		Level 2 – Partially completed record with missing details	2
		Level 1 – Inadequate documentation	1
		Level 0 – Record not submitted	0
4	Viva Voce	Level 5 – Demonstrates excellent understanding and answers all five questions correctly	5
		Level 4 – Answers four questions correctly	4
		Level 3 – Answers three questions correctly	3
		Level 2 – Answers two questions correctly	2
		Level 1 – Answers one question correctly	1
		Level 0 – Unable to provide a correct response	0
5	Total Maximum Marks		25

A structured assessment rubric is used to evaluate students performance during laboratory and workshop sessions. The rubric establishes clearly defined performance levels and measurable evaluation criteria to ensure systematic, transparent, and consistent assessment of students practical competencies.

The assessment is based on five parameters: attendance, observation, result accuracy, record maintenance, and viva voce. Each parameter carries a maximum of five marks, resulting in a total of 25 marks.

Note: Attendance is assessed on a binary basis (5 or 0), whereas the remaining four parameters are assessed using performance levels ranging from 0 to 5.

The assessment rubrics are developed with reference to the intended Course Outcomes (COs) of each laboratory course. The individual assessment parameters evaluate students ability to perform experiments, follow prescribed procedures, record and interpret observations, obtain accurate results, maintain technical documentation, and demonstrate conceptual understanding through viva voce.

Each laboratory experiment and its corresponding assessment criteria are mapped to the relevant COs. The COs are further aligned with the POs and PSOs using the prescribed CO–PO/PSO mapping methodology. This ensures that laboratory assessment provides measurable evidence of students practical competencies and contributes to the assessment of program outcome attainment.

Illustrative Example: CO–Rubric–PO/PSO Mapping

A sample CO–Rubric–PO/PSO mapping is maintained for the course EC8361 – Analog and Digital Circuits Laboratory. The mapping identifies the relevant COs assessed through individual experiments and the corresponding rubric parameters, which are further aligned with the relevant POs and PSOs.

The rubric-based assessment provides measurable evidence of student performance and supports the evaluation of CO attainment. The assessment records are maintained by the respective course-handling faculty members and reviewed by the department as part of the Outcome-Based Education (OBE) process.

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

Institute Marks : 10.00

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

The industrial training and internship program provides students with a hands-on exposure to technical, professional, and career-oriented skills. Key aspects assessed include attendance and punctuality, technical knowledge and problem-solving abilities, teamwork and communication, report writing, presentation skills, and professionalism as observed by faculty and industry mentors.

Guidelines for Internship Training

- Students should identify core companies that offer internships in their area of interest.
- Students should contact the selected company and request an internship offer letter stating the internship area and proposed dates or duration.
- Students should submit the internship application to their department or college office, along with the company's details, proposed work, dates, and offer letter. After the application is approved, students can obtain a Bonafide certificate from the college for internship training.
- Students should complete the approved internship for the duration required by their curriculum. Under Regulation 2021, internship training must be completed continuously for at least two weeks. For optional internships, the regulation assigns 1 credit for 2 weeks, 2 credits for 4 weeks, and 3 credits for 6 weeks, with 40 hours of training per week. Students should confirm the applicable requirement for their batch.
- At the end of the internship, students should obtain an attendance and completion certificate from the company. The certificate should be signed by an authorized representative and state the internship dates or duration.
- Students should submit the certificate and internship report to their department.
- Students should attend any required presentation, review, or viva, and submit the report by the deadline set by the college.

The assessment is aligned with Program Outcomes (POs) and Program Specific Outcomes (PSOs) to ensure that students not only acquire technical competence but also develop professional ethics, analytical skills, effective communication, and collaborative abilities.

Technical Knowledge & Problem-Solving (30 marks)

Faculty and industry mentors evaluate how well the student understands industrial processes, applies theoretical program knowledge, and contributes to problem-solving or innovation.

Individual &Teamwork (30 marks)

Students are assessed on their ability to demonstrate personal accountability and work independently collaborate with people, communicate effectively with faculty and industry mentors, and contribute as part of a team.

Presentation & Communication (20 marks)

Students make an oral presentation of their training experience. Marks are awarded for clarity, delivery, use of visuals, and ability to answer questions.

Attendance & Punctuality (10 marks)

Attendance and punctuality were closely monitored throughout the training period. Regular presence in sessions reflected discipline, responsibility, and a professional attitude, for which marks awarded.

Report (10 marks)

Each student submits a detailed technical report documenting the industrial processes, learning outcomes, and reflections. The report is checked for technical content, structure, and clarity.

Linkage to Program Outcomes (POs) and Program Specific Outcomes (PSOs)

PO1, PO2, PO3, PO4, PO5, PSO1, and PSO2 are strongly addressed through the acquisition and application of technical and domain-specific knowledge. Students are encouraged to identify and analyze problems, evaluate alternative solutions, and implement appropriate methodologies using modern engineering tools and techniques. This process enhances their ability to apply fundamental concepts, develop analytical thinking, and solve real-world problems effectively while strengthening discipline-specific competencies.

The course also contributes significantly to the attainment of **PO7 and PO10** by promoting professional ethics, responsibility, and effective management practices. Students learn the importance of punctuality, accountability, and adherence to ethical standards while planning and executing assigned tasks. Exposure to scheduling, resource management, and systematic workflow practices helps develop managerial and organizational skills necessary for professional success.

Furthermore, **PO8, PO9 and PSO3** are strengthened through collaborative learning and team-based activities. Students actively engage in discussions, group work, peer interactions, and project execution, which improve their ability to function effectively as individuals and as members of multidisciplinary teams. These experiences foster interpersonal skills, leadership qualities, and the ability to communicate ideas clearly through presentations, discussions, and technical interactions.

Additional emphasis on **PO9, PO10, PSO1, and PSO3** is provided through structured report writing, technical documentation, and the demonstration of subject-specific knowledge and skills. Students learn to prepare professional reports, document their findings systematically, and communicate technical information effectively to diverse audiences. These activities enhance both written and oral communication abilities while reinforcing technical expertise.

The program also integrates elements related to **PO6, PO7 and PO11** by encouraging social, ethical, and environmental awareness. Students are exposed to the broader impact of engineering solutions on society and the environment, promoting responsible decision-making and sustainable practices. Continuous learning, self-improvement, and adaptability are emphasized throughout the course, enabling students to keep pace with emerging technologies and professional developments.

Table 3.4.1 Assessment Rubrics for Industrial Training /Internship

Assessment Parameter	**Performance Level and Evaluation Criteria**	**Marks**
Technical Knowledge & Problem-Solving	1. Advanced Domain skills, Concepts and Principle: 2. Moderate Skills in choosing the standard software and appropriate equipment. 3. Lack relevant skills and Minor Mistakes	1. Excellent :20-30 2. Good:10-20 3. Average to Poor:0-10
Individual /Teamwork	1. Actively takes ownership of shared tasks and quickly picks up new tools 2. Contributes when assigned, but rarely volunteers & Learns expected tools at a steady pace 3. Low or missing participation in group effort & Shows little interest in learning new concept.	1. Excellent :20-30 2. Good:10-20 3. Average to Poor:0-10
Presentation & Communication	1. Confident presentation, outstanding vocabulary 2. Decent delivery with good vocabular 3. Reads straight off the slides	1. Excellent :20-30 2. Good:10-20 3. Average to Poor:0-10
Attendance	Depends on number of days attended	10
Report	1. Ontime submission & Formatting, depth of work, diagrams, and code/analysis 2. Ontime submission & Moderate Formatting, depth of work, diagrams, and code/analysis 3. Late submission and irrelevant report	1.Excellent :8-10 2.Good:3-7 3.Poor:0-3

S:No	**Training Name**	**Duration (days)**	**Starting Date**
1	Technical-Java Sales and Front End Tech	30	04/11/2024
2	Scientific career Planning	1	09/04/2024

3	Technical-Java	12	29/01/2024
4	Aptitude	6	18/1/2024

Table 2024-2025 Student Name List for Internship

S.no	Name of the students	Year	Company Name	Duration
1.	Achsah Augustin A	III	Prodigy InfoTech	15/01/2025 to15/02/2025
2.	Achsah Augustin A	III	CODSOFT	20/01/2025 to 20/02/2025
3.	Ayesha	III	Navodita Infotech	25/01/2025 to 24/02/2025
4.	Ayesha	III	CODSOFT	20/01/2025 to 20/02/2025
5.	Kalaivani S	III	CODSOFT	15/01/2025 to 15/02/2025
6.	Kalaivani S	III	TechnoHacks Solutions Pvt.Ltd	15/01/2025 to 14/02/2025
7.	C N Logesh Kumar	III	CODSOFT	20/01/2025 to 20/02/2025
8.	C N Logesh Kumar	III	CODSOFT	15/01/2025 to 15/02/2025
9.	Logesh M	III	CodecTechnologiesPvt.Ltd	26/01/2025to26/02/2025
10.	Madhumitha S	III	CODSOFT	25/01/2025 to 25/02/2025
11.	M.Mohameed Idris	III	CODSOFT	15/07/2024 to 15/08/2024

12.	Monisha P	III	CODSOFT	15/01/2025 to 15/02/2025
13.	S Dinesh Ram	III	CODSOFT	25/01/2025 to 25/02/2025
14.	S.Nancy	III	CODSOFT	20/01/2025 to 20/02/2025
15.	S.Varshini	III	TechnoHack Solution Pvt.Ltd.	8/7/2024 to 7/8/2024
16.	S.Varshini	III	CodSoft	10/8/2024 to 10/9/2024
17.	S.Varshini	III	NovaNector Services Pvt.Ltd	1/7/2024 to 1/8/2024
18.	S.Varshini	III	NoviTech R&D Private Limited	15/05/2025 to 15/06/2025
19.	Srinivasan P	III	Prodigy Infotech	15/07/2024 to 15/08/2024
20.	Srinivasan P	III	CodSoft	15/07/2024 to 15/08/2024
21.	Sri Saraswathi M	III	CodSoft	10/8/2024 to 10/9/2024
22.	Sri Saraswathi M	III	TechnoHack Solution Pvt.Ltd.	8/8/2024 to 7/9/2024
23.	Sri Saraswathi M	III	NovaNector Services Pvt.Ltd	1/7/2024 to 1/8/2024
24.	Siva S	III	Linkenin Learning	26/03/2025 to 26/03/2025
25.	Siva S	III	Tata	26/1/2025 to 26/1/2025
26.	Sathish	III	Skill forge	15/8/2024 to 15/10/2024
27.	Rohith Ram H	III	Ramco Cements	21/01/2025 to 14/02/2025

28.	Revathi V	III	Prodigy Infotech	15/08/2024 to 15/09/2024
29.	Revathi V	III	CodSoft	15/1/2025 to 15/2/2025
30.	Priya S	III	NovaNectorServicesPvt.Ltd	10/7/2024 to 10/8/2024
31.	Priya S	III	TechnoHack Solution Pvt.Ltd.	15/08/2024 to 14/09/2024
32.	Nagalakshmi	III	Prodigy Infotech	15/10/2024 to 15/11/2024
33.	Swathy S	III	TechnoHack Solution Pvt.Ltd.	8/8/2024 to 7/9/2024
34.	Swathy S	III	NovaNector Services Pvt.Ltd	1/7/2024 to 1/8/2024
35.	Swathy S	III	CodSoft	10/8/2024 to 10/9/2024
36.	Shalini Vijipaul	III	CodSoft	15/01/205 to 15/02/2025
37.	Shalini Vijipaul	III	CodSoft	15/8/2024 to 15/09/2024
38.	Sangeetha Sekar	III	CodSoft	15/01/205 to 15/02/2025
39.	Sayed Salman	III	Skill forge	15/8/2024 to 15/10/2024


GPS Map Camera
Chennai,TN,India
SH 2, Ashok Nagar, Chennai, 600083, TN, India
Lat 13.032460, Long 80.209941
10/08/2024 01:36 PM GMT+05:30
Note : Captured by GPS Map Camera



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Ref: BTOIPS21/FEB2023/1098

16 February, 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Sagana R (211497)** of **Computer Science Engineering** Department from **Peri Institute of Technology** has attended and successfully completed **15 days Internet of Things Internship** from 02 February 2023 to 16 February 2023 via Online Medium through our Platform.

We wish her all the best in future endeavors.

S. Karan
Head Technical Services
Barola Technologies

End of Document

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SOLUTIONS
CERTIFICATE OF
INTERNSHIP
THIS CERTIFICATE IS PROUDLY PRESENTED TO:
VISHVA.B
FOR SUCCESSFULLY COMPLETED THE COURSE
OF STUDY IN "ARTIFICIAL INTELLIGENCE" FROM
5/1/2023 TO 4/2/2023
Laura wheeler
Signature
Certificate id : 3820994800



DLK

Career Development

CERTIFICATE OF COMPLETION

This is to certify that

MR. DINAKARAN. C (411520104022)

has Successfully Completed

Internship / ~~Inplant training~~ in PYTHON TECHNOLOGY from 01/08/22 to 03/08/22

During the training period the performance of the trainee was found to be excellent.

Congratulations on your hard work! keep shining!

CERTIFIED CERTIFIED CERTIFIED CERTIFIED

Jayalakshmi S
Vice president

Dr. R. PALSON KENNEDY, M.E., Ph.D.,
PRINCIPAL
PERI INSTITUTE OF TECHNOLOGY
Mannivakkam, Chennai - 600

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3.5 Evaluation of Projects (20)

Institute Marks : 20.00

3.5. Evaluation of Projects

Project evaluation is carried out through four progressive review phases namely Zeroth Review, First Review, Second Review, and Third Review before the End Semester Evaluation (ESE). The review mechanism is designed to ensure systematic monitoring of project development, continuous assessment of student performance, and attainment of the targeted COs, POs, and PSOs. Each review is conducted using well-defined assessment rubrics that measure technical competence, problem-solving ability, design and development skills, innovation, experimentation, documentation, presentation effectiveness, teamwork, and professional practices.

Faculty members provide constructive feedback at every stage, enabling students to improve the quality and relevance of their work. The evaluation data collected from the review process is used for outcome attainment analysis and continuous quality improvement. Documentary evidence, including rubrics, assessment records, review reports, presentations, project demonstrations, and final reports, is maintained in the course file as proof of assessment and attainment for departmental review, academic audit, and NBA accreditation requirements.

Rubrics for Zeroth Review:

- Innovation and Presentation: Evaluates the uniqueness, originality, and overall presentation of the project. This component is explicitly linked to PO2, PO3, and PO5.
- Description of the Project : Assesses the technical depth, clarity, and structural details of the project work. This component maps to PO1, PO2, and PO3.
- Scheduling of the Project : Measures the students project management skills, timelines, and execution workflow. This is tied to PO6 and PO9.
    - Viva : Evaluates the students understanding, articulation, and defense of their work. This component addresses PO1, PO3, PO9, and PO10.

Rubrics for First Review:

- Table 3.5.2 Rubrics for First Review

Particulars	Marks	Linked PO's
Scope and Literature Survey	35	PO2, PO12
Methodology of Proposed Work	25	PO1, PO4, PO5
Planning of Project Work	15	PO3, PO11
Presentation	15	PO10
Viva	10	PO9, PO10

Rubrics for Second Review:

Table 3.5.3 Rubrics for Second Review

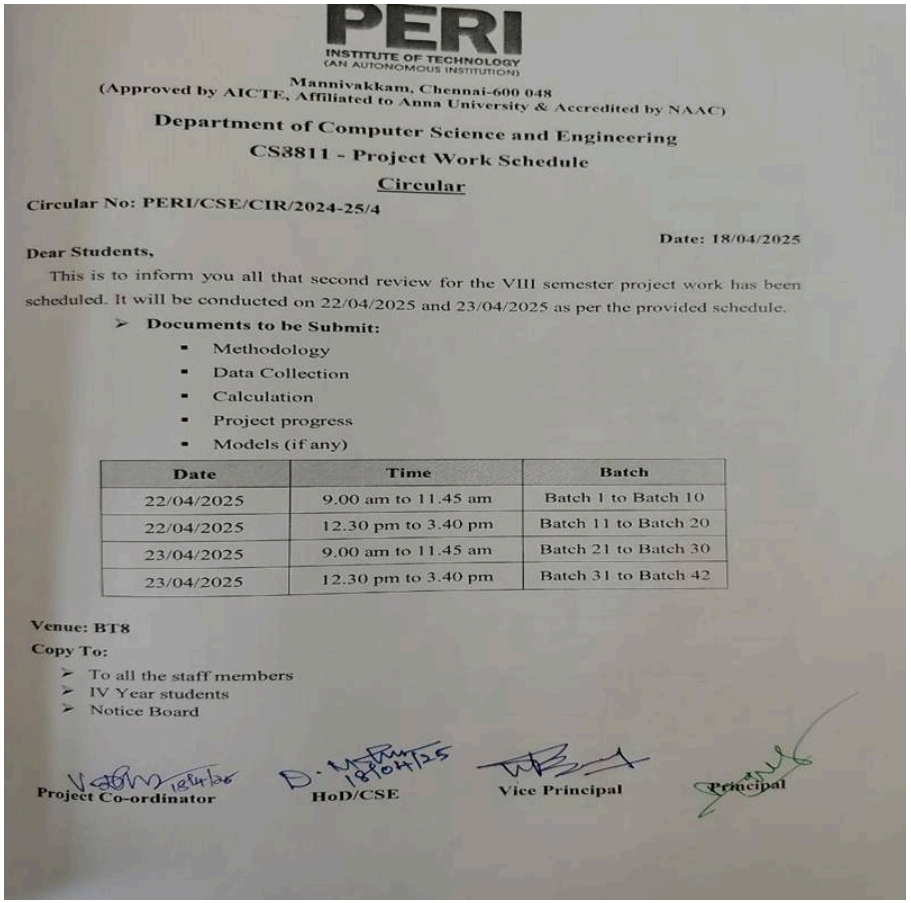
Particulars	Marks	Linked PO's
Incorporation of suggestions	15	PO12
Progress of work (Calculation/Modeling/Analysis)	35	PO1, PO2, PO4, PO5
Project Demonstration	15	PO3, PO5
Presentation	15	PO10
Viva	10	PO9, PO10
Hard copy submission	10	PO10, PO11

Table 3.5.4 Rubrics for Third Review

Rubrics for Third Review:

Particulars	Marks	Linked PO's

Description of Concepts and Technical Details	20	PO1, PO2, PO3
Results and Discussion	30	PO4, PO5, PO7
Project Report	20	PO10, PO11
Presentation	15	PO10
Viva	15	PO8, PO9, PO10



PERI
INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)
Mannivakkam, Chennai-600 048
(Approved by AICTE, Affiliated to Anna University & Accredited by NAAC)

Department of Computer Science and Engineering

CS8811 - Project Work Schedule

Circular

Circular No: PERI/CSE/CIR/2024-25/4

Date: 18/04/2025

Dear Students,

This is to inform you all that second review for the VIII semester project work has been scheduled. It will be conducted on 22/04/2025 and 23/04/2025 as per the provided schedule.

- **Documents to be Submit:**
  - Methodology
  - Data Collection
  - Calculation
  - Project progress
  - Models (if any)

Date	Time	Batch
22/04/2025	9.00 am to 11.45 am	Batch 1 to Batch 10
22/04/2025	12.30 pm to 3.40 pm	Batch 11 to Batch 20
23/04/2025	9.00 am to 11.45 am	Batch 21 to Batch 30
23/04/2025	12.30 pm to 3.40 pm	Batch 31 to Batch 42

Venue: BT8

Copy To:

- To all the staff members
- IV Year students
- Notice Board

18/4/25 **Project Co-ordinator** 18/04/25 **HoD/CSE** **Vice Principal** **Principal**

Sample Review Circular for Main Project

The project report shall carry a maximum of 10 marks. The project report shall be submitted as per the approved guidelines as given by the Director, Centre for Academic Courses. Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks. Marks awarded to each student of the project group is based on the individual performance in the viva-voce examination.

Continuous Assessment (60 marks)			End Semester Examinations (40 marks)			
Review 1	Review 2	Review 3	Project Report	Viva-voce examination		
20	20	20	External	Internal	External	Supervisor
			10	10	10	10

Table 3.5.5 Project mark splitup

In the case of industrial projects, the marks allotted for supervisor will be shared equally by the supervisor from the Department and coordinator from Industry.

Linkage to Program Outcomes (POs) and Program Specific Outcomes (PSOs)

The successful completion of the program/course significantly contributes to the attainment of various Program Outcomes (POs) and Program Specific Outcomes (PSOs) by providing students with opportunities to apply theoretical knowledge, develop technical competence, enhance professional skills, and cultivate ethical values. The activities undertaken throughout the course are carefully aligned with the expected graduate attributes and learning objectives.

PO1, PO2, PO3, PSO1, and PSO2 are strongly addressed through the acquisition and application of technical and domain-specific knowledge. Students are encouraged to identify and analyze problems, evaluate alternative solutions, and implement appropriate methodologies using modern engineering tools and techniques. This process enhances their ability to apply fundamental concepts, develop analytical thinking, and solve real-world problems effectively while strengthening discipline-specific competencies.

The course also contributes significantly to the attainment of **PO8 and PO11** by promoting professional ethics, responsibility, and effective management practices. Students learn the importance of punctuality, accountability, and adherence to ethical standards while planning and executing assigned tasks. Exposure to scheduling, resource management, and systematic workflow practices helps develop managerial and organizational skills necessary for professional success.

Furthermore, **PO9, PO10, and PSO3** are strengthened through collaborative learning and team-based activities. Students actively engage in discussions, group work, peer interactions, and project execution, which improve their ability to function effectively as individuals and as members of multidisciplinary teams. These experiences foster interpersonal skills, leadership qualities, and the ability to communicate ideas clearly through presentations, discussions, and technical interactions.

Additional emphasis on **PO10, PSO1, and PSO3** is provided through structured report writing, technical documentation, and the demonstration of subject-specific knowledge and skills. Students learn to prepare professional reports, document their findings systematically, and communicate technical information effectively to diverse audiences. These activities enhance both written and oral communication abilities while reinforcing technical expertise.

The program also integrates elements related to **PO8, PO9, and PO12** by encouraging social, ethical, and environmental awareness. Students are exposed to the broader impact of engineering solutions on society and the environment, promoting responsible decision-making and sustainable practices. Continuous learning, self-improvement, and adaptability are emphasized throughout the course, enabling students to keep pace with emerging technologies and professional developments.

In conclusion, the course provides a holistic learning environment that effectively supports the achievement of multiple Program Outcomes and Program Specific Outcomes. By combining technical proficiency, ethical responsibility, teamwork, communication skills, management capabilities, and lifelong learning practices, it prepares students to become competent professionals capable of addressing contemporary challenges and contributing positively to society.

ANNA UNIVERSITY: CHENNAI 600 025
BONAFIDE CERTIFICATE

Certified that this project **"OPTIMIZING NETWORKS USING MACHINE LEARNING TRAFFIC CLASSIFICATION"** is the Bonafide work of **"M LAVANYA (411520104308), V PAVITHRA (411520104308)"** that carried out the project under my supervision.

SIGNATURE
Mrs. K. VARALAKSHMI,
HEAD OF THE DEPARTMENT
Assistant Professor
Dept of Computer Science & Engg,
PERI Institute of Technology
Mannivakkam, Chennai 600 048

SIGNATURE
Mrs. B. CHITHRA,
SUPERVISOR
Assistant Professor
Dept of Computer Science & Engg,
PERI Institute of Technology
Mannivakkam, Chennai 600 048

Submitted for the Viva-Voce examination held on 10-05-2024

INTERNAL EXAMINER

10/05/24
EXTERNAL EXAMINER

AI based Animal Recognition and Repelling System for using DNA algorithm

A PROJECT REPORT

Submitted by

Harini. K (411520104031)

Kaviya.P (411520104045)

Lavanya.M(411520104303)

Nandhini.S (411520104307)

In partial fulfillment for the award of the degree

Of

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING



PERI
INSTITUTE OF TECHNOLOGY

PERI INSTITUTE OF TECHNOLOGY, CHENNAI 600 048

ANNA UNIVERSITY :: CHENNAI 600 025

January 2023

PERI Institute of Technology
Department of Computer Science and Engineering
CS8811 PROJECT WORK (Batch 2017-2021) 2020-2021 Even Semester
PROJECT REVIEW / EVALUATION FORM

BATCH: 2017-2021 CLASS: IV CSE A & B

Batch No.	Date	Reg. No.	Name of the Students	Evaluation of Reviewer RPM 1										Evaluation of Reviewer RPM 2										Evaluation of Reviewer RPM 3										TOTAL (100)
				Novelty (5)	Literature Survey(5)	Architectural Design for Proposed System (10)	Algorithms / Techniqued used (10)	Code Implementation (30%) (10)	Viva (10)	TOTAL (50)	Signature	Novelty (5)	Literature Survey(5)	Architectural Design for Proposed System (10)	Algorithms / Techniqued used (10)	Code Implementation (30%) (10)	Viva (10)	TOTAL (50)	Signature	Novelty (5)	Literature Survey(5)	Architectural Design for Proposed System (10)	Algorithms / Techniqued used (10)	Code Implementation (30%) (10)	Viva (10)	TOTAL (50)	Signature							
1	25-02-2021	411517104001	Aarthi M M	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
		411517104033	Gowthami U	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
		411517104122	Yalmozhi D	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
2	25-02-2021	411517104002	Aarthi S	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
		411517104079	Priya R	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
		411517104093	Sathana R	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
3	25-02-2021	411517104003	Abhinav R	5	5	9	9	9	9	46		5	5	9	10	9	9	47		5	5	9	10	9	9	47								93
		411517104044	Karthikeyan P V	5	5	9	9	9	9	46		5	5	9	9	9	9	46		5	5	9	9	9	9	46								92
4	25-02-2021	411517104004	Abinaya A	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
		411517104069	Poornima A	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
5	25-02-2021	411517104125	Yuvashri U	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
		411517104005	Abishek Kumar K	5	5	7	7	6	7	37		5	5	7	6	8	6	37		5	5	7	6	8	6	37								74
		411517104022	Dhakshana Moorthy R	5	5	7	7	6	7	37		5	5	7	6	8	6	37		5	5	7	6	8	6	37								74
6	25-02-2021	411517104006	Afzal Rahman N	5	5	9	9	8	8	44		5	5	9	9	8	8	44		5	5	9	9	8	8	44								88
		411517104124	Yuvanesh Kanna S P	5	5	8	9	8	8	44		5	5	9	9	8	8	44		5	5	9	9	8	8	44								88
		411517104025	Ganesh K	5	5	9	9	8	8	44		5	5	9	9	8	8	44		5	5	9	9	8	8	44								88
7	25-02-2021	411517104007	Anith Andrew J	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
		411517104053	Manikandan H	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
		411517104086	Rohit P	5	5	8	8	8	8	42		5	5	8	8	8	8	42		5	5	8	8	8	8	42								84
8	25-02-2021	411517104085	AjithKumar T	5	5	8	9	8	8	43		5	5	9	9	8	8	44		5	5	9	9	8	8	44								87
		411517104063	Namasivai P	5	5	8	9	8	8	43		5	5	9	9	8	8	44		5	5	9	9	8	8	44								87
		411517104120	Vishnu M	5	5	8	9	8	8	43		5	5	9	9	8	8	44		5	5	9	9	8	8	44								87
9	25-02-2021	411517104099	Ajith Kumar J	5	5	8	9	8	8	43		5	5	9	8	9	8	44		5	5	9	9	8	8	44								87
		411517104063	Dharmaraj M	5	5	8	8	8	8	42		5	5	9	9	8	8	44		5	5	9	9	8	8	44								86
		411517104054	Manikandan S	5	5	8	8	8	8	42		5	5	9	9	8	8	44		5	5	9	9	8	8	44								86
10	25-02-2021	411517104010	Ambati Srinivasarao	5	5	10	9	10	9	48		5	5	9	10	9	10	48		5	5	9	10	10	10	49								97
		411517104021	Chengaiah P	5	5	10	9	9	10	48		5	5	9	10	9	10	48		5	5	9	10	10	10	49								97
		411517104059	Gunna Harishanda Prasad	5	5	10	10	9	9	48		5	5	9	10	9	10	48		5	5	9	10	10	10	49								97
11	25-03-2021	411517104011	Anaskar Khan B	5	5	8	8	8	8	42		5	5	9	8	9	8	44		5	5	9	8	8	8	43								87
		411517104105	Sureshan S	5	5	8	8	8	8	42		5	5	9	8	9	8	44		5	5	9	8	8	8	43								87
		411517104074	Praveen Kumar A	5	5	8	8	8	8	42		5	5	9	8	9	8	44		5	5	9	8	8	8	43								87
		411517104012	Anusha Iyer B	5	5	8	9	8	8	44		5	5	9	8	9	8	44		5	5	9	9	8	8	45								89

Page 1

PROJECT EVALUATION SHEET

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING 2024-2025 PROJECT LIST - POs AND PSOs MAPPING

BATCH NO	REGISTER NO	STUDENT NAME	PROJECT TITLE	RELEVANCES TO POs AND PSOs
1	411521104028	DINESHKUMAR. L	RAILWAY TRACK CROSSING ANIMALS USING RADAR AND TEMPERATURE SENSOR	PO7
	411521104045	JAGAN. M		
	411521104057	KEERTHIVASAN. S		
2	411521104027	DINESH CHAUDHARY D	PLANT IDENTIFYING WEBSITE	PO4
	411521104046	JANA R		
	411521104012	BHUVANESH G		
3	411521104025	DHARANI.T	GYM WORKOUT EXERCISE VALIDATION AND REP COUNT PREDICTION USING OPENCV	PO8
	411521104035	GAYATHRI.B		
4	411521104032	K ELAKIYA	APPLYING MACHINE LEARNING ALGORITHM FOR THE CLASSIFICATION OF SLEEPING DISORDER	PO7
	411521104033	R ELAKYA		
	411521104058	B KOWSALYA		
5	411521104041	HARINI.M	DRIVER DROWSINESS DETECTION SYSTEM	PO7
	411521104013	CHANDRAKALA.V		
	411521104060	LAVANYA.B		
6	411521104007	ARCHANA. B	DEVELOPMENT OF A PERSONAL VIRTUAL ASSISTANT FOR WINDOWS	PO12
	411521104059	LAKSHMI PRIYA. M		
7	411521104005	AKASH JEBARAJ.I		
	411521104018	DEEPAK KUMAR K	MACHINE LEARNING BASED CREDIT CARD FRAUD DETECTION FOR ENHANCED FINANCIAL SECURITY	PO8
	411521104029	DINESH KUMAR M		
8	411521104001	ABDUL MAJITH A	DETECTING IOT CYBER NETWORK ATTACK USING MACHINE LEARNING	PO7
	411521104037	GOKUL R		
	411521104036	GOKUL D		
9	411521104044	P. ISHASRI	SECURE FRAMEWORK FOR GOVERNMENT TENDER ALLOCATION USING BLOCKCHAIN	PO7
	411521104055	V. KAVITHA		
	411521104011	A. V. BARGAVI		

10	411521104008	AROKIA ANUSHYA.A	HEART DISEASE PREDICTION USING MACHINE LEARNING	PO7
	411521104022	DEVATHARSHINI. B		
	411521104052	KARTHIKA. E		
11	411521104004	S.ADNAN MOHAMMED	COMPREHENSIVE KIDNEY DISEASE CLASSIFICATION USING DEEP LEARNING	PO8
	411521104002	S.ABINASH		
	411521104003	K.B.ABHISHEK RAJ		
12	411521104039	GUBERAN T	SMART ACCIDENT DATA LOGGING SYSTEM	PO7
	411521104042	HARISH S		
	411521104701	MOHAMED SIRAJUDEEN.I		
13	411521104030	DINESH KUMAR S	SECURE AND INTEGRATED HEALTHCARE MANAGEMENT SYSTEM WITH ENCRYPTER PRESCRIPTION HANDLING	PO12
	411521104023	DHANUSH V		
	411521104047	JEFFRIN NELSON J		
14	411521104020	DEEPAN CHAKKARAVARTHI K	CYBERSECURITY RISK ASSESSMENT OF DOS ATTACKS IN V2X COMMUNICATION SYSTEM	PO8
	411521104048	JITTO M		
	411521104017	DEEPAK J		
15	411521104016	DAYANA M	TEACHERS SUBJECT ALLOCATION MANAGEMENT SYSTEM	PO7
	411521104054	KAVITHA S		
16	411521104038	GOWSALYA D	TOPIC MODELLING USING LDA	PO8
	411521104056	KEERTHIKA M		
	411521104010	ASHWIN V		
17	411521104006	ANNAMALAI M	ECOMMERCE WEBSITE-[DIRECT DEALING WITH FARMER AND CUSTOMER]	PO8
	411521104015	DAMODAREN V		
	411521104051	KARTHI S		
18	411521104009	ARUL PANDIAN P	PREDICTING CHILDHOOD SURVIVAL: A MACHINELEARNING APPROACH TO FORECASTING CHILD MORTALITY"	PO7
	411521104040	HARIKRISHNAN U		
	411521104053	KARTHIKEYAN N		

19	411521104304	CHRISTOPHER DANIEL	IOT ENABLED WATER MONITORING IN SMART CITIES WITH RETROFIT AND SOLAR BASED ENERGY HARVESTING	PO8
	411521104311	PRADEEPRAJ		
	411521104306	HARISH.P		
20	411521104097	SAIPRASANTH. A	ANAMOLY DETECTION OF CONCRETE CRACKS	PO7
	411521104111	SUCHIT. R		
	411521104070	MOHAMED ABDUL RAHIM. P		
21	411521104106	SIVAKUMAR ES	AZURE-ETL-SCALES-ANALYSIS	PO7
	411521104071	MOHAN RAJ M		
	411521104113	SUNIL KUMAR KA		
22	411521104105	SIVA S	AI CHATBOX BASED HUMAN DEPRESSION DIAGONOSIS SYSTEM USING SYMPTEMATIC NEURAL NETWORK AND NLP	PO7
	411521104063	LITTLE JACOB P		
	411521104123	YUHAN		
23	411521104061	LAVANYA P	HEART DISEASE(FETUS) PREDICTION WITH SOLUTION IN ML	PO7
	411521104108	SNEHA P S		
	411521104115	SUSHTHI R		
24	411521104112	SUDHARSHAN B		PO8
	411521104086	PUGAZHENTHI J	AI-POWERED TEXT ANALYZER: SUMMARIZATION, EMOTION DETECTION, AND TITLE GENERATION	
	411521104114	SURIYA M		
25	411521104083	PRADEEP KUMAR M	ECG ARRYTHMIA CLASSIFICATION	PO7
	411521104088	RAHUL A D		
	411521104116	THARUN M		
26	411521104100	SHIFA SHAMIM	HYBRID MACHINE LEARNING MODEL FOR EFFICIENT BOTNET ATTACK DETECTION IN IOT ENVIRONMENT	PO7
	411521104099	SHAAJINI ARUL A		
27	411521104074	NAVYA VIJAYAN	DIABETIC RETINOPATHY DETECTION EMPOWERED WITH DEEP SEMANTIC VISION TRANSFORMER	PO8
	411521104077	NIVEDYA V		

28	411521104064	MADHUMITHA. S	NEXT GENERATION SMART TRAFFIC MANAGEMENT SYSTEM	PO7
	411521104102	SIBE. M		
	411521104065	MAGESWARI. D		
29	411521104067	MALUNI.B	ONLINE VOTING USING AADHAAR CARD WITH MULTIFACTOR VERIFICATION	PO7
	411521104084	M. PRIYA		
30	411521104078	NIVETHA .R	LUNG PARANCHYMA SEGMENTATION USING U-NET AND ALEX-NET	PO8
	411521104080	PAVITHRA. U		
	411521104117	THEJASRI. H		
31	411521104066	MAHALAKSHMI M	INSURANCE AMOUNT PREDICTION BASED ON ACCIDENTAL CAR DAMAGE LEVEL USING AI	PO7
	411521104081	POOJA B		
	411521104093	RESHMA A		
32	411521104085	R PRIYADHARSHINI	REAL-TIME CONSTRUCTION WORKER SAFETY DETECTION USING YOLO AND FLASK	PO7
	411521104092	RATHMIKAA V.V		
33	411521104091	RANJITH S	MALWARE DETECTION	PO8
	411521104076	NITHISH KUMAR		
	411521104109	STALIN.M		
34	411521104118	VEENA PG		
	411521104096	SAGANA R	QUANTIFYING UNCERTAINTY IN SLUM DETECTION: ADVANCING TRANSFER LEARNING WITH LIMITED DATA IN NOISY URBAN ENVIRONMENT	PO7
	411521104082	POOJASREE A		
35	411521104121	VINOTHINI.V	INJECTING LINGUISTIC KNOWLEDGE INTO BERT FOR DIALOGUE STATE TRACKING	PO7
	41152110475	P. NIMMI HASSAN		
	411521104069	R. MEENATCHI GUNAVATHI		
36	411521104110	STEPHEN I	SEMATIC SLAM USING ENVIRONMENT LANDMARKS FOR UNSUPERVISED INDOOR LOCALIZATION	PO7
	411521104314	SAKTHIVEL B		
	411521104098	SHAKTHI ASHWIN S		

37	411521104068	MARIYA JOSHWA S	ACCURATE WHEAT YIELD PREDICITION USING ML AND CLIMATE-NDVI DATA FUSION	PO7
	411521104087	PUSHPARAJ E		
	411521104089	RAJARAM D		
38	411521104031	DIVYA.S	FRACTURENT REVOLUTIONIZING BONE FRACTURE DETECTION USING DEEP LEARNING CNN ARCHITECTURE	PO7
	411521104120	VINODHA.V		
39	411521104090	RAMYA.R	PET PULSE : DETECTING DOG DISEASE WITH TFLITE, BOOKING VET CONSULTS	PO7
	411521104122	YOGAVARSHINI.R		
40	411521104072	MOHAN RAJI.S	DECENTRALIZED PLASMA MARKETPLACE WEB APP	PO7
	411521104095	SABARIVASAN.M		
	411521104104	SIVA.M		
41	411521104303	BASKAR C	SMART BUDGET:A PERSONAL FINANCE TRACKER	PO7
	411521104315	SAM FRANCIS XAVIER R P		
	411521104320	THOMSON JAYAKUMAR		
42	411521104312	PRAVEEN V	FACE RECOGNITION BASED ATTENDANCE SYSTEM	PO7

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

Institute Marks : 10.00

3.6 Evidence of Addressing Sustainable Development Goals(SDGs)

During projects and industrial training in both IT and CSE domain, students carried out activities that contributed to these SDGs by enhancing technical skills, applying innovative solutions, improving employability, and using resources efficiently.

The Sustainable Development Goals and their titles are as follows: SDG 1: No Poverty

SDG 2: Zero Hunger

SDG 3: Good Health and Well-being SDG 4: Quality Education

SDG 5: Gender Equality

SDG 6: Clean Water and Sanitation SDG 7: Affordable and Clean Energy

SDG 8: Decent Work and Economic Growth SDG 9: Industry, Innovation, and Infrastructure SDG 10: Reduced Inequalities

SDG 11: Sustainable Cities and Communities

SDG 12: Responsible Consumption and Production SDG 13: Climate Action

SDG 14: Life Below Water SDG 15: Life on Land

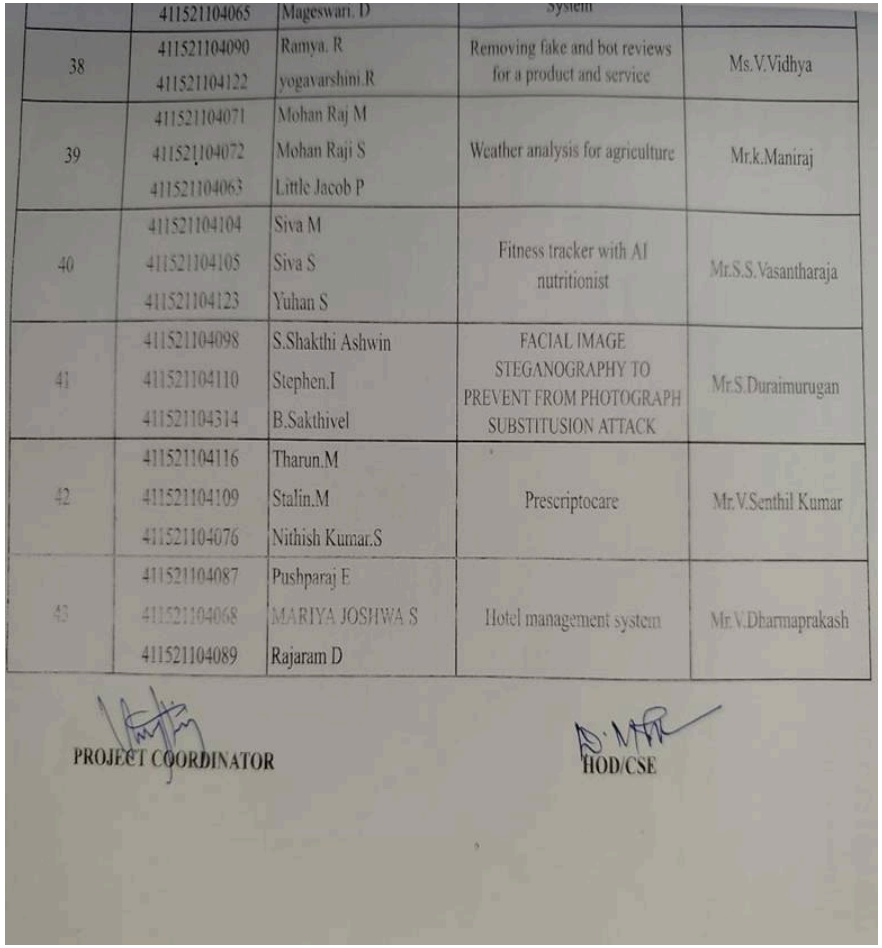
SDG 16: Peace, Justice, and Strong Institutions SDG 17: Partnerships for the Goals

The student projects demonstrate clear alignment with multiple Sustainable Development Goals. A majority of projects contribute to:

- **S**DG 4 – Quality Education→ learning new skills, technical knowledge.
- SDG 8 – Decent Work & Economic Growth→ skill development, employability.
- SDG 9 – Industry, Innovation & Infrastructure→ innovation, technology, embedded systems, IoT.
- SDG 12 – Responsible Consumption & Production→ digitalization, resource efficiency, less paper.

Evidence maintained in the portfolio:

- Project and training reports.
- Certificates of project completion/training from mentors/industry.
- Feedback/evaluation forms from mentors.



	411521104065	Mageswari. D	System	
38	411521104090 411521104122	Ramya. R yogavarshini.R	Removing fake and bot reviews for a product and service	Ms.V.Vidhya
39	411521104071 411521104072 411521104063	Mohan Raj M Mohan Raji S Little Jacob P	Weather analysis for agriculture	Mr.k.Maniraj
40	411521104104 411521104105 411521104123	Siva M Siva S Yuhan S	Fitness tracker with AI nutritionist	Mr.S.S.Vasantharaja
41	411521104098 411521104110 411521104314	S.Shakthi Ashwin Stephen.I B.Sakthivel	FACIAL IMAGE STEGANOGRAPHY TO PREVENT FROM PHOTOGRAPH SUBSTITUSION ATTACK	Mr.S.Duraimurugan
42	411521104116 411521104109 411521104076	Tharun.M Stalin.M Nithish Kumar.S	Prescriptocare	Mr.V.Senthil Kumar
43	411521104087 411521104068 411521104089	Pushparaj E MARIYA JOSHWA S Rajaram D	Hotel management system	Mr.V.Dharmaprakash

PROJECT COORDINATOR HOD/CSE

Figure Project Allocation

Sample Table SDG Mapping:

BATCH NO	REGISTER NO	STUDENT NAME	PROJECT TITLE	SDG MAPPING
1	411521104028	DINESHKUMAR. L	RAILWAY TRACK CROSSING ANIMALS USING RADAR AND TEMPERATURE SENSOR	SDG 8,10
	411521104045	JAGAN. M		
	411521104057	KEERTHIVASAN. S		

2	411521104027	DINESH CHAUDHARY D	PLANT IDENTIFYING WEBSITE	**S**DG 4,6
	411521104046	JANA R		
	411521104012	BHUVANESH G		
	411521104035	GAYATHRI.B		
3	411521104032	K ELAKIYA	APPLYING MACHINE LEARNING ALGORITHM FOR THE CLASSIFICATION OF SLEEPING DISORDER	**S**DG 3,9
	411521104033	R ELAKYA		
	411521104058	B KOWSALYA		

3.7 Attainment of Course Outcomes (25)

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

3.6Attainment of Course Outcomes

1. **Describe the Assessment Tools and Processes Used to Gather the Data for the Evaluation of Course Outcome**

(Describe different assessment tools (semester end examinations, mid-semester tests, laboratory examinations, student portfolios etc.,) to measure the student learning and hence attainment of course outcomes.)

A.List of Assessment Tools and Processes (02 Marks)

The institution follows a systematic and well-defined assessment process to evaluate the attainment of Course Outcomes (COs). The assessment tools are designed and mapped to the respective COs to evaluate students' knowledge, analytical abilities, problem-solving skills, and practical competencies. The assessment data are systematically collected, analyzed, and consolidated to calculate CO attainment and determine the extent to which the intended learning outcomes have been achieved.

1.a) Direct Assessment Tools used to gather data

The following direct assessment tools are used to collect the data for evaluating the course outcomes.

- **Continuous Assessment Tests (CAT I and CAT II):** Assess students understanding of the concepts covered in theory and integrated courses.
- **Model Examinations:** Evaluate students preparedness for the Semester End Examination (SEE) and their understanding of the course content.
- **Assignments:** Assess conceptual understanding, analytical skills, and problem-solving abilities in applicable theory courses under R2021.
- **Laboratory Model Examinations I and II:** Evaluate experimental skills, practical execution, observation, analysis, and the ability to perform experiments independently.
- **Project Reviews I, II and III:** Assess the application of engineering knowledge, problem-solving skills, and progress towards the intended COs of project work.
- **Semester End Examination (SEE):** Evaluates students achievement of the intended COs through the prescribed university examination process for theory, laboratory, integrated, and project courses, as applicable.

1.b) Indirect Assessment Tools

- **Course End Survey:** Collects students perceptions of their on the learning experience at the completion of the course.

3. Assessment Processes

The course-handling faculty member identifies the relevant assessment tools, maps assessment questions or components to the corresponding COs, analyses student performance, and consolidates the results for CO attainment. The assessment data and attainment calculations are documented and reviewed to identify learning gaps and opportunities for improvement.

B.Quality and Relevance of Assessment Tools/Processes (03 Marks)

1. **Alignment of Assessment Tools with Course Outcomes**

Assessment tools are selected based on the nature of the course and its intended Course Outcomes (COs). Each assessment question or component is mapped to the relevant COs to establish a clear relationship between the expected learning outcomes and the evidence obtained from student performance. Written examinations and assignments assess conceptual understanding, analytical ability, and problem-solving skills; laboratory assessments evaluate practical and experimental competencies; and project reviews assess the application of engineering knowledge and the ability to solve engineering problems.

This systematic mapping ensures that the assessment process measures the achievement of the intended COs and provides a basis for evaluating course-level learning outcomes.

2.Analysis of Assessment Data and Calculation of CO Attainment

Student performance in each assessment is analysed using the approved assessment methodology. For assessments where question-wise marks are available, each question or assessment component is mapped to the relevant CO, and student performance is evaluated against the prescribed target criterion.

Question-wise attainment is calculated using the following formula:

Question-wise attainment (%) = (Number of students meeting the prescribed target / Number of students who attempted the question) × 100

The attainment percentages of questions mapped to a particular CO are consolidated for each applicable assessment tool. Continuous Assessment-based and Semester End Examination (SEE)-based CO attainment are calculated using the relevant assessment components and the weightages prescribed by the applicable regulations and approved institutional assessment policy.

Indirect CO attainment is assessed through the Course End Survey, which captures students perceptions of their achievement of the intended COs. The survey responses are analysed separately from direct assessment data. Direct and indirect CO attainment values are combined using the approved institutional methodology.

3.Reliability, Documentation, and Continuous Improvement

The use of defined CO mappings, assessment criteria, documented calculations, and approved weightages promotes consistency, transparency, and traceability in the assessment process. The calculated CO attainment values are compared with predefined targets to identify gaps in student learning.

Based on the analysis, course faculty identify areas requiring improvement and implement appropriate corrective measures, such as remedial instruction, additional practice, supplementary learning activities, or modifications to teaching strategies, as applicable. The effectiveness of these measures is reviewed in subsequent course offerings to support continuous improvement.Supporting evidence includes CAT question papers, question-to-CO mapping sheets, evaluated student answer scripts, CAT mark statements, Course End Survey analysis, CO attainment calculation sheets, and records of corrective actions, as applicable.

