



J.N.N INSTITUTE OF ENGINEERING

AUTONOMOUS

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

90, Ushaa Garden, Kannigaipair, Chennai - Periyapalayam Hwy, Chennai-601102

SELF ASSESSMENT REPORT (SAR)

(Tier II Institution)

Department of Electronics and Communication Engineering



Submitted to

National Board of Accreditation

**NBCC Place, East Tower,
4th floor Bhisham Pitamah Marg Pragati Vihar,
New Delhi – 110003**

CAY 2023-2024

NBA-SELF ASSESSMENT REPORT

**J.N.N Institute of Engineering
(Autonomous)**

B.E. – Electronics and Communication Engineering

SAR CONTENTS

Serial No.	Item	Page No
	PART A Institutional Information	3
	PART B Criteria Summary	
	Program Level Criteria	
1.	Vision, Mission and Program Educational Objectives	8
2.	Program Curriculum and Teaching –Learning Processes	35
3.	Course Outcomes and Program Outcomes	183
4.	Students' Performance	214
5.	Faculty Information and Contributions	240
6.	Facilities and Technical Support	285
7.	Continuous Improvement	301
	Institution Level Criteria	
8.	First Year Academics	325
9.	Student Support Systems	345
10.	Governance, Institutional Support and Financial Resources	436
	PART C Declaration	545
	Appendix I of SAR	546

PART A: INSTITUTIONAL INFORMATION

1. Name and Address of the Institution:

J.N.N Institute of Engineering (Autonomous),
90, Ushaa Garden, Kannigaipair, Chennai - Periyapalayam Hwy,
Tiruvallur Dist.- TN -601102

2. Name and Address of Affiliating University:

ANNA UNIVERSITY, CHENNAI – 600 025

3. Year of establishment of the Institution:

2008

4. Type of the Institution:

- | | |
|-------------------|-------------------------------------|
| University | ☐ |
| Autonomous | ☒ |
| Deemed University | ☐ |
| Affiliated | ☐ |
| Government Aided | ☐ |

5. Ownership Status:

- | | |
|----------------------------|-------------------------------------|
| Central Government | ☐ |
| State Government | ☐ |
| Government Aided | ☐ |
| Section 25 Company | ☐ |
| Self-financing | ☒ |
| Trust Society | ☐ |
| Any Other (Please Specify) | ☐ |

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

Name of Institutions	Year of Establishment	Programs of Study	Location
KJN Educational College	2007	B.Ed	90, Ushaa Garden Kannigaipair, Thiruvallur – 601102
J.N.N Matriculation Higher Secondary School	2009	Class VI-Class XII	90, Ushaa Garden Kannigaipair, Thiruvallur – 601102
J.N.N Genesis Vidyashram (CBSC)	2012	Class I- Class X	90, Ushaa Garden Kannigaipair, Thiruvallur – 601102
J.N.N Arts & Science Women's College	2017	B.Com, BBA, B.Sc, B.A.	90, Ushaa Garden, Kannigaipair, Thiruvallur – 601 102

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

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
B.E. Electronics and Communication Engineering	UG	2008	2008	60	Yes	60	Applying the first time	--	-	Yes	4
Sanctioned Intake for Last Five Years for the B.E. Electronics and Communication Engineering											
Academic Year						Sanctioned Intake					
2023-24						60					
2022-23						60					
2021-22						60					
2020-21						60					
2019-20						120					

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

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Electronics and Communication Engineering

9. Total number of employees in the institution:

A. Regular Employees (Faculty and Staff):

	CAY, 2023-24		CAYm1, 2022-23		CAYm2, 2021-22	
Items	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	29	36	27	31	39	41
Faculty in Engineering (Female)	28	34	28	31	25	29
Faculty in Maths, Science & Humanities (Male)	4	4	10	11	10	12
Faculty in Maths, Science & Humanities (Female)	9	9	7	9	8	8
Non-teaching staff (Male)	7	8	6	7	7	12
Non-teaching staff (Female)	8	10	8	9	9	11

B. Contractual Employees (Faculty and Staff):

	CAY, 2023-24		CAYm1, 2022-23		CAYm2, 2021-22	
Items	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0

Faculty in Maths, Science & Humanities (Female)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (Female)	0	0	0	0	0	0

10 Total number of Engineering Students:

Engineering and Technology- UG	Shift1	Shift 2
Engineering and Technology- PG	Shift1	Shift 2
Engineering and Technology- Polytechnic	Shift1	Shift 2
MBA	Shift1	Shift 2
MCA	Shift1	Shift 2

Engineering and Technology- UG Shift-1

Items	2023-24	2022-23	2021-22
Total no. of Boys	574	477	437
Total no. of Girls	406	337	331
Total	980	814	768

Engineering and Technology- MBA Shift-1

Items	2023-24	2022-23	2021-22
Total no. of Boys	41	46	35
Total no. of Girls	46	65	60
Total	87	111	95

11 Vision of the Institution:

Lead the transformation of engineering and management learning experience to educate the next generation of innovators and entrepreneurs who want to make the world a better place.

12 Mission of the Institution:

- 1. To develop the required resources and infrastructure and to establish a conducive ambience for the teaching-learning process.
- 2. To nurture professional and ethical values in the students and to instil in them a spirit of innovation and entrepreneurship.
- 3. To encourage a desire for higher learning and research in the students and to equip them to face global challenges.
- 4. To provide opportunities for students to learn job-relevant skills to make them industry ready.
- 5. To interact with industries and other organisations to facilitate transfer of knowledge and know-how.

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

Head of the Institution

Name: Dr K GANESAN
Designation: PRINCIPAL
Mobile No. 9087774111
Email ID: principal@jnn.edu.in

NBA Coordinator, If Designated
Name: Dr. Joseph Jeyakumar D
Designation: Professor and Head
Mobile No. 9841341986
Email ID ece.hod@jnn.edu.in

PART B: PROGRAM LEVEL

CRITERION 1	Vision, Mission and Program Educational Objectives	60
-------------	--	----

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

Vision of Institute

Lead the transformation of engineering and management learning experience to educate the next generation of innovators and entrepreneurs who want to make the world a better place.

Mission of Institute

1. To develop the required resources and infrastructure and to establish a conducive ambience for the teaching-learning process.
2. To nurture professional and ethical values in the students and to instil in them a spirit of innovation and entrepreneurship.
3. To encourage a desire for higher learning and research in the students and to equip them to face global challenges.
4. To provide opportunities for students to learn job-relevant skills to make them industry ready.
5. To interact with industries and other organizations to facilitate transfer of knowledge and know-how.

Vision of Department

Cultivating innovative and entrepreneurial Electronics and Communication Engineering graduates to ethically address global challenges through quality teaching and learning practices.

Mission of Department

- 1. To facilitate a state-of-the-art teaching-learning process, imparting comprehensive knowledge in Electronics and Communication Engineering and related interdisciplinary areas.
- 2. To foster a sense of curiosity, critical thinking and ethical practices in students, preparing them for a continuous learning.
- 3. To instil innovative teamwork and industry collaboration for enhancing entrepreneurial skills, employability and research capabilities in graduates.
- 4. To inculcate ability for delivering novel solutions by taking social and environmental aspects into consideration

AVAILABILITY OF THE VISION & MISSION STATEMENTS OF THE DEPARTMENT

Availability of the Vision & Mission statements of the Department

S.No	Location	Institute		Department		Stake Holders
		Vision	Mission	Vision	Mission	
1	Institute website	✓	✓			All stakeholders
2	Department Website			✓	✓	All stakeholders
3	HOD Room	✓	✓	✓	✓	Faculty, Parents &Alumni
4	Faculty Room	✓	✓	✓	✓	Faculty, Parents & Alumni
5	Department Notice Room	✓	✓	✓	✓	Management, Faculty & Students
6	Lab Manuals	✓	✓	✓	✓	Faculty & Students
7	Main Corridor	✓	✓	✓	✓	All stakeholders

8	Department Corridor	✓	✓	✓	✓	All stakeholders
9	Department Library	✓	✓	✓	✓	Faculty & Students
10	Laboratories	✓	✓	✓	✓	Faculty & Students
11	Course Files	✓	✓	✓	✓	Faculty & Management
12	Lab Manuals & Project Reports	✓	✓	✓	✓	Faculty & Students
13	Canteen	✓	✓			All Stakeholders
14	Boys Hostel (Konidela Block)	✓	✓			Management, Faculty, Parents & Students
15	Girls Hostel (Mother Theresa Block)	✓	✓			Management, Faculty, Parents & Students
16	Newsletter	✓	✓	✓	✓	Faculty & Students
17	Magazines	✓	✓	✓	✓	Faculty, Students & Alumni
18	Notice Board	✓	✓			All stakeholders
19	Library	✓	✓			Management , Faculty & Students
20	Administrator Office	✓	✓			All stakeholders
21	Principle Office	✓	✓			All stakeholders
22	Classrooms	✓	✓	✓	✓	Management , Faculty & Students
23	Board Room	✓	✓			Management, Faculty,students, alumni, Employer & Professional bodies
24	Seminar Hall	✓	✓			All stakeholders
25	Incubation Centre	✓	✓			Management, Faculty, Students, Alumni, Employer & Professional bodies
26	Reception	✓	✓			All stakeholders

27	Placement Office	✓	✓			All stakeholders
----	------------------	---	---	--	--	------------------

APPROPRIATENESS/RELEVANCE OF THE STATEMENTS

Appropriateness/Relevance of the Department Vision statements

Department Vision Statements	Appropriateness / Relevance of the statements
Cultivating innovative and entrepreneurial Electronics and Communication Engineering graduates to ethically address global challenges through quality teaching and learning practices.	• Highlighting innovation and entrepreneurship aligns well with current trends in engineering, where creativity and problem-solving are key skills for graduates to succeed in a competitive, globalized world. • Addressing global challenges, such as sustainability and communication infrastructure, emphasizes the relevance of the program and its graduates in real-world problem-solving. • The mention of "quality teaching and learning practices" indicates a commitment to high standards in education, which is critical for building capable graduates. Implemented Activities: • Placement Training • Internship • Tie-up with Industries • Co-curricular Activities • Extra-curricular Activities

	• Centre of Excellence • Guest Lecture/Value Added Course • Seminar/Workshop • Industrial Sponsored Project Work • Department-based Club Activities • NSS/YRC Activities • Supporting for Hackathon
--	---

Appropriateness/Relevance of the Department Mission statements

Department Mission Statements	Appropriateness / Relevance of the statements
Mission 1 ● To facilitate an effective teaching–learning process, imparting comprehensive knowledge in Electronics & Communication Engineering and related interdisciplinary areas.	• Key Points on Appropriateness/Relevance: • Commitment to Effective Teaching–Learning: • Ensures engaging and impactful educational methods. • Promotes deep understanding among students. • Encourages interactive and student-centric learning approaches. • Comprehensive Knowledge in ECE & Interdisciplinary Areas: • Focuses on both core and emerging topics in Electronics & Communication Engineering. • Strengthens foundational understanding and subject depth. • Integrates interdisciplinary learning to enhance adaptability and innovation.

	This mission ensures students gain not only technical expertise but also a holistic and application-oriented education in the evolving field of ECE
Mission 2 ● To foster a sense of curiosity, critical thinking and ethical practices in students, preparing them for continuous learning.	Key Points on Appropriateness/Relevance: Fostering Curiosity for Lifelong Learning: ➤ Encourages students to explore and innovate. ➤ Develops intrinsic motivation for knowledge acquisition. ➤ Instills a proactive approach to problem-solving and discovery. Developing Critical Thinking & Ethical Practices: ➤ Enhances analytical and decision-making skills. ➤ Ensures students uphold integrity in academic and professional settings. ➤ Promotes responsible and ethical contributions to society. Preparation for Continuous Learning & Adaptability: ➤ Helps students stay relevant in a fast-evolving technological world. ➤ Encourages professional growth through self-improvement. ➤ Supports adaptability to new challenges and advancements in their field. This mission empowers ECE students with the mindset and skills required for lifelong success in both their careers and personal development.

Mission 3 • To instil innovative team work and industry collaboration for enhancing entrepreneurial skills, employability and research capabilities in graduates.	Key Points on Appropriateness/Relevance: Encouraging Innovation & Teamwork: ➤ Essential for solving complex real-world challenges. ➤ Promotes creative problem-solving through collaboration. ➤ Prepares graduates to work effectively in dynamic environments. Industry Collaboration for Practical Exposure: ➤ Bridges the gap between academic learning and industry needs. ➤ Enhances employability by aligning skills with industry demands. ➤ Provides real-world insights, fostering adaptability and technical competence. Developing Entrepreneurial Mindset: ➤ Equips students with the ability to identify and seize business opportunities. ➤ Encourages value creation through innovative products and services. ➤ Supports self-reliance and job creation through startups and ventures. Enhancing Research Capabilities: ➤ Strengthens analytical thinking and problem-solving skills. ➤ Encourages exploration of cutting-edge technologies.
---	---

	➤ Contributes to knowledge advancement and societal progress. This mission ensures ECE graduates are industry-ready, entrepreneurial, and research-driven, enabling them to excel in their careers and contribute to technological advancements.
Mission 4 ● To inculcate ability for delivering novel solutions by taking social and environmental aspects into considerations	➤ Key Points on Appropriateness/Relevance: Socially Conscious Innovation for Sustainable Growth: ➤ Encourages ethical and responsible use of technology. ➤ Focuses on sustainable development and reducing digital divides. ➤ Mitigates potential negative impacts of rapid technological advancements. Enhancing Creativity & Practical Problem-Solving Skills: ➤ Promotes innovative thinking for real-world applications. ➤ Equips students to develop smart solutions in healthcare, agriculture, and smart cities. ➤ Bridges the gap between theoretical knowledge and practical implementation. This mission ensures that ECE graduates from J.N.N Institute of Engineering are well-prepared to harness ICT advancements for ethical, sustainable, and impactful solutions to societal challenges

CONSISTENCY OF THE DEPARTMENT STATEMENTS WITH THE INSTITUTE STATEMENTS

Consistency of the Department statements with the Institute statements

Table 1.1: Justification of mapping of Institute Vision with Department Vision

Institute Vision	Department Vision	Consistency	Justification
Lead the transformation of engineering and management learning experience to educate the next generation of innovators and entrepreneurs who want to make the world a better place.	Leading the evolution of Electronics and Communication Engineering education for global impact through top-tier educational programs aimed at cultivating innovation and entrepreneurship in graduates through the pillars of teaching, research, and service to society.	High	Both statements focus on equipping students with knowledge, skills, and an innovative mindset to drive technological and entrepreneurial advancements for societal benefit.

Table 1.2: Justification mapping of Institute Mission with Department Mission

Department Mission Institute Mission	To facilitate an effective teaching–learning process , imparting comprehensive knowledge in ECE and related interdisciplinary areas .	To foster a sense of curiosity, critical thinking and ethical practices in students, preparing them for a continuous learning .	To instil innovative team work and industry collaboration for enhancing entrepreneurial skills, employability and research capabilities in graduates.	To inculcate ability for delivering novel solutions by taking social and environmental aspects into consideration
To develop the required resources and infrastructure and to establish a conducive ambience for the teaching-learning process .	HIGH The institute’s emphasis on infrastructure and learning resources ensures a strong foundation for effective teaching in ECE and interdisciplinary fields.	MODERATE A conducive learning environment encourages curiosity, ethics, and continuous learning , though it also depends on pedagogical methods and student engagement.	MODERATE While the institute provides the necessary infrastructure, industry collaboration and entrepreneurial development require external partnerships and faculty initiatives.	MODERATE The institute provides the necessary infrastructure, resources, and learning environment that enable the department to foster creativity and problem-solving abilities in students.
To nurture professional and	MODERATE	HIGH	HIGH	HIGH

ethical values in the students and to instil in them a spirit of innovation and entrepreneurship.	While imparting knowledge is essential, professional ethics and entrepreneurship are not the primary focus of this mission. However, technical knowledge indirectly supports innovation	This mission directly aligns with professional and ethical values, as well as curiosity and critical thinking, which contribute to innovative thinking and responsible engineering.	This mission strongly aligns with the institute’s focus on innovation, entrepreneurship, and professional development, as it encourages industry collaboration and teamwork, which are essential for entrepreneurship.	The institute promotes innovation and entrepreneurship, which supports the department’s mission of encouraging students to develop novel solutions.
To encourage a desire for higher learning and research in the students and to equip them to face global challenges.	HIGH A strong foundation in ECE and interdisciplinary areas enables students to pursue higher learning and research, preparing them for global challenges.	HIGH Curiosity and critical thinking are essential for higher learning and research. Ethical practices also play a role in global competency.	HIGH Industry collaboration and research capabilities align directly with the institute's mission to promote higher learning and global readiness.	MODERATE The institute fosters a culture of higher learning and research, which directly supports the department’s mission of enabling students to develop innovative solutions.
To provide opportunities for	HIGH	MODERATE	HIGH	LOW

students to learn job-relevant skills to make them industry ready .	A strong technical foundation in ECE and interdisciplinary areas is essential for industry readiness .	Critical thinking and ethical practices contribute to adaptability in industry, but this mission does not focus explicitly on job-relevant skills	Directly aligns with industry readiness by promoting teamwork, collaboration, and employability skills .	The institute focuses on equipping students with industry-relevant skills , which supports the department's mission of preparing them to solve real-world problems innovatively.
To interact with industries and other organizations to facilitate transfer of knowledge and know-how.	MODERATE While imparting knowledge is crucial, direct interaction with industries is not the primary focus of this mission. However, a strong academic foundation supports industry collaborations.	LOW Encouraging curiosity and critical thinking indirectly supports knowledge transfer, but this mission does not explicitly emphasize industry interaction	HIGH Strong alignment, as this mission directly promotes industry collaboration, teamwork, and research, facilitating knowledge transfer.	HIGH Knowledge transfer from industry experts helps in bridging the gap between academic learning and practical applications, ensuring that students are well-equipped to tackle complex societal and environmental issues.

1.2 State the Program Educational Objectives (5)

PEOs	Program Educational Objectives Statement
PEO1	Our graduates will have skills to become successful in academics, industries, or as entrepreneurs.
PEO2	Our graduates with a research inclination will be solving various complex social issues using advanced tools and technologies.
PEO3	Our graduates will practice engineering with ethics, human values, and environmental consciousness.

Appropriateness/Relevance of the PEOs statements

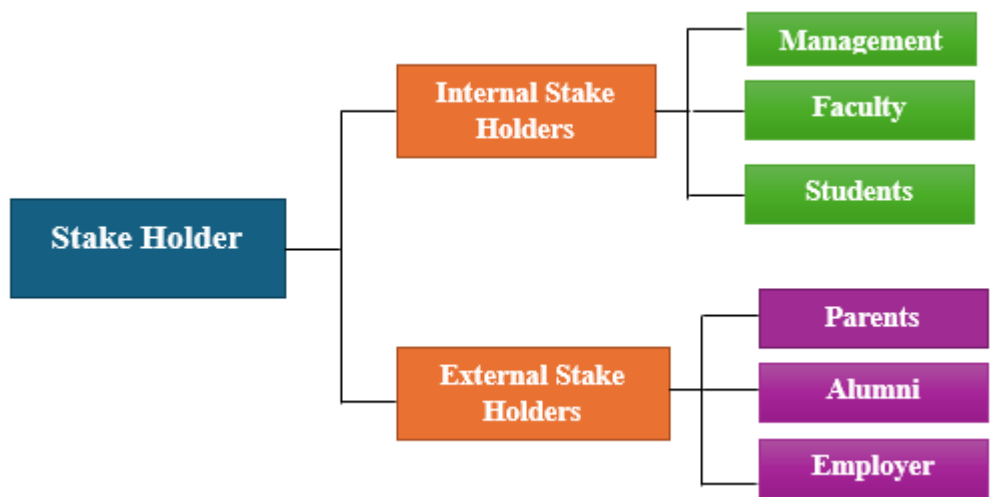
PEOs	Appropriateness/Relevance of the statement
Skill Based Our graduates will have skills to become successful in academics, industries, or as entrepreneurs.	The following activities are implemented • Industry Collaborated Laboratory • Tutorial session • Certification Courses • Project Laboratories • Carrer Oriented value-added program • Classroom presentations • Mini Projects
Knowledge Based Our graduates with a research inclination will be solving various complex social issues using advanced tools and technologies.	The following activities are implemented • Contests on programming • Innovative Projects • Real world Projects • Industrial trainings • Internship
Attitude/Behavior Based Our graduates will practice engineering with ethics, human values, and environmental consciousness.	The following activities are implemented • Carrer based training programs like preparations for placements, Mock interviews, Aptitude session, Group discussion etc. • International conference, Workshops, Industrial trainings, Industry Visits, Experts talks etc. • Online certification • Social activities by technical club

AVAILABILITY OF THE PEOS STATEMENTS

S.No	Location	Department		Stake Holders
		PEOs	Pos/PSOs	
1.	Department Website	✓	✓	Faculty & Alumni
2.	HOD Room	✓	✓	Management, Faculty, Parents & Alumni
3.	Faculty Room	✓	✓	Management, Faculty, Parents & Alumni
4.	Department Notice Board	✓	✓	Management, Faculty & Students
5.	Lab Manuals	✓	✓	Faculty & Students
6.	Department Library	✓	✓	Faculty & Students
7.	Laboratories	✓	✓	Faculty & Students
8.	Lab Manuals & Project Reports	✓	✓	Faculty & Students
9.	Course Plan	✓	✓	Faculty
10.	Classrooms	✓	✓	Management, Faculty & Students

1.3 Indicate where and how the Vision, Mission and PEOs are published and disseminated among stakeholders. (10)

Department Vision, Mission, PEOs, PSOs and POs are published and widely disseminated via the below mentioned prominent places/mode as mentioned in Table 1.1 and Table 1.2 for internal and external stakeholders respectively. Dissemination is done in a way that all the stakeholders (**Internal &External**) are aware of the program Vision, Mission, PEOs, POs and PSOs. Internal and external stakeholders of the department include Management, Students, Alumni, Parents, Faculty, Employer and Professional Bodies.



Dissemination at gathering: Vision, Mission and PEOs are disseminated to all the stakeholders through faculty meetings, student awareness programs, student induction programs, placement and training activities and parent teacher meetings.

ADEQUACY IN RESPECT OF PUBLICATION & DISSEMINATION

Table 1.1 Details of Dissemination of Vision, Mission and PEOs for Internal Stakeholders

Category	Location	Institute		Department				
		Vision	Mission	Vision	Mission	PEOs	POs	PSOs
	Management							
	Institute Website https://www.jnn.edu.in/	✓	✓					
	Department Website https://www.jnn.edu.in/academics/bachelors/b-e-electronics and communication-engineering/			✓	✓	✓	✓	✓
	HOD Room	✓	✓	✓	✓	✓	✓	✓
	Faculty Room	✓	✓	✓	✓	✓	✓	✓
	Department Notice Board	✓	✓	✓	✓	✓	✓	✓
	Main Corridor	✓	✓					

Internal Stakeholder	Central Library	✓	✓					
	Department Library	✓	✓	✓	✓	✓	✓	✓
	Laboratories	✓	✓	✓	✓	✓	✓	✓
	Class Rooms	✓	✓	✓	✓	✓	✓	✓
	Administrator Office	✓	✓					
	Principal Office	✓	✓					
	Reception	✓	✓					
	Board Room	✓	✓					
	Seminar Hall	✓	✓					
	Incubation Centre	✓	✓					
	Placement Office	✓	✓					
	Canteen	✓	✓					
	Boys Hostel (Konidela Block)	✓	✓					
	Girls Hostel (Mother Theresa Block)	✓	✓					
	Faculty							
	Institute Website https://www.jnn.edu.in/	✓	✓					
	Department Website https://www.jnn.edu.in/academics/bachelors/b-e-electronics and communication-engineering/			✓	✓	✓	✓	✓
	HOD Room	✓	✓	✓	✓	✓	✓	✓
	Faculty Room	✓	✓	✓	✓	✓	✓	✓
	Department Notice Board	✓	✓	✓	✓	✓	✓	✓
	Main Corridor	✓	✓					
	Department Corridor	✓	✓					
	Central Library	✓	✓					

	Department Library	✓	✓	✓	✓	✓	✓	✓
	Laboratories	✓	✓	✓	✓	✓	✓	✓
	Course Files	✓	✓	✓	✓	✓	✓	✓
	Lab Manuals & Project Reports	✓	✓	✓	✓	✓	✓	✓
	Class Rooms	✓	✓	✓	✓	✓	✓	✓
	Administrator Office	✓	✓					
	Principal Office	✓	✓					
	Reception	✓	✓					
	Board Room	✓	✓					
	Seminar Hall	✓	✓					
	Incubation Centre	✓	✓					
	Placement Office	✓	✓					
	Canteen	✓	✓					
	Boys Hostel (Konidela Block)	✓	✓					
	Girls Hostel (Mother Theresa Block)	✓	✓					
	Newsletter	✓	✓	✓	✓			
	Magazines	✓	✓	✓	✓			
	Students							
	Institute Website https://www.jnn.edu.in/	✓	✓					
	Department Website https://www.jnn.edu.in/academics/bachelors/b-e-Electronics and Communication-engineering/			✓	✓	✓	✓	✓
	HOD Room	✓	✓	✓	✓	✓	✓	✓
	Faculty Room	✓	✓	✓	✓	✓	✓	✓
		✓	✓	✓	✓	✓	✓	✓

Notice Board							
Main Corridor	✓	✓					
Department Corridor	✓	✓					
Department Library	✓	✓	✓	✓	✓	✓	✓
Laboratories	✓	✓	✓	✓	✓	✓	✓
Central Library	✓	✓					
Lab Manuals	✓	✓	✓	✓	✓	✓	✓
Project Reports	✓	✓	✓	✓	✓	✓	✓
Class Rooms	✓	✓	✓	✓	✓	✓	✓
Administrator Office	✓	✓					
Principal Office	✓	✓					
Reception	✓	✓					
Board Room	✓	✓					
Seminar Hall	✓	✓					
Incubation Centre	✓	✓					
Placement Office	✓	✓					
Canteen	✓	✓					
Newsletter	✓	✓	✓	✓			
Magazines	✓	✓	✓	✓			
Boys Hostel (Konidela Block)	✓	✓					
Girls Hostel (Mother Theresa Block)	✓	✓					

Table 1.2 Details of Dissemination of Vision, Mission and PEOs for External Stakeholders

	Location	Institute		Department			
		Vision	Mission	Vision	Mission	PEOs	POs
External Stakeholders	Parents						
	Institute Website https://www.jnn.edu.in/	✓	✓				
	Department Website https://www.jnn.edu.in/academics/bachelors/b-e-electronics and communication-engineering/			✓	✓	✓	✓
	HOD Room	✓	✓	✓	✓	✓	✓
	Faculty Room	✓	✓	✓	✓	✓	✓
	Notice Board	✓	✓	✓	✓	✓	✓
	Main Corridor	✓	✓				
	Department Corridor	✓	✓				
	Administrator Office	✓	✓				
	Principal Office	✓	✓				
	Reception	✓	✓				
	Board Room	✓	✓				
	Seminar Hall	✓	✓				
	Placement Office	✓	✓				
	Canteen	✓	✓				
	Girls Hostel (Mother Theresa Block)	✓	✓				
	Alumni						
	Institute Website https://www.jnn.edu.in/	✓	✓				
	Department Website https://www.jnn.edu.in/academics/bachelors/b-e-electronics and communication-engineering/			✓	✓	✓	✓
	HOD Room	✓	✓	✓	✓	✓	✓
	Faculty Room	✓	✓	✓	✓	✓	✓
	Main Corridor	✓	✓				
	Notice Board	✓	✓	✓	✓	✓	✓
	Department Corridor	✓	✓				
	Central Library	✓	✓				
	Administrator Office	✓	✓				
	Principal Office	✓	✓				

Reception	✓	✓				
Board Room	✓	✓				
Seminar Hall	✓	✓				
Incubation Centre	✓	✓				
Placement Office	✓	✓				
Canteen	✓	✓				
Newsletter	✓	✓	✓	✓		
Magazines	✓	✓	✓	✓		
Employer						
Institute Website https://www.jnn.edu.in/	✓	✓				
Department Website https://www.jnn.edu.in/academics/bachelors/b-e-electronics and communication-engineering/			✓	✓	✓	✓
Notice Board	✓	✓	✓	✓	✓	✓
Main Corridor	✓	✓				
Department Corridor	✓	✓				
Canteen	✓	✓				
Board Room	✓	✓				
Seminar Hall	✓	✓				
Incubation Centre	✓	✓				
Placement Office	✓	✓				
Administrator Office	✓	✓				
Principal Office	✓	✓				
Reception	✓	✓				
Professional Bodies						
Institute Website https://www.jnn.edu.in/	✓	✓	✓	✓	✓	✓
Department Website https://www.jnn.edu.in/academics/bachelors/b-e-electronics and communication-engineering/			✓	✓	✓	✓
HOD Room	✓	✓	✓	✓	✓	✓
Faculty Room	✓	✓	✓	✓	✓	✓
Notice Board	✓	✓	✓	✓	✓	✓
Main Corridor						

		✓	✓				
	Department Corridor	✓	✓				
	Canteen	✓	✓				
	Administrator Office	✓	✓				
	Principal Office	✓	✓				
	Reception	✓	✓				
	Board Room	✓	✓				
	Seminar Hall	✓	✓				
	Incubation Centre	✓	✓				
	Placement Office	✓	✓				

1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25)

Description of process involved in defining the Vision, Mission of the Department

VISION, MISSION OF THE INSTITUTE

Vision of the Institute

Lead the transformation of engineering and management learning experience to educate the next generation of innovators and entrepreneurs who want to make the world a better place.

Mission of the Institute

1. To develop the required resources and infrastructure and to establish a conducive ambience for the teaching-learning process.
2. To nurture professional and ethical values in the students and to instil in them a spirit of innovation and entrepreneurship.
3. To encourage a desire for higher learning and research in the students and to equip them to face global challenges.
4. To provide opportunities for students to learn job-relevant skills to make them industry ready.

- 5. To interact with industries and other organisations to facilitate transfer of knowledge and know-how.

Vision of the Department

Cultivating innovative and entrepreneurial Electronics and Communication Engineering graduates to ethically address global challenges through quality teaching and learning practices.

Mission of the Department

- 1. To facilitate a state-of-the-art teaching-learning process, imparting comprehensive knowledge in Electronics and Communication Engineering and related interdisciplinary areas.
- 2. To foster a sense of curiosity, critical thinking and ethical practices in students, preparing them for a continuous learning.
- 3. To instil innovative teamwork and industry collaboration for enhancing entrepreneurial skills, employability and research capabilities in graduates.
- 4. To inculcate ability for delivering novel solutions by taking social and environmental aspects into consideration

A. DESCRIPTION OF PROCESS INVOLVED IN DEFINING THE VISION, MISSION OF THE DEPARTMENT

The following steps are followed in establishing the department Vision and Mission and the same is shown in the Fig 1.1.

Step 1	The department’s Vision and Mission are developed in accordance with the Institute’s Vision and Mission.
Step 2	The management and faculty members suggestions are used are create the draft of Vision and Mission statements.

Step 3	All stakeholders' suggestions, including employer, professional bodies, alumni, teaching staff, parents, students and management are collected.
Step 4	The acceptable points of view are studied and assessed to ensure that they are Consistent with the institute's vision and mission. The Department Advisory Committee (DAC) finalizes the department's Vision and Mission.
Step 5	The Head of the Institute (HEI) will approve the department's Vision and Mission will be disseminated among the stakeholders.

Note: Feedback and suggestion from all stakeholders are used to revise the department's vision and mission is needed.

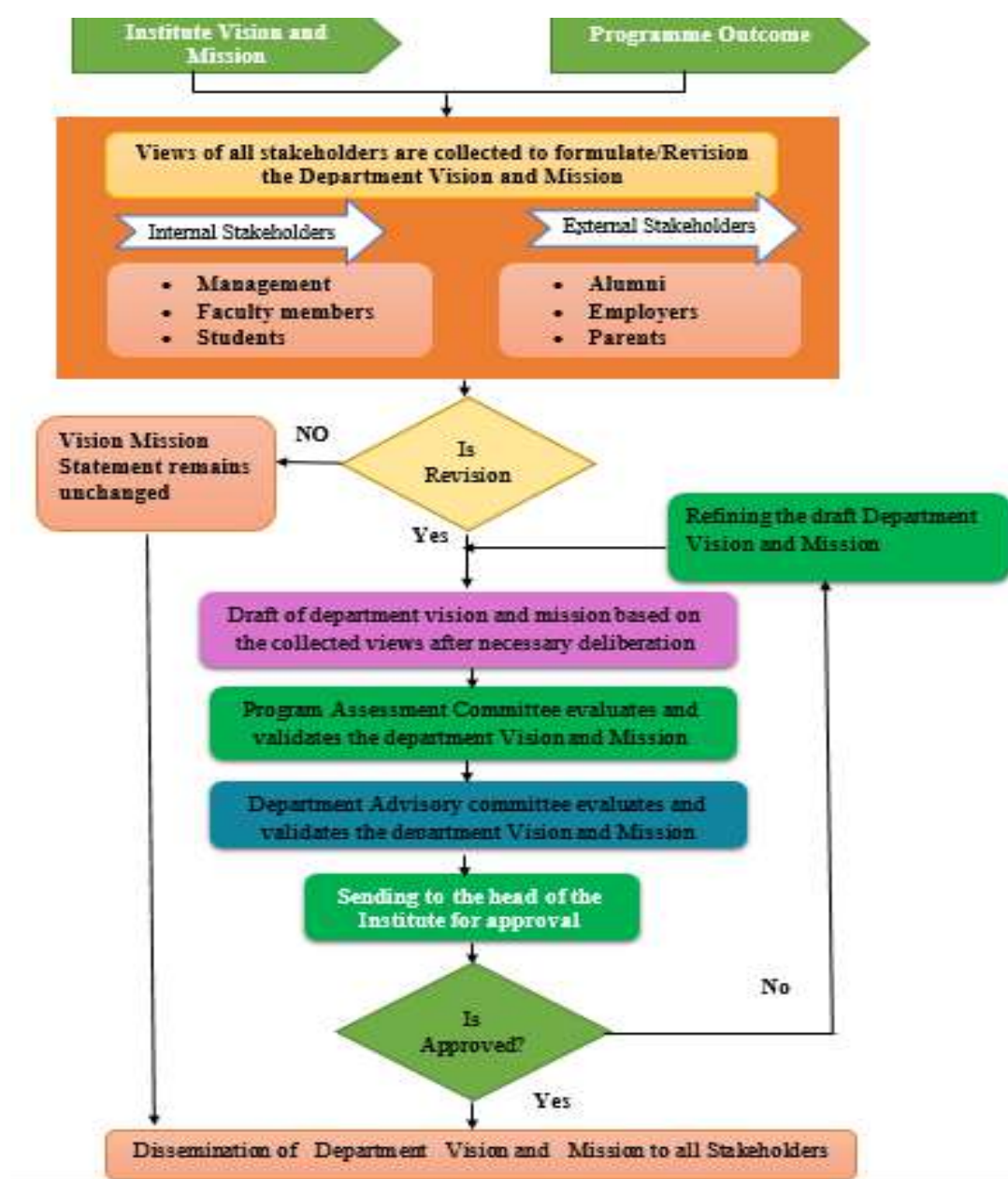


Fig 1.1 Flowchart for Formulating/Revising Department Vision and Mission

B. Description of process involved in defining the PEOs of the program

Description of process involved in defining the peo's of the program:

PEO1: Our graduates will have skills to become successful in academics, industries, or as entrepreneurs.
PEO2: Our graduates with a research inclination will be solving various complex social issues using advanced tools and technologies.
PEO3: Our graduates will practice engineering with ethics, human values, and environmental consciousness.

Program Educational Objectives Statement

The following steps are followed in establishing the PEOs the same is shown in the Fig.1.2

Step 1	The PEOs are drafted based on the Institute's Vision and Mission, Department's Vision and Mission, and Stakeholders' Suggestions.
Step 2	Brainstorming sessions are undertaken to define PEOs in a globalframework.
Step 3	The senior faculty members were responsible for gathering and assessing stakeholders' comments and benchmarking the PEOs.
Step 4	The drafted PEOs are distributed to the department's faculty members fortheir suggestions.
Step 5	The members of the DAC finalize the PEOs. The Vision and Mission of theInstitute and department also provide guidelines for resolving the PEOs.
Step 6	The HEI will approve the PEOs and will be disseminated among the stakeholders.
NOTE	The feedback and suggestions are collected every year to revise the PEOs.

Formulating/Revising Departmental PEO

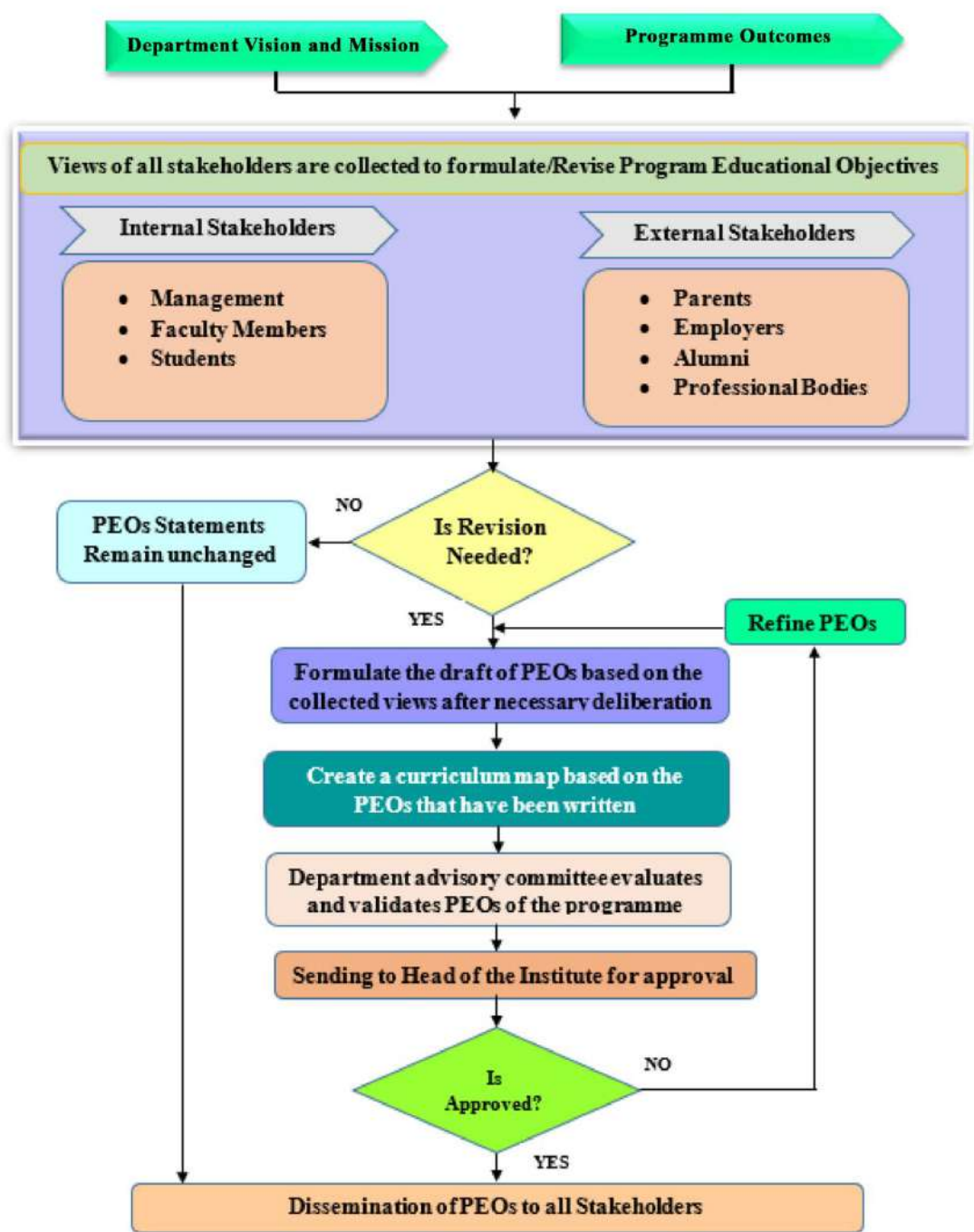


Fig 1.2 Flowchart for Formulating/Revising Departmental PEOs

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

Establish Consistency of PEOs with Mission of the Department

Mission of the Department:

- To facilitate a state-of-the-art teaching-learning process, imparting comprehensive knowledge in Electronics and Communication Engineering and related interdisciplinary areas.
- To foster a sense of curiosity, critical thinking and ethical practices in students, preparing them for a continuous learning.
- To instil innovative teamwork and industry collaboration for enhancing entrepreneurial skills, employability and research capabilities in graduates.
- To inculcate ability for delivering novel solutions by taking social and environmental aspects into consideration

PEO Statements	M1	M2	M3	M4
Empower graduates to pursue research, establish successful careers in academia or industries associated with Electronics and Communication Engineering, or venture into entrepreneurship.	2	2	3	2
Equip students with robust foundational concepts and advanced techniques and tools, enabling them to construct solutions or systems of varying complexity.	3	3	1	3
Prepare students to critically analyze existing literature and ethically develop research oriented methodologies to address global challenges.	1	3	3	1

CRITERION 2	Program Curriculum and Teaching –Learning Processes	120
--------------------	--	------------

2.1 Program Curriculum (20)

2.1.1 State the process used to identify extend of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure I. Also mention the identified curriculum gaps, if any

(State the process details also mention identified curriculum gaps.)

Note: In case all POs are being demonstrably met through University Curriculum then 2.1.2 will not be applicable and the weightage of 2.1.1 will be 20.

A. Process used to identify extent of compliance of university curriculum for attaining POs and PSOs.

After completion of the course, B.E. Electronics and Communication Engineering graduateswill have the ability to:

Table 2.1.1.1 Program Outcomes for Electronics and Communication Engineering

PO1	Engineering knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
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.
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 healthand safety, and the cultural, societal, and environmental considerations.
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.

PO5	Modern tool usage	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO6	The engineer and society	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Individual and team work	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	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.
PO11	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.
PO12	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.

Table 2.1.1.2 Program Specific Outcomes for Electronics and Communication Engineering

PSO1	Analyse and develop solutions in domains like IOT, Embedded, VLSI and other emerging technologies.
PSO2	Understand and architect wired and wireless analog and digital communication systems and products.

Curricular Gap Identification Process for Regulation 2017

Table 2.1.1.3 State the components of the curriculum and their relevance to the POs and the PSOs for Regulation 2017

COURSE COMPONENT	COURSE	CURRICULUM CONTENT (% of total number of credit of the program)	TOTAL NUMBER OF CONTACT HOURS	TOTAL NUMBER OF CREDITS	POs	PSOs
HUMANITIES AND SOCIAL SCIENCE (HS)	Communicative English	7.56	210	14	PO1, PO2, PO3, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Technical English					
	Environmental Science and Engineering					
	Principles of Management					
BASIC SCIENCES (BS)	Engineering Mathematics I	14.6	435	27	PO1, PO2, PO3, PO8, PO9, PO10, PO12	PSO1, PSO2
	Engineering Physics					
	Engineering Chemistry					
	Physics and Chemistry Laboratory					
	Engineering Mathematics II					
	Physics for Electronics Engineering					
	Linear Algebra and Partial Differential Equations					
	Probability and Random Processes					

ENGINEERING SCIENCES (ES)	Problem Solving and Python Programming	10.27	405	19	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9, PO10, PO12	PSO1, PSO2
	Engineering Graphics					
	Problem Solving and Python Programming Laboratory					
	Basic Electrical and Instrumentation Engineering					
	Engineering Practices Laboratory					
	Fundamentals of Data Structures In C					
	Fundamentals of Data Structures In C Laboratory					
PROFESSIONAL CORE (PC)	Circuit Analysis	50	1710	92	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO10, PO12	PSO1, PSO2
	Electronic Devices					
	Circuits and Devices Lab					
	Electronic Circuits- I					
	Signals and Systems					
	Digital Electronics					
	Control System Engineering					
	Analog and Digital Circuits Laboratory					

	Electronic Circuits II					
	Communication Theory					
	Electromagnetic Fields					
	Linear Integrated Circuits					
	Circuits Design and Simulation Laboratory					
	Linear Integrated Circuits Laboratory					
	Digital Communication					
	Discrete-Time Signal Processing					
	Transmission Lines and RF Systems					
	Computer Architecture and Organization					
	Communication Networks					
	Digital Signal Processing Laboratory					
	Communication Systems Laboratory					
	Communication Networks Laboratory					
	Microprocessors and Microcontrollers					
	VLSI Design					

	Wireless Communication					
	VLSI Design Laboratory					
	Microprocessors and Microcontrollers Laboratory					
	Antennas and Microwave Engineering					
	Optical Communication					
	Embedded and Real Time Systems					
	Ad hoc and Wireless Sensor Networks					
	Embedded Laboratory					
	Advanced Communication Laboratory					
PROFESSIONAL ELECTIVES (PE)	Elective I	8.10	225	15	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO12	PSO1, PSO2
	Elective II					
	Elective III					
	Elective IV					
	Elective V					

OPEN ELECTIVES (OE)	Open Elective I	3.24	90	6	PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Open Elective II					
EMPLOYABILITY ENHANCEMENT COURSE(EEC)	Interpersonal Skills/Listening & Speaking	6.48	390	13	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Technical Seminar					
	Professional Communication					
	Project Work					
TOTAL CREDITS				186		

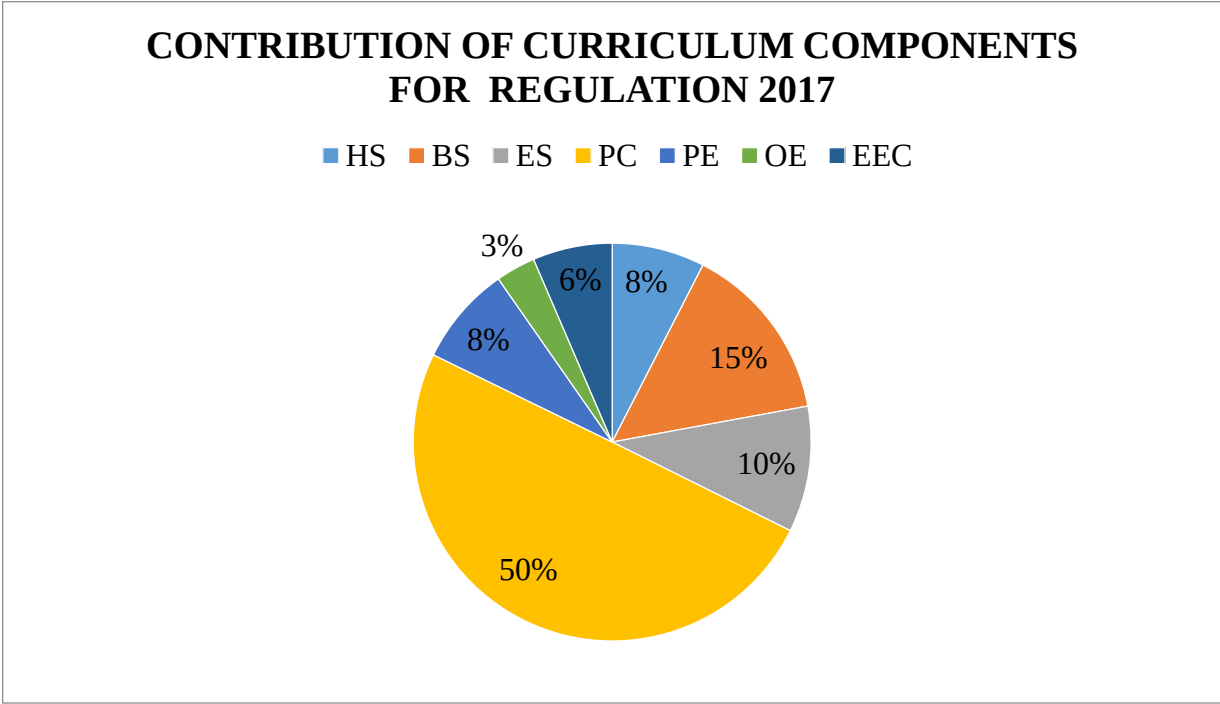


Fig 2.1.1.1 Contribution of Curriculum Components for Regulation 2017

Curricular Gap Identification Process for Regulation 2021

Table 2.1.1.4 State the components of the curriculum and their relevance to the POs and the PSOs for Regulation 2021

COURSE COMPONENT	COURSE	CURRICULUM CONTENT (% of total number of credit of the program)	TOTAL NUMBER OF CONTACT HOURS	TOTAL NUMBER OF CREDITS	POs	PSOs
HUMANITIES AND SOCIAL SCIENCE (HSMC)	Professional English - I	7.40	180	12	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Heritage of Tamils					
	Professional English - II					
	Tamils and Technology					
	Human Values and Ethics					
	Elective - Management					
BASIC SCIENCES (BSC)	Matrices and Calculus	15.43	405	25	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Engineering Physics					
	Engineering Chemistry					
	Physics and Chemistry Laboratory					
	Statistics and Numerical Methods					
	Physics for Electronics Engineering					
	Random Processes and Linear Algebra					
	Environmental Sciences and Sustainability					

ENGINEERING SCIENCES (ESC)	Problem Solving and Python Programming	12.96	420	21	PO1, PO2, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Problem Solving and Python Programming Laboratory					
	Electrical and Instrumentation Engineering					
	Engineering Graphics					
	Engineering Practices Laboratory					
	C Programming and Data Structures					
	Artificial Intelligence and Machine Learning					
PROFESSIONAL CORE (PCC)	Circuit Analysis	35.8	1080	58	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Circuits Analysis Laboratory					
	Signals and Systems					
	Electronic Devices and Circuits					
	Control Systems					
	Digital Systems Design					
	Electronic Devices and Circuits Laboratory					
	C Programming and Data Structures Laboratory					
	Electromagnetic Fields					
	Networks and Security					
	Linear Integrated Circuits					
	Digital Signal Processing					
	Communication Systems					

	Communication Systems Laboratory					
	Linear Integrated Circuits Laboratory					
	Wireless Communication					
	VLSI and Chip Design					
	Transmission lines and RF Systems					
	VLSI Laboratory					
	Embedded Systems and IOT Design					
PROFESSIONAL ELECTIVES (PEC)	Elective I -	11.11	360	18	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO12	PSO1, PSO2
	Elective II -					
	Elective III -					
	Elective IV -					
	Elective V -					
OPEN ELECTIVES (OEC)	Open Elective I -	7.40	180	12	PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Open Elective II -					
	Open Elective III -					
	Open Elective IV -					
EMPLOYABILITY ENHANCEMENT COURSE (EEC)	English Laboratory	9.87	420	16	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
	Communication Laboratory / Foreign Language					
	Professional Development					
	Summer internship					
	Project Work/ Internship					
TOTAL CREDITS				162		

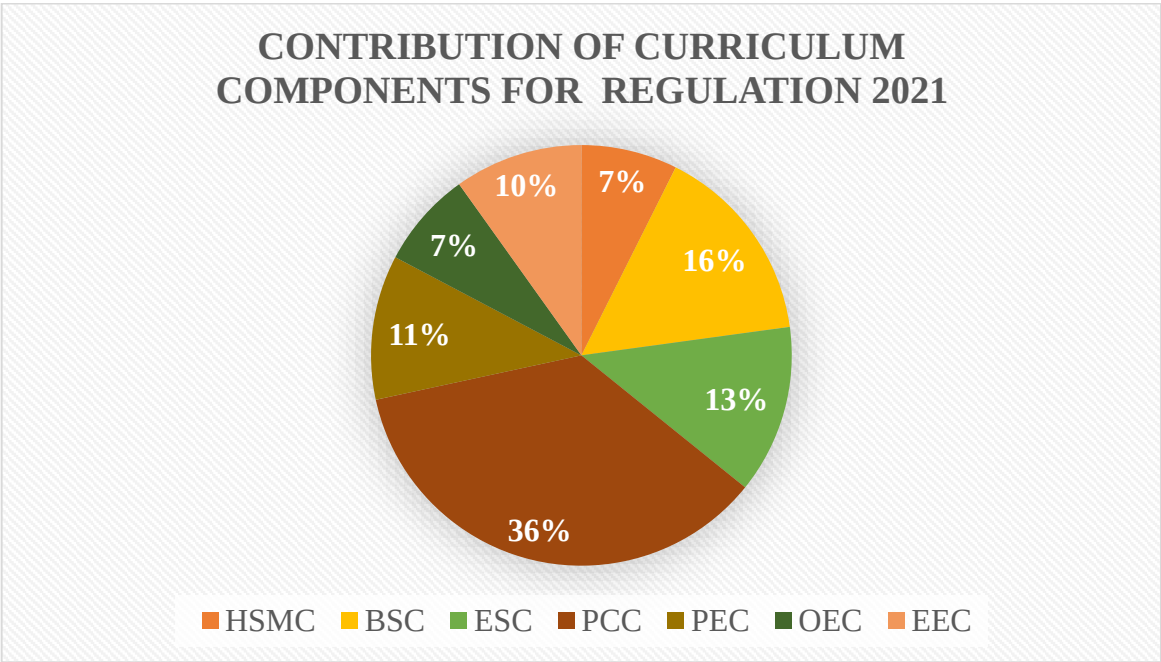


Fig 2.1.1.2 Contribution of Curriculum Components for Regulation 2021

Co-curricular activities

Table 2.1.1.5 List of Co-curricular activities

Activity	POs Mapping	PSOs Mapping
Guest lecture	PO1,PO2,PO3,PO4,PO6,PO7,PO9,PO10	PSO1,PSO2
Symposium	PO6,PO8,PO9,PO10,PO11	PSO1,PSO2
Workshop	PO1,PO2,PO3,PO5	PSO2
Mini project	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12	PSO1,PSO2
Seminar	PO1,PO2,PO3,PO4,PO6,PO7,PO9,PO10	PSO2
In-plant training	PO1,PO2,PO3,PO6,PO9,PO12	PSO1,PSO2
Industrial visit	PO6,PO7,PO8,PO9,PO10, PO12	-
Industry oriented training	PO1,PO2,PO3,PO6,PO9,PO12	PSO1,PSO2
Add oncourse	PO1,PO2,PO3,PO5,PO6,PO8,PO9	PSO1, PSO2
Soft skill training	PO8,PO9,PO10	-

Extra-curricular activities

Table 2.1.1.6 List of Co-curricular activities

Club/Cell	POs mapping
Cultural / Sports	PO6, PO9
NSS/YRC/RRC	PO6, PO7, PO8, PO9, PO10
Entrepreneurship Development cell	PO1, PO2, PO3, PO4, PO6, PO7, PO8, PO10, PO12
Yoga	PO8, PO12

Process used to identify extent of compliance of university curriculum for attaining POs & PSOs

Curriculum compliance is systematic analysis of curriculum, prescribed by university, to identify the degree of competency of syllabi and its contents for attaining the Program Outcomes and program specific outcomes. In this regard, Department Advisory Committee (DAC) is framed which comprises of Head of the Department, senior faculty members, and representatives from Alumni, Industry Experts. The Department Advisory Committee carries out the study/investigation to reveal whether the syllabi and its contents intentionally and systematically provide students with opportunities to attain the appropriate knowledge, skill and attitudes. This process helps to identify the gap between university curriculum and Program Outcomes. The identification leads to rectification remediation.

The procedural training towards Outcome Based Education (OBE) was imparted to the course instructors. Relevant courses are collected based on its contents and grouped them as modules. For each course, the knowledge level of course contents is identified using revised Bloom's taxonomy and corresponding course outcomes are formulated. Curriculum compliance may be verified by organizing the information into a matrix(course-PO matrix) which maps each one to the other. Mapping involves 'making collective judgments', by Department Advisory Committee, about the link between the course outcomes (COs) and the program outcomes (POs). Mapping not only provides the information of whether curriculum meets the academic and/or professional benchmark requirements (POs) but also manifests the way and possible level of attaining the POs by curriculum. The same process is extended to course-PSOs matrix. From mapping curricular gaps are identified. The entire process is presented as flowchart.

GAP Identification flow chart

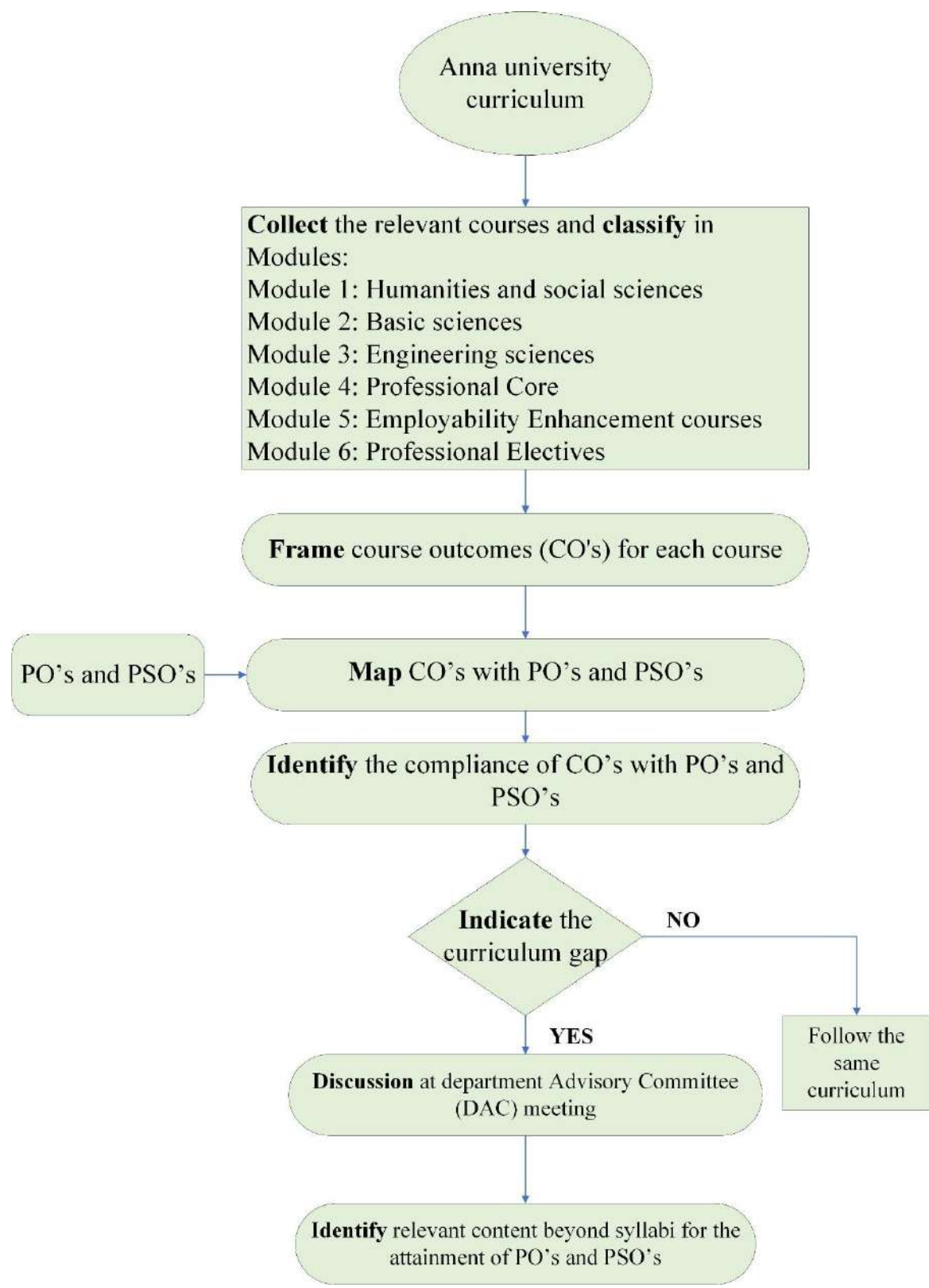


Fig 2.1.1.3 GAP Identification flow chart

MAPPING OF COURSE OUTCOME AND PROGRAMME OUTCOME

Table 2.1.1.7 Mapping of course outcome and programme outcome for Regulation2017

S.No.	SEM	COURSE CODE	COURSE NAME	PO												PSO	
				1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	I	EC101	Communicative English	-	-	-	-	-	1	1	-	2	3	-	1	-	-
2		EC102	Engineering Mathematics – I	2.2	2.2	1.8	1.8	1.5	1.5	1	1.75	-	-	1	-	1	-
3		EC103	Engineering Physics	3	3	3	2.2	-	1.25	2	-	-	-	-	1	1	-
4		EC104	Engineering Chemistry	2.8	2.4	2.6	2.8	3	2	2.5	1.5	3	2.5	2	2.5	-	-
5		EC105	Problem Solving and Python Programming	2.20	1.60	2.40	0.60	2.40	1.00	0.80	0.80	0.80	0.80	0.20	0.80	1.20	1.20
6		EC106	Engineering Graphics	3	3	-	-	-	-	-	-	-	2	-	-	3	2
7		EC107	Problem Solving and Python Programming Laboratory	2.2	2	3	3	3	-	-	-	-	-	1	1	1	1
8		EC108	Physics and Chemistry Laboratory	3	2.4	3	3	2.8	2.25	3	2.2	2.4	2	2	3	2	-
9	II	EC109	Technical English	-	2	1	-	-	2	2	3	-	3	-	2	-	-
10		EC110	Engineering Mathematics – II	2.2	2	2	1.6	1	-	-	1	-	-	-	-	1	-
11		EC111	Physics for Electronics Engineering	3	3	2	2.5	1.5	2	1	-	-	-	-	1.5	2	-
12		EC112	Basic Electrical and Instrumentation Engineering	2	2.4	2.6	2	2	-	-	-	-	2	2	2	3	2

13		EC113	Circuit Analysis	2.6	1.6	2	-	-	-	-	-	-	-	-	-	1	1
14		EC114	Electronic Devices	3	3	3	1	1.8	2	2	2	1.6	2	2	2	2	2
15		EC115	Circuits and Devices Laboratory	3	3	3	3	-	2	2	3	3	3	2	2	2	2
16		EC116	Engineering Practices Laboratory	1.8	1.4	1	1	1.5	1.2	1	1	1	1	1	1.6	1.8	2
17	III	EC201	Linear Algebra and Partial Differential Equations	3	3	2	2	1	-	-	-	-	-	-	1	3	2
18		EC202	Fundamentals of Data Structures In C	2.4	2.75	-	1.667	-	1	-	-	1.25	1.5	1.5	1.25	2	2.6
19		EC203	Electronic Circuits- I	2.8	2.2	1.6	1.8	1	-	-	-	-	-	-	-	2	1
20		EC204	Signals and Systems	3	3	1	1.667	3	-	-	-	-	-	-	-	1	2
21		EC205	Digital Electronics	3	2.6	2	1.8	-	-	-	-	-	-	-	1	2	2
22		EC206	Control System Engineering	2.8	2.8	2.8	2.4	2.2	1.4	2.2	1.4	1.8	1.6	1.4	2.6	3	2.6
23		EC207	Fundamentals of Data Structures in C Laboratory	2.8	2.8	2.8	3	2	-	-	-	-	-	-	2.2	3	1.667
24		EC208	Analog and Digital Circuits Laboratory	3	2.333	2	1.5	3	2	1	-	2	2	-	-	2	2
25		EC209	Interpersonal Skills/Listening & Speaking	-	-	-	-	-	-	-	2	2.25	3	-	1	-	-

26	IV	EC210	Probability and Random Processes	3	2.2	-	-	-	-	-	-	-	-	-	1	3	2
27		EC211	Electronic Circuits II	2.6	2	1.8	1.6	1	-	-	-	-	-	-	0.667	1.25	1
28		EC212	Communication Theory	3	3	2.2	-	1.8	-	-	2.6	-	-	1	1	-	1
29		EC213	Electromagnetic Fields	3	3	1.75	-	2.6	-	-	-	-	-	1	-	-	2
30		EC214	Linear Integrated Circuits	2.2	1.8	2.8	1.2	1.2	-	1.25	-	-	1	1.6	1.4	2.2	1.8
31		EC215	Environmental Science and Engineering	1.6	1.6	1.5	1.5	1.5	1.2	1.6	1	1.25	1.5	1	1.5	-	-
32		EC216	Circuits Design and Simulation Laboratory	3	2	2	1.2	1	-	-	-	-	-	-	-	2	1.4
33		EC217	Linear Integrated Circuits Laboratory	3	2	2	1.25	2	2	-	1	-	-	-	1	-	2
34	V	EC301	Digital Communication	3	2	1	-	1	-	-	-	-	-	-	1	1.7	3
35		EC302	Discrete-Time Signal Processing	3	2.6	2.8	2.6	2	2.4	2.4	-	-	-	-	1.333	2.25	1
36		EC303	Computer Architecture and Organization	3	2	1.4	1	-	1	-	1	1	-	1	2	2	2
37		EC304	Communication Networks	2.4	2.4	2.333	1.75	2.333	1.5	2	-	-	2	-	-	2.2	2.2

38		EC305	Professional Elective I	2	1.6	1.6	1	1	-	-	-	2	2	2.2	1	-	-
39		EC306	Open Elective I	2.2	2.2	2	1.6	1.333	1.333	2	-	-	-	-	1	1.6	1.2
40		EC307	Digital Signal Processing Laboratory	3	2.4	1.8	2	2.4	2	-	-	-	-	2.333	1.75	2.2	1.5
41		EC308	Communication Systems Laboratory	3	3	3	2.75	3	3	-	-	-	2	2.5	2.5	2	2
42		EC309	Networks Laboratory	3	2.4	2.2	2.6	2.6	1	-	-	1	-	1.8	2	2.4	1
43	VI	EC310	Microprocessors and Microcontrollers	2.6	2.6	3	2.6	2.75	3	1	2.75	1.75	2.75	3	3	1.8	1.4
44		EC311	VLSI Design	2.6	2.8	2.2	1.6	1.5	-	-	-	-	-	-	-	2.6	2.2
45		EC312	Wireless Communication	2.6	2.4	1	2.8	1.5	1	-	1	-	1	-	1.8	3	-
46		EC313	Principles of Management	-	-	-	2	-	2.2	1.75	3	3	2.4	3	2.6	-	2
47		EC314	Transmission Lines and RF Systems	3	3	1	2	2.333	-	-	-	-	-	-	-	1	1
48		EC315	Professional Elective -II	3	3	2	2	1	-	-	-	-	-	-	1	1.2	2
49		EC316	Microprocessors and Microcontrollers Laboratory	3	3	3	3	3	-	-	-	3.0	3.0	3.0	3.0	2.2	2

50		EC317	VLSI Design Laboratory	2.6	2.75	3	2.333	3	-	-	-	-	2.0	2.5	2.5	2.0	2
51		EC318	Technical Seminar	3	3	2	2	1	-	-	-	-	-	-	1	1.2	2
52		EC319	Professional Communication	-	-	-	-	-	1.333	-	2	1.667	3	1.5	2	-	-
53	VII	EC401	Antennas and Microwave Engineering	1.6	2.2	2.2	2.8	2.6	-	-	-	-	2	1.5	1	1.6	1.6
54		EC402	Optical Communication	2.8	1.6	1.5	1.5	2	-	-	-	1	1	1	2	1	1
55		EC403	Embedded and Real Time Systems	2	2	2.2	2	2.8	-	-	-	2	3	2	2	2	2.8
56		EC404	Ad hoc and Wireless Sensor Networks	3	2	2	-	-	-	-	1	1	1	1	1	1	1
57		EC405	Professional Elective -III	2.2	1.5	2.667	2.75	2	2	2.5	1.5	2.5	1.667	2.5	2	-	-
58		EC406	Open Elective - II	3	3	3	3	3	3	3	3	3	3	3	3	3	3
59		EC407	Embedded Laboratory	2.8	3	3	2.5	2.5	2	2.333	2	2.5	2.6	2.5	2.2	3	2.8
60		EC408	Advanced Communication Laboratory	2.6	2.2	2	2	2	-	-	-	-	-	-	-	2	2
61	VIII	EC409	Professional Elective - IV	2.2	1.8	1.8	-	-	1	1	3	2	2	-	2	2.6	2

62		EC410	Professional Elective - V	2.8	2.4	1.8	1.6	2.2	1.4	1.4	-	1.75	1.8	2	2.6	2	1.4
63		EC411	Project Work	3	3	3	3	3	3	3	2.333	3	3	3	3	2.333	2.154
Average CO - PO - PSO Mapping				2.46	2.25	1.92	1.65	1.55	0.92	0.74	0.74	0.87	1.16	0.98	1.37	1.59	1.41

The analysis of the curriculum map shows that the level of achievement of the PO's 1, 2, 3, 4, and 5 is greater than the mean value of 1.4. Hence the achievement of the above stated PO's is possible with the current curriculum to some extent. The percentage of achievement of the PO's – 6, 7, 8, 9, 10, 11, 12 are less than the mean value of 1.4. This implies that in order to achieve the above PO's the content to be imparted beyond the syllabus should be identified. Based on the above mappings, Department Advisory Committee (DAC) identifies the course gaps to propose an appropriate action to bridge the same.