4.Measurement of Course Outcome Attainment

The measurement of direct and indirect CO attainment for theory courses is carried out using the assessment methodology adopted by the institution.

4. **Theory Course Performance – University Examination-Based CO Attainment** University examination performance is analysed to evaluate students achievement of the COs assessed through the Semester End Examination. The examination questions are mapped to the relevant COs, and the available student performance data are analysed in accordance with the

approved attainment methodology.

For theory courses, the weightage assigned to university examination-based attainment is:

- **R2017:** 80%
- **R2021:** 60%

These weightages are applied in accordance with the assessment scheme applicable to the respective curriculum.

4. **Theory Course Performance – Continuous Assessment-Based CO Attainment** Continuous Assessment-based CO attainment is calculated using the applicable internal assessment components, including CAT I, CAT II, the Model Examination, and assignments or other approved academic activities, as applicable.

The weightage assigned to Continuous Assessment-based attainment is:

- **R2017:** 20%
- **R2021:** 40%

The marks obtained by students in the relevant internal assessments are analysed using the corresponding question-to-CO mappings. The attainment values for each CO are consolidated in accordance with the approved assessment methodology.

The distribution of COs assessed through the internal assessment components is illustrated in

Table B.3.7.1b: Mapping of Theory Course Assessment Components to Course Outcomes

Assessment Component	**CO 1**	**CO2**	**CO3**	**CO4**	**CO5**
Model Lab I	✓	✓	✓	—	—
Model Lab II	—	—	✓	✓	✓
Experimental Evaluation	✓	✓	✓	✓	✓
Assignments/Activities	✓	✓	✓	✓	✓

Note: The above table is illustrative of the mapping format. The entries must be verified against the actual question-to-CO mapping records for the respective course. A CO should be marked only when the corresponding assessment component evaluates that CO.

4. **Laboratory Course Performance – University Examination-Based CO Attainment** University examination performance is analyzed to evaluate students achievement of the COs assessed through the Semester End Practical Examination. The Lab examination questions are mapped to the relevant COs, and the available student performance data are analysed in

accordance with the approved attainment methodology.

For lab courses, the weightage assigned to university examination-based attainment is:

- **R2017:** 80%
- **R2021:** 40%

These weightages are applied in accordance with the assessment scheme applicable to the respective curriculum.

4. **Laboratory Course Performance – Continuous Assessment-Based CO Attainment** Continuous Assessment-based CO attainment is calculated using the applicable internal assessment components, including Experimental Evaluation, Model lab exam I and Model lab exam II.

The weightage assigned to Continuous Assessment-based attainment is:

- **R2017:** 20%
- **R2021:** 60%

The marks obtained by students in the relevant internal assessments are analysed using the corresponding question-to-CO mappings. The attainment values for each CO are consolidated in accordance with the approved assessment methodology.

The distribution of COs assessed through the internal assessment components is illustrated in Table B.3.2.1b.

Table B.3.2.1b: Mapping of Theory Course Assessment Components to Course Outcomes

Assessment Component	**CO1**	**CO2**	**CO3**	**CO4**	**CO5**
Model Lab I	✓	✓	✓	—	—
Model Lab II	—	—	✓	✓	✓
Experimental Evaluation	✓	✓	✓	✓	✓

4.5Project Performance – University Examination-Based CO Attainment

University examination performance is analyzed to evaluate students achievement of the COs assessed through the Semester End Project Review Examination. The Project review is mapped to the relevant COs, and the available student performance data are analysed in accordance with the approved attainment methodology.

For Project, the weightage assigned to university examination-based attainment is:

- **R2017:** 80%
- **R2021:** 60%

These weightages are applied in accordance with the assessment scheme applicable to the respective curriculum.

4.6Project Performance – Continuous Assessment-Based CO Attainment

Continuous Assessment-based CO attainment is calculated using the applicable internal assessment components, including Project Reviews I,II and III.

The weightage assigned to Continuous Assessment-based attainment is:

- **R2017:** 20%
- **R2021:** 40%

The marks obtained by students in the relevant Project reviews are analysed using the review performance -to-CO mappings. The attainment values for each CO are consolidated in accordance with the approved assessment methodology.

4.7. Course Performance – Direct CO Attainment

Direct CO attainment is calculated by combining university examination-based and Continuous Assessment-based CO attainment using the weightages applicable to the respective curriculum. **For R2017: (Theory, Lab and Project)**

Direct CO Attainment = (0.80 × University Examination-Based CO Attainment) + (0.20 × Continuous Assessment-Based CO Attainment)

For R2021: (Theory and Project)

Direct CO Attainment = (0.60 × University Examination-Based CO Attainment) + (0.40 × Continuous Assessment-Based CO Attainment)

For R2021: (Laboratory)

Direct CO Attainment = (0.40 × University Examination-Based CO Attainment) + (0.60 × Continuous Assessment-Based CO Attainment)

The resulting value represents direct evidence of students achievement of the respective COs through formal assessment.

4.8Course Performance – Indirect CO Attainment

Indirect CO attainment is determined using the Course End Survey. The survey captures students perceptions of their achievement of individual COs. The responses are consolidated and analysed using the institutions approved survey analysis methodology.

Indirect CO Attainment = CO-wise attainment derived from the Course End Survey

The survey-based result is treated as indirect evidence and is distinguished from attainment measured through examinations and other direct assessment tools.

4.9Course Performance – Overall CO Attainment

Overall CO attainment is calculated by combining direct and indirect CO attainment using the approved institutional weightage.

Where the institutions approved methodology specifies an 80:20 direct-to-indirect ratio, the calculation is:

Overall CO Attainment = (0.80 × Direct CO Attainment) + (0.20 × Indirect CO Attainment) This calculation is applied only where the stated weightage is prescribed by the approved institutional methodology.

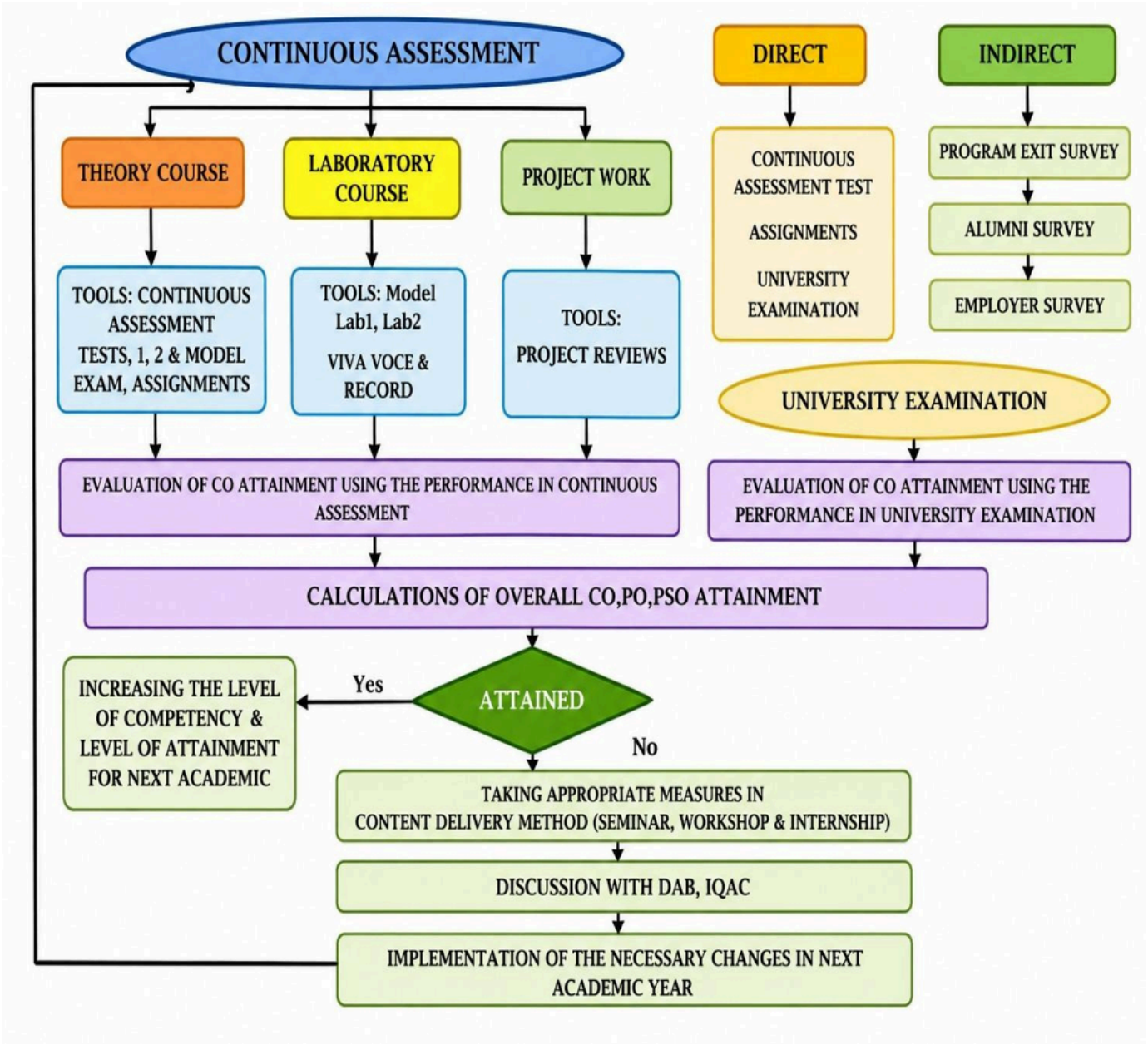
4.10Assignment of CO Attainment Levels

The overall CO attainment percentage is compared with the prescribed attainment thresholds to assign the corresponding attainment level. Under the attainment scale adopted in the stated methodology, the levels are assigned as follows:

CO Attainment Percentage	Attainment Level
Greater than or equal to 70%	3
Greater than or equal to 60%	2
Greater than or equal to 50%	1
Greater than 0% and up to 49%	0

The applicable attainment thresholds and boundary conditions should be consistently defined in the approved departmental assessment policy and applied uniformly across courses.

The attainment levels are used to identify COs that meet or fall short of the predefined targets. The results provide the basis for gap analysis, planning corrective measures, and reviewing the effectiveness of improvement actions in subsequent course offerings



3.7.2 Record the Attainment of Course Outcomes of all Courses with Respect to Set Attainment Levels (20) Institute Marks : 20.00

Course Attainment Status Matrix - 2021-2025 Batch (CSE Regulation 2021)

S. No.	Course Index	Course Code & Course Name	Set Target %	Internal (CIAM) / Direct		University / Indirect		Level of Attainment
				Direct %	Indirect %	Total %	Status	
		2021-2022 Odd Semester I Semester						
1	C101	HS3152 Professional English – I	60	70.4	20	90.4	Attained	3
2	C102	MA3151 Matrices and Calculus	60	38.4	20	58.4	Not Attained	0
3	C103	PH3151 Engineering Physics	60	57.6	20	77.6	Attained	2
4	C104	CY3151 Engineering Chemistry	60	67.2	20	87.2	Attained	3
5	C105	GE3151 Problem Solving and Python Programming	60	68.8	20	88.8	Attained	3
6	C106	BS3171 Physics and Chemistry Laboratory	60	80	20	100	Attained	3
7	C107	GE3171 Problem Solving and Python Programming Laboratory	60	80	20	100	Attained	3
8	C108	GE3172 English Laboratory	60	80	20	100	Attained	3
		2021-2022 Even Semester II Semester						
9	C201	HS3252 Professional English–II	60	74.4	20	94.4	Attained	3
10	C202	MA3251 Statistics and Numerical Methods	60	56	20	76	Attained	3
11	C203	PH3256 Physics for Information Science	60	54.4	20	74.4	Attained	2
12	C204	BE3251 Basic Electrical and Electronics Engineering	60	43.2	20	63.2	Attained	1
13	C205	GE3251 Engineering Graphics	60	70.4	20	90.4	Attained	3
14	C206	CS3251 Programming in C	60	48	20	68	Attained	1
15	C207	GE3271 Engineering Practices Laboratory	60	80	20	100	Attained	3
16	C208	CS3271 Programming in C Laboratory	60	80	20	100	Attained	3
17	C209	GE3272 Communication Laboratory / Foreign Language	60	72	20	92	Attained	3
		2022-2023 Odd Semester III Semester						

18	C301	MA3354 Discrete Mathematics	60	80	20	100	Attained	3
19	C302	CS3351 Digital Principles and Computer Organization	60	61.936	20	81.936	Attained	2
20	C303	CS3352 Foundations of Data Science	60	60.688	20	80.688	Attained	2
21	C304	CS3301 Data Structures	60	80	20	100	Attained	3
22	C305	CS3391 Object Oriented Programming	60	60.896	20	80.896	Attained	2
23	C306	CS3311 Data Structures Laboratory	60	72.096	20	92.096	Attained	3
24	C307	CS3381 Object Oriented Programming Laboratory	60	80	20	100	Attained	3
25	C308	CS3361 Data Science Laboratory	60	80	20	100	Attained	3
26	C309	GE3361 Professional Development	60	80	20	100	Attained	3
		2022-2023 Even Semester IV Semester						
27	C401	CS3452 Theory of Computation	60	34.90	20	54.90	NOT Attained	0
28	C402	CS3491 Artificial Intelligence and Machine Learning	60	68.568	20	88.568	Attained	3
29	C403	CS3492 Database Management Systems	60	68.568	20	88.568	Attained	3
30	C404	CS3401 Algorithms	60	70	20	90	Attained	3
31	C405	CS3451 Introduction to Operating Systems	60	55.712	20	75.812	Attained	2
32	C406	GE3451 Environmental Sciences and Sustainability	60	57.52	20	77.52	Attained	2
33	C407	CS3461 Operating Systems Laboratory	60	78.816	20	98.816	Attained	3
34	C408	CS3481 Database Management Laboratory	60	78.6	20	98.6	Attained	3
		2023-2024 Odd Semester V Semester						
35	C501	CS3591 Computer Networks	60	75.68	20	95.6	Attained	3
36	C502	CS3501 Compiler Design	60	37.98	20	57.88	Not Attained	0
37	C503	CB3491 Cryptography and Cyber Security	60	48	20	68	Attained	1
38	C504	CS3551 Distributed Computing	60	53.36	20	73.36	Attained	1

39	C505	CCS335 Cloud Computing	60	51.84	20	71.84	Attained	1
40	C506	CCS366 Software Testing and Automation	60	42.96	20	62.96	Attained	1
41	C507	MX3084 Disaster Risk and Management	60	80	20	100	Attained	3
		2023-2024 Even Semester VI Semester						
42	C601	CCS356 Object Oriented Software Engineering	60	80	20	100	Attained	3
43	C602	CS3691 Embedded Systems and IoT	60	72.304	20	92.304	Attained	3
44	C603	OCE351 Environmental and Social Impact Assessment	60	76.96	20	96.96	Attained	3
45	C604	CCS354 Network Security	60	72.32	20	92.32	Attained	3
46	C605	CCS370 UI/UX Design	60	72.16	20	92.16	Attained	3
		2024-2025 Odd Semester VII Semester						
47	C701	GE3791 Human Values and Ethics	60	75.44	20	95.44	Attained	3
48	C702	GE3754 Human Resource Management	60	68.36	20	88.36	Attained	3
49	C703	AI3021 IT in Agricultural System	60	71.44	20	91.44	Attained	3
50	C704	OGI352 Geographical Information System	60	75.6	20	95.6	Attained	3
51	C705	CS3711 Summer Internship	60	80	20	100	Attained	3
		2024-2025 Even Semester VIII Semester						
52	C409	CS3811 Project Work / Internship	60	80	20	100	Attained	3

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

Institute Marks : 25.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
HS3151	1	1	1	0	1	0	1	1.1	2.26	2.26	0	PO12
MA3151	1	1	0	1	1	1	0	1.1	2.26	2.26	0	PO12
CY3151	0	1	0	1	0	1	0	1.1	2.26	2.26	1	PO12
GE3151	1	0	1	0	1	0	1	1.1	2.26	2.26	0	PO12
BS3171	1	1	0	1	0	1	0	1.1	2.26	2.26	1	PO12
GE3171	2.67	2.47	1.8	2.58	1.67	0	1	0	1	0	1.53	PO12
HS3171	2.8	2	2	1	1	0	1	0	1	0	1	PO12
HS3251	1	0	1.2	1	0	1.2	0	1.1	2.26	2.26	0	PO12
MA3251	2.2	2	0	1	0.4	0	1	0	1	0	1	PO12
PH3251	3	3	3	2	0.4	0	0	0	3	1.2	0.8	PO12
BE3251	2.2	2	1.4	0	0.4	1	0	1	0	1	0	PO12
GE3251	3	3	3	2	0.4	1	0	1	3	1.2	0.8	PO12
CS3251	2.8	2	2	1	0.8	0	1	0	1	0	1	PO12
PH3151	1	0	1	0	1	0	1	1.1	2.26	2.26	0	PO12
GE3271	2.2	1.2	1	1.8	0.4	1	0	1	1.4	1	0.4	PO12
CS3271	2.4	1.6	1.6	1	0	1	0	1	0	1	0	PO12
HS3271	2.8	2.6	1.8	2.75	1.8	1	0	1	0	1	1.6	PO12
MA3354	2.4	1.6	1.6	1	0	1	0	1	0	1	0	PO12
CS3351	2.4	1.6	1.6	0	1	0	1	0	1	0	1	PO12
CS3352	2.4	1.6	1.6	1	0	1	0	1	0	1	0	PO12
CS3301	2.4	2	2	0	1	0	1	0	1	0	1	PO12
CS3391	2.4	1.6	1.6	1	0	1	0	1	0	1	0	PO12
CS3311	2	2	1.6	0.6	0	1.6	1.2	1	1	0	1	PO12
CS3381	2.2	1.2	1	1.8	0.4	1	0	1	1.4	1	0.4	PO12
CS3361	2.2	1.2	1	1.8	0.4	1	0	1	1.4	1	0.4	PO12
GE3361	1	0	1	0	1	0	1	2.2	2.2	2.2	0	PO12
CS3452	2.4	2	2	0	1.4	0	1.3	0	1	2	0	PO12
CS3491	2.2	1.2	1.2	0	1	0	1.1	0	1	0	1.2	PO12

CS3492	2.2	1.2	1.2	0	1.2	0	1.4	0	1	1	0	PO12
CS3401	2.4	2	2	1.6	1.6	1.2	2.6	0	1	0	1.2	PO12
CS3451	2.4	2	2	1.6	1.6	1.2	2.6	0	1	1.1	0	PO12
GE3451	2.2	1.2	1	1.8	0.4	1	0	1	1.4	1	0.4	PO12
CS3461	2.2	1.2	1	1.8	0.4	1	0	1	1.4	1	0.4	PO12
CS3481	0	1.1	0	1.2	0	1.2	0	2.2	2.2	2.2	0	PO12
CS3591	2.8	2	2	1	0	1	0	1.6	1.6	1.2	0	PO12
CS3501	2.8	2	2	0	1	1.2	2	1.6	1.6	1.2	2.6	PO12
CB3491	2.07	1.46	1.46	1	1	1	2	1.6	1.6	1.2	2.6	PO12
CS3551	2.8	2	2	1	1	1	1	1.8	0.4	1	0	PO12
CCS335	2.8	2	2	0	0	0	1	1.8	0.4	1	0	PO12
CCS366	2.4	2	2	1.6	1.6	1.2	0	1.2	0	1.2	0	PO12
MX3084	2.2	1.2	1	1.2	0	1	0	1	1.4	1	0	PO12
CCS356	3	3	2.6	2.6	2	2	2	0.8	2	1	2.8	PO12
CS3691	2	1.6	1.6	1.2	2.6	0.2	0	1	0	1	0.4	PO12
OCE351	2	1.6	1.6	1.2	2.6	2.4	2.8	2.4	2.4	2.6	2.2	PO12
CCS354	1	1.8	0.4	1	0	0.2	0	1	0	1	0.4	PO12
CCS370	1	1.8	0.4	1	0	2	2	0.8	2	1	2	PO12
CCS372	0	1.2	0	1.2	0	2.4	2.8	2.4	2.4	2.6	2	PO12
MX3086	2.2	1.2	1	0	2.2	0	0	2.2	2.2	2.2	1	PO12
NM1017	2.2	1.2	1	0	2.2	2.2	0	2.2	2.2	2.2	1	PO12
GE3791	2	2	2	1.6	1.6	1.2	2.6	0	1	1	0	PO12
GE3754	2.2	1.8	2	1.6	1.6	1.2	2.6	0	1	0	1	PO12
AI3021	2.4	1.8	2	1.6	1.6	1.2	2.6	0	1	0	1	PO12
OG1352	1.27	1.07	2	1.6	1.6	1.2	2.6	0	0.53	1	1.2	PO12
OHS351	1.73	1.4	1	1.8	0.4	1	0	0	0.74	0	1	PO12
CS3711	2.2	1.2	1	1.8	0.4	1	0	0	1.4	0	0.4	PO12
CS3811	2.6	1	2	1.6	1.6	1.2	2.6	0	1	0	1	PO12

PO Attainment Indirect

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**

Exit survey	3	3	3	2.9	3	2.9	3	3	3	3	3	PO12
Alumni Surve	3	3	3	3	3	3	3	3	3	3	3	PO12
Employer Sur	3	3	3	3	3	3	3	3	3	3	3	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:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.13	1.67	1.57	1.43	1.16	1.18	1.68	1.31	1.53	1.46	1.14	0
InDirect Attainment	3	3	3	2.97	3	2.97	3	3	3	3	3	0
Overall Attainment	2.30	1.94	1.86	1.74	1.53	1.54	1.94	1.65	1.82	1.77	1.51	0

PSO Attainment

Course	PSO1	PSO2	PSO3
HS3151	2.4	1	2.6
MA3151	1.6	1.6	0.4
PH3151	0.2	1	2
CY3151	1	1	1
GE3151	1	0	1
BS3171	1	1	1
GE3171	2.6	0.6	1.87
HS3171	2.2	2	1
HS3251	0	2	0
MA3251	1	1	0
PH3251	2.4	1	2.6
BE3251	1	1	0
GE3251	2	1	1
CS3251	2	1	0
GE3271	2	1	1
CS3271	2	1	1
HS3271	2.8	0.6	2

MA3354	2	1	1
CS3351	2	1	0
CS3352	2	1	1
CS3301	2	2	0
CS3301	2	2	0
CS3391	2	1	1
CS3311	2	1	1
CS3381	0.2	1	2
CS3361	0.2	1	2
GE3361	0.2	1	2
CS3452	0	1	2
CS3491	2	2	0
CS3492	2	2	0
cs3401	1	1	2
CS3451	0	1	2
GE3451	0.2	1	2
CS3461	0.2	1	2
CS3481	0.2	1	2
CS3591	2	1	2
CS3501	2	1	2
CB3491	0	1	2
CS3551	2	1	2
CCS335	2	1	2
CCS335	2	1	2
CCS366	1	1	2
MX3084	0.6	1	2
CCS356	0	1	2
CS3691	0.2	1	2
OCE351	0	1	2
CCS354	0.2	1	2
CCS370	1.6	1.2	2.6
CCS372	1.6	1.2	2.6

MX3086	0.4	1	0
GE3791	1	1	2
GE3754	1	1	2
AI3021	1	1	2
OGI352	1.2	0.53	1.07
OHS351	1	0.74	1.46
CS3711	0.2	1	2
CS3811	1	1	2

PSO Attainment Indirect

Survey	PSO1	PSO2	PSO3
Exit survey	3	3	2.7
Alumni survey	3	3	2.5
Employer Survey	3	3	2.3

PSO Attainment Level

Course	PSO1	PSO2	PSO3
Direct Attainment	1.36	1.10	1.75
InDirect Attainment	3	3	2.5
Overall Attainment	1.69	1.48	1.9

4 STUDENTS' PERFORMANCE (120) Total Marks 99.10

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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)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (CAYm4)	2019-20 (CAYm5)	2018-19 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	180	180	120	120	120	120	120
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	179	150	123	113	109	102	115
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	2	16	15	2	1
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	1	0	2	9	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	180	150	127	138	124	104	116

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	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (LYG)	2019-20 (LYGm1)	2018-19 (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	1	2	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	1	0	1	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	1	0	0	0
N5=N52+N53+N54	N5=N52+N53+N54	0	0	1	2	3	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	1	17	3	11	3	8	9
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	8	1	2	10	2	1	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	4	2	6	0	0
N6=N61+N62+N63	N6=N61+N62+N63	9	18	9	23	11	9	9

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
2024-25 (CAY)	171				
2023-24 (CAYm1)	132	133			
2022-23 (CAYm2)	119	122	124		
2021-22 (CAYm3)	117	116	128	118	
2020-21 (LYG)	116	109	123	122	116
2019-20 (LYGm1)	95	90	106	95	95
2018-19 (LYGm2)	107	115	107	107	102

4.1 Enrolment Ratio (20)

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]
2024-25 (CAY)	180	179	1	100.00
2023-24 (CAYm1)	180	150	0	83.33
2022-23 (CAYm2)	120	123	2	104.17

Average [(ER1 + ER2 + ER3) / 3] = 95.83 ≡ 20.00

Assessment : 20.00

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

Institute Marks : 12.50

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

Item	(2020-21) LYG	(2019-20) LYGm1	(2018-19) 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).	132.00	122.00	121.00
B=No. of students who graduated from the program in the stipulated course duration	116.00	95.00	102.00
Success Rate (SR)= (B/A) * 100	87.88	77.87	84.30

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 83.35

SR Points : 12.50

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 (limited to 10 % of N)).

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

Institute Marks : 7.71

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

Academic Performance	CAYm1(2023-24)	CAYm2(2022-23)	CAYm3 (2021-22)
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)	8.05	8.57	8.01
Y=Total no. of successful students	133.00	122.00	116.00
Z=Total no. of students appeared in the examination	150.00	125.00	122.00
API [X*(Y/Z)]	7.14	8.36	7.62

Average API[(AP1+AP2+AP3)/3] : 7.71

Assessment = Average API : 7.71

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

Institute Marks : 8.03

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

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
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 2rd year/10)	8.19	8.14	8.13
Y=Total no. of successful students	124.00	128.00	123.00
Z=Total no. of students appeared in the examination	124.00	133.00	124.00
API [X * (Y/Z)]	8.19	7.83	8.06

Average API [(AP1 + AP2 + AP3)/3] : 8.03

Assessment [AverageAPI] : 8.03

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

Institute Marks : 7.20

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

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
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)	7.67	7.72	7.67
Y=Total no. of successful students	118.00	122.00	95.00
Z=Total no. of students appeared in the examination	128.00	123.00	106.00
API [X*(Y/Z)]:	7.07	7.66	6.87

Average API [(AP1 + AP2 + AP3)/3] : 7.20

Assessment [1.5 * AverageAPI] : 7.20

4.6 Placement, Higher Studies and Entrepreneurship (30)

Institute Marks : 18.66

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

Item	LYG (2020-21)	LYGm1(2019-20)	LYGm2(2018-19)
FS*=Total no. of final year students	132.00	122.00	121.00
X=No. of students placed	61.00	90.00	66.00
Y=No. of students admitted to higher studies	2.00	3.00	3.00
Z= No. of students taking up entrepreneurship	3.00	2.00	2.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	50.00	77.87	58.68

Average Placement Index = (P_1 + P_2 + P_3)/3: 62.18

Placement Index Points: 18.66

4.7 Professional Activities (25)

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	CSI - COMPUTER Society of India
2	International Association of Engineers
3	cyber Knights
4	Script soldieres

Table No. 4.7.1.2: List of events/programs organized.

(CAYm1) 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	Script soldier club	Working on proper GPT and binary choice	National	06/02/2023
2	Cyber Knight Club	Seminar on Cyber Clash and cyber challenge	National	08/03/2023
3	Script soldier club	Inauguration of CSE Association and add on course on Python Programming	State Level	07/04/2023
4	Script soldier club	Seminar on Engineering Trends and Mobile Learning	State Level	11/05/2023
5	Cyber Knights Club	Seminar on Ethical Hacking and Cyber Security Awareness	State Level	05/06/2023
6	Cyber Knights Club	Hands-on Workshop on Internet of Things (IoT)	State Level	08/07/2023

(CAYm2) 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	Script soldiers club	UI & UX workshop	National	08/02/2022
2	Cyber Knights Club	Seminar on AIML	National	05/04/2022
3	Cyber Knights Club	Guest Lectures on Full Stack Development	State Level	08/05/2022
4	Script soldiers club	Paper Presentation	National	08/05/2022
5	Script soldiers club	Technical Exhibition Project Expo	National	08/06/2022
6	Script soldiers club	Guest Lectures on Digital Technology And Google Analytics	National	08/06/2022
7	Cyber Knights Club	Guest Lecture on Machine Learning	National	13/02/2023
8	Script soldiers club	Guest Lecture On Exploration On Internet Protocol V6	National	08/02/2023
9	Script soldiers club	Hands-on Workshop on Artificial Intelligence	National	24/08/2022

(CAYm3) 2021-22

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Cyber Knights Club	Cyber Security workshop	National	05/01/2021
2	Cyber Knights Club	National Level Cyber Security workshop Technical Symposium	National	11/02/2021
3	Script soldiers club	Technical Competition- Code Debugging Competition	National	08/02/2021
4	Cyber Knights Club	Hackathon – Innovation Challenge -Technical Event	National	14/04/2021
5	Script soldiers club	Technical Event - Paper Presentation	National	08/05/2021
6	Cyber Knights Club	Project Expo -Technical Exhibition	National	02/06/2021
7	Script soldiers club	Guest Lecture on Hacks to achieve high profile job and Data Structure & Algorithm	National	22/07/2021
8	Script soldiers club	Technical Event – Seminar -Paper Presentation	National	10/08/2021

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) 2023-24

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	Sathish S	Paper Presentation	State Level	21/09/2023	participation
2	Revathi V	Paper Presentation	State Level	21/09/2023	participation
3	Mohammed Abdulla Rahim	Technical Quiz	State Level	21/09/2023	winner
4	Jothika S	Relay coding	State Level	04/11/2023	Second
5	Siva Vishnu Raja	X- O-X connection	State Level	04/11/2023	Third
6	Adnan Mohamed	Symposium	National Level	13/09/2023	First
7	Naveena U	Technodium	State Level	28/03/2023	third
8	CSE Association	Workshop on Artificial Intelligence and Machine Learning	National Level	14/09/2023	winner
9	Coding Club	Code Debugging and Programming Contest	National Level	04/01/2023	Second
10	Cyber Security Club	Seminar on Ethical Hacking and Cyber Security	International L	16/02/2023	Third
11	CSE Association	Webinar on Cloud Computing and Its Applications	National Level	25/03/2023	winner
12	Robotics Club	Workshop on Internet of Things (IoT)	Seminar on Big	21/09/2023	Second
13	Web Development Club	Hands-on Training on Full Stack Web Development	State Level	21/09/2023	Third
14	AI & ML Club	International Conference on Emerging Trends in Artificial Intelligence	State Level	21/09/2023	participation
15	Data Science Club	Seminar on Big Data Analytics	State Level	21/09/2023	participation

(CAYm2) 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	Dhnish Chauthary	Paper Presentation	State Level	17/09/2022	participation
2	Dhamodaran S K Hareesh Anand S R	Paper Presentation	State Level	23/09/2022	Second
3	Hareesh Anand S R	Paper Presentation	State Level	28/09/2022	First
4	Hareesh Anand S R	Paper Presentation	State Level	02/12/2022	participation
5	Goddumudi Raju	Symposium	National Level	23/09/2022	Second
6	Hareesh Anand S R	Paper Presentation	National Level	23/09/2022	First
7	Hareesh Anand S R	Paper Presentation	National Level	23/09/2022	First
8	Hareesh Anand S R	Symposium	National Level	15/10/2022	Second
9	Hareesh Anand S R	Symposium- Scrolls	National Level	30/03/2023	First
10	KE K Arjun Kumar	Symposium- Talkinf Head	National Level	01/04/2023	First

(CAYm3) 2021-22

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Kavi Dharshini R	Symposium	State Level	22/01/2021	participation
2	Deepak Kumar	Webinar	State Level	22/01/2021	participation
3	AZHAGARAN S	Paper Presentation	State Level	21/09/2021	participation
4	BALAMIRUTHULA S	Paper Presentation	State Level	21/09/2021	participation
5	BHARKAVI U	Paper Presentation	State Level	21/09/2021	participation
6	BHAVANA	Technical quiz	State Level	24/05/2022	participation
7	JENILIA M	Technical quiz	State Level	24/05/2022	Second Prize
8	KISHORE G	Technical quiz	State Level	24/05/2022	First Prize
9	LOGESWARI N	Technical quiz	State Level	24/05/2022	Second Prize
10	MANIKANDAN S	Technical quiz	State Level	24/05/2022	participation
11	RAGAVAN R	Technical quiz	State Level	24/05/2022	participation
12	SHARMILA D	Paper Presentation	National Level	22/01/2022	Second Prize
13	SUMANRAJ K	Paper Presentation	National Level	22/01/2022	participation
14	THARUN ADHITHYA K S	Paper Presentation	State Level	22/01/2022	participation
15	Yuvashree R	Paper Presentation	State Level	22/01/2022	Second Prize
16	Raju G	Webinar	State Level	16/12/2022	participation

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

Institute Marks : 5.00

Table No. 4.7.3.1: List of students involved in publication of journals, magazines, and newsletters, etc. in the Department.

(CAYm1) 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	Newsletter	Mr. Vijayanarayanan A	Mohammed Abdulla Rahim	6	2	Soft copy
2	Newsletter	Mr. Vijayanarayanan A	Jothika S	6	2	Soft copy
3	Newsletter	Mr. Vijayanarayanan A	Siva Vishnu Raja	6	2	Soft copy
4	Newsletter	Mr. Vijayanarayanan A	Adnan Mohamed	6	2	Soft copy
5	Newsletter	Mr. Vijayanarayanan A	Mohammed idris	4	2	Soft copy
6	Newsletter	Mr. Vijayanarayanan A	Bharath E	4	2	Soft copy
7	Newsletter	Mr. Vijayanarayanan A	Aysha K	4	2	Soft copy
8	Newsletter	Mr. Vijayanarayanan A	Jenifer B	4	2	Soft copy
9	Newsletter	Mr. Vijayanarayanan A	Madhumitha S	4	2	Soft copy
10	Magazine	Mr. Vijayanarayanan A	Vavya vijayan	5	1	Soft copy
11	Magazine	Mr. Vijayanarayanan A	Santhana Lakshmi	5	1	Soft copy
12	Magazine	Mr. Vijayanarayanan A	Rathmikaa VV	5	1	Soft copy
13	Magazine	Mr. Vijayanarayanan A	Caleb J	7	1	Soft copy
14	Magazine	Mr. Vijayanarayanan A	Vishva B	7	1	Soft copy
15	Magazine	Mr. Vijayanarayanan A	Swethashree	7	1	Soft copy

(CAYm2) 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	Magazine	Mr. Vijayanarayanan A	Godumuri Raju	5	1	Soft copy
2	Magazine	Mr. Vijayanarayanan A	Hareesh Anand	5	1	Soft copy
3	Magazine	Mr. Vijayanarayanan A	KE K Arjun Kumar	5	1	Soft copy
4	Newsletter	Mr. Vijayanarayanan A	Dhnish Chauthary	5	1	Soft copy

(CAYm3) 2021-22

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	Newsletter	Mr. Vijayanarayanan A	Kavi Dharshini R	3	2	Soft copy
2	Magazine	Mr. Vijayanarayanan A	Goodumudi Raju	3	1	Soft copy
3	Magazine	Mr. Vijayanarayanan A	Yuvashree R	5	1	Soft copy
4	Newsletter	Mr. Vijayanarayanan A	Deepak Kumar	5	2	Soft copy
5	Newsletter	Mr. Vijayanarayanan A	Raju G	3	2	Soft copy

4.7.4 Student Publications (5)

Institute Marks : 5.00

Table No. 4.7.4.1: List of student publications.
(CAYm1) 2023-24

S.No	Name of the Paper	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	AI POWERED NOISE REDUCTION IN ULTRASOUND IMAGING AND ENHANCING THE IMAGE QUALITY	1.Vidhya.D, 2.Logeshwari.R,3.Nalini.R,4.Swetha.B	8	IJ Publications	IJCRT	12	8	nil
2	ANALYSING PERSONALITY INSIGHTS THROUGH MACHINE LEARNING	1.Vidhya.D, 2.Gunalan.M,3.karthick.A,4.Jeevanantham.D	8	IJ Publications	IJCRT	12	8	nil
3	ADVANCED CONVERSATION ANALYSIS IN PHONE CALLS THROUGH NATURAL LANGUAGE PROCESSING (NLP)	Sowndharaiya. K, 2 Naveen Kumar E, 3 Praveen Kumar T, 4 Ragul P	8	IJ Publications	IJCRT	12	8	nil
4	OPTIMIZATION OF NETWORKS	1.Chithra. B, 2.Lavanya,3.Pavithra	8	IJ Publications	IJCRT	12	8	nil
5	Intrusion Detection System Using Pca With Random Forest Approach	1 DR. M PARAMESWARI, 2 D KANIMOZHI , 3 S KARTHIKA, 4 C MADHUMITHA, 5 K MADHUMITHA	8	IJ Publications	IJCRT	12	8	nil
6	Real Time Monitoring And Detection Of Personal Protective Equipment In Construction Sites	Prabavathi R, Tamilselvi R, Mohanabharathi R, Meenakshi S	8	IJ Publications	IJCRT	12	8	nil
7	Finger Vein Recognition Based Authentication Using Deep Forest Algorithm	N.Deepika, R.Mohanabharathi, R.Tamilselvi, M.Kiruba Shankari	8	IJ Publications	IJCRT	12	8	nil
8	Flood Prophecy Using Machine Learning Algorithms	Angel Barakka J, Joel Stelton M, Bhuvaneshwaran K, Prashana R	8	IJ Publications	IJCRT	12	8	nil
9	Intrusion Detection System Using Pca With Random Forest Approach	1 DR. M PARAMESWARI, 2 D KANIMOZHI , 3 S KARTHIKA, 4 C MADHUMITHA, 5 K MADHUMITHA	8	IJ Publications	IJCRT	12	8	nil
10	VIRTUAL BUS PASS MANAGEMENT SYSTEM	Dr Parameswari.M1 , Rakesh Y2 ,Santhosh P3 ,Sarathi B4 ,Musolin Ram N5	8	IJ Publications	IJCRT	12	8	nil
11	Lwcnn:Light Weight Cnn Model To Detect Pneumonia Using Chest X-Ray Images	S.Gracia Nissi Monika M , Joshlin Ashuba , Manisha S , Mohana R	8	IJ Publications	IJCRT	12	8	nil
12	Autonomous Aerial Surveillance For Drone Rescue Operation	Ms.Catherine Deboral , Karthik , Madhumitha K, , Nikitha R , Logadeepak K	8	IJ Publications	IJCRT	12	8	nil
13	Realtime Woven Design For File Transfer Utility Using Lpc2148 And Nodemcu	M.Muralikrishnan , M.Ganesan	8	IJ Publications	IJCRT	12	8	nil
14	SMART TRANSLATORS: BRIDGING THE GAP IN GLOBAL COMMUNICATION	DalishPrinca William W	8	IJ Publications	IJCRT	12	8	nil
15	VIBRATION FENCING	Arun V, Gopikadevi J A, Lochini J, Aishwarya T , Yoga Lakshmi S	8	IJ Publications	IJCRT	12	8	nil
16	Medicinal Plant Identification Using Deep Learning	T. Dharanika ,Kezia H	8	IJ Publications	IJCRT	12	8	nil

17	Cardio Vascular Diseases Diagonsis With Ai	Ms.V.Sangeetha, MohanaPriya.E, Swetha.V, Varshika.V, Mohana.G.U	8	IJ Publications	IJCRT	12	8	nil
18	Satellite Images Classification By Using Artificial Intelligence Techniques	Kezia H, T. Dharanika	8	IJ Publications	IJCRT	12	8	nil
19	Optimizing Digital Transactions: A Look At Challenges And Best Practices For Unified Payment Interfa	Mr.Mahalingam Palaniandi, Dharani S	8	IJ Publications	IJCRT	12	8	nil
20	Street Light Automation And Fault Detection	M. DEVI, SAHIL DHANAJI ZIMAL , S. VIGNESH	8	IJ Publications	IJCRT	12	8	nil

(CAYm2) 2022-23

S.No	Name of the Paper	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								

(CAYm3) 2021-22

S.No	Name of the Paper	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								

5 FACULTY INFORMATION (100) Total Marks 96.12

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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?	Date of Joining in the Dept. (incase of dept. transfer)
1	Ms.Arul Sandana Rani	BNJPA9073L	NA	M.E.	Anna University	Network Security	02/01/2019	7.7	Associate Professor	Associate Professor	02/01/2019	Regular	Yes		No	
2	Dr.R.Thamizharasan	AHHPR1120L	NA	M.E. and Ph.D.	Bharath University	Networks	02/01/2019	7.7	Professor	Professor	02/01/2019	Regular	Yes			
3	Ms.S.Samuktha	ODLPS7350P	NA	M.E.	Anna University	Computer Science and Engineering	03/07/2023	3.1	Assistant Professor	Assistant Professor		Regular	Yes			
4	Ms.R.Nivetha	OEGPS3153N	NA	M.E.	Anna University	Computer Science and Engineering	01/07/2024	2.1	Assistant Professor	Assistant Professor		Regular	Yes			
5	Mr.S.Athirayan	AVMPA1253A	NA	M.E.	Anna University	Computer Science and Engineering	11/09/2023	2.11	Assistant Professor	Assistant Professor		Regular	Yes		No	
6	Ms.R.S.Abirami	BMEPA5879E	NA	M.E.	Anna University	Artificial Intelligence	01/07/2022	3	Assistant Professor	Assistant Professor		Regular	No	30/06/2025	No	
7	Mrs.S.Kavipriya	HXMPK8211B	NA	M.E.	Anna University	Cloud Computing	05/08/2024	2	Assistant Professor	Assistant Professor		Regular	Yes		No	
8	Ms.M.Divya	ARIPD5249R	NA	M.E.	Anna University	Networks	01/08/2023	2	Assistant Professor	Assistant Professor		Regular	No	31/07/2025	No	
9	Mr.J.Kennedy	AKEPK1304M	NA	M.E.	Anna University	Computer Science and Engineering	05/02/2024	2.6	Assistant Professor	Assistant Professor		Regular	Yes		No	
10	Mr.S.S.Vasantha Raja	AEAPV4506N	NA	M.Tech	Anna University	Big Data	01/12/2022	3.8	Assistant Professor	Assistant Professor		Regular	Yes		No	
11	Dr.G.Kalyani	BCGPG4586E	NA	M.Tech and Ph.D.	Manonmaniam Sundaranar University	Computer Science and Engineering	03/07/2023	3.1	Associate Professor	Associate Professor	03/07/2023	Regular	Yes		Yes	
12	Dr.B.Prathima Deepthi	FAAPB1756D	NA	M.Tech and Ph.D.	Annamalai University	Computer Science and Engineering	01/07/2024	2.1	Associate Professor	Associate Professor	01/07/2024	Regular	Yes		No	
13	Dr.Vasu Pinnti	ANKNP5953G	NA	M.Tech and Ph.D.	Jawaharlal Nehru Technological University Hyderabad	Computer Science and Engineering	01/07/2024	2.1	Professor	Professor	01/07/2024	Regular	Yes		No	

14	Dr.Chintala Sravank Kmar	APNPC9241F	NA	M.Tech and Ph.D.	Jawaharlal Nehru Technological University Hyderabad	Computer Science and Engineering	01/07/2024	2.1	Associate Professor	Associate Professor	01/07/2024	Regular	Yes		No	
15	Mrs.S.Nithyadevi	AMOPN8270F	NA	M.E.	Anna University	Computer Science and Engineering	05/08/2024	2	Assistant Professor	Assistant Professor		Regular	Yes		No	
16	Ms.R.Prabha	BDJPP2441R	NA	M.E.	Annamalai University	Networks	07/08/2024	2	Assistant Professor	Assistant Professor		Regular	Yes		No	
17	Dr. R.Palson Kennedy	AVTPP4389B	NA	M.E. and Ph.D.	Anna University	Cloud Computing	05/06/2015	10.1	Professor	Professor	05/06/2015	Regular	Yes		No	
18	Dr.S.Ramamoorthy	AFSPR6162H	NA	M.Tech and Ph.D.	Dr. M.G.R. Educational & Research Institute (Dr. M.G.R. University)	Network Security	01/07/2021	5.1	Professor	Professor	01/07/2021	Regular	Yes		No	
19	Dr.D.Manohari	ARGPM5508G	NA	M.E. and Ph.D.	Anna University	Network Security	10/05/2024	1.2	Associate Professor	Associate Professor	10/05/2024	Regular	Yes		Yes	
20	Dr.S.Sunitha	ELRPS3315G	NA	MCA and PhD (Computer Science and Engineering)	University of Madras	Networks	28/10/2024	0.8	Associate Professor	Associate Professor	28/10/2024	Regular	Yes		No	
21	Dr.Naveen Kumar Sowpati	BKLPS1379G	NA	M.Sc. and PhD	University of Madras	Networks	28/10/2024	0.8	Associate Professor	Associate Professor	28/10/2024	Regular	Yes		No	
22	Dr.A.Bharathi	CHZPB0181M	NA	M.E. and Ph.D.	National Institute of Technology	Image Processing	28/10/2024	0.8	Associate Professor	Associate Professor	28/10/2024	Regular	Yes		No	
23	Mr.M.Karthikeyan	CLBPK5131L	NA	M.E.	Anna University	Image Processing	02/12/2019	5.7	Assistant Professor	Assistant Professor		Regular	Yes		No	
24	Ms.D.Vidhya	AMJPV9279M	NA	M.E.	Anna University	Image Processing	02/12/2022	2.7	Assistant Professor	Assistant Professor		Regular	Yes		No	
25	Ms.M.Janaki	AKSPJ5930E	NA	M.Tech	Sathyabama Institute of Science and Technology (Sathyabama University)	Networks	02/12/2022	2.7	Assistant Professor	Assistant Professor		Regular	Yes		No	

26	Ms.N.Premavathy	CEZPP5118M	NA	M.Tech	Ponnaiyah Ramajayam Institute of Science and Technology (PRIST University)	Web Technology	08/08/2023	1.11	Assistant Professor	Assistant Professor		Regular	Yes		No	
27	Ms.V.Vidya	ARWPV4900H	NA	M.E.	Anna University	Networks	18/10/2023	1.9	Assistant Professor	Assistant Professor		Regular	Yes		No	
28	Mr.R.Elango	AAYPE0044N	NA	M.E.	Anna University	Block Chain	30/09/2024	0.9	Assistant Professor	Assistant Professor		Regular	Yes		No	
29	Mr.K.Maniraj	AQSPM8124D	NA	M.E.	Sathyabama Institute of Science and Technology (Sathyabama University)	Image Processing	28/08/2024	0.10	Assistant Professor	Assistant Professor		Regular	Yes		No	
30	Ms.B.K.Banupriya	BRPPK8563B	NA	M.E.	Anna University	Network Security	18/11/2024	0.7	Assistant Professor	Assistant Professor		Regular	Yes		No	
31	Ms.G.Sangeetha	GGRPS1152K	NA	M.E.	Anna University	Deep Learning	14/10/2024	0.9	Assistant Professor	Assistant Professor		Regular	Yes		No	
32	Mr.V.Karthik Raja	GHGPK6641J	NA	M.Tech	Anna University	Image Processing	24/10/2024	0.8	Assistant Professor	Assistant Professor		Regular	Yes		No	
33	Ms.S.Aruna Jasmine	BAIPA9944R	NA	M.Tech	Noorul Islam Centre for Higher Education (Noorul Islam University)	Machine Learning	27/06/2022	3	Assistant Professor	Assistant Professor		Regular	Yes		No	
34	Dr.V.Priya	BZIPP0713N	NA	M.E. and Ph.D.	Anna University	Networks	22/06/2022	3	Professor	Professor	08/01/2024	Regular	No	30/06/2025	No	
35	Dr.S.Ambareesh	ALQPA9499J	NA	M.E. and Ph.D.	Anna University	Information and Communication Engineering	04/07/2022	2.11	Associate Professor	Associate Professor	31/07/2023	Regular	No	30/06/2025	No	
36	Dr.S.Nagaraj	AKPPN4467K	NA	M.E. and Ph.D.	Anna University	Information and Communication Engineering	04/08/2023	1.10	Associate Professor	Associate Professor	04/08/2023	Regular	No	30/06/2025	No	
37	Dr.S.Balu	BVIJB1919G	NA	M.E. and Ph.D.	Anna University	Networks	28/04/2023	2.2	Associate Professor	Associate Professor	28/04/2023	Regular	No	30/06/2025	No	
38	Dr.T.Saravanan	CUKPS7574B	NA	M.E. and Ph.D.	Anna University	Networks	04/09/2023	1.9	Associate Professor	Associate Professor	04/09/2023	Regular	No	30/06/2025	No	

39	Ms.P.Jonisha	BIJPJ6895Q	NA	M.E.	Anna University	Big Data	20/07/2022	2.11	Assistant Professor	Assistant Professor		Regular	No	30/06/2025	No	
40	Ms.S.Vimala Devi	AQSPV0089N	NA	M.E.	Anna University	Machine Learning	05/07/2021	4	Assistant Professor	Assistant Professor		Regular	Yes		No	
41	Ms.P.Lekha	AERPL7832C	NA	M.E.	Anna University	Big Data	01/07/2021	3.1	Assistant Professor	Assistant Professor		Regular	No	31/07/2024	No	
42	Ms.K.Varalakshmi	AHJPV0727D	NA	M.E.	St. Peter's Institute of Higher Education and Research (St. Peter's University)	Artificial Intelligence	05/12/2011	12.6	Assistant Professor	Assistant Professor		Regular	No	25/06/2024	No	
43	Mr.A.Vijayanarayanan	AIJPV8868Q	NA	M.E.	Anna University	Networks	16/04/2021	4.3	Assistant Professor	Assistant Professor		Regular	Yes		No	
44	Ms.J.Jayaprabha	BOQPJ4489F	NA	M.Tech	Anna University	Machine Learning	03/04/2019	6.3	Assistant Professor	Assistant Professor		Regular	Yes		No	
45	Ms.M.Renuka	DAKPM5940N	NA	M.E.	Anna University	Artificial Intelligence	31/08/2017	5.9	Assistant Professor	Assistant Professor		Regular	No	30/06/2023	No	
46	D.P.Neelaveni	AIRPN5487Q	NA	M.E. and Ph.D.	Anna University	Cloud Computing	02/06/2022	4.2	Professor	Professor	02/06/2022	Regular	Yes		No	
47	Mr.S.Saravanan	BGYPS7020M	NA	M.E.	Anna University	Image Processing	31/07/2023	1.11	Assistant Professor	Assistant Professor		Regular	Yes		No	
48	Dr.T. Prashanth	BCRPP2973E	NA	M.E. and Ph.D.	Anna University	Networks	08/03/2022	3.4	Associate Professor	Associate Professor	08/03/2022	Regular	Yes		No	
49	Dr. C. Suresh Kumar	BRIPS8542R	NA	M.E. and Ph.D.	Anna University	Networks	01/02/2022	3.5	Associate Professor	Associate Professor	01/02/2022	Regular	Yes		No	
50	Dr. K.G.S.Venketesan	AFVPV2768N	NA	M.E. and Ph.D.	Annamalai University	Networks	04/06/2022	1.1	Associate Professor	Associate Professor	04/06/2022	Regular	No	31/07/2023	No	
51	Dr.D.Karthikeswaran	BJIPK5214S	NA	MCA and PhD (Computer Science and Engineering)	University of Madras	Cloud Computing	02/06/2022	2	Associate Professor	Associate Professor	02/06/2022	Regular	No	25/06/2024	No	
52	Dr.J.Vanithavani	FCXPJ7648M	NA	M.E. and Ph.D.	Anna University		02/06/2022	3.1	Associate Professor	Associate Professor	02/06/2022	Regular	Yes		No	
53	Ms.V.Sowbakkiya	BJIPS2587R	NA	M.E.	Anna University	Networks	01/07/2022	1	Assistant Professor	Assistant Professor		Regular	No	31/07/2023	No	
54	Ms.K.Priyadharshini	BQRPP7339R	NA	M.E.	Anna University	Networks	26/10/2022	2.8	Assistant Professor	Assistant Professor		Regular	Yes		No	

55	Mrs.V.Keshiya	CBQPK9599B	NA	M.E.	Anna University	Computer Science and Engineering	28/06/2021	5.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
56	Mrs.V.Kavitha	EMFPK4466K	NA	M.E.	Anna University	Computer Science and Engineering	28/06/2021	5.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
57	Mrs.G.Vandana	AOEPV5979H	NA	M.E.	Anna University	Computer Science and Engineering	28/06/2021	5.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
58	Mrs.S.Yuganthi	AIFPY7113F	NA	M.E.	Anna University	Computer Science and Engineering	28/06/2021	5.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
59	Mrs.G.Saranya	FGZPS1169C	NA	M.E.	Anna University	Computer Science and Engineering	28/06/2021	5.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
60	Mrs.K.Jaisakthi	AWGPJ7717D	NA	M.E.	Anna University	Computer Science and Engineering	27/06/2022	4.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
61	Mr.E.Ilamparithi	ADQPI9966C	NA	M.E.	Anna University	Computer Science and Engineering	27/06/2022	4.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
62	Mr.J.Robin Joe	CJUPR2743E	NA	M.E.	Anna University	Computer Science and Engineering	27/06/2022	4.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
63	Mrs.S.Maheswari Mangai	CZZPS2276L	NA	M.E.	Anna University	Network Engineering	01/07/2014	12.1	Assistant Professor	Associate Professor	01/02/2019	Regular	Yes		No	
64	Mr.S.Ashokkumar	AWEPA7867K	NA	M.E.	Vel Tech University	Computer Science and Engineering	05/08/2019	7	Assistant Professor	Assistant Professor		Regular	Yes		No	
65	Mr. S. Senthilkumar	FWKPS2999H	NA	M.E.	Anna University	Network Engineering	04/07/2015	11.1	Assistant Professor	Assistant Professor		Regular	Yes		No	
66	Ms.P.Sowmiya	FGXPS6137N	NA	M.E.	Anna University	Computer Science and Engineering	21/06/2021	5.2	Assistant Professor	Assistant Professor		Regular	Yes		No	

5.1 Student-Faculty Ratio (SFR) (30)

Institute Marks : 30

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): 9

Computer Science and Engineering (Data Science)						
Year of Study	CAY (2024-25)		CAYm1 (2023-24)		CAYm2 (2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Information Technology						
Year of Study	CAY (2024-25)		CAYm1 (2023-24)		CAYm2 (2022-23)	
	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	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**60**	**0**	**0**	**0**	**0**	**0**
Total	**60**		**0**		**0**	

Computer Science and Engineering (Cyber Security)						
Year of Study	CAY (2024-25)		CAYm1 (2023-24)		CAYm2 (2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Engineering (Artificial Intelligence)						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Engineering (Artificial Intelligence & Machine Learning)						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Design						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Business System						
Year of Study	CAY (2024-25)		CAYm1 (2023-24)		CAYm2 (2022-23)	
	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	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**60**	**0**	**0**	**0**	**0**	**0**
Total	**60**		**0**		**0**	

Artificial Intelligence and Data Science						
Year of Study	CAY (2024-25)		CAYm1 (2023-24)		CAYm2 (2022-23)	
	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	30	0	30	0	0	0
3rd Year	30	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**60**	**0**	**30**	**0**	**0**	**0**
Total	**60**		**30**		**0**	

Computer Science and Engineering						
Year of Study	CAY (2024-25)		CAYm1 (2023-24)		CAYm2 (2022-23)	
	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	180	3	120	2	120	8
3rd Year	120	2	120	8	120	11
4th Year	120	8	120	11	120	8
Sub-Total	**420**	**13**	**360**	**21**	**360**	**27**
Total	**433**		**381**		**387**	

Information Technology						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**60**	**0**	**0**	**0**	**0**	**0**
Total	**60**		**0**		**0**	

Computer Science and Engineering (Data Science)						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Engineering (Cyber Security)						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Engineering (Artificial Intelligence)						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Engineering (Artificial Intelligence & Machine Learning)						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Design						
Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	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	0	0	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**		**0**		**0**	

Computer Science and Business System						
Year of Study	CAY (2024-25)		CAYm1 (2023-24)		CAYm2 (2022-23)	
	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	0	0	0	0
3rd Year	0	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**60**	**0**	**0**	**0**	**0**	**0**
Total	**60**		**0**		**0**	

Artificial Intelligence and Data Science						
Year of Study	CAY (2024-25)		CAYm1 (2023-24)		CAYm2 (2022-23)	
	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	30	0	0	0
3rd Year	30	0	0	0	0	0
4th Year	0	0	0	0	0	0
Sub-Total	**90**	**0**	**30**	**0**	**0**	**0**
Total	**90**		**30**		**0**	

Grand Total	823	441	387

PG

No. of PG Programs in the Department 2

Computer Science and Engineering			
Year of Study	**CAY(2024-25)**	**CAYm1(2023-24)**	**CAYm2 (2022-23)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	24	24	24
2nd Year	24	24	24
Total	**48**	**48**	**48**

Computer Science and Engineering			
Year of Study	**CAY(2024-25)**	**CAYm1(2023-24)**	**CAYm2 (2022-23)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	24	24	24
2nd Year	24	24	24
Total	**48**	**48**	**48**

Grand Total	96	96	96

SFR

No. of UG Programs in the Department	9
No. of PG Programs in the Department	2

Computer Science and Engineering (Data Science)Information TechnologyComputer Science and Engineering (Cyber Security)Computer Science and Engineering (Artificial Intelligence)Computer Science and Engineering (Artificial Intelligence & Machine Learning)Computer Science and DesignComputer Science and Business SystemArtificial Intelligence and Data ScienceComputer Science and EngineeringInformation TechnologyComputer Science and Engineering (Data Science)Computer Science and Engineering (Cyber Security)Computer Science and Engineering (Artificial Intelligence)Computer Science and Engineering (Artificial Intelligence & Machine Learning)Computer Science and DesignComputer Science and Business SystemArtificial Intelligence and Data ScienceComputer Science and EngineeringComputer Science and Engineering

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG1.B	0	0	0
UG1.C	0	0	0
UG1.D	0	0	0
UG1: Computer Science and Engineering (Data Science)	**0**	**0**	**0**
UG2.B	60	0	0
UG2.C	0	0	0
UG2.D	0	0	0
UG2: Information Technology	**60**	**0**	**0**
UG3.B	0	0	0
UG3.C	0	0	0
UG3.D	0	0	0
UG3: Computer Science and Engineering (Cyber Security)	**0**	**0**	**0**
UG4.B	0	0	0
UG4.C	0	0	0
UG4.D	0	0	0
UG4: Computer Science and Engineering (Artificial Intelligence)	**0**	**0**	**0**
UG5.B	0	0	0
UG5.C	0	0	0
UG5.D	0	0	0
UG5: Computer Science and Engineering (Artificial Intelligence & Machine Learning)	**0**	**0**	**0**
UG6.B	0	0	0
UG6.C	0	0	0
UG6.D	0	0	0
UG6: Computer Science and Design	**0**	**0**	**0**
UG7.B	60	0	0
UG7.C	0	0	0
UG7.D	0	0	0
UG7: Computer Science and Business System	**60**	**0**	**0**

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG8.B	30	30	0
UG8.C	30	0	0
UG8.D	0	0	0
UG8: Artificial Intelligence and Data Science	**60**	**30**	**0**
UG9.B	183	122	128
UG9.C	122	128	131
UG9.D	128	131	128
UG9: Computer Science and Engineering	**433**	**381**	**387**
UG10.B	60	0	0
UG10.C	0	0	0
UG10.D	0	0	0
UG10: Information Technology	**60**	**0**	**0**
UG11.B	0	0	0
UG11.C	0	0	0
UG11.D	0	0	0
UG11: Computer Science and Engineering (Data Science)	**0**	**0**	**0**
UG12.B	0	0	0
UG12.C	0	0	0
UG12.D	0	0	0
UG12: Computer Science and Engineering (Cyber Security)	**0**	**0**	**0**
UG13.B	0	0	0
UG13.C	0	0	0
UG13.D	0	0	0
UG13: Computer Science and Engineering (Artificial Intelligence)	**0**	**0**	**0**
UG14.B	0	0	0
UG14.C	0	0	0
UG14.D	0	0	0
UG14: Computer Science and Engineering (Artificial Intelligence & Machine Learning)	**0**	**0**	**0**
UG15.B	0	0	0
UG15.C	0	0	0
UG15.D	0	0	0
UG15: Computer Science and Design	**0**	**0**	**0**

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG16.B	60	0	0
UG16.C	0	0	0
UG16.D	0	0	0
UG16: Computer Science and Business System	**60**	**0**	**0**
UG17.B	60	30	0
UG17.C	30	0	0
UG17.D	0	0	0
UG17: Artificial Intelligence and Data Science	**90**	**30**	**0**
PG1.A	24	24	24
PG1.B	24	24	24
PG1: Computer Science and Engineering	**48**	**48**	**48**
PG2.A	24	24	24
PG2.B	24	24	24
PG2: Computer Science and Engineering	**48**	**48**	**48**
DS=Total no. of students in all UG and PG programs in the Department	661	459	435
AS=Total no. of students of all UG and PG programs in allied departments	258	78	48
S=Total no. of students in the Department (DS) and allied departments (AS)	**S1=** 919	**S2=** 537	**S3=** 483
DF=Total no. of faculty members in the Department	37	36	31
AF= Total no. of faculty members in the allied Departments	16	6	3
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	**F1=** 53	**F2=** 42	**F3=** 34
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Total faculty (TF = (F + PoP) - FF)	**TF1= 0**	**TF2= 0**	**TF3= 0**
Student Faculty Ratio (SFR)=S/(TF)	**SFR1= 17.34**	**SFR2= 12.79**	**SFR3= 14.21**
Average SFR for 3 years	**SFR= 14.78**		

Average SFR for three assessment years : 14.78

Assessment SFR : 30

5.2 Faculty Qualification (25)

Institute Marks : 21.12

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF)]
2024-25(CAY)	17	36	45.00	17.44
2023-24(CAYm1)	13	30	26.00	24.04
2022-23(CAYm2)	11	25	24.00	21.88

Average Assessment : 21.12

5.3 Faculty Cadre Proportion (25)

Institute Marks : 25.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2024-25)	5.00	6.00	10.00	11.00	31.00	36.00
CAYm1(2023-24)	3.00	4.00	6.00	9.00	18.00	29.00
CAYm2(2022-23)	3.00	4.00	5.00	6.00	16.00	24.00
Average Numbers	3.67	4.67	7.00	8.67	21.67	29.67

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)

Institute Marks : 10.00

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

(CAYm1) 2023-24

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Gowtham	Research Scholar	Anna University	Geographical Information system	45.00
2	Mr. S. Narayanan	Software Engineering	Hewlett Package	Software Engineering	45.00

(CAYm2) 2022-23

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. J Saravanan Kumar	Python Programming	Futuro Infotech	Python Programming	45.00
2	Mr. Rajan	Python Programming	Aditya Infomedia Technology	Computer Networks	45.00

(CAYm3) 2021-22

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Ashok kumar	Technical Head	Shans Software	Object Oriented ProgrammingSystems	45.00
2	Mr. Azar	Director	Prince infotech	Object Oriented Analysis and Design	45.00

5.5 Faculty Retention (10)

Institute Marks : 10.00

Description	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)
RF=No. of required faculty in the Department 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=DS/20).	33	22	21
AF=The no. of available faculty members in the Department including allied Departments	37	36	31
A= The no. of faculty members at the current institute with less than 1 year of experience (A in AF)	1	0	1
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)	10	5	2
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)	15	9	4
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)	7	7	5
E= The no. of faculty members at the current institute with more than 4 years of experience (E in AF)	20	21	22
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 105.89

6.1 Professional Development Activities (60)

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. Palson Kennedy R	CSI	MEMBER
2	Dr. Ramamoorthy S	IAENG	MEMBER
3	Dr. Manohari D	IAENG, ISAC	MEMBER, LIFE MEMBER
4	Dr. Sunitha S	IAENG	MEMBER
5	Aru Sandanarani A	IAENG	MEMBER
6	Karthikeyan M	IAENG	MEMBER
7	Vidhya D	IAENG	MEMBER
8	Janaki M	IAENG	MEMBER
9	Premavathy N	IAENG	MEMBER
10	Vidya V	IAENG	MEMBER
11	Aruna Jasmine	IAENG	MEMBER
12	Banupriya B K	IAENG	MEMBER
13	Dr Priya R	IAENG	MEMBER
14	Jonisha P	IAENG	MEMBER
15	Abirami R S	CSI, IAENG	MEMBER
16	Vimaladevi S	IAENG	MEMBER
17	Lekha P	IAENG	MEMBER
18	Varalakshmi K	CSI, IAENG	MEMBER
19	Vijayanarayanan A	IAENG	MEMBER
20	Jayaprabha	IAENG	MEMBER
21	Vasantharaja S S	CSI	MEMBER
22	Renuka M	IAENG	MEMBER
23	Divya M	IAENG	MEMBER
24	Dr Neeleaveni P	IAENG	MEMBER
25	Saravanan S	IAENG	MEMBER
26	Dr.Prashanth T	IAENG	MEMBER
27	Dr. S. Ambareesh	CSI	MEMBER
28	Dr.Suresh Kumar C	IAENG	MEMBER
29	Sowbakkiya V	IAENG	MEMBER
30	Kavitha V	CSI	MEMBER
31	Jaisakthi K	IAENG	MEMBER
32	Ashokkumar S	IAENG	MEMBER

33	Sowmiya P	IAENG	MEMBER
34	Yuganthi S	IAENG	MEMBER
35	Ilamparithi E	IAENG	MEMBER
36	Maheswari Mangai S	IAENG	MEMBER
37	Senthilkumar S	IAENG	MEMBER
38	Athirayan S	CSI	MEMBER

6.1.2 Faculty as Resource Persons or Participants in STTPs/FDPs (15)

Institute Marks : 15.00

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) 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. Nagaraj S	Recent Trends on VLSI with Machine Learning Algorithm	13/12/2023	Chennai	St. Joseph's Institute of Technology
2	Dr. Suresh Kumar C	Cloud Infrastructure	22/08/2023	Chennai	Dhanalakshmi College Of Engineering
3	Dr. Vanithavani J	Machine Learning using Python	24/02/2024	Visakhapatnam, Andhra Pradesh	GVP College of Engineering for Women
4	Mr. Ashokkumar S	Cloud Computing Tools	18/10/2023	Chennai	Sri Venkateswara College of Engineering
5	Dr. NaveenKumar Sowpati	Research Tools	07/07/2023	Chennai	Easwari Engineering College

(CAYm2) 2022-23

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Ms.Varalakshmi K	Amazon Web Services	19/08/2022	Chennai	Jaya Engineering College
2	Dr Priya R	Recent Trends in Cyber Security in Machine Learning	14/11/2022	Chennai	Dhanalakshmi Srinivasan Engineering College
3	Dr.Ambareesh S	Artificial Intelligence For Computer Vision Applications	16/07/2022	Chennai	SRM Institute of Science and Technology,Kattankulathur,
4	Dr. Suresh Kumar C	Python programming	05/07/2022	Chennai	R.M.D Engineering College
5	Dr. Vanithavani J	Emerging Research in Information Technology	12/03/2023	Chennai	Velammal Engineering College,
6	Dr. Venketesan K G S	Innovative and Exploratory Ideas in Data Science	05/01/2023	Chennai	Sairam Engineering College
7	Dr. Neelaveni P	Societal Applications of Machine Learning	28/12/2022	Chennai	Shri Vishnu Engineering College for Women
8	Dr. Prashanth T	Cyber Security in Post-Quantum World	17/11/2022	Chennai	VIT Chennai
9	Dr. Thamizharasan R	Machine Learning in Big Data Analytics: Principles, Techniques and Challenges	17/02/2023	Hyderabad	Narsimha Reddy Engineering College

(CAYm3) 2021-22

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. SureshKumar C	Emerging Research Trends In Computer Science(Virtual)	02/03/2022	Coimbatore	JCT College of Engineering&Technology
2	Dr.Karthikeswaran D	Internet of Things	10/02/2022	Bhimavaram	Shri Vishnu Engineering College for Women
3	Dr. Venketesan K G S	Machine Learning Techniques	13/06/2021	Chennai	Sri Sairam Engineering College
4	Dr. Ramamoorthy S	Next Generation Computing: Key Trends, Challenges and Opportunities	22/04/2022	Chennai	SRM Institute of Science and Technology, Ramapuram
5	Dr. Sunitha S	Machine Learning Applications	25/02/2022	Chennai	Easwari Engineering College
6	Dr. Priya V	Machine Learning Using Python	30/03/2021	Chennai	Dr.M.G.R. Educational and Research Institute

6.1.2.2 Faculty Members' Participation in STTPs/FDPs (10)

Institute Marks : 9.89

Name of the faculty	Max 5 Per Faculty		
	2023-24(CAYm1)	2022-23(CAYm2)	2021-22(CAYm3)
Dr. PALSONKENNEDY R	0.00	3.00	3.00
Ms. ARULSANDANARANI A	5.00	5.00	5.00
Mr. KARTHIKEYAN M	5.00	5.00	5.00
Ms.VIDHYA D	3.00	5.00	0.00
Ms. JANAKI M	5.00	0.00	0.00
Ms. PREMAVATHY N	3.00	0.00	0.00
Ms.VIDYA V	3.00	0.00	0.00
Mr. MANIRAJ K	0.00	0.00	0.00
Ms.ARUNA JASMINE	3.00	3.00	0.00
Ms. SANGEETHA G	0.00	0.00	0.00
Ms.BANUPRIYA B K	0.00	0.00	0.00
Dr PRIYA R	0.00	3.00	0.00
Dr AMBAREESH S	3.00	0.00	0.00
Dr NAGARAJ S	3.00	0.00	0.00
Dr. BALU	3.00	0.00	0.00
Dr SARAVANAN T	5.00	0.00	0.00
Ms.JONISHA P	0.00	5.00	5.00
Ms.ABIRAMI R S	3.00	5.00	5.00
Ms.VIMALADEVI S	3.00	5.00	0.00
Ms.LEKHA P	0.00	5.00	3.00
Ms.VARALAKSHMI K	3.00	5.00	5.00

Mr.VIJAYANARAYANAN A	3.00	3.00	5.00
Ms. JAYAPRABHA	5.00	5.00	3.00
Mr. VASANTHA RAJA	5.00	5.00	5.00
Ms. RENUKA M	0.00	5.00	5.00
Ms.DIVYA M	3.00	5.00	5.00
Dr. NEELEAVENI P	3.00	0.00	5.00
Mr. SARAVANAN	3.00	0.00	5.00
Dr. PRASHANTH T	0.00	3.00	0.00
Dr. SURESH KUMAR C	3.00	0.00	0.00
Dr VENKETESAN K G S	0.00	0.00	0.00
Dr KARTHIKESWARAN D	5.00	3.00	0.00
Dr. VANITHAVANI J	0.00	3.00	0.00
Ms. SOWBAKKIYA V	0.00	5.00	3.00
Ms.PRIYADHARSHINI K	0.00	3.00	3.00
Sum	80.00	89.00	70.00
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).	33.05	22.95	21.75
Assessment Points (AP)= 2 * (Sum/(0.5* RDF)) (Points limited to 5 for each assessment year)	9.68	10.00	10.00

Average assessment over 3 years: 9.89

6.1.3 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	Ms.M.Janaki	Introduction to Internet of Things	NPTEL	ELITE
2	Ms.M.Janaki	Foundation of Cloud IoT Edge ML	NPTEL	ELITE
3	Ms.Premavathy N	Introduction to Operating Systems	NPTEL	ELITE
4	Ms.P.Jonisha	Software Testing	NPTEL	Completed
5	Ms.P.Lekha	Ethical Hacking	NPTEL	Completed
6	Mr.A.Vijayanarayanan	Deep learning	NPTEL	Completed
7	Ms.J.Jayaprabha	Machine Learning	NPTEL	Completed
8	Dr. C. Suresh Kumar	Reinforcement Learning	NPTEL	Completed
9	Mrs.V.Keshiya	Data Mining	COURSERA	Completed
10	Mrs.V.Kavitha	Python for data science	COURSERA	Completed
11	Ms.K.Priyadharshini	Programming in Java	COURSERA	Completed
12	Mrs.G.Saranya	Block chain and its application	COURSERA	Completed
13	Mr.A.Vijayanarayanan	Networking and Web Technology	Infosys	Completed
14	Ms.Varalakshmi K	AI Applications& Prompt Engineering	eDX	Completed
15	Ms.Lekha P	AI Applications& Prompt Engineering	eDX	Completed
16	Ms.S.Vimaladevi	AI& Machine Learning	SIMPLILEARN	Completed
17	Ms.J.Jayaprabha	CyberSecurity	SIMPLILEARN	Completed
18	Ms.M.Janaki	Cloud Computing	NPTEL	Completed
19	Ms.Premavathy N	Database Management Systems	NPTEL	Completed
20	Ms.D.Vidhya	Cloud Computing	NPTEL	Completed
21	Ms.K.Priyadharshini	Computer Vision	COURSERA	Completed
22	Mrs.V.Kavitha	Natural Language Processing	COURSERA	Completed
23	Mrs.G.Vandana	Cryptography and Network Security	COURSERA	Completed
24	Ms.ArulSandhana Rani	Python for Machine Learning	GREAT LEARNING	Completed
25	Mr.VijayanarayananN	AI for Everyone	COURSERA	Completed
26	Ms.VaralakshmiK	Introduction to Mobile Development	COURSERA	Completed
27	Mr.VasanthaRajaSS	Python for Machine Learning	GREAT LEARNING	Completed
28	Ms.DivyaM	AI For Everyone	COURSERA	Completed
29	Dr.V.Priya	Computer Architecture	COURSERA	Completed
30	Ms.P.Lekh	Introduction to Soft Computing	COURSERA	Completed
31	Ms.M.Renuka	Big Data Computing	GREAT LEARNING	Completed
32	Mr. VasanthaRaja S S	Python for Machine Learning	SIMPLILEARN	Completed

33	Ms.S.Vimaladevi	Data Analytics with Python	SIMPLILEARN	Completed
34	Ms.DivyaM	Dev Ops Fundamentals	COURSERA	Completed
35	Mr.M.Karthikeyan	Software Engineering	NPTEL	Completed
36	Ms.S.Aruna Jasmine	Design and Analysis of Algorithm	NPTEL	Completed
37	Ms.P.Jonisha	Programming in C++	NPTEL	Completed
38	Ms.P.Lekha	Programming in Java	NPTEL	Completed
39	Ms.V.Sowbakkiya	Introduction to Machine Learning	COURSERA	Completed

6.1.4 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) 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	FDP on Internet of Things and Smart Applications	09/12/2024	5 days	Mr.Prakash,Tech Lead iRoboChakra,Mr.Venkatesan, AssistantProfessor,RMK College	53
2	FDP on Research Methodology and Scholarly Paper Writing	20/01/2025	5 days	Dr.J.Prakash,Professor, VIT, Dr. Mohammed abbas PERI IT	62

(CAYm2) 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	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Dr.Velraj,Professor, AVIT	63
2	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Dr. A.M. Balamurugan, Associate Professor, SJCE	63
3	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Dr.B. EZHILAVAN,Tech Lead ,Madrasys Technologies	63
4	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Dr.Vanaja Raj, Associate Professor, Kongu College	63
5	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Mr.BABU CHARLES, Sr.Analyst, Pantech Solutions	63
6	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Mr. N. Leo Bright, Asst.professor/ SVEC	63
7	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Dr.RVidhyaProfessor, DepartmentofComputer Engineering Anna University	63
8	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Mr.Thangam. J, Teal Lead, Cogentnext Technologies.	63
9	5 Days FDP on Cloudand edge computing	19/9/22	5 Days	Mr.P.T.Sharavannan, Team Lead, Sella Software Pvt. Ltd	63
10	Robotics and Autonomou s Systems	20/2/23	6 Days	Dr.M.SenthilPandian, Asst.Professor, SSN College	54
11	Robotics and Autonomou s Systems	20/2/23	6 Days	Dr.S.Pradeep Kumar, AssistantProfessor,VELs University	54
12	Robotics and Autonomou s Systems	20/2/23	6 Days	Dr.J.Sutha,Professor,SR MVEC.	54
13	Robotics and Autonomou s Systems	20/2/23	6 Days	Dr.Kishore Kanna, AssociateProfessor,Vel Tech	54
14	Robotics and Autonomou s Systems	20/2/23	6 Days	Mr.Venkatesan, AssistantProfessor,RMK College	54
15	Robotics and Autonomou s Systems	20/2/23	6 Days	Mr.Prakash,Tech Lead iRoboChakra	54

(CAYm3) 2021-22

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	Decentrali zed Security for Smart GridUsing Block Chain Technolog y (Virtual Mode)	07/2/22	6 Days	Dr. M.V.Ishwarya , AssociateProfessor,Agni College	65
2	Decentrali zed Security for Smart GridUsing Block Chain Technolog y (Virtual Mode)	07/2/22	6 Days	Dr. P.DEVI, Associate Professor. P.B College of Engineering	65
3	Decentrali zed Security for Smart GridUsing Block Chain Technolog y (Virtual Mode)	07/2/22	6 Days	Dr.J.Prakash,Professor, VIT	65
4	Decentrali zed Security for Smart GridUsing Block Chain Technolog y (Virtual Mode)	07/2/22	6 Days	Dr.C.Ganesh , Associate Professor , DhanalakshmiSrinivasan College of Engineering.	65
5	Decentrali zed Security for Smart GridUsing Block Chain Technolog y (Virtual Mode)	07/2/22	6 Days	Mr.Venkatesan , Teal Lead,PumoTechPvt.Ltd	65
6	Decentrali zed Security for Smart GridUsing Block Chain Technolog y (Virtual Mode)	07/2/22	6 Days	Mr. Jasmine Dennis, Assistant Professor, Vi InstituteofTechnology.	65
7	Decentrali zed Security for Smart GridUsing Block Chain Technolog y (Virtual Mode)	07/2/22	6 Days	Mr.G.PalaniKumar, Engineer, Value Point Systems Pvt. Ltd	65
8	Decentrali zed Security for Smart GridUsing Block Chain Technolog y (Virtual Mode)	07/2/22	6 Days	Mr. A. Kumaravel, SeniorNetworkEngineer, Fortinet	65
9	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Dr.P.T.Sharavannan Team Lead, Sella Software Pvt. Ltd	63
10	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Dr.R.K.Mugelan, Asso Prof, AVIT Chennai	63
11	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Dr.M.Priya,Associate Professor, VIT Chennai	63
12	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Dr.KumaraSelvan, Professor,SCAD College.	63
13	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Dr.T.Sheela,Professo& Department of Information technology Sai ram Engineering College	63
14	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Dr. R. Pamila, Professor, SMK Fomra Institute of Technology	63
15	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Mr.J SureshKumar, Senior Analyst,, CTS	63
16	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Ms.G.R.Kalaivani, Team Lead, Interlace Pvt. Ltd	63
17	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Mr.Veerakumar,Team Lead, Accent Technologies	63
18	DATA SCIENCE &ANALYTI CS (Virtual Mode	2/8/21	5 Days	Mr.C.Ganesh,Senior VP, PurpleGreen Tech	63

6.1.5 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) 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	Ms.AbiramiR S	Codeathons	29/08/23	Velammal Engineering College	-
2	Mr.M.Karthikeya n	Codeathons	29/08/23	Velammal Engineering College	-
3	Mr.Vijayanarayanan A	Codeathons	29/08/23	Velammal Engineering College	-
4	Mr.Varalakshmi K	Codeathons	4/5/24	Easwari Engineering College	-
5	Mr.VasatharajaS S	Codeathons	4/5/24	Easwari Engineering College	-
6	Ms.Divya M	Codeathons	4/5/24	Easwari Engineering College	-
7	Ms.PremavathyN	WebRent Hub Bridging the Gap in Digital Possession	16/8/24	PERIInstitute of Technology	-
8	Mr.VasatharajaS S	Liver Disease Prediction Using Machine Learning	16/8/24	PERIInstitute of Technology	-
9	Ms.Vidhya V	Acqa Laguna	20/9/24	Hackathon Project	-
10	Dr.D.Manohari	Indian Version of Nagish App	20/9/24	Hackathon Project	-
11	Ms.Vidhya D	Hackathons	20/9/24	Hackathon Project	-
12	Ms.PremavathyN	Smart Assessment Board	20/9/24	Hackathon Project	-
13	Dr.T. Prashanth	Codeathons	28/9/24	Loyola-ICAM	-
14	Ms.V.Sowbakkiya	Codeathons	28/9/24	Loyola-ICAM College	-
15	Mrs.V.Kavitha	Codeathons	28/9/24	Loyola-ICAM College	-

(CAYm2) 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	Ms.Vimaladevi A	Enhancing Cloud Data Security With Block Chain&Model	20/05/2023	PERI Institute of Technology	-
2	Mr.VasanthaRaja	Innovative Project	04/05/2023	PERI Institute of Technology	-
3	Mrs.K.Varalakshmi	Innovative Project	04/05/2023	PERI Institute of Technology	-
4	Ms.Arul Sandhana Rani A	Codeathons	12/05/2023	Mohamed Sathak AJ CollegeOf Engineering	-
5	Ms.Renuka M	Codeathons	12/05/2023	Mohamed Sathak AJ CollegeOf Engineering	-
6	Mr.M.Karthikeyan	Hack2Leap Hackathon	28/10/2022	SRM Institute of Science and Technology	-
7	Ms.S.Aruna Jasmine	Hack2Leap Hackathon	28/10/2022	SRM Institute of Science and Technology	-
8	Ms.P.Jonisha	Hack2Leap Hackathon	28/10/2022	SRM Institute of Science and Technology	-
9	Mrs.V.Kavitha	Hack2Leap Hackathon	28/10/2022	SRM Institute of Science and Technology	-

(CAYm3) 2021-22

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	Ms.Jonisha P	Early Detection of Alzheimer's Disease With Blood Plasma Proteins Using Support Vector Machines	04/08/2022	Peri Institute of Technology	-
2	M.Karthikeyan	Cyber Safety & Security	17/01/2022	Chandigarh Engineering College	-
3	Dr.D.Karthikeswaran	Hack O'Holics 3.0	12/03/2022	St.Joseph's Institute of Technology	-
4	Ms.K.Priyadharshini	Hack O'Holics 3.0	12/03/2022	St.Joseph's Institute of Technology	-
5	Mrs.V.Kavitha	Hack O'Holics 3.0	12/03/2022	St.Joseph's Institute of Technology	-

6.1.6 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	Ms.D.Vidhya	Naan Mudhalvan (Internetof Things)	Infosys, Chennai	10 Days	Enhanced Technical Skills Effectively guide students in project development
2	Mr.VasanthaRaja S S	Naan Mudhalvan (Dev Ops)	GUVI, Chennai	10 Days	Enhanced Technical Skills Effectively guide students in project development
3	Ms.Aruna Jasmine	Mobile app development with cloud computing	TecKnots Acadmy, Chennai	10 Days	Enhanced Technical Skills and guided students to develope Mobile apps
4	Ms.Vimala Devi S	Cloud Computing with Machine Learning	SRM Institute of Science and Technology, Ramapuram	6 Days	Guided students to do Mini project
5	Ms.Jonisha P	Developing Cyber Security Models using Deep Learning techniques	Hindustan Institute of Technology and Science, Chennai	5 Days	Enhanced Technical Skills Effectively guide students in project development
6	Ms.M.Renuka	Embedded Technologies	Adhityaa Info Media Technologies, Chennai	5 Days	Enhanced Technical Skills and guided students project
7	Ms.M.Divya	Deep Learning	Pumo Technovation India Pvt Ltd, Chennai	12 Days	Guided innovative projects
8	Mr.S.S.Vasantha Raja	Internet of Things	Adventure Solution Pvt Ltd, Chennai	5 Days	Enhanced Technical Skills Effectively guide students in project development
9	Mr.Vijayanarayanan	Art of Writing Research Paper – Methods &Solution	Sage University, Indore	6 Days	Enhanced Research Skills &create awareness to students
10	Ms.Varalakshmi K	Art of Writing Research Paper – Methods &Solution	Sage University, Indore	6 Days	Enhanced Research Skills &create awareness to students
11	Ms.Aruna Jasmine	AI Enabled Software Development from Bench top to Commercial Product	SRM Institute of Science and Technology, Ramapuram	6 Days	Guided project students and published paper in IEEE conference

6.2 Research and Development Activities (60)

6.2.1 Academic Research (10)

Institute Marks : 10.00

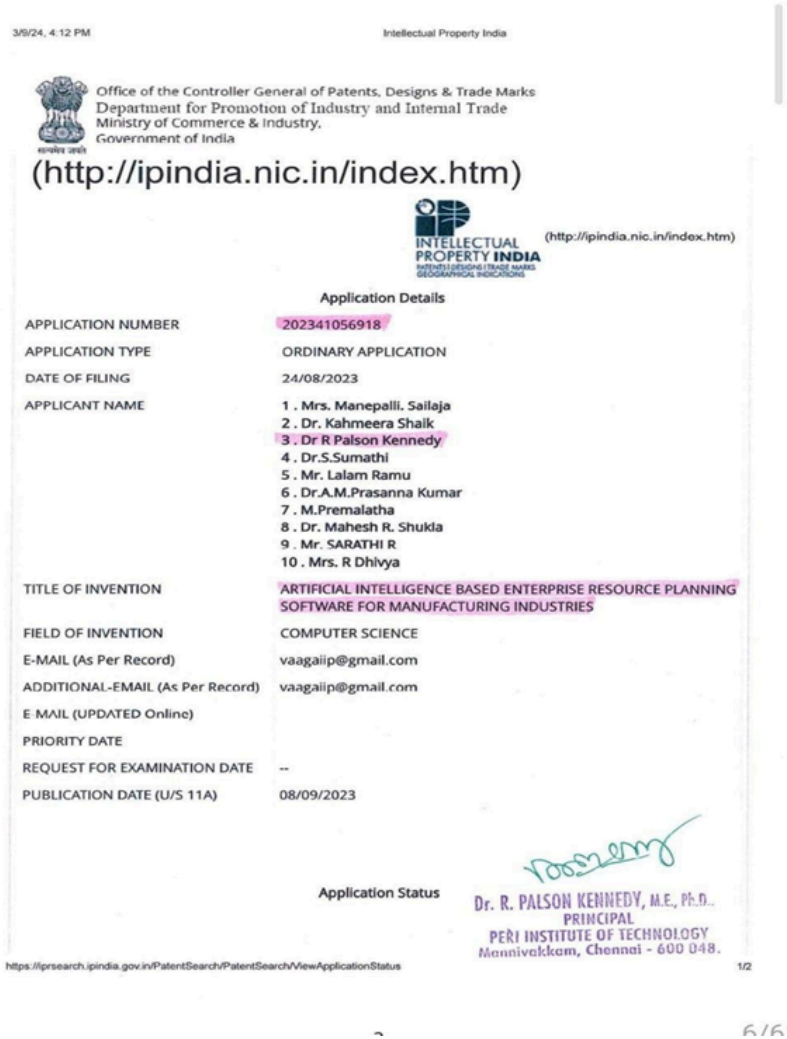
Table No. 6.2.1.1: Faculty publication details.

S.No.	Item	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
1	No. of peer reviewed journal papers published	15	20	8
2	No. of peer reviewed conference papers published	45	40	36
3	No. of books/book chapters published	2	1	1

6.2.2 Development Activities (10)

Institute Marks : 10.00

S. No.	Patent Appl. No	Name of the Inventor(s)	Title	Date of Publication
CAY(2024-2025)				
1	202541033650	Dr.D.Manohari	Wearable IoT device with AI-driven real-time health monitoring And emergency response system	25/04/25
2	202541039951 A	Dr.D.Manohari	Smart and real time surveillance system for construction site safety using yolo object detectionand flask framework	16/05/2025
3	202541027617A	Dr.PalsonKennedy R	Development of a smart electric line detection and alert system for enhanced safety in tipper vehicles	11/04/2025
4	202541027617A	Ms.JanakiM	Development of a smart electric line detection and alerts system for enhancedsafetyintippervehicles	11/04/2025
4	202541049689A	Ms.PremavathyN	Intelligent pillow for Real-time vital sign monitoring with EmergencyAlert System	20/06/2025
5	202441087504A	Mrs.Sangeetha.G	AI Assisted Fraud Detection & Prevention System	22/11/2024
CAYm1(2023-2024)				
1	202341056918	Dr.R.Palson Kennedy	Artificial intelligence based Enterprise resource planning software for manufacturing industries	08/09/2023
2	202341069826	Mr.Vijayanarayanan	Sarcasm detection in chat bot replies using improved support vecor machine learning technique	21/03/2023
CAYm2(2022-2023)				
1	202241071546	Dr.R.Palson Kennedy	IOT Module with AI based Mathematical model for curve fitting for sensory data	30/12/2022
2	202241059826	Dr.R.Palson Kennedy Mrs.Varalakshmi Mr.A.Vijayanarayan Mr.S.S.Vasanthraja Mrs.S.Jonisha Mrs.R.S.Abbirami, Mrs.M.Divya	Facial Manipulation Detection using Unet	25/11/2022



3/9/24, 4:12 PM Intellectual Property India

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

(http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

Application Details

APPLICATION NUMBER	202341056918
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	24/08/2023
APPLICANT NAME	1 . Mrs. Manepalli. Sailaja 2 . Dr. Kahmeera Shaik 3 . Dr R Palson Kennedy 4 . Dr.S.Sumathi 5 . Mr. Lalam Ramu 6 . Dr.A.M.Prasanna Kumar 7 . M.Premalatha 8 . Dr. Mahesh R. Shukla 9 . Mr. SARATHI R 10 . Mrs. R Dhivya
TITLE OF INVENTION	ARTIFICIAL INTELLIGENCE BASED ENTERPRISE RESOURCE PLANNING SOFTWARE FOR MANUFACTURING INDUSTRIES
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	vaagaiip@gmail.com
ADDITIONAL-EMAIL (As Per Record)	vaagaiip@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	08/09/2023

Application Status

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https://iprsearch.ipindia.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus 1/2

6/6

Fig:6.2.1 Dr.PalsonKennedy Patent

(12) PATENT APPLICATION PUBLICATION (21) Application No.202341056918 A

(19) INDIA

(22) Date of filing of Application :24/08/2023 (43) Publication Date : 08/09/2023

(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED ENTERPRISE RESOURCE PLANNING SOFTWARE FOR MANUFACTURING INDUSTRIES

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4)Dr.S.Sumathi
5)Mr. Lalum Ramu
6)Dr.A.M.Prasanna Kumar
7)M.Premalatha
8)Dr. Mahesh R. Shukla
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(31) International classification :G06Q0010060000, G06N0020000000, G06Q0010080000, G06Q0010040000, G06Q0030020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

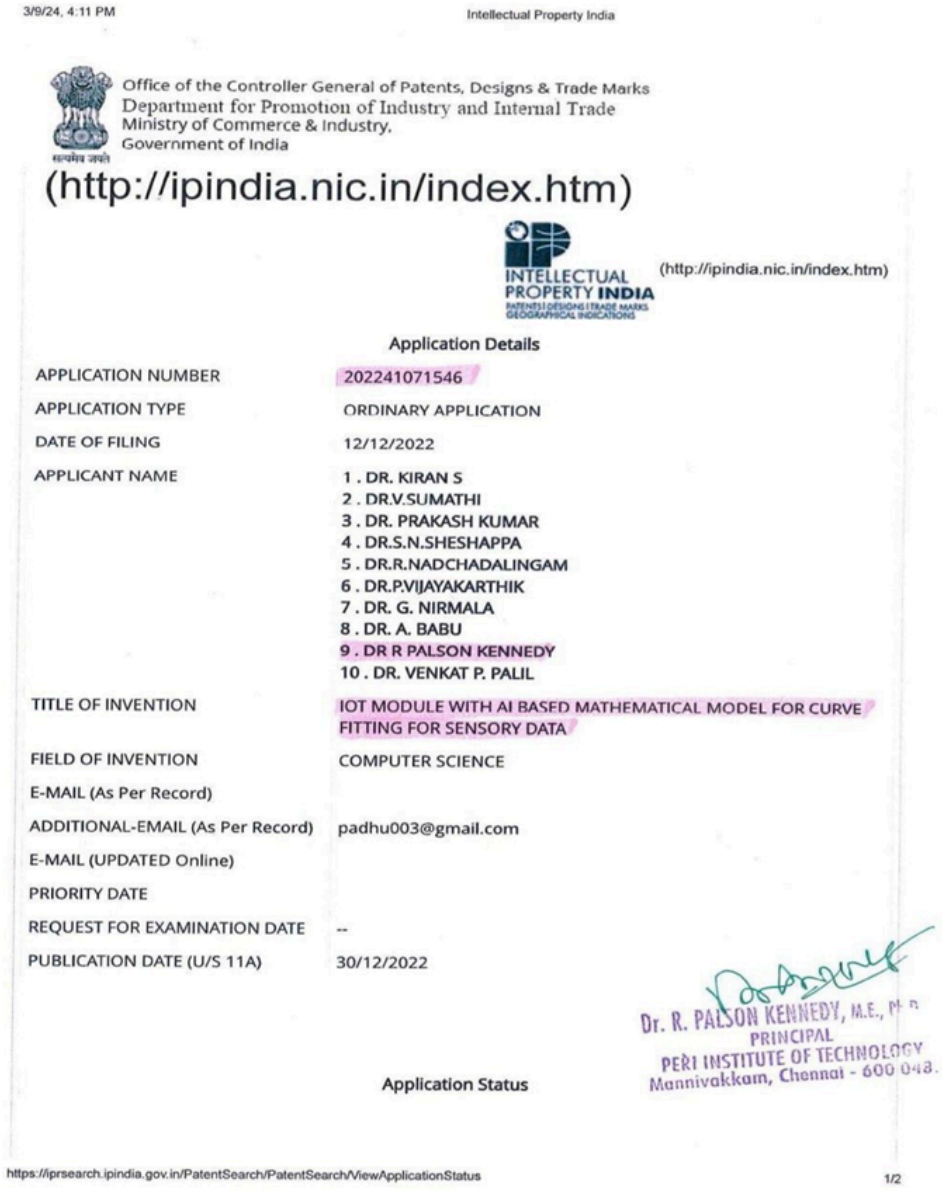
(57) Abstract :
ARTIFICIAL INTELLIGENCE BASED ENTERPRISE RESOURCE PLANNING SOFTWARE FOR MANUFACTURING INDUSTRIES AI-driven Enterprise Resource Planning (ERP) software designed specifically for manufacturing industries is a game-changing solution that revolutionizes operational efficiency and decision-making. This innovative ERP seamlessly integrates AI technologies, such as machine learning and data analytics, to optimize manufacturing processes. Demand forecasting powered by AI predicts future demand accurately by analyzing historical sales data and market trends, aiding in efficient inventory management. Predictive maintenance uses AI to proactively identify equipment issues, reducing downtime and ensuring uninterrupted production. The software's resource allocation and production planning capabilities leverage AI to create optimal production schedules considering factors like machine capacity and raw material supply, enhancing resource utilization and reducing lead times. Quality control benefits from real-time monitoring through AI-enabled image recognition, swiftly detecting defects and maintaining product quality. Supplier management becomes more intelligent as the software analyzes supplier performance and external factors to suggest alternative suppliers or adjust procurement strategies, minimizing risks and costs. Beyond operations, the ERP generates actionable insights from extensive data, guiding strategic decisions for growth and innovation. In essence, AI-driven ERP for manufacturing optimizes production, quality control, resource allocation, and decision-making. By harnessing AI's predictive and analytical prowess, it empowers manufacturers to thrive in a dynamic market environment, making processes more efficient and enabling swift adaptation to industry changes. FIG.1

No. of Pages : 8 No. of Claims : 1

The Patent Office Journal No. 36/2023 Dated 08/09/2023 59202

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Fig:6.2.2 Artificial Intelligence Patent Publication



3/9/24, 4:11 PM Intellectual Property India

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

(http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

Application Details

APPLICATION NUMBER	202241071546
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	12/12/2022
APPLICANT NAME	1 . DR. KIRAN S 2 . DR.V.SUMATHI 3 . DR. PRAKASH KUMAR 4 . DR.S.N.SHESHAPPA 5 . DR.R.NADCHADALINGAM 6 . DR.P.VIJAYAKARTHIK 7 . DR. G. NIRMALA 8 . DR. A. BABU 9 . DR R PALSON KENNEDY 10 . DR. VENKAT P. PALIL
TITLE OF INVENTION	IOT MODULE WITH AI BASED MATHEMATICAL MODEL FOR CURVE FITTING FOR SENSORY DATA
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	
ADDITIONAL-EMAIL (As Per Record)	padhu003@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	30/12/2022

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Application Status

https://iprsearch.ipindia.gov.in/PatentSearch/PatentSearch/ViewApplicationStatus 1/2