Table 2.1.1.8 Mapping of course outcome and programme outcome for Regulation2021

S.No.	SEM	COURSE CODE	COURSE NAME	PO												PSO	
				1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	I	IN001	Induction Programme														
2		EC101	Professional English - I	1.6	2.2	1.8	2.2	1.5	3	3	3	1.6	3	3	3	0	0
3		EC102	Matrices and Calculus	3	3	1	1	0	0	0	0	2	0	2	3	1	1
4		EC103	Engineering Physics	3	3	1.6	1.2	1.8	1	-	-	-	-	-	1	2	0
5		EC104	Engineering Chemistry	2.8	1.3	1.6	1	-	1.5	1.8	-	-	-	-	1.5	1	0
6		EC105	Problem Solving and Python Programming	2	3	3	3	2	-	-	-	-	-	2	2	1	1
7		EC106	தமிழர் மரபு/Heritage of Tamils	1	-	1	-	1	1	1	1	1	1	1	-	0	0
8		EC107	Problem Solving and Python Programming Laboratory	2	3	3	3	2	-	-	-	-	-	2	2	3	3
9		EC108	Physics and Chemistry Laboratory	3	2.4	2.6	1	1	-	-	-	-	-	-	-	0	0
10		EC109	English Laboratory	3	3	3	3	1	3	3	3	3	3	3	3	0	0
11	II	EC110	Professional English - II	3	3	3	3	2.75	3	3	3	2.2	3	3	3	3	3
12		EC111	Statistics and Numerical Methods	3	3	1	1	1	0	0	0	2	0	2	3	1	1
13		EC112	Physics for Electronics Engineering	3	2	1.4	1.5	2.5	2	3	-	-	-	-	1	2	0

14		EC113	Electrical and Instrumentation Engineering	2	1	1	-	-	-	-	1	-	-	-	-	2	1
15		EC114	Engineering Graphics	3	1	2	-	2	-	-	-	-	3	-	2	2	2
16		EC115	Circuit Analysis	3	3	3	2	-	-	-	1		1	-	-	2	1
17		EC116	தமிழரும் தொழில் நுட்பமும்/Tamils and Technology	1	1	1.2	-	2	1	1	1	1	1	-	-	0	0
18		EC117	Engineering Practices Laboratory	3	2	-	-	1	1	1	-	-	-	-	2	2	1
19		EC118	Circuits Analysis Laboratory	3	-	2	-	-	-	-	-	-	-	-	-	-	-
20		EC119	Communication Laboratory / Foreign Language	2.4	2.8	3	3	1.8	3	3	3	3	3	3	3	0	0
21	III	EC201	Random Processes and Linear Algebra	3	3	0	0	0	0	0	0	3	0	0	2	1	1
22		EC202	C Programming and Data Structures	2	2	1	2	2	1	1	-	1	1	1	2	1	1
23		EC203	Signals and Systems	3	3	3	3	3	2	-	-	-	-	-	3	2	3
24		EC204	Electronic Devices and Circuits	3	3	3	3	2	2	-	-	-	-	-	1	2	1
25		EC205	Control Systems	3	3	3	3	2	2	-	-	-	-	2	3	3	3

26		EC206	Digital Systems Design	3	2.6	2.6	2.3	-	2	-	-	-	-	2	2	2	1
27		EC207	Electronic Devices and Circuits Laboratory	2	2	2.6	3	2	1	-	-	-	-	-	1	2	1
28		EC208	C Programming and Data Structures Laboratory	2	2	1	2	2	1	1	-	1	1	1	2	2	2
29		EC209	Professional Development	2.6	1.3	1.6	1	1	1.3	1.3	-	-	-	-	1.3	0	0
30	IV	EC210	Electromagnetic Fields	2	2	2	2	2	2	1	-	-	1	1	2	1	2
31		EC211	Networks and Security	2	2	1	1	1	1	-	-	-	1	-	1	3	2
32		EC212	Linear Integrated Circuits	1.4	2.5	3	2.2	-	-	-	-	-	-	1	3	1	2
33		EC213	Digital Signal Processing	3	3	2	2	2	2	-	-	-	-	1	1	2	2
34		EC214	Communication Systems	3	3	3	3	2.5	1	1	-	-	-	1	1	1	2
35		EC215	Environmental Sciences and Sustainability	2.8	1.8	1	1	-	2.2	2.4	-	-	-	-	1.8	0	0
36		EC216	Communication Systems Laboratory	3	3	3	3	3	2.5	-	-	-	1	1	1	1	1
37		EC217	Linear Integrated Circuits Laboratory	2	3	3	3	2	-	-	-	-	-	1	1	1	1

38	V	EC301	Wireless Communication	3	3	2	2	2	2	-	-	-	-	-	1	1	1
39		EC302	VLSI and Chip Design	2	2	2	2	1	1.5	-	-	-	-	1	2	2	2
40		EC303	Transmission lines and RF Systems	3	3	3	3	2	1	-	-	-	1	-	1	2	1
41		EC304	Image Processing - Professional Elective I	3	3	3	2	2	2	-	-	-	-	-	2	2	2
42		EC305	Therapeutic Equipment - Professional Elective II	3	2.8	2.6	3	2.5	3	2	-	-	-	-	2	1	1
43		EC306	Optical Communication & Networks - Professional Elective III	3	3	2	3	3	1	-	-	-	-	1	2	1	2
44		EC307	VLSI Laboratory	2.2	2.2	2.2	2.2	1	-	-	-	-	-	1	1	2	2
45	VI	EC308	Embedded Systems and IOT Design	3	3	2.6	2.2	2.2	-	-	-	-	-	-	-	2.8	2.2
46		EC309	Artificial Intelligence and Machine Learning	2	2	2	2	2	3	2	-	-	-	-	1	2.4	2
47		EC310	Open Elective– I	3	3	-	-	-	-	-	-	-	-	-	-	-	-
48		EC311	Wearable Devices - Professional Elective IV	3	2	1	1	2	-	-	1	-	-	-	1	-	1
49		EC312	Satellite Communication - Professional Elective V	3	3	3	3	2	3	1	1	-	1	-	1	1	1

50		EC313	4G/5G Communication Networks - Professional Elective VI	3	2.8	2.6	2.6	2	-	-	-	-	-	-	1.8	1.3	2.2
51	VII	EC401	Human Values and Ethics	2	1	1	2	2	1	-	-	-	-	-	-	-	1
52		EC402	Elective - Management	-	2.5	3	-	3	2.6	3	2	3	-	-	2.5	2	3
53		EC403	Open Elective – II	2.4	2.2	2.4	2.2	2	2.6	2.4	2.2	2.6	3	2.6	3	-	-
54		EC404	Open Elective – III	-	-	-	-	-	3	-	2	2	-	-	3	-	-
55		EC405	Open Elective – IV	3	2	1	3	-	2	-	-	-	-	2	3	2	3
56		EC406	Summer internship	2	2	1	2	2	1	1	-	1	1	1	2	2	2
57	VIII	EC409	Project Work / Internship	3	3	3	2.571	3	2.857	2.429	2.286	2	2.571	2.286	3	3	2.857
Average CO - PO - PSO Mapping				2.49	2.31	1.99	1.82	1.53	1.32	0.74	0.47	0.56	0.56	0.78	1.62	1.33	1.25

The analysis of the curriculum map shows that the level of achievement of the PO's 1, 2, 4, 5, 7, 8, 9, 10 and 11 is greater than the mean value of 1.34. Hence the achievement of the above stated PO's is possible with the current curriculum to some extent. The percentage of achievement of the PO's –6,7,8,9,10,11 and PSO 2 are less than the mean value of 1.34. This implies that in order to achieve the above PO's the content to be imparted beyond the syllabus should be identified. Based on the above mappings, Department Advisory Committee (DAC) identifies the course gaps to propose an appropriate action to bridge the same.

B. List the curricular gaps for the attainment of defined POs and PSOs.

Table 2.1.1.9 List the curricular gaps for Regulation 2017

S.No.	Semester	Course Code	Course Name	Curricular Gap	Source of Identification	Relevance To POs and PSOs
1	I	EC105	Problem Solving and Python Programming	Dynamic Programming	Alumni feedback	PO1,PO2,PO3,PO5,P O7,PO8,PO9,PSO1
2	II	EC111	Physics for Electronics Engineering	Semiconductor Laser	Feedback from industry expert	PO1,PO2,PO3,PO5,P O8
3		EC112	Basic Electrical and Instrumentation Engineering	IC type Sensors and Actuators	Feedback from industry expert	PO1,PO2,PO3,PO7,P O8,PO10
4		EC113	Circuit Analysis	AC circuits and transient analysis	Feedback from industry expert	PO1,PO2,PO3,PSO1
5		EC114	Electronic Devices	MOSFET Technologies	Feedback from industry expert	PO1,PO2,PO3,PO4,P O5,PSO1
6		EC201	Linear Algebra and Partial Differential Equations	Vector Spaces	Alumni feedback	PO1,PO2,PO3
7	III	EC202	Fundamentals of Data Structures In C	Data Sorting and Management	Feedback from industry expert	PO1,PO2,PO3,PO4,P O12,PSO1
8		EC203	Electronic Circuits- I	Class E amplifier design	Feedback from industry expert	PO1,PO2,PO3,PO4,P O5,PSO2
9		EC204	Signals and Systems	Audio signals differentiation with video signals	Alumni feedback	PO1,PO2,PO3,PO4,P O5,PO12PSO2
10		EC205	Digital Electronics	Asynchronous and Synchronous Counters	Feedback from industry expert	PO1,PO2,PO3,PO4,P O5,PO6,PO9,PO10,P O11,PO12PSO2
11		EC206	Control System Engineering	Automation devices manage, implement, and execute processes and commands	Feedback from industry expert	PO1,PO2,PO3,PO4,P O12,PSO1

S.No.	Semester	Course Code	Course Name	Curricular Gap	Source of Identification	Relevance To POs and PSOs
12	IV	EC210	Probability and Random Processes	Casual and non Casual functions auto correlation and cross correlation	Alumni feedback	PO1,PO2,PO3,PO4, PSO1
13		EC211	Electronic Circuits II	RF Oscillators	Feedback from industry expert	PO1,PO2,PO3,PO5, PSO1,PSO2
14		EC212	Communication Theory	Source Coding Techniques	Feedback from industry expert	PO1,PO2,PO3,PO4, PO5,PSO1,PSO2
15		EC213	Electromagnetic Fields	Waveguides and Resonators	Alumni feedback	PO1,PO2,PO3,PSO1
16		EC214	Linear Integrated Circuits	Precision Rectifiers and Peak Detectors	Feedback from industry expert	PO1,PO2,PO3,PO5, PSO1
17	V	EC301	Digital Communication	Channel Models and Equalization	Feedback from industry expert	PO1,PO2,PO3,PO4, PO5,PSO1
18		EC302	Discrete-Time Signal Processing	Multirate Signal Processing	Alumni feedback	PO1,PO2,PO3,PO4, PO5,PSO1
19		EC303	Computer Architecture and Organization	Performance Evaluation and Benchmarking	Feedback from industry expert	PO1,PO2,PO3,PO4, PO5,PO12,PSO1,PS O2
20		EC304	Communication Networks	Manets and vanets	Feedback from industry expert	PO1,PO2,PO3,PO4, PO5,PSO1
21	VI	EC310	Microprocessors and Microcontrollers	Serial Communication Interfaces	Alumni feedback	PO1,PO2,PO3,PO4, PO5,PO9,PO10,PO1 1,PO12,PSO2
22		EC311	VLSI Design	Testing and Design for Testability	Feedback from industry expert	PO1,PO2,PO3,PO4, PO5
23		EC312	Wireless Communication	5G Mobile Communication	Alumni feedback	PO1,PO2,PO3,PO4, PO5,PSO1
24		EC314	Transmission Lines and RF Systems	RF Amplifiers	Feedback from industry expert	PO1,PO2,PO3,PO4, PO5,PSO1

S.No.	Semester	COURSE CODE	Course Name	Curricular Gap	Source of Identification	Relevance To POs and PSOs
25	VII	EC401	Antennas and Microwave Engineering	Patch Antenna and Wearable Antenna	Alumni feedback	PO1,PO2,PO3,PO4, PO5,PO7,PO8,PO9, PO10,PO11,PSO1
26		EC402	Optical Communication	SONNET and WDM	Feedback from industry expert	PO1,PO2,PO3,PO4, PO6,PSO1,PSO2
27		EC403	Embedded and Real Time Systems	Embedded System Testing and Debugging	Alumni feedback	PO1,PO2,PO3,PO4, PO5,PO6,PO9,PO10 ,PO11,PO12,PSO1, PSO2
28		EC404	Ad hoc and Wireless Sensor Networks	Cross Layer Design	Feedback from industry expert	PO1,PO2,PO3,PO4, PO5,PSO1

Table 2.1.1.10 List the curricular gaps for Regulation 2021

S. No.	Seme ster	Course Code	Course Name	Curricular Gap	Source of Identification	Relevance To POs and PSOs
1	I	EC105	Problem Solving and Python Programming	Dynamic Programming	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 10,PO12,PSO1, PSO2
2	II	EC112	Physics for Electronics Engineering	Semiconductor Laser	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 7,PO12
3		EC113	Electrical and Instrumentation Engineering	IC type Sensors and Actuators	Feedback from industry expert	PO1,PO2,PO3,P O6, PO12
4		EC115	Circuit Analysis	AC circuits and transient analysis	Feedback from industry expert	PO1,PO2,PO3,P O4,PO12,PSO1
5	III	EC201	Random Processes and Linear Algebra	Casual and non-Casual functions auto correlation and cross correlation	Alumni feedback	PO1,PO2,PO9,P O12
6		EC202	C Programming and Data Structures	Data Sorting and Management	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 7,PO9,PO10,PO 11,PO12,PSO1,P SO2
7		EC203	Signals and Systems	Audio signals differentiation	Alumni feedback	PO1,PO2,PO3,P O4,PO5,PO6,PO 11,PO12,PSO1

				with video signals		
8		EC204	Electronic Devices and Circuits	MOSFET Technologies	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 12,PSO1,PSO2
9		EC205	Control Systems	Automation devices manage, implement, and execute processes and commands	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 11,PO12,PSO1,P SO2
10		EC206	Digital Systems Design	Asynchronous and Synchronous Counters	Feedback from industry expert	PO1,PO2,PO3,P O4,PO6,PO11,P O12,PSO1,PSO2
11	IV	EC210	Electromagnetic Fields	Waveguides and Resonators	Alumni feedback	PO1,PO2,PO3,P O4,PO5,PO6,PO 7,PO10,PO11,P O12
12		EC211	Networks and Security	Chinese Theorem	Feedback from industry expert	PO1,PO2,PO3,P O4,PO12,PSO1, PSO2
13		EC212	Linear Integrated Circuits	Precision Rectifiers and Peak Detectors	Feedback from industry expert	PO1,PO2,PO3,P O4,PO12,PSO1, PSO2
14		EC213	Digital Signal Processing	Multirate Signal Processing	Alumni feedback	PO1,PO2,PO3,P O4,PO5,PO6,PO 11,PO12,PSO1,P SO2
15		EC214	Communication Systems	Source Coding Techniques	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 7,PO11,PO12
16	V	EC301	Wireless Communication	5G Mobile Communication	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 7,PO12,PSO1,PS O2
17		EC302	VLSI and Chip Design	Testing and Design for Testability	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 7,PO11,PO12,PS O1,PSO2
18		EC303	Transmission lines and RF Systems	RF Amplifiers	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO6,PO 7,PO10,PO12,PS O1,PSO2
19	VI	EC308	Embedded Systems and IOT Design	Embedded System Testing and Debugging	Alumni feedback	PO1,PO2,PO3,P O4,PO5,PSO1,P SO2
20		EC309	Artificial Intelligence and Machine Learning	Natural Language	Feedback from industry expert	PO1,PO2,PO3,P O4,PO5,PO9,PO

				Processing (NLP)		10,PO11,PO12,PSO1,PSO2
21	VII	EC401	Human Values and Ethics	Plagiarism and IPR	Feedback from industry expert	PO8,PO9,PO12

2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10)

(Provide details of the additional course/learning material/content/laboratory experiments/projects etc., arising from the gaps identified in 2.1.1 in a tabular form in the format given below)

A. Steps taken to get identified gaps included in the curriculum

In accordance with the Program Outcomes (POs) outlined by the NBA, the Department has established its own POs and PSOs for its UG program. University-designed course outcomes are mapped with their respective PSOs and POs. Gaps are filled during regular classes or by conducting seminars, workshops, and other training activities. The department conducts regular tests as per the University requirements to assess each PO, PSO, and CO's academic progress. The outcomes of the curriculum are continuously reviewed through systematic documentation.

B. Delivery details of content beyond syllabus and Mapping of content beyond syllabus with the POs and PSOs

The content beyond syllabus is needed to bridge the gap between industrial requirement and curriculum.

**Table 2.1.2.1 Delivery details of content beyond syllabus and the attainment of POs and PSOs
CAY (2023 – 2024)**

S.No	Semester	Relevant Subject	Gap	Action taken	Dates	Resource person with designation	% of Students (year wise)	Relevance to POs and PSOs	
								PO	PSO
GUEST LECTURE									
1	III	Digital Electronics	Limited coverage of FPGA and VHDL/Verilog programming for real-time applications.	Guest lecture	16.10.23	Dr..Ramjee Prasad Professor, sankara university,kanchipuram	98%	PO1,PO2,PO3,PO7, PO8, PO10	PSO1, PSO2
2	IV	Electronic Circuits	Limited practical exposure to advanced circuit design tools like Multisim or PSpice.	Guest lecture	10.02.24	Dr.Rajeev Kumar, IIIT, R&D department ,Tirupathi	97%	PO1,PO2,PO3,PO7, PO8, PO10	PSO1, PSO2
3	V	Discrete time and Signal Processing	Limited coverage of machine learning applications in signal processing.	Guest lecture	11.10.23	Dr.Swarna Ravindrababu,founder of coovum smart system & services pvt. ltd,chennai	98%	PO3, PO5, PO6, PO10	PSO1, PSO2

4	VI	Microprocessor and system design	Outdated focus on 8085/8086 microprocessors; limited exposure to ARM and RISC-V architectures.	Guest lecture	14.03.24	Mr. R.Sathish Assistant Professor.SNS college of technology, coimbatore	97%	PO3, PO5, PO6, PO10	PSO1, PSO2
5	VII	Antennas and Microwave Engineering	Limited practical exposure to antenna design tools like HFSS or CST.	Guest lecture	4.10.24	Dr. Priyadharshini ,professor,sidhartha college ofengineering, PUTUR,A.P	98%	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1
6	II	Electron Devices and Circuits	Lack of focus on modern semiconductor devices like GaN, SiC, and organic semiconductors.	Guest lecture	4.04.24	Dr. Siva Subramanian Associate professor Veltec Multitech ,Avadi,Chennai	97%	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1,PSo2
SEMINAR									
7	II, III, IV Year Students		Future Trends Set to Revolutionized in Electronics and Communication Industry.	Seminar	20.03.2024	Dr. Prajin Duraisamy, Founder &CEO, Prajin group of companies, Chennai	98%	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1, PSO2
8	II, III, IV Year Students		Fuzzy Logic Controller	Seminar	08.03.2024	Dr. Kameswari M Professor, Kalasalingam Academy of Research and Education, Virudhunagar	97%	PO3, PO5, PO6, PO10	PSO1, PSO2

9	II, III, IV Year Students	IOT and Embedded System Design	Seminar	20.02.2024	Dr. Swarna Ravindra Babu, Founder & CEO of Coovum Smart Systems and Services Private Limited, Chennai.	94	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
WORKSHOP								
10	II Year Students	Soldering	Workshop	13.02.2024	Dr. J. Vijay Anand, Assistant Professor, J.N.N Institute of Engineering, Chennai	97%	PO3, PO5, PO6, PO10	PSO1, PSO2
11	II, III, IV Year Students	Sensors and Arduino	Workshop	04.02.2024	Dr. T. Srihari, Professor, J.N.N Institute of Engineering, Chennai	94	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
SYMPOSIUM								
12	II, III, IV Year Students	Technical Quiz, Circuit Debugging Paper Presentation, Project Expo	Symposium	08.11.2023		96	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
INDUSTRIAL VISITS								

13	II, III, IV Year Students		Industrial Visit	10.02.2023	Ramyaa Electro Gear Pvt.Ltd.	98	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
14	II, III, IV Year Students		Industrial Visit	7.03.2024	HTC Global Service	95	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
15	II, III, IV Year Students		Industrial Visit	28.08.2023	BSNL	97	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
16	II, III, IV Year Students		Industrial Visit	2.09.2023	IIT Madras Research Park	96	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
PLACEMENT AND TRAINING								
17	II, III, IV Year Students	Unlock you full potential with prepinsta prime access program your path to success	Seminar	6.08.2023	MR. G. Ram Kumar, National Lead - Statergy Alliances Prespinsta Technology Private Limited	95	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
18	II, III, IV Year Students	Learn Power BI in Just 2 days	Seminar	16.08.2023 & 17.08.2023	MR.Venkatesh Prasanna B.R,Freelance Analytic Trainer	97	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2

19	II, III, IV Year Students	International Study Opportunities In USA and Europe	Seminar	07.08.2023	Mr.H.Abdul Navas ,senior Manager from KC Overseas ,chennai	95	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
20	II, III, IV Year Students	Importance & Value and Job Oppportunities of Red Hat Certified System Administrator (RHCSA)- EX200 Certification	Seminar	06.10.2023	Dr.Vivek Yogannath Senoir Technical Support Engineer-Openshift Security Specialist,from Red Hat India Pvt Limited Bangalore.	96	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2

CAYm1 (2022 – 2023)

S.No	Semester	Relevant Subject	Gap	Action taken	Dates	Resource person with designation	% of Students (year wise)	Relevance to POs and PSOs	
								PO	PSO
GUEST LECTURE									

1	III	Random Processes and Linear Algebra	The students learned about the power spectral density functions, casual and non-casual systems	Guest Lecture	25/08/2022	Dr..M.P.Jeyaraman Professor, Department of Mathematics, L.N Govt College, Ponneri	95	PO1, PO2, PO9, PO12	-
2	IV	Digital Signal Processing	The student learned about the working functions of DSP processors and ARMA process	Guest Lecture	21/03/2023	Dr.O.Vignesh, Professor, Department of ECE, Easwari Engineering College, Chennai	94	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
3	V	Digital Communication	The students learned about Channel Models and Equalization	Guest Lecture	25/08/2022	Dr.P.Kumar, Professor, Department of ECE, K.S.Rangasamy College of Technology, Thiruchengode	97	PO1,PO2,PO3,PO4,PO5	PSO1
4	VI	Transmission Lines and RF Systems	The students learned about various RF filters design	Guest Lecture	21/03/2023	Dr.Gopiram, Associate Professor, NIT Warangal,	96	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
5	VII	Artificial intelligence and Machine learning	The students learned the advanced concepts and updates of Machine Learning and Implementation of Advanced Algorithms in Machine Learning, and it's need and importance	Guest Lecture	25/08/2022	Mr. Socrates Krishnamurthy, Associate professor, Sastra university, Thanjavur	95	PO1,PO2, PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO1, PSO2

6	II, III, IV Year Students		Recent Trends in IoT	Guest Lecture	11.08.2022	Ms. Arockiya Magelene, AP,Parisutham Institute of Science and Technology, Thanjavur	95	PO1,PO2, PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO1, PSO2
7	II, III, IV Year Students		Security Issues in Internet of Things	Technical Seminar	13.10.2022	Dr. Swarna Ravindra Babu, Founder& CEO of Coovum Smart Systems and Services Private Limited, Chennai.	98	PO1,PO2, PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO1, PSO2
WORKSHOP									
8	I	Problem solving and python programming	The students learned the Advanced concepts of NUMPY and updates of IOT using python	Workshop	26/09/2022	Mr. Muhammed Ilyas, manager, IT Experts Training, Chennai	96	PO1, PO2, PO3, PO5, PO6, PO8, PO9	PSO1, PSO2
9	II	Circuit Analysis	AC circuits and transient analysis	Workshop	20/03/2023	Mr. Siva Kumar, CEO, Astonish InfoTech, Trichy	97	PO1, PO2, PO3, PO7, PO8,PO10	-
10	III	Signals and Systems	Audio signals differentiation with video signals using Matlab	Workshop	26/09/2022	Dr. Rajeev Kumar, IIIT, Tirupathi	98	PO1, PO2, PO3,PO4,PO5, PO6,PO11,PO12,	PSO1
11	IV	Communication Systems	Importance and trending concepts of Software and Hardware Testing tools	Workshop	20/03/2023	Dr.RaghavMenon, Manager, Cap Gemini, Chennai	95	PO1, PO2, PO3, PO5	PSO1

12	V	VLSI Design	VLSI provides gate level modeling and chip fabrication	Workshop	05/12/2022	Mr. Krishna Kumar,CEO, Skill up by Simplilearn,Chennai	96	PO1, PO3, PO5	PSO1, PSO2
13	VI	Wireless Communication	Students learned about latest development in 5G Communication	Workshop	23/03/2023	Dr..Ramjee Prasad Professor, Sankara university, Kancheepuram	96	PO3, PO5, PO6, PO10	PSO1, PSO2
14	II, III, IV Year Students		Embedded System Design – ARM Cortex M4	Workshop	14.09.2022	Mr. S.S Manikandan Asst. Prof, RMKEC, Chennai	94	PO1, PO3, PO5	PSO1, PSO2
15	II, III, IV Year Students		Sensor Guided Robotics	Workshop	22.08.2022o 24.08.2022	Dr. Kannan, Professor Dr. MGR University, Chennai	92	PO1, PO3, PO5	PSO1, PSO2
16	II, III, IV Year Students		Robotic Arm	Workshop	24.02.2023 to 28.02.2023	Dr. R. Partheepan, Knowledge Base, Chennai	94	PO3, PO5, PO6, PO10	PSO1, PSO2
17	II, III, IV Year Students		IOT using Raspberry Pi	Workshop	05.04.2023	Dr. T. Srihari, Professor, J.N.N Institute of Engineering, Chennai	92	PO3, PO5, PO6, PO10	PSO1, PSO2
SEMINAR									
18	VII		The Students learned the importance of Industry 4.0	Industry 4.0 Seminar	11/11/2022	Dr. Swarna Ravindra babu, Founder of COOVUM Smart System & Services Pvt. Ltd,chennai	94	PO1,PO2, PO3, PO4, PO9	PSO1

19	VII		Trend in recent techniques to promote the commodities in the digital and social media	Digital and Social Media Marketing Seminar	22/08/2022	Mr. R.Sathish Assistant Professor., SNS college of technology, Coimbatore	93	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1
20	VIII		Students were explained about the various courses they can pursue for master	Awareness program on higher education Seminar	06/03/2023	Ms. Mahalakshmi S, Keerthana Padmanaban ECE Alumni	97.8	PO1,PO2, PO3,PO4, PO11,PO12	PSO1
21	VIII		Provide valuable insights and information to the students about studying abroad and its benefits for their academic and professional growth	Awareness program on higher education Seminar	23/02/2023	Department of Training and Placement & Higher Education Cell, JNNIE	98	PO1, PO2, PO3, PO4, PO11,PO12	PSO1
22	V		Computer Architecture and Organization- Performance Evaluation and Benchmarking	Seminar	22/08/2022	Dr.Ramanathan, Professor, Madanappale Institute of Technology and Science,Trichy	92	PO1, PO2,PO3,PO4, PO5,PO12	PSO1, PSO2
23	VI		Microprocessors and Microcontrollers- Serial Communication Interfaces	Seminar	23/02/2023	Dr.K.Alagumeenakshi, Professor, Kumaraguru College of Technology, Coimbatore	92	PO1, PO2, PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO2

24	III		Electronic Devices and Circuits-MOSFET Technologies	Seminar	22/08/2022	Dr.S.Rajkumar, Associate Professor, Sastra Deemed University, Thanjavur	98	PO1, PO2, PO3 ,PO4,PO5, PO6,PO12	PSO1, PSO2
25	IV		Networks and Security-Chinese Theorem	Seminar	23/02/2023	Dr.M.Amirtharajan, Professor, Sastra University, Thanjavur	97	PO1,PO2,PO3,PO4, PO12	PSO1, PSO2
ADD – ON									
26	III	Digital System Design	Logic design and modeling using Microwind	ADD-ON	14-09-2022 to 22-09-2022	Ms. V. Valarmathi Visiting Professor (IT Experts systems)	94	PO1,PO2, PO3,PO5, PO12	PSO1, PSO2
27	IV	Electromagnetic Fields	Point, Area and Volume Integral using MATLAB	ADD-ON	23-01-2023 to 31-01-2023	Dr. Swarna Ravindra babu Founder of COOVUM Smart System & Services Pvt. Ltd, Chennai	88	PO1,PO2,PO3, PO4,PO5, PO6,PO7,PO10, PO11,PO12	PSO2
28	VI	VLSI and Chip Design	Analog and Digital Modeling using CADANCE	ADD ON	21-03-2023 to 29-03-2023	Mr. Krishna Kumar CEO, Skillup by Simplilearn,Chennai	97.89	PO1,PO2, PO3,PO4, PO5, PO6	PSO1, PO2
29	V	Discrete-Time Signal Processing	Multirate Signal Processing	ADD-ON	08-12-2022 to 16-12-2022	Mr. MuhamedIliyas Visiting Professor (IT Experts systems),Chennai	93	PO1,PO2, PO3,PO5, PO6, PO8, PO9	PSO1, PSO2
30	VII		Advanced Java Programming	ADD-ON	12-09-2022 to 20-09-2022	Ms. V. Valarmathi Visiting Professor (IT Experts systems),Chennai	90	PO1,PO2, PO3,PO5, PO6, PO8, PO9	PSO1

SYMPOSIUM								
31	II, III, IV Year Students Symposium	Technical Quiz, Circuit Debugging Paper Presentation, Project Expo	SYMPOSIUM	08.11.2023	Hertz' 2023	95	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO10, PO11, PO12	PSO1, PSO2
PLACEMENT AND TRAINING								
32	II, III, IV Year Students	Unlock you full potential with prepinsta prime access program your path to success	Seminar	17.10.2022	Dr.MS.Arulmani, Actor and Motivational Speaker	96	PO1, PO2, PO3, PO4, PO5, PO6, PO11, PO12	
33	II, III, IV Year Students	Learn Power BI in Just 2 days	Seminar	15.11.2022	Dr.R.Shanmugam, COE	95	PO1, PO2, PO3, PO4, PO5, PO6, PO11, PO12	
34	II, III, IV Year Students	International Study Opportunities In USA and Europe	Seminar	20.01.20223	HR team of NIIT	91	PO1, PO2, PO3, PO4, PO5, PO6, PO11, PO12	

35	II, III, IV Year Students	Importance & Value and Job Opportunities of Red Hat Certified System Administrator (RHCSA)-EX200 Certification	Seminar	23.02.2023	KC Overseas Education	96	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	
INDUSTRIAL VISITS								
36	II, III, IV Year Students		Industrial Visit	23.03.2023	Syntel Pvt Ltd	94	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
37	II, III, IV Year Students		Industrial Visit	17.04.2023	Regional Meteorological Centre(RMC)	96	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
38	II, III, IV Year Students		Industrial Visit	28.09.2023	Hatsun Agro Product Ltd	97	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2
39	II, III, IV Year Students		Industrial Visit	12.10.2023	Ashok Leyland	95	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2

CAYm2 (2021 – 2022)

S.No	Semester	Relevant Subject	Gap	Action taken	Dates	Resource person with designation	% of Students (year wise)	Relevance to POs and PSOs	
								PO	PSO
GUEST LECTURE									
1	III	Linear Algebra and Partial Differential Equations	The students learned about the Vector Spaces	Guest Lecture	25/08/2021	Dr..M.P.Jeyaraman Professor, Department of Mathematics, L.N Govt College, Ponneri	95	PO1, PO2, PO3	-
2	IV	Probability and Random Processes	The student learned about the working functions of Casual and non-Casual functions auto correlation and cross correlation	Guest Lecture	22/03/2022	Dr.O.Vignesh, Professor, Department of ECE, Easwari Engineering College, Chennai	94	PO1,PO2,PO3,PO4	PSO1
3	V	Digital Communication	The students learned about Channel Models and Equalization	Guest Lecture	27/08/2021	Dr.P.Kumar, Professor, Department of ECE, K.S.Rangasamy College of Technology, Thiruchengode	97	PO1,PO2,PO3,PO4,PO5	PSO1
4	VI	Transmission Lines and RF Systems	The students learned about various RF filters design	Guest Lecture	22/03/2022	Dr.Gopiram, Associate Professor, NIT Warangal,Telangana	96	PO1,PO2, PO3,PO4,PO5, PO6,PO11,PO12	PSO1, PSO2

5	VII	Artificial intelligence and Machine learning	The students learned the advanced concepts and updates of Machine Learning and Implementation of Advanced Algorithms in Machine Learning, and it's need and importance	Guest Lecture	27/08/2021	Mr. Socrates Krishnamurthy, associate professor ,Sastra university, Thanjavur	95	PO1,PO2, PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO1, PSO2
6	II, III, IV Year Students		Opportunities for Engineers in the field of Plant Design Construction & Operation	Guest Lecture	07.06.2021	Mr M Kannan Plant Design and Construction Founder Coimbatore	95	PO1,PO2, PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO1, PSO2
7	II, III, IV Year Students		Student to Professional Transformation (S2p)	Guest Lecture	18.06.2021	Mr Vijay Anandh, Assurance Manager, Mcdermott, Chennai	94	PO1,PO2, PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO1, PSO2
WORKSHOP									
8	I	Problem solving and python programming	The students learned the Advanced concepts of NUMPY and updates of IOT using python	Workshop (Online)	23/09/2021	Mr. MuhammedIlyas, C.E.O IT Experts Training,chennai	96	PO1,PO2,PO3, PO5,PO7,PO8, PO9	PSO1
9	II	Circuit Analysis	AC circuits and transient analysis	Workshop (Online)	22/03/2022	Mr. Siva Kumar, CEO, Astonish InfoTech, Trichy	97	PO1,PO2,PO3	PSO1

10	III	Signals and Systems	Audio signals differentiation with video signals using Matlab	Workshop (Online)	23/09/2021	Dr.Rajeev Kumar, IIIT, Tirupathi	98	PO1,PO2,PO3, PO4,PO5,PO12	PSO2
11	IV	Communication Theory	Importance and trending concepts of Source Coding Techniques	Workshop (Online)	22/03/2022	Dr.RaghavMenon, Manager, Cap Gemini, Chennai	95	PO1, PO2, PO3, PO4, PO5	PSO1, PSO2
12	V	VLSI Design	VLSI provides gate level modeling and chip fabrication	Workshop (Online)	23/09/2021	Mr. Krishna Kumar,CEO, Skill up by Simplilearn, Chennai	96	PO1, PO3, PO5	PSO1, PSO2
13	VI	Wireless Communication	Students learned about latest development in 5G Communication	Workshop (Online)	22/03/2022	Dr..Ramjee Prasad Professor, sankara university,kanchipuram	96	PO3, PO5, PO6, PO10	PSO1, PSO2
SEMINAR									
14	VII		The Students learned the importance of Industry 4.0	Seminar (Online)	11/11/2021	Dr. Swarna Ravindrababu, Founder of COOVUM Smart System & Services Pvt. Ltd	94	PO1,PO2, PO3, PO4, PO9	PSO1
15	VII		Trend in recent techniques to promote the commodities in the digital and social media	Seminar (Online)	22/08/2021	Mr. R.Sathish Assistant Professor. SNS college of technology, Coimbatore	93	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1

16	VIII	Students were explained about the various courses they can pursue for master	Seminar (Online)	06/03/2022	ECE Alumni	97.8	PO1,PO2, PO3,PO4, PO11,PO12	PSO1
17	VIII	Provide valuable insights and information to the students about studying abroad and its benefits for their academic and professional growth	Seminar (Online)	23/02/2022	Department of Training and Placement & Higher Education Cell, JNNIE	98	PO1, PO2, PO3, PO4, PO11,PO12	PSO1
18	V	Computer Architecture and Organization- Performance Evaluation and Benchmarking	Seminar (Online)	22/08/2021	Dr.Ramanathan, Professor, Madanappale Institute of Technology and Science, Angullu, A.P	92	PO1,PO2,PO3,PO4, PO5,PO12	PSO1, PSO2
19	VI	Microprocessors and Microcontrollers- Serial Communication Interfaces	Seminar (Online)	23/02/2022	Dr.K.Alagumeenakshi, Professor, Kumaraguru College of Technology, Coimbatore	92	PO1,PO2,PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO2
20	III	Electronic Circuits- I-Class E amplifier design	Seminar (Online)	22/08/2021	Dr.S.Rajkumar, Associate Professor, Sastra University, Thanjavur	98	PO1,PO2,PO3, PO4,PO5	PSO2
21	IV	Electronic Circuits II-RF Oscillators	Seminar	23/02/2022	Dr.M.Amirtharajan, Professor, Sastra University, Thanjavur	97	PO1,PO2, PO3,PO5	PSO1, PSO2

22	II, III, IV Year Students		Diy Robotics	Seminar	23.06.2021	Mr Praveen Pandian Founder and Lead Engineer, Evolve Lab, Chennai	94	PO1,PO2,PO3, PO4,PO5	PSO2
23	II, III, IV Year Students		Design Thinking Life Cantered Design	Seminar	16.06.2021	Dr. S Gupta, AP, Biomedical Engineering, NIT Rajpur	93	PO1,PO2,PO3,PO4,PO5, PO9,PO10,PO11,PO12	PSO2
24	II, III, IV Year Students		Smart Pixels Array	Seminar	21.07.2021	Dr Karthick Sekhar AP/ECE,SRMIST, Chennai	98	PO1,PO2,PO3, PO4,PO5	PSO2
ADD ON									
25	III	Digital Electronics	Logic design and modeling using Microwind	ADD-ON (Online)	14-09-2021 to 22-09-2021	Ms. V. Valarmathi Visiting Professor (IT Experts systems),Chennai	94	PO1,PO2,PO3, PO4,PO5,PO6, PO9,PO10, PO11,PO12	PSO2
26	IV	Electromagnetic Fields	Point, Area and Volume Integral using MATLAB	ADD-ON (Online)	23-01-2022 to 31-01-2022	Dr. SwarnaRavindrababu Founder of COOVUM Smart System & Services Pvt. Ltd,Chennai	88	PO1,PO2,PO3	PSO1
27	VI	VLSI and Chip Design	Analog and Digital Modeling using CADANCE	ADD-ON (Online)	21-03-2022 to 29-03-2022	Mr. Krishna Kumar CEO, Skillup by Simplilearn,Chennai	97	PO1,PO2, PO3,PO4, PO5, PO6	PSO1, PO2

28	V	Discrete-Time Signal Processing	Multirate Signal Processing	ADD-ON (Online)	08-12-2021 to 16-12-2021	Mr. Muhhamed Iliyas Visiting Professor (IT Experts systems),Chennai	93	PO1,PO2, PO3,PO5, PO6, PO8, PO9	PSO1, PSO2
29	VII		Advanced Java Programming	ADD-ON (Online)	12-09-2021 to 20-09-2021	Ms. V. Valarmathi Visiting Professor (IT Experts systems),Chennai	90	PO1,PO2, PO3,PO5, PO6, PO8, PO9	PSO1
PLACEMENTS AND TRAINING									
30	II, III, IV Year Students		Seminar on GRE Examination	Seminar	17/08/2021	Mr.Anantha Krishnan, founder, GRE edge,Chennai	93	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1
31	II, III, IV Year Students		Seminar on be a part of Steel Frame	Seminar	10/9/2021	Mr. Elanbagavath, IAS, Director, Directorate of Public libraries Government of Tamilnadu	96	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1
32	II, III, IV Year Students		Seminar On Career Guidance	Seminar	27/09/2021	Department of Training and Placement, J.N.N Institute of Engineering	97	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1
33	II, III, IV Year Students		Preparation for Self Determined Career Research	Seminar	1/2/2022	Dr. S. Lavanya, Assistant Professor, NSS Officer, Bharathi Women's College	90	PO1,PO2, PO3,PO5, PO6,PO7, PO8, PO9	PSO1

SYMPOSIUM								
34	II, III, IV Year Students Symposium	Technical Quiz, Circuit Debugging, Paper Presentation, Project Expo	Symposium	25.11.2021		95	PO1,PO2, PO3,PO5, PO6, PO8, PO9	PSO1, PSO2
WORKSHOP								
35	II, III, IV Year Students	Hands on training Microcontrollers	Workshop	02.03.2022 to 04.03.2022	Dr. Prajin Duraisamy, Founder& CEO, Prajin group of companies, Chennai	97	PO1,PO2, PO3,PO4, PO5, PO6	PSO1, PO2
INDUSTRIAL VISITS								
36	II, III, IV Year Students		Industrial Visit	7.05.2022	ARS Energy Pvt.Ltd	98	PO6, PO8, PO9, PO10,PO12	-
37	II, III, IV Year Students		Industrial Visit	24.05.2022	Infercon Automation	97	PO6, PO8, PO9, PO10,PO12	PSO1

CAYm3 (2020 – 2021)

S.No	Semester	Relevant Subject	Gap	Action taken	Dates	Resource person with designation	% of Students (year wise)	Relevance to POs and PSOs	
								PO	PSO
ADD ON									
1	VI		Trend in Recent Techniques to Promote the Digital Communication	ADD ON (Online)	18/01/2021	Dr.Joseph Jeyakuamr, Professor, J.N.N. Institute of Engineering	75	PO1, PO2, PO3, PO5, PO 6, PO9, PO10, PO11	PSO1, PSO2
2	V		Virtual reality enables IOT users to obtain extraordinary immersive experience through visible display with multiple dimensions, where user can change view angle to see what they want	ADD ON (Online)	16/11/2020	Dr.Joseph Jeyakuamr, Professor, J.N.N. Institute of Engineering	80	PO1,PO2,PO4, PO5,PO6,PO9, PO10, PO11, PO12	PS01
3	III		Familiarization of Digital and Microwind tools	ADD ON (Online)	16/09/2020	Dr.JosephJayakuamr, Professor, J.N.N. Institute of Engineering	95	PO1, PO3, PO5, PO8, PO9, PO10, PO11, PO12	PS01, PSO2

WORKSHOP									
4	VII		Audrino to learn future trends and forecast them to businesses.	Workshop (Online)	14/12/2020	Mr. Muhammed Ilyas, C.E.O, IT Experts Training	80	PO1, PO2, PO3, PO4, PO5, PO6, PO12	PSO2
5	III		Lacking in Real Time Product Development development and deployment.	Workshop (Online)	24/11/2020	Mr.Devarajan Naga Lingam, CEO, Bluewaves	95	PO1, PO3, PO5, PO6, PO9, PO10, PO11, PO12	PSO1

2.2 Teaching - Learning Processes (100)

2.2.1. Describe Processes followed to improve quality of Teaching & Learning (25)

Teaching consists of planning and putting into practice of instructional activities and experiences to meet intended learning outcomes in accordance with a specific teaching plan. It is believed that the Teaching-Learning-Process is the most powerful instrument of education to bring about the desired changes in students. The program curriculum which is designed by university is an outcome-based education that facilitates the students to gain or hold a pre-defined set of graduating attributes described in the form of POs and PSOs. The Teaching-Learning Process plays an essential role in allowing the students to attain these graduate attributes.

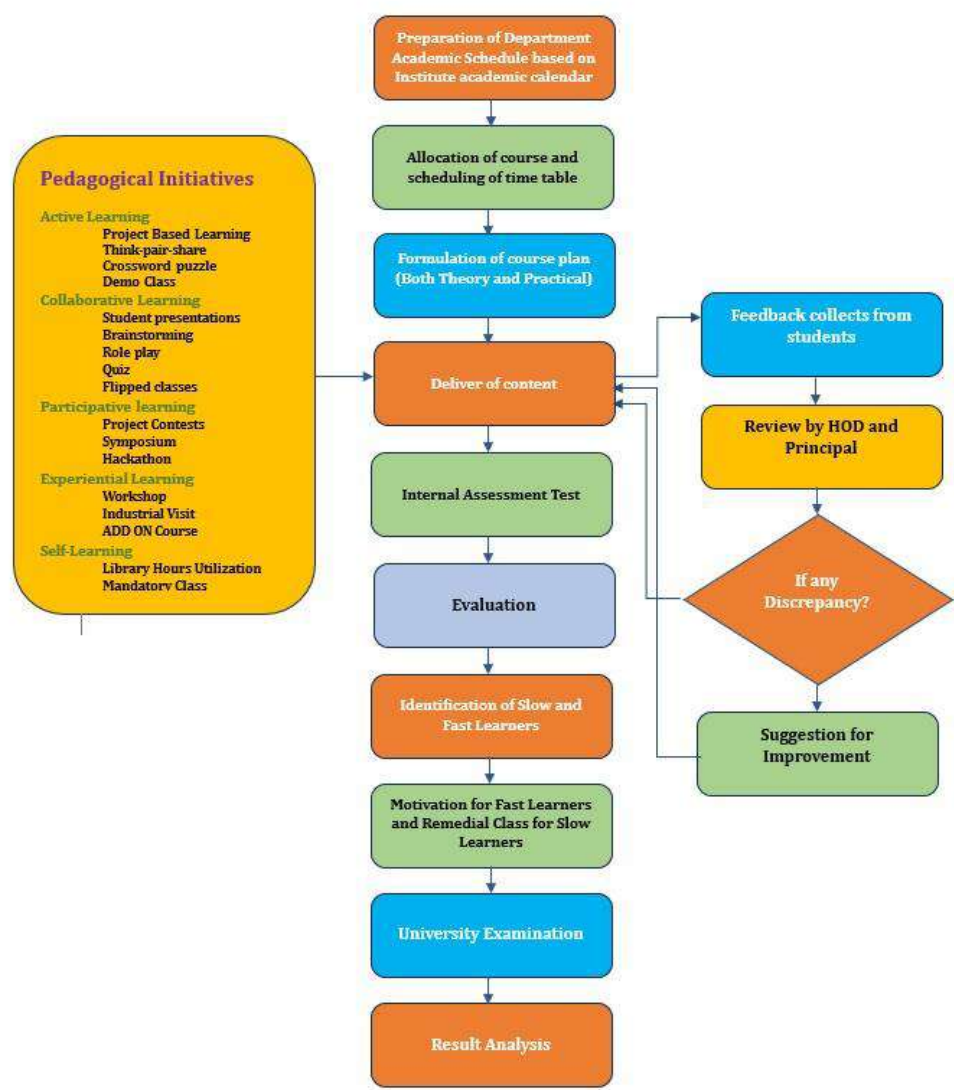


Table 2.2.1 a: Parameter & Frequency of teaching learning

Sl. No.	Parameter	Frequency	Description
1	Teaching Plan	Once in a semester	Detailed teaching plan and lecture schedule of the complete syllabus is provided to the student.
2	Lecture Notes (course files)	Once in a Semester for each subject	Contains the material delivered by the faculty as per the syllabus and also contents beyond the syllabus.
3	Computer-assisted instruction Materials (PPTs, animations, videos)	Depending upon the topics to be delivered	Student can visualize the key concepts much effectively through usage of ICT technology.
4	Instructional Material	Institution Website	Students can access to the complete learning material for all the subjects at their convenience
5	Real World Examples	Depending upon topics to be delivered	Previous or recent happenings relevant to topics taken by the faculty
6	Assignments	Once in a semester/ subject	To encourage self-study
7	Remedial Classes	Once in a week after internal assessment	Students whose performance is weak are supported with extra lectures and guidance
8	Guest Lectures	Depending upon topics to be delivered	Students get exposed to additional contents and advanced technologies
9	Soft Skills	As required during the academic year	Student can improve their communication Skills
10	Student Seminars	Depending upon topics to be delivered	Student can overcome the stage inferiority and improve communication skills
11	Workshops	One per semester	Student will be benefited with latest trends and technologies
12	Mini Project	Once in the year	Inculcate team working, Innovation & designing skills
13	Additional Lab. Experiments	Depending on the concerned practical course	Student is enabled to learn contents beyond the laboratory syllabus
14	Industrial Tours & Visits	Twice in the program as required during the academic year (visits)	Student get exposed to the practical working environment
15	Mentoring	Depending on the concerned student	Students are motivated by the mentors towards academic, curricular and extracurricular activities.

Sl. No.	Parameter	Frequency	Description
16	Digital Library & Internet	Weekly once	Students and faculty are provided with access for reputed e-journals
17	Campus Recruitment Training	As required during the academic year	Students can improve their soft skills, aptitude, verbal & non-verbal reasoning skills.
18	Project – IV Year	Once in the program	Inculcate team working, innovation & designing skills

A. Adherence to Academic Calendar

An Academic Calendar is prepared and circulated by the University well before the start of academic session. Institute makes its own academic calendar in-line with the University calendar for timely completion of academic activities. Academic calendar of department is designed before the commencement of the semester based on institute academic calendar.

Step 1: The Institute’s activity plan is scheduled in the Academic Calendar. The calendar consists of detailed list of holidays and other academic activities, e.g., the schedule of Internal Assessment Test (IAT), and co-curricular activities. It is released at the beginning of every Semester. The Department prepares an academic calendar in line with institute calendar that includes the additional planning of activities such as FDP’s, seminars, workshops, guest lectures etc.,

Step 2: The academic calendar is made available to the student’s/faculty members in electronic form. It is mandatory for students/faculty to strictly adhere to the academic calendar for successful completion of the academic activities.

Step 3: If there is any change in the schedule for unavoidable reasons, there is a provision of compensation with the approval of principal.

Every effort has been made to adhere / follow the academic calendar as accurate as possible. From the academic calendar course execution planning and evaluation of students are derived.

Allocation of Course

Step 1: The course allocation is done about one month before the start of semester. The courses allotment to the faculty for each semester is done by Head of the Department (HOD), in a faculty meeting i.e. Department Advisory Committee meeting. The faculty members are asked for their choice of course. Finally, HOD assign the courses to the faculty members based on their choice and expertise.

Step 2: Once the courses are allocated, the faculty members prepare a detailed lesson plan for the courses. The timetable coordinator appointed by the Head of the Department (HOD), prepares class timetable and personal timetable of faculty using the calendar events prepared by the department.

Step 3: The course outcomes written by the course instructors are checked by the module coordinator and Head of the department. The course plan and adherence to plan is continuously monitored by the HOD.

Step 4: Faculty members use various pedagogical methods for effective Teaching-Learning process.

Maintenance of Course files

All faculty members maintain the Course file for the course that they handle. It contains the following details.

- Department Vision, Mission statements
- Timetable
- Syllabus
- Lesson plan
- Learning materials (Handwritten copy, printed copy, PPTs)
- Logbook - Delivery plan and implementation, Record of attendance, Analyze the performance of students
- Previous year University question papers
- Assessment Question papers with answer key.
- Details for Assignment, Seminar, Tutorial Hour implementation.

Course delivery Process-Theory

The course instructor, once ready with instructional material and assessment methods, uses one or more following instructional methods for classroom teaching:

- Lecture with Chalk and Board
- Lecture with Power Point Presentation
- Lecture with Discussion
- Lecture with Video Content
- Lecture with Demonstration (Hardware/Software)
- Laboratory Work
- Problem Solving
- Tutorial Classes
- Mini Project
- Project Based Learning (PBL)
- Group Discussion

Table 2.2.1 b: Sample 2023 – 24 Department Academic Calendar

 J.N.N INSTITUTE OF ENGINEERING AUTONOMOUS NAAC 'A' Grade Approved by AICTE Affiliated to Anna University DEPARTMENT CALENDAR- ODD SEMESTER- 2023-2024 - 3rd & 4th Year																			
JAY	CWD	DATE	JUL-23	CWD	DATE	AUG-23	CWD	DATE	SEP-23	CWD	DATE	OCT-23	CWD	DATE	Nov-23	CWD	DATE	Dec-23	
SUN												1							
MON												2							
TUE												3							
WED												4							
THU												5							
FRI												6							
SAT	1	HOLIDAY		6	HOLIDAY		2		Industrial Visit-II	7	HOLIDAY	3			4	HOLIDAY	1	STU'DY HOLIDAY	
SUN	2	HOLIDAY		7	HOLIDAY		3		HOLIDAY	8	HOLIDAY	4			5	HOLIDAY	2	HOLIDAY	
MON	3			8			4		1st Ass-1	9	HOLIDAY	5			6	HOLIDAY	3	HOLIDAY	
TUE	4			9			5		2nd Ass-1	10	HOLIDAY	6			7	HOLIDAY	4	STU'DY HOLIDAY	
WED	5			10			6		3rd Ass-1	11	HOLIDAY	7			8	HOLIDAY	5	STU'DY HOLIDAY	
THU	6			11			7		4th Ass-1	12	HOLIDAY	8			9	HOLIDAY	6	STU'DY HOLIDAY	
FRI	7			12			8		5th Ass-1	13	HOLIDAY	9			10	HOLIDAY	7	STU'DY HOLIDAY	
SAT	8	HOLIDAY		13	HOLIDAY		9		6th Ass-1	14	HOLIDAY	10			11	HOLIDAY	8	STU'DY HOLIDAY	
SUN	9	HOLIDAY		14	HOLIDAY		10		7th Ass-1	15	HOLIDAY	11			12	HOLIDAY	9	STU'DY HOLIDAY	
MON	10			15			11		8th Ass-1	16	HOLIDAY	12			13	HOLIDAY	10	STU'DY HOLIDAY	
TUE	11			16			12		9th Ass-1	17	HOLIDAY	13			14	HOLIDAY	11	STU'DY HOLIDAY	
WED	12			17			13		10th Ass-1	18	HOLIDAY	14			15	HOLIDAY	12	STU'DY HOLIDAY	
THU	13			18			14		11th Ass-1	19	HOLIDAY	15			16	HOLIDAY	13	STU'DY HOLIDAY	
FRI	14			19			15		12th Ass-1	20	HOLIDAY	16			17	HOLIDAY	14	STU'DY HOLIDAY	
SAT	15	HOLIDAY		20	HOLIDAY		16		13th Ass-1	21	HOLIDAY	17			18	HOLIDAY	15	STU'DY HOLIDAY	
SUN	16	HOLIDAY		21	HOLIDAY		17		14th Ass-1	22	HOLIDAY	18			19	HOLIDAY	16	STU'DY HOLIDAY	
MON	17			22			18		15th Ass-1	23	HOLIDAY	19			20	HOLIDAY	17	STU'DY HOLIDAY	
TUE	18			23			19		16th Ass-1	24	HOLIDAY	20			21	HOLIDAY	18	STU'DY HOLIDAY	
WED	19			24			20		17th Ass-1	25	HOLIDAY	21			22	HOLIDAY	19	STU'DY HOLIDAY	
THU	20			25			21		18th Ass-1	26	HOLIDAY	22			23	HOLIDAY	20	STU'DY HOLIDAY	
FRI	21			26			22		19th Ass-1	27	HOLIDAY	23			24	HOLIDAY	21	STU'DY HOLIDAY	
SAT	22	HOLIDAY		27	HOLIDAY		23		20th Ass-1	28	HOLIDAY	24			25	HOLIDAY	22	STU'DY HOLIDAY	
SUN	23	HOLIDAY		28	HOLIDAY		24		21st Ass-1	29	HOLIDAY	25			26	HOLIDAY	23	STU'DY HOLIDAY	
MON	24			29			25		22nd Ass-1	30	HOLIDAY	26			27	HOLIDAY	24	STU'DY HOLIDAY	
TUE	25			30			26		23rd Ass-1	31	HOLIDAY	27			28	HOLIDAY	25	STU'DY HOLIDAY	
WED	26						27		24th Ass-1			28			29	HOLIDAY	26	STU'DY HOLIDAY	
THU	27						28		25th Ass-1			29			30	HOLIDAY	27	STU'DY HOLIDAY	
FRI	28						29		26th Ass-1			30					28	STU'DY HOLIDAY	
SAT	29						30		27th Ass-1								29	STU'DY HOLIDAY	
SUN	30								28th Ass-1								30	STU'DY HOLIDAY	
MON	31								29th Ass-1									31	STU'DY HOLIDAY

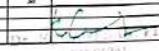

Dr. K. GANESAN, FIE.,
PRINCIPAL
J.N.N INSTITUTE OF ENGINEERING
(Autonomous)
90, Usha Garden, Kalligapattur,
Thiruvallur Dist. Tamil Nadu - 601 102.



**J.N.N INSTITUTE OF
ENGINEERING**
RAJAKOTTA CAMPUS | APPROVED BY AICTE & AFFILIATED TO Anna University
DEPARTMENT ACADEMIC CALENDAR- EVEN SEMESTER- 2023-2024 - 3rd & 4th Year



Jan-24			Feb-24			Mar-24			Apr-24			May-24		
DAY	CWO	DATE	CWO	DATE	CWO	DATE	CWO	DATE	CWO	DATE	CWO	DATE	CWO	DATE
MON	1						26	1						
TUE	2						27	2	Last Working Day for IV Yr					
WED	3						28	3	Last Semester Practical Examination Project viva voce	28	1	Last Semester Theory Exam Sub-1		
THU	4		4	1	Zeroth Review		29	4	Guest Lecture-III	30	2			
FRI	5		5	2	Unit-2 Completion for IV Yr	25	1	Placement Training	31	5		31	3	Last Semester Theory Exam Sub-2
SAT	6	HOLIDAY	6	3	HOLIDAY	26	2	Technical Quiz	1	6	HOLIDAY	1	4	HOLIDAY
SUN	7	HOLIDAY	7	4	HOLIDAY	27	3	HOLIDAY	2	7	HOLIDAY	2	5	HOLIDAY
MON	8		8	5	Workshop	28	4	Placement Training	3	8	UNIT-3 Completion End Semester Theory Exam Sub-3 for IV Yr	3	6	Last Semester Theory Exam Sub-3
TUE	9		9	6	First Review	29	5	Placement Training	4	9	TELL-GU NEW YEAR	4	7	
WED	10		10	7	UNIT-4 Completion Unit-3 Completion for IV Yr IAT-1 Sub-1 for IV Yr	30	6	Placement Training	5	10	Model Exam Sub-1 End Semester Theory Exam Sub-4 for IV Yr	5	8	Last Semester Theory Exam Sub-4
THU	11		11	8	IAT-1 Sub-2 for IV Yr	31	7	Industrial Visit	6	11	EXAMZAN	6	9	
FRI	12		12	9	IAT-1 Sub-3 for IV Yr	1	8		7	12	Model Exam Sub-2	7	10	Last Semester Theory Exam Sub-4
SAT	13	HOLIDAY	13	10	Guest Lecture-I	2	9	HOLIDAY	8	13	HOLIDAY	8	11	HOLIDAY
SUN	14	HOLIDAY	14	11	HOLIDAY	3	10	HOLIDAY	9	14	FAMILY NEW YEAR	9	12	HOLIDAY
MON	15	PONGAL	15	12	Unit-4 Completion for IV Yr	4	11	Third Review	10	15	Model Exam Sub-3	10	13	
TUE	16	THIRUVAIYAR DAY	16	13	Workshop	5	12		11	16	Model Exam Sub-4	11	14	
WED	17	UZHAVAR THIRUNAL	17	14	IAT-2 Sub-1 for IV Yr IAT-1 Sub-4	6	13	SPORTS DAY	12	17	Model Exam Sub-5	12	15	
THU	18		18	15	Unit-5 Completion for IV Yr IAT-2 Sub-2 for IV Yr IAT-1 Sub-5	7	14	Guest Lecture-II	13	18	Model Exam Sub-6 Last Working Day	13	16	
FRI	19		19	16	IAT-2 Sub-3 for IV Yr IAT-1 Sub-6	8	15	UNIT-3 Completion	14	19		14	17	
SAT	20	HOLIDAY	20	17	HOLIDAY	9	16	HOLIDAY	15	20	HOLIDAY	15	18	HOLIDAY
SUN	21	HOLIDAY	21	18	HOLIDAY	10	17	HOLIDAY	16	21	HOLIDAY	16	19	HOLIDAY
MON	22		22	19	IAT-1 Sub-4	11	18	Model Exam Sub-1 for IV Yr IAT-2 Sub-1	17	22	Last Semester Practical Examination	17	20	
TUE	23		23	20	IAT-1 Sub-5, UNIT-3 Completion	12	19	Model Exam Sub-2 for IV Yr IAT-2 Sub-2	18	23		18	21	
WED	24		24	21	IAT-1 Sub-6	13	20	IAT-2 Sub-3 Technical Seminar-III	19	24		19	22	
THU	25		25	22	Placement Training	14	21	ANNUAL DAY	20	25		20	23	
FRI	26	REPUBLIC DAY	26	23	Placement Training	15	22	ANNUAL DAY	21	26		21	24	
SAT	27	HOLIDAY	27	24	HOLIDAY	16	23	ANNUAL DAY	22	27	HOLIDAY	22	25	HOLIDAY
SUN	28	HOLIDAY	28	25	HOLIDAY	17	24	HOLIDAY	23	28	HOLIDAY	23	26	HOLIDAY
MON	1	29	1	26	Placement Training	18	25	Presentation Review IAT-2 Sub-4	24	1	Last Semester Theory Exam Sub-1	24	27	
TUE	2	30	2	27	Placement Training	19	26	Project Report Correction IAT-2 Sub-5, UNIT-4 Completion	25	2		25	28	
WED	3	31	3	28	Unit-1 Completion for IV Yr	20	27	Pre-Final Review IAT-2 Sub-6	26	3		26	29	
THU			4	29	Placement Training	21	28		27	4		27	30	
FRI			5	30	Second Review	22	29	GOOD BIDDAY	28	5		28	31	
SAT			6	31	Placement Training	23	30	HOLIDAY	29	6		29		
SUN			7			24	31	HOLIDAY	30	7		30		



PROF. C. PAVAN
J.N.N INSTITUTE OF ENGINEERING
RAJAKOTTA CAMPUS
600 094, KANNIAMPUR

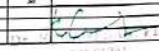


Table 2.2.1 c: Sample 2023 – 24 Adherence of Department Academic Calendar

S.NO	Activity	Scheduled Date	Actual Date	Adhered or not Adhered	If not adhered reason
1	Reopening Date	24/07/2023	24/07/2023	Adhered	-
2	Placement Training	25/07/2023 to 04/08/2023	25/07/2023 to 04/08/2023	Adhered	-
3	Workshop	17/08/2023 to 18/08/2023	17/08/2023 to 18/08/2023	Adhered	-
3	Unit 1 Completion	23/08/2023	23/08/2023	Adhered	-
4	Industrial Visit - I	28/08/2023	28/08/2023	Adhered	-
5	IAT 1	30/08/2023	30/08/2023	Adhered	-
6	Industrial Visit - II	02/09/2023	02/09/2023	Adhered	-
7	Unit 2 Completion	12/09/2023	12/09/2023	Adhered	-
8	Guest Lecture - I	30/09/2023	04/10/2023	Not Adhered	Due to Resource person non availability

S.NO	Activity	Scheduled Date	Actual Date	Adhered or not Adhered	If not adhered reason
9	Unit 3 Completion	03/10/2023	03/10/2023	Adhered	-
10	IAT 2	04/10/2023	04/10/2023	Adhered	-
11	Guest Lecture - II	11/10/2023	11/10/2023	Adhered	-
12	Guest Lecture - III	16/10/2023	16/10/2023	Adhered	-
13	Unit 4 Completion	27/10/2023	27/10/2023	Adhered	-
14	Technical Quiz	08/11/2023	08/11/2023	Adhered	-
15	Unit 5 Completion	14/11/2023	14/11/2023	Adhered	-
16	Model Exam	15/11/2023	15/11/2023	Adhered	-
17	Last working Day	23/11/2023	23/11/2023	Adhered	-
18	Practical Commencement	24/11/2023	24/11/2023	Adhered	-
19	University Exam Commencement	06/12/2023	06/12/2023	Adhered	-
20	Reopening Date (III & IV year)	29/01/2024	29/01/2024	Adhered	-
21	Unit 1 Completion for Final Year	31/01/2024	31/01/2024	Adhered	-
22	Project Review (0 th)	01/02/2024	01/02/2024	Adhered	-
23	Unit 2 Completion for Final Year	02/02/2024	02/02/2024	Adhered	-
24	Workshop	05/02/2024	05/02/2024	Adhered	-
25	Project Review(I)	06/02/2024	06/02/2024	Adhered	-
26	IAT 1 (Final year)	07/02/2024	07/02/2024	Adhered	-

S.NO	Activity	Scheduled Date	Actual Date	Adhered or not Adhered	If not adhered reason
27	Unit 1 Completion	07/02/2024	07/02/2024	Adhered	-
28	Unit 3 Completion for Final Year	07/02/2024	07/02/2024	Adhered	-
29	Guest Lecture – I	10/02/2024	10/02/2024	Adhered	-
30	Unit 4 Completion for Final Year	12/02/2024	12/02/2024	Adhered	-
31	Workshop	13/02/2024	13/02/2024	Adhered	-
32	IAT 2 (Final year)	14/02/2024	14/02/2024	Adhered	-
33	IAT 1 (II & III year)	14/02/2024	14/02/2024	Adhered	-
34	Unit 5 Completion for Final Year	15/02/2024	15/02/2024	Adhered	-
35	Technical Seminar - I	16/02/2024	20/02/2024	Not Adhered	Due to Resource person non availability
36	Unit 2 Completion (II & III year)	20/02/2024	20/02/2024	Adhered	-
37	Placement Training	22/02/2024 to 06/03/2024	22/02/2024 to 06/03/2024	Adhered	-
38	Project Review (II)	28/02/2024	28/02/2024	Adhered	-
39	Technical Quiz	02/03/2024	02/03/2024	Adhered	-
40	Industrial Visit	07/03/2024	07/03/2024	Adhered	-
41	Technical Seminar - II	05/03/2024	08/03/2024	Not Adhered	Due to Resource person non availability
42	Project Review (III)	11/03/2024	11/03/2024	Adhered	-
43	Sports Day	13/03/2024	13/03/2024	Adhered	-

S.NO	Activity	Scheduled Date	Actual Date	Adhered or not Adhered	If not adhered reason
44	Guest Lecture – II	14/03/2024	14/03/2024	Adhered	-
45	Unit 3 Completion (II & III year)	15/03/2024	15/03/2024	Adhered	-
46	Model Exam (Final year)	18/03/2024	18/03/2024	Adhered	-
47	IAT 2 (II & III year)	18/03/2024	18/03/2024	Adhered	-
48	Technical Seminar - III	20/03/2024	20/03/2024	Adhered	-
49	Annual Day Celebration	21/03/2024 To 23/03/2024	21/03/2024 To 23/03/2024	Adhered	-
50	Presentation Review (Final year)	25/03/2024	25/03/2024	Adhered	-
51	Project Report Correction (Final year)	26/03/2024	26/03/2024	Adhered	-
52	Unit 4 Completion (II & III Year)	26/03/2024	26/03/2024	Adhered	-
53	Pre- Final Review	27/03/2024	27/03/2024	Adhered	-
54	Last working Day (Final year)	02/04/2024	02/04/2024	Adhered	-
55	End Semester Practical Examinations Project viva voce (Final year)	03/04/2024	03/04/2024	Adhered	-
56	Guest Lecture – III	04/04/2024	04/04/2024	Adhered	-
57	Unit 5 Completion (II & III Year)	08/04/2024	08/04/2024	Adhered	-
58	End Semester Theory Examinations (Final year)	08/04/2024	08/04/2024	Adhered	-
59	Model Exam (II & III year)	10/04/2024	10/04/2024	Adhered	-

S.NO	Activity	Scheduled Date	Actual Date	Adhered or not Adhered	If not adhered reason
60	Last working Day (II & III year)	18/04/2024	18/04/2024	Adhered	-
61	Practical Commencement (II & III year)	22/04/2024	22/04/2024	Adhered	-
62	University Exam (II & III year)	29/04/2024	29/04/2024	Adhered	-

Remarks:

95% of activities are adhered with department calendar of academic year 2023-2024

B. Use of Various Instructional Methods and Pedagogical Initiatives

Effective teachers use an array of teaching strategies because there is no single, universal approach that suits all situations. Different strategies used in different combinations with different groupings of students will improve learning outcomes.

Academic Year: 2023 – 24 (Odd)

Table 2.2.1 d: List of Subjects with Innovative Teaching Learning Method Adopted

Sl. No.	Name of the Faculty Member	Subject Code	Subject Name	Class	Teaching Pedagogies
1	Dr. D. Joseph Jeyakumar Professor & HOD	MX3084	Disaster risk reduction and management	III ECE	1. Research Paper 2. Role play 3. NPTEL Video
2	Mr. Mariselvam M / Assistant Professor	22ECT303	Digital Electronics	II ECE	1.Demo Class 2.NPTEL Video
		GE8071	Disaster Management	IV ECE	1.Project Based Learning 2.Web Resources
3	Dr. N. Malathy / Assistant Professor	CBM368	Therapeutic Equipment	III ECE	1.NPTEL Video 2.Flipped Class
		OBM752	Hospital Management	IV ECE	1.Research Paper 2.Experiential Learning 3.Flipped Class
4	Mrs. P.B. Smitha / Assistant Professor	CEC345	Optical communication and networks	III ECE	1.Research Paper 2.NPTEL Video 3.Flipped Class
		EC8701	Antennas and Microwave Engineering	IV ECE	1.Web Resources 2.Demo Class
		EC8761	Advanced Communication lab	IV ECE	1.Flipped Class 2.Demo Class 3.Role play

5	Mr. U. Siddharth Nambi / Assistant Professor	EC8791	Embedded and real time systems	IV ECE	1.Quiz 2.Flipped Class
		EC8711	Embedded laboratory	IV ECE	1.NPTEL Video 2.Web Resources
6	Mrs. R. Nithya/ Assistant Professor	EC3552	VLSI and chip design	III ECE	1.Flipped Class 2.NPTEL Video
		EC3561	VLSI laboratory	III ECE	1.Role play 2.NPTEL Video
7	Mrs. C. Mullaikodi / Assistant Professor	EC3501	Wireless communication	III ECE	1.NPTEL Video 2.Research Paper 3.Quiz 4.Flipped Class
		EC8702	Ad hoc and wireless sensor networks	IV ECE	1.Research Paper 2.Web Resources 3.NPTEL Video

Table 2.2.1 d: List of Subjects with Innovative Teaching Learning Method Adopted

Sl. No.	Name of the Faculty Member	Subject Code	Subject Name	Class	Teaching Pedagogies
1	Dr. D. Joseph Jeyakumar Professor & HOD	EC8811	Project work	IV ECE	1. Research Paper 2. Flipped Class 3. Demo Class
2	Mr. Mariselvam M / Assistant Professor	ET3491	Embedded system and IOT + Lab (Blended)	III ECE	1. Demo Class 2. Industrial Visit 3. Role play
3	Dr. N. Malathy / Assistant Professor	22ECT404	Control System	II ECE	1. NPTEL Video 2. Role play
		CBM370	Wearable Devices	III ECE	1. Google Class Room 2. Flipped Class 3. Demo Class
4	Mrs. P.B. Smitha / Assistant Professor	22ECT401	Communication System	II ECE	1. NPTEL Video 2. Flipped Class
		22ECP402	Communication Systems Lab	II ECE	1. Demo Class 2. Research Paper 3. Web Resources
5	Mr. U. Siddharth Nambi / Assistant Professor	22ECT403	Electromagnetic Field Theory	II ECE	1. Quiz 2. Flipped Class

6	Mrs. R. Nithya/ Assistant Professor	CEC352	Satellite Communication	III ECE	1. Google Class Room 2. Flipped Class 3. Demo Class
		EC8094	Satellite Communication	IV ECE	1. Google Class Room 2. Role play 3. Demo Class
7	Mrs. C. Mullaikodi / Assistant Professor	CEC331	4G/5G Communication Networks + Lab (Blended)	III ECE	1.Flipped Class 2.NPTEL Video
8	Dr. J. Vijay Anand / Assistant Professor	22ECT402	Linear Integrated Circuits and Applications	II ECE	1. Demo Class 2. Research Paper 3. Web Resources
		22ECP401	Linear Integrated Circuits and Applications Lab	II ECE	1. Demo Class 2. Research Paper 3. Web Resources

i. Active Learning

Active learning is an approach for actively engaging the students in the classroom. Therefore, active learning activities are conducted for short duration to increase the attention span of the student which helps to transfer knowledge in a better way.