Fig:6.2.3 IoT Module Patent Application Status

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/12/2022

(21) Application No.202241071546 A
(43) Publication Date : 30/12/2022

(54) Title of the invention : IOT MODULE WITH AI BASED MATHEMATICAL MODEL FOR CURVE FITTING FOR SENSORY DATA

(51) International classification :H04L0041063100, G06K0009620000, G06N0003020000, G06N0020000000, G07C0005080000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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9)DR R PALSON KENNEDY
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(57) Abstract :
Abstract: This invention is an Expert System based Mathematical Model for Humanoid Robot Designing employing a sensor attached to DAQ (Data acquisition). Input is collected from the sensor attached to DAQ and processed through the Electronic Computing Unit The input parameters are classified into x and y axis The Electronic Computing Unit collects the sensory data from DAQ. All the data collected and computed is sent to the server for this application employing the IoT module integrated with the Electronic Control Unit. Here a Support Vector Machine and K Means based ensemble machine learning approach is employed. Once sufficient data has been collected and classification based profiling has been done, the machine learning model plots a graph, with the user defined x and y axis with a curve. The Mathematical Model of Curve Fitting with Sensory data can be viewed in any type of computing device remotely

No. of Pages : 7 No. of Claims : 5

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Fig:6.2.4 IoT Module Patent Publication

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

(http://ipindia.nic.in/index.htm)

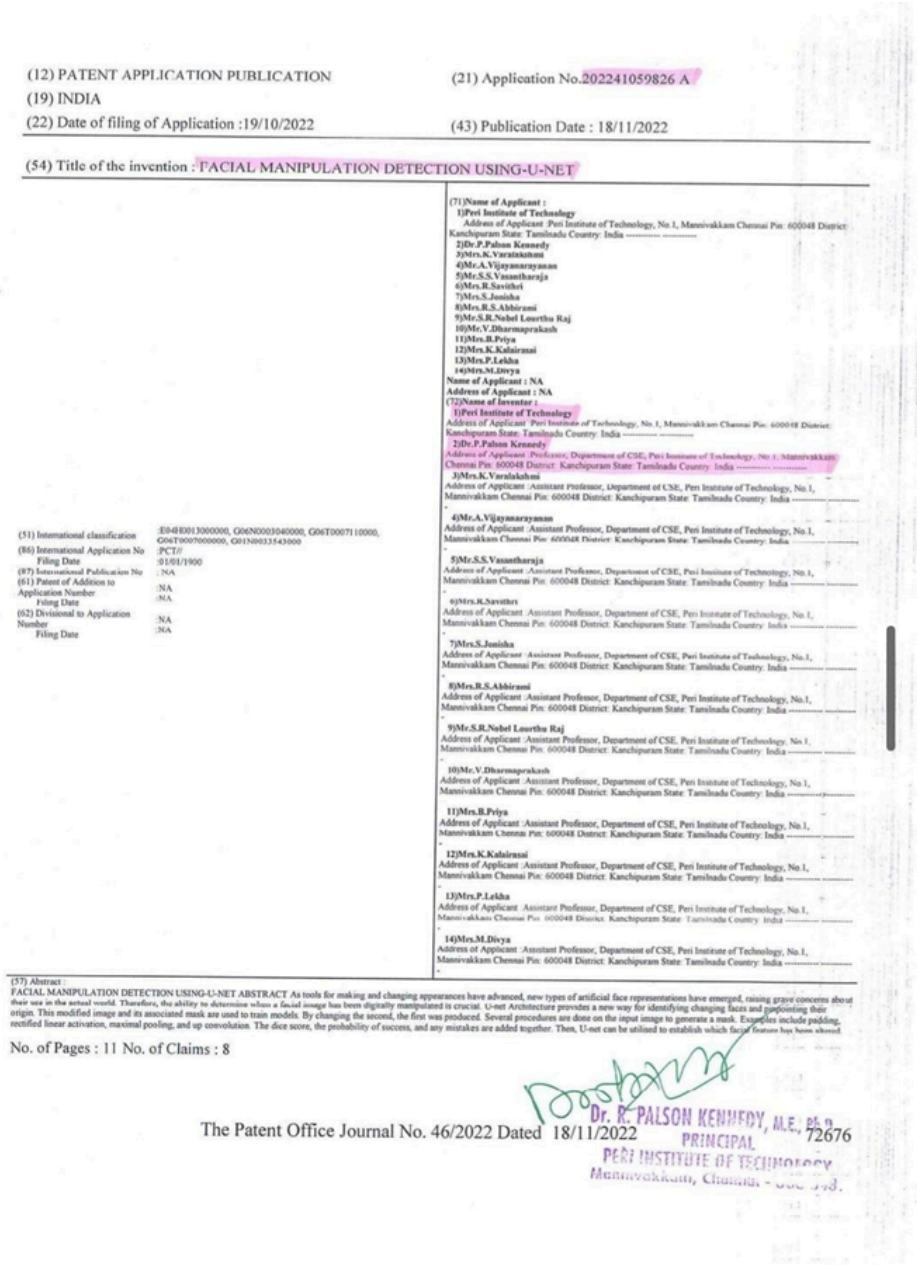
INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS | GEOGRAPHICAL INDICATIONS
(http://ipindia.nic.in/index.htm)

Application Details

APPLICATION NUMBER	202241059826
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	19/10/2022
APPLICANT NAME	1 . Peri Institute of Technology 2 . Dr.P.Palson Kennedy 3 . Mrs.K.Varalakshmi 4 . Mr.A.Vijayanarayanan 5 . Mr.S.S.Vasantharaja 6 . Mrs.R.Savithri 7 . Mrs.S.Jonisha 8 . Mrs.R.S.Abbirami 9 . Mr.S.R.Nobel Lourthu Raj 10 . Mr.V.Dharmaprakash 11 . Mrs.B.Priya 12 . Mrs.K.Kalairasai 13 . Mrs.P.Lekha 14 . Mrs.M.Divya
TITLE OF INVENTION	FACIAL MANIPULATION DETECTION USING-U-NET
FIELD OF INVENTION	CIVIL
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E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	18/11/2022

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Fig:6.2.5 Facial Manipulation Patent



(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/10/2022

(21) Application No.202241059826 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : FACIAL MANIPULATION DETECTION USING-U-NET

(51) International classification :E04E0013000000, G06N0003040000, G06T0007110000, G06T0007000000, G01N0033543000
(86) International Application No Filing Date :PCT// :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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4)Mr.A.Vijayanarayanan
5)Mr.S.S.Vasantharaja
6)Mrs.R.Savithri
7)Mrs.S.Jonisha
8)Mrs.R.S.Abbirami
9)Mr.S.R.Nobel Lourthu Raj
10)Mr.V.Dharmaprakash
11)Mrs.B.Priya
12)Mrs.K.Kalairani
13)Mrs.P.Lekha
14)Mrs.M.Divya
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Address of Applicant :Assistant Professor, Department of CSE, Peri Institute of Technology, No.1, Mannivakkam Chennai Pin: 600048 District: Kanchipuram State: Tamilnadu Country: India ---------- ----------

(57) Abstract :
FACIAL MANIPULATION DETECTION USING-U-NET ABSTRACT As tools for making and changing appearances have advanced, new types of artificial face representations have emerged, raising grave concerns about their use in the actual world. Therefore, the ability to determine whom a facial image has been digitally manipulated is crucial. U-net Architecture provides a new way for identifying changing faces and pinpointing their origin. This modified image and its associated mask are used to train models. By changing the second, the first was produced. Several procedures are done on the input image to generate a mask. Examples include padding, rectified linear activation, maximal pooling, and up convolution. The dice score, the probability of success, and any mistakes are added together. Then, U-net can be utilised to establish which facial feature has been altered.

No. of Pages : 11 No. of Claims : 8

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The Patent Office Journal No. 46/2022 Dated 18/11/2022 72676

Fig:6.2.6 Facial Manipulation Patent Publication

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

(http://ipindia.nic.in/index.htm)

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PATENTS | DESIGNS | TRADE MARKS | GEOGRAPHICAL INDICATIONS

(http://ipindia.nic.in/index.htm)

Application Details

APPLICATION NUMBER	202241002512
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	17/01/2022
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TITLE OF INVENTION	CARDIOVASCULAR DISEASE PREDICTION SYSTEM USING MACHINE LEARNING
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	
ADDITIONAL-EMAIL (As Per Record)	ishwaryamy.cse@act.edu.in
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	28/01/2022



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Fig:6.2.7 Cardio vascular Disease Patent

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :17/01/2022

(21) Application No.202241002512 A
(43) Publication Date : 28/01/2022

(54) Title of the invention : CARDIOVASCULAR DISEASE PREDICTION SYSTEM USING MACHINE LEARNING

(51) International classification :G06N0020000000, G16H0010600000, G06Q0050220000, C12Q0001688300, G06N0005000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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7)Dr M. SureshAnand
8)Ms S. HEMAVATHI
9)Dr. J Raja
10)Mr. K E Narayana
Name of Applicant : NA
Address of Applicant : NA
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(57) Abstract :
Cardiovascular disease is diseases that are influencing heart and veins. The conventional strategies for foreseeing the cardiovascular diseases helped in settling on choices about the progressions to have happened in high-hazard patients which brought about the decrease of their dangers. populace. Anticipating the disease is a basic test in clinical information examination and medical care suppliers to forestall individuals and ensure their life. Machine learning with medication assisted the medices with settling on choices in a few confounded cases and anticipating the high-hazard patients from coronary illness or cardiovascular disease. Machine learning calculations can be utilized to break down and analyze coronary illness. The framework executes to anticipate cardiovascular disease utilizing patient datasets through a machine learning arrangement calculation. An enormous volume of exploration information and patients records of clinics are accessible. Those could be utilized for doing the right early analysis of the patients and anticipate/recognize this disease to prevent it from becoming hazardous. In this framework ANN machine learning calculation is taken on for expectation which results high precision in huge volume of information. By this way we can make utilize these pieces of information and assemble a machine learning model which could be tried gives a forecast or alarm to the patients in danger.

No. of Pages : 7 No. of Claims : 3

The Patent Office Journal No. 04/2022 Dated 28/01/2022 4600

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Fig:6.2.8 Cardiovascular Disease Publication Details

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

(http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS | GEOGRAPHICAL INDICATIONS
(http://ipindia.nic.in/index.htm)

Application Details

APPLICATION NUMBER	202241008443
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	17/02/2022
APPLICANT NAME	1 . Ms. M.Ayeesha Nasreen 2 . Dr.R.Ilango 3 . Yogalakshmi.V 4 . Valarmathi.M 5 . K.Varalakshmi 6 . Mr. Surya Prakash 7 . Mr. Anandaraj. B
TITLE OF INVENTION	Internet of things & artificial intelligent based Automatic Herbicide Spraying System
FIELD OF INVENTION	ELECTRONICS
E-MAIL (As Per Record)	senanipindia@gmail.com
ADDITIONAL-EMAIL (As Per Record)	admin@senanip.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	25/02/2022

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Mannivakkam, Chennai - [illegible]18.

Application Status



Fig:6.2.9 Ms.K. Varalakshmi Patent

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :17/02/2022

(21) Application No.202241008443 A
(43) Publication Date : 25/02/2022

(54) Title of the invention : Internet of things & artificial intelligent based Automatic Herbicide Spraying System

(51) International classification :G05D0001020000, A01M0021040000, A01M0007000000, B25J0011000000, G05D0001000000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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3)Yogalakshmi.V
4)Valarmathi.M
5)K.Varalakshmi
6)Mr. Surya Prakash
7)Mr. Anandaraj. B
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
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(57) Abstract :
Internet of things & artificial intelligent based Automatic Herbicide Spraying System Abstract: Researchers have identified a way to address the health concerns linked with the standard technique of herbicide application, which is the focus of this article. They must be used properly to keep plants healthy during their growth and to eradicate undesirable plants, such as weeds. It is vital to carefully apply herbicides and other chemicals to avoid causing harm to plant growth. Artificial intelligence and the Internet of Things can assist us in creating and building an Autonomous Herbicide Spraying System that sprays herbicide autonomously (IoT). The objective of this research is to show how a moving average filter may be used to filter GPS data in order to enhance a robotic vehicle's self-driving system. Another advantage of this robot is that it can count weeds while simultaneously spraying insecticide. Additionally, the robot is equipped with a sensor that detects herbicide and transmits real-time data to the Internet of Things.

No. of Pages : 11 No. of Claims : 7

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :17/02/2022

(21) Application No.202241008443 A
(43) Publication Date : 25/02/2022

(54) Title of the invention : Internet of things & artificial intelligent based Automatic Herbicide Spraying System

(51) International classification	:G05D0001020000, A01M0021040000, A01M0007000000, B25J0011000000, G05D0001000000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
Internet of things & artificial intelligent based Automatic Herbicide Spraying System Abstract: Researchers have identified a way to address the health concerns linked with the standard technique of herbicide application, which is the focus of this article. They must be used properly to keep plants healthy during their growth and to eradicate undesirable plants, such as weeds. It is vital to carefully apply herbicides and other chemicals to avoid causing harm to plant growth. Artificial intelligence and the Internet of Things can assist us in creating and building an Autonomous Herbicide Spraying System that sprays herbicide autonomously (IoT). The objective of this research is to show how a moving average filter may be used to filter GPS data in order to enhance a robotic vehicle's self-driving system. Another advantage of this robot is that it can count weeds while simultaneously spraying insecticide. Additionally, the robot is equipped with a sensor that detects herbicide and transmits real-time data to the Internet of Things.

No. of Pages : 11 No. of Claims : 7

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Fig:6.2.10 IoT & AI Patent Publication Details

6.2.3 Sponsored Research Project (15) Institute Marks : 6.00

2023-24 (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
Dr. Palson Kennedy	-	CSE	AI-Based Urban Intelligence and Real-Time Smart Transportation Monitoring System	PRECISURE TESTING & CALIBRATION OPC PVT LTD	3 months	6.82
						Amount received (Rs.):6.82

2022-23 (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

2021-22 (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.

6.2.4 Consultancy Work (15) Institute Marks : 6.00

2023-24 (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
Dr.Palson Kennedy		CSE	AI-Based Urban Intelligence and Real-Time Smart Transportation Monitoring System	PRECISURE TESTING & CALIBRATION OPC PVT LTD	3 months	6.28
						Amount received (Rs.):6.28

2022-23 (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

2021-22 (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.

6.2.5 Institution Seed Money or Internal Research Grant to its Faculty for Research Work(10)

6.2.5 A Amount received (6)

Institute Marks :

2023-24 (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		

2022-23 (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

2021-22 (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 :

6.2.5 B Amount utilized (4) Institute Marks : 4.00

S.N.	Faculty name	Project title/ Support for Activity	Duration	Amount (Lacs)	Amount Utilized (Lacs)	Outcomes of the project
CAYm1 2023 -2024						
1	Mr.S. S. Vasantharaja	A Secure Frame Work for Government Tender Allocation Using Block Chain	4 Months	50000	45000	https://www.ijcrt.org/papers/IJCRT2003110.pdf
2.	Mr. N. Vijayanarayanan	Food demand prediction using machine learning algorithms	3 Months	30000	25000	http://www.ijcrt.org/papers/IJCRTAM02046.pdf
Amount received(Rs.) 65000						

CAYm2 2022-2023						
1	Mr.S. S. VasanthaRaja	Authorized Data Deduplication Technique in CloudStorage System	3 Months	40000	40000	https://doi.org/10.46379/jscer.2023.060305 (https://doi.org/10.46379/jscer.2023.060305)
2	Mrs. K. Varalakshmi	IOT based HealthMachine for Covid-19 with Matlab	3 Months	60000	55000	https://jscer.org/wp-content/uploads/2023-Volume%20 (https://jscer.org/wp-content/uploads/2023-Volume)6-Issue%204/IOT%20BASED%20HEALTH%20MACHINE%20FOR%20COVID-19%20WITH%20MATLAB.pdf
Amountreceived(Rs.)					95000	
CAYm3 2021-2022						

1	Mrs. K. Varalakshmi	IOT and Google Assistant Based Wireless Notice Board	4 Months	20000	15000	https://ijcrt.or g/papers/IJC (https://ijcrt.org/papers/IJC) RTS020011. pdf
2	Mr.S. S. VasanthaRaja	Prediction of Cyber Attacks Using Machine Learning Technique	3 Months	30000	28000	https://ijcrt.or g/papers/IJC (https://ijcrt.org/papers/IJC) RTS020006. pdf
Amount received(Rs.)					15000	
Total amount(Lacs) received for the past 3years					2,03,000	

7 FACILITIES AND TECHNICAL SUPPORT (100)

Total Marks 100.00

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

Institute Marks : 50.00

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	Data Science L	30	Computer : i7 3	20-30 hrs per v	Mr. Arul Kumar	Assistant Syste	M.C.A
2	Security Lab	30	Computer : i7 3	20-30 hrs per v	Mr. Moorthy	Lab Assistant	Diploma
3	Data Structures	30	Computer : i7 3	20-30 hrs per v	Mr. Vishwa	Lab Assistant	Diploma
4	DBMS Lab	30	Computer : i7 3	20-30 hrs per v	Mr. Srinivasan	Lab Assistant	B.Sc (CS)
5	Cloud Computi	30	Computer : i7 3	20-30 hrs per v	Mr. Revanth	Lab Assistant	M.Sc (CS)
6	PG Lab	30	Computer : i7 3	20-30 hrs per v	Ms. Pavithra	Lab Assistant	B.E
7	Basic Program	30	Computer : i7 3	20-30 hrs per v	Ms. Narmatha	Lab Assistant	B.E

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

Institute Marks : 20.00

Sr. No	Name of the Facility	Details	Purpose for creating facility	Utilization	Relevance to POs/PSOs
1	IIT Virtual Lab	Remote-access to simulation-based Labs in various disciplines of Science and Engineering.	A complete Learning Management System around the Virtual Labs where the students/ teachers can avail the various tools for learning.	Throughout the semester	PO1, PO3, PO5, P11 PSO1, PSO2
2	e-Learning Lounge	Video's From NPTEL, Swayam, Edusat Videos.	Understanding the Video oriented Teaching and learning.	Throughout the semester	PO5, PSO1, PSO2
3	English Fluency Development Centre	The English faculty is deputed to teach Basic English for the first-year students to make them to understand	To develop and enhance students' communication skills in English through practical, interactive, and technology-aided learning. Reduces fear of public speaking and boosts self-confidence.	20 hrs per semester	PO10, PSO1,PSO2
4	IOT Lab Facility	To create the awareness about the IOT	To train the pre final and final year students for doing projects using IoT	By the staff and students	PO3, PO2, PO4, PO5, PO9, PO11, PSO1,PSO2,PSO3
5	Extended Learning	Getting membership in LMS portal (GUVI HCL) to improve student logical & analytical ability.	To train the students for placement in higher package	By the students throughout the semester	PO3, PO2, PO4, PO9, PO11, PO5, PSO1, PSO2, PSO3
6	Beyond Classroom Learning Facilities	Conducting online aptitude test for final years and pre final years to train them for placement.	To train the students in beyond classroom practices	By the students	PO3, PO2, PO4, PO5, PO9, PO11, PSO1, PSO2, PSO3
7	Departmental Library	Having collection of Text Books, CD's, Reference, Books and Project / seminar report.	Maintains a curated collection of core textbooks, reference books, journals, and project reports relevant to the department. Located within the department, making it easy for students and faculty to access materials without visiting the central library.	Throughout the semester	PO1, PSO1, PSO2, PSO3

7.3 Maintenance of laboratories and overall ambiance (10)

Institute Marks : 10.00

Daily Maintenance:

- All minor maintenance is carried out by the lab assistant.
- For any other system related problems, it is sent to the centralized Computer Maintenance Cell (CMC), where repairs are undertaken. For major problems, the system is sent to the vendor or appropriate agency for repairs following the laid down procedure laid down in the college.
- Daily preventive maintenance of lab is maintained by the lab assistants.
- Every day cleaning of equipment's and work tables are done by the lab assistants.
- Floor mopping of labs are done thrice in a week by housekeeping department of college.
- The batteries of the UPS are cleaned to remove dust and prevent corrosion.
- Eating and Drinking inside the Laboratories are strictly prohibited.

Weekly Maintenance:

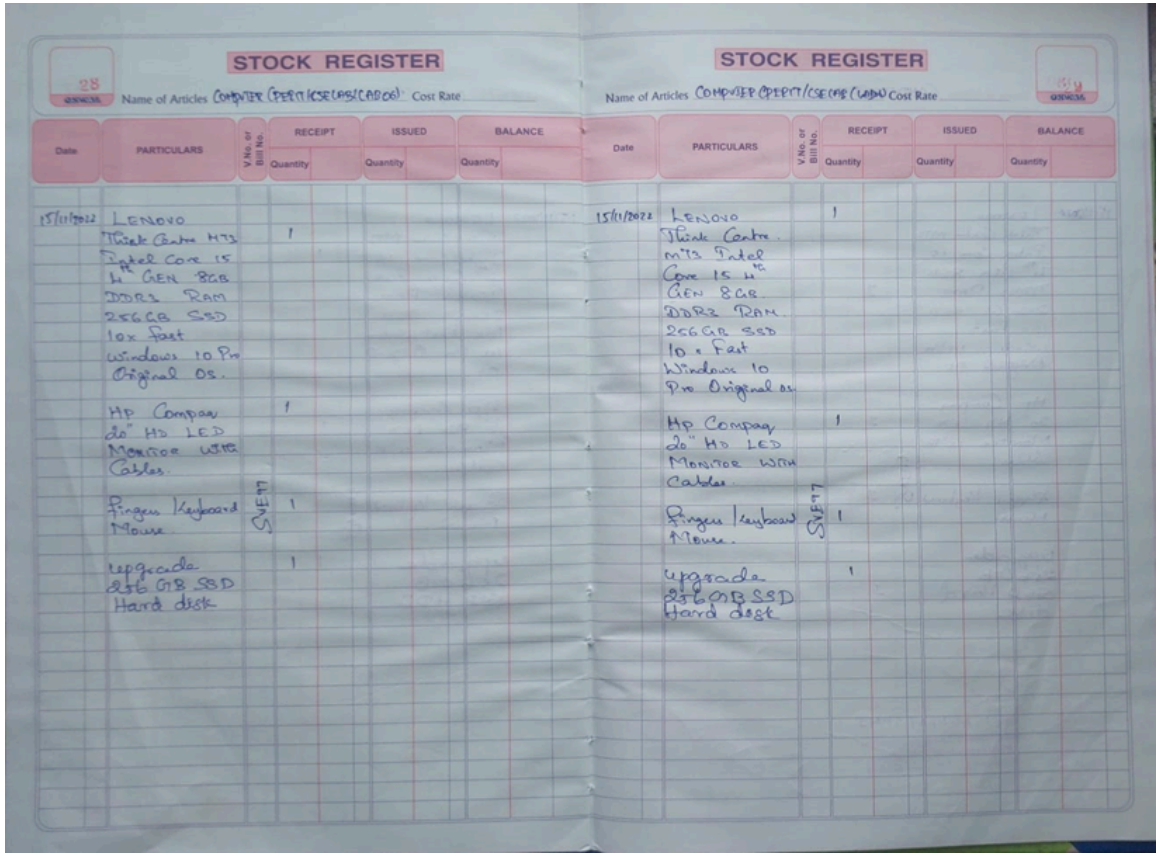
- Maintenance of battery & UPS is carried out on every weekend.
- Weekly maintenance report is prepared by the Lab assistant and sent to the manager for action.

Monthly Maintenance:

- The monthly maintenance report is generated in which the current condition of the equipment's (Both Consumables, Non-Consumables and the Furniture's) are mentioned and submitted to the principal for further action.
- Every month 5S audit (Sort, Set in order, Shine, Standardize, and Sustain) is conducted by auditors to verify cleanliness of the laboratory. The compliance report or feedback is sent to department in charges for rectification.
- Every month UPS in charge checks the water level, voltage level and backup of UPS.
- Every month the earth leakage current of the power cables is checked.

Yearly Maintenance:

- Stock Verification is done for every 6 months to confirm the availability and working condition of the equipment's
- Scrap items in the laboratories are identified by the Lab assistants with the concern of the lab in charges and HOD.



STOCK REGISTER

Name of Articles COMPUTER (PEPIT/CSE(DS)/CAD06) Cost Rate

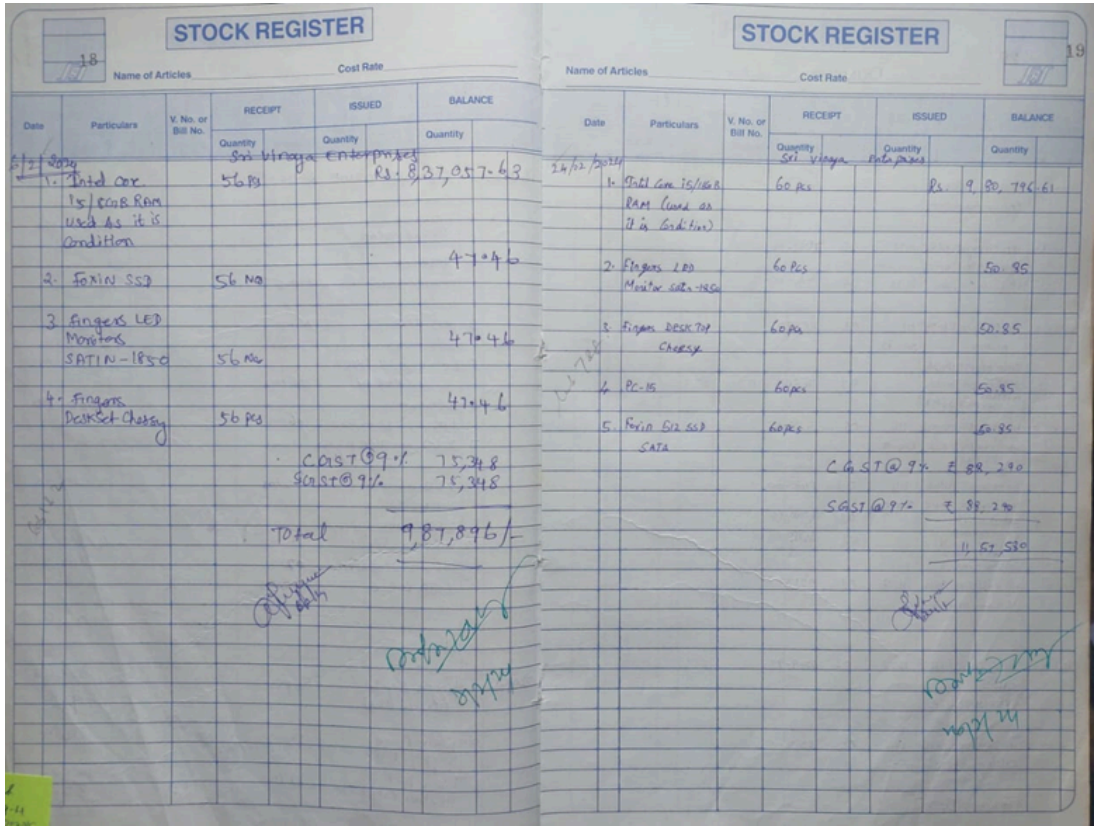
Date	PARTICULARS	V.No. or Bill No.	RECEIPT Quantity	ISSUED Quantity	BALANCE Quantity
15/11/2022	LENOVO Think Centre M73 Intel Core i5 4th GEN 8GB DDR3 RAM 256GB SSD 10x fast windows 10 Pro Original OS.		1		
	HP Compaq 20" HD LED Monitor with Cables.		1		
	Fingen keyboard Mouse	SVE97	1		
	Upgrade 256 GB SSD Hard disk		1		

STOCK REGISTER

Name of Articles COMPUTER (PEPIT/CSE(DS)/CAD06) Cost Rate

Date	PARTICULARS	V.No. or Bill No.	RECEIPT Quantity	ISSUED Quantity	BALANCE Quantity
15/11/2022	LENOVO Think Centre M73 Intel Core i5 4th GEN 8GB DDR3 RAM 256GB SSD 10 x Fast Windows 10 Pro Original OS		1		
	Hp Compaq 20" HD LED Monitor with Cables		1		
	Fingen keyboard Mouse	SVE97	1		
	Upgrade 256GB SSD Hard dest		1		

Figure No.7.3.1: Stock Register



STOCK REGISTER

18

Name of Articles Cost Rate

Date	Particulars	V. No. or Bill No.	RECEIPT Quantity	ISSUED Quantity	BALANCE Quantity
5/12/2022	Sri Vinaya enterprises				Rs. 8,37,057.63
	1. Intel Cor i5/i3 8 RAM used As it is Condition		56 Pcs		47.46
	2. FoXIN SSD		56 Nos		47.46
	3. Fingers LED Monitors SATIN-1850		56 Nos		47.46
	4. Fingers DeskSet Cheesy		56 Pcs		
			CGST@9%		75,348
			SGST@9%		75,348
			Total		9,87,896/-

STOCK REGISTER

19

Name of Articles Cost Rate

Date	Particulars	V. No. or Bill No.	RECEIPT Quantity	ISSUED Quantity	BALANCE Quantity
24/12/2022	Sri Vinaya Enterprises				Rs. 9,99,796.61
	1. Intel Core i5/i3 8 RAM (used as it is Condition)		60 Pcs		50.85
	2. Fingers LED Monitor SATA-1850		60 Pcs		50.85
	3. Fingers DESK TOP Cheesy		60 Pcs		50.85
	4. PC-15		60 pcs		50.85
	5. Foxin 512 SSD SATA		60 pcs		
			CGST@9%		₹ 88,290
			SGST@9%		₹ 88,290
					11,67,580

Figure No.7.3.2: Stock Register

PERI INSTITUTE OF TECHNOLOGY (AN AUTONOMOUS INSTITUTION)

Department of Computer Science and Engineering

EQUIPMENTS HISTORY/MAINTENANCE

DEPARTMENT: **Computer Science and Engineering** AY: 2023– 2024

NAME OF THE LAB: 2

EQUIPMENT NAME	PC
MAKE	Zebronics
SPECIFICATION	LGA775 Socket Mother Board, Intel(R) , Duel Core(TM), DDR2 - 2GB RAM, 250 GB HDD, Mouse, Keyboard, PERI Monitor

MAINTENANCE HISTORY:

System Number	Informed to System Admin with Date	Serviced On	Nature of the Complaint	Serviced by	Cost, Rs.	In-Charge	Remarks
4	1/2/24	1/2/24	Keyboard Issue	Asst. Syste Admin	–		
7	6/2/24	6/2/24	RAM Problem	Lab Asst.	–		
24	9/2/24	9/2/24	Power chord	Lab Asst.	–		
16	12/2/24	13/2/24	SMPS issue	System Admin	–		
21	20/2/24	20/2/24	RAM problem	Lab Asst	–		
9	23/2/24	26/2/24	Mouse not working	System Admin	200		
12	28/2/24	28/2/24	Software problem	Lab Asst	–		

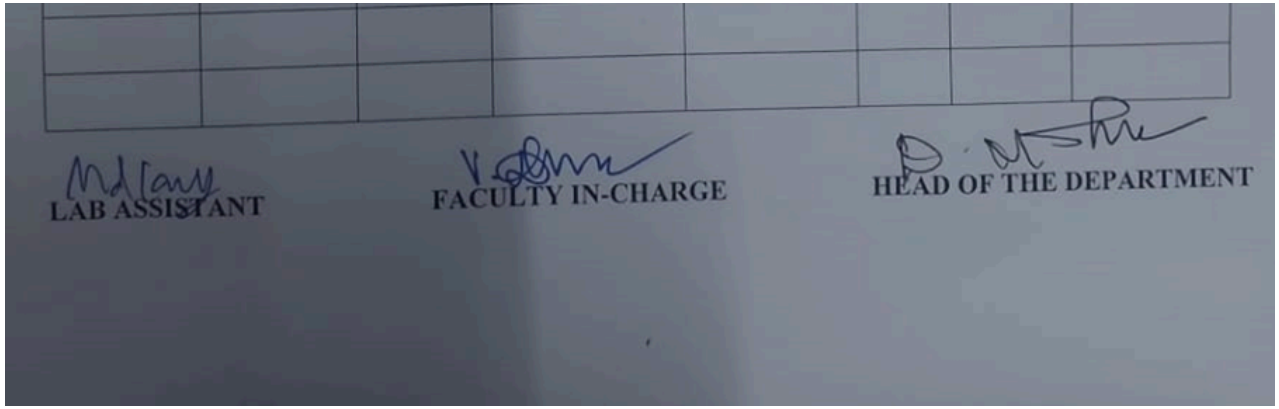
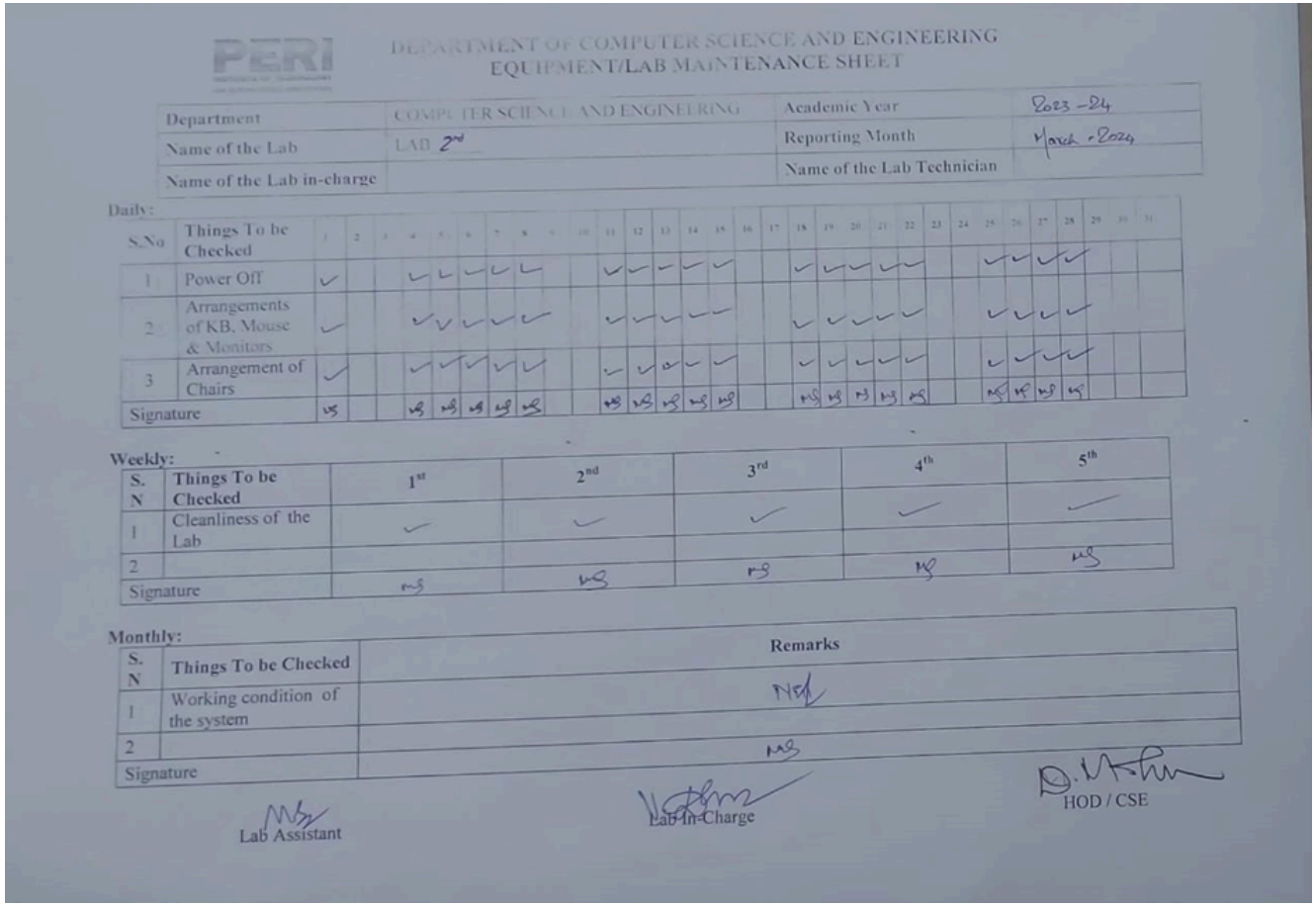


Figure No.7.3.3: Equipment Maintenance



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
EQUIPMENT/LAB MAINTENANCE SHEET

Department	COMPUTER SCIENCE AND ENGINEERING	Academic Year	2023-24
Name of the Lab	LAB 2nd	Reporting Month	March-2024
Name of the Lab in-charge		Name of the Lab Technician	

Daily:

S.No	Things To be Checked	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	Power Off	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓			
2	Arrangements of KB, Mouse & Monitors	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓			
3	Arrangement of Chairs	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓	✓			✓	✓	✓	✓			
Signature	MS			MS	MS	MS	MS	MS			MS	MS	MS	MS	MS				MS	MS	MS	MS	MS			MS	MS	MS	MS			

Weekly:

S. N	Things To be Checked	1st	2nd	3rd	4th	5th
1	Cleanliness of the Lab	✓	✓	✓	✓	✓
2						
Signature		MS	MS	MS	MS	MS

Monthly:

S. N	Things To be Checked	Remarks
1	Working condition of the system	Nil
2		
Signature		MS

Lab Assistant Lab In-Charge HOD / CSE

Figure Number 7.3.4: Lab Maintenance Record

Preventive maintenance:

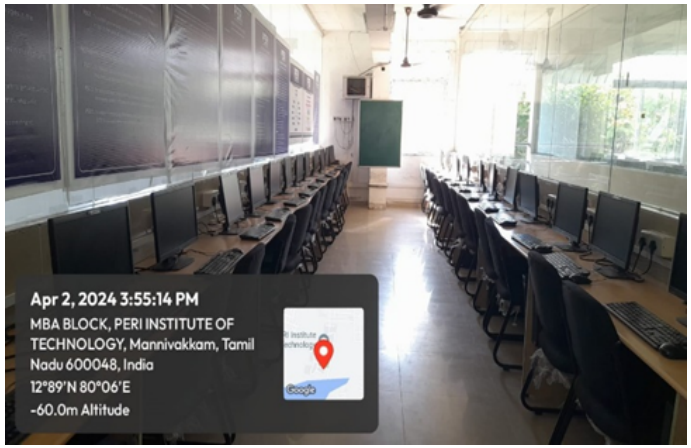
- The working conditions of the equipment are periodically checked.
- Do"s and Don"ts of the laboratory are displayed in all laboratory.
- Stock register is maintained in all the laboratories and audits are conducted by stock verification committee to check the availability and working of the equipment.
- UPS back up is provided for all laboratories.
- Students are not allowed to use pen drives in the laboratory.
- Students are not allowed to install any software without the knowledge of Lab Instructor.
- Antivirus software is updated regularly to prevent the virus attacks.

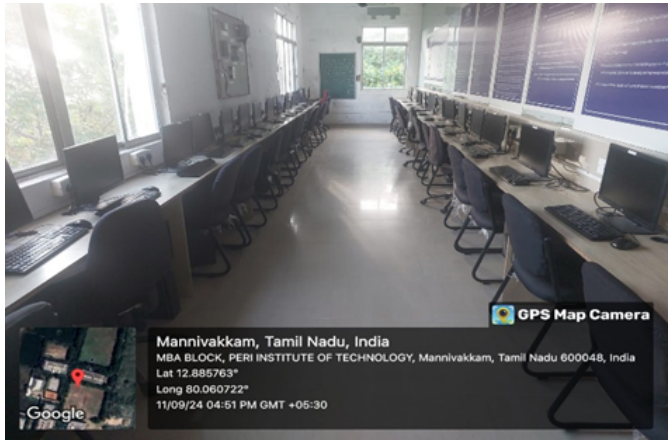
Breakdown Maintenance:

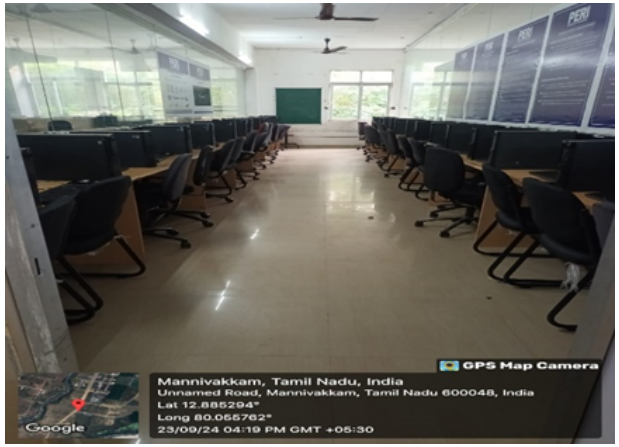
- Minor repairs are carried out by the lab instructors or it is reported to the Computer maintenance Cell.
- In case of Major repair, the service report is obtained from industry person. Approval for Service of equipment is obtained from HOD, Principal, Purchase Manager, Chairman and fault is rectified.
- Service register is maintained in each laboratory.

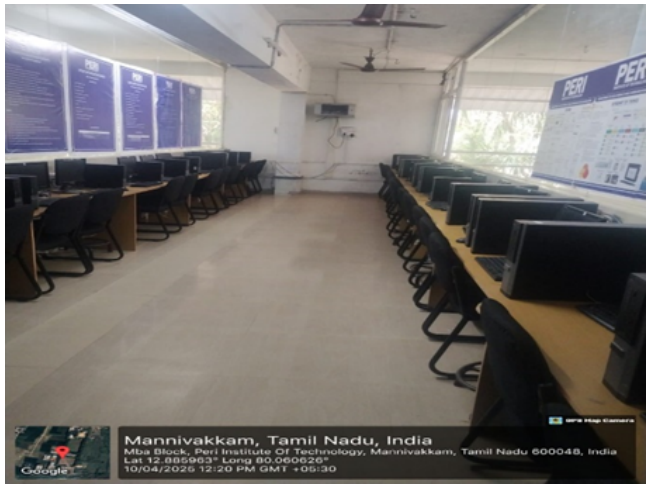
Laboratory Ambience:

- Computer laboratories are spacious with individual partitions for each user.
- Laboratories are air conditioned and proper lighting and ventilation are available.
- Internet connectivity is provided for each system.
- Computer labs are equipped with modern equipments and latest software to meet the requirement of curriculum.
- All computer systems are connected with UPS for uninterrupted power supply and smooth working.
- List of lab experiments, Software and Hardware configuration are displayed in all the laboratories.






GPS Map Camera
Mannivakkam, Tamil Nadu, India
Unnamed Road, Mannivakkam, Tamil Nadu 600048, India
Lat 12.885294°
Long 80.065762°
23/09/24 04:19 PM GMT +05:30
Google


Mannivakkam, Tamil Nadu, India
Mba Block, Peri Institute Of Technology, Mannivakkam, Tamil Nadu 600048, India
Lat 12.885963° Long 80.060626°
10/04/2026 12:20 PM GMT +05:30
Google



7.4 Safety measures in laboratories (10)

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Data Science Lab	1. Fire extinguisher is readily available to avoid / reduce the damage in case of fire. 2. First Aid kit is available in the Laboratory in case of emergency. 3. All the laboratories are provided with Do"s and Don"ts boards with exclusive points based on their usage. 4. Sufficient ventilation is provided in laboratories. 5. Lab assistants are trained to use the fire extinguishers in case of fire Hazard. 6. Electrical connections (including earthing) of computers and its accessories are checked periodically. 7. Students are instructed to shut down the systems after their usage.
2	Security Lab	1. Fire extinguisher is readily available to avoid / reduce the damage in case of fire. 2. First Aid kit is available in the Laboratory in case of emergency. 3. All the laboratories are provided with Do"s and Don"ts boards with exclusive points based on their usage. 4. Sufficient ventilation is provided in laboratories. 5. Lab assistants are trained to use the fire extinguishers in case of fire Hazard. 6. Electrical connections (including earthing) of computers and its accessories are checked periodically. 7. Students are instructed to shut down the systems after their usage.
3	Data Structures Lab	1. Fire extinguisher is readily available to avoid / reduce the damage in case of fire. 2. First Aid kit is available in the Laboratory in case of emergency. 3. All the laboratories are provided with Do"s and Don"ts boards with exclusive points based on their usage. 4. Sufficient ventilation is provided in laboratories. 5. Lab assistants are trained to use the fire extinguishers in case of fire Hazard. 6. Electrical connections (including earthing) of computers and its accessories are checked periodically. 7. Students are instructed to shut down the systems after their usage.
4	DBMS Lab	1. Fire extinguisher is readily available to avoid / reduce the damage in case of fire. 2. First Aid kit is available in the Laboratory in case of emergency. 3. All the laboratories are provided with Do"s and Don"ts boards with exclusive points based on their usage. 4. Sufficient ventilation is provided in laboratories. 5. Lab assistants are trained to use the fire extinguishers in case of fire Hazard. 6. Electrical connections (including earthing) of computers and its accessories are checked periodically. 7. Students are instructed to shut down the systems after their usage.
5	Cloud Computing Lab	1. Fire extinguisher is readily available to avoid / reduce the damage in case of fire. 2. First Aid kit is available in the Laboratory in case of emergency. 3. All the laboratories are provided with Do"s and Don"ts boards with exclusive points based on their usage. 4. Sufficient ventilation is provided in laboratories. 5. Lab assistants are trained to use the fire extinguishers in case of fire Hazard. 6. Electrical connections (including earthing) of computers and its accessories are checked periodically. 7. Students are instructed to shut down the systems after their usage.
6	PG Lab	1. Fire extinguisher is readily available to avoid / reduce the damage in case of fire. 2. First Aid kit is available in the Laboratory in case of emergency. 3. All the laboratories are provided with Do"s and Don"ts boards with exclusive points based on their usage. 4. Sufficient ventilation is provided in laboratories. 5. Lab assistants are trained to use the fire extinguishers in case of fire Hazard. 6. Electrical connections (including earthing) of computers and its accessories are checked periodically. 7. Students are instructed to shut down the systems after their usage.
7	Basic Programming Lab	1. Fire extinguisher is readily available to avoid / reduce the damage in case of fire. 2. First Aid kit is available in the Laboratory in case of emergency. 3. All the laboratories are provided with Do"s and Don"ts boards with exclusive points based on their usage. 4. Sufficient ventilation is provided in laboratories. 5. Lab assistants are trained to use the fire extinguishers in case of fire Hazard. 6. Electrical connections (including earthing) of computers and its accessories are checked periodically. 7. Students are instructed to shut down the systems after their usage.

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

Institute Marks : 10.00

The objective of this lab is to motivate and encourage students to do in-house project. This lab provides a place where the students can do their mini projects in advanced technologies, thus preparing students for job readiness, lifelong problem solving, and leadership in the industry.

Table No.7.5.1: List of Project laboratory/Research laboratory/Centre of Excellence.

S.No.	Name of the Laboratory
1	**Project Lab** Mini and Major project models guided by our faculty members in various fields of engineering. Open source softwares were installed. Prototype models are developed.
2	**R&D Lab** Fundamental scientific researches are pursued in core computer science principles. It is used for carrying out research activities both by students and faculty.  **Figure No 7.5.1: R & D Lab**

3	**Center of Excellence Lab**

Center of Excellence lab will act as innovation hubs for emerging technologies.

The company provides a platform for advanced training and talent transformation in specialized fields. Their main focus on Open Source Technologies.



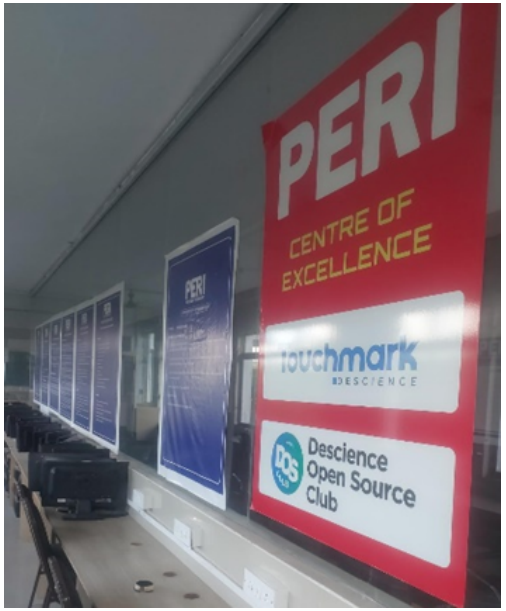




Figure No 7.5.2: Centre of Excellence Lab



3/9/24, 4:10 PM Intellectual Property India

Office of the Controller General of Patents, Designs & Trade Marks
Department for Promotion of Industry and Internal Trade
Ministry of Commerce & Industry,
Government of India

(http://ipindia.nic.in/index.htm)

(http://ipindia.nic.in/index.htm)

Application Details

APPLICATION NUMBER	202241059826
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	19/10/2022
APPLICANT NAME	1 . Peri Institute of Technology 2 . Dr.P.Palson Kennedy 3 . Mrs.K.Varalakshmi 4 . Mr.A.Vijayanarayanan 5 . Mr.S.S.Vasantharaja 6 . Mrs.R.Savithri 7 . Mrs.S.Jonisha 8 . Mrs.R.S.Abbirami 9 . Mr.S.R.Nobel Lourthu Raj 10 . Mr.V.Dharmaprakash 11 . Mrs.B.Priya 12 . Mrs.K.Kalairasai 13 . Mrs.P.Lekha 14 . Mrs.M.Divya
TITLE OF INVENTION	FACIAL MANIPULATION DETECTION USING-U-NET
FIELD OF INVENTION	CIVIL
E-MAIL (As Per Record)	senanipindia@gmail.com
ADDITIONAL-EMAIL (As Per Record)	thandalahprabu@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	18/11/2022

Dr. R. PALSON KENNEDY, M.E., Ph.D.
PRINCIPAL
PERI INSTITUTE OF TECHNOLOGY
Mannivakkam, Chennai - 600 048.