1. Project Based Learning
2. Think-pair-share
3. Crossword puzzle
4. Demo Class



Fig. 2.2.1 b: Active Learning

ii. Collaborative Learning

Students are team-spirited and enthusiastic in sharing the obtained knowledge with others. They join as groups to learn and work on a task. They lead the analysis and the discussion to solve problems. By this process, each student learns the importance of team effort.

1. Student presentations
2. Brainstorming
3. Role play
4. Quiz
5. Flipped classes.



Fig. 2.2.1 c: Collaborative Learning

iii. Participative learning.

Students are encouraged to organize and participate in inter-collegiate events such as symposium, project contests, workshops, seminars, design, and coding contests to bring out their inherent potential. Students are directed to participate in the technical quizzes to develop their analytical skills. Innovative ideas of the students are presented in the conferences and get published in journals. They are trained to acquire the knowledge and skills demanded by the industries. Seminars, guest lectures and webinars from experts enable the students to enhance their skills.



Fig. 2.2.1 d: Participative Learning

iv. Experiential Learning

The laboratory classes help the students to acquire practical knowledge related to the theoretical concepts. Students are motivated to do the industry collaborated projects to acquire knowledge

on an industrial basis. MoU is signed with various industries to provide technical exposures to the students with practical experience. The institution encourages the students to undergo industrial training and internship to learn through experience. Industrial visits help students to gain hands-on experience of how industry operations are executed. It bridges the gap between theoretical training and practical learning in a real-life environment.



Fig. 2.2.1 e: Experiential Learning

v. Self-Learning

The students are introduced and gradually pushed into adopting lifelong learning through the following initiatives and practices.

- Mandatory class hours for library-all students must attend and spend time in library one hour in a week.
- The students with regular and frequent visits to the library are encouraged to gifts and rewards.
- Students are encouraged to prepare technical briefs on the contents covered in the journals.
- Students are encouraged to go through technical websites on the internet to learn about emerging issues and technologies.
- Students are encouraged to register and learn by NPTEL, COURSERA and EDX

Through the above methods faculty encourages the students into gradual self-motivated study and into continuous learning.



Fig. 2.2.1f: Self Learning

C. Methodologies to Support Weak Students and Encourage Bright Students.
Academic student support systems play an important role in the teaching-learning process. Faculty members play vital role in supporting students in academic. Faculty members are assigned with the responsibility of mentoring. By mentoring the students, they support weak students and encourage bright students. Students are largely identified into two groups namely, Bright students (fast learners) and Weak students (slow learners).

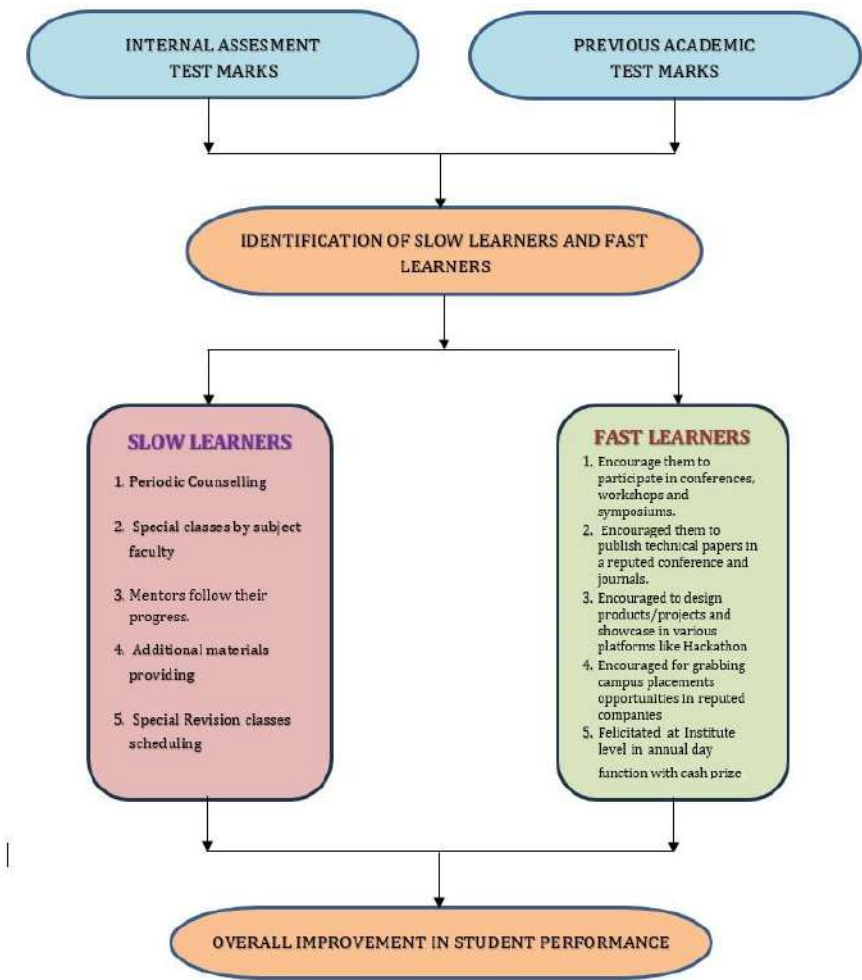


Fig. 2.2.1 g: Methodologies to Support Weak Students and Encourage Bright Students.

Table 2.2.1 a: Guidelines to identify Slow Learners

Identification Criteria	Actions taken
Students scoring less than 50% of marks in Continuous Assessment	• Mentors follow their progress. • Regularly advising students about attendance and help them by providing additional materials. • Special revision classes: Prior to the university exam special coaching classes are conducted for slow learners where in important topics are discussed and trained for them Exams.

Guidelines to identify Fast Learners

Identification Criteria	Actions taken
Class toppers	• Felicitated at Institute level in annual day function with cash prize.
Semester wise and Subject wise toppers will be identified	• Encouraged them to score more marks in the examination and encourage them to participate in conferences, workshops, and symposiums.
Students strong with technical skills	• Encouraged them to publish Technical papers in a reputed conference and journals. • Encouraged to design products/projects and showcase in various platforms like Hackathon, • Govt. funding schemes etc. • Students are motivated by competitive exams like IELTS Training, TNPSC Coaching, Japanese Language Learning and Digital Marketing. • Encouraged for grabbing campus placements opportunities in reputed companies with Higher Packages during on-campus Placement drive.

Impact Analysis

- The observable impact of assisting weak students is that the reduced number of identifiable weak students
- Improved results and less number of failures in each subject.

Table 2.2.1 c: Impact Analysis of Weak Students Performance

Impact Analysis of Weak Students Performance								
Academic Year: 2023 – 24								
Semester	Subject Code	Subject Name	No. of Weak Students Identified	No. of Students Passed University Exam	No. of Students Failed university Exam	Impact of Weak Students Class Percentage	Percentage of Impact Factor Per Semester	Percentage of Impact
III	22BST302	Probability and Random Process	21	16	5	76.19	63.89	65.77
	22EST401	Environmental Sciences and Sustainability	15	8	7	53.33		
	22ECT301	Electronics Circuits	25	22	3	88.00		
	22ECT302	Signals and Systems	15	8	7	53.33		
	22ECT303	Digital Electronics	15	9	6	56.25		
	22HST301	Entrepreneurship and startups	15	9	6	56.25		
IV	22ECT401	Communication Systems	15	8	7	53.33	56.66	
	22ECT402	Linear Integrated Circuits And Applications	18	9	9	50.00		
	22ECT403	Electromangnetic Fields Theory	15	6	9	40.00		
	22ECT404	Control Systems	15	13	2	86.66		
	22ECT405	Microcontroller Based System Design	15	8	12	53.33		
V	EC3501	Wireless Communication	4	4	0	100	100.00	
	EC3552	VLSI and Chip Design	7	7	0	100		
	EC3551	Transmission lines and RF Systems	4	4	0	100		
	CBM368	Therapeutic Equipment	4	4	0	100		
	CEC366	Image Processing	12	12	0	100		
	CEC345	Optical Communication and Networks	5	5	0	100		
	MX3084	Disaster Risk Reduction and Management	4	4	0	100		
VI	ET3491	Embedded system and IoT(BLENDED COURSE)	10	4	5	40	51.8	
	CS3491	AI&ML	7	3	4	42.8		
	CEC352	Satellite communication	8	4	4	50		
	CBM370	Wearable devices	9	6	3	66.6		
	CEC331	4G/5G Communication networks(BLENDED COURSE)	5	3	4	60		

VII	EC8701	Antennas and Microwave Engineering	15	9	6	60	49.8
	EC8751	Optical Communication	10	4	6	40	
	EC8791	Embedded and Real Time Systems	8	3	5	37.5	
	EC8702	Ad hoc and Wireless Sensor Networks	6	2	4	33.3	
	GE8071	Disaster Management	14	11	3	78.5	
VIII	GE8076	Professional Ethics in Engineering	8	6	2	75	72.5
	EC8094	Satellite Communication	10	7	3	70	

D. Quality of Classroom Teaching

Quality of teaching is a very important factor for quality learning. The following aspects are considered to ensure quality of classroom teaching. Faculty members actively engage students during lectures by reviewing previous topics, asking questions, and delivering the planned lesson interactively.

- Smart classroom facilities are utilized to enhance learning with dynamic activities that capture students’ attention and integrate real-world experiences.
- Real-world components, charts, and models are used in the classroom to clearly illustrate concepts.
- Real-time examples are presented through videos for better understanding.
- Faculty and students collaboratively solve tutorial problems during class sessions.
- The Principal, Dean (Academic), and Heads of Departments regularly visit classrooms to observe the teaching process.
- At the end of the lecture, students are encouraged to summarize key points and clarify any doubts.

E. Conduct of Experiments

Laboratory experiments are providing an opportunity to apply and investigate theoretical and real time knowledge. The following procedure is used to conduct the lab experiments.

- Laboratory courses are handled by a faculty member for a group of 30 to 33 students.
- At the beginning of every semester, the required software’s are installed.

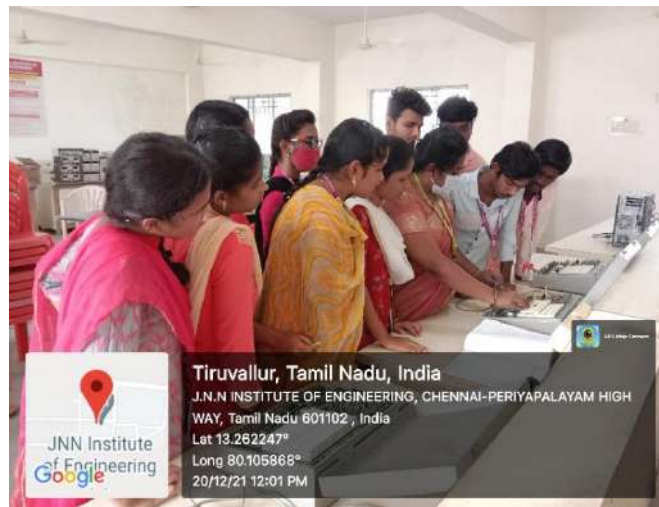


Fig. 2.2.1 h: Students performing experiments in Electronics and Device Lab

F. Conduct Experiments and Continuous Assessment in Laboratory

- Continuous evaluation of student performance is done for every experiment in the laboratory.
- Model Practical Examination is conducted at the end of the semester before the commencement of University Examination.
- Student's performance is periodically evaluated based on their completion of observation, lab report and viva voce followed by University Examination.
- HOD will regularly monitor the continuous assessment of students. Final assessment marks are computed based on Lab sessions marks and Continuous Lab Assessment.
- Laboratory handling faculty prepares manual for laboratory that includes Lab manual containing Programs with all possible inputs and outputs and Viva –voce Question Bank
- Faculty members instruct the students about the syllabus, course objectives, course outcomes, and grading methods and how to debug and test with different inputs of the laboratory course before doing the regular laboratory experiments.
- Observation is verified before the commencement of each experiment.
- Experiments are executed with required hardware and software.
- Viva questions will be asked, and implementation procedure is verified.
- Evaluation of the lab record notebooks prepared and maintained by the students.
- Continuous evaluation of student performance has been done for every experiment in the laboratory.
- Internal Practical Examination is conducted at the end of the semester before the commencement of University Examination.
- Student's performance is periodically evaluated based on their completion of observation, lab report and viva voce followed by University Examination.
- HOD will regularly monitor the continuous assessment of students. Final assessment marks are computed based on Lab sessions marks and Continuous Lab Assessment.

- Continuous evaluation is done by the faculty in every lab session for 100 marks based on rubrics as shown below.

Rubrics for Continuous Evaluation in every Lab. Session

Category	Level of Performance		
	10-8 Marks	7-4 Marks	3-1 Marks
Presentation of Background information (10 Marks)	Able to present experiment theoretical background independently (100%).	Able to present the experiment's theoretical background partially (60%).	Able to preset the experiment's theoretical background (< 50%).
Performance in Lab (10 Marks)	Able to perform experiment independently within prescribed time. The results are closer to standard value.	Able to perform experiment within prescribed time	Able to perform the experiment partially with no results.
Level of Understanding (10 Marks)	Able to show strong theoretical background of experiment. Able to interpret proper data to reach conclusion.	Partially show strong theoretical background of experiment.	Able to perform experiment independently within prescribed time. The results is not closer to standard value.
Quality of Submission (10 Marks)	Graphs, table and content are well constructed. All-important calculations and result have been clearly made. Conclusions/ observations/ done clearly	Shortfalls found in any of the contents of the report viz. graph, tables, calculations, results, conclusions/ comments etc.	Report submitted but not written properly.
Viva-Voce	Answer all the	Answer only few	Randomly give correct

(10 Marks)	questions to the satisfaction level.	questions to the satisfaction level.	answers to the questions.
------------	--------------------------------------	--------------------------------------	---------------------------

Category	Parameters	Marks Allocated
Viva-Voce	Viva – Voce	10
Presentation of Background information	Design and Conduct of Experiments	10
Performance in Lab	Observation / Coding / Implementation	10
Level of Understanding	Inference	10
Quality of Submission	Result & Graphs	10
	Total	50

Rubrics available in Lab Record

G. Student Feedback of Teaching Learning Process and Actions Taken

Student feedback is collected from the students for all courses. Feedback collected through both offline and online mode.

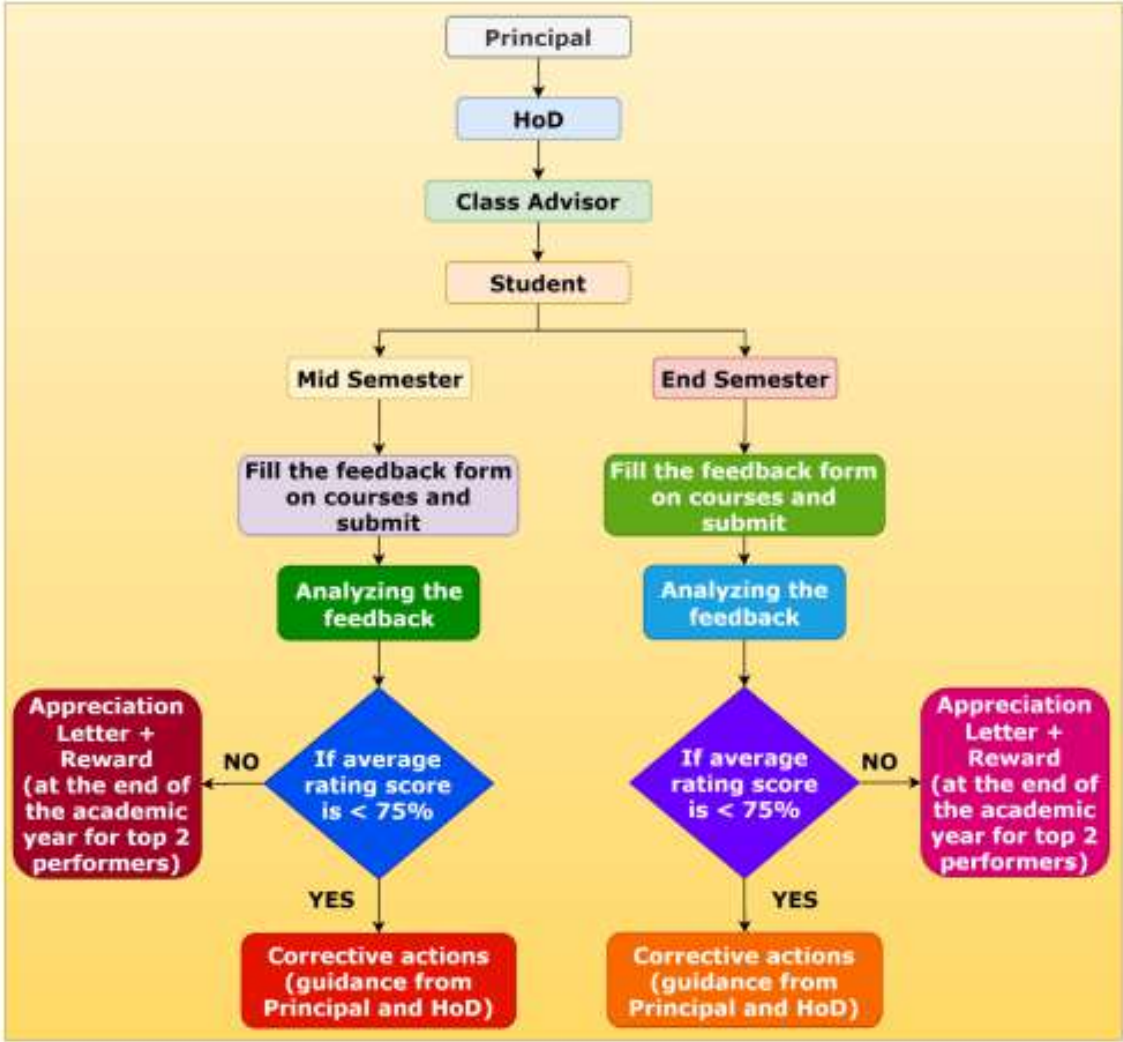


Fig. 2.2.1 I: Student Feedback of Teaching Learning Process

The faculty members are evaluated through the online feedback system on their teaching and learning process once in the semester. Depending on the feedback suggestions and guidelines are

given to the corresponding faculty. All the students are required to fill a feedback-form in online apprising the faculty on a scale of 1 (Poor) through 5 (Excellent).

The feedback is collected with the following parameters as follows:

- ❖ Punctuality and Regularity
- ❖ Class Preparedness
- ❖ Innovative Pedagogy
- ❖ Classroom Engagement
- ❖ Timely Syllabus Execution
- ❖ Course Organization
- ❖ Enhanced Competence for Advanced Study
- ❖ Subject Interest Stimulation
- ❖ Instructional Material Effectiveness
- Transparency of Learning Outcomes

The feedback collected from students is analyzed by the HoD. All the parameters in the feedback form are communicated to the respective course instructors along with their feedback levels to know their strengths and weaknesses and to enhance their teaching skills.

Principal and HOD reviews the feedback and discuss the remedial measures to follow up with the course instructors. All the parameters mentioned in the feedback form are analysed. Appreciation Letter and Rewards are given to the top 1 faculty member annually. The feedback score Less than 75% on any one parameter value, Corrective actions taken with guidance from HOD and Principal

Table 2.2.1 h: Feedback Action Taken

SI. N	Parameters	Action Taken	No. of Action taken		
			2021-22	2022-23	2023-24
1	How is the faculty’s approach towards teaching?	Conduct faculty training sessions on innovative teaching methods. Implement student feedback mechanisms to improve teaching styles.	-	-	-
2	How has the faculty prepared for the classes?	Ensure faculty members create structured lesson plans in advance. Encourage faculty to use supplementary resources for better engagement.	1	1	1
3	How does the faculty inform you about your expected competencies and course outcomes?	Require faculty to share course objectives at the beginning of each term. Display course outcomes on the Learning Management System (LMS).	-	-	-
4	How often does the faculty illustrate the concepts through examples and Practical applications?	Incorporate real-life case studies and hands-on activities in lectures. Organize workshops and lab sessions to reinforce theoretical concepts.	1	-	-
5	How does the faculty ensure that they cover the syllabus in a timely manner?	Implement a syllabus tracking system to monitor progress. Conduct periodic syllabus review meetings to ensure timely completion.	-	-	-
6	How do you think	Encourage faculty to introduce advanced topics	-	-	-

	about the idea that faculty often teaches content that goes beyond the official syllabus?	relevant to the subject. Offer optional seminars/webinars on trending industry topics.			
7	How does the faculty communicate?	Promote open-door policies and regular office hours for student consultations. Utilize email, LMS, and discussion forums for effective communication.	-	-	-
8	How does the faculty return answer scripts in a timely manner and provide helpful comments?	Set a deadline for returning graded scripts with constructive feedback. Introduce peer review sessions to enhance feedback mechanisms.	-	-	-
9	How does the faculty identify your strengths and encourage you with high level of challenges?	Implement personalized mentorship programs to guide students. Design advanced assignments for high-performing students.	-	-	-
10	How does the faculty counsel & encourage the students?	Organize faculty-led counseling sessions for academic and personal guidance. Implement a mentorship program to support student development.	-	-	1

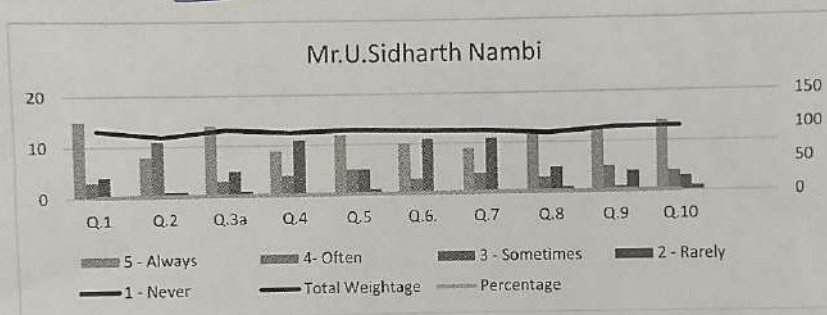
Name of the Faculty: : Mr.U.Siddharth Nambi

Class: III Year

Subject: 22ECT503 - Wireless Communication

Total Marks: 105

Subject:	22ECT503 - Wireless Communication								Total Marks: 100	
	Q.1	Q.2	Q.3a	Q.4	Q.5	Q.6.	Q.7	Q.8	Q.9	Q.10
5 - Always	15	8	14	9	12	10	9	12	13	14
4- Often	3	11	3	4	5	3	4	3	5	4
3 - Sometimes	4	1	5	11	5	11	11	5	1	3
2 - Rarely	0	1	1	0	1	0	0	1	4	1
1 - Never	0	0	0	0	0	0	0	0	0	0
Total Weightage	99	89	99	94	97	95	94	89	96	97
Percentage	94.29%	84.76%	94.29%	89.52%	92.38%	90.48%	89.52%	84.76%	91.43%	92.38%



Sakrachi
Sign of faculty

P. Joseph
Sign of HOD

HEAD OF THE DEPARTMENT
Dept. of Electronics and Comm. Engg
J.N.N INSTITUTE OF ENGINEERING
(Autonomous)
90, Ushaa Garden, Kannigalpair,
Thiruvallur Dist, Tamil Nadu - 601 102.

Sign of Principal

Dr. K. GANESAN, FIE.,
PRINCIPAL
J.N.N INSTITUTE OF ENGINEERING
(Autonomous)
90, Ushaa Garden, Kannigaipalr,
Thiruvallur Dist, Tamil Nadu - 601 102.

Fig. 2.2.1.K. End semester feedback analysis

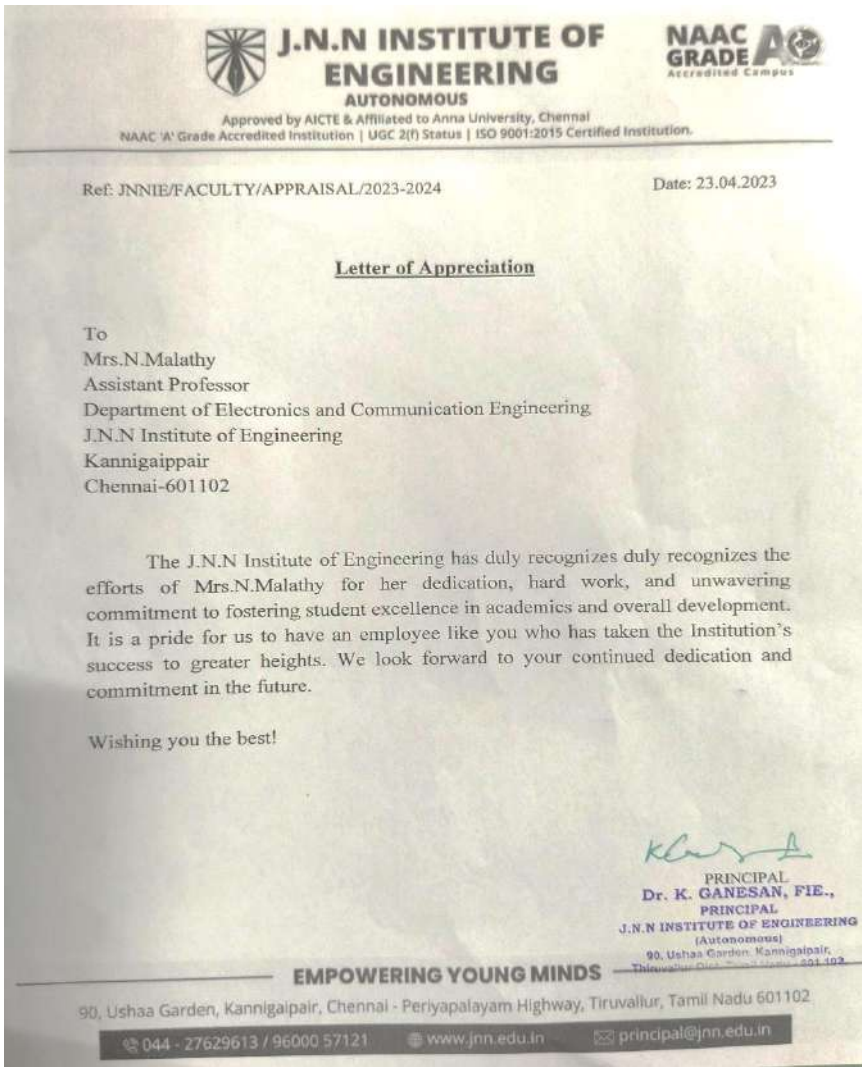


Fig.2.2.1 Appreciation Award for best faculty in ECE (AY2023-2024) and Appreciation Certificate

Impact Analysis

The following are the positive outcomes observed after adopting the above-mentioned teaching learning process.

- ❖ Lecture with discussion improves the understanding level.
- ❖ Collaborative learning increases the capacity of understanding and coordination.
- ❖ Regular coaching and counselling improve results and reduces the number of failures.
- ❖ Feedback mechanism supports for effective teaching.

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation

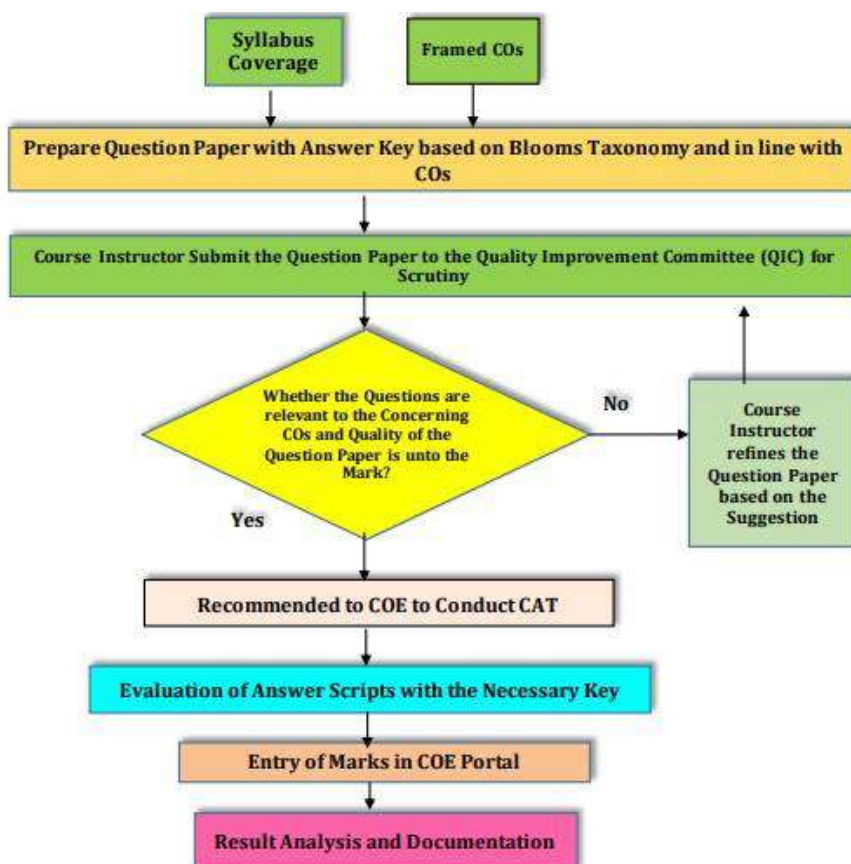


Fig. 2.2.2 a: Quality of Internal Semester Question papers, Assignments, and Evaluation

- Process for internal semester question paper setting and evaluation and effective process implementation**
- Process to ensure questions from outcomes/learning levels perspective.**
- Evidence of COs coverage in Internal Assessment Test and Model Exam**

As per the Academic plan of university and strict adherence to the academic calendar, Continuous Assessment Test will be scheduled by Exam cell and the completion of syllabus for the respective Assessment period will be planned.

- The timetable for the Continuous Assessments Test (CAT) will be announced 10 days prior to the commencement of the test.
- The question papers for each subject are set in such a way that it maps to the

Course Outcomes of the respective subject.

- Course Instructor prepares the question paper about 50 marks and 100 marks for Continuous Assessment Test and Model Examinations for their respective subjects.

- The duration of the test is 1.30 hours (CAT) & 3.00 hours (Model Exam) and question papers are set to make the student to cope up with the time management.

- The marks are divided as follows.

Part A ($5 \times 2 = 10$)

Part B ($2 \times 16 = 32$)

Part C ($1 \times 8 = 8$)

- Question paper is set for 100 marks for model examination and the duration of examination is 3 Hours. The marks are divided as follows.

Part A ($10 \times 2 = 20$)

Part B ($5 \times 13 = 65$)

Part C ($1 \times 15 = 15$)

- The question papers are reviewed, and quality of question papers are assessed by the Quality Improvement committee (QIC) and analyzed based on the Blooms Taxonomy and verify to ensure that the question papers are in line with COs and forwarded for conducting Continuous Assessment Test. The final assessed copy of the question paper is sent to the examination cell.

- The answer scripts are evaluated by the course instructor within 3 days after completion of the examination.

- Course instructors distribute the answer scripts to the students and discusses the answer. If any discrepancy is found, the course instructor resolves the issue.

- Finally, Marks are entered in COE portal.



J.N.N INSTITUTE OF ENGINEERING
AUTONOMOUS
NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

Reg. No.

Department of Electronics and Communication Engineering
 Forth Semester

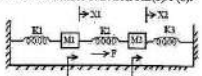
22ECT404 – CONTROL SYSTEMS

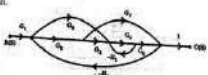
Internal Assessment Test-I

Time: 90 Mins Max Marks: 50
Date: 07/03/2024

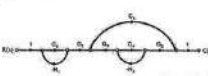
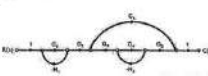
Q.No	Questions	CO	Bloom's Level	
1.	Why negative feedback is preferred in closed loop system?	CO1	K1	
2.	Define Mason's Gain formula	CO1	K2	
3.	Write the equation of changing displacement into velocity in Translational mechanical system.	CO1	K3	
4.	Name the test signals used in time response analysis.	CO2	K3	
5.	How is system classified depending on the value of damping?	CO2	K2	

PART B (2×16 = 32 Marks)

Q.NO	Questions	Marks	COs	Bloom's Level
6.(a)	Draw a signal flow graph and evaluate the closed loop transfer function of a system whose block is shown in fig. 	16	CO1	K3
(OR)				
6. (b)	For the given mechanical translational system write the differential equation. Determine the transfer function $X_2(s)/F(s)$. 	16	CO1	K3
7.(a)	Write the differential equations governing the Mechanical rotational system shown in fig. Determine the transfer function. 	16	CO2	K3
(OR)				

7. (b)	State Mason's Gain formula and use Mason's Gain formula to find overall gain. 		16	CO2	K3
--------	---	--	----	-----	----

PART C (1×8 = 8 Marks)

Q.NO	Questions	Marks	COs	Bloom's Level
8.(a)	State any four block diagram reduction rules. (OR) State Mason's Gain formula and use Mason's Gain formula to find overall gain. 	08	CO1	K2
8. (b)	State Mason's Gain formula and use Mason's Gain formula to find overall gain. 	08	CO1	K4

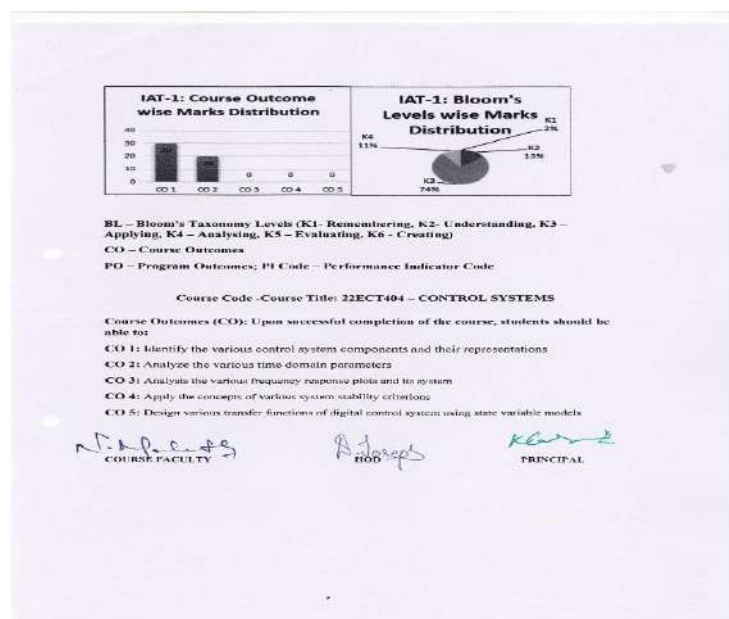


Fig. 2.2.2 b: Sample CAT – I Question Paper

RUBRICS FOR QUESTION PAPER SCRUTINY BOARD

Department : ECE
Examination : CAT - I
Course code and title : 22EC9404 - Control Systems.