Figure No 7.5.3: Patents Applied

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)

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

Institute Marks : 20.00

8.1.1 Actions Taken Based on the Results of Evaluation of the COs Attainment.

List of subjects not attained the CO Attainment in 2019-2023 batch with the target as 60%

S.No.	Course Name
1	**Artificial Intelligence (CS8691)**
2	**Compiler Design (CS8602)**
3	**Computer Networks (CS8591)**
4	**Theory of Computation (CS8501)**

CO ATTAINMENT GAP ANALYSIS, PLAN OF ACTION & IMPLEMENTATION

1. CO-wise Attainment of Selected Courses (2019–2023 Batch)

Course Code	Course Name	CO1 (%)	CO2 (%)	CO3 (%)	CO4 (%)	CO5 (%)	Average (%)
CS8691	Artificial Intelligence	53.50	51.40	54.10	53.20	52.60	52.96
CS8602	Compiler Design	52.20	50.80	53.60	54.90	51.50	52.60
CS8591	Computer Networks	53.80	52.10	50.50	52.90	49.80	51.82
CS8501	Theory of Computation	51.50	50.10	49.90	52.80	49.40	50.74

2. Plan of Action to Bridge the Gaps / Improvement

S.No.	Course Code & Name	COs Identified for Improvement	Plan of Action
1	CS8691 – Artificial Intelligence	CO1–CO5 (All < 60%; Lowest CO2: 51.40%)	Provide focused revision and additional problem-solving sessions on heuristic search, knowledge representation, and AI algorithms. Conduct tutorial clinics and practice tests.
2	CS8602 – Compiler Design	CO1–CO5 (All < 60%; Lowest CO2: 50.80%)	Provide additional practice on syntax analysis, parsing algorithms, intermediate code generation, and symbol table management. Conduct structured tutorial sessions and problem-solving exercises.
3	CS8591 – Computer Networks	CO1–CO5 (All < 60%; Lowest CO5: 49.80%)	Reinforce data link layer framing, error control, and routing protocols using Wireshark packet analysis and Packet Tracer simulation exercises.
4	CS8501 – Theory of Computation	CO1–CO5 (All < 60%; Lowest CO5: 49.40%)	Provide focused coaching on Context-Free Grammars (CFGs), Pushdown Automata (PDAs), and formal proof writing through structured problem sets and clinics.

3. Implementation of Action Taken

S.No.	Course Code & Name	Implementation of Action Taken
1	CS8691 – Artificial Intelligence	Conducted additional tutorial classes and Python-based tool demonstrations. Provided numerical worksheets, algorithm flowcharts, and unit-wise practice tests for students needing extra support.
2	CS8602 – Compiler Design	Conducted tutorial sessions and numerical exercises on lexical and syntax analysis. Provided parser implementation worksheets and compiler phase practice assignments.
3	CS8591 – Computer Networks	Executed Wireshark packet capture labs and Packet Tracer routing simulations. Provided network configuration worksheets and troubleshooting guides.
4	CS8501 – Theory of Computation	Conducted specialized problem-solving clinics for CFGs and PDAs. Provided structured grammar minimization worksheets and formal proof exercises.

4. Consolidated CO-wise Gap Identification

Course	Lowest CO	Attainment (%)	Highest CO	Attainment (%)	Observation
CS8691	CO2	51.40	CO3	54.10	All five COs are below the 60% target benchmark; CO2 is the weakest outcome.
CS8602	CO2	50.80	CO4	54.90	All five COs are below 60%; CO2 recorded the lowest attainment across the course.
CS8591	CO5	49.80	CO1	53.80	All five COs are below 60%; CO5 and CO3 are the weakest outcomes.
CS8501	CO5	49.40	CO4	52.80	All five COs are below 60%; CO5 and CO3 require intensive remedial coaching.

List of courses Not attained CO Attainment 2020–2024 Batch

S.No	Course Name
1	**Engineering Mathematics – I (MA8151)**
2	**Computer Networks (CS8591)**
3	**Artificial Intelligence (CS8691)**
4	**Compiler Design (CS8602)**

1. CO-wise Attainment of Selected Courses (2020–2024 Batch)

Course Code	Course Name	CO1 (%)	CO2 (%)	CO3 (%)	CO4 (%)	CO5 (%)	Average (%)
CS8691	Artificial Intelligence	57.20	55.80	58.10	57.40	56.50	57.00
CS8602	Compiler Design	58.50	54.20	57.80	59.20	55.60	57.06
CS8591	Computer Networks	56.80	55.40	53.20	55.90	52.80	54.82

2. Plan of Action to Bridge the Gaps / Improvement

S.No.	Course Code & Name	COs Identified for Improvement	Plan of Action
1	CS8691 – Artificial Intelligence	CO2 (55.80%) & CO5 (56.50%)	Conduct focused tutorial and problem-solving sessions on heuristic search, knowledge representation, and AI algorithms. Provide application-oriented worksheets.
2	CS8602 – Compiler Design	CO2 (54.20%) & CO5 (55.60%)	Provide extra practice exercises on lexical analysis, syntax analysis, parsing algorithms, and symbol table management. Conduct step-by-step tutorial clinics.
3	CS8591 – Computer Networks	CO5 (52.80%) & CO3 (53.20%)	Reinforce data link layer framing, error control, and transport layer routing protocols using Wireshark packet capture labs and Packet Tracer simulations.

3. Implementation of Action Taken

S.No.	Course Code & Name	Implementation of Action Taken
1	CS8691 – Artificial Intelligence	Conducted special tutorial sessions and Python-based tool demonstrations targeting CO2 and CO5. Distributed numerical worksheets, algorithm flowcharts, and unit-wise practice tests.
2	CS8602 – Compiler Design	Executed targeted tutorial classes and parser implementation workshops addressing CO2 and CO5. Distributed structured practice sets and conducted periodic quizzes.
3	CS8591 – Computer Networks	Implemented remedial coaching, packet analyzer lab demonstrations, and structured practice problem sets specifically targeting CO5 and CO3.

4. Consolidated CO-wise Gap Identification

Course	Lowest CO	Attainment (%)	Highest CO	Attainment (%)	Observation
CS8691	CO5	55.80	CO3	58.10	Demonstrated solid overall gain (+4.04% over 2019-23); CO2 remains lowest focus area.

CS8602	CO2	54.20	CO4	59.20	Strong course-wide gain (+4.46% average); CO2 improved by +3.40% but targeted for further review.
CS8591	CO5	52.80	CO1	56.80	Progressive improvement (+3.00% average); CO5 improved significantly from 49.80% to 52.80%.

List of Not attained CO Courses in 2021–2025 Batch

S.No	Course Name
1	**Matrices and Calculus (MA3151)**
2	**Compiler Design (CS3501)**
3	**Theory of Computation (CS3452)**

1. CO-wise Attainment of Selected CSE Courses (2021–2025 Batch)

Course Code	Course Name	CO1 (%)	CO2 (%)	CO3 (%)	CO4 (%)	CO5 (%)	Average (%)
CS3501	Compiler Design	59.10	55.40	58.60	59.50	56.80	57.88
CS3452	Theory of Computation	55.80	54.60	53.90	56.40	53.80	54.90

2. Plan of Action to Bridge the Gaps / Improvement

S.No.	Course Code & Name	COs Identified for Improvement	Plan of Action
1	CS3501 – Compiler Design	CO2 (55.40%) & CO5 (56.80%)	Provide structured practice exercises on syntax analysis, parsing algorithms, lexical analysis, and code generation. Organize additional tutorial clinics.
2	CS3452 – Theory of Computation	CO5 (53.80%) & CO3 (53.90%)	Conduct dedicated problem-solving workshops on Context-Free Grammars, Pushdown Automata, and Turing Machines. Provide transition diagram worksheets and formal proof guides.

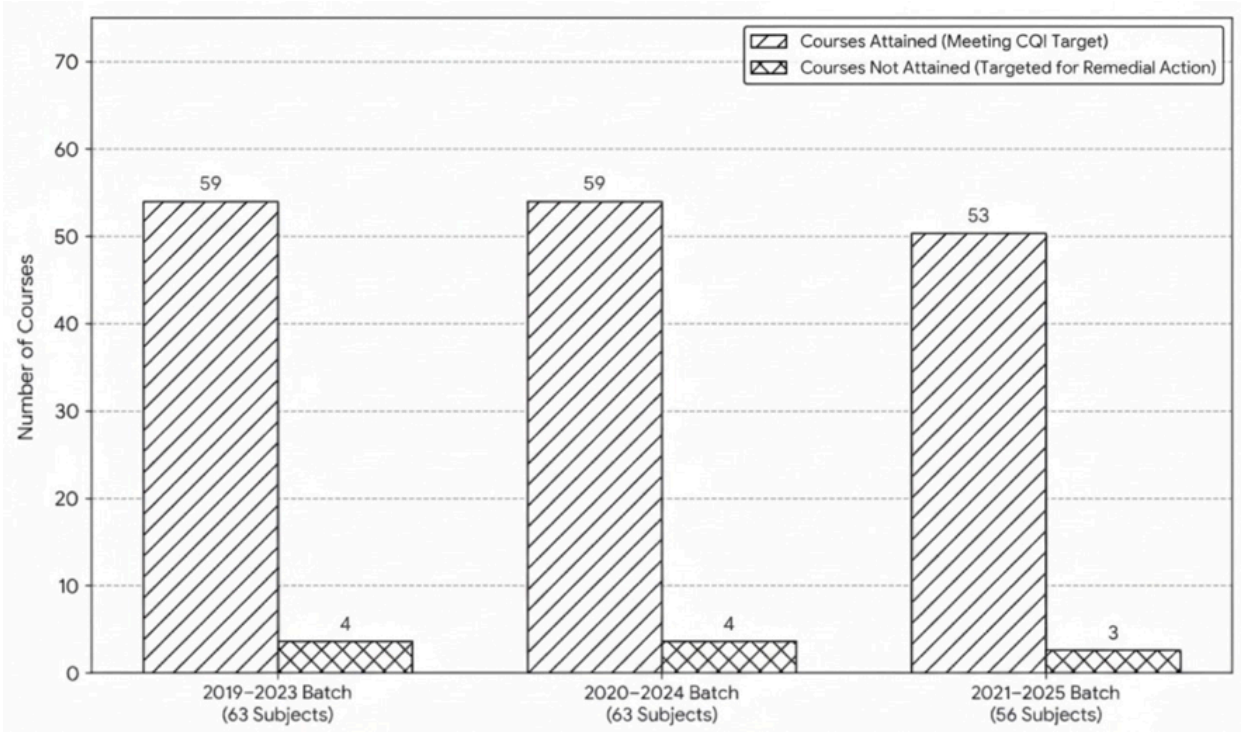
3. Implementation of Action Taken

S.No.	Course Code & Name	Implementation of Action Taken
1	CS3501 – Compiler Design	Executed additional tutorial classes and parser implementation workshops addressing CO2 and CO5. Provided structured problem-solving sheets and peer learning support.

2	CS3452 – Theory of Computation	Imparted specialized tutorial sessions on Pushdown Automata and Turing Machines (CO5/CO3). Provided state-transition worksheets and formal proof step-by-step guides.

4. Consolidated CO-wise Gap Identification

Course	Lowest CO	Attainment (%)	Highest CO	Attainment (%)	Observation
CS3501	CO5	56.80	CO4	59.50	Consistent growth (+0.82% average); CO4 reached 59.50% nearing target benchmark.
CS3452	CO5	53.80	CO4	56.40	Slight progressive gain (+1.72% average); CO5 improved from 50.40% (2019-23) to 53.80%.



8.1.2 Actions Taken Based on the Results of Evaluation of the POs/PSOs Attainment (20) Institute Marks : 20.00

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

POs & PSOs Attainment levels & actions for improvement (2019–2023 Batch CAY)

PO1: Engineering knowledge - Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**2.37**	• Communicative English: **1.00** • Engineering Mathematics - I: **1.00** • Engineering Physics: **1.00** • Problem Solving and Python Programming: **1.00** • Engineering Graphics: **1.00** • Technical English: **1.00** • Interpersonal Skills/Listening & Speaking: **1.00** • Mini Project: **1.00**

Observations:

1. Lateral entry / non-mathematics background students face difficulties in multi-variable integration and core engineering logic.
2. Solving mathematical modeling and design procedure problems found to be lengthy at times.
3. Basic knowledge of engineering analysis is not well understood during initial stages.

Actions Taken:

1. Additional remedial and tutorial classes were conducted to introduce CSE engineering fundamentals.
2. More emphasis on mathematical basics was given in the prerequisite courses.
3. A practical approach to teaching was adopted, supported by step-by-step problem-solving workbooks.

PO2: Problem Analysis - Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.77**	• Communicative English: **1.00** • Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Engineering Practices Laboratory: **1.20** • Digital Systems Laboratory: **1.20** • Computer Architecture: **1.20** • Database Management Systems: **1.20**

Observations:

1. Students face challenges in converting real-world problem statements into computational and mathematical formulations.

2. Analysis of complex computational algorithms and hardware design found to be abstract.

3. Students find it difficult to solve complex problem-oriented engineering questions.

Actions Taken:

1. Additional tutorial classes were conducted to solve previous university examination questions.
2. More problems were given as part of assignments and were monitored on a regular basis.
3. Frequently asked complex analytical questions were solved during classroom tutorial sessions.

PO3: Design / Development of Solutions - Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.70**	• Communicative English: **1.00** • Engineering Physics: **1.00** • Problem Solving and Python Programming: **1.00** • Technical English: **1.20** • Engineering Practices Laboratory: **1.00** • Digital Systems Laboratory: **1.00** • Interpersonal Skills/Listening & Speaking: **1.00** • Computer Architecture: **1.20**

Observations:

1. Basic design principles, UML modeling, and component interaction are not well understood in early stages.

2. Subject involves both systemic analysis and detailed design which confuses students.

3. Solving full-scale design problems found to be lengthy and multi-layered.

Actions Taken:

1. Integrated laboratory classes were conducted to reinforce design concepts through practical applications.
2. More design-oriented exercises were taught during dedicated tutorial hours.
3. Peer design review sessions were organized, during which students presented UI/UX wireframes and schema diagrams and received feedback.

PO4: Conduct Investigations of Complex problems - Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.64**	• Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Physics and Chemistry Laboratory: **1.00** • Technical English: **1.00** • Engineering Mathematics – II: **1.00** • Programming in C: **1.00** • Discrete Mathematics: **1.00**

Observations:

1. Difficulties encountered in conducting non-linear search/graph executions independently.

2. Students find it difficult to synthesize experimental output logs and interpret results without step-by-step guidance.

3. Practical approach and lab execution time limits full experimental evaluation.

Actions Taken:

1. Extra practical contact hours were allotted for hands-on execution of data structure operations and database queries.

2. Department-level hackathons and science fests were conducted, motivating students to develop working prototype models.

3. More emphasis on experimental design and data interpretation was incorporated into the laboratory manuals.

PO5: Modern tool usage - Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.20**	• Communicative English: **1.00** • Engineering Mathematics - I: **1.00** • Engineering Physics: **1.00** • Problem Solving and Python Programming: **1.00** • Physics and Chemistry Laboratory: **1.00** • Engineering Mathematics – II: **0.40** • Physics for information science: **0.40** • Basic Electrical, Electronics and Measurement Engg.: **0.40**

Observations:

1. Time bound constraints during regular lab hours limit deep tool exploration.

2. Limited hands-on familiarity with modern open-source deployment platforms, IDEs, and simulation kits.

3. Students require individual system allocation and updated software environments to work effectively.

Actions Taken:

1. Additional classes were conducted to introduce students to practical knowledge of software tools.
2. Individual systems and dedicated laboratory slots were provided to students to work with modern tools and IDEs.
3. Specialized workshops and Value-Added Courses were organized on cloud deployment tools and data mining kits.

PO6: The Engineer and Society: Analyse and evaluate societal and environmental aspect while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal frame work, culture and environment

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.20**	• Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Technical English: **1.20** • Basic Electrical, Electronics and Measurement Engg.: **1.00** • Environmental Science and Engineering: **1.00** • Engineering Practices Laboratory: **1.00** • C Programming Laboratory: **1.00**

Observations:

1. Awareness regarding societal, health, legal, and safety standards in software deployment is low.

2. Students find it challenging to connect technical engineering solutions to broader societal impact.

3. Exposure to real-world industrial and community problems is limited during regular coursework.

Actions Taken:

1. Additional orientation classes were conducted to teach management- and society-related subjects.
2. Students were mentored and encouraged to undertake socially relevant capstone projects (e.g., healthcare and elderly/disabled care).
3. A practical approach to teaching was adopted through industrial visits and guest lectures.

PO7: Ethics - Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.77**	• Communicative English: **1.00** • Engineering Physics: **1.00** • Problem Solving and Python Programming: **1.00** • Problem Solving and Python Programming Lab: **1.00** • Physics and Chemistry Laboratory: **1.00** • Engineering Mathematics – II: **1.00** • Physics for information science: **1.00** • Programming in C: **1.00**

Observations:

1. Practical implementation of energy-efficient software design and campus sustainability requires tangible projects.

2. Basic concepts of environmental impact and green computing are not fully integrated into core subjects.

Actions Taken:

1. Additional classes and project work were conducted, focusing on paperless workflows and energy-efficient systems.

2. More examples of sustainable engineering solutions were practised by students during extra classes.

3. Small campus-based green mini-projects were assigned to enhance students practical awareness of sustainability.

PO8: Individual and Teamwork - Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.40**	• Communicative English: **1.10** • Engineering Mathematics - I: **1.10** • Engineering Physics: **1.10** • Engineering Chemistry: **1.10** • Problem Solving and Python Programming: **1.10** • Engineering Graphics: **1.10** • Technical English: **1.10** • Basic Electrical, Electronics and Measurement Engg.: **1.00**

Observations:

1. Understanding software licensing, intellectual property rights, anti-plagiarism norms, and cyber security ethics requires practical exposure.

2. Students struggle to apply professional ethics and responsibilities during practical project submissions.

Actions Taken:

1. Seminars and presentations were organized on ethical engineering practices, copyright laws, and professional standards.
2. Case studies on open-source licenses, software privacy, and data safety were integrated into project work.
3. Students were asked to present the ethical impact aspects of their laboratory work.

PO9: Communication - Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.52**	• Problem Solving and Python Programming Lab: **1.00** • Physics and Chemistry Laboratory: **1.00** • Engineering Mathematics – II: **1.00** • Programming in C: **1.00** • Digital Principles and Design: **1.00** • Object Oriented Programming: **1.00** • Data Structures Laboratory: **1.00** • Probability and Queueing Theory: **1.00**

Observations:

1. Students hesitate during group collaboration and team-based practical projects.
2. Uneven distribution of workload among team members in group laboratory tasks.
3. Students are not showing active interest in multidisciplinary group activities without structured guidance.

Actions Taken:

1. Mandatory pair-programming and group project structures were established, with rotating team leaders.
2. Students were encouraged to work collaboratively in teams through department associations, hackathons, and symposiums.
3. Peer assessment and teamwork marks were included in practical continuous evaluations.

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

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.41**	• Physics for information science: **1.20** • Basic Electrical, Electronics and Measurement Engg.: **1.00** • Environmental Science and Engineering: **1.20** • Engineering Practices Laboratory: **1.00** • C Programming Laboratory: **1.00** • Discrete Mathematics: **1.00** • Data Structures: **1.00** • Communication Engineering: **1.00**

Observations:

1. Students show hesitation during technical report writing, system documentation, and oral presentations.

2. Technical communication and slide preparation in practical project submissions need refinement.

Actions Taken:

1. Specialized soft-skills training, placement preparation, and technical report writing sessions were incorporated into the academic schedule.

2. Compulsory oral presentation slides and documentation reviews were introduced for all major project activities.

3. Additional hours were allotted for group discussions and technical seminars to facilitate a smooth transition into the workplace.

PO11: Life-long learning - Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.15**	• Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Physics and Chemistry Laboratory: **1.00** • Engineering Mathematics – II: **1.00** • Physics for information science: **0.80** • Environmental Science and Engineering: **0.80** • Programming in C: **1.00**

Observations:

1. Lowest attainment area; students lack formal training in project estimation, timeline scheduling, and cost budgeting.

2. Solving project management and financial estimation tasks found to be difficult without hands-on templates.

Actions Taken:

1. A mandatory Project Timeline & Cost Estimation Sheet was included in all major laboratory workbooks and project reviews.
2. Special emphasis was given to integrating project budget estimation and task milestone planning into laboratory assignments.
3. Library hours were properly monitored to ensure the effective utilization of journals, NPTEL videos, and digital learning platforms.

PSO1: To analyze, design and develop computing solutions by applying foundational concepts of Computer Science and Engineering.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.23**	• Communicative English: **1.00** • Engineering Chemistry: **1.00** • Problem Solving and Python Programming: **1.00** • Engineering Graphics: **1.00** • Engineering Mathematics – II: **1.00** • Basic Electrical, Electronics and Measurement Engg.: **1.00** • Engineering Practices Laboratory: **0.20** • Digital Systems Laboratory: **0.20**

Observations:

1. Attainment is low in basic foundational computing and core electronic interface subjects.

2. Lateral entry and non-programming background students find difficulty in core software architecture.

3. Basic knowledge of computational logic and algorithm analysis is not well understood initially.

Actions Taken:

1. Additional classes were conducted to introduce core computing design concepts and digital logic.
2. A practical approach to teaching data structures and algorithms was adopted through tutorial-based code reviews.
3. More practice problems on synchronous and asynchronous logic and algorithm design were provided as assignments.

PSO2: To apply software engineering principles and practices for developing quality software for scientific and business applications.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.15**	• Engineering Mathematics - I: **1.00** • Engineering Physics: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Problem Solving and Python Programming Lab: **0.60** • Engineering Mathematics – II: **1.00** • Physics for information science: **1.00** • Basic Electrical, Electronics and Measurement Engg.: **1.00**

Observations:

1. Attainment is low in applied software engineering laboratory and practical development courses.

2. Students struggle to apply full software engineering principles (SDLC, testing, documentation) in mini-projects.

3. Solving end-to-end application development problems found to be lengthy and complex.

Actions Taken:

1. Additional classes were conducted to introduce software design patterns, UML diagramming, and software testing tools.
2. A practical approach to teaching software engineering was adopted, with mandatory test-case submissions.
3. Frequent assessments, peer reviews, and instructor feedback sessions were implemented for practical laboratory sessions.

PSO3: To adopt to emerging information and communication technologies to innovate ideas and solutions to existing / novel problems.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.89**	• Communicative English: **1.00** • Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Problem Solving and Python Programming: **1.00** • Engineering Graphics: **1.00** • Physics and Chemistry Laboratory: **1.00** • Programming in C: **0.40** • Discrete Mathematics: **1.00**

Observations:

1. Attainment can be improved by bridging academic curriculum with rapidly evolving industry technology tracks.

2. Students require structured exposure to emerging domain tools (AI, Cloud, IoT, Cyber Security).

Actions Taken:

1. Industry-supported domain tracks (Cloud Services, AI Electives, and Web Technologies) were fully integrated into the study plans.

2. Students were encouraged to undertake industry-supported projects through MoUs, internship opportunities, and open-source certifications.

3. Guest lectures and seminars by industry experts were regularly organized on emerging technologies.

PO & PSOs Attainment 2019–2023 Batch

Course Code & Name	Areas of Weakness (Identified Gaps in PO/PSO Criteria - Scale 1 to 3)	Curriculum Intervention (Syllabus / Content Beyond)	Pedagogical Initiatives (Teaching Methods)	Support System Improvements & Implementation Plan
CS8451 – Design and Analysis of Algorithms (Semester IV)	• Mean Mapped Attainment: 1.42 / 3.00 • PO10: 1.00 | PO12: 1.00 • PO9: 1.00 | PO2: 1.20 | PO3: 1.20	• Add worked examples on asymptotic analysis, recurrence solving, greedy algorithms, and dynamic programming.	• Use trace tables, complexity-comparison exercises, and short algorithm-design problems with feedback.	• Plan weekly problem-solving clinics and short formative assessments on complexity and algorithm selection.
MA8351 – Discrete Mathematics (Semester III)	• Mean Mapped Attainment: 1.33 / 3.00 • PO4: 1.00 | PO6: 1.00 | PO8: 1.00 • PO10: 1.00 | PO12: 1.00	• Reinforce proof methods, relations, functions, counting, recurrence relations, and graph theory through additional tutorial sets.	• Use proof-writing workshops, concept maps, and progressively difficult tutorial sheets.	• Plan a remedial tutorial series and topic-wise quizzes to monitor proof and problem-solving skills.
CS8351 – Data Structures (Semester III)	• Mean Mapped Attainment: 1.33 / 3.00 • PO4: 1.00 | PO6: 1.00 | PO8: 1.00 • PO10: 1.00 | PO12: 1.00	• Introduce step-by-step memory layout diagrams for linked lists, stacks, queues, and tree traversals.	• Incorporate dry-run coding sessions on whiteboards before code execution.	• Establish peer-assisted learning groups for non-programming background students.
GE8151 – Problem Solving & Python Programming (Semester I)	• Mean Mapped Attainment: 1.35 / 3.00 • PO1: 1.00 | PO3: 1.00 | PO5: 1.00 • PO7: 1.00 | PSO1: 1.00 | PSO3: 1.00	• Focus on basic flowcharting, pseudo-code logic, control statements, and function decomposition.	• Provide live coding demonstrations during lecture hours for beginner-level syntax.	• Conduct weekly lab assignments with hands-on debugging support.
CS8492 – Database Management Systems (Semester IV)	• Mean Mapped Attainment: 1.47 / 3.00 • PO6: 1.00 | PO8: 1.00 | PO2: 1.20 • PO3: 1.20 | PO4: 1.20	• Cover practical ER-diagram-to-relational schema mapping and normalization steps up to BCNF.	• Use interactive SQL query builders and live database environment execution.	• Conduct schema mini-project reviews with continuous faculty guidance.
CS8691 – Artificial Intelligence (Semester VI)	• Mean Mapped Attainment: 1.03 / 3.00 • PO6: 0.20 | PO5: 0.40 | PO11: 0.40 | PSO1: 0.20 • PO3: 1.00 | PO8: 1.00 | PO10: 1.00 | PSO2: 1.00	• Include hands-on state-space search algorithms (A*, Minimax) and basic knowledge representation frameworks beyond standard theory.	• Demonstrate problem-solving using Python AI libraries (scikit-learn, NLTK) during class hours.	• Provide step-by-step problem-solving worksheets for search tree traversals and Bayesian inference.

POs & PSOs Attainment levels & actions for improvement (2020–2024 Batch)

PO1: Engineering knowledge - Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**2.32**	• Communicative English: **1.00** • Engineering Mathematics - I: **1.00** • Engineering Physics: **1.00** • Problem Solving and Python Programming: **1.00** • Engineering Graphics: **1.00** • Technical English: **1.00** • Interpersonal Skills/Listening & Speaking: **1.00** • Mini Project: **1.00**

Observations:

1. Lateral entry / non-mathematics background students face difficulties in multi-variable integration and core engineering logic.

2. Solving mathematical modeling and design procedure problems found to be lengthy at times.

3. Basic knowledge of engineering analysis is not well understood during initial stages.

Actions Taken:

1. Additional remedial and tutorial classes were conducted to introduce Mechanical/CSE engineering fundamentals.
2. More emphasis on mathematical basics was given in the prerequisite courses.
3. A practical approach to teaching was adopted, supported by step-by-step problem-solving workbooks.

PO2: Problem Analysis - Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.72**	• Communicative English: **1.00** • Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Engineering Practices Laboratory: **1.20** • Digital Systems Laboratory: **1.20** • Interpersonal Skills/Listening & Speaking: **1.00** • Computer Architecture: **1.20**

Observations:

1. Students face challenges in converting real-world problem statements into computational and mathematical formulations.

2. Analysis of complex computational algorithms and hardware design found to be abstract.

3. Students find it difficult to solve complex problem-oriented engineering questions.

Actions Taken:

1. Additional tutorial classes were conducted to solve previous university examination questions.

2. More problems were given as part of assignments and were monitored on a regular basis.

3. Frequently appearing complex analytical questions were solved during classroom tutorial sessions.

PO3: Design / Development of Solutions - Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.63**	• Communicative English: **1.00** • Engineering Physics: **1.00** • Problem Solving and Python Programming: **1.00** • Technical English: **1.20** • Engineering Practices Laboratory: **1.00** • Digital Systems Laboratory: **1.00** • Interpersonal Skills/Listening & Speaking: **1.00** • Computer Architecture: **1.20**

Observations:

1. Basic design principles, UML modeling, and component interaction are not well understood in early stages.

2. Subject involves both systemic analysis and detailed design which confuses students.

3. Solving full-scale design problems found to be lengthy and multi-layered.

Actions Taken:

1. Integrated laboratory classes were conducted to reinforce design concepts through practical applications.

2. More design-oriented exercises were taught during dedicated tutorial hours.

3. Peer design review sessions were organized, during which students presented UI/UX wireframes and schema diagrams and received feedback.

PO4: Conduct Investigations of Complex problems - Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.53**	• Engineering Mathematics - I: **1.00** • Programming in C: **1.00** • Discrete Mathematics: **1.00** • Data Structures: **1.00** • Communication Engineering: **1.00** • Data Structures Laboratory: **0.60** • Object Oriented Programming Laboratory: **1.00** • Interpersonal Skills/Listening & Speaking: **1.00**

Observations:

1. Difficulties encountered in conducting non-linear search/graph executions independently.

2. Students find it difficult to synthesize experimental output logs and interpret results without step-by-step guidance.

3. Practical approach and lab execution time limits full experimental evaluation.

Actions Taken:

1. Extra practical contact hours were allotted for hands-on execution of data structure operations and database queries.

2. Department-level hackathons and science fests were conducted, motivating students to develop working prototype models.

3. More emphasis on experimental design and data interpretation was incorporated into the laboratory manuals.

PO5: Modern tool usage - Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.33**	• Communicative English: **1.00** • Engineering Mathematics - I: **1.00** • Engineering Physics: **1.00** • Digital Principles and Design: **1.00** • Object Oriented Programming: **1.00** • Digital Systems Laboratory: **0.40** • Interpersonal Skills/Listening & Speaking: **1.00** • Computer Architecture: **1.00**

Observations:

1. Time bound constraints during regular lab hours limit deep tool exploration.

2. Limited hands-on familiarity with modern open-source deployment platforms, IDEs, and simulation kits.

3. Students require individual system allocation and updated software environments to work effectively.

Actions Taken:

1. Additional classes were conducted to introduce students to practical knowledge of software tools.

2. Individual systems and dedicated laboratory slots were provided to students to work with modern tools and IDEs.

3. Specialized workshops and Value-Added Courses were organized on cloud deployment tools and data mining kits.

PO6: The Engineer and Society - Analyse and evaluate societal and environmental aspect while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal frame work, culture and environment

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.20**	• Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Technical English: **1.20** • Basic Electrical, Electronics and Measurement Engineering: **1.00** • Environmental Science and Engineering: **1.00** • Engineering Practices Laboratory: **1.00** • C Programming Laboratory: **1.00**

Observations:

1. Awareness regarding societal, health, legal, and safety standards in software deployment is low.

2. Students find it challenging to connect technical engineering solutions to broader societal impact.

3. Exposure to real-world industrial and community problems is limited during regular coursework.

Actions Taken:

1. Additional orientation classes were conducted to teach management- and society-related subjects.

2. Students were mentored and encouraged to undertake socially relevant capstone projects (e.g., healthcare and elderly/disabled care).

3. A practical approach to teaching was adopted through industrial visits and guest lectures.

PO7: Ethics - Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.77**	• Communicative English: **1.00** • Engineering Physics: **1.00** • Problem Solving and Python Programming: **1.00** • Problem Solving and Python Programming Laboratory: **1.00** • Physics and Chemistry Laboratory: **1.00** • Engineering Mathematics – II: **1.00** • Physics for information science: **1.00** • Programming in C: **1.00**

Observations:

1. Practical implementation of energy-efficient software design and campus sustainability requires tangible projects.

2. Basic concepts of environmental impact and green computing are not fully integrated into core subjects.

Actions Taken:

1. Additional classes and project work were conducted, focusing on paperless workflows and energy-efficient systems.

2. More examples of sustainable engineering solutions were practised by students during extra classes.

3. Small campus-based green mini-projects were assigned to enhance students practical awareness of sustainability.

PO8: Individual and Teamwork - Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.38**	• Communicative English: **1.10** • Engineering Mathematics - I: **1.10** • Engineering Physics: **1.10** • Engineering Chemistry: **1.10** • Problem Solving and Python Programming: **1.10** • Engineering Graphics: **1.10** • Technical English: **1.10** • Basic Electrical, Electronics and Measurement Engineering: **1.00**

Observations:

1. Understanding software licensing, intellectual property rights, anti-plagiarism norms, and cyber security ethics requires practical exposure.

2. Students struggle to apply professional ethics and responsibilities during practical project submissions.

Actions Taken:

1. Seminars and presentations were organized on ethical engineering practices, copyright laws, and professional standards.

2. Case studies on open-source licenses, software privacy, and data safety were integrated into project work.

3. Students were asked to present the ethical impact aspects of their laboratory work.

PO9: Communication - Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.39**	• Problem Solving and Python Programming Laboratory: **1.00** • Physics and Chemistry Laboratory: **1.00** • Engineering Mathematics – II: **1.00** • Programming in C: **1.00** • Digital Principles and Design: **1.00** • Object Oriented Programming: **1.00** • Data Structures Laboratory: **1.00** • Interpersonal Skills/Listening & Speaking: **1.00**

Observations:

1. Students hesitate during group collaboration and team-based practical projects.

2. Uneven distribution of workload among team members in group laboratory tasks.

3. Students are not showing active interest in multidisciplinary group activities without structured guidance.

Actions Taken:

1. Mandatory pair-programming and group project structures were established, with rotating team leaders.

2. Students were encouraged to work collaboratively in teams through department associations, hackathons, and symposiums.

3. Peer assessment and teamwork marks were included in practical continuous evaluations.

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

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.29**	• Basic Electrical, Electronics and Measurement Engineering: **1.00** • Environmental Science and Engineering: **1.20** • Engineering Practices Laboratory: **1.00** • C Programming Laboratory: **1.00** • Discrete Mathematics: **1.00** • Data Structures: **1.00** • Communication Engineering: **1.00** • Digital Systems Laboratory: **1.00**

Observations:

1. Students show hesitation during technical report writing, system documentation, and oral presentations.

2. Technical communication and slide preparation in practical project submissions need refinement.

Actions Taken:

1. Specialized soft-skills training, placement preparation, and technical report writing sessions were incorporated into the academic schedule.

2. Compulsory oral presentation slides and documentation reviews were introduced for all major project activities.

3. Additional hours were allotted for group discussions and technical seminars to facilitate a smooth transition into the workplace.

PO11: Life-long learning - Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.06**	• Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Problem Solving and Python Programming Laboratory: **1.00** • Physics and Chemistry Laboratory: **1.00** • Engineering Mathematics – II: **1.00** • Environmental Science and Engineering: **0.80** • Programming in C: **1.00**

Observations:

1. Lowest attainment area; students lack formal training in project estimation, timeline scheduling, and cost budgeting.

2. Solving project management and financial estimation tasks found to be difficult without hands-on templates.

Actions Taken:

1. A mandatory Project Timeline & Cost Estimation Sheet was included in all major laboratory workbooks and project reviews.

2. Special emphasis was given to integrating project budget estimation and task milestone planning into laboratory assignments.

3. Library hours were properly monitored to ensure the effective utilization of journals, NPTEL videos, and digital learning platforms.

PSO1: To analyze, design and develop computing solutions by applying foundational concepts of Computer Science and Engineering.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.24**	• Communicative English: **1.00** • Engineering Chemistry: **1.00** • Problem Solving and Python Programming: **1.00** • Engineering Graphics: **1.00** • Problem Solving and Python Programming Laboratory: **1.00** • Engineering Mathematics – II: **1.00** • Basic Electrical, Electronics and Measurement Engineering: **1.00** • Engineering Practices Laboratory: **0.20**

Observations:

1. Attainment is low in basic foundational computing and core electronic interface subjects.

2. Lateral entry and non-programming background students find difficulty in core software architecture.

3. Basic knowledge of computational logic and algorithm analysis is not well understood initially.

Actions Taken:

1. Additional classes were conducted to introduce core computing design concepts and digital logic.

2. A practical approach to teaching data structures and algorithms was adopted through tutorial-based code reviews.

3. More practice problems on synchronous and asynchronous logic and algorithm design were provided as assignments.

PSO2: To apply software engineering principles and practices for developing quality software for scientific and business applications.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.20**	• Engineering Mathematics - I: **1.00** • Engineering Physics: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Problem Solving and Python Programming Laboratory: **1.00** • Engineering Mathematics – II: **1.00** • Physics for information science: **1.00** • Basic Electrical, Electronics and Measurement Engineering: **1.00**

Observations:

1. Attainment is low in applied software engineering laboratory and practical development courses.

2. Students struggle to apply full software engineering principles (SDLC, testing, documentation) in mini-projects.

3. Solving end-to-end application development problems found to be lengthy and complex.

Actions Taken:

1. Additional classes were conducted to introduce software design patterns, UML diagramming, and software testing tools.
2. A practical approach to teaching software engineering was adopted, with mandatory test-case submissions.
3. Frequent assessments, peer reviews, and instructor feedback sessions were implemented for practical laboratory sessions.

PSO3: To adopt to emerging information and communication technologies to innovate ideas and solutions to existing / novel problems.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.20**	• Engineering Mathematics - I: **1.00** • Engineering Chemistry: **1.00** • Engineering Graphics: **1.00** • Technical English: **1.20** • Basic Electrical, Electronics and Measurement Engineering: **1.00** • Environmental Science and Engineering: **1.00** • Engineering Practices Laboratory: **1.00** • C Programming Laboratory: **1.00**

Observations:

1. Attainment can be improved by bridging academic curriculum with rapidly evolving industry technology tracks.

2. Students require structured exposure to emerging domain tools (AI, Cloud, IoT, Cyber Security).

Actions Taken:

1. Industry-supported domain tracks (Cloud Services, AI Electives, and Web Technologies) were fully integrated into the study plans.
2. Students were encouraged to undertake industry-supported projects through MoUs, internship opportunities, and open-source certifications.
3. Guest lectures and seminars by industry experts were regularly organized on emerging technologies.

PO & PSOs Attainment 2020–2024 Batch (Shows Progress & Target Alignment)

Course Code & Name	Areas of Weakness (Identified Gaps in PO/PSO Criteria - Scale 1 to 3)	Curriculum Intervention (Syllabus / Content Beyond)	Pedagogical Initiatives (Teaching Methods)	Support System Improvements & Implementation Plan
CS8451 – Design and Analysis of Algorithms (Semester IV)	• Mean Mapped Attainment: 1.41 / 3.00 • PO9: 1.00 | PO10: 1.00 | PO12: 1.00 • PO2: 1.20 | PO3: 1.20	• Emphasize NP-completeness concepts, backtracking, and branch-and-bound strategies with visual state-space trees.	• Utilize algorithmic visualizer tools and online code execution platforms.	• Conduct pair-programming problem sessions during lab hours.
MA8351 – Discrete Mathematics (Semester III)	• Mean Mapped Attainment: 1.36 / 3.00 (Improved) • PO1: 2.76 | PO4: 1.00 | PO6: 1.00 • PO8: 1.00 | PO10: 1.00 | PO12: 1.00	• Add real-world applications of Graph Theory in computer networking and algebraic structures in cryptography.	• Implement interactive quiz applications for formula retention and logical equivalence verification.	• Provide extra contact hours for lateral entry students prior to mid-term exams.
CS8351 – Data Structures (Semester III)	• Mean Mapped Attainment: 1.36 / 3.00 (Improved) • PO1: 2.76 | PO4: 1.00 | PO6: 1.00 • PO8: 1.00 | PO10: 1.00 | PO12: 1.00	• Expand coverage on non-linear data structures (AVL trees, B-trees, Graph shortest paths).	• Implement animated algorithm visualizations and code profiling tasks.	• Assign mini-project tasks involving dynamic memory allocation and storage optimization.
GE8151 – Problem Solving & Python Programming (Semester I)	• Mean Mapped Attainment: 1.53 / 3.00 (Substantially Improved) • PO4: 2.30 | PO5: 2.30 | PO9: 2.30 • PO10: 2.30 | PO1: 1.00 | PO3: 1.00	• Introduce Python file handling, dictionary manipulation, and external libraries (NumPy basics).	• Use gamified coding platforms (HackerRank/LeetCode) for basic problem solving.	• Organize departmental coding contests tailored for first-year students.
CS8492 – Database Management Systems (Semester IV)	• Mean Mapped Attainment: 1.36 / 3.00 • PO6: 1.00 | PO8: 1.00 | PO2: 1.20 • PO3: 1.20 | PO4: 1.20	• Include transaction management, concurrency control, and indexing mechanics.	• Use relational algebra solvers and SQL workbench tools in practical sessions.	• Introduce team-based database mini-projects simulating real-world e-commerce systems.

CS8691 – Artificial Intelligence (Semester VI)	• Mean Mapped Attainment: 0.84 / 3.00 • PO6: 0.20 | PSO1: 0.20 | PSO3: 0.20 | PO11: 0.40 • PO3: 1.00 | PO5: 1.00 | PO8: 1.00 | PO10: 1.00	• Add practical workshops on Machine Learning foundations, heuristic optimization, and automated reasoning tools.	• Use Jupyter notebook demonstrations to visualize search heuristics and decision tree building.	• Organize specialized tutorial hours for mathematical probability and logic-based AI problems.

PO & PSOs Attainment 2020–2024 Batch (Comparison: 2019–2023 vs 2020–2024)

Course Code & Name	Metric Evaluated / Areas for Attention	Previous Batch (2019–2023)	Current Batch (2020–2024)	Net Attainment Change / Status
CS8451 – Design and Analysis of Algorithms	The analysis identifies PO9 (1.00), PO10 (1.00), and PO12 (1.00) as the lowest-attaining outcomes. These results indicate the need to improve teamwork, communication, and lifelong learning skills. Students should be encouraged to participate in collaborative algorithm-design sessions.	The previous batch achieved 1.00 attainment in PO9, PO10, and PO12 with a mean mapped attainment level of 1.42 / 3.00. This indicates that students required further development in teamwork, communication, and self-directed problem solving.	The current batch recorded an attainment level of 1.00 in PO9, PO10, and PO12 with a mean mapped attainment level of 1.41 / 3.00. No significant improvement was observed compared with the previous batch. Additional collaborative learning activities are required.	**Slight Decline:** The mean attainment decreased marginally from 1.42 to 1.41. Although overall performance remains nearly stable, the identified outcomes (PO9, PO10, PO12) require continuous pedagogical intervention.
MA8351 – Discrete Mathematics	The analysis identifies PO4 (1.00), PO6 (1.00), PO8 (1.00), PO10 (1.00), and PO12 (1.00) as key areas for attention. Strengthening mathematical proof techniques and logical problem formulation is essential.	The previous batch recorded an attainment of 1.00 in PO4, PO6, PO8, PO10, and PO12, achieving a overall mean mapped attainment level of 1.33 / 3.00.	The current batch achieved an increased mean mapped attainment level of 1.36 / 3.00. Notable progress was recorded in PO1 (Engineering Knowledge), which rose to 2.76.	**Slight Improvement:** The mean attainment increased from 1.33 to 1.36. Core foundational concepts improved, though applied outcome areas remain targets for tutorial support.
CS8351 – Data Structures	The evaluation highlights PO4 (1.00), PO6 (1.00), PO8 (1.00), PO10 (1.00), and PO12 (1.00) as outcomes needing attention. Practical code execution and data organization skills require emphasis.	The previous batch achieved a mean mapped attainment level of 1.33 / 3.00, with low attainment observed in experimental investigation and documentation outcomes.	The current batch recorded an improved mean mapped attainment level of 1.36 / 3.00, backed by a strong PO1 score of 2.76.	**Slight Improvement:** Overall attainment increased from 1.33 to 1.36. Basic data structure concepts showed positive gains through additional whiteboard dry-run sessions.

GE8151 – Problem Solving & Python Programming	The analysis identifies PO1 (1.00), PO3 (1.00), and PO7 (1.00) as key focus areas. First-year students need step-by-step logic building and syntax familiarity.	The previous batch attained a mean mapped score of 1.35 / 3.00, facing difficulties in basic problem formulation and code debugging.	The current batch demonstrated significant improvement, achieving a mean mapped attainment level of 1.53 / 3.00. PO4, PO5, PO9, and PO10 all increased to 2.30.	**Substantial Improvement:** Mean attainment rose significantly from 1.35 to 1.53 (+0.18). Practical problem-solving and modern tool usage initiatives yielded strong results.
CS8492 – Database Management Systems	The analysis identifies PO6 (1.00), PO8 (1.00), PO2 (1.20), PO3 (1.20), and PO4 (1.20) as areas requiring improvement. Schema normalization and query execution require structured guidance.	The previous batch achieved a mean mapped attainment level of 1.47 / 3.00, demonstrating stable query formulation skills.	The current batch recorded a mean mapped attainment level of 1.36 / 3.00, showing slight challenges in complex SQL joins and schema optimization.	**Moderate Decline:** Attainment dropped from 1.47 to 1.36 (-0.11). Practical SQL workbench sessions and interactive schema builders have been introduced to address this gap.
CS8691 – Artificial Intelligence	The analysis identifies PO6 (0.20), PSO1 (0.20), PSO3 (0.20), PO5 (0.40), and PO11 (0.40) as critical low-attainment areas. Abstract theoretical concepts need hands-on tool integration.	The previous batch recorded a mean mapped attainment level of 1.03 / 3.00, struggling with state-space search and logic representation.	The current batch recorded a mean mapped attainment level of 0.84 / 3.00. The abstract nature of theory-only evaluation contributed to this low score.	**Decline / High Priority Gap:** Mean attainment fell from 1.03 to 0.84 (-0.19). Prompt curriculum restructuring into applied AI/ML with Python tools is required.

(Batch: 2021–2025)

POs & PSOs Attainment levels & actions for improvement (2021–2025 Batch CAY)

PO1: Engineering knowledge - Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**2.26**	• CY3151 Engineering Chemistry: - • GE3151 Problem Solving and Python Programming: **1.00** • BS3171 Physics and Chemistry Laboratory: **1.00** • HS3151 Professional English – I: **1.00** • MA3151 Matrices and Calculus: **1.00** • PH3151 Engineering Physics: **1.00**

Observations:

1. Lateral entry / non-mathematics background students face difficulties in multi-variable integration and algorithmic logic.

2. Solving design procedure problems and mathematical modeling found to be lengthy at times.

3. Basic knowledge of engineering analysis is not well understood during initial stages.

Actions Taken:

1. Additional remedial and tutorial classes were conducted to introduce foundational concepts.
2. More emphasis on mathematical basics was given in the previous and prerequisite courses.
3. A practical approach to teaching was adopted, supported by step-by-step problem-solving workbooks.

PO2: Problem Analysis - Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.73**	• GE3171 Problem Solving & Python Prog. Lab: **2.47** • HS3271 Communication Lab / Foreign Language: **2.60** • CS3452 Theory of Computation: **2.00** • CS3401 Algorithms: **2.00** • CS3451 Introduction to Operating Systems: **2.00** • CS3811 Project Work: **2.00**

Observations:

1. Students face challenges in converting real-world problem statements into computational and mathematical formulations.

2. Analysis of complex computational algorithms and theoretical models found to be abstract.

3. Students find it difficult to solve complex problem-oriented engineering questions.

Actions Taken:

1. Additional tutorial classes were conducted to solve previous university examination questions.
2. More problems were given as part of assignments and were monitored on a regular basis.
3. Frequently appearing complex analytical questions were solved during tutorial classes.