S.No.	Items to be checked	Yes/No	Remarks / Actions if any
1	Adherence to the given QP pattern for the batch	Yes	—
2	Presence of Typographical Errors	No	—
3	Presence of Grammatical Errors	No	—
4	Marks allocated for the questions are sufficient	Yes	—
5	Time allocated for the questions is sufficient	Yes	—
6	Questions of the paper has a good flow and connectivity	Yes	—
7	Questions are not overlapping	Yes	—
8	Questions are unambiguous	No	—
9	Terms (i.e. Discuss, Describe, Explain, etc.) have been used correctly	Yes	—
10	Questions are clear, concise and understandable	Yes	—
11	Space given to answer the questions is sufficient (note: in the case of structured or short answer questions)	Yes	—

S.No.	Items to be checked	Yes/No	Remarks / Actions if any
12	Appropriateness of knowledge level addressed as per the CO	Yes	—
13	Appropriateness of weightage assigned to respective CO	Yes	—
14	Equal weight age (marks) given for subdivisions in either or choices with respect to COs	Yes	—
15	Either or choices represent equal knowledge levels	Yes	—
16	Difficulty level- Existence of scope for average/below average learners to score 50% marks	Yes	—

General comments on the examination paper (please use overleaf if necessary):

Names and signatures of the members of the scrutiny Board: Date: 5/5/24
MOS.M.Mulkaikedi, M.

Follow-up action by the Examiner

Examiner's name and signature: Date: 5/5/24

Certification of the Head of the Department:

Signature of the Head/ Department of ... Date: 05/03/24

Fig. 2.2.2 c: Sample CAT I Question Paper Scrutiny Form

COURSE OUTCOMES ASSESSMENT SHEET (COAS)

INTERNAL ASSESSMENT TEST - I

DATE OF EXAM : 20/02/24

MAX MARKS : 50

QUESTION NO COURSE OUTCOMES	PART - A					PART - B				PART - C		TOTAL			TOTAL
	1	2	3	4	5	6 (a)	6 (b)	7 (a)	7 (b)	8 (a)	8 (b)	A	B	C	
CO1	2	2	2				14								20
CO2				2	2				14						18
CO3															
CO4															
CO5															
TOTAL MARKS OUT OF 50															38
TOTAL MARKS OUT OF 100															76

COURSE OUTCOMES	QUESTIONS ATTENDED	MAXIMUM MARKS	ACTUAL MARKS SCORED	PERCENTAGE OF MARKS SCORED	ATTAINMENT LEVEL
CO1	4	20	20	100%	3
CO2	3	20	18	90%	3
CO3					
CO4					
CO5					
TOTAL		50	38	OVERALL ATTAINMENT OBTAINED	3

ATTAINMENT AND TARGET LEVEL FOR THE COURSE

PERCENTAGE OF MARKS SCORED IN EACH CO	ATTAINMENT LEVEL
LESS THAN 60%	1
FROM 60% - 69%	2
FROM 70% ABOVE	3

SIGNATURE OF THE FACULTY

HOD

Fig.2.2.2 d: Sample Evaluated Answer Sheet



**J.N.N INSTITUTE OF
ENGINEERING
AUTONOMOUS**

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

SET A

Reg.
No

Department of Electronics and Communication Engineering
Fifth Semester

22ECT501-VLSI DESIGN

Model Exam

Time: 3hours

Date: 21/10/2024

Max Marks: 100

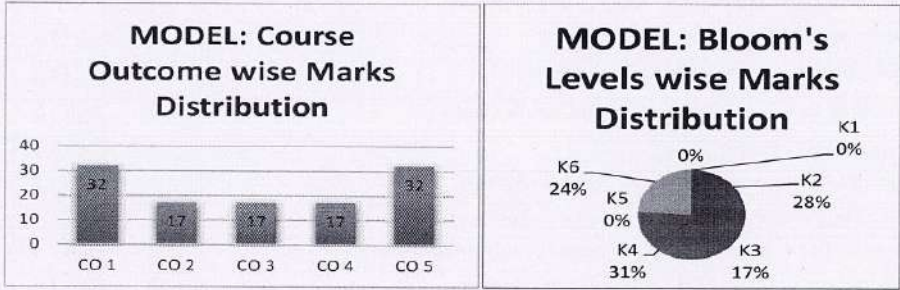
PART A (10×2=10 Marks)

S.NO	Questions	Marks	CO	BL
1	List the application of MOSFET and draw cmos inverter.	2	CO 1	K2
2	Is long- channel models Shockley model why ?	2	CO 1	K3
3	Give the reason for estimation propagation delay.	2	CO 2	K3
4	Why NMOS device conduct strong zero and weak one?	2	CO 2	K4
5	Compare registers and latches.	2	CO 3	K2
6	Draw the schematic of dynamic edge triggered register.	2	CO 3	K4
7	Listout the advantages of hierarchical memory architecture.	2	CO 4	K2
8	Listout the factors that influence an interconnect wire capacitance.	2	CO 4	K2
9	Differentiate between volatile and non-volatile Memory.	2	CO 5	K2
10	What is meant by full custom ASIC design.	2	CO 5	K2

PART B (5×13 = 65 Marks)

1 (a)	Discuss in detail about working operation of MOSFET and its mode of operation with neat sketches.	13	CO 1	K3
OR				
11 (b)	Explain in detail about body effect and its effect in mos device.	13	CO 1	K2
12 (a)	Sketch the complimentary CMOS gate following expression (i) $F = \overline{(A.B)} + \overline{(C.D)}$ (ii) $F = \overline{(A + B + C)}D$ (iii) $F = \overline{D(A + BC)}$	13	CO 2	K6
OR				
12 (b)	Explain the static and dynamic power dissipation in CMOS circuits with necessary diagrams and expressions.	13	CO 2	K6
13 (a)	Discuss in detail about various static latches and registers with neat sketches.	13	CO 3	K2
OR				
13 (b)	Analyse and write notes on (i) Ring oscillator (7) (ii) Voltage controlled oscillator (6)	13	CO 3	K4
14 (a)	Interpret in detail about an interconnect capacitance of a wire.	13	CO 4	K2

OR				
14 (b)	Elaborate in detail the design of low power SRAM memory unit.	13	CO 4	K6
15 (a)	With neat sketches, explain in detail about the wafer to chip fabrication process flow.	13	CO 5	K4
OR				
15 (b)	(i) With example explain about writing test benches in verilog HDL. (ii) Illustrate scan based testing.	13	CO 5	K3
PART C (1×15 = 15 Marks)				
16 (a)	For the oxide thickness $T_{ox}=500\text{\AA}$. Find the capacitance per unit area C_{ox} .	15	CO 1	K4
OR				
16 (b)	With neat sketch of BIST and scan test .Explain its importance in chip design onto a set of test.	15	CO 5	K4



BL – Bloom’s Taxonomy Levels (K1- Remembering, K2- Understanding, K3 – Applying, K4 – Analysing, K5 – Evaluating, K6 - Creating)

CO – Course Outcomes

PO – Program Outcomes; PI Code – Performance Indicator Code

Course Code -Course Title: 22ECT501-VLSI DESIGN

Course Outcomes (CO): Upon successful completion of the course, students should be able to:

- CO1: In depth knowledge of MOS technology
- CO2: Understand Combinational Logic Circuits and Design Principles
- CO3: Understand Sequential Logic Circuits and Clocking Strategies
- CO4: Understand Memory architecture and building blocks
- CO5: Understand the ASIC Design Process and Testing.

COURSE FACULTY

HOD

PRINCIPAL

Fig. 2.2.2 e: Sample Model Exam Question Paper



**J.N.N INSTITUTE OF
ENGINEERING
AUTONOMOUS**

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

RUBRICS FOR QUESTION PAPER SCRUTINY BOARD

Department : ECE
Examination : MODEL EXAMINATION
Course code and title : SELECT 501- VLSI DESIGN

S.No.	Items to be checked	Yes/No	Remarks / Actions if any
1	Adherence to the given QP pattern for the batch	Y	—
2	Presence of Typographical Errors	N	—
3	Presence of Grammatical Errors	N	—
4	Marks allocated for the questions are sufficient	Y	—
5	Time allocated for the questions is sufficient	Y	—
6	Questions of the paper has a good flow and connectivity	Y	—
7	Questions are not overlapping	Y	—
8	Questions are unambiguous	N	—
9	Terms (i.e. Discuss, Describe, Explain, etc.) have been used correctly	Y	—
10	Questions are clear, concise and understandable	Y	—
11	Space given to answer the questions is sufficient (note: in the case of structured or short answer questions)	Y	—

S.No.	Items to be checked	Yes/No	Remarks / Actions if any
12	Appropriateness of knowledge level addressed as per the CO	Y	—
13	Appropriateness of weightage assigned to respective CO	Y	—
14	Equal weight age (marks) given for subdivisions in either or choices with respect to COs	Y	—
15	Either or choices represent equal knowledge levels	Y	—
16	Difficulty level- Existence of scope for average/below average learners to score 50% marks	Y	—

General comments on the examination paper (please use overleaf if necessary):

M. Mani
[M. MANI SELVAM/ECE]
Names and signatures of the members of the scrutiny Board:

Date: 19/10/2024

Follow-up action by the Examiner

Yes Action Taken
Examiner's name and signature: *[Signature]*
Dr. Mahalingam R. Jeyaraj/ECE

Date: 19/10/24

Certification of the Head of the Department:

Signature of the Head/ Department of *[Signature]*

Date: 19/10/24

Fig. 2.2.2 f: Sample Model Exam Scrutiny Form

COURSE OUTCOMES ASSESSMENT SHEET (COAS)

MODEL EXAMINATION

DATE OF EXAM : 24/10/24

MAX MARKS : 100

QUESTION No	PART-A										PART-B								PART-C		TOTAL			TOTAL		
	1	2	3	4	5	6	7	8	9	10	11(a)	11(b)	12(a)	12(b)	13(a)	13(b)	14(a)	14(b)	15(a)	15(b)	16(a)	16(b)	A		B	C
OUTCOMES																										
CO 1	1	1									10															12
CO2	5	5	1	1			1					10							5	5	5					12
CO3			1	5	1										12			1								13
CO4								1	1								10									11
CO5										1	1									10						12
TOTAL MARKS OUT OF 100																										60

COURSE OUTCOMES	QUESTIONS ATTENDED	MAXIMUM MARKS	ACTUAL MARKS SCORED	PERCENTAGE OF MARKS SCORED	ATTAINMENT LEVEL
CO1	3	17	12	70.5%	3
CO2	3	17	12	70.5%	3
CO3	2	17	13	76%	3
CO4	2	17	11	64%	2
CO5	3	32	12	37.5%	1
TOTAL		100	60	OVERALL ATTAINMENT OBTAINED	2

ATTAINMENT AND TARGET LEVEL FOR THE COURSE

PERCENTAGE OF MARKS SCORED IN EACH CO	ATTAINMENT LEVEL
Less than 60%	1
From 60% - 69%	2
From 70% above	3

SIGNATURE OF THE FACULTY

HOD

Each question in internal test is mapped with COs of each subject. The mark gained by each student in each COs for each internal assessment component is taken into consideration for the calculation of CO-PO attainments. The Quality Improvement committee (QIC) checks the questions for relevance of COs and ensure the quality of question paper. The respective course instructor is informed in case of any deviation of the paper from the

above factors and is advised to prepare another set of papers which is again reviewed until it complies fully with the above-mentioned factors.

Table 2.2.2 a: COs coverage in Internal Assessment Test and Model exam

COs	22ECT501- VLSI DESIGN		
	Internal Assessment Test I	Internal Assessment Test II	Model Exam
CO1	✓		✓
CO2	✓		✓
CO3		✓	✓
CO4		✓	✓
CO5			✓

D. Quality of Assignment and its Relevance to Cos

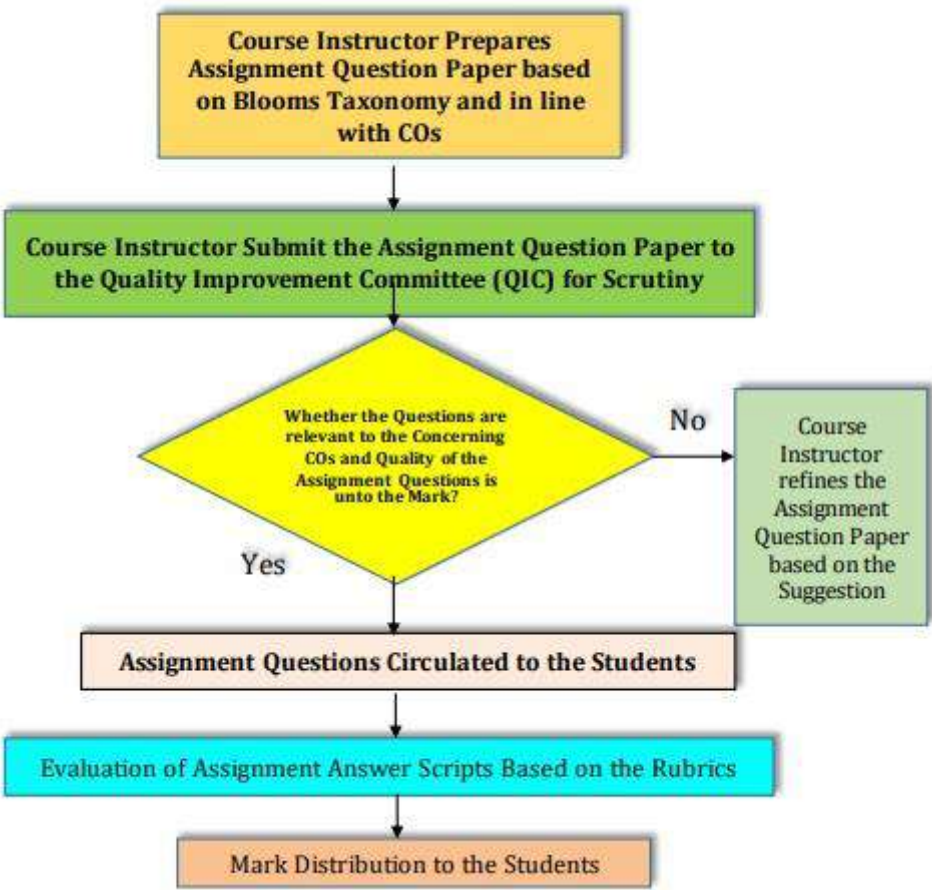


Fig. 2.2.2 g: Ensuring the Quality of Assignment

Rubrics for Assignment Evaluation:

Table 2.2.2 Rubrics for Assignment Evaluation

Criterion	Excellent 10-8	Very Good 7-6	Good 5-4	Average <4
Content	High quality useful information was presented	Correct and most of required information presented	Information presented are mostly correct	Incorrect informative presented
Work shown	All work meticulously shown	Most work meticulously shown	Few work meticulously shown	Some steps for problem solving are missing
Completion	Students submitted before due date	Students submitted on date	Students submitted two days late	Students submitted one week late.
Presentation	Precise solution is presented step by step	Easy understanding of solution step by step	Solution is presented in a logical manner	Solution is difficult to follow



**J.N.N INSTITUTE OF
ENGINEERING
AUTONOMOUS**

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ASSIGNMENT QUESTIONS

22ECT404 – CONTROL SYSTEMS

II YEAR- SEM – IV

DATE: 07/03/2024

Instructions:

- 1] Write the observations, inference, notes for the each assignment separately. Take photograph of the observations wherever necessary and attach the photograph along with note with explanation of the details.
- 2] Submit the assignment as single file for all questions at end of the class room teaching for Unit V. A clear instruction with last date of submission will be informed to all students through notice board and announcement in the laboratory sessions.

S.No	DESCRIPTIVE QUESTIONS/TOPIC (Minimum of 8 Pages)	Marks	CO	BL's
I	1.Explain the differences between block diagrams and signal flow graphs	10	CO1	K3
	2. Compare the advantages of feedback control over feedforward control.	10	CO1	K4
	3. Evaluate the pros and cons of using state-space models over transfer functions.	10	CO1	K5
II	1. Illustrate the transient response of a second-order system using a plot.	10	CO2	K3
	2. Analyze the effect of adding a PI controller to a system on its steady-state error and transient response.	10	CO2	K4
	3. Compare the effectiveness of PI and PID controllers for a given control system.	10	CO2	K5
III	1. Explain the frequency domain performance specifications of a second-order system.	10	CO3	K3
	2. Compare lead, lag, and lag-lead compensators based on their applications.	10	CO3	K4
	3. Design a lag-lead compensator to improve the performance of a control system using Bode plots.	10	CO3	K5
IV	1. Discuss the importance of root locus in stability analysis.	10	CO4	K3
	2. Investigate the stability changes of a system when varying the gain.	10	CO4	K4
	3. Assess the stability of a control system using both root locus and Nyquist methods.	10	CO4	K5
V	1.Analyze the controllability and observability of a given system using state-space methods. 2. Evaluate the performance of a state-space-based design compared to a transfer function-based design.	10	CO5	K5

Note: Last Date for submission of the assignment is 29th April 2024 or one week after completion of teaching learning of unit V in classroom , whichever is later.

Prepared by,

Fig. 2.2.2 g: Sample Copy of Assignment Question Paper



**J.N.N INSTITUTE OF
ENGINEERING
AUTONOMOUS**

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

ASSIGNMENT SCRUTINY FORM

Department : Electronics and Communication Engineering
Course code and title : 22ECT404 – CONTROL SYSTEMS
Academic Year : AY 2023-2024 (Even Semester)
Faculty Name : Mrs.N. Malathy
Year & Sem : II & IV

S.No.	Items to be checked	Yes/No	Remarks / Actions if any
1	Adherence to the given assignment pattern for this course	Yes	—
2	Appropriateness of verbs used as per the knowledge level committed	Yes	—
3	Appropriateness of weightage assigned to respective CO	Yes	—
4	Does the assignment provide opportunities for students to engage in independent research?	Yes	—
5	Does the assignment contain discriminating power ?	Yes	—
6	Challenging the level scope for evaluation of higher order thinking skills given	Yes	—
7	Is the assignment well organized and communicated clearly , ensuring that the content will be from	Yes	—
8	Does the assignment promotes self-learning?	Yes	—

Course Faculty name and signature: N. Malathy / N. Malathy

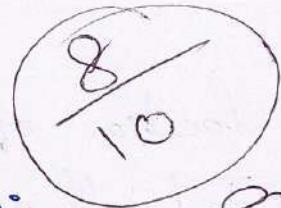
Names and signatures of the members of the scrutiny Board: Mrs. M. Mullaikodi / M. Mullaikodi

Name and Signature of Head of the Department. Dr. D. Joseph Jeyakumar / D. Joseph

Fig. 2.2.2 h: Sample Copy of Assignment Scrutiny Form

1. ASSESS THE STABILITY OF A CONTROL SYSTEM USING BOTH ROOT LOCUS AND NYQUIST METHODS (CO4) (K4)

ROOT LOCUS METHOD



1. PLOTTING POLES & ZEROS:

Plot the poles & zeros of the open-loop transfer function in the S-plane.

2. DETERMINING NUMBER OF BRANCHES:

Calculate the number of branches (n) using the formula: $n = P - Z$, where P is the number of poles & Z is the number of zeros.

3. DRAWING ASYMPTOTES:

Draw the asymptotes using the formula: $\theta = (2k+1) \times 180^\circ / |P-Z|$, where K is an integer.

Fig. 2.2.2 i: Sample Copy of Student Assignment



J.N.N INSTITUTE OF ENGINEERING AUTONOMOUS

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

ASSIGNMENT MARKS- AY 2023-2024

22ECT404-CONTROL SYSTEMS

Year: II

Sem: IV

S.No	Register Number	Students Name	CO1 (10)	CO2 (10)	CO3 (10)	CO4 (10)	CO5 (10)	Total Marks (50)
1	110722106001	Akash Varma V	8	9	8	8	8	41
2	110722106002	Amirthaa S	8	8	8	10	9	43
3	110722106003	Aravind M	8	10	8	8	9	43
4	110722106004	Avula Venkata Vamsi Krish	8	8	8	8	8	40
5	110722106005	Balasubramanian M	8	8	9	8	10	43
6	110722106006	Balavignesh S	8	8	9	8	8	41
7	110722106007	Barathvaj B	8	8	8	8	8	40
8	110722106008	Cheerla Sivakumar	9	8	8	9	8	42
9	110722106009	Chilakuru OmPrakash Reddy	9	8	8	9	8	42
10	110722106010	Eethamukkala Lakshmi Priy	8	8	8	8	8	40
11	110722106011	Gowtham K	10	8	9	10	8	45
12	110722106012	Gowtham M	8	8	9	8	8	41
13	110722106013	Imran U	8	8	8	8	8	40
14	110722106014	Jayasree R	8	8	10	8	8	42
15	110722106015	Malar M S	8	9	8	8	8	41
16	110722106016	Mallang Mohseena Taj Begu	8	9	8	8	8	41
17	110722106017	Mocharla Chakravarthi	8	8	8	8	8	40
18	110722106018	Naresh Kumar D	8	10	8	8	8	42
19	110722106019	Naveen Kumar N	8	8	8	8	8	40
20	110722106020	Nikeleshwaryaa S	8	8	8	8	8	40
21	110722106021	Nivetha B	8	8	8	8	8	40
22	110722106022	Palleti Jaichowdari	8	8	8	8	8	40
23	110722106023	Prashitha G	8	8	8	8	8	40
24	110722106024	Pydamani Peter P	8	8	8	8	8	40
25	110722106025	Ranjith Kumar P	8	8	8	8	8	40
26	110722106026	Rayapaneni Lakshmi Priya	8	8	8	8	8	40
27	110722106027	Revathy M	8	8	8	8	8	40
28	110722106028	Shaik Abdul Razak	8	8	8	8	8	40
29	110722106029	Shaik Abu Bakar Siddikh	8	8	8	8	8	40
30	110722106030	Shaik Arif	8	8	8	8	8	40
31	110722106031	Sivagnanabharathi K	8	8	8	8	8	40
32	110722106032	Srilingam Venkatesh	8	8	8	8	8	40
33	110722106033	Tharugu Nandini	8	8	8	8	8	40
34	110722106034	Vallam Narendra	8	8	8	8	8	40
35	110722106035	Varikuti Manosha	8	8	8	10	8	42
36	110722106036	Veguru Vasudeva	8	8	8	8	8	40
37	110722106037	Vempuluru Supraja	8	8	8	8	8	40
38	110722106038	Vidavaluru Satheesh Kumar	8	8	8	8	8	40
39	110722106301	Akashkumar J	10	8	8	8	8	42
40	110722106302	Sakthi Vishal C	8	8	8	8	8	40

[Handwritten signature]

Fig. 2.2.2 I: Sample Copy of Assignment Marks List

Assignment is one of the assessment components in each subject. Assignment questions include real time and complex analytical problems. The course instructor announces assignment topic and submission dates on the beginning of the semester in the class. Assignments are evaluated and feedback is given to the students to improve their learning and appreciate their efforts.

- Assignment questions are prepared for all the courses in recent topics based on the course objectives and considering the nature of the university question papers.

- One assignment is given to the student per semester in each course towards attaining the course outcomes.

- Thought provoking assignments are given to develop student's creative power.

- Assignment problems are chosen to provoke application of the learner's skill in problem solving using analytical and mathematical cognizance.

- Quality of assignment and its relevance to CO's are the parts of continuous improvement in terms of improving teaching performance and better out come from the students Assignment questions will be given to students, to evaluate the same and mapping with CO's

2.2.3 Quality of Student Projects (25)

A. Project Identification and Allocation Methodology

- ❖ **Project Selection:** Students are encouraged to choose innovative and research-oriented projects that align with industry trends and future technological advancements.
- ❖ **Team Formation:** Projects can be carried out individually or in teams, with faculty mentors assigned to guide and support students throughout the project lifecycle.
- ❖ **Project Proposal:** Students must submit a detailed project proposal, including objectives, methodology, expected outcomes, and required resources, for approval by the Project Review Committee.
- ❖ **Industry Collaboration:** The department facilitates industry-academia collaboration, enabling students to work on real-world challenges and gain practical exposure.
- ❖ **Periodic Reviews:** The Project Review Committee conducts regular evaluations to assess progress, provide feedback, and ensure timely completion of projects.
- ❖ **Technical Seminars:** Students present their work in seminars and technical symposiums to develop presentation and communication skills.
- ❖ **Documentation and Report Submission:** A final project report, including detailed documentation, must be submitted at the end of the project for evaluation and record-keeping.
- ❖ **Prototype Development:** Students are encouraged to develop working prototypes or simulation models to validate their project concepts.
- ❖ **Publication and Patents:** Exceptional projects with significant research contributions are supported for publication in journals and conferences, and potential innovations may be considered for patents.
- ❖ **Final Presentation and Evaluation:** At the end of the project, students must defend their work before the Project Review Committee through a final presentation and demonstration.

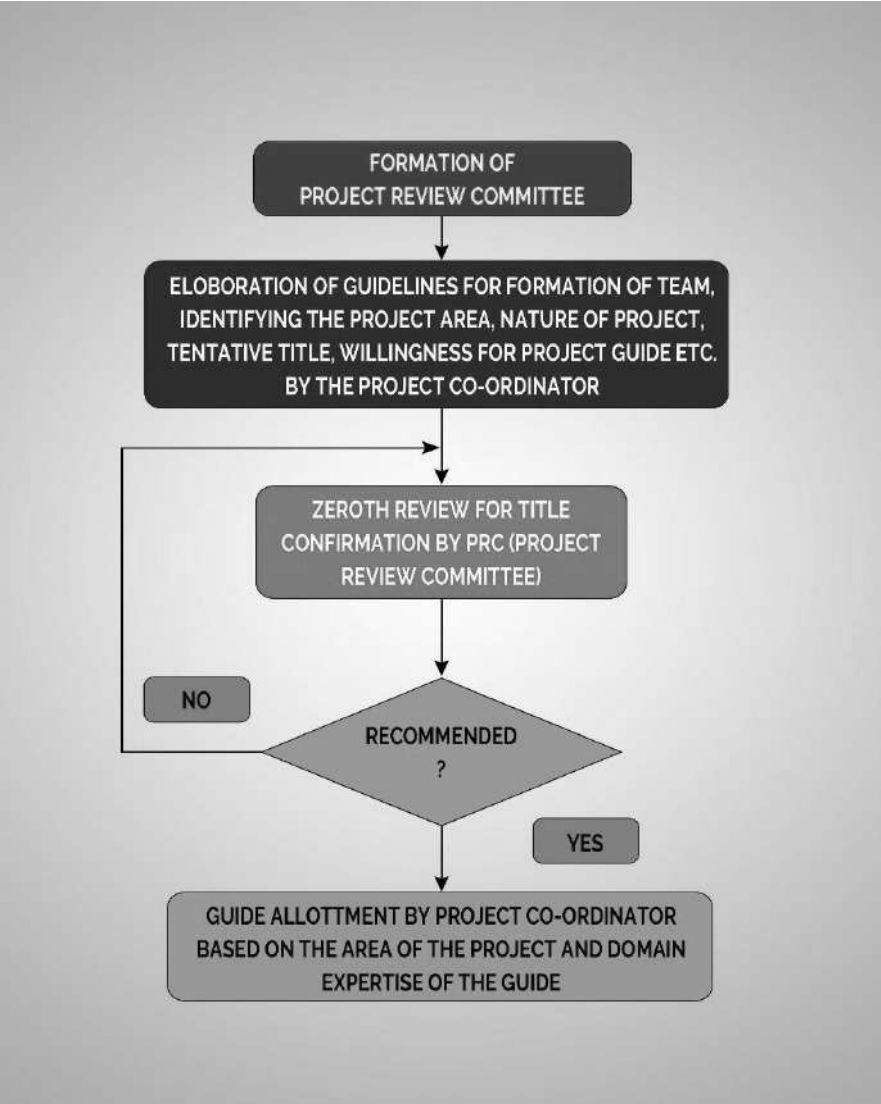


Fig. 2.2.3 b: Project Allocation Process

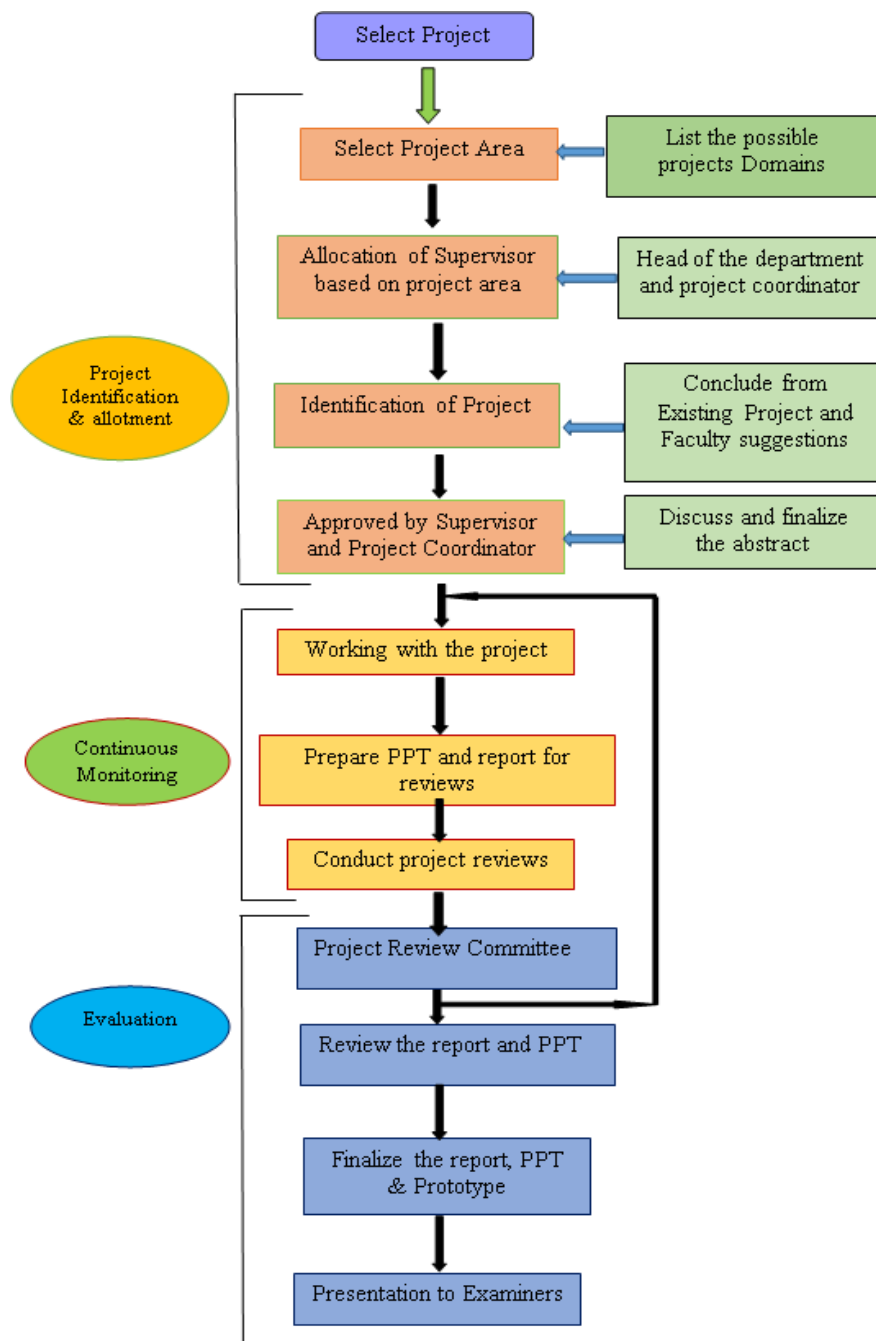


Fig. 2.2.3 c: Project Flowchart

**DEPARTMENT OF ELECTRONIC AND COMMUNICATION AND
ENGINEERING**
Review Committee Members (2022-2023)

Internal - Review Committee Members		
S.No.	Faculty Name	Designation
1	Dr. JOSEPH JEYAKUMAR D	Professor , HOD
2	Dr. SENTHILRAMA R	Associate Professor
3	Mr. SIDDHARTH NAMBI U	Associate Professor
External - Review Committee Member		
1	Mr. Muhammed Ilyas	IT Expert Training, Chennai

Fig.2.2.3 d: Project Review Committee Members for Project Work

Fig.2.2.3 e: Details about Project Group

B.No	Name of the Guide	Name of the Students	Title	Project Domain	Project Classification	POs	PSOs
1	Ms. S. SOWMYA /AP/ECE	Akalya K	Arduino-Powered Tree Poaching Detector Using Lora Technology	Environmental Monitoring (Product)	Hardware-Based IoT System	PO1 - PO12	PSO 1, PSO 2
		Balakrishnan K					
		Godson J					
		Sanjay M					
2	Dr. ANAND KUMAR /AP/ECE	Arun Kumar L	Cold Warehouse Monitoring Using Iot	Industrial Automation(product)	IoT-Based System	PO1 - PO12	PSO 1, PSO 2
		Jagadish R					
		Priyadharshini P					
		Kathiravan A					
3	Ms. P.B. SMITHA /AP/ECE	Chekuri Divya	Lifi-BASED VEHICLE-TO-VEHICLE COMMUNICATION	Wireless Communication (Application)	LiFi-Based System	PO1 - PO12	PSO 1, PSO 2
		Lokeshwari B					
		Noor Jakeer					
		Pattapu Kartheek					
4	Ms. KARPAGAM /AP/ECE	Deepadayana S	Iot-Based Industrial Air Quality Monitoring System	Environmental Monitoring (Research)	IoT-Based System	PO1 - PO12	PSO 1, PSO 2
		Deepan Kumar V					
		Giri M					
		Sangeetha L					
5	Ms. N. MALATHY /AP/ECE	Jayasri B	Women Safety System Using Iot	Safety and Security(application)	IoT-Based System	PO1 - PO12	PSO 1, PSO 2
		Vignesh S					
		Vasanth R					
		Tembeti Mouneesha					
6	Ms. C. MULLAIKODI /AP/ECE	Kirthiga P	Automated Overload Prevention And Gsm Notification For Rail Cargo Management	Transportation (Application)	IoT-Based System	PO1 - PO12	PSO 1, PSO 2
		Sharmila R					
		Sowmiya M					
		Sruthilaya K					
7	Dr. J. VIJAYANAND /AP/ECE	Lingeshwaran R	Secured Iot-Based Biometric Voting System	Security and Governance(aPPlicati on)	IoT-Based System	PO1 - PO12	PSO 1, PSO 2
		Patapanthula Simhadri					

B.No	Name of the Guide	Name of the Students	Title	Project Domain	Project Classification	POs	PSOs
		Samadhi Venkatesh					
		Yellu Jaya Sai					

B. Types and Relevance of the Projects and their Contribution towards Attainment of POs and PSOs

Table 2.2.3 a: Process of the project and its relevance to POs and PSOs

Process	POs & PSOs
Identification of Domain, Problem definition and Objectives, Literature Survey	PO1, PO2, PO3, PO6, PO7, PSO1, PSO2
Design methodology, Technology and tools used	PO4, PO5, PO12, PSO1, PSO2
Report, Demonstration, Teamwork, Presentation	PO8, PO9, PO10, PO11, PO12, PSO1, PSO2
Paper presentation, Journal publication	PO8, PO9, PO10,PO11, PO12, PSO1, PSO2

Table 2.2.3 b: Project type and relevance to POs and PSO

S. No	Type of Project	Relevance to POs	Relevance to PSOs
1.	Application	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1,PSO2
2.	Product	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1,PSO2
3.	Research	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1,PSO2

Justification:

All the project areas are mapped with PO 1, 2, 3, 4, 5, 6, 9, 10, 11, 12, PSO1 and 2, because projects need mathematical modelling, basic engineering knowledge, problem analysis, designing and developing ideas, conducting investigate complex problems, contribution to engineering society and need of modern software’s for simulation purposes. This also supports outcomes like individual and team work, communication, project management and lifelong

learning. Addition PO7 helps to demonstrate the knowledge of their project and PO8 also helps to improve the ethics.