PO3: Design / Development of Solutions - Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.60**	• CS3381 Object Oriented Programming Laboratory: **1.00** • GE3451 Environmental Sciences and Sustainability: **1.00** • CS3461 Operating Systems Laboratory: **1.00** • MX3086 History Of Science and Technology in India: **1.00** • NM1017 Nan Mudhalvan: **1.00** • CS3711 Summer Internship: **1.00**

Observations:

1. Basic design principles, UML modeling, and component interaction are not well understood in early stages.

2. Subject involves both systemic analysis and detailed design which confuses students.

3. Solving full-scale design problems found to be lengthy and multi-layered.

Actions Taken:

1. Integrated laboratory classes were conducted to reinforce design concepts through practical applications.
2. More design-oriented exercises were taught during dedicated tutorial hours.
3. Peer design review sessions were organized, during which students presented UI/UX wireframes and schema diagrams and received feedback.

PO4: Conduct Investigations of Complex problems - Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.43**	• CS3311 Data Structures Laboratory: **0.60** • HS3171 English Laboratory: **1.00** • CS3251 Programming in C: **1.00** • CS3271 Programming in C Laboratory: **1.00** • CS3352 Foundations of Data Science: **1.00**

Observations:

1. Difficulties encountered in conducting non-linear search/graph executions independently.

2. Students find it difficult to synthesize experimental output logs and interpret results without step-by-step guidance.

3. Practical approach and lab execution time limits full experimental evaluation.

Actions Taken:

1. Extra practical contact hours were allotted for hands-on execution of data structure operations and database queries.
2. Department-level hackathons were conducted, motivating students to develop working prototype models.
3. More emphasis on experimental design and data interpretation was incorporated into the laboratory manuals.

PO5: Modern tool usage - Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.19**	• MA3251 Statistics and Numerical Methods: **0.40** • PH3251 Physics for Information Science: **0.40** • BE3251 Basic Electrical and Electronics Engg.: **0.40** • GE3251 Engineering Graphics: **0.40** • GE3271 Engineering Practices Laboratory: **0.40** • CS3381 Object Oriented Programming Lab: **0.40** • GE3451 Environmental Sciences & Sustainability: **0.40** • CS3461 Operating Systems Laboratory: **0.40** • OHS351 English for Competitive Examinations: **0.40** • CS3711 Summer Internship: **0.40**

Observations:

1. Time bound constraints during regular lab hours limit deep tool exploration.

2. Limited hands-on familiarity with modern open-source deployment platforms, IDEs, and simulation kits.

3. Students require individual system allocation and updated software environments to work effectively.

Actions Taken:

1. Additional classes were conducted to introduce students to practical knowledge of software tools.
2. Individual systems and dedicated laboratory slots were provided to students to work with modern tools and IDEs.
3. Specialized workshops and Value-Added Courses were organized on cloud deployment tools and data mining kits.

PO6: The Engineer and Society: Analyse and evaluate societal and environmental aspect while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal frame work, culture and environment

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.19**	• CS3691 Embedded Systems and IoT: **0.20** • CCS354 Network Security: **0.20** • CS3711 Summer Internship: **1.00** • CS3811 Project Work: **1.20** • GE3754 Human Resource Management: **1.20** • AI3021 IT in Agricultural System: **1.20**

Observations:

1. Awareness regarding societal, health, legal, and safety standards in software deployment is low.

2. Students find it challenging to connect technical engineering solutions to broader societal impact.

3. Exposure to real-world industrial and community problems is limited during regular coursework.

Actions Taken:

1. Additional orientation sessions were conducted to help students understand the societal context of engineering.
2. Students were mentored and encouraged to undertake socially relevant capstone projects (e.g., healthcare and elderly/disabled care).
3. A practical approach to teaching was adopted through industrial visits and guest lectures.

PO7: Ethics - Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.72**	• GE3271 Engineering Practices Laboratory: **0.00** • HS3151 Professional English – I: **1.00** • PH3151 Engineering Physics: **1.00** • GE3151 Problem Solving and Python Prog.: **1.00** • GE3171 Problem Solving & Python Prog. Lab: **1.00** • HS3171 English Laboratory: **1.00**

Observations:

1. Practical implementation of energy-efficient software design and campus sustainability requires tangible projects.

2. Basic concepts of environmental impact and green computing are not fully integrated into core tech subjects.

Actions Taken:

1. Additional classes and project work were conducted, focusing on paperless workflows and energy-efficient systems.
2. More examples of sustainable engineering solutions were practised by students during extra classes.
3. Small campus-based green mini-projects were assigned to enhance students practical awareness of sustainability.

PO8: Individual and Teamwork - Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.36**	• CCS370 UI&UX Design: **0.80** • CCS356 Object Oriented Software Engineering: **0.80** • BE3251 Basic Electrical and Electronics Engg.: **1.00** • GE3251 Engineering Graphics: **1.00** • GE3271 Engineering Practices Laboratory: **1.00** • CS3271 Programming in C Laboratory: **1.00**

Observations:

1. Understanding software licensing, intellectual property rights, anti-plagiarism norms, and cyber security ethics requires practical exposure.

2. Students struggle to apply professional ethics and responsibilities during practical project submissions.

Actions Taken:

1. Seminars and presentations were organized on ethical engineering practices, copyright laws, and professional standards.
2. Case studies on open-source licenses, software privacy, and data safety were integrated into project work.
3. Students were asked to present the ethical impact aspects of their laboratory work.

PO9: Communication - Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.43**	• OGI352 Geographical Information System: **0.53** • OHS351 English for Competitive Examinations: **0.74** • BE3251 Basic Electrical and Electronics Engg.: **1.00** • CS3251 Programming in C: **1.00** • CS3311 Data Structures Laboratory: **1.00**

Observations:

1. Students hesitate during group collaboration and team-based practical projects.

2. Uneven distribution of workload among team members in group laboratory tasks.

3. Students are not showing active interest in multidisciplinary group activities without structured guidance.

Actions Taken:

1. Mandatory pair-programming and group project structures were established, with rotating team leaders.

2. Students were encouraged to work collaboratively in teams through department associations, hackathons, and symposiums.

3. Peer assessment and teamwork marks were included in practical continuous evaluations.

PO10: Communicate Effectively in both verbal and written form.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.31**	• GE3251 Engineering Graphics: **1.20** • PH3251 Physics for Information Science: **1.20** • CS3501 Compiler Design: **1.20** • CB3491 Cryptography and Cyber Security: **1.20** • CS3551 Distributed Computing: **1.20** • CCS335 Cloud Computing: **1.20**

Observations:

1. Students show hesitation during technical report writing, system documentation, and oral presentations.

2. Technical communication and slide preparation in practical project submissions need refinement.

Actions Taken:

1. Specialized soft-skills training, placement preparation, and technical report writing sessions were incorporated into the academic schedule.

2. Compulsory oral presentation slides and documentation reviews were introduced for all major project activities.

3. Additional hours were allotted for group discussions and technical seminars to facilitate a smooth transition into the workplace.

PO11: Developing Confidence for self-education and ability for lifelong Learning (Project Management & Finance).

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.16**	• GE3271 Engineering Practices Laboratory: **0.40** • CS3381 Object Oriented Programming Lab: **0.40** • GE3451 Environmental Sciences & Sustainability: **0.40** • CS3461 Operating Systems Laboratory: **0.40** • CS3691 Embedded Systems and IoT: **0.40** • CCS354 Network Security: **0.40** • CS3711 Summer Internship: **0.40**

Observations:

1. Lowest attainment area; students lack formal training in project estimation, timeline scheduling, and cost budgeting.

2. Solving project management and financial estimation tasks found to be difficult without hands-on templates.

Actions Taken:

1. A mandatory Project Timeline & Cost Estimation Sheet was included in all major laboratory workbooks and project reviews.
2. Special emphasis was given to integrating project budget estimation and task milestone planning into laboratory assignments.
3. Library hours were properly monitored to ensure the effective utilization of journals, NPTEL videos, and digital learning platforms.

PSO1: Students will able to use techniques, skills and modern engineering tools for computing solutions.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.31**	• BS3171 Physics and chemistry Laboratory: **1.00** • GE3151 Problem Solving and Python Programming: **1.00** • CY3151 Engineering Chemistry: **1.00** • MA3251 Statistics and Numerical Methods: **1.00** • BE3251 Basic Electrical and Electronics Engg.: **1.00** • CS3401 Algorithms: **1.00**

Observations:

1. Attainment is low in basic foundational computing and core electronic interface subjects.

2. Lateral entry and non-programming background students find difficulty in core software architecture.

3. Basic knowledge of computational logic and algorithm analysis is not well understood initially.

Actions Taken:

1. Additional classes were conducted to introduce core computing design concepts and digital logic.
2. A practical approach to teaching data structures and algorithms was adopted through tutorial-based code reviews.
3. More practice problems on synchronous and asynchronous logic and algorithm design were provided as assignments.

PSO2: Students will able to participate in critical thinking and problem solving of software engineering field.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)

3.00	**1.07**	• PH3151 Engineering Physics: **0.20** • CS3311 Data Structures Laboratory: **0.20** • CS3381 Object Oriented Programming Lab: **0.20** • GE3361 Professional Development: **0.20** • GE3451 Environmental Sciences & Sustainability: **0.20** • CS3461 Operating Systems Laboratory: **0.20** • CS3481 Database Management Laboratory: **0.20** • CS3691 Embedded Systems and IoT: **0.20** • CS3711 Summer Internship: **0.20**

Observations:

1. Attainment is lowest in applied software engineering laboratory and practical development courses.

2. Students struggle to apply full software engineering principles (SDLC, testing, documentation) in mini-projects.

3. Solving end-to-end application development problems found to be lengthy and complex.

Actions Taken:

1. Additional classes were conducted to introduce software design patterns, UML diagramming, and software testing tools.
2. A practical approach to teaching software engineering was adopted, with mandatory test-case submissions.
3. Frequent assessments, peer reviews, and instructor feedback sessions were implemented for practical laboratory sessions.

PSO3: Students will able to pursue life long learning and professional development to face emerging technological challenges.

Target Level	Attainment Level	Low Attainment Subjects (with PO/PSO Values)
3.00	**1.82**	• MA3151 Matrices and Calculus: **0.40** • MX3086 History Of Science and Tech. in India: **0.40** • NM1017 Nan Mudhalvan: **0.40** • CY3151 Engineering Chemistry: **1.00** • GE3151 Problem Solving and Python Prog.: **1.00** • BS3171 Physics and chemistry Laboratory: **1.00**

Observations:

1. Attainment can be improved by bridging academic curriculum with rapidly evolving industry technology tracks.

2. Students require structured exposure to emerging domain tools (AI, Cloud, IoT, Cyber Security).

Actions Taken:

1. Industry-supported domain tracks (Nan Mudhalvan, Cloud Services, and AI Electives) were fully integrated into the study plans.
2. Students were encouraged to undertake industry-supported projects through MoUs, internship opportunities, and open-source certifications.
3. Guest lectures and seminars by industry experts were regularly organized on emerging technologies.

Course Code & Name	Areas of Weakness (Identified Gaps in PO/PSO Criteria - Scale 1 to 3)	Curriculum Intervention (Syllabus / Content Beyond)	Pedagogical Initiatives (Teaching Methods)	Support System Improvements & Implementation Plan
CS3401 – Algorithms (Semester IV)	• Mean Mapped Attainment: 1.63 / 3.00 (Significant Improvement) • PO1: 2.40 | PO2: 2.00 | PO3: 2.00 | PO7: 2.60 • PO9: 1.00 | PO11: 1.20 | PSO1: 1.00 | PSO2: 1.00	• Advanced dynamic programming and randomized algorithm case studies integrated into syllabus beyond.	• Hackathon-style algorithm optimization sessions and continuous evaluation.	• Dedicated lab practice for space-time complexity trade-off analysis.
MA3354 – Discrete Mathematics (Semester III)	• Mean Mapped Attainment: 1.33 / 3.00 • PO1: 2.40 | PO2: 1.60 | PO3: 1.60 • PO4: 1.00 | PO6: 1.00 | PO8: 1.00 | PO10: 1.00	• Integration of discrete structure applications in modern machine learning and state machines.	• Conduct active learning tutorials, group problem-solving worksheets, and digital mind maps.	• Continuous monitoring through weekly diagnostic quizzes.
CS3301 – Data Structures (Semester III)	• Mean Mapped Attainment: 1.60 / 3.00 (Significant Improvement) • PO1: 2.40 | PO2: 2.00 | PO3: 2.00 | PSO1: 2.00 | PSO2: 2.00 • PO5: 1.00 | PO7: 1.00 | PO9: 1.00 | PO11: 1.00	• Advanced data structure implementations (Tries, Disjoint Sets, Segment Trees) added.	• Hands-on repository hosting (GitHub) for student data structure projects.	• Industry expert guest lectures on real-time data indexing and caching engines.
GE3151 – Problem Solving & Python Programming (Semester I)	• Mean Mapped Attainment: 1.35 / 3.00 • PO1: 1.00 | PO3: 1.00 | PO5: 1.00 • PO7: 1.00 | PO8: 1.10 | PSO1: 1.00	• Modular programming practices, exception handling, and object-oriented Python concepts.	• Interactive problem-solving laboratories with automated code evaluation test suites.	• Early intervention bootcamps for non-computer science entry background students.

CS3492 – Database Management Systems (Semester IV)	• Mean Mapped Attainment: 1.42 / 3.00 (Improved over 2020-24) • PO1: 2.20 | PO2: 1.20 | PO3: 1.20 | PSO1: 2.00 | PSO2: 2.00 • PO9: 1.00 | PO10: 1.00 | PO12: 1.00	• Exposure to NoSQL databases (MongoDB) and cloud database connectivity beyond syllabus.	• Practical execution of stored procedures, triggers, and multi-table complex joins.	• Industry-oriented project submissions with peer code reviews.
CS3491 – Artificial Intelligence and Machine Learning (Semester IV)	• Mean Mapped Attainment: 1.43 / 3.00 (Substantial Improvement: Up from 0.84 in 2020-24) • PO1: 2.20 | PSO1: 2.00 | PSO2: 2.00 | PO2: 1.20 | PO3: 1.20 • PO5: 1.00 | PO9: 1.00 | PO11: 1.20	• Integrated Deep Learning models, Neural Networks, and NLP applications into practical session experiments.	• Project-based learning with open-source AI frameworks (PyTorch / TensorFlow).	• Conducted Kaggle mini-competitions and AI lab model validation reviews.

PO & PSOs Attainment 2021–2025 Batch (Comparison: 2020–2024 vs 2021–2025 - Regulation 2021)

Course Code & Name	Metric Evaluated / Areas for Attention	Previous Batch (2020–2024)	Current Batch (2021–2025)	Net Attainment Change / Status
• **CS3401 – Algorithms (formerly CS8451)**	• The analysis highlights PO9 (1.00), PSO1 (1.00), and PSO2 (1.00) for ongoing monitoring. Algorithm design trade-offs and complexity proofs require continuous practice.	• The 2020–24 batch recorded a mean mapped attainment level of 1.41 / 3.00, with low performance in design and analysis outcomes.	• The current 2021–25 batch achieved a mean mapped attainment level of 1.63 / 3.00. PO1 reached 2.40, PO2 & PO3 rose to 2.00, and PO7 reached 2.60.	• **Significant Improvement:** Mean mapped attainment rose from 1.41 to 1.63 (+0.22). Worked examples on dynamic programming and trace tables proved highly effective.
• **MA3354 – Discrete Mathematics (formerly MA8351)**	• The analysis identifies PO4 (1.00), PO6 (1.00), PO8 (1.00), and PO10 (1.00) as persistent areas for attention. Mathematical logic and set theory need active learning tutorials.	• The 2020–24 batch recorded a mean mapped attainment level of 1.36 / 3.00.	• The current 2021–25 batch recorded a mean mapped attainment level of 1.33 / 3.00, maintaining strong foundational scores in PO1 (2.40) and PO2/PO3 (1.60).	**Nearly Stable / Minor Variation:** Mean attainment shifted slightly from 1.36 to 1.33. Ongoing remedial tutorial series and concept mapping will be maintained.

• **CS3301 – Data Structures (formerly CS8351)**	• The analysis highlights PO5 (1.00), PO7 (1.00), PO9 (1.00), and PO11 (1.00) for further attention. Core data structure implementation skills showed marked progress.	• The 2020–24 batch recorded a mean mapped attainment level of 1.36 / 3.00.	• The current 2021–25 batch achieved a mean mapped attainment level of 1.60 / 3.00. PO1, PO2, PO3, PSO1, and PSO2 all reached high levels of 2.00 to 2.40.	**Significant Improvement:** Mean mapped attainment jumped from 1.36 to 1.60 (+0.24). Hands-on GitHub code repositories and visualization tools drove performance gains.
• **GE3151 – Problem Solving & Python Programming**	• The analysis identifies PO1 (1.00), PO3 (1.00), PO5 (1.00), and PO7 (1.00) as focus areas for incoming first-year students requiring foundational programming support.	• The 2020–24 batch achieved a mean mapped attainment level of 1.53 / 3.00.	• The current 2021–25 batch recorded a mean mapped attainment level of 1.35 / 3.00, reflecting curriculum adjustments under Regulation 2021.	**Moderate Adjustment:** Attainment adjusted to 1.35. Early intervention bootcamps and automated coding evaluation suites have been scheduled for next cycles.
• **CS3492 – Database Management Systems (formerly CS8492)**	• The analysis identifies PO9 (1.00), PO10 (1.00), and PO12 (1.00) as key areas for improvement. Database project management and teamwork require structured supervision.	• The 2020–24 batch recorded a mean mapped attainment level of 1.36 / 3.00.	• The current 2021–25 batch achieved an improved mean mapped attainment level of 1.42 / 3.00. PO1 reached 2.20, and PSO1/PSO2 achieved 2.00.	**Positive Recovery / Improvement:** Attainment recovered from 1.36 to 1.42 (+0.06). NoSQL MongoDB exposure and practical query execution boosted student understanding.
• **CS3491 – Artificial Intelligence & Machine Learning**	• The analysis highlights PO5 (1.00), PO9 (1.00), PO2 (1.20), and PO3 (1.20) for ongoing enhancement. Machine learning model tuning and dataset pre-processing require lab focus.	• The 2020–24 batch recorded a low mean mapped attainment level of 0.84 / 3.00 due to theoretical course delivery.	• The current 2021–25 batch achieved a remarkable mean mapped attainment level of 1.43 / 3.00 under the restructured AI & ML practical curriculum. PO1 reached 2.20, and PSO1/PSO2 reached 2.00.	**Substantial Growth / Major Success:** Attainment surged from 0.84 to 1.43 (+0.59). Integrating PyTorch/TensorFlow hands-on labs and Kaggle mini-projects delivered outstanding gains.

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

Institute Marks : 15.00

8.2 Academic Audit System

PERI Institute of Technology adopts an Academic and Administrative Audit (AAA) framework coordinated by the Internal Quality Assurance Cell (IQAC) to review academic processes, verify their implementation and identify opportunities for continuous improvement. The framework examines academic planning, curriculum delivery, teaching–learning, assessment, outcome-based education, student support and the administrative systems that support academic performance.

The audit is designed as an evidence-based review of implementation and effectiveness. Its guiding principles include impartial verification, confidentiality, traceability of findings, clear responsibility and documented follow-up. The first audit under the framework establishes a baseline for subsequent reviews, enabling the institution to assess progress and address recurring gaps.

1.Initiation, proposal and approval

IQAC initiates the audit process by preparing a proposal specifying the objectives, scope, departments and units to be covered, proposed auditors, schedule, required records and institutional support. The proposal is submitted to the Governing Council and the Principal for consideration and approval.

Following approval, IQAC coordinates the constitution of the audit team and the issue of the audit office order and schedule. The Principal provides institutional direction, while IQAC coordinates implementation and follow-up. The Lead Auditor consolidates findings; auditors verify evidence; and Heads of Departments and unit heads facilitate access to records and undertake the actions assigned to their units.

2.Communication to auditors and departments

IQAC communicates the audit invitation, approved scope, schedule, departmental coverage and reporting requirements to the auditors. The audit manual, checklists and relevant institutional information are shared in advance to support a consistent review.

Departments and administrative units receive instructions on the records to be presented and complete a self-assessment before the audit. This records the audit area, implementation status, available evidence, identified gaps, proposed action and responsible person. The self-assessment encourages departments to examine their own practices and supports focused verification by auditors.

3.Scope and parameters of the audit

The AAA manual organises the audit into nine areas, covering academic activities and their supporting institutional systems.

Audit area	**Major aspects examined**
A1. Governance and Administration	Organisational structure, reporting relationships, statutory and institutional committees, roles and responsibilities, institutional policies, implementation of Governing Council decisions, Academic Council and Board of Studies functioning, budgeting, institutional planning and delegation of authority.
A2. Academic Planning and Curriculum	Approved academic calendar, departmental academic plans, course allocation, faculty workload, course files, course outcomes, curriculum implementation and revision, value-added courses, academic flexibility under autonomy and academic monitoring by HoDs.
A3. Teaching–Learning and Student Engagement	Lesson plans, syllabus coverage, attendance monitoring, student participation, innovative teaching practices, ICT-enabled teaching, laboratory instruction, tutorials, remedial support, advanced learner activities, mentoring and academic counselling.
A4. Assessment and Examination	Internal assessment regulations, Continuous Internal Evaluation schedules, question paper preparation and moderation, assessment transparency, valuation and records, semester-end examinations, confidentiality, result publication and analysis, assessment grievances and examination committee functioning.
A5. OBE and Continuous Improvement	Programme Educational Objectives, Programme Outcomes, Programme Specific Outcomes, Course Outcomes, CO–PO/PSO mapping, assessment tools and rubrics, direct and indirect assessment, attainment calculations, gap identification, corrective action and verification of its effectiveness.
A6. Faculty Development, Student Support and Progression	Faculty qualifications, workload, appraisal, professional development, research contributions, institutional responsibilities, mentoring, scholarships, counselling, grievance redressal, career guidance, placements, internships, higher education, entrepreneurship, clubs, alumni engagement and student progression.

A7. Research, Industry and Extension	Research policy, publications, sponsored research, consultancy, innovation and intellectual property, industry MoUs and their outcomes, industry interaction, industrial visits, extension and community engagement.
A8. Infrastructure and Learning Resources	Classrooms, laboratories, equipment, maintenance, calibration where applicable, safety, computing facilities, software, internet connectivity, library resources, e-resources and applicable campus support facilities.
A9. IQAC and Quality Assurance	IQAC constitution and meetings, annual quality initiatives, stakeholder feedback collection and analysis, action taken, audits, quality improvement outcomes, accreditation compliance, institutional data management, document control and continuous improvement monitoring.

4. Conduct of the audit and verification of evidence

The audit begins with an opening meeting to explain the objectives, coverage and review procedure. Auditors examine departmental and institutional records, interact with faculty and administrative personnel, and undertake physical verification wherever required.

Evidence may include approved policies, committee proceedings, academic calendars, course files, lesson plans, attendance records, assessment documents, result analysis, attainment calculations, feedback reports, mentoring records, laboratory records and previous action taken reports. The review checks whether approved practices are implemented and whether their effectiveness is supported by evidence.

The manual provides an evidence index recording the document or record, academic year, location or file number, verifier and verification date. Evidence categories include mandatory, supporting, department-generated, university-controlled, physical-verification and analysis/OBE records, along with records required where applicable. These categories support traceability between an audit observation and the evidence examined.

Each audit parameter is assigned one of the following statuses:

Status	**Interpretation**
Compliant (C)	The requirement is fully implemented and adequate evidence is available.
Partially Compliant (PC)	Implementation is partial, or the evidence needs strengthening.
Non-Compliant (NC)	The requirement is not implemented, or the required evidence is unavailable.
Not Applicable (NA)	The requirement does not apply to the audit period; justification is recorded.

For each parameter, auditors record the evidence verified, status, observation, gap, action required, responsibility and target date.

5.Consolidation and preparation of the audit report

The Lead Auditor, in coordination with IQAC, consolidates the observations into department-wise and institution-level summaries. The audit summary records the number of compliant, partially compliant, non-compliant and not-applicable parameters across the nine areas, together with key strengths and priority gaps.

Findings are classified to distinguish their significance and the response required:

Finding	**Purpose**
Major Non-Conformity	Significant failure requiring immediate institutional attention.
Minor Non-Conformity	Limited non-compliance requiring corrective action.
Observation	A condition requiring monitoring or improvement.
Opportunity for Improvement	An area where effectiveness can be strengthened.
Good Practice	An effective practice that may be shared.

Best Practice	A sustained and replicable practice supported by evidence.

The consolidated report includes an executive summary, objectives and scope, audit team and schedule, units covered, strengths, major gaps, department-wise observations, corrective and preventive action plan, management decisions, and follow-up and closure status.

6.Discussion of findings and identification of causes

IQAC places the consolidated report before the Principal and discusses the findings with auditors, HoDs and concerned unit heads. The review considers strengths, deviations, academic risks, recurring issues and opportunities for improvement.

The Gap Analysis Register records the finding, gap, root cause, required action, responsibility, target date and current status. Identifying the root cause helps the institution address the reason for a deficiency and reduce its recurrence.

The management review records priority actions approved, persons responsible, target dates, resources required and the next follow-up date. Significant findings requiring institutional decisions are prepared for consideration by the Governing Council.

7.Corrective and preventive measures

Departments and units prepare and implement corrective and preventive actions in response to the reviewed findings. The Corrective Action and Preventive Action (CAPA) Register links each gap with the immediate corrective action, preventive or system-level action, responsible person, target date, evidence of completion and verification.

Depending on the findings, measures may include revision of course plans, additional tutorials, changes in teaching methods, faculty training, improved assessment rubrics, strengthening of CO–PO/PSO mapping, enhanced mentoring, equipment maintenance or improvements in record management. These measures are selected according to the verified gap and its cause.

Immediate corrections address the identified deficiency, while preventive measures strengthen the underlying procedure. For example, an incomplete course file may require completion of missing records, supported by a standard checklist and periodic departmental verification to prevent recurrence.

8.Proposal of relevant changes to the Governing Council

Following discussion and formulation of corrective measures, IQAC submits significant recommendations to the Governing Council through the Principal. These may concern institutional policies, resource allocation, infrastructure, faculty development, academic monitoring or administrative procedures.

Proposals are supported by the audit finding, root-cause analysis, action already taken, justification for the change, resources required and expected improvement. Matters concerning curriculum or academic regulations are routed through the Board of Studies and Academic Council, as applicable.

Governing Council decisions are recorded with responsibilities and implementation timelines. IQAC monitors the implementation of approved changes and reports progress through subsequent reviews.

9.Follow-up verification and closure

IQAC coordinates follow-up verification to establish whether the assigned actions have been completed and whether they have resolved the original gap. The follow-up record captures the original finding, action taken, evidence verified, effectiveness, closure status, verifier and date.

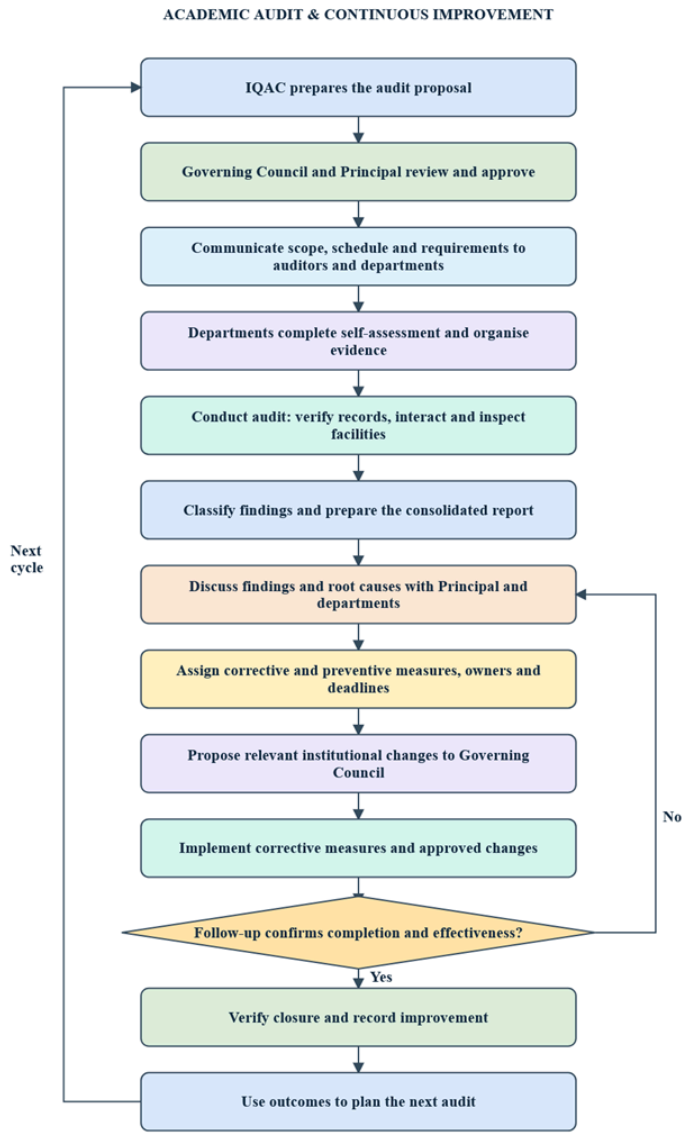
An action is closed after verification of completion and effectiveness. Actions requiring further intervention remain open and are reviewed again. The institutional closure record consolidates total findings, major and minor non-conformities closed, observations and improvement opportunities addressed, completed CAPA, pending actions and the next follow-up date.

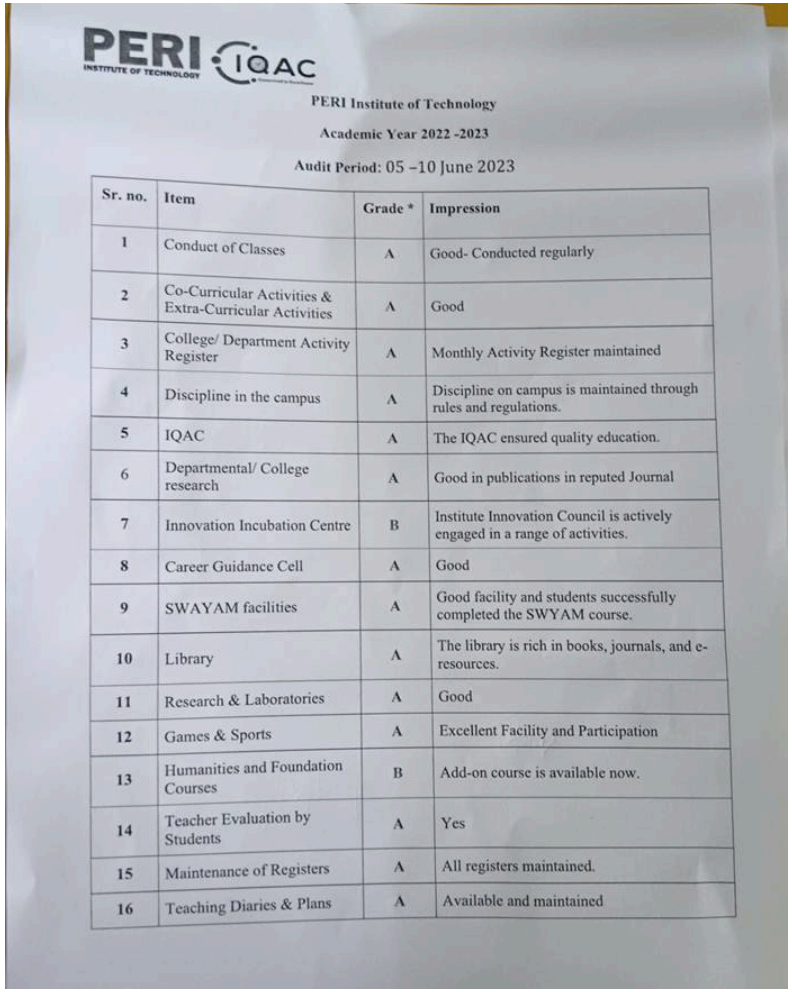
10.Linkage with continuous improvement

The audit connects institutional review with decisions, implementation and verification. Academic and assessment data identify gaps; discussion establishes their causes; corrective measures address them; and subsequent evidence determines whether improvement has occurred.

For programmes preparing for NBA accreditation, the manual includes a supplementary review of PEOs, POs, PSOs, CO mapping, assessment rubrics, attainment, gap analysis, corrective action and its effectiveness. This supplement strengthens programme-level review while retaining the broader institutional AAA framework.

Continuous improvement is demonstrated by comparing the baseline and subsequent audit evidence, examining recurring findings, verifying improvements in academic practices and documenting the outcomes of approved changes. Effective practices can then be shared across departments, while unresolved issues inform the next audit plan.


ACADEMIC AUDIT & CONTINUOUS IMPROVEMENT
IQAC prepares the audit proposal
Governing Council and Principal review and approve
Communicate scope, schedule and requirements to auditors and departments
Departments complete self-assessment and organise evidence
Conduct audit: verify records, interact and inspect facilities
Classify findings and prepare the consolidated report
Discuss findings and root causes with Principal and departments
Assign corrective and preventive measures, owners and deadlines
Propose relevant institutional changes to Governing Council
Implement corrective measures and approved changes
Follow-up confirms completion and effectiveness?
No
Yes
Verify closure and record improvement
Use outcomes to plan the next audit
Next cycle



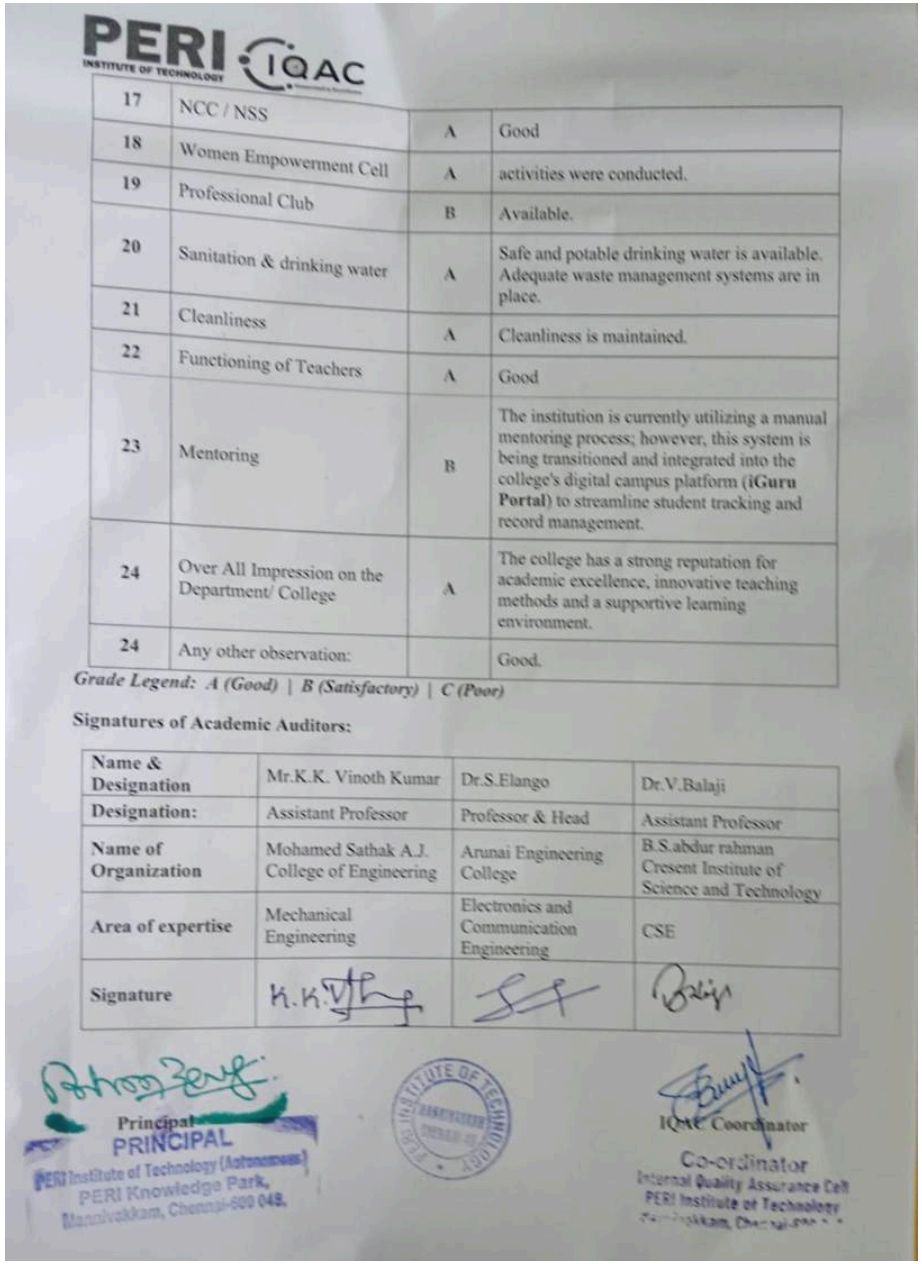
PERI INSTITUTE OF TECHNOLOGY IQAC

PERI Institute of Technology

Academic Year 2022 -2023

Audit Period: 05 –10 June 2023

Sr. no.	Item	Grade *	Impression
1	Conduct of Classes	A	Good- Conducted regularly
2	Co-Curricular Activities & Extra-Curricular Activities	A	Good
3	College/ Department Activity Register	A	Monthly Activity Register maintained
4	Discipline in the campus	A	Discipline on campus is maintained through rules and regulations.
5	IQAC	A	The IQAC ensured quality education.
6	Departmental/ College research	A	Good in publications in reputed Journal
7	Innovation Incubation Centre	B	Institute Innovation Council is actively engaged in a range of activities.
8	Career Guidance Cell	A	Good
9	SWAYAM facilities	A	Good facility and students successfully completed the SWYAM course.
10	Library	A	The library is rich in books, journals, and e-resources.
11	Research & Laboratories	A	Good
12	Games & Sports	A	Excellent Facility and Participation
13	Humanities and Foundation Courses	B	Add-on course is available now.
14	Teacher Evaluation by Students	A	Yes
15	Maintenance of Registers	A	All registers maintained.
16	Teaching Diaries & Plans	A	Available and maintained



PERI INSTITUTE OF TECHNOLOGY IQAC

17	NCC / NSS	A	Good
18	Women Empowerment Cell	A	activities were conducted.
19	Professional Club	B	Available.
20	Sanitation & drinking water	A	Safe and potable drinking water is available. Adequate waste management systems are in place.
21	Cleanliness	A	Cleanliness is maintained.
22	Functioning of Teachers	A	Good
23	Mentoring	B	The institution is currently utilizing a manual mentoring process; however, this system is being transitioned and integrated into the college's digital campus platform (**iGuru Portal**) to streamline student tracking and record management.
24	Over All Impression on the Department/ College	A	The college has a strong reputation for academic excellence, innovative teaching methods and a supportive learning environment.
24	Any other observation:		Good.

Grade Legend: A (Good) | B (Satisfactory) | C (Poor)

Signatures of Academic Auditors:

Name & Designation	Mr.K.K. Vinoth Kumar	Dr.S.Elango	Dr.V.Balaji
Designation:	Assistant Professor	Professor & Head	Assistant Professor
Name of Organization	Mohamed Sathak A.J. College of Engineering	Arunai Engineering College	B.S.abdur rahman Cresent Institute of Science and Technology
Area of expertise	Mechanical Engineering	Electronics and Communication Engineering	CSE
Signature	K.K.V		

Principal
PRINCIPAL
PERI Institute of Technology (Autonomous)
PERI Knowledge Park,
Mannivakkam, Chennai-600 048.

IQAC Coordinator
Co-ordinator
Internal Quality Assurance Cell
PERI Institute of Technology

8.3 Improvement in Faculty Qualification/Contribution (15)

Institute Marks : 10.00

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
No. of faculty members with Ph.D. degree	15.00	12.00	5.00
No. of publications in peer reviewed journals	15.00	20.00	8.00
No. of publications in conferences	45.00	40.00	36.00

8.4 Improvement in Academic Performance (10)

Institute Marks : 15.00

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
Academic Performance Index (API) of the First-Year Students in the Program (Refer to section 4.3)	7.14	8.36	7.62
Academic Performance Index (API) of the Second-Year Students in the Program (Refer to section 4.4)	8.19	7.83	8.06
Academic Performance Index (API) of the Third-Year Students in the Program (Refer to section 4.5)	7.07	7.66	6.87

9 STUDENT SUPPORT AND GOVERNANCE (120)

Total Marks 115.00

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

Institute Marks : 0.00

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.T.N.Balaji	AONPB0859B	Ph.D	No	04/12/2004	Chemistry	Professor	27/05/2019	Yes	Regular	
Ms.G.Ruby	DKVPG9676N	M.Phil	No	23/07/2013	Chemistry	Assistant Professor	16/08/2023	Yes	Regular	
Ms.T.Thanga s	AYBPT9781G	M.Phil	No	04/09/2012	Chemistry	Assistant Professor	04/11/2024	Yes	Regular	
Mr.G.Pugazhg	DIXPG1931A	M.Phil	No	14/07/2017	Physics	Assistant Professor	01/09/2022	Yes	Regular	
Dr.A.Govindara	AFEPG3658M	Ph.D	No	16/06/1995	Maths	Professor	14/02/2022	Yes	Regular	
Mr.M.Ramesh	ASIPR2152C	M.Phil	Yes	04/12/2004	Maths	Associate Professor	02/06/2020	Yes	Regular	
Ms.V.Lakshmi	AHTPL5650K	M.Phil	Yes	27/05/2019	Maths	Assistant Professor	14/10/2020	Yes	Regular	
Ms.S.Nivedha	APHPN0133R	M.Phil	Yes	01/06/2005	Maths	Assistant Professor	05/08/2024	Yes	Regular	
Ms.M.Rajeswa	BKCPR4766F	M.Phil	No	02/07/2014	Maths	Assistant Professor	19/08/2024	Yes	Regular	
Dr.A.Mohamed	DQLPM8810E	Ph.D	No	10/07/2023	English	Assistant Professor	22/07/2024	Yes	Regular	
Mrs.V.Jeeva	BNVPJ3929E	M.Phil	No	12/03/2009	English	Assistant Professor	06/10/2023	Yes	Regular	
Ms.R.Meenu	HEXPR4210H	M.Phil	Yes	03/07/2023	English	Assistant Professor	21/06/2023	Yes	Regular	
Mr.Anbumani k	BHCPA8404Q	M.Phil	No	03/06/2024	English	Assistant Professor	05/08/2024	Yes	Regular	
Mrs.M.Shinika	HASPS3690P	M.Phil	No	05/06/2023	English	Assistant Professor	17/09/2024	Yes	Regular	
Dr.A.Rajini	DVWPR2513D	Ph.D	No	13/08/2012	Tamil	Assistant Professor	15/07/2024	Yes	Regular	
Dr.S.Stalin Satl	JNHPS4494H	Ph.D	No	20/06/2013	Tamil	Assistant Professor	06/08/2021	Yes	Regular	
Mrs.G.Kanagai	ENPPK9652E	M.Phil	No	13/06/2022	Tamil	Assistant Professor	20/06/2023	Yes	Regular	

Mrs.S.Abirami	BPNPA8781F	M.Phil	No	19/01/2021	English	Assistant Professor	07/06/2023	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
2022-23(CAYm2)	300	15	3	2	0
2023-24(CAYm1)	480	24	7	3	0
2024-25(CAY)	600	30	12	4	0
				Average Percentage	0.00

9.2 Mentoring system (5)

Institute Marks : 5.00

PERI Institute of Technology implements a mentoring system covering professional guidance, career advancement, course-specific support, and all-round development. Students are allotted to faculty mentors, and a dedicated Mentor Hour is included in the timetable. Structured reviews are conducted after **CAT I, CAT II, the Model Examination** and publication of semester results, with additional interactions based on individual needs.

During the first and second years, mentoring primarily focuses on emotional well-being, adjustment to college life, academic performance and learning habits. Mentors identify difficulties in coursework and laboratory learning and facilitate appropriate support. Academic concerns requiring further intervention are reported to the Head of the Department, who coordinates a discussion with the student and concerned faculty to identify suitable improvement measures. The mentor subsequently monitors progress through interactions and assessment results.

During the third and final years, mentoring places greater emphasis on professional exposure and career mapping while continuing academic and personal support. Mentors review certification courses completed, training undertaken, areas of interest and career aspirations. Students seeking employmentare referred to the Placement Department, those pursuing higher education to the Centre for Higher Studies, and those interested in entrepreneurship to the relevant institutional support unit.

Students requiring additional personal or psychological assistance are identified by faculty mentors and referred to the designated campus counselling professional, through whom weekly support sessions are available. Sensitive matters are handled confidentially. Physical mentoring interactions are supported by attendance and assessment information available through iGURU. Any online mentoring consultations should be reported separately based on documented practice.

The implementation and effectiveness of mentoring are consolidated using the following indicators:

Table: 9.1 Indicators

Indicator	2022–23	2023–24	2024–25
Number of faculty mentors	68	68	71
Number of students allotted to mentors	1104	1142	1314
Average number of students per mentor	16	16	17
Number of academic cases receiving support	37	24	21
Number of personal cases receiving support or referral	4	5	4

The mentoring system expanded its coverage from 1,104 students in 2022–23 to 1,314 students in 2024–25, supported by an increase in faculty mentors from 68 to 71. Academic cases requiring support declined from 37 to 21 during this period. Continued support and referral for personal concerns demonstrate the institution’s attention to students’ academic progress and emotional well-being.

Effectiveness is demonstrated through anonymised impact studies documenting the initial concern, support provided, follow-up and observed outcome. Academic impact is assessed through comparable assessment results, attendance improvement and targeted arrear clearance. Career development is reviewed through completion of agreed certifications and training and access to the relevant career support services. Personal support is assessed through access to counselling and referral follow-up. Repeated interactions concerning the same issue are recorded as follow-ups rather than new cases.

PERI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



Mentor-Mentee Report Form

NAME OF THE MENTOR : Lorenta Irvin

I. Information of Mentee

A. PERSONAL DETAILS

NAME :M.Durairaj

DEGREE DEPARTMENT :B.E/EEE BATCH:A

ACADEMIC YEAR OF ADMISSION : 2019

ADMISSION NO :191064 REGISTER NO: 411519105005

QUOTA OF ADMISSION : ☐ Management ☐ Counselling:yes

DATE OF BIRTH :21/08/2002

CONTACT NO : 8668175959 EMAIL ID : durairaj70097@gmail.com

RELIGION COMMUNITY CASTE :Hindu/Hindu pallan/Sc

DAYSCHOLAR HOSTELLER :DAYSCHOLAR

(MENTION IF THERE IS ANY CHANGE)

MODE OF TRANSPORT : government bus

(MENTION IF THERE IS ANY CHANGE)

ROUTE NUMBER, IF TAKING COLLEGE BUS : no BOARDING POINT no

LANGUAGES KNOWN : TAMIL,ENGLISH

AADHAAR NO :873231901541

BANK NAME &A/C NUMBER : Union Bank/Acc:606102010008209

B. FAMILY DETAILS

PARENTS' GUARDIAN'S DETAILS :

Relation	Name	Occupation	Contact No	Sign
Father	Murugan.D	Driver	7339257166	D.Murugan
Mother	Parameshwari.M	Home maker	8056535379	M.Parameshwari
Guardian	-	-	-	-

ADDRESS FOR COMMUNICATION :

No 45,annai Indira Gandhi Nagar,kundrumedu,west Tambaram, Chennai 600045.	

PERI INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Mentor-Mentee Report Form

NAME OF THE MENTOR : GOKUL SURENDRA KUMAR G



I. Information of Mentee

A. PERSONAL DETAILS

NAME : Gowtham S

DEGREE / DEPARTMENT : ECE BATCH : 2024

ACADEMIC YEAR OF ADMISSION : 2020-2024

ADMISSION NO : 201421 REGISTER NO : 411520106017

QUOTA OF ADMISSION : ☐ Management ☐ Counselling

DATE OF BIRTH : 19-06-2003

CONTACT NO : 9629240217 EMAIL ID : gowthamsamaraj@gmail.com

RELIGION / COMMUNITY / CASTE : MBC

DAYSCHOLAR / HOSTELLER (Mention if there is any change) : HOSTELLER

MODE OF TRANSPORT (Mention if there is any change) : NIL

ROUTE NUMBER, IF TAKING COLLEGE BUS : NO BOARDING POINT : NIL

LANGUAGES KNOWN : Tamil, English

AADHAAR NO : 4216 0669 7933

BANK NAME & A/C NUMBER : Union Bank of India & 333802120002903

B. FAMILY DETAILS

PARENTS' / GUARDIAN'S DETAILS :

Relation	Name	Occupation	Contact No	Sign
Father	Samaraj K	Farmar	-	-
Mother	Bhuvaneshwari S	-	-	-

Guardian				

ADDRESS FOR COMMUNICATION :

4/893, GowravaranVattam, Nayanacheruvu, Natrampalli, Thirupatur(dt)-635852

PERI INSTITUTE OF TECHNOLOGY
DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

Mentor-Mentee Report Form



NAME OF THE MENTOR : S.S. VASANTHA RAJA

I. Information of Mentee

A. PERSONAL DETAILS

NAME : Kamalesh B

DEGREE / DEPARTMENT : BE(CSE) BATCH : 2024

ACADEMIC YEAR OF ADMISSION : 2020

ADMISSION NO : 201371 REGISTER NO : 411520104038

QUOTA OF ADMISSION : ☐ Management ☑ Counselling

DATE OF BIRTH : 19/11/2002

CONTACT NO : 8754258591 EMAIL ID : bkamalesh.191@gmail.com

RELIGION / COMMUNITY / CASTE : Hindu / SC / Adi-Dravida

DAYSCHOLAR / HOSTELLER (Mention if there is any change) : Hosteller

MODE OF TRANSPORT (Mention if there is any change) : Nil

ROUTE NUMBER, IF TAKING COLLEGE BUS : No BOARDING POINT : Nil

LANGUAGES KNOWN : Tamil, English

AADHAAR NO : 7777 7775 4429

BANK NAME & A/C NUMBER : Indian Bank / 6723105590

B. FAMILY DETAILS

PARENTS' / GUARDIAN'S DETAILS :

Relation	Name	Occupation	Contact No	Sign
Father	Balraj V	Building Supervisior	9754258591	Balraj V
Mother	Kalaivani R	House wife	9042466739	Kalaivani R

Guardian				

ADDRESS FOR COMMUNICATION :

No 3, Mari Amman Kovil Street , Pulichapplam post, Pulichapplam , vanur TK, Villupuram Dt - 605109

9.3 Feedback Analysis (10)

9.3.1 Feedback on Teaching and Learning Process and Corrective Measures Taken, if any (10)

Institute Marks : 10.00

The institute collects student feedback every semester through mid-semester online feedback, end-semester feedback, course-end surveys and two Class Committee Meetings. These mechanisms enable students to provide confidential ratings and share suggestions on the teaching–learning process, academic support, and institutional facilities.

a. Mid-Semester Online Feedback

Students submit feedback confidentially through the online link provided in the iGURU student application. The questionnaire comprises 5 items covering the following areas:

Academic and Teaching–Learning Aspects

- Effectiveness of academic administration and quality of teaching.
- Opportunities for experiential learning through projects, mini-projects and hackathons.
- Effectiveness of activities organised by student support centres, including CHS, CTEE and EDC.
- Opportunities for knowledge enhancement through internships, workshops, seminars and guest lectures.
- Support for self-learning, peer learning, tutorials and coaching classes.

Responses are recorded using a numerical rating system. The iGURU application stores the responses and provides downloadable summaries for consolidation and analysis.

b. End-Semester Feedback

End-semester feedback is collected manually using a structured form containing 10 aspects of effective teaching and learning. Students record their responses on a five-point rating scale (1–5). The completed forms are compiled, and the ratings are consolidated for further analysis.

c. Course-End Survey

A course-end survey is conducted every semester to obtain students' views on:

- Learning value in terms of knowledge, concepts, skills and analytical ability.
- Applicability and relevance of the course.
- Depth of course content.
- Extent of syllabus coverage.
- Level of effort required from students.
- Relevance and value of course-related project work.

d. Class Committee Meetings

Two Class Committee Meetings are conducted each semester to obtain qualitative feedback through discussion with student representatives. Students share their observations, difficulties, and suggestions concerning course delivery, learning support, assessment, and other academic matters. The feedback is documented in the meeting minutes for review and follow-up.

The consolidated feedback data, survey summaries and Class Committee Meeting records are submitted to the Internal Quality Assurance Cell (IQAC) for further analysis and coordination of appropriate action with the concerned departments and administrative units.

The institute also collects feedback from alumni, employers, parents and faculty members on teaching–learning practices, institutional facilities, student support services and systems that promote student development and empowerment. Feedback is obtained through Parent–Teacher Association (PTA) meetings, alumni meetings, placement conclaves and faculty interactions, as applicable.

The observations and suggestions are documented, consolidated, and submitted to **IQAC** for analysis and coordination of appropriate action with the concerned departments and administrative units.

The institute analysed student feedback for **2022–23, 2023–24 and 2024–25** to assess participation and course-wise satisfaction with the teaching–learning process. **A cumulative feedback score below 3.00 on a five-point scale is classified as below satisfactory,** while a score of **3.00 or above** meets the institutional benchmark.

Table: 9.3.1

Academic year	Eligible students	Students participated	Participation (%)	Courses assessed	Courses scoring below 3.00	Below-satisfactory courses (%)
2022–23	1016	861	84.80	238	11	4.62

2023–24	1066	927	86.95	235	17	7.23
2024–25	1240	1124	90.67	235	10	4.25
Assessment-period total	**3,320**	**2912**	**87.47**	**708**	**38**	**5.36**

Student participation increased consistently from 84.80**% in 2022–23 to90.67 % in 2024–25,** an improvement **of 3.72percentage points**. The overall participation rate, calculated by dividing total annual participants by total eligible students across the assessment period, was 87.47**%,** indicating broad student involvement.`

The proportion of courses recording below-satisfactory scores increased from **4.62% in 2022–23 to 7.23% in 2023–24**, indicating a greater need for course-level review in that year. It subsequently declined to **4.25% in 2024–25**, an improvement of **2.98 percentage points** over the preceding year. Across the assessment period, **38 out of 708 annual course assessments (5.36%)** fell below the benchmark, while **94.64% met the institutional standard.**

The consolidated findings are submitted to **IQAC** for further analysis and coordination of appropriate action with the concerned departments. Courses scoring below 3.00 are identified for detailed examination of individual feedback parameters and student observations to determine areas requiring improvement. In 2024–25, fewer courses were rated under the student satisfaction benchmark, reflecting an improvement in student feedback. Action-taken reports and follow-up feedback can help establish how specific corrective measures contributed to this improvement.

Rewards and Corrective Measures

Student feedback forms an integral part of faculty performance appraisal and continuous improvement of the teaching–learning process. Feedback scores carry a weightage of 10% in faculty appraisal. Faculty members demonstrating commendable performance are encouraged through awards and recognition by the Management.

For courses recording a cumulative feedback score below 3.00 on a five-point scale, the Head of the Department meets the concerned faculty member to identify the reasons and determine appropriate corrective measures.

For mid-semester feedback, corrective measures are implemented during the ongoing semester. Their effectiveness is monitored through subsequent interactions with faculty members and students.

For end-semester feedback, the course plan and teaching methods are reviewed for improvement in subsequent delivery. The concerned faculty members are advised to attend relevant Faculty Development Programmes (FDPs) and MOOCs to strengthen their subject knowledge and pedagogical skills. Additional tutorials and experiential learning activities are incorporated according to the identified needs.

9.3.2 Feedback on Academic Facilities (10) Institute Marks : 10.00

The institution follows a systematic feedback mechanism to assess the adequacy and quality of institutional facilities and support services. During the assessment period, 2022–23 to 2024–25, feedback was collected from students, faculty members, alumni and parents. The findings were reviewed by the Internal Quality Assurance Cell (IQAC) to identify areas requiring improvement and initiate corrective action.

Collection Process

Student feedback on facilities was collected through the mid-semester online feedback process using the iGURU student application. The facilities section of the questionnaire covered the following aspects:

- Adequacy and advancement of academic infrastructure, including ICT, laboratory and internet facilities.
- Availability of sports, recreation and extracurricular facilities.
- Adequacy of textbooks, reference books, journals and library e-resources.
- Availability of clean drinking water, hygienic food and convenient transport.
- Cleanliness, maintenance, safety and security on campus.

ıdent participation during the assessment period is presented below

Table: 9.3.2.1

Academic year	Students participated	Total students	Participation (%)
2022–23	861	1,016	84.80
2023–24	927	1,066	86.95
2024–25	1,124	1,240	90.67

Feedback from faculty members, alumni and parents was collected through a comprehensive questionnaire covering administrative services, infrastructure and institutional support facilities. The responses were consolidated and submitted to the IQAC for analysis.

Feedback Analysis on Academic Facilities

Student responses were analysed question-wise against the institutional satisfaction benchmark of 80%. Items recording satisfaction below 80% were identified as areas requiring improvement. The IQAC reviewed these findings with the departments and administrative units concerned to identify the reasons for dissatisfaction and recommend corrective measures.

During 2022–23, the following areas recorded satisfaction below the prescribed benchmark:

- Availability of sports, recreation and extracurricular facilities.
- Availability of clean drinking water, hygienic food and convenient transport.
- Campus cleanliness, maintenance, safety and security.

The concerns were documented and referred to the responsible departments. Matters requiring institutional decisions, financial allocation or infrastructure development were placed before the Governing Council for consideration and approval.

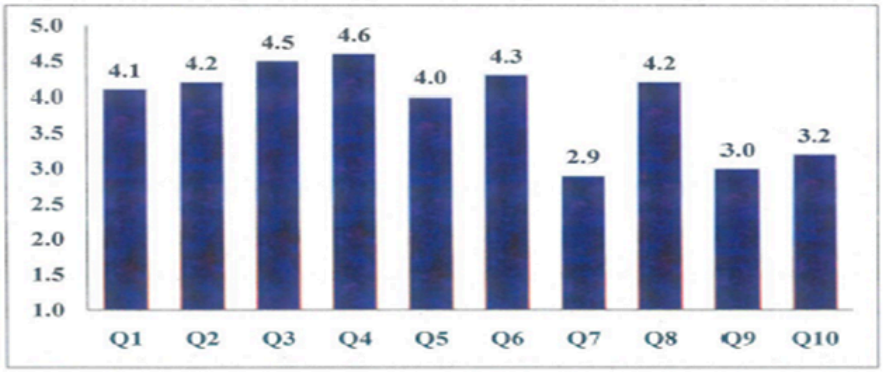
Corrective Actions Taken

The concerns identified during 2022–23 were reviewed by the IQAC and subsequently placed before the Governing Council. Corrective measures addressing the identified facility and service concerns were implemented by the responsible departments, and improvements were recorded through follow-up review.

The IQAC monitored the implementation of corrective measures and maintained feedback analysis reports, action taken reports and review records to support continuous improvement.

PERI INSTITUTE OF TECHNOLOGY									
Chennai-600048									
STUDENTS FEEDBACK ANALYSIS									
ACADEMIC YEAR 2022-2023									
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4.1	4.2	4.5	4.6	4.0	4.3	2.9	4.2	3.0	3.2

Q1. Effectiveness of Academic administration and quality of teaching
Q2. Opportunities for experiential learning offered through Projects, Mini projects, Hackathons
Q3. Efficacy of activities conducted through student support centres(CHS, CTEE, EDC, etc.,)
Q4. Opportunities for knowledge enhancement through Internships, Workshops, Seminars and Guest lectures
Q5. Practices followed towards Self learning, Peer learning, Tutorial and Coaching classes
Q6. Advancement of academic infrastructure including ICT, Laboratory and Internet facilities
Q7. Availability of facilities for sports, recreation and extracurricular activities in the campus
Q8. Adequacy of Text and Reference books, Journals, and e-resources in Library
Q9. Availability of clean water, hygienic food and convenient transport facility in the college
Q10. Opinion on cleanliness, maintenance, safety and security measures in the campus



Coordinator

Principal

Dr. R. PALSON KENNEDY, M.E., Ph.D.,
PRINCIPAL
PERI INSTITUTE OF TECHNOLOGY
Mo...vakkam, Chennai - 6...3.

Sample feedback Analysis

PERI INSTITUTE OF TECHNOLOGY

Approved by AICTE, Affiliated to Anna University
Accredited by NAAC | Recognized by UGC with 2(F)

STUDENT FEEDBACK – ACTION TAKEN REPORT

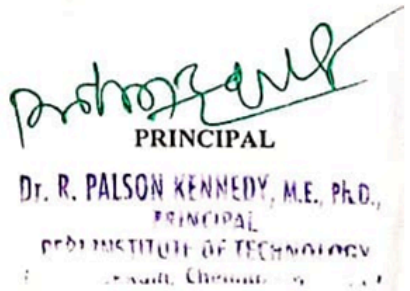
Academic Year : 2022 – 2023

Number of Respondents : 1023

Number of Questions : 10

S.No.	Question Number	Attained percentage (%)	Feedback Question	Action Taken Report
1	7	58	Availability of facilities for sports, recreation and extracurricular activities in the campus	The existing Kabaddi ground has been renovated and elevated for the cost of 5.5 Lakhs.
2	9	60	Availability of clean water, hygienic food and convenient transport facility in the college	Transport has been arranged for special class students usually exist at 5.15 pm
3	10	64	Opinion on cleanliness, maintenance, safety and security measures in the campus	Security system has been Improved arranged with 2 guards on duty 24/7. The restrooms are cleaned 3 times per day. The security has been improved by providing an additional gate (Gate 2) and assigning two guards on duty 24/7.


IQAC COORDINATOR
Co-ordinator
Internal Quality Assurance Cell
PERI Institute of Technology
Mannivakkam, Chennai-600 048


PRINCIPAL
Dr. R. PALSON KENNEDY, M.E., Ph.D.,
PRINCIPAL

PERI INSTITUTE OF TECHNOLOGY

Approved by AICTE, Affiliated to Anna University

Accredited by NAAC | Recognized by UGC with 2(F)

KABADDI COURT







66

9.4 Training and Placement Support (10)

Institute Marks : 10.00

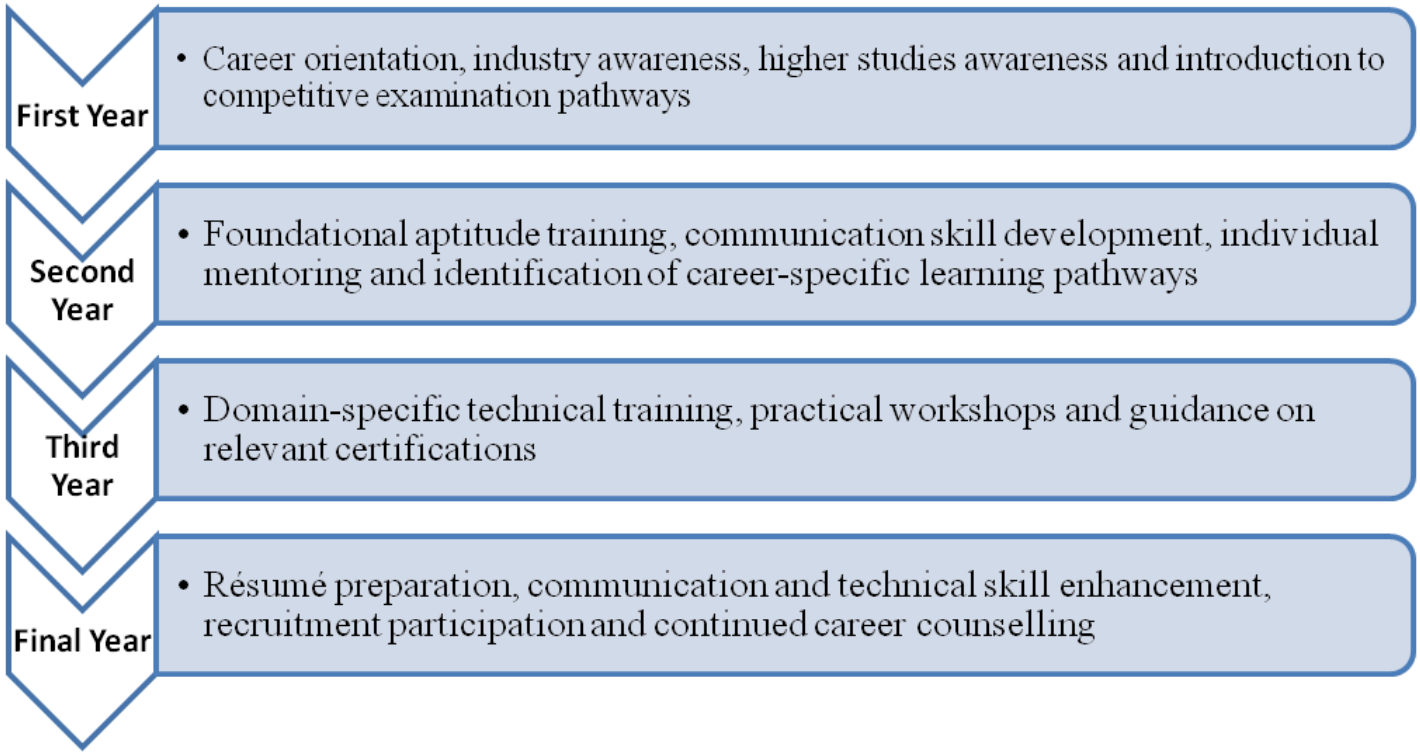
PERI Institute of Technology follows a structured, progressive approach to career guidance, skill development and placement preparation from the first year onwards. Faculty mentors, the Training and Placement Department and the Centre for Higher Studies work together to guide students towards employment, higher education and competitive examinations

1. **Career awareness and individual mentoring**

- First-year students participate in career awareness programmes covering industry opportunities, higher studies, government examinations and competitive examinations. Industry experts and corporate representatives introduce students to different career domains, emerging technologies and professional expectations.
- During the second year, faculty mentors interact with students to identify their interests, strengths and career aspirations. Based on these interactions, students receive guidance towards suitable career pathways. For students choosing placement, the mentor and placement officer recommend relevant courses, certifications and technical skills aligned with their preferred roles, such as full-stack development or cyber security.

2. **Progressive training and placement preparation**

The institution adopts the following framework to develop career readiness.



Aptitude training is provided through SMART, FACE Prep and in-house trainers. Specialised training includes Java Full Stack, DS, Salesforce, AWS, Microsoft Azure, application development and Advanced Python. External providers reported for these programmes include FACE Prep, Touchmark, Interview Desk, Techforce, Wizard Lens and Edmies.

1. **Year-wise department-specific technical training**

- During the academic years 2021–22 to 2024–25, PERI Institute of Technology conducted 32 department-specific technical training programmes across Civil Engineering, Mechanical Engineering, Electrical and Electronics Engineering, and Electronics and Communication Engineering.
- Nine programmes were conducted in 2021–22, seven in 2022–23, nine in 2023–24 and seven in 2024–25. Department-wise, Civil Engineering offered five programmes, Mechanical Engineering eight, EEE nine and ECE ten.

- All four departments conducted technical training in each academic year, demonstrating sustained institutional commitment to industry-oriented skill development and career readiness. The programmes combined core engineering applications with emerging technologies to strengthen students' technical competencies and support their preparation for internships and placement.

Table 9.4.1: 2024-25

Department	Industry-oriented technical training
Civil Engineering	Technical Skill Enhancement in Revit, Primavera and MS Project; Revit Architecture
Mechanical Engineering	SOLIDWORKS; Heating, Ventilation and Air-Conditioning (HVAC)
Electrical and Electronics Engineering	Embedded C Workshop
Electronics and Communication Engineering	Python for VLSI; Embedded C for Microcontrollers
Computer Science and Engineering	Technical Skill Enhancement in Java Full Stack, Data Structures, Python and Salesforce

Table 9.4.2:2023–2024

Department	Industry-oriented technical training
Civil Engineering	Non-Destructive Testing and Quality Assurance/Quality Control (QA/QC)
Mechanical Engineering	ANSYS; HVAC
Electrical and Electronics Engineering	MATLAB for Electric Vehicle Technology; Embedded Internet of Things for Smart Sensing Applications; PLC and SCADA; Java Programming
Electronics and Communication Engineering	VLSI Chip Design; 5G Technology
Computer Science and Engineering	Technical Skill Enhancement in Advanced Java , Python , Data Structures, SQL

Table 9.4.3:2022–2023

Department	Industry-oriented technical training
Civil Engineering	AutoCAD
Mechanical Engineering	AutoCAD; CATIA
Electrical and Electronics Engineering	Embedded C — Add-on Course
Electronics and Communication Engineering	Ethical Hacking; Advanced Java Programming; Robotics and Its Applications
Computer Science and Engineering	Advanced Java Programming, Python Programming, Web Development, SQL

Table 9.4.4:2021–2022

Department	Industry-oriented technical training
Civil Engineering	Building Planning Fundamentals
Mechanical Engineering	AutoCAD Basics; SOLIDWORKS

Electrical and Electronics Engineering	Design Thinking and Electrical Design; Electric Vehicle Technology; Basics of Electrical Wiring
Electronics and Communication Engineering	Microprocessors and Microcontrollers; Cloud Computing and Distributed Systems; Cybersecurity and Web Designing
Computer Science and Engineering	Java Programming, Python Programming, Data Structures, Web Development, SQL

The training portfolio demonstrates continuous departmental involvement in skill development, with an average of eight programmes per academic year across the four departments. It combines core engineering applications with emerging technologies, supporting students in developing competencies relevant to their chosen career domains.

4. **Industry interaction and recruitment exposure**

- The institution organises placement conclaves, job fairs and interactions with human resource professionals and technical experts. These activities familiarise students with employer expectations, recruitment procedures, technical requirements and workplace practices.
- Students have opportunities to participate in two job fairs during their course of study. This provides direct exposure to employer interactions and selection procedures and helps students understand the recruitment process before attending placement drives.
- The Training and Placement Department guides students in résumé preparation, communication skill development and technical preparation. Domain-specific training also strengthens the technical foundation required for pursuing relevant internship opportunities.

5. **Higher studies and competitive examination support**

- Students interested in higher education are guided by the Centre for Higher Studies. The Centre provides awareness of postgraduate opportunities in India and abroad, organises on-campus sessions with external service providers and directs students to relevant higher education events outside the institution.
- Students aspiring to appear for GATE, government recruitment and other competitive examinations receive guidance and encouragement to prepare for and attend these examinations. Career awareness sessions help clarify doubts and support informed decision-making.

6. **Effectiveness of career guidance and training**

- The institution’s career guidance framework connects early career awareness with individual mentoring, foundational skill development, specialised technical training and recruitment preparation. The provision of training in all four departments during each of the four academic years demonstrates continuity in institutional career development practices.
- ECE recorded 599 programme participations across 10 training programmes. These included 156 participations in 2021–22, 139 in 2022–23, 162 in 2023–24 and 142 in 2024–25. These figures represent programme participations, as individual students may have attended multiple programmes.
- Civil Engineering documented 96 training hours across Building Planning Fundamentals, AutoCAD, and Non-Destructive Testing and QA/QC, in addition to the Revit and project management software programmes for which durations were not provided. Mechanical Engineering maintained two technical programmes annually, while EEE training covered electrical fundamentals, electric vehicles, embedded systems and industrial automation.

7. **Outcomes of Centre for Higher Studies Activities**

- The Centre for Higher Studies (CHS) supports students through higher education awareness programmes, competitive examination guidance and interaction with academic experts, education counsellors and government professionals.
- During 2021–22 to 2024–25, CHS organised 29 career guidance and higher education events. The programmes covered postgraduate opportunities in India and abroad, GATE/JAM, CAT, GRE, civil services, TNPSC examinations and careers in research, defence, government, IT and core industries.
- Experts from IIT Madras, IDP Education, T.I.M.E., KC Overseas Education, civil services academies, government departments and research organisations provided guidance on educational pathways, examination preparation and career opportunities. These interactions helped students explore suitable options and understand the preparation required for their chosen pathways.
- Institutional records document 14 students progressing to higher studies during this period, pursuing programmes in engineering, technology, management and research in abroad. Including 2020–21, the five-year record comprises 33 higher studies admissions.
- These sustained training, career guidance and industry interaction initiatives have contributed to students securing placements, pursuing higher studies in India and abroad, and obtaining internship opportunities. The institution’s structured approach supports informed career choices, strengthens industry readiness and facilitates students’ progression towards their professional and academic goals.

9.5 Start-up and Entrepreneurship Activities (5)

Institute Marks : 5.00

PERI Institute of Technology promotes innovation and entrepreneurship through its Entrepreneurship Development Cell (EDC), incubation and start-up facilities, and MSME Centre. These initiatives encourage students to identify societal problems, develop practical solutions and explore entrepreneurship as a career pathway. The institution supports students from initial awareness and idea generation to project development, incubation and preparation for enterprise creation.

1. **Entrepreneurship awareness and student participation**

- The Entrepreneurship Development Cell conducts entrepreneurship awareness camps, courses, interactive sessions, pitch fests and project exhibitions. These activities introduce students to entrepreneurial opportunities and help them develop initiative, creativity, problem-solving, communication and decision-making skills.
- Students interested in entrepreneurship are encouraged to register with the EDC. The Cell identifies their interests and connects them with suitable programmes, faculty guidance and external opportunities. Continued participation enables students to explore business ideas and understand the steps involved in developing an enterprise.

2. **Association with Anna University and Wadhwani Foundation**

- PERIIT has been an active member of the Centre for Entrepreneurship Development, Anna University, since 2017. Through this association, the institution encourages students to participate in entrepreneurship awareness programmes, workshops, competitions and other developmental activities organised through Anna University.
- This sustained engagement provides students with opportunities to interact with the wider entrepreneurial community, understand enterprise development and gain exposure beyond the institution. Relevant opportunities are communicated to students through the EDC, and interested students are encouraged to participate.
- Students have also attended entrepreneurship courses offered through the Wadhwani Foundation. These courses complement institutional activities by providing structured exposure to entrepreneurial thinking, opportunity identification and business development. Participation helps students consider the practical aspects of transforming an idea into a viable venture.

3. **Innovation through societal problem identification**

- The institution encourages students to interact with communities, observe real-life challenges and identify problems that can be addressed through engineering and technology. Students examine user needs, explore possible solutions and develop ideas into projects, working models or prototypes.
- Faculty members guide students in refining concepts, selecting appropriate technical approaches and improving project feasibility. This process connects classroom learning with practical applications and encourages students to consider the usefulness, affordability and social relevance of their solutions.
- The emphasis on societal problems also develops teamwork, responsibility and an understanding of the contribution that engineering innovation can make to communities.

4. **Pitch fests and project exhibitions**

- Pitch fests and project expos provide platforms for students to present ideas, demonstrate prototypes and explain their proposed applications. Students describe the problem, the intended users, the solution and its potential value.
- Feedback received during these activities helps students identify limitations and improve their projects. Presentations also strengthen their ability to communicate technical ideas, respond to questions and explain the practical relevance of their work.
- Promising ideas are encouraged for further development through mentoring and incubation support. These platforms therefore connect project-based learning with opportunities for innovation and entrepreneurship.

5. **Incubation and start-up facilities and their utilisation**

- PERIIT provides incubation and start-up facilities that are open to students interested in developing innovative projects and entrepreneurial ideas. Students can approach the EDC to explore available support and obtain guidance on progressing their concepts.
- A small number of interested students are currently utilising these facilities to refine ideas, develop projects and explore their entrepreneurial potential. This utilisation provides a foundation for expanding student participation and encouraging more project teams to continue their work beyond academic requirements.
- Faculty guidance and institutional support help students review technical feasibility, improve prototypes and prepare for demonstrations and presentations. The facilities provide an enabling environment in which students can explore entrepreneurship while continuing their academic studies.

6. **Role of the MSME Centre**

- PERIIT also functions as an MSME Centre, complementing the activities of the EDC and incubation facilities. The Centre strengthens awareness of micro, small and medium enterprise opportunities and introduces students to relevant government schemes and enterprise development pathways.

- Students are encouraged to understand how their technical knowledge and innovations may address market or community needs. Awareness of MSME opportunities helps them explore small enterprise formation and consider the support available for developing entrepreneurial initiatives.

7. **Intellectual property and enterprise formation**

- Students developing innovative projects are encouraged to explore appropriate intellectual property protection, including patent filing where applicable. This creates awareness of originality, documentation and the importance of protecting eligible innovations.
- Students with projects showing entrepreneurial potential are guided to consider further development, possible commercialisation and company registration when appropriate. They are also encouraged to explore relevant government support schemes according to the nature and stage of their projects.
- These activities introduce students to the transition from an academic project to a potential enterprise, including the need to consider users, feasibility and implementation requirements.

8. **Effectiveness of the initiatives**

- The institution's entrepreneurship framework connects awareness, structured learning and practical participation. EDC programmes introduce entrepreneurial pathways; Anna University engagement broadens exposure; and Wadhwani Foundation courses provide additional learning opportunities.
- Societal problem identification, pitch fests and project exhibitions enable students to apply their knowledge and improve their solutions. The use of incubation and start-up facilities by interested students demonstrates initial engagement with the support available on campus.
- Together, these initiatives strengthen students' confidence in presenting ideas, developing prototypes and exploring enterprise opportunities. Through its EDC, MSME Centre, incubation facilities and external associations, PERI Institute of Technology nurtures an entrepreneurial culture and supports students in progressing from innovative thinking towards practical solutions and potential ventures.

9.6 Governance and Transparency (25)

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

Institute Marks : 10.00

Table 9.6.1.1 GOVERNING BODY

S. No	Name and Designation of the Member	Internal member / External member / Trust Nominee	Signature
1	Mr. Saravanan Periasamy	Founder &Chairman PERI	Trust Nominee
2	Mr. K. Periasamy	Managing Director PERI Educational and Charitable Trust	Trust Nominee
3	Mr. S. Rajendran	Secretary / Member PERI Educational and Charitable Trust	Trust Nominee
4	Mr.SasiVeerarajan	Chief Operating Officer	Trust Nominee
5	Dr. R. Palson Kennedy	Principal	Member Secretary
6	Mr. K. Prabhakaran.	Additional Director – Exams (FAC) Directorate of Technical Education Chennai	State Government Nominee
7	Dr.SivabalanArumugam	Head Security Engineering, Tokyo, Japan	Member Industry Nominee
8	Mr. S. Balaji	Engineer – Product Planning Designer	Member Industry Nominee
9	Dr. S. Nanjundan	Professor of Chemistry Anna University, Chennai	Member AU Nominee
10	Mr. B. Magesh	Vice Principal PERI Institute of Technology	Member Trust Nominee
11	Dr. Moorthy Veerasamy	Controller of Examinations PERI Institute of Technology	Member
12	Dr. R. Varadharajan	Academic Advisor	Member

Key Responsibilities of the Governing Body

- Provide strategic direction and approve institutional development plans aligned with the institution’s vision and mission.
- Review academic and administrative performance and recommend measures for continuous improvement.
- Consider recommendations of the Academic Council, Finance Committee and IQAC, and approve matters within its authority.
- Approve annual budgets, major expenditure and resource allocation for infrastructure, laboratories, learning resources and institutional development.
- Approve institutional policies, service rules and delegation of responsibilities in accordance with applicable regulations.

- Review faculty and staff requirements, recruitment proposals and professional development initiatives.
- Monitor compliance with applicable AICTE, UGC, affiliating university and government requirements, and review NAAC and NBA accreditation progress.
- Review research, consultancy, industry collaboration, placement, higher studies and student welfare initiatives.
- Examine audit findings and significant institutional concerns, and monitor corrective actions.

Review the implementation of previous resolutions through Action Taken Reports and ensure accountability for approved decisions.

Table 9.6.1.2 IQAC Committee Members

S.No	Name	Designation	Position
1.	Dr. P. Palson Kennedy	Principal	Chairperson
2.	Dr. B. Magesh	Vice Principal	Head in-charge
3.	Dr.A.V.Maya Kannan	Professor / ECE	Coordinator
4.	Mr. A. Saroja	VAO	Member
5.	Dr. S. Krishnankumar	SRO, Ex - office industrialists	Member
6.	Mr. M. Rama subramanian	Estate discipline officer	Member
7.	Dr. R.M. Sathyamoorthy	Associate Professor / Mech	Member
8.	Ms. S. L.Sreedevi	AP / EEE	Member
9.	Ms. R. S.Abbirami	AP / CSE	Member
10.	Ms. C. Lavanya	AP / Civil	Member
11.	Dr.S.SeyalMurugan	AP / Maths	Member
12.	Mr. M.Vignesh Kumar	AP / Mech	Member
13.	Ms. M. Sathiyapriya	Alumnus	Member
14.	Mr. K. Surendharakumar	Civil	Student Coordinator
15.	Ms. R. Roopavathi	CSE	Student Coordinator

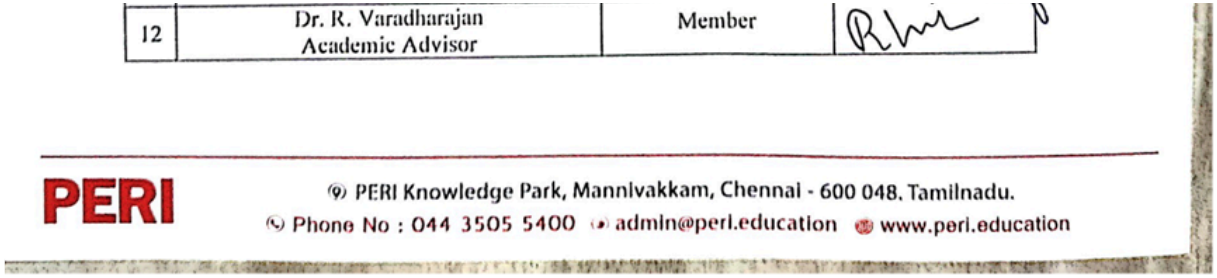
PERI
INSTITUTE OF TECHNOLOGY
(AN AUTONOMOUS INSTITUTION)

Approved by AICTE and Anna University
Accredited by NAAC | Recognized by UGC with 2(F)
AICTE Permanent ID Number : 1-5937291

21st GOVERNING COUNCIL MEETING

Date: 20.01.2025

S. No	Name and Designation of the Member	Internal member / External member / Trust Nominee	Signature
1	Mr.Saravanan Periasamy Founder & Chairman, PERI	Trust Nominee	
2	Mr. K. Periasamy Managing Director PERI Educational and Charitable Trust	Trust Nominee	
3	Mr. S. Rajendran Secretary / Member PERI Educational and Charitable Trust	Trust Nominee	
4	Mr.Sasi Veerarajan Chief Operating Officer PERI Institute of Technology	Trust Nominee	
5	Dr. R. Palson Kennedy Principal PERI Institute of Technology	Member Secretary	
6	Mr. K. Prabhakaran Additional Director – Exams (FAC) Directorate of Technical Education Chennai.	State Government Nominee	—
7	Dr. Sivabalan Arumugam Head Security Engineering, Tokyo, Japan	Member Industry Nominee	21/1/25
8	Mr.S.Balaji Engineer – Product Planning Designer	Member Industry Nominee	
9	Dr. S. Nanjundan Professor of Chemistry Anna University, Chennai	Member AU Nominee	
10	Mr. B. Magesh Vice Principal PERI Institute of Technology	Member Trust Nominee	20/1/25
11	Dr.Moorthy Veerasamy Controller of Examinations PERI Institute of Technology	Member	



Key Responsibilities of the IQAC Members

- Coordinate the preparation, approval and circulation of the institutional academic calendar, ensure alignment with departmental calendars, and monitor its implementation.
- Develop and implement quality benchmarks for academic and administrative activities to promote continuous institutional improvement.
- Prepare, communicate and monitor the annual quality assurance plan in coordination with academic departments and administrative units.
- Collect and analyse stakeholder feedback on curriculum, teaching–learning, outcome attainment, infrastructure and support services, and monitor the resulting improvement actions.
- Organise workshops, seminars and faculty development programmes on quality assurance, outcome-based education, innovative teaching practices and accreditation requirements.
- Coordinate the preparation and submission of the Annual Quality Assurance Report (AQAR) in accordance with applicable NAAC guidelines.
- Conduct internal academic audits once every semester to review academic planning, curriculum delivery, assessment practices and teaching–learning effectiveness.
- Coordinate the annual Academic and Administrative Audit (AAA), consolidate findings and monitor corrective actions and closure.
- Coordinate institutional preparedness for NAAC accreditation and support departments in NBA accreditation, including self-assessment reports, evidence verification and follow-up on recommendations.
- Monitor outcome-based education practices, including CO–PO/PSO mapping, attainment analysis and documented continuous improvement.
- Recommend academic and administrative improvements, policy revisions, resource requirements and training needs to the Principal and Governing Council.
- Coordinate the annual faculty appraisal process with the academic leadership and HR team, and facilitate mentoring and professional development based on identified needs.

Table 9.6.1.3 Members of Admission Committee

S.No	Name	Designation	Position
1.	Mr. SasikumarVeerarajan	Chief Operating Officer	Head in-charge
2.	Dr. P. Palson Kennedy	Principal	Coordinator
3.	Dr. B. Magesh	Vice Principal	Additional Coordinator
4.	Mrs. P. Bhuvaneshwari	Admission officer	Member
5.	Mrs. K. S. Thirupurasundari	Assistant Admission officer	Member
6.	Ms. P. Sreeseetha	Admission Executive	Member

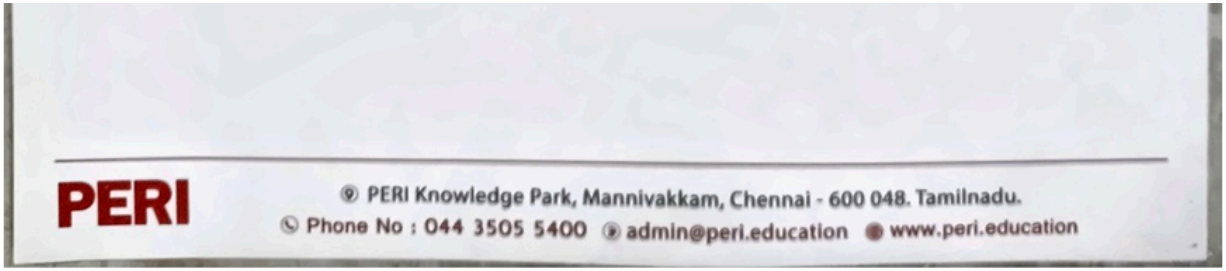
PERI
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AICTE Permanent ID Number : 1-5937291

MEETING ATTENDANCE

Date: 03.01.2025

S. NO.	NAME	DESIGNATION	SIGNATURE
1	Dr. R. PALSON KENNEDY	PRINCIPAL	
2	Mr. B. MAGESH	IQAC HEAD COORDINATOR	
3	Mr. B. RAJESH KUMAR	BUSINESS DEVELOPMENT PERI SOFTWARE SOLUTIONS	
4	Dr. A. V. MAYAKKANNAN	PROFESSOR - ECE	
5	Dr. R. RAJESWARI	ASSOCIATE PROFESSOR - ECE	
6	Ms. S. L. SREEDEVI	ASSISTANT PROFESSOR - EEE	
7	Dr. V. ABILASH	ASSISTANT PROFESSOR - MECH	
8	Dr. R. KANTHIMATHI	ASSISTANT PROFESSOR - EEE	
9	Dr. K. RAJMOHAN	ASSISTANT PROFESSOR - ECE	
10	Ms. C. LAVANYA	ASSISTANT PROFESSOR – CIVIL	
11	Mr. R. TAMILAMUTHAN	ASSISTANT PROFESSOR - EEE	
12	Mr. B. BALAJI	ASSISTANT PROFESSOR - ECE	
13	Mr. M. VIGNESH KUMAR	ASSISTANT PROFESSOR – MECH	
14	Ms. M. SATHIYAPRIYA	ALUMNUS	
15	Mr. S. GOKUL CHANDRAN	STUDENT – CIVIL	



7.	Ms. J. Nandhini	Admission Executive	Member
8.	Mr. S. Muthubaskar	Admission Executive	Member
9.	Mr. N. Vignesh	Admission Executive	Member

Key Responsibilities of the Members of the Admission Committee

- Coordinate the issue, receipt, verification and closure of student applications according to the approved admission schedule.
- Organise admission review meetings to monitor applications, counselling, seat allotment and enrolment against the approved intake.
- Verify applicants' eligibility, certificates and admission particulars in accordance with applicable AICTE, Anna University and Directorate of Technical Education (DoTE) requirements.
- Coordinate institutional registration, student data entry, document submission and admission approval processes through the applicable DoTE and counselling portals.
- Communicate and implement the approved fee structure, scholarship provisions and fee concessions in coordination with management and the accounts department.
- Guide eligible students in applying for government and institutional scholarships, verify supporting documents and coordinate application submission, renewal and follow-up with the designated scholarship officer.
- Maintain student admission records and certificate repositories securely, and provide verified documents and data for university registration, regulatory approval and institutional reporting.
- Provide students and parents with clear information on programmes, eligibility, counselling procedures, fees, scholarships and institutional facilities.

Table 9.6.1.4 Members of Anti-Ragging Committee

S.No	Name	Designation	Position
1.	Dr. P. Palson Kennedy	Principal	Head in-charge
2.	Mr. B. Magesh	Vice Principal	Member
3	Mrs. S. L. Sreedevi	HOD / EEE	Coordinator
4.	Dr.R.Rajeshwari	HOD / ECE	Member
5.	Mrs. K.Varalakshi	HOD / CSE	Member
6.	Mr. Anilkumar	HOD / Mech	Member
7	Mr. M. PitchiRajan	HOD / Civil	Member
8	Mr. S. S. Vasantharaja	AP / CSE	Member
9	Ms. C Lavanya	AP / Civil	Member
10.	Mr. R. Balaji	EEE	Student Coordinator
11.	Ms. A. Nishanthi	CSE	Student Coordinator

12.	Mr. H. Harish Babu	ECE	Student Coordinator

Key Responsibilities of the Members of the Anti-Ragging Committee

- Communicate anti-ragging policies, prohibited activities, reporting procedures and consequences through orientation programmes, institutional publications, the website and campus displays.
- Display anti-ragging notices and contact details of designated authorities at prominent locations, including classrooms, laboratories, hostels, transport areas and student gathering spaces.
- Organise awareness and counselling sessions for newly admitted students and parents during admission and induction, explaining student rights, responsibilities and available support.
- Coordinate the collection and maintenance of prescribed anti-ragging undertakings from students and parents or guardians through the designated institutional process.
- Oversee the Anti-Ragging Squad, review its monitoring reports and recommend preventive measures for vulnerable locations and periods.
- Provide accessible and confidential reporting channels, encourage students to report concerns without fear, and take measures to protect students from intimidation or retaliation.
- Ensure that reported incidents receive prompt attention, coordinate fact-finding through the prescribed procedure and submit findings and recommendations to the Principal or competent authority for appropriate action.
- Coordinate counselling, academic assistance and other necessary support for affected students while ensuring fairness and confidentiality in handling complaints.
- Review preventive arrangements in hostels, transport facilities, common areas and other student interaction spaces in coordination with the responsible authorities.
- Maintain constitution orders, meeting notices, agenda, attendance, minutes, monitoring reports and confidential incident records, and submit reports to the affiliating university and other authorities according to applicable requirements.

Table 9.6.1.5 Members of Woman Empowerment Cell

S. No	Name	Designation	Position
1.	Mrs. K. Varalakshmi	HOD/ CSE	Coordinator
2.	Dr. P. Yamuna	Associate Professor / EEE	Member
3.	Dr.Neelima	Professor / ECE	Member
4.	Ms. S. Dhivyabharathi	AP / ECE	Member
5.	Ms. M. Saranya	AP / Civil	Member
6.	Ms. M. Divya	AP / CSE	Member
7.	Ms. P. Lekha	AP / CSE	Member
8.	Dr.J.Subashini	ASP/Physics	Member
9.	Ms. R. Keerthi	ECE	Student Coordinator
10.	Ms. P. T. Swetha	CSE	Student Coordinator
11.	Ms. S. Ramya	EEE	Student Coordinator

Key Responsibilities of the Women Empowerment Cell

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Mannivakkam, Chennai – 600 048
(Approved by AICTE,ANNA University &Accredited by NAAC)

Anti-Ragging Committee Annual Report

June 2023 to May 2024

S. No.	Month	No Issues reported	Action taken and status
1	June 2023	Nil	—
2	July 2023	Nil	—
3	August 2023	Nil	—
4	September 2023	Nil	—
5	October 2023	Nil	\
6	November 2023	Nil	—
7	December 2023	Nil	—
8	January 2024	Nil	—
9	February 2024	Nil	—
10	March 2024	1	Case reference, action taken and status submitted to Principal office
11	April 2024	1	Case reference, action taken and status submitted to Principal office
12	May 2024	Nil	—
	Annual total	**2**	

VICE PRINCIPAL

VICE PRINCIPAL
PERI INSTITUTE OF TECHNOLOGY
PERI KNOWLEDGE PARK
Mannivakkam, Chennai-600 048.

PRINCIPAL

PRINCIPAL
PERI Institute of Technology (Autonomous)
PERI Knowledge Park,
Mannivakkam, Chennai-600 048.

- Organise awareness programmes on women's rights, gender equality, dignity, health, hygiene and available institutional support.
- Conduct safety programmes covering self-defence, personal safety, cyber safety and safe travel.
- Arrange talks, workshops and mentoring sessions to strengthen confidence, leadership, communication, career development and entrepreneurship.
- Coordinate health check-ups and awareness sessions on menstrual health, nutrition and emotional well-being.
- Monitor the availability, cleanliness, privacy and maintenance of women's restrooms and common rooms, including water supply, lighting, sanitary disposal facilities and essential amenities.
- Assign a designated woman faculty member for each department or block to monitor these facilities, receive concerns and coordinate prompt action with housekeeping and maintenance personnel.
- Display the contact details of designated faculty members and relevant support committees at accessible locations.
- Provide a supportive environment for women students and employees to communicate concerns confidentially and obtain guidance.
- Refer complaints involving sexual harassment to the Internal Complaints Committee and coordinate referrals to other appropriate authorities.
- Review safety concerns in classrooms, laboratories, hostels and common areas, and recommend improvements to the competent authority.
- Encourage women's participation in technical activities, sports, institutional committees and leadership opportunities.
- Maintain records of programmes, participation, feedback, facility inspections and action taken, and submit periodic reports to the Principal.

Table 9.6.1.6 Examination Cell Committee

S.No	Name	Designation	Position
1.	Dr. R. Palsonkennedy	Principal	Chief Superintendent
2.	Dr.V.Moorthy	Prof / EEE	Controller of Examination
3	Mr.Maniraj	AP/CSE	Member
4.	Mr. P. Dhilipkumar	AP / Mech	Member
5.	Mr.G.Gokul Surendra Kumar	AP / ECE	Member
6	Ms.Ezhilarasi	AP / Civil	Member
7.	Mr.M.Ramesh	AP/S&H	Member

Responsibilities of the Examination Cell

- Coordinate UG and PG examinations under the autonomous system through the Office of the Controller of Examinations, in accordance with approved academic regulations, and manage Anna University examinations for applicable affiliated batches.
- Prepare and circulate examination schedules for theory, practical, project and viva voce examinations in alignment with the academic calendar.
- Coordinate examination registration, fee payment, eligibility verification and issue of hall tickets through the prescribed procedures.
- Facilitate the appointment of question paper setters, moderators, examiners and evaluators through the competent authority, ensuring appropriate expertise and confidentiality.
- Coordinate secure question paper preparation, moderation, printing, storage and distribution under the supervision of the Controller of Examinations.
- Arrange examination halls, seating plans, invigilation duties and facilities required for the fair and orderly conduct of examinations.
- Coordinate internal assessment mark submission and verification, attendance records and consolidation of marks in accordance with approved assessment schemes.
- Facilitate central valuation, scrutiny, moderation and processing of results, and place results before the designated approving body prior to publication.
- Process applications for scrutiny, photocopies of answer scripts, revaluation and other review mechanisms permitted under the applicable regulations.
- Receive and route examination-related grievances, discrepancies and malpractice cases to the designated authority or committee, and communicate decisions through the prescribed procedure.
- Coordinate the preparation and issue of grade sheets, consolidated statements, transcripts and other examination records within the institution’s authority, and facilitate university-issued provisional and degree certificates.
- Coordinate faculty nominations for Anna University valuation and other university examination duties wherever applicable.
- Maintain secure examination records, question paper banks, answer scripts, marks, result proceedings and digital backups according to approved retention and access procedures.
- Prepare semester-wise result analyses and share relevant findings with departments and IQAC to support academic review and continuous improvement.
- Conduct periodic reviews of examination procedures and recommend improvements in transparency, accuracy, security and timely delivery of examination services.