The details of the projects like titles, type of project, classification and its relevance of POs and PSOs of the project for three academic years are given in table 2.2.3.b, table 2.2.3.c and table 2.2.3.d

Table 2.2.3 c: List of Projects and faculty Members who have been assigned for students in the year 2023 – 24

B.No	Name Of The Guide	Name Of The Student	Title	Project Domain	Project Classification
1	Ms. S. Sowmya /Ap/Ece	Akalya K	Arduino-Powered Tree Poaching Detector Using Lora Technology	Environmental Monitoring (Product)	Hardware-Based Iot System
		Balakrishnan K			
		Godson J			
		Sanjay M			
2	Dr. Anand Kumar /Ap/Ece	Arun Kumar L	Cold Warehouse Monitoring Using Iot	Industrial Automation(Product)	Iot-Based System
		Jagadish R			
		Priyadharshini P			
		Kathiravan A			
3	Ms. P.B. Smitha /Ap/Ece		Lifi-Based Vehicle-To-Vehicle Communication	Wireless Communication (Application)	Lifi-Based System
		Chekuri Divya			
		Lokeshwari B			
		Noor Jakeer			
		Pattapu Kartheek			
4	Ms. Nithiya. R/Ap/Ece	Deepadayana S	Iot-Based Industrial Air Quality Monitoring System	Environmental Monitoring (Research)	Iot-Based System
		Deepan Kumar V			
		Giri M			
		Sangeetha L			
5	Ms. N. Malathy /Ap/Ece	Jayasri B	Women Safety System Using Iot	Safety And Security (Application)	Iot-Based System
		Vignesh S			
		Vasanth R			
		Tembeti Mouneesha			
6	Ms. C. Mullaikodi /Ap/Ece	Kirthiga P	Automated Overload Prevention And Gsm Notification For Rail Cargo Management	Transportation (Application)	Iot-Based System
		Sharmila R			
		Sowmiya M			
		Sruthilaya K			
7	Dr. J. Vijayanand /Ap/Ece	Lingeshwaran R	Secured Iot-Based Biometric Voting System	Security And Governance (Application)	Iot-Based System
		Patapanthula Simhadri			
		Samadhi Venkatesh			
		Yellu Jaya Sai			

Table 2.2.3 c List of Projects PO's and PSO's mapping in the year 2023-2024

Project Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
Arduino-Powered Tree Poaching Detector Using Lora Technology	3	3	3	2	3	3	3	2	2	2	2	3	3	2
Cold Warehouse Monitering Using Iot	3	3	3	2	3	2	3	2	2	2	2	3	3	3
Lifi- BASED VEHICLE TO VEHICLE COMMUNICATION	3	3	3	3	3	3	2	2	2	3	2	3	3	3
Iot- Based Industrial Air Quality Monitoring System	3	3	3	3	3	3	3	2	2	2	2	3	3	3
Women Safety System Using Iot	3	3	3	2	3	3	2	3	2	3	2	3	3	3
Automated Overload Prevention And Gsm Notification For Rail Cargo Management	3	3	3	3	3	3	2	2	2	3	3	3	3	3
Secured Iot Based Biometric Voting System	3	3	3	3	3	3	2	3	2	3	3	3	3	3

Table 2.2.3 d: List of Projects and mapping with the POs in the year 2022 – 23

Bat ch No.	Name of the Student	Title of Project	Name of the Supervisor	Project Domain	Project Classification	POs	PSOs
1	Akkem Vishnu Priya	Smart Health Assistant for Monitorin g Remote Patient	Ms.N.Malathy	Embedded	Product	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Bodipati Ravi Chandrika						
	Muthyala Chandrika						
	Somu Sathvika						
2	Chrysolite Joy S	LDPC based MEC codes for wireless communic ations	Ms.B.Shanmat hi	Communic ation	Applicat ion	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Loghanandhini K						
	Maddali Divya						
3	Abel Francis	Smart IOT Monitorin g System for Agricultur e with Predictive Analysis	Dr.J.Vijayana nd	Embedded	Product	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Mohan S						
	Santhosh Kumar M						
	Thatikonda Bhanuprakash						
4	Penubala Poorna Rakesh	Reduction of Thyroid Disease (Hypothyroid) in Early Stage Using Feature Selection and Classificat ion Technique	Ms.B.Shanmat hi	Image Processing	Researc h	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Pulla Nikhil						
	Samadhi Jayanth						
	Valluru Mahesh Babu						

		s					
5	Ganesh P	Tech Army Suit	Mr.M.Mariselvam	Embedded	Product	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Keerthivasan S						
	Sanjay S						
6	Munagasetty Venkata Pavan Kumar	IOT Based Smart Movable Dustbin	Ms.N.Malathy	Embedded	Product	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Vadlamudi Rakesh						
	Vempuluru Hari Kiran						
7	Asma S	IOT Based Industrial Pollution and Quality of Water Monitoring System	Ms.P.B.Smitha	Embedded	Product	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Divya G						
	Saranya S						
	Vinega K						
8	Karthika M	Energy Efficient dual-Node-Upset-Recoverable 7T SRAM for Low-Power Aerospace Application	Mr.M.Mariselvam	VLSI Design	Research	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Nallareddy Vijitha						
	Poodi Vasudha						
	Sruthi Gnana Priya D						
9	Kovi Pavan	Human Alive Detection Robot	Mr.K.T.Panner selvam	Embedded	Application	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	M Reddy Vara Prasad						
	Yempuluru Balaji						
10	Kurapati Bharath	Detection of DDos Attacks In SDN	Ms.P.B.Smitha	Networking	Application	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10,	PSO1
	Sachin Pavan Kumar						
	Samadhi						

	Srikanth					PO11, PO12	
11	Devipriya P	Wireless Water Communication for Fishermen Tracking and Underwater Acoustic System	Mr.K.T.Panneerselvam	Communication	Product	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PSO1
	Jeevana A L						
	Pavithra P						

List of Projects PO's and PSO's mapping in the year 2022-2023

B. No	TITLE	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2
1	Smart health assistant for monitoring remote patient	3	2	3	2	3	3	1	2	3	3	3	2	1	2
2	LDPC based MEC codes for wireless communications	3	3	2	2	3	2	2	2	3	3	3	2	1	2
3	smart IOT monitoring system for agriculture with predictive analysis	3	2	3	2	3	3	1	2	3	1	3	2	1	2
4	Reduction of thyroid disease (Hypothyroid) in early stage using Feature Selection and Classification Techniques	3	2	3	1	3	2	2	1	3	2	3	2	1	2
5	Tech Army Suit	3	2	3	2	3	1	2	2	3	1	3	2	1	2
6	IoT based smart movable dustbin	3	2	1	3	2	3	2	2	3	1	3	2	1	2
7	IoT Based Industrial Pollution and Quality of Water Monitoring System	3	2	3	1	3	2	2	1	3	2	3	2	1	2
8	Energy EfficientDual-Node-Upset-Recoverable 7T SRAM for Low-Power Aerospace application	3	1	2	3	2	3	2	2	3	1	3	2	1	2
9	Human Alive	3	2	3	1	3	2	2	2	3	1	3	2	1	2

	Detection Robot														
10	Detection of Ddos attacks in SDN	3	2	3	2	3	2	2	2	3	2	3	2	1	2
11	Wireless water communication for fishermen tracking and underwater acoustic system	3	1	2	3	1	2	2	2	3	2	3	2	1	2

Table 2.2.3 e: List of Projects and faculty Members who have been assigned for students in the year 2021 – 22

Batch	Name of the Student	Project Title	Supervisor
1	Darapaneni Bhavana	Towards a Novel approach for designing smart classes	Dr.Joseph Jeyakumar
	Tumati Harshitha		
	Chennamgari Nandini		
2	Duvvuru Nireesha	Biometric Ticket for Railway	Dr.N.Hemalatha
	Gurrapavani		
	Avadanam Venkata Shanmukhi		
	Lagumsani Sravanthi		
3	Papareddy Bheeshmitha	Water Management System Using Dynamic IP Based Embedded Web Server in Real Time	Dr.R.Senthil Rama
	Vemasani Chethana		
	Nikkudala Ramya		
4	Chandragiri Sai Bhargavi	IOT Based Biometric Electronic Voting Machine	Mrs. Revathy N
	Annabathina Vyshnavi		
	Malli Hemalatha		
	Rajshree R		
5	Somu Sushmitha	Smart Powering & Monitoring MPPT based Solar PV System using IOT	Ms. Nithya R
	Panem Srividya		
	Gudi Hymavathi		
	Vanjavakam Nandhini		
6	Chenthati Poojitha	An Energy Efficient Smart Metering System using for a Network	Mr.M.Mariselvam
	Gayathiri S		
	Yadanaparthi Sasikala		
	Pavithra B		
7	Abhignya G	Sea way border alert system for the person in the boat by implementing RSSI	Mrs.N.Malathy
	Latha M		
	Priya R		
	Thenmozhi S		
8	Logeshwari S	Platform for cardiovascular disease identification and alert system	Mr.S.Tamilvannan
	Sangavi V		
	Sneha R		
	Yuvanya K		
9	Challa Suresh	Spy Robot for Border Surveillance	Ms.B.Shanmathi
	Mallela Charath Kumar Reddy		
	Modepalli Varun Sai		

	Chowdary		
	Kunnavakam Vignesh		
10	Gangadevi Chakradhar	Ultimate Home Automation Using Google Assistance	Partheepan R
	Kandukuri Rohith		
	Konduru Chandu Reddy		
11	Devatha Chandu	Novel Parking Management system for small Cities to save fuel, Time and Money	Mrs. Smitha P B
	Sreeram Sravana Kumar		
	Paluru Prabhakar		
	Vanipenta Rakesh		
12	Shaik Abdul Kaleem	Forest Fire Monitoring System using IOT	Mr. Panneerselvam K T
	Utlapalli Manjunadh		
	Pidugu Phani Kumar		
	Namala Venkata Sravan Kumar		
13	Challagiri Babji	Smart poultry Farm Incorporating GSM & IOT	Mrs.Raja Rajeswari
	Pejjai Dharanidhar		
	Chillakuru Eekshith Reddy		
	Sathukumudi Trilok Chandra Reddy		
14	Vilupuru Jaswanth Reddy	UV Sterilization Robot by using IOT	Ms. Indumathy T
	Pudi Jaswanth		
	Challa Guru Venkata Krishna		
	Challa Vishnuvardhanreddy		
15	Shaik Abdul Haseeb	Smart Bore wells child Rescue System through Wireless monitoring using Artificial Intelligence	Dr.Joseph Jeyakumar
	Syed Nawaz Ahmed		
	Gattamaneni Mohan		
	Pulibandla Naveen Kumar		
16	Kiruthish M	A Railway Collision Avoidance System Exploting Inter-Vehicle Communication with RFID & IOT Based Automatic Braking System	Dr. Vijayanand J
	Naresh Kumar R		
	Vignesh Rohith R		
	Vijay Kumar S		
17	Bharath Kumar L	Implementation of an Intelligent Surveillance System	Ms. Shanmathi B
	Dhinakaran K		
	Dillibabu M		
	Jinkala Satheesh		
18	Challa Yuganthar	Driver Drowsiness and Road Sign Detection	Mr.Mariselvam
	Puli Lokeswar Reddy		
	Inkunta Vamsi		
	Gudluru Sai Kumar		

Table 2.2.3.f List of Projects and mapping with the POs in the year 2021 – 22

B	Name of the Student	Project Title	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	PS O 1	PS O 2
1	Darapaneni Bhavana	Towards a Novel approach for designing smart classes	3	3	3	3	3	3	-	3	3	3	3	3	3	-
	Tumati harshitha															
	Chennamgari nandini															
2	Duvvuru nireesha	Biometric Ticket for Railway	3	3	3	3	3	3	-	3	3	3	3	3	2	2
	Gurrampavani															
	Avadanam venkata shanmukhi															
	Lagumsani sravanthi															
3	Papareddy bheeshmitha	Water Management System Using Dynamic IP Based Embedded Web Server in Real Time	3	3	3	3	3	3	3	3	3	3	3	3	3	-
	Vemasani chethana															
	Nikkudala ramya															
4	Chandragiri sai bhargavi	IOT Based Biometric Electronic Voting Machine	3	3	3	3	3	3	-	3	3	3	3	3	3	-
	Annabathina vyshnavi															
	Malli hemalatha															
	Rajshree R															
5	Somu sushmitha	Smart Powering & Monitoring MPPT based Solar PV System using IOT	3	3	3	3	3	3	3	2	3	3	3	3	3	-
	Panem srividya															
	Gudi hymavathi															
	Vanjavakam nandhini															
6	Chenthati poojitha	An Energy Efficient Smart Metering System using for a Network	3	3	3	3	3	3	-	2	3	3	3	3	3	-
	Gayathiri S															
	Yadanaparthi sasikala															
	Pavithra B															
7	Abhignya G	Sea way border alert system for the person in the boat by implementin g RSSI	3	3	3	3	3	3	-	2	3	3	3	3	2	3
	Latha M															
	Priya R															
	Thenmozhi S															

8	Logeshwari S	Platform for cardiovascular disease identification and alert system	3	3	3	3	3	3	-	1	3	3	3	3	2	2
	Sangavi V															
	Sneha R															
	Yuvanya K															
9	Challa suresh	Spy Robot for Border Surveillance	3	3	3	3	3	3	-	2	3	3	3	3	2	2
	Mallela charath kumar reddy															
	Modepalli varun sai chowdary															
	Kunnavakam vignesh															
10	Gangadevi chakradhar	Ultimate Home Automation Using Google Assistance	3	3	3	3	3	3	-	2	3	3	3	3	2	2
	Kandukuri rohith															
	Konduru chandu reddy															
11	Devatha chandu	Novel Parking Management system for small Cities to save fuel, Time and Money	3	3	3	3	3	3	-	2	3	3	3	3	2	2
	Sreeram sravana kumar															
	Paluru prabhakar															
	Vanipenta rakesh															
12	Shaik abdul kaleem	Forest Fire Monitoring System using IOT	3	3	3	3	3	3	3	2	3	3	3	3	2	2
	Utlapalli manjunadh															
	Pidugu phani kumar															
	Namala venkata sravan kumar															
13	Challagiri babji	Smart poultry Farm Incorporating GSM & IOT	3	3	3	3	3	3	-	2	3	3	3	3	2	2
	Pejjai dharanidhar															
	Chillakuru eekshith reddy															
	Sathukumudi trilok chandra reddy															
14	Vilupuru jaswanth reddy	UV Sterilization Robot by using IOT	3	3	3	3	3	3	3	2	3	3	3	3	2	2
	Pudi jaswanth															
	Challa guru venkata krishna															
	Challa vishnuvardhanreddy															
15	Shaik abdul haseeb	Smart Bore wells child Rescue	3	3	3	3	3	3	-	3	3	3	3	3	2	3
	Syed nawaz															

	ahmed	System through Wireless monitoring using Artificial Intelligence														
	Gattamaneni mohan															
	Pulibandla naveen kumar															
1 6	Kiruthish M	A Railway Collision Avoidance System Exploting Inter-Vehicle Communication with RFID & IOT Based Automatic Braking System														
	Naresh kumar R															
	Vignesh rohith R															
	Vijay kumar S		3	3	3	3	3	3	-	2	3	3	3	3	3	2
1 7	Bharath kumar L	Implementat ion of an Intelligent Surveillance System														
	Dhinakaran K		3	3	3	3	3	3	-	3	3	3	3	3	2	2
	Dillibabu M															
	Jinkala satheesh															
1 8	Challa yuganthar	Driver Drowsiness and Road Sign Detection														
	Puli lokeswar reddy		3	3	3	3	3	3	-	3	3	3	3	3	2	2
	Inkunta vamsi															
	Gudluru sai kumar															

C. Process for Monitoring and Evaluation

The project progress is periodically monitored through four reviews conducted by the project review committee.

Reviews are scheduled during each Internal Assessment Test period.

Project members meet the supervisor on designated project days to discuss weekly progress.

The evaluation process follows defined assessment criteria.

Each project batch prepares a detailed presentation on the work completed.

During each review, the team presents their progress to the project committee member.

The project review committee evaluates the presentation to enhance the project.

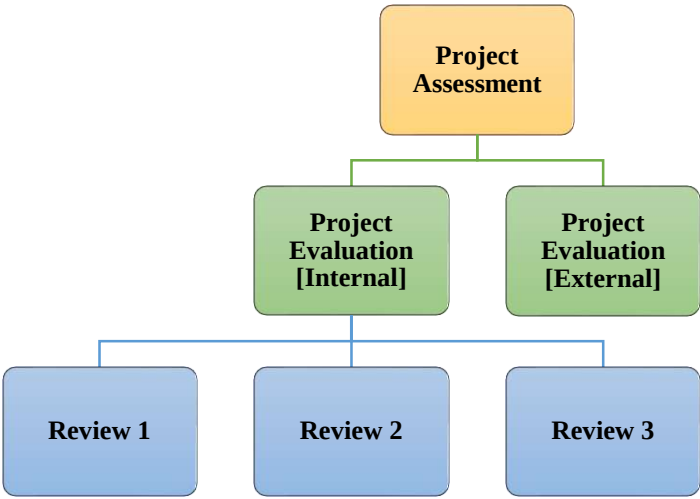


Fig.2.2.3 i: Project Assessment Criteria

The evaluation process is based on the rubrics mentioned below:

Rubrics for Project Evaluation

Table 2.2.3 i: Rubric for Review 1

Criteria	Max Marks	Level of Achievement	Mark Allotment
Abstract	20	Detailed and extensive explanation of the purpose and need of the project	(15-20)
		Average explanation of the purpose and need of the project	(8-14)
		Minimal explanation of the purpose and need of the project	(1-7)
Literature Review	20	Detailed and extensive explanation of the specifications and the limitations of the existing systems.	(15-20)
		Moderate study of the existing systems; collects some basic information.	(8-14)
		Minimal explanation of the specifications and the limitations of the existing systems; incomplete information.	(1-7)
Problem Identification	10	All objectives of the proposed work are well defined; Steps to be followed to solve the defined problem are clearly specified.	(7-10)
		Incomplete justification to the objectives proposed; Steps are mentioned but unclear; without justification to objectives.	(4-6)
		Objectives of the proposed work are either not identified or not well defined; Incomplete and improper specification.	(1-3)

Presentation	50	Objectives achieved as per time frame. Contents of presentations are appropriate and well arranged. Proper eye contact with audience and clear voice with good spoken language.	(35-50)
		Objectives achieved as per time frame. Contents of presentations are appropriate but not well arranged. Satisfactory demonstration, clear voice with good spoken language but eye contact not proper.	(20-34)
		Objectives achieved as per time frame. Contents of presentations are appropriate but not well arranged. Presentation not satisfactory and average demonstration	(1-19)

Table 2.2.3 j: Rubric for Review 2

Criteria	Maximum Marks	Level of Achievement	Mark Allotment
Abstract	20	Detailed and extensive explanation of the purpose and need of the project	(15-20)
		Average explanation of the purpose and need of the project	(8-14)
		Minimal explanation of the purpose and need of the project	(1-7)
50% of work progress	30	Division of problem into modules and good selection of computing framework. Appropriate design methodology and properly justification.	(21-30)
		Division of problem into modules and good selection of computing framework. Design methodology not properly justified.	(11-20)
		Division of problem into modules but inappropriate selection of computing framework. Design methodology not defined properly.	(1-10)
Presentation	50	Objectives achieved as per time frame. Contents of presentations are appropriate and well arranged. Proper eye contact with audience and clear voice with good spoken language	(35-50)
		Objectives achieved as per time frame. Contents of presentations are appropriate but not well arranged. Satisfactory demonstration, clear voice with good spoken language but eye contact not proper	(20-34)

		Objectives achieved as per time frame. Contents of presentations are appropriate but not well arranged. Presentation not satisfactory and average demonstration	(1-19)
--	--	--	--------

Table 2.2.3 k: Rubric for Review 3

Criteria	Max. Marks	Level of Achievement	Mark Allotment
Design & Testing/ Working	40	Complete explanation of the key concepts. Strong description of the technical requirements of the project.	(26-40)
		Complete explanation of the key concepts. In-sufficient description of the technical requirements of the project.	(16-25)
		Inappropriate explanation of the key concepts. In-sufficient description of the technical requirements of the project.	(1-15)
Result Analysis	40	Results are presented in very appropriate manner. Project work is well summarized and concluded.	(21-30)
		Results are presented in good manner. Project work summary and conclusion not very appropriate.	(11-20)
		Results are not presented properly. Project work is not summarized and concluded.	(1-10)
Report & Viva voice	20	Objectives achieved as per time frame. Contents of presentations are appropriate and well arranged. Proper eye contact with audience and clear voice with good spoken language	(35-50)
		Objectives achieved as per time frame. Contents of presentations are appropriate but not well arranged. Satisfactory demonstration, clear voice with good spoken language but eye contact not proper	(20-34)

		Objectives achieved as per time frame. Contents of presentations are appropriate but not well arranged. Presentation not satisfactory and average demonstration.	(1-19)
--	--	---	--------

D. Process to Assess Individual and Team Performance

As mentioned earlier, reviews are conducted to assess the performance of the individual and the team. Interaction and updating the progress of the project to the guide can also be taken into account while assessing the individual student performance in presentation.

Table 2.2.3 I: Individual and Team Performance (Batch 2020 – 24)

B.No	Name of the Students		Title	Review-1	Review-2	Review-3
	Register No	Name		Team marks	Team marks	Team marks
1	110720106001	Akalya K	Arduino-Powered Tree Poaching Detector Using Lora Technology	92	93	95
	110720106004	Balakrishnan K				
	110720106010	Godson J				
	110720106023	Sanjay M				
2	110720106002	Arun Kumar L	Cold Warehouse Monitoring Using Iot	89	92	91
	110720106011	Jagadish R				
	110720106020	Priyadharshini P				
	110720106301	Kathiravan A				
3	110720106005	Chekuri Divya	Lifi- BASED VEHICLE TOVEHICLE COMMUNICATION	91	91	91
	110720106015	Lokeshwari B				
	110720106016	Noor Jakeer				
	110720106018	Pattapu Kartheek				
4	110720106006	Deepadayana S	Iot- Based Industrial Air Quality Monitoring System	91	91	91
	110720106007	Deepan Kumar V				
	110720106009	Giri M				
	110720106022	Sangeetha L				
5	110720106012	Jayasri B	Women Safety System Using Iot	90	96	92
	110720106028	Vignesh S				
	110720106302	Vasanth R				

	110720106701	Tembeti Mouneesha				
6	110720106013	Kirthiga P	Automated Overload Prevention And Gsm Notification For Rail Cargo Management	89	87	90
	110720106025	Sharmila R				
	110720106026	Sowmiya M				
	110720106027	Sruthilaya K				
7	110720106014	Lingeshwaran R	Secured Iot Based Biometric Voting System	92	95	93
	110720106017	Patapanthula Simhadri				
	110720106021	Samadhi Venkatesh				
	110720106029	Yellu Jaya Sai				

E. Quality of Completed Projects

The project committee members ensure quality at various stages through internal reviews. If any deviation in project quality is identified, the committee panel assists in achieving the expected standards. The project quality is evaluated through the following activities:

- ❖ Students present papers at national/international conferences and journals.
- ❖ Students participate in various project competitions and receive awards.
- ❖ A final project demo of the working prototype and report is evaluated by a panel consisting of internal and external examiners.
- ❖ Project assessment is conducted using a comprehensive rubric-based evaluation form.

Sponsored Project:
Tamil Nadu State Council for Science and Technology (TNSCST) sponsored the project “Tech Army Suit” with the grant of Rs.7500/- to Challa Suresh, Chillakuru Eekshith Redddy, Mallela Charath Kumar Reddy, Challa Guru Venkata Krishna (Ref.No: TNSCST/2021-22/EEE-0231)

F. Evidences of paper published/Awards received by projects

The students are presented their projects in International/National conferences conducted by various reputed Institutions.

2.2.4 Initiatives Related to Industry Interaction

The industry institute interaction should exist in a productive manner to attain the benefits for both the students and faculty members. The department has joined hands with the various industries in their core engineering field with an objective to strengthen interaction with industries, to keep our students updated with the latest trends, to enhance the knowledge and inculcate the practical exposure. The industry personnel involve in the design of value-added courses as an additional input to the students about the current practices. Industry Institute Interaction continuously supplies input to better teaching-learning process creates awareness among the students about the environment of industry, provide practical exposure to students and develop self-confidence in students to become entrepreneurs.

The above can be achieved by providing a bridge between the industry and the academic institute. Providing industry-based training through teaching-learning process creates awareness about the job nature in the industry among students. To promote a good Institute-Industry Interaction for our institute, following schemes have been undertaken. Inviting technical experts from industry to deliver lectures on recent trends and technologies. Arranging visits for students to various industries. Projects work carried out in industry Internship for students. Organizing workshops, seminars and Guest Lecture with Industry Experts.

A. Industry Supported Laboratories

IOT Laboratory by Coovum Smart Systems and Services Private Limited:

We have centre of excellence with IOT Laboratory. The department ECE established a laboratory in association with Coovum Smart Systems and Services Private Limited, which aids the students for providing Skills Development Training Programme, Workshops and assist them to improve their performance by imparting career-oriented training periodically.

Objective:

The IoT Laboratory, established in collaboration with Coovum Smart Systems and Services Private Limited, aims to provide ECE students with a comprehensive learning environment focused on the Internet of Things (IoT) technology. The lab is dedicated to:

The IoT Laboratory, established in collaboration with Coovum Smart Systems and Services Private Limited, aims to provide ECE students with a comprehensive learning environment focused on the Internet of Things (IoT) technology. The lab is dedicated to:

- ❖ Equipping students with practical skills and hands-on experience in designing and implementing IoT solutions.
- ❖ Offering specialized training programs that cover the latest IoT trends, technologies, and applications.
- ❖ Facilitating research and development activities that encourage innovation and creativity in the field of IoT.
- ❖ Enhancing students' career prospects by providing exposure to real-world IoT projects and industry partnerships.
- ❖ Promoting interdisciplinary collaboration and knowledge sharing among students, faculty, and industry experts.

Physical Design Laboratory by VLSI Mentors:

We have a cutting-edge Physical Design Laboratory at our Center of Excellence. The ECE department has established this lab in collaboration with VLSI Mentors. It provides students with Skills Development Training Programs, Placement Opportunities, Internships, and Value-Added Courses. The lab is dedicated to enhancing student performance through regular career-oriented training sessions.

Objective:

The primary objective of the Physical Design Laboratory course is to equip students with the practical skills and foundational knowledge necessary for designing and implementing advanced VLSI (Very Large Scale Integration) systems. This lab focuses on the physical design aspects of VLSI circuits, providing hands-on experience with the tools, techniques, and methodologies used in industry. By the end of this course, students will be able to:

- ❖ Understand the basic principles and processes involved in the physical design of VLSI circuits.
- ❖ Gain proficiency in using industry-standard EDA (Electronic Design Automation) tools for physical design tasks.
- ❖ Develop and implement floor planning, placement, and routing strategies for VLSI circuits.
- ❖ Analyze and optimize the physical layout of VLSI designs to meet performance, area, and power constraints.
- ❖ Identify and resolve common issues encountered during the physical design process, such as timing violations and signal integrity problems.
- ❖ Collaborate effectively in team-based projects, simulating a real-world engineering environment.

Center of Excellence for Chip Design Laboratory by Chips to Startup Programme (C2S):

We have center of excellence with Chip Design Laboratory. The department ECE established a laboratory in association with Chips to Startup Programme (C2S), Ministry of Electronics and Information Technology, Government of India, which aids the students for providing Placement opportunities , Internships, Value Added Courses and which supports students by offering Skills Development Training Programs, Workshops, and assists them in enhancing their performance through periodic career-oriented training.

Objective:

The primary objective of the Center of Excellence for Chip Design Laboratory, under the Chips to Startup Programme (C2S), is to empower students with the practical expertise and innovative mindset required to excel in the field of chip design and semiconductor technology. This lab aims to provide a comprehensive understanding of the chip design process, from conceptualization to implementation, using state-of-the-art tools and methodologies. By the end of this course, students will be able to:

- ❖ Gain hands-on experience with industry-standard EDA (Electronic Design Automation) tools and design software.
- ❖ Develop skills in designing, simulating, and verifying digital and analog circuits.
- ❖ Implement and optimize chip designs to meet performance, power, and area requirements.
- ❖ Identify and address common challenges in chip design, such as timing issues, power consumption, and signal integrity.
- ❖ Foster innovation and creativity in designing cutting-edge semiconductor solutions.

Center of Excellence for Unmanned Aerial Laboratory by Astrox Aerospace Pvt Ltd, Chennai

The primary objective of the Center of Excellence for Unmanned Aerial Laboratory is to equip Electronics and Communication Engineering (ECE) students with comprehensive knowledge and hands-on experience in the field of unmanned aerial vehicles (UAVs) and drone technology.

Objective:

- ❖ **Enhance Technical Skills:** Provide students with practical training in the design, development, and deployment of UAVs, focusing on electronics, communication systems, and control mechanisms.
- ❖ **Foster Innovation:** Encourage students to engage in innovative projects and research activities that explore new applications and advancements in drone technology.
- ❖ **Industry Collaboration:** Facilitate collaboration with industry experts and professionals from Astrox Aerospace Pvt Ltd to gain insights into real-world challenges and solutions in the UAV sector.
- ❖ **Promote Interdisciplinary Learning:** Integrate knowledge from various engineering disciplines, including electronics, communication, computer science, and mechanical engineering, to develop well-rounded expertise in UAV technology.
- ❖ **Prepare for Future Careers:** Equip students with the skills and knowledge required to pursue careers in the rapidly growing field of UAVs and related industries, such as agriculture, surveillance, logistics, and disaster management.

**Table 2.2.4. List of Memorandum of Understanding (MoU) between JNNIE and Industries
Academic Year 2024-2025**

Sl. No	Date of MoU signed	Name of the Industry	Domain Area	Duration	List the Actual Activities Under Each MOU and Web-Links Year-Wise	Relevance’s to POs, PSOs
1	22-01-2025	Active Infratel Private Ltd, Gujarat	Telecommunications , BTS, MW, GSM trends	3 years	Industrial visits, Research & Development, Guest Lectures and FDP	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2
2	17-01-2025	Chips to Startup Programme (C2S),Ministry of Electronics & Information Technology, Government of India	VLSI Domain	-	Industry Supported Laboratory- Center of Excellence for Chip Design Laboratory, under the Chips to Startup Programme (C2S)	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2

Academic Year 2023-2024

S. No.	Date of MoU signed	Name of the Industry	Domain Area	Duration	List the Actual Activities Under Each MOU and Web-Links Year-Wise	Relevance's to POs, PSOs
1	12-03-2024	Chipware Technologies, Bangalore	VLSI Design and Manufacturing Activities	3 years	Consultancy, Industrial visits, Research & Development	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2
2	20-02-2024	AstroX Aerospace Pvt. Ltd.	Robotics and Automation	3Years	Industry Supported Lab- Centre of Excellence for unmanned Aerial Vehicles (drone) Laboratory	PO1, PO2, PO3, PO4, PO5, PO11, PO12, PSO1, & PSO2

Academic Year 2022-2023

S.No.	Date of MoU signed	Name of the Industry	Domain Area	Duration	List the Actual Activities Under Each MOU and Web-Links Year-Wise	Relevance's to POs, PSOs
1	06-03-2023	V Formation,	Manufacturing Production systems	3 years	Consultancy, Industrial visits, Research & Development	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2
2	14-02-2023	VLSI Mentors, Bangalore	VLSI Physical design	3 years	Industry Supported Laboratory - Physical Design Laboratory	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2
3	20-01-2023	Coovum Smart Systems and Services Private Limited.	IOT, Signal Processing	5years	Industry Supported Laboratory - IOT Laboratory	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2

4	06-01-2023	SESBL, Chennai	Smart Sensors Technologies	3 years	Consultancy, Industrial visits, Research & Development	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2
5	06-01-2023	Sri Vari Enterprises, Chennai	Assemblies for defense, automotive & non-automotive applications.	3 years	Industrial visits, Research & Development, Guest Lectures and FDP	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2

Academic Year 2021-2022

S. No.	Date of MoU signed	Name of the Industry	Domain Area	Duration	List the Actual Activities Under Each MOU and Web-Links Year-Wise	Relevance’s to POs, PSOs
1	28-12-2021	IT Expert Training, Chennai	IOT, Embedded Systems, Machine Learning	5 years	Industrial visits, Research & Development, Guest Lectures and FDP	PO1, PO2, PO3, PO4, PO5, PO11 & PSO1, PSO2

Table 2.2.4 A: Industry Supported Laboratories

S.No	Name of the Laboratory	Name of the Industry
1	IOT Laboratory	Coovum Smart Systems and Services Private Limited
2	Physical Design Laboratory	VLSI Mentors
3	Center of Excellence for Chip Design Laboratory	Chips to Startup Programme (C2S), C-DAC Bangalore
4	Centre of Excellence for unmanned Aerial Vehicles (drone) Laboratory	Astrox Aerospace Pvt. Ltd, Chennai

2.2.4. B. Industry Institute Interaction

S. No	Academic Year	Date	Activity	Resource Person with Designation	Domain Area of Curriculum Covered	Student Outcomes	Beneficiary	Relevance's to POs, PSOs
1	2024-2025	30.01.2025	BTS, MW, & GSM Trends in Telecommunication Systems	Er.Ashwini Rohit, Project Manager, Active Infratel Private Limited, Gujarat, India	Telecommunication	Gained Knowledge in advanced technologies	III& IV	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO12, PSO1, PSO2
2	2024-2025	27.12.2024	Quality Management Systems and Engineering Design	Narendranath Reddy, CEO, SCR Soft Technologies Pvt. Ltd, Chennai.	VLSI	Encouraged the students to develop projects	II & III	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO12, PSO1, PSO2
3	2023-2024	11.10.2023	Discrete time and Signal Processing	Dr.Swarna Ravindrababu,fo under of coovum smart system & services pvt. ltd,chennai	Signal Processing	Advanced coverage of machine learning applications in signal processing	III	PO3, PO5, PO6, PO10,PSO1, PSO2
4	2023-2024	28.03.2024	Smart and Automated Drone Functionalities	Mr. Mani Ramkumar, Astrox Aerospace Pvt. Ltd.	Robotics and Automation	The Students learn the intelligent automation and air drops	IV	PO1, PO2, PO3, PO4, PO5, PO11, PO12, PSO1, & PSO2
5	2022-2023	27.02.2023	Advanced VLSI Design Techniques	Mr. K Kumar Physical Design Trainer , VLSI Mentor, Bangalore	VLSI Design	Encouraged the students to develop Design	II& III	PO1, PO2, PO3, PO4, PO5, PO6,

								PO9, PO10, PO12, PSO1, PSO2
6	2022-2023	15-02-2023	IC Fabrication flow	Mr. K Kumar Physical Design Trainer , VLSI Mentor Bangalore	VLSI design techniques	The Students learn the flow of IC design	III & IV	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO10
7	2022-2023	12-11-2022	Expert Talk on Industry 4.0	Dr. Swarna Ravindra babu, Founder of COOVUM Smart System & Services Pvt. Ltd, Chennai	Industry 4.0	The Students learnt the importanc e of Industry 4.0	II, III & IV	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO10
8	2022-2023	26-09-2022	Industry Application on IOT using Python	Mr. Muhammed Ilyas, C.E.O IT Experts Training, Chennai	Industry Application on IOT	The Students learnt the Advanced concepts and updates of IOT and python	III & IV	PO2, PO3, PO4, PO5, PO7
9	2022-2023	12.09.2022	Home automation application s using IOT	Dr.Swarna Ravindra babu, Founder of COOVUM Smart System &Services Pvt. Ltd, Chennai	IOT	Gained Knowledg e in advanced technologi es	III & IV	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO12, PSO1, PSO2
10	2022-2023	25.08.2022	Open Source software for ECE	Mr. Muhammed Ilyas, C.E.O IT Experts Training, Chennai	Software	Encourage d the students to develop projects in open sources software	II & III	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO12, PSO1, PSO2

2.2.4.C. Impact Analysis of Industry Institute Interaction and Actions Taken

S. No	Academic Year	Date	Activity	Resource Person with Designation	Domain Area of Curriculum Covered	Impact Analysis	Action Taken
1	2024-2025	30.01.2025	BTS, MW, & GSM Trends in Telecommunication Systems	Er.Ashwini Rohit, Project Manager, Active Infratel Private Limited, Gujarat, India	Telecommunication	Gained Knowledge in advanced technologies	Concentrated on the Subjects which address the Technical proficiency of the Student
2	2024-2025	27.12.2024	Quality Management Systems and Engineering Design	Narendranath Reddy, CEO, SCR Soft Technologies Pvt. Ltd, Chennai.	VLSI	Encouraged the students to develop projects	Encouraged the students to develop projects in Quality management
3	2023-2024	11.10.2023	Discrete time and Signal Processing	Dr.Swarna Ravindrababu,founder of coovum smart system & services pvt. ltd,chennai	Signal Processing	Advanced coverage of machine learning applications in signal processing.	Motivated the students to develop projects in Signal processing
4	2023-2024	29.03.2024	Smart and Automated Drone Functionalities	Mr. Mani Ramkumar, Astrox Aerospace Pvt. Ltd.	Robotics and Automation	The Students learn the intelligent automation and air drops	Gain a thorough understanding of the fundamentals of drone, and GIS surveying.
5	2022-2023	27.02.2023	Advanced VLSI Design Techniques	Mr. K Kumar Physical Design Trainer , VLSI Mentor, Bangalore	VLSI Design	Students attained knowledge on VLSI techniques	Explore methods to achieve high-speed performance in integrated circuits.