Table 9.6.1.7 Internal Compliance Committee

S.No	Name	Designation	Position
1	Dr. M. Ramkumar Prabhu	HOD / ECE	Coordinator
2	Dr. M. Durairaj	Associate Professor / ECE	Member
3	Dr.R.Rajeshwari	Associate Professor / ECE	Member
4.	Dr. P. Yamuna	Associate Professor / EEE	Member

5.	Dr L. Rekha	Professor / ECE	Member
6.	Mr. V. Dharmaprakash	AP / CSE	Member
7.	Dr. R. Sureshkumar	Professor / CSE	Member
8.	Dr. R.M. Sathyamoorthy	Associate Professor / Mech	Member

Responsibilities of the Internal Compliance Committee

- Promote a safe, respectful and inclusive institutional environment through awareness programmes on the prevention of sexual harassment.
- Communicate the institution’s policy, complaint procedures and committee contact details to students, faculty and staff.
- Receive Compliance of sexual harassment within its jurisdiction and provide appropriate assistance to Compliance in submitting their concerns.
- Conduct inquiries impartially and confidentially, providing the parties concerned a fair opportunity to present their statements and supporting evidence.
- Recommend appropriate interim support or protective measures to the competent authority, where necessary and permitted under applicable provisions.
- Submit inquiry findings and recommendations to the competent authority and monitor the implementation of approved action.
- Facilitate access to counselling and other appropriate support, and address concerns regarding intimidation or retaliation.
- Maintain confidential Compliance records, inquiry proceedings and action taken reports with restricted access.
- Prepare and submit periodic and annual reports as required, while protecting the identities and privacy of the persons involved.
- Review preventive measures and recommend improvements to institutional policies, awareness activities and reporting mechanisms

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Mannivakkam, Chennai – 600 048

(Approved by AICTE,ANNA University & Accredited by NAAC)

Internal Compliance Committee Register

June 2022 to May 2023

S. No.	Month	Event count	Action taken and status
1	June 2022	—	—
2	July 2022	—	—
3	August 2022	3	Compliance Closed after the Enquiry
4	September 2022	—	—
5	October 2022	1	Compliance Closed after the Enquiry
6	November 2022	1	Compliance Closed after the Enquiry
7	December 2022	—	—
8	January 2023	2	Compliance Closed after the Enquiry
9	February 2023	1	Compliance Closed after the Enquiry
10	March 2023	1	Compliance Closed after the Enquiry
11	April 2023	2	Compliance Closed after the Enquiry
12	May 2023	—	—
	Annual total	**11**	

VICE PRINCIPAL

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Mannivakkam,Chennai-600 04

PRINCIPAL

PRINCIPAL
PERI Institute of Technology (Autonomous)
PERI Knowledge Park,
Mannivakkam, Chennai-600 048.

Table 9.6.1.8 Members of Training and Placement Cell

S.No	Name	Designation	Position
1	Mr. B. Vikranth	Placement officer	Coordinator
2	Mr. S. S. Vasantharaja	AP / CSE	Member
3	Mrs. K. Lakshmipriya	AP / ECE	Member
4	Mr. D. Prabhakaran	AP / Mech	Member
5	Mr. T. Rajapandian	AP / ECE	Member

6	Ms. M. Saranya	AP / Civil	Member
7.	Mrs. R.S. Abbirami	AP / CSE	Member
8.	Mrs. A. Vijayalakshmi	AP / EEE	Member
9.	Ms. J. Ashwini	ECE	Student Coordinator
10.	Ms. DalishPrinca William	CSE	Student Coordinator
11.	Ms. L. Mohanashri	EEE	Student Coordinator

Responsibilities of the Members of Training and Placement Cell

- Scheduling soft skill training, technical training, aptitude training, personality development programs and placement training classes for the students.
- Coordinating with the industries for providing the vocational training courses, in-plant training, internships and industrial visits to students in consultation with HODs.
- Conducting mock interview and aptitude test for the students before the company recruitment process.
- Interact with the corporate people for internship and project.
- Coordinating with the different industries for on-campus and off-campus interviews of the meritorious students for providing suitable jobs in their organizations.
- Providing the information regarding students pursing higher studies in abroad.

Table 9.6.1.9 Members ofSports and cultural committee

S.No	Name	Designation	Position
1	Mr. Anilkumar	HOD / Mech	Coordinator - Sports
2	Mrs. C. N. Vidhyalakshmi	AP / English	Coordinator - Cultural
3	Mr. G. Loganathanan	AP / Mech	Member
4	Mrs. M. Saranya	AP / Civil	Member
5	Mr. S. S. Vasantharaja	AP / CSE	Member
6	Ms. R. Pooja	AP / English	Member
7	Ms. Kavitha	ECE	Student Coordinator -Sports
8	Mr. J. Jainulabdeen	Mech	Student Coordinator - Sports
9	Ms. K .Vikshara	CSE	Student Coordinator - Cultural
10	Mr. S. Nagacharan	Mech	Student Coordinator - Cultural

Responsibilities of the Members of Sports and cultural committee

- Organizing regular sports events for students to practice state and national level competition.
- Promoting team sprit by making healthy competition.
- Arranging sufficient indoor and outdoor games to the students.
- Giving practice to the students every day from 4 to 5 pm.
- Arranging practice session to the student for Anna University Zonal meet.
- Students are encouraged to take part in cultural events and show their talents.

Table 9.6.1.10Members ofGrievance Redressal Committee

S.No	Name	Designation	Position

1	Dr. P. Palson Kennedy	Principal	Coordinator
2	Mr. B. Magesh	Vice Principal	Additional Coordinator
3	Dr.R.Rajeshwari	HOD / ECE	Member
4	Mrs. K.Varalakshi	HOD / CSE	Member
5	Mr. Anilkumar	HOD / Mech	Member
6	Mrs. S. L.Sreedevi	HOD / EEE	Member
7	Mr. M. PitchiRajan	HOD / Civil	Member
8	Mr. S. Vignesh	CSE	Student Coordinator
9	Mr. R. Indiran	ECE	Student Coordinator

Responsibilities of the Members of Grievance Redressal Committee

- Provide an accessible mechanism for students to submit grievances through designated offline and online channels.
- Communicate the grievance procedure, committee contact details and available appeal mechanisms.
- Receive and examine grievances relating to academic matters, institutional services, facilities and other concerns within its approved jurisdiction.
- Review complaints impartially, verify relevant records and provide the parties concerned a fair opportunity to present their views.
- Maintain confidentiality and protect complainants from intimidation or retaliation.
- Recommend appropriate remedial measures to the competent authority and communicate decisions within the prescribed timelines.
- Refer matters such as sexual harassment, ragging and examination appeals to the designated committee or authority.

1. Publish the procedure

Share offline and online submission channels, committee contacts and appeal options.

↓

2. Receive and log the grievance

Record the submission and identify the concern.

↓

3. Is the grievance within the committee's jurisdiction?

Check whether it concerns academics, services, facilities or another approved area.

No →

Refer to the designated body

Route sexual harassment, ragging and examination appeals to the designated committee or authority.

↓ **Yes**

4. Review impartially

Verify relevant records and give all parties a fair opportunity to present their views.

↓

5. Recommend remedial action

Submit recommendations to the competent authority.

↓

6. Communicate the decision

Notify the parties within the prescribed timeline and explain any applicable appeal route.

Table 9.6.1.11 Members of Discipline Committee

S. No	Name	Designation	Position
1	Dr. P. Palson Kennedy	Principal	Head in-charge
2	Mr. Anilkumar	HOD / Mech	Coordinator
3	Mr. B. Magesh	Vice Principal	Additional Coordinator
4	Dr.R.Rajeshwari	HOD / ECE	Member
5	Mrs. K. Varalakshi	HOD / CSE	Member
6	Mr. N. Vignesh	Admission Officer	Member
7	Mrs. S. L. Sreedevi	HOD / EEE	Member
8	Mr. M. PitchiRajan	HOD / Civil	Member
9	MrK.S .Senthil kumar	AP / ECE	Member
10	Mr. R. Balaji	EEE	Student Coordinator
11	Ms. V. Durga	CSE	Student Coordinator
12	Mr. C. Akash	ECE	Student Coordinator

Responsibilities

- Implement the institution’s code of conduct and disciplinary procedures consistently and fairly.
- Promote responsible behaviour, punctuality, mutual respect and adherence to institutional rules among students.
- Monitor compliance with requirements relating to identity cards, dress code, attendance and timely reporting to classes.
- Conduct campus rounds during breaks, lunch hours and other designated periods to maintain orderly conduct and timely return to classes.
- Examine reported disciplinary incidents, verify relevant information and provide students concerned an opportunity to explain their conduct.
- Recommend appropriate corrective measures to the competent authority in accordance with approved procedures.

Service Rules, Recruitment procedures and Promotion Policies

PERI Institute of Technology follows a framework of service rules, academic procedures and delegated responsibilities to support transparent and accountable administration. These provisions cover recruitment, faculty appraisal, professional development, leave, student-related processes and financial administration. The General Service Rules apply to temporary and permanent employees and take effect from the date of approval by the Governing Council.

1. **Institutional governance and policy approval**

   The Management and Governing Council provide institutional direction and approve policies within their respective authority. The Principal coordinates academic and administrative implementation, supported by the Vice Principal, Heads of Departments, IQAC, committee coordinators and administrative officers.

Policies and procedures are implemented through the organisational structure and committee system. Matters requiring higher approval are forwarded through the appropriate authority, while departments and committees carry out activities within their assigned responsibilities. This arrangement supports decentralisation, participative management and accountability.

2. **Recruitment and selection procedures**

Recruitment to teaching positions is undertaken through direct recruitment or promotion, subject to eligibility requirements, institutional needs and approval by the competent authority.

Vacancies are advertised through leading newspapers and faculty recruitment platforms. Applications are scrutinised discipline-wise, and eligible candidates are shortlisted for interview. The institutional selection committee includes the Chairman, Chief Operating Officer, Principal, Vice Principal and relevant Heads of Departments, with additional representation wherever required under applicable provisions.

Candidates deliver a technical presentation of approximately ten minutes to demonstrate subject knowledge, communication and teaching ability. A personal interview assesses technical competence and suitability for the position. The committee prepares a merit-based panel for consideration and appointment by the competent authority.

3. **Service records and recognition of experience**

The institution maintains a service book for each employee. It records appointment particulars, previous experience, increments, promotions, awards, disciplinary actions and other service-related information. Entries are verified and attested by the authorised officer.

Previous experience is considered according to the approved service rules. The supplied policy recognises service in engineering colleges and provides for consideration of 50% of service in affiliated Arts and Science Colleges for entry-level appointments in Science and Humanities. Recognition of experience remains subject to verification and applicable eligibility requirements.

4. **Faculty performance appraisal increments and promotion**

Faculty appraisal is conducted annually during July–August. Faculty members submit their performance details and supporting documents covering teaching, academic results, research, professional development and additional responsibilities.

The HoD verifies the submissions and records observations. Assessments from the academic leadership, IQAC and HR are consolidated, and the submitted information is validated during August. One-to-one meetings provide feedback, recognise contributions and identify improvement needs. The completed records are subsequently handled by HR for processing and implementation of approved decisions.

Appraisal scores form a basis for annual increments in accordance with institutional policy. Increment eligibility is also considered with reference to qualifying service and the applicable review date. Promotion is considered against the qualifications, experience, performance and other conditions prescribed for the higher position; completion of one year alone does not establish eligibility for promotion.

Faculty members requiring improvement receive mentoring from senior academicians, the HoD or Academic Head. Development measures may include FDPs, NPTEL/MOOC courses, improved teaching practices and greater research participation. Progress is reviewed through subsequent academic monitoring and appraisal.

5. **Leave vacation and on-duty procedures**

Faculty members are eligible for one day of casual leave for each completed month of service under the supplied rules. Leave is normally availed with prior approval through the HoD and institutional authority.

In emergencies, the faculty member informs the HoD promptly and coordinates necessary workload arrangements. The leave application and relevant supporting documents are submitted immediately upon resuming duty. Summer and winter vacation are governed by the approved institutional schedule and service conditions.

On-duty permission may be granted for university examination duties and approved FDPs, workshops, conferences, seminars and similar professional activities. Prior approval is required, and attendance or participation evidence is submitted upon return.

6. **Resignation and relieving procedures**

Resignation is processed according to the approved service rules and appointment conditions. The employee submits written notice, completes the required academic and administrative work, hands over records and institutional property, and obtains departmental and administrative clearance. Applicable notice period, notice-pay provisions and outstanding responsibilities before the competent authority approves relieving. The process is coordinated to maintain continuity of teaching and other institutional activities.

7. **Policies and procedures relating to students**

Student-related procedures cover admission, eligibility verification, registration, scholarships, fees, attendance, assessment, examinations, conduct and grievance redressal.

The Admission Committee coordinates applications, document verification, applicable DoTE and university processes, and implementation of the approved fee structure. Eligible students receive guidance on scholarship applications, renewals and supporting documents.

Academic activities follow the approved regulations and institutional academic calendar. The Examination Cell and Office of the Controller of Examinations coordinate autonomous examination procedures, while university procedures apply to relevant affiliated batches.

Student concerns are addressed through designated mechanisms, including the Grievance Redressal Committee, Anti-Ragging Committee, Internal Complaints Committee and Discipline Committee. Mentoring, class committee meetings and career guidance provide additional academic and personal support.

9.6.2 Transparency (5) Institute Marks : 5.00

Availability and Dissemination of Institutional Information

PERI Institute of Technology disseminates information on institutional policies, rules and procedures through its website and official communication channels. The purpose is to ensure that faculty, staff, students, parents and other stakeholders can access relevant information and understand their responsibilities and available services.

1. **Information available on the institutional website**

The website provides access to institutional information relating to governance, academic administration, faculty and student support. The disclosures should include:

a) Institutional vision, mission, organisational structure and responsibilities of governing and administrative bodies.

b) Service rules, recruitment and promotion policies, faculty appraisal procedures, leave provisions and professional development support.

c) Academic regulations, curricula, academic calendars, attendance requirements, assessment procedures and examination-related information.

d) Admission procedures, approved fee details, scholarship opportunities and student support services.

e) Policies and procedures relating to grievance redressal, anti-ragging, prevention of sexual harassment, student conduct and equal opportunity.

f) The approved delegation of administrative and financial powers, identifying the competent authorities, scope of authority and applicable financial limits.

g) Committee constitutions, memberships, responsibilities and official contact details, wherever public disclosure is applicable.

The relevant website links, publication dates and latest revision details are maintained as supporting evidence.

2. **Disclosure of governance proceedings**

Meeting agendas and approved minutes of the Governing Body and Academic Council are uploaded under the relevant governance section of the website. Senate proceedings are included only where a Senate forms part of the institution’s governance structure.

These disclosures enable stakeholders to understand major institutional decisions, academic developments and approved improvement measures. Action Taken Reports may also be published to demonstrate implementation and follow-up. Confidential personal information and protected proceedings are handled according to applicable requirements.

3. **Dissemination to stakeholders**

Website publication is supplemented by communication through institutional circulars, official email, the iGURU platform, orientation programmes and meetings.

Faculty and staff are informed about service conditions, academic responsibilities, appraisal and administrative procedures through induction and departmental meetings. Students receive information on academic regulations, examinations, conduct, scholarships, grievance mechanisms and career support through induction, mentoring and class committee meetings. Parents receive relevant information through parent–teacher interactions and official communications.

Revised policies and important decisions are circulated to the stakeholders concerned, with reference to the updated website document.

4. **Extent of stakeholder awareness**

Stakeholder awareness is assessed through orientation participation, faculty and student interactions, class committee discussions, parent–teacher meetings and feedback on access to institutional information.

The assessment considers whether stakeholders know where to find relevant documents, whom to contact and how to use procedures such as grievance submission, scholarship applications, examination review and leave approval.

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

:

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 2024-25

Total Income 219868928				Actual expenditure(till…):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
198704884	21164044	0	0	127430122	1238	102932.25

Table 2 - CFYm1 2023-24

Total Income 70546815				Actual expenditure(till…):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
50660176	19886639	0	0	110821577	1068	103765.52

Table 3 - CFYm2 2022-23

Total Income				Actual expenditure(till…):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			

Table 4 - CFYm3 2021-22

Total Income 66288797				Actual expenditure(till…):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
44530797	21758000	0	0	96896975	998	97091.16

Items	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till	Budgeted in 2021-22	Actual Expenses in 2021-22 till
Infrastructure Built-Up	3400000	3336278	1450000	1348133	6200000	6175781	1500000	1400500
Library	3950000	3880589	5500000	5458190	530000	539831	1200000	1104381
Laboratory equipment	3870000	3736684	2300000	2251792	3300000	3241803	0	0
Teaching and non-teaching stat	4550000	4546034	5300000	5260640	4500000	4440503	4500000	4412380
Outreach Programs	400000	386224	1400000	1382824	1400000	1315265	0	0
R&D	600000	592534	160000	151834	70000	60000	0	0
Training, Placement and Indust	1200000	1188384	1100000	1032163	4300000	4229153	650000	631414
SDGs	15000	14500	110000	105000	28000	27605	0	0
Entrepreneurship	150000	147841	75000	72000	730000	721216	0	0
Others, specify	6000000	5799128	2500000	2499055	3300000	3298380	3800000	3703237
Total	**129885000**	**127430122**	**113045000**	**110821577**	**94558000**	**93699491**	**99850000**	**96896975**

9.8 Program Specific Budget Allocation, Utilization (8)

:

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 2024-25

Total Budget 5245500		Actual expenditure (till…): 5106818.8		Total No. Of Students 373
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
5245500	5245500	5106818.8	97.3	13691.20

Table 2 :: CFYm1 2023-24

Total Budget 3966000		Actual expenditure (till…): 3865474		Total No. Of Students 392
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
3966000	3966000	3865474	97.5	9860.90

Table 3 :: CFYm2 2022-23

Total Budget 2432400		Actual expenditure (till…): 2407004		Total No. Of Students 336
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
2432400	2432400	2407004	98.8	7163.70

Table 4 :: CFYm3 2021-22

Total Budget 349000		Actual expenditure (till…): 340030		Total No. Of Students 326
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
349000	349000	340030	97.4	1043.04

Items	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till	Budgeted in 2021-22	Actual Expenses in 2021-22 till
Laboratory equipment	1161000	1121005	690000	675538	990000	972541	0	0
Software	720000	695895.4	625000	624763	330000	329838	114000	111097
SDGs	4500	4350	33000	31500	8400	8282	0	0
Support for faculty developmen	1200000	1159825	1000000	999622	660000	659676	133000	129613

R & D	180000	177760.:	48000	45550	21000	18000	0	0
Industrial Training, Industry exp	1440000	1426061	1320000	1238596	165000	164919	26000	25256
Miscellaneous Expenses*	540000	521921.5	250000	249905	258000	253749	76000	74064
Total	**5245500**	**5106818.8**	**3966000**	**3865474**	**2432400**	**2407005**	**349000**	**340030**

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

Institute Marks : 5.00

PERI Institute of Technology provides library resources and digital learning facilities to support curriculum requirements, independent study, project work and knowledge enhancement. Printed books, journals, DELNET resources and an NPTEL video repository enable students to extend their learning beyond classroom instruction.

1. **Availability of books and journals**

The departmental library inventory reports **5,611 book titles and a total collection of 20,940 books.** The collection covers Science and Humanities, Civil Engineering, Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Mechanical Engineering and emerging disciplines, including Information Technology, Artificial Intelligence, Data Science and Cybersecurity.

The library supports students through textbooks and reference materials relevant to their courses, assignments and projects. **The addition of 640 books during 2025–26 reflects** continued strengthening of the collection.

The journal summary records 26 national and 14 international journals. These resources provide exposure to developments in engineering, technology and related disciplines and support literature reviews, seminars and project preparation.

2. **Electronic resources and digital learning facilities**

The institution provides online access to DELNET, with the submitted library record listing access to 1,120 e-journals. Students can use the available electronic resources to supplement textbook learning, explore technical topics and identify literature relevant to their academic work.

Students are provided unlimited online access to the resources available through the institution's DELNET membership, subject to the subscribed access arrangements. Access to electronic books and other materials is governed by the collections available through the service.

An NPTEL video repository is also available for independent learning. Students can revisit concepts taught in class, study difficult topics at their own pace and explore subjects beyond the prescribed syllabus. The repository supports supplementary learning and preparation for relevant online courses and certifications.

3. **Accessibility of learning resources**

The library provides students with access to printed learning materials for reference and borrowing according to institutional library procedures. Library personnel assist students in locating books, identifying relevant resources and using available electronic services.

One library hour is included in the weekly timetable to encourage regular utilisation. This scheduled period gives students an opportunity to consult reference materials, read journals, gather information for assignments and develop independent reading habits.

Online resources complement physical library access by enabling students to consult available digital materials beyond the scheduled library hour. DELNET access and the NPTEL repository provide additional opportunities for learning according to individual interests and academic needs.

4. **Support for self-learning activities**

The institution encourages students to use library and electronic resources for assignments, seminars, projects and independent exploration. Faculty members guide students towards relevant reference books, journal literature and NPTEL lectures to strengthen their understanding of course concepts.

The weekly library hour supports purposeful reading and information gathering. Students are encouraged to compare explanations from different sources, prepare notes and explore applications of the concepts studied in class.

NPTEL videos support self-paced learning through repeated viewing and topic-wise study. Students requiring additional support can revisit foundational concepts, while advanced learners can explore specialised subjects and emerging technologies.

Journal access supports the development of literature review and technical reading skills. Students can use relevant publications to understand existing approaches, identify project ideas and relate their work to developments in their discipline. Library assistance and faculty guidance help students select suitable materials and use information responsibly.

5. **Contribution to student learning**

The combination of printed resources, journals, online access, a dedicated weekly library hour and the NPTEL video repository creates opportunities for sustained independent learning. These provisions support subject understanding, preparation of assignments and projects, technical exploration and the development of lifelong learning habits.

By integrating scheduled library use with access to digital resources, PERI Institute of Technology encourages students to take greater responsibility for their learning and extend their knowledge beyond the classroom.

9.10 E-Governance (5)

Institute Marks : 5.00

E-governance initiatives, sustainable academic management and campus-wide computing resources

PERI Institute of Technology integrates e-governance, digital academic management and computing infrastructure to support academic and professional activities for students and faculty. Separate portals for Admissions, Academics, the Controller of Examinations (COE) and Human Resources (HR) support systematic management of institutional functions. These facilities improve access to information, facilitate academic monitoring and reduce dependence on paper-based records.

E-governance in academic and administrative processes

The institution operates a dedicated admission portal to manage the admission process from application to completion. Maintaining admission information digitally facilitates systematic processing, retrieval of student particulars and coordination of admission-related activities. A separate HR portal supports human resource management.

The academic portal supports student attendance monitoring, lesson planning, preparation of learning notes and creation of mentoring reports. Digital lesson plans help faculty organise course delivery, while electronically maintained notes support the preparation of teaching materials. Mentoring reports provide a structured record of student guidance and follow-up, supporting continuity in academic support.

Students have separate mobile access to verify their attendance. This enables them to monitor their attendance regularly and take timely steps to address shortages. Digital attendance records also facilitate departmental monitoring and identification of students requiring guidance.

Student feedback collected through the iGURU application supports confidential participation, consolidated analysis and follow-up action. Academic information maintained through the platform assists institutional review and coordination among faculty, departments and administrators.

Digital examination management

The dedicated COE portal supports examination activities, including question paper uploading, end-semester question paper setting, marks uploading, result preparation and processing. Bringing these activities within a digital system facilitates organised submission, compilation and processing of examination information.

Digital maintenance of examination records supports their retrieval and review and reduces repeated manual compilation. The separate COE portal provides a structured mechanism for coordinating examination work across departments.

Campus-wide computing resources and connectivity

The institution provides 240 computer systems across seven laboratories to support practical instruction and academic activities. These facilities enable students to undertake programming, assignments, technical presentations, engineering applications and project development. Faculty members use computing facilities for teaching preparation, academic documentation, examination work, research and professional development.

A 1,000 Mbps network supports connectivity for academic and institutional activities. Wi-Fi is available in hostels and at selected academically important locations on campus, extending connectivity beyond the computer laboratories. These arrangements support access to digital academic platforms and online activities in the designated areas.

Laboratory schedules and departmental coordination facilitate access to computing facilities for practical classes and academic work. Technical personnel support the functioning and maintenance of computers, software and network connectivity.

ICT-enabled teaching and learning

4 Smart boards and 15 projectors support ICT-enabled teaching. Faculty members use these facilities to explain concepts through presentations, visual illustrations, demonstrations and other digital teaching materials.

The combination of ICT teaching facilities, computer laboratories and network connectivity supports classroom instruction and practical learning. It also provides infrastructure for student project work, technical activities and faculty academic preparation.

Sustainable practices in academic and learning management

Digital maintenance of attendance, lesson plans, learning notes, mentoring reports, admission information and examination records reduces dependence on printed registers, repeated photocopying and duplicate documents. The use of iGURU and the dedicated institutional portals therefore contributes to reduced paper consumption and paper waste while improving record organisation and retrieval.

The institutional website and official digital communication channels disseminate academic calendars, examination information, circulars and updates, further reducing the need for printed communication. Faculty, students and administrative personnel are encouraged to avoid unnecessary printing and reuse suitable paper.

Responsible use of computers, projectors, smart boards and other electrical equipment supports energy conservation. The institution conducts an annual energy audit through an approved external agency and reviews its recommendations to identify opportunities for reducing energy consumption. These practices connect digital academic management with efficient use of institutional resources.

Together, the dedicated portals, student mobile access, computing laboratories, network connectivity and ICT teaching facilities support accessible academic services, systematic institutional management and sustainable teaching–learning practices.

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

Institute Marks : 10.00

Sustainable Development Goals Addressed at PERI Institute of Technology and Relevant Activities

Sustainable Development Goal	Relevant institutional activities
SDG 4 **Quality Education**	Environmental Science courses for all students; sustainability-focused assignments and engineering projects; faculty guidance for SDG-oriented projects; evaluation weightage for SDG relevance; outreach activities that develop environmental awareness and social responsibility.
SDG 6 **Clean Water and Sanitation**	Bacteria-based wastewater treatment and reuse for gardening; sprinkler irrigation; push taps to minimise water wastage; suitable RO reject water reused for gardening; community awareness on water conservation and cleanliness.
SDG 7 **Affordable and Clean Energy**	Solar-powered street and hostel lighting; solar energy for designated motor operations; LED lighting; annual energy audits by an approved external agency; implementation of conservation measures and awareness on responsible electricity use.
SDG 12 **Responsible Consumption and Production**	Segregation of biodegradable and non-biodegradable waste; composting garden trimmings and organic materials; recycling paper, plastic, glass and metal through vendors; digital records through institutional portals to reduce paper waste; reuse of suitable paper and computer components; cartridge refilling where feasible; e-waste disposal through authorised vendors.
SDG 13 **Climate Action**	Tree planting and campus greenery maintenance; renewable energy adoption and energy conservation; pedestrian-only areas and electric vehicle use; reduced paper consumption; student projects and community outreach addressing environmental protection and climate awareness.

PERI Institute of Technology promotes sustainable development through academic practices, renewable energy adoption, energy conservation, water management, waste reduction, reuse and recycling, and community participation. These initiatives support SDG 4—Quality Education, SDG 6—Clean Water and Sanitation, SDG 7—Affordable and Clean Energy, SDG 12—Responsible Consumption and Production, and SDG 13—Climate Action.

Green energy and energy conservation

The institution conducts an annual energy audit through an approved external agency to assess energy consumption, identify inefficiencies and recommend conservation measures. Audit findings are reviewed to guide maintenance, operational improvements and phased measures to reduce energy usage.

Energy conservation initiatives include LED lighting, solar-powered lighting for campus streets and hostel areas, and solar energy for designated motor operations. Students, faculty and staff are encouraged to switch off lights, fans, computers and other equipment when not required. These practices support renewable energy utilisation and responsible electricity consumption.

Water conservation and reuse

Campus wastewater is treated through a bacteria-based recycling system, and the treated water is reused for gardening, reducing freshwater demand for maintaining campus greenery.

Sprinkler irrigation supports controlled water application, while push taps help minimise wastage. RO reject water is also used for gardening where its quality is suitable. These arrangements promote water conservation and productive reuse of available water resources.

Waste management, reduction, reuse and recycling

Separate bins are provided for biodegradable and non-biodegradable waste to facilitate segregation at source. Garden trimmings and suitable organic materials are composted, and the resulting manure is used for campus gardening.

Paper, plastic, glass and metal waste are segregated and handed over to recycling vendors. Digital academic and administrative record maintenance through iGURU and the institutional portals reduces the need for printed registers, duplicate documents and repeated photocopying, thereby reducing paper consumption and paper waste.

Reuse of suitable paper, recovery of serviceable computer components and refilling of printer cartridges, wherever feasible, extend the useful life of materials. Obsolete computers, monitors, printers and accessories are segregated and stored in a designated area before disposal through authorised vendors.

Green campus and efforts towards lower emissions

Tree planting, landscape maintenance, pedestrian-only areas and the use of electric vehicles support an environmentally responsible campus. Reuse of treated wastewater for irrigation connects campus greening with water conservation.

Renewable energy adoption, energy-efficient lighting, responsible equipment usage, reduced paper consumption and sustainable mobility support efforts to lower the institution’s environmental footprint. These measures represent progressive steps towards lower emissions; achievement of net zero has not been established through the information presented here.

Environmental education in the curriculum

Environmental Science is included in the curriculum for all students to develop awareness of natural resources, ecosystems, biodiversity, pollution prevention, waste management and sustainable development. The course helps students understand the relationship between technological development, environmental protection and responsible resource utilisation.

Environmental education provides a foundation for considering sustainability in engineering decisions. Students are encouraged to apply this understanding in assignments, laboratory activities and projects involving environmental and societal challenges.

SDG-oriented student projects and evaluation

Students are encouraged to select problems related to the Sustainable Development Goals for mini-projects, applied engineering projects and final-year projects. Suggested areas include renewable energy, energy efficiency, water conservation, wastewater management, waste segregation, recycling, sustainable construction and solutions addressing community needs.

Faculty guides support students in identifying relevant problems, examining feasibility, developing solutions and assessing their potential environmental and societal benefits. This approach connects engineering knowledge with practical sustainability challenges.

Weightage is given to SDG-oriented projects during project evaluation to encourage sustainability in problem selection, design and implementation. The project evaluation process recognises the relevance of the problem to the SDGs, the technical approach and the potential contribution to environmental protection or societal improvement.

Research, innovation and entrepreneurial opportunities

Sustainability-related student projects provide opportunities for further research, prototype development and innovation. Promising ideas can be considered for additional testing, interdisciplinary development and entrepreneurial support according to their feasibility and stage of development.

Evidence of contributions in this area should identify the actual research or innovation undertaken, its connection to the relevant SDGs and its outcomes. Publications, patents, prototypes, funded projects and entrepreneurial activities should be reported according to their documented status.

SDG-based outreach and community engagement

The institution organises outreach activities around SDG-related themes to extend environmental awareness and social responsibility beyond the campus. These activities address environmental protection, water and energy conservation, waste segregation, cleanliness and responsible consumption.

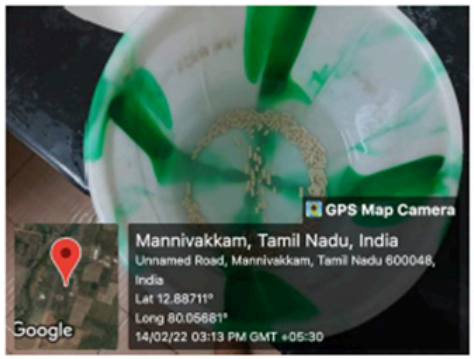
Student participation connects classroom learning with community needs and provides opportunities to practise communication, teamwork and problem-solving. Outreach activities also encourage students to understand local challenges and contribute to community-oriented sustainability efforts.

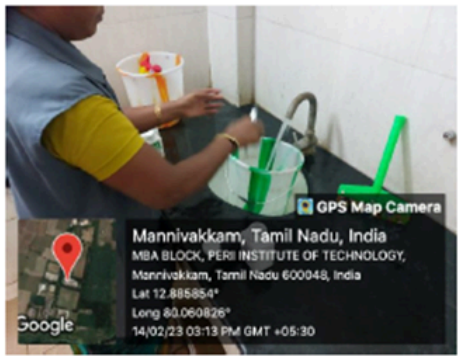
Monitoring and continuous improvement

Annual energy audit findings and available electricity consumption, water management and waste disposal records provide a basis for reviewing campus sustainability practices. Academic implementation is supported through curriculum records, project guidelines, evaluation rubrics and project review documentation.

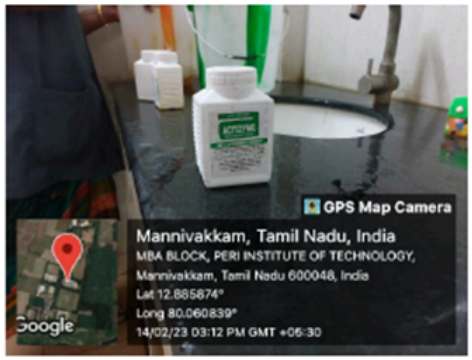
PERI INSTITUTE OF TECHNOLOGY

Approved by AICTE, Affiliated to Anna University
Accredited by NAAC | Recognized by UGC with 2(F)
AICTE Permanent ID Number : 1-5937291





Waste Water recycling using Bacteria based method





Waste Water recycling using Bacteria based method

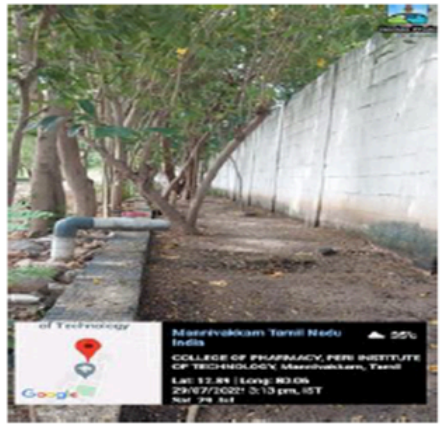
PERI INSTITUTE OF TECHNOLOGY

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Accredited by NAAC | Recognized by UGC with 2(F)
AICTE Permanent ID Number : 1-5937291





Water Sprinklers



Recycled Waste Water Distribution to trees

9.12 Innovative Educational Initiatives and Implementation (5)

Institute Marks : 5.00

PERI Institute of Technology supports student mobility, flexible learning and holistic development through the Academic Bank of Credits, value-based education, interdisciplinary and multidisciplinary courses, and the integration of Indian knowledge and cultural heritage. Policies on women empowerment and gender equality, accessible infrastructure, financial assistance and academic support promote equitable participation in education.

Student mobility and Academic Bank of Credits

As an institution affiliated to Anna University, opportunities for student exchange are governed by the applicable university framework. Within this framework, student transfers between Anna University-affiliated institutions are facilitated in accordance with prescribed procedures and eligibility requirements.

The institution has initiated the implementation of the Academic Bank of Credits (ABC) and encourages students to create their accounts and maintain digital academic credit records. More than 50% of students have created ABC accounts and have had their academic credits uploaded to these accounts. Efforts continue to extend registration and credit uploading to the remaining students.

These initiatives establish a foundation for credit accumulation, academic flexibility and mobility, subject to applicable university regulations.

Holistic education and human values

The institution integrates human values, ethical responsibility and personal development into engineering education. Under the Anna University Regulation 2021 curriculum, courses such as Universal Human Values and Professional Ethics develop students' understanding of ethical conduct, respect for others, social responsibility and professional accountability.

Additional courses, including Personal and Professional Competencies for Engineers and Holistic Personality Development and Behavioural Skills, strengthen communication, teamwork, self-awareness, interpersonal relationships and responsible behaviour. These courses complement technical learning and prepare students to participate constructively in professional, family and social life.

Interdisciplinary and multidisciplinary learning

Open electives and professional electives provide opportunities for students to broaden their knowledge within the applicable curriculum framework. Interdisciplinary courses connect core engineering subjects with emerging technologies and applications in other fields.

Examples include Artificial Intelligence in Agriculture, Embedded C Programming, Artificial Intelligence and Machine Learning for Mechanical Engineers, and Internet of Things for Electrical Engineers. Python programming is introduced to students in core engineering disciplines to strengthen programming skills and computational thinking.

Courses such as Hospital Management, Human–Computer Interaction and Organisational Relationship expose students to the connections between engineering, management, human behaviour and service systems. The institution also encourages multidisciplinary projects, enabling students to combine knowledge from different domains to address practical problems.

Indian Knowledge System and Indian language learning

Following Anna University's curricular framework, the institution offers Heritage of Tamils and Tamils and Technology. These courses introduce students to Tamil cultural heritage, indigenous knowledge and historical technological contributions. They help students appreciate the relationship between traditional knowledge, culture and contemporary engineering.

The institution also takes initiatives to organise guest lectures on Indian Knowledge System themes to supplement curricular learning. Courses relating to Tamil heritage and technology contribute to regional language and cultural education and strengthen students' awareness of local knowledge traditions.

Inclusivity, gender equality and accessible infrastructure

The institution has policies on women empowerment and gender equality to promote equal opportunities, respectful participation and an inclusive educational environment. These policies provide a framework for supporting women students and faculty and encouraging equitable participation in academic and institutional activities.

The campus is developed as a disabled-friendly environment. Lift facilities are available in all buildings to support movement between floors and improve access for persons with mobility difficulties. Accessible infrastructure supports the participation of students, faculty and other campus users in academic and institutional activities.

Financial assistance and educational continuity

The institution facilitates access to government financial assistance for eligible engineering students, including the Tamil Nadu First Graduate tuition fee concession and post-matric scholarships. These benefits help reduce financial barriers and support students from eligible social and economic backgrounds.

The Chairman Scholarship provides institutional fee support to eligible students facing financial hardship, including students who lose their parents during their studies. This assistance helps affected students continue their education despite difficult family circumstances.

Identification and support of slow learners

The institution follows a continuous process for identifying and supporting students who require additional academic assistance. After every Continuous Assessment Test (CAT), students who have failed in individual subjects are identified through a review of their results. Students who underperform in university examinations are also included for academic support.

Subject-wise special classes are scheduled to address learning gaps, clarify difficult concepts and provide additional practice. Faculty members guide students in improving their understanding of the subject and preparing for subsequent assessments.

Mentors provide individual guidance and follow up on students' academic progress. Where necessary, parents are informed and discussions are held regarding performance, learning difficulties and the support required. This coordination among subject faculty, mentors and parents helps sustain students' participation in improvement activities.

Performance in subsequent CAT examinations and university examinations is reviewed to assess progress and identify students who require continued support. Through special classes, mentoring and parental involvement, the institution makes sustained efforts to improve learning and academic performance.

Together, these initiatives support flexible academic progression, holistic development and equitable access, while providing targeted assistance to students facing financial, physical or academic challenges

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

Institute Marks : 10.00

PERI Institute of Technology follows a structured annual performance appraisal system to assess faculty contributions to teaching, research, professional development, student support and institutional administration. The system combines evidence-based self-assessment with evaluation by the Head of the Department, Principal/Vice Principal, IQAC and Human Resources Department. Appraisal outcomes are linked to increments, recognition, mentoring and continuous professional development.

1. **Annual appraisal process**

The appraisal exercise is conducted annually during July–August. Appraisal forms are distributed to faculty members, who record their contributions for the prescribed assessment period and submit supporting documents.

During August, the submitted information and documentary evidence are validated by the respective authorities. The HoD verifies academic results, research contributions and professional development activities. Departmental, institutional, IQAC and HR assessments are subsequently consolidated.

Following validation, one-to-one meetings are conducted to discuss individual performance, recognise contributions and identify areas requiring improvement. After these meetings, the consolidated appraisal records are handed over to HR for processing, maintenance and implementation of approved appraisal-related decisions.

2. **Assessment components and weightage**

Faculty performance is assessed on a 100-point scale across five components.

Assessment component	**Maximum score**
Self-analysis, verified by the HoD	30
Head of the Department's assessment	15
Principal/Vice Principal's assessment	15
IQAC assessment	30
HR assessment	10
Total	100

This framework recognises academic achievement, quality of teaching, professional cooperation, institutional responsibilities and compliance with established procedures.

3. **Teaching performance and academic results**

Academic results carry 10 marks. The appraisal form specifies differentiated pass-percentage targets: above 80% for problem-oriented courses, above 90% for theoretical courses and 100% for laboratory courses. Performance is assessed against the targets for the courses handled.

The HoD evaluates content preparation, content delivery, implementation of modern teaching tools and dedication to student development. IQAC further assesses academic delivery through class audits and compliance with prescribed iGURU procedures, including tests and attendance. These measures connect appraisal with effective curriculum delivery and academic accountability.

4. **Research and professional development**

Research contribution carries 10 marks and includes journal publications, books, book chapters and patent publications. Faculty members submit documentary evidence identifying the author and institutional affiliation. Publications are evaluated according to the scoring and equivalence provisions specified in the appraisal form.

Academic improvement carries an additional 10 marks. The criteria recognise doctoral pursuit, NPTEL courses, FDP participation and applications for funded or consultancy projects, as applicable. These provisions encourage faculty members to update their knowledge, strengthen research capabilities and develop expertise relevant to teaching and industry requirements.

5. **Departmental and institutional contributions**

The HoD's assessment carries 15 marks, covering departmental responsibilities and professional performance. Recognised responsibilities include examination coordination, research and development, mentoring, industrial visits, placement and admissions. Assessment also considers timely execution of tasks, cooperation with colleagues, responsiveness and accuracy of information.

The Principal/Vice Principal's assessment carries 15 marks. It recognises institutional responsibilities associated with research, entrepreneurship development, higher studies support, IQAC, NSS, YRC, cultural activities, sports and admissions. Commitment, willingness to accept responsibilities, execution of tasks, cooperation and crisis management are also assessed.

6. **Quality assurance and student feedback**

IQAC assessment carries 30 marks, distributed equally among academic delivery through class audits, adherence to iGURU procedures and student feedback recorded in Class Committee Meetings. Student feedback therefore contributes 10% of the overall appraisal score.

Identified concerns are discussed with the faculty member to determine suitable corrective measures. These may include revision of course plans, improvement in teaching methods, additional tutorials, experiential learning activities and participation in relevant FDPs or MOOCs. Subsequent academic monitoring and student feedback support follow-up review.

7. **Professional conduct and HR compliance**

HR assessment carries 10 marks and covers compliance with leave policies, prior permission for leave, biometric attendance, attendance records and prescribed reporting procedures. This component reinforces professional responsibility and adherence to institutional policies.

8. **Appraisal of laboratory support staff**

A separate 50-point appraisal system is followed for laboratory assistants. It covers academic activities, laboratory performance, departmental and institutional responsibilities, and HR compliance.

The criteria include punctuality, involvement in conducting experiments, knowledge of experiments, maintenance of laboratory equipment and documents, timely completion of tasks and cooperation. This complementary assessment supports the effective delivery of practical instruction.

9. **Effectiveness and follow-up**

The appraisal system links performance scores with annual increments in accordance with institutional policy. It also provides a basis for recognising faculty contributions and assigning suitable academic or administrative responsibilities.

One-to-one appraisal meetings provide individual feedback and identify professional development needs. Faculty members requiring improvement receive mentoring from senior academicians, the HoD or the Academic Head. Mentoring addresses specific needs in teaching, student engagement, research and execution of assigned responsibilities.

Faculty members are guided to attend relevant FDPs, complete NPTEL/MOOC certifications, strengthen research activities and adopt appropriate teaching tools. Progress is reviewed through academic monitoring, student feedback, course results and subsequent appraisal.

By connecting annual assessment with increments, recognition, individual mentoring and follow-up, the institution promotes accountability, continuous professional development and sustained faculty contributions to institutional performance.

9.14 Outreach Activities (5)

Institute Marks : 5.00

Community cleanliness and village service

- Students participate in village cleaning and community cleanliness programmes that promote hygiene, responsible waste disposal and the maintenance of public spaces. These activities benefit local communities while helping students understand the importance of collective responsibility for a clean and healthy environment. Working alongside community members strengthens cooperation and awareness of local challenges.

Blood donation and humanitarian activities

- Blood donation camps encourage eligible students to contribute voluntarily to community healthcare. These programmes support awareness of blood donation and provide students with an opportunity to practise humanitarian service.
- Visits to old age homes provide opportunities for students to interact with residents and offer companionship. These interactions benefit residents through social engagement while developing empathy, patience and respect for older persons among students.

School outreach and career guidance

- Career guidance and awareness programmes connect the institution with school students. These interactions help schoolchildren understand higher education opportunities and career pathways and encourage them to consider their educational aspirations.
- Participating college students develop communication, presentation and organisational skills through these programmes. Sharing their learning experiences also strengthens their confidence and sense of responsibility towards younger learners.

Health, safety and civic awareness

- Drug awareness programmes promote understanding of the harmful effects of substance abuse and encourage healthy and responsible choices. Students participate in communicating these messages, strengthening their own awareness while contributing to public sensitisation.
- Election awareness rallies promote informed and responsible democratic participation. Traffic awareness camps encourage adherence to traffic rules and safe behaviour among road users. These activities benefit the community through public awareness while helping students develop civic responsibility and concern for public safety.

Annual NSS special camp

- The institution organises an NSS special camp every year, providing students with sustained opportunities for community engagement. The camp enables volunteers to participate in service activities, interact with residents and gain a closer understanding of community priorities.
- Planning and carrying out activities together develops teamwork, leadership, adaptability and problem-solving skills. Community interaction also helps students appreciate the practical challenges involved in organising service initiatives and responding to local needs.

Mutual benefits and student achievements

- The institution’s outreach activities create opportunities for reciprocal learning and support. Society benefits through cleanliness initiatives, blood donation, educational guidance, companionship and awareness programmes. Students benefit through practical exposure to social conditions and opportunities to apply communication, leadership and organisational skills beyond the classroom.
- Participation builds confidence, empathy and respect for people from different social and economic backgrounds. Students learn to work collectively, understand community concerns and recognise their ability to contribute to positive change. Their service contributions and learning are documented through programme reports, participation records, photographs, certificates and available beneficiary feedback.
- Through its extensive NSS and YRC activities, PERI Institute of Technology connects academic learning with community responsibility. These initiatives strengthen institution–society relationships, contribute to community well-being and help students develop into compassionate, socially responsible professionals.

Outreach Activities, Community Service and Society Connect

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PERI INSTITUTE OF TECHNOLOGY

Approved by AICTE, Affiliated to Anna University
Accredited by NAAC | Recognized by UGC with 2(F)
AICTE Permanent ID Number: 1-5937291

YOUTH RED CROSS

Academic Year 2023-2024

Activities

S. No.	Date	Name of the Event	Place
1	3.4.2024	Anti Tobacco Drive	Chengalpattu
2	21.2.2024	Tree Plantation Programme	Mannivakkam
3	28.12.2023	Visit - DGSEA Orphanage and Home for the aged	Vilvarayanallur
4	12.10.2023	Visit - Uhayam Rehabilitation Centre for the Differently abled	Palliagaram

5	25.8.2023	Blood Donation Camp	College Campus

Dr. R. PALSON KENNEDY, M.E., Ph.D.,
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Mannivakkam, Chennai - 600 048.

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AN AUTONOMOUS INSTITUTION

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Accredited | by NAAC Recognized by UGC with 2(F)

NATIONAL SERVICE SCHEME

Academic Year 2023-2024			
1	04/07/2023	One day camp in Government Higher School , Mannivakkam	Mannivakkam
2	01/04/2023	Lake Cleaning Campaign at Mannivakkam	Mannivakkam
3	17/04/2023	Temple Cleaning Program at Manneeswarar Temple, Mannivakkam	Mannivakkam

NSS - Program Officer
PERI Institute of Technology
(An Autonomous Institution)
Chennai – 600 048.

NSS camp Addressed Environmental concerns and Promotes Green Initiatives at Govt. Government Higher School Aadhanur on 4th July 2023







The NSS Club of PERI institute of Technology organized a one-day camp in the Govt.Higher Secondary school, Aadhanur near Vandalur on 4th July 2023. The major issues identified by the team were improper garbage disposal, lack of awareness regarding plastic disposal, and unrepaired grounds. Volunteers cleaned and repaired the school grounds and planted the saplings.

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Blood Donation camp on 14/03/2023



YRC of PERI Institute of Technology has organized Blood Donation camp at PERI IT Campus on 14/03/2023

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PERI EDUCATION
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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.

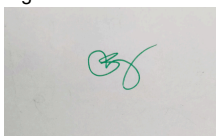
PSO1	To analyze, design and develop computing solutions by applying foundational concepts of Computer Science and Engineering.
PSO2	To apply software engineering principles and practices for developing quality software for scientific and business applications.
PSO3	To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions to existing/novel problems.

Declaration

The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe 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 K A SUNDARARAMAN
Designation : Principal
Signature :



Seal of The Institution :



Place : Chennai-48
Date : 06-11-2026 21:40:32