6	2022-2023	15-02-2023	IC Fabrication flow	Mr. K Kumar Physical Design Trainer , VLSI Mentor Bangalore	VLSI design techniques	The Students learn the flow of IC design	Emphasize the importance of understanding the fundamental principles of IC fabrication
7	2022-2023	12-11-2022	Expert Talk on Industry 4.0	Dr. Swarna Ravindra babu, Founder of COOVUM Smart System & Services Pvt. Ltd, Chennai	Industry 4.0	The Students learn the importance of Industry 4.0	Explore how these technologies interconnect and contribute to the industrial revolution.
8	2022-2023	26-09-2022	Industry Application on IOT using Python	Mr. Muhammed Ilyas, C.E.O IT Experts Training, Chennai	Industry Application on IOT	The Students learnt the Advanced concepts and updates of IOT and python	Familiarize yourself with Python libraries commonly used in IoT projects
9	2022-2023	12.09.2022	Home automation applications using IOT	Dr.Swarna Ravindra babu, Founder of COOVUM Smart System &Services Pvt. Ltd, Chennai	IOT	Gained Knowledge in advanced technologies	Gain a thorough understanding of the fundamentals of IoT, including sensors, actuators, connectivity, and data processing.
10	2022-2023	25.08.2022	Open Source software for ECE	Mr. Muhammed Ilyas, C.E.O IT Experts Training, Chennai	Software	Encouraged the students to develop projects in open sources software	Engage in hands-on projects using open source software to design and simulate electronic circuits.

2.2.5 Initiatives Related to Industry Internship/Summer Training

A. Industrial Training /Tours for Students

- 1. Industrial visits are organized by the departments to various industries, so that the students can learn about the working environment, processes, services and challenges of different sectors.
- 2. Industrial knowledge is essential for all students to get success in their career.
- 3. After graduation of the student these trainings provide them with great exposure and confidence to meet the environment outside campus.
- 4. As the technology grows the core competent area widens, which should be updated to the students .
- 5. Hence these Industrial Visits and Internships will cater the above needs.

Process and Evaluation of Industrial Visit

- 1. Based on the course objectives Industrial Visits planned for providing opportunities for experiencing active learning outside the classrooms.
- 2. Initially Industry is identified and permission is requested.
- 3. Receiving approval from the industry then planning and executing the visit.
- 4. The department shall nominate Faculty in charge for Industrial Visit To guide and supervise the students. NBA-SAR, Tier II Institution, CAY 2024-25 Criteria #2 NPSBCET 197
- 5. The students are instructed to report the progress to the faculty in charge of the Industrial Visit
- 6. Evaluation of the Industrial visit is based on the report and the seminar taken about the industrial visit by the students.

Table 2.2.5 a: List of Industrial Visits
List of Industrial Visit

Academic Year 2023-2024 (EVEN)
List of Industrial Visit

S.No	Year/Sem	Batch	Company Name	Date of Visit	No. of Students
1.	II/ IV	2022-2026	Ramyaa Electro Gear Pvt.Ltd.	10 Feb 2023	40
2.	III/ VI	2021-2025	Ramyaa Electro Gear Pvt.Ltd.	10 Feb 2023	25
3.	IV/ VIII	2020-2024	Ramyaa Electro Gear Pvt.Ltd.	10 Feb 2023	29
4.	II/ IV	2022-2026	HTC Global Service	7 Mar 2024	40
5.	III/ VI	2021-2025	HTC Global Service	7 Mar 2024	25
6.	IV/ VIII	2020-2024	HTC Global Service	7 Mar 2024	29

Academic Year 2023-2024 (ODD)
List of Industrial Visit

S.No	Year/Sem	Batch	Company Name	Date of Visit	No. of Students
1.	II/ III	2022-2026	BSNL	28 Aug 2023	40
2.	III/ V	2021-2025	BSNL	28 Aug 2023	25
3.	IV/ VII	2020-2024	BSNL	28 Aug 2023	29
4.	II/ III	2022-2026	IIT Madras Research Park	2 Sep 2023	40
5.	III/ V	2021-2025	IIT Madras Research Park	2 Sep 2023	25
6.	IV/ VII	2020-2024	IIT Madras Research Park	2 Sep 2023	29

Academic Year 2022-2023 (EVEN)
List of Industrial Visit

S.No	Year/Sem	Batch	Company Name	Date of Visit	No. of Students
1.	II / IV	2021-2025	Syntel Pvt Ltd	23 Mar 2023	26
2.	III /VI	2020-2024	Syntel Pvt Ltd	23 Mar 2023	31
3.	IV/VIII	2019-2023	Syntel Pvt Ltd	23 Mar 2023	38
4.	II / IV	2021-2025	Regional Meteorological Centre(RMC)	17 Apr 2023	26
5.	III /VI	2020-2024	Regional Meteorological Centre(RMC)	17 Apr 2023	31
6.	IV / VIII	2019-2023	Regional Meteorological Centre(RMC)	17 Apr 2023	38

Academic Year 2022-2023 (ODD)
List of Industrial Visit

S.No	Year/Sem	Batch	Company Name	Date of Visit	No. of Students
1.	II / III	2021-2025	Hatsun Agro Product Ltd.	28 Sep 2023	26
2.	III /V	2020-2024	Hatsun Agro Product Ltd.	28 Sep 2023	31
3.	IV / VII	2019-2023	Hatsun Agro Product Ltd.	28 Sep 2023	38
4.	II / III	2021-2025	Ashok Leyland	12 Oct 2023	26
5.	III /V	2020-2024	Ashok Leyland	12 Oct 2023	31
6.	IV / VII	2019-2023	Ashok Leyland	12 Oct 2023	38

Academic Year 2021-2022 (EVEN)
List of Industrial Visit

S.No	Year/Sem	Batch	Company Name	Date of Visit	No. of Students
1.	II / IV	2020-2024	ARS Energy Pvt.Ltd	7 Apr 2022	31
2.	III / VI	2019-2023	ARS Energy Pvt.Ltd	7 Apr 2022	38
3.	IV/ VIII	2018-2022	ARS Energy Pvt.Ltd	7 Apr 2022	69
4.	II / IV	2020-2024	Infercon Automation	24 May 2022	31
5.	III / VI	2019-2023	Infercon Automation	24 May 2022	38
6.	IV/ VIII	2018-2022	Infercon Automation	29 May 2022	69

B. Industrial/ Internship/ Summer Training
Initiatives Related to Industry Internship

Certification Courses:

The following table denotes the students’ participation in Certification courses under Initiatives Related to Industry Internship.

Table 2.2.5 b: List of Internships

List of Internship undergone during the academic year 2023-2024					
Sl. No	Register Number	Name of the Student	Domain	Industry Name	Duration
1	110721106001	Abirami A	Web Designing	IDEAEDU TECHNOLOGIES	24.06.2024 to 24.07.2024
2	110721106002	Balaji V	Metal casting	NELCAST LIMITED	01.07.2014 to 15.07.2024
3	110721106003	David Abishek M	Wire line Networking	Bharathi Airtel Ltd	19.06.2024 to 19.07.2024
4	110721106004	Deepika V	Web Designing	IDEAEDU TECHNOLOGIES	24.06.2024 to 24.07.2024
5	110721106005	Dhanush Raj H	Metal casting	NELCAST LIMITED	01.07.2014 to 15.07.2024
6	110721106008	Jayasri T	Maintenance and Instrument	CPCL	08.07.2024 to 12.07.2024

7	110721106010	karthikeyan L	Metal casting	NELCAST LIMITED	01.07.2014 to 15.07.2024
8	110721106012	Keerthika D	Maintenance and Instrument	CPCL	08.07.2024 to 12.07.2024
9	110721106014	Manoj R	Metal casting	NELCAST LIMITED	01.07.2014 to 15.07.2024
10	110721106021	ReenaSree G	Python	Chatrapathi Green tech SoftwaresPvt.Ltd	02.06.2024 to 02.07.2024
11	110721106027	Srinadh A	Full stack web development	Slash mark(AICTE)	31.05.2024 to 30.06.2024
12	110721106028	Suchendra Reddy V	Python	Chatrapathi Green tech SoftwaresPvt.Ltd	08.06.2024 to 12.07.2024
13	110721106029	Surendhar R	Metal casting	NELCAST LIMITED	01.07.2014 to 15.07.2024
14	110721106018	Praveen M	Python	Chatrapathi Green tech SoftwaresPvt.Ltd	08.06.2024 to 12.07.2024
15	110721106022	Sangeetha L	Web Designing	IDEAEDU TECHNOLOGIES	24.06.2024 to 24.07.2024
16	110721106023	Shaik Ansar S	Python	Chatrapathi Green tech Software Pvt.Ltd	08.06.2024 to 12.07.2024
17	110721106025	Sireesha A	Python with Data science	Dhyanahitha	14.06.2024 to 19.07.2024
18	110721106026	Sonali D	Maintenance and Instrument	CPCL	08.07.2024 to 12.07.2024
19	110721106006	Divya K	Internet of Things	Pantech Solutions	10.06.2024 to 09.07.2024
20	110721106016	Nelamala Yashwanth	Python	Achievers IT`	24.06.2024 to 15.07.2024
21	110721106009	Kakumuri Poojesh K	Python	Chatrapathi Green tech Software Pvt.Ltd	08.06.2024 to 12.07.2024
22	110721106017	Nukalapati Lakshmi Narayana Reddy H	Python	Chatrapathi Green tech Software Pvt.Ltd	08.06.2024 to 12.07.2024
23.	110721106031	Vagdevi K	Python with Data science	Dhyanahitha	14.06.2024 to 19.07.2024

24.	110722106003	Aravind M	Embedded systems	Micro Track Industries	01.07.2024 to 14.08.2024
25.	110722106027	Revathy M	Embedded systems	Ternsoft Technologies	01.07.2024 to 14.08.2024
26.	110722106002	Amirthaa S	Embedded system	Pantech e Learning	01.07.2024 to 14.08.2024
27	110722106005	Balasubramanian M	Embedded systems	Micro Track Industries	01.07.2024 to 14.08.2024
28	110722106006	Balavignesh S	Embedded systems	Micro Track Industries	01.07.2024 to 14.08.2024
29	110722106008	Cheerla Sivakumar	Python	Chatrapathi Green tech Software Pvt.Ltd	02.06.2024 to 02.07.2024
30	110722106009	Chilakuru OmPrakash Reddy	Telecom technologies	BSNL	26.06.2024 to 25.07.2024
31	110722106010	Eethamukkala Lakshmi Priya	Python	Chatrapathi Green tech Software Pvt.Ltd	02.06.2024 to 02.07.2024
32	110722106011	Gowtham K	Embedded software development	Techno Hacks solutions Pvt.Ltd	15.06.2024 to 14.07.2024
33	110722106012	Gowtham M	Embedded systems	Micro Track Industries	01.07.2024 to 14.08.2024
34	110722106013	Imran U	Embedded system	Pantech e Learning	01.07.2024 to 14.08.2024
35	110722106014	Jayasree R	Embedded system	Pantech e Learning	01.07.2024 to 14.08.2024
36	110722106015	Malar M S	Embedded systems	Ternsoft Technologies	01.07.2024 to 14.08.2024
37	110722106016	Mallang Mohseena Taj Begum	Python	Internpe	01.07.2024 to 14.08.2024
38	110722106017	Mocharla Chakravarthi	Python	Chatrapathi Green tech Software Pvt.Ltd	04.06.2024 to 04.07.2024
39	110722106020	Nikeleshwarya S	Embedded system	Pantech e Learning	01.07.2024 to 14.08.2024
40	110722106022	Palleti Jaichowdari	Python	Chatrapathi Green tech Software Pvt.Ltd	02.06.2024 to 02.07.2024
41	110722106025	Ranjith Kumar P	Embedded systems	Micro Track Industries	01.07.2024 to 14.08.2024
42	110722106026	Rayapaneni Lakshmi Priya	Python	Chatrapathi Green tech Software Pvt.Ltd	04.06.2024 to 04.07.2024

43	110722106028	Shaik Abdul Razak	Python	Chatrapathi Green tech Software Pvt.Ltd	06.06.2024 to 06.07.2024
44	110722106029	Shaik Abu Bakar Siddikh	Python	Chatrapathi Green tech Software Pvt.Ltd	20.05.2024 to 20.07.2024
45	110722106031	Sivagnanabharathi K	Embedded system	Pantech e Learning	01.07.2024 to 14.08.2024
46	110722106033	Tharugu Nandini	Python	Chatrapathi Green tech Software Pvt.Ltd	02.06.2024 to 02.07.2024
47	110722106034	Vallam Narendra	Python	Chatrapathi Green tech Software Pvt.Ltd	06.06.2024 to 06.07.2024
48	110722106035	Varikuti Manosha	Python	Chatrapathi Green tech Software Pvt.Ltd	02.06.2024 to 02.07.2024
49	110722106037	Vempuluru Supraja	Python	Chatrapathi Green tech Software Pvt.Ltd	04.06.2024 to 04.07.2024
50	110722106038	Vidavaluru Satheesh Kumar	Python	Chatrapathi Green tech Software Pvt.Ltd	02.06.2024 to 02.07.2024
51	110722106301	Akash kumar J	Real time chatbot	JK ELECTRO CORPS	18.06.2024 to 18.07.2024
52	110722106302	Sakthi Vishal C	Embedded system	Kaashiv info tech	01.06.2024 to 01.07.2024
53	110722106001	Akash Varma V	Embedded systems	Makes Hub	01.07.2024 to 14.08.2024
54	110722106021	Nivetha B	Data Analytics	Forage	01.07.2024 to 01.08.2024
55	110722106024	Pydamani Peter P	Embedded systems	Makes Hub	01.07.2024 to 14.08.2024
56	110722106019	Naveen Kumar N	Embedded systems	Makes Hub	01.07.2024 to 14.08.2024

List of Internship undergone during the academic year 2022-2023					
S.No	Register Number	Name of the Student	Domain	Industry Name	Duration
1	110719106005	Chrysolite Joy S	Design Electrical	Innovate Engineering	02-12-2022 to 20-12-2022
2	110719106015	Loghanandhini K			
3	110719106006	Devi Priya P			
4	110719106009	Jeevanaa L			

5	110719106008	Ganesh P	Building Services.	Solution	
6	110719106023	Penubala Poorna rakesh			
7	110719106013	Kovi Pavan			
8	110719106014	Kurapati Bharath			
9	110719106038	Vinega K	Embedded System Design & IOT	Pantech ProEd	23-11-2022 to 15-12-2022
10	110719106020	Muthyala Chandrika			
11	110719106021	Nallareddy Vijitha			
12	110719106032	Somu Sathvika			
13	110719106022	Pavithra P			
14	110719106016	Maddali Divya A			
15	110719106026	Sanchi Pavan Kumar			
16	110719106027	Samadhi Jayanth			
17	110719106030	Santhosh Kumar M	Network Solutions	U.N.I.Q Technologies, Chennai	25-11-2022 to 16-12-2022
18	110719106036	Valluru Mahesh babu			
19	110719106037	Vempuluru Hari Kiran			
20	110719106018	M Reddy Vara Prasad			

List of Internship undergone during the academic year 2022-2023

S.No	Register Number	Name of the Student	Domain	Industry Name	Duration
21	110720106001	Akalya K	Manufacture of data Communications equipment such as bridges routers and Gate ways.	kaashive info tech	12-06-2023 to 27-06-2023
22	110720106027	Sruthilaya K			
23	110720106025	Sharmila R			
24	110720106026	Sowmiya M			
25	110720106005	Chekuri Divya			
26	110720106022	Sangeetha L			
27	110720106012	Jayasri B			
28	110720106013	Kirthiga P			
29	110720106016	Noor Jakeer			
30	110720106024	Shaik Naseer babu			
31	110720106014	Lingeshwaran R	Physical Design	VLSI Mentors	15-06-2023 to 30-06-2023
32	110720106004	Balakrishnan K			
33	110720106010	Godson J			
34	110720106022	Sangeetha L			
35	110720106015	Lokeshwari B			

36	110720106006	Deepadayana S			
37	110720106020	Priyadharshini P			
38	110720106017	Patapanthula Simhadri			
39	110720106018	Pattapu Kartheek			

List of Internship undergone during the academic year 2021-2022					
S.No	Register Number	Name of the Student	Domain	Industry Name	Duration
1	110718106002	Annabathina Vyshnavi	Full Stack development	Innovate Engineering Solutions	10-12-2021 to 28-12-2021
2	110718106005	Challagiri Babji			
3	110718106007	Challa Suresh			
4	110718106068	Vanjavakam Nandhini			
5	110718106069	Vemasani Chethana			
6	110718106013	Chillakuru Eekshith Reddy			
7	110718106072	Vilupuru Jaswanth Reddy			
8	110718106020	Gangadevi Chakradhar	Embedded system	Pantech Solutions	24-11-2021 to 21-12-2021
9	110718106021	Gattamaneni Mohan			
10	110718106008	Challa Vishnu vardhan reddy			
11	110718106032	Kunnavakam Vignesh			
12	110718106067	Vanipenta Rakesh			
13	110718106037	Malli Hemalatha			
14	110718106039	Namala Venkata Sravankumar	Web development	Kaashiv Infotech	06-12-2021 to 29-12-2021
15	110718106044	Papareddy Bheeshmitha			
16	110718106035	Logeshwari S			
17	110718106050	Pulibandla Naveen Kumar			
18	110718106011	Chennamgari Nandini			
19	110718106010	Chandragiri Sai Bhargavi			
20	110718106047	Pidugu Phani Kumar			
21	110718106030	Kiruthish M			
22	110718106071	Vijay Kumar S	Python	Innovate Engineering	06-11-2021 to 28-12-2021
23	110718106066	Utlapalli Manjunadh			

24	110718106001	Abhignya G		Solutions	
25	110718106014	Darapaneni Bhavana			
26	110718106025	Gurram Pavani			
27	110718106064	Thenmozhi S			
28	110718106056	Shaik Abdul Kaleem			
29	110719106011	Keerthivasan S			
30	110719106023	Penubala Poorna Rakesh	Android app Development	U.N.I.Q Solutions Chennai	25-05-2022 to 25-06-2022
31	110719106027	Samadhi Jayanth			
32	110719106039	Yempuluru Balaji			
33	110719106032	Somu Sathvika			
34	110719106027	Samadhi Jayanth			

C. Impact Analysis of Industrial Training

- ❖ They observe the actual implementation of theory in the field and understand the skill sets required in the industry.
- ❖ They understand how to work as a team.
- ❖ They understand the importance of time & punctuality.
- ❖ They take steps for their placement.
- ❖ They get trained in shaping their long-term goal. Students who perform well may get offers

Table 2.2.5c: Internship Feedback - Impact Analysis

The student name list that have undergone Internship training in the academic year 2023-24

S. No	Period	Objective of training	Name of the Student	Number of beneficiaries	Name of the industry	Area of training	Relevance		Impact Analysis
							PO	PSO	
1	24.06.2024 to 24.07.2024	To understanding of both the creative and technical aspects of web design, including user experience (UX) principles, user interface (UI) design, HTML, CSS, JavaScript, and responsive design techniques.	Abirami A Deepika V Sangeetha L	3	Ideaedu Technologies, Chennai	Web Designing	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO12	PSO1	Students can enhance their technical skills in web design technologies, including HTML5, CSS3, JavaScript, and responsive web design techniques.
2	01.07.2014 to 15.07.2024	To work with metals, molds, and casting machinery while understanding the full cycle of production, from design to the finished product.	Balaji V Dhanush Raj H karthikeyan L Manoj R Surendhar R	5	Nelcast Limited, Chennai	Metal casting	PO1, PO2, PO3, PO4, PO9, PO12	PSO1	Students can understand the modern casting equipment and tools, such as furnaces, molds, and CNC machines, gaining familiarity with industry-standard technology and techniques.
3	19.06.2024 to 19.07.2024	Familiarize students with industry-leading tools, techniques, and protocols used in designing, implementing, and maintaining wire line networks.	David Abishek M	1	Bharathi Airtel Ltd, Chennai	Wire line Networking	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO12	PSO1, PSO2	Students become well-versed with cutting-edge technologies, such as high-speed internet infrastructure, fiber-optic communications, and IoT integration, which can boost their careers.

4	08.07.2024 to 12.07.2024	Expose students to the practical aspects of maintaining and troubleshooting various instruments used in the oil and gas industry, such as pressure, temperature, and flow sensors, control systems, and safety instruments.	Jayasri T	3	CPCL, Chennai	Maintenance and Instrument	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO12	PSO1, PSO2	Interns assist in maintaining plant systems and resolving technical issues, leading to smoother operations, reduced downtime, and enhanced efficiency in CPCL's daily activities.
			Keerthika D						
			Sonali D						
5	02.06.2024 to 02.07.2024	Equip students with solid foundational skills in Python programming, focusing on its syntax, libraries, and frameworks, enabling them to apply Python to various engineering tasks.	ReenaSree G	7	Chatrapathi Green tech Softwares Pvt.Ltd, Nellore, Andhra Pradesh	Python	PO1, PO2, PO3, PO4, PO5, PO9, PO12	PSO1	Exposure to Python's applications in machine learning, automation, and data science will enhance students' ability to apply programming to emerging technologies such as IoT, AI, and robotics.
			Cheerla Sivakumar						
			Eethamukkala Lakshmi Priya						
			Palleti Jaichowdari						
			Tharugu Nandini						
			Varikuti Manosha						
6	08.06.2024 to 12.07.2024	Equip students with solid foundational skills in Python programming, focusing on its syntax, libraries, and frameworks, enabling them to apply Python to various engineering tasks.	Vidavaluru Satheesh Kumar	4	Chatrapathi Green tech Software Pvt.Ltd, Nellore, Andhra Pradesh	Python	PO1, PO2, PO3, PO4, PO5, PO9, PO12	PSO1	Exposure to Python's applications in machine learning, automation, and data science will enhance students' ability to apply programming to emerging technologies such as IoT, AI, and robotics.
			Praveen M						
			Shaik Ansar S						
			Kakumuri Poojesh K						
			Nukalapati Lakshmi Narayana Reddy H						
			Suchendra Reddy						

7	14.06.2024 to 19.07.2024	To introduce students to core data science techniques such as data pre-processing, analysis, visualization, and machine learning, allowing them to understand how data-driven decision-making can be applied to real-world engineering problems.	Sireesha A	2	Dhyanahitha, Hyderabad	Python with Data science	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO12	PSO1, PSO2	Understanding of Python, focusing on libraries and frameworks commonly used in data science, such as Pandas, NumPy, Matplotlib, and Scikit-learn, enabling them to analyze and manipulate data efficiently.
			Vagdevi K						
8	24.06.2024 to 15.07.2024	To foundational principles of web development, including HTML, CSS, JavaScript, and responsive design, ensuring they can build and deploy basic websites and web applications.	Nelamala Yashwanth	1	Achievers IT, Bangalore	Web Development	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO12	PSO1, PSO2	Students will gain a solid understanding of web development technologies, from basic HTML/CSS to advanced JavaScript and backend frameworks (e.g., Node.js, Django), enhancing their ability to build modern, responsive websites and applications.
9	01.07.2024 to 14.08.2024	To enable students to understand the critical role of both hardware and software in the design of embedded systems, fostering skills in writing firmware, testing, debugging, and optimizing embedded solutions.	Aravind M	5	Micro Track Industries, Chennai	Embedded systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO12	PSO1, PSO2	Students will gain a deeper understanding of embedded systems, including microcontroller programming, hardware-software interfacing, and real-time system design, which are critical in developing innovative solutions for various engineering applications.
			Balasubramanian M						
			Balavignesh S						
			Gowtham M						
			Ranjith Kumar P						
			Jayasree R						
			Imran U						
			Amirthaa S						
			Sivagnanabharathi K						

11	26.06.2024 to 25.07.2024	To provide students with a strong foundation in telecommunications, including cellular networks, fiber optics, satellite communication, and network protocols.	Chilakuru Om Prakash Reddy	1	BSNL, Chennai	Telecom technologies	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO12	PSO1, PSO2	Students learn to analyze network performance, troubleshoot issues, and enhance connectivity solutions and encryption, firewall configurations, and security protocols used to protect telecom networks from cyber threats.
12	15.06.2024 to 14.07.2024	To equip students with hands-on experience in programming languages like C, C++, Python, and Assembly, enabling them to develop efficient embedded software for microcontrollers and processors.	Gowtham K	1	Techno Hacks solutions Pvt.Ltd, Maharashtra	Embedded software development	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO12	PSO1, PSO2	With experience in embedded software development, students become highly competitive for job roles in industries such as automotive, IoT, robotics, and industrial automation.
13	01.07.2024 to 14.08.2024	To enable students to understand the critical role of both hardware and software in the design of embedded systems, fostering skills in writing firmware, testing, debugging, and optimizing embedded solutions.	Akash Varma V Pydamani Peter P Naveen Kumar N	3	Makes Hub, Chennai	Embedded systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO12	PSO1, PSO2	Students will gain a deeper understanding of embedded systems, including microcontroller programming, hardware-software interfacing, and real-time system design, which are critical in developing innovative solutions for various engineering applications.

14	04.06.2024 to 04.07.2024	Equip students with solid foundational skills in Python programming, focusing on its syntax, libraries, and frameworks, enabling them to apply Python to various engineering tasks.	Mocharla Chakravarthi	3	Chatrapathi Green tech Software Pvt.Ltd, Nellore, Andhra Pradesh	Python	PO1, PO2, PO3, PO4, PO5, PO9, PO12	PSO1	Exposure to Python's applications in machine learning, automation, and data science will enhance students' ability to apply programming to emerging technologies such as IoT, AI, and robotics.
			Rayapaneni Lakshmi Priya						
			Vempuluru Supraja						
15	18.06.2024 to 18.07.2024	To introduce students to AI-driven chatbot development using tools like TensorFlow, Google Dialogflow, IBM Watson, and NLP libraries such as spaCy and NLTK.	Akash kumar J	1	JK ELECTRO CORPS, Chennai	Real time chatbot	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO12	PSO1, PSO2	Students gain a strong foundation in AI, NLP, and chatbot development, making them proficient in designing intelligent conversational systems.
16	01.06.2024 to 01.07.2024	To enable students to understand the critical role of both hardware and software in the design of embedded systems, fostering skills in writing firmware, testing, debugging, and optimizing embedded solutions.	Sakthi Vishal C	1	Kaashiv info tech, Chennai	Embedded system	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO12	PSO1, PSO2	Students will gain a deeper understanding of embedded systems, including microcontroller programming, hardware-software interfacing, and real-time system design, which are critical in developing innovative solutions for various engineering applications.

17	01.07.2024 to 01.08.2024	To equip students with core concepts of data analytics, including data collection, preprocessing, visualization, and interpretation.	Nivetha B	2	Forage, Chennai	Data Analytics	PO1, PO2, PO3, PO4, PO5, PO9, PO12	PSO1	The knowledge gained helps students apply data analytics in IoT, telecommunications, and embedded systems for real-time monitoring and decision-making.
			Shaik Abdul Razak						
18	01.07.2024 to 14.08.2024	To enable students to understand the critical role of both hardware and software in the design of embedded systems, fostering skills in writing firmware, testing, debugging, and optimizing embedded solutions.	Malar M S	2	Tern soft technologies, Chennai	Embedded system	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO12	PSO1, PSO2	Students will gain a deeper understanding of embedded systems, including microcontroller programming, hardware-software interfacing, and real-time system design, which are critical in developing innovative solutions for various engineering applications.
			Revathy M						
19	01.07.2024 to 14.08.2024	Equip students with solid foundational skills in Python programming, focusing on its syntax, libraries, and frameworks, enabling them to apply Python to various engineering tasks.	Mallang Mohseena Taj Begum	1	Internpe, Jaipur	Python	PO1, PO2, PO3, PO4, PO5, PO9, PO12	PSO1	Exposure to Python's applications in machine learning, automation, and data science will enhance students' ability to apply programming to emerging technologies such as IoT, AI, and robotics.

20	10.06.2024 to 09.07.2024	To provide knowledge of IoT system architecture, network communication protocols (MQTT, HTTP, CoAP), and their role in real-time data transmission.	Divya K	1	Pantech Solutions, Chennai	Internet of Things	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO12	PSO1, PSO2	Students gain in-depth knowledge of IoT devices, network protocols, and cloud computing, making them proficient in designing connected systems.
21	31.05.2024 to 30.06.2024	To equip students with practical skills in designing, developing, and deploying dynamic web applications using modern technologies	Srinadh A	1	Slash mark(AICTE), Telungana	Full stack web development	PO1, PO2, PO3, PO4, PO5, PO9, PO12	PSO1	Interns work with popular frameworks and libraries such as React.js, Express.js, Django, and Flask, making them proficient in real-world development.
22	20.05.2024 to 20.07.2024	Equip students with solid foundational skills in Python programming, focusing on its syntax, libraries, and frameworks, enabling them to apply Python to various engineering tasks.	Shaik Abu Bakar Siddikh	1	Chatrapathi Green tech Software Pvt.Ltd, Nellore, Andhra Pradesh	Python	PO1, PO2, PO3, PO4, PO5, PO9, PO12	PSO1	Exposure to Python's applications in machine learning, automation, and data science will enhance students' ability to apply programming to emerging technologies such as IoT, AI, and robotics.

The student name list that have undergone Internship training in the academic year 2022-23

S.No	Period	Objective of training	Name of the Student	Number of beneficiaries	Name of the industry	Area of training	Relevance		Impact Analysis
							PO	PSO	
1	02-12-2022 to 20-12-2022	Designing electrical systems for buildings, including power distribution, lighting, fire alarm systems, and other essential services.	Chrysolite Joy S	8	Innovate Engineering Solution, Chennai	Design Electrical Building Services.	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO12	PSO1, PSO2	Skills to use industry-standard electrical design software tools (e.g., AutoCAD, Revit, ETAP, Dialux) for designing and modeling electrical systems in building projects.
			Loghanandhini K						
			Devi Priya P						
			Jeevanaa L						
			Ganesh P						
			Penubala Poorna rakesh						
			Kovi Pavan						
			Kurapati Bharath						
2	23-11-2022 to 15-12-2022	Practical exposure to the design, development, and implementation of embedded systems, including microcontroller programming, Circuit design, and interfacing.	Vinega K	8	Pantech ProEd, Chennai	Embedded System Design & IOT	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO10, PO12	PSO1, PSO2	Innovative IoT applications across various industries (smart homes, healthcare, manufacturing, etc.), pushing the boundaries of what IoT can achieve in everyday life.
			Muthyala Chandrika						
			Nallareddy Vijitha						
			Somu Sathvika						
			Pavithra P						
			Maddali Divya A						
			Sanchi Pavan Kumar						
			Samadhi Jayanth						
3	25-11-2022 to 16-12-2022	Learn about cybersecurity threats, firewalls, and encryption techniques. Understand network security protocols and risk mitigation strategies.	Santhosh Kumar M	4	U.N.I.Q Technologies, Chennai	Network Solutions	PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO10, PO12	PSO1, PSO2	Learn industry-standard tools like Cisco Packet Tracer, GNS3, and Wireshark for network analysis. Work with routers, switches, firewalls, and access points.
			Valluru Mahesh babu						
			Vempuluru hari Kiran						
			M Reddy vara Prasad						

4	12-06-2023 to 27-06-2023	Develop practical skills by participating in the assembly of bridges, routers, and gateways, learning about hardware components, circuit boards, and the integration of various modules.	Akalya K	10	Kaashiv InfoTech, Chennai	Manufacture of data Communications equipment such as bridges routers and Gate ways.	PO1, PO2, PO3, PO4, PO5, PO8, PO9 PO10, PO12	PSO1, PSO2	Understand the importance of quality control and the testing standards that must be met to guarantee the reliability and durability of data communication equipment.
			Sruthilaya K						
			Sharmila R						
			Sowmiya M						
			Chekuri Divya						
			Sangeetha L						
			Jayasri B						
			Kirthiga P						
			Noor Jakeer						
			Shaik Naseer babu						
5	15-06-2023 to 30-06-2023	Electronic Design Automation (EDA) tools used in physical design, such as Cadence, Synopsys, or Mentor Graphics, to perform tasks like floor planning, placement, and routing.	Lingeswaran R	9	VLSI Mentors, Bangalore	Physical Design	PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO12	PSO1, PSO2	Interns will gain insight into cutting-edge trends in VLSI design, such as advanced process nodes, 3D ICs, and new power management techniques. Interns with a strong foundation in physical design for VLSI, preparing them for advanced roles in semiconductor design and equipping them with skills that are critical in the evolving world of microelectronics and integrated circuit design.
			Balakrishnan K						
			Godson J						
			Sangeetha L						
			Lokeshwari B						
			Deepadayana S						
			Priyadharshini P						
			Patapanthula Simhadri						
			Pattapu Kartheek						

The student name list that have undergone Internship training in the academic year 2021-22

S. No	Period	Objective of training	Name of the Student	Number of beneficiaries	Name of the industry	Area of training	Relevance		Impact Analysis
							PO	PSO	
1	10-12-2021 to 28-12-2021	To equip participants with a comprehensive understanding of both front-end and back-end development.	Annabathina Vyshnavi	7	Innovate Engineering Solutions, Chennai	Full Stack development	PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO12	PSO1	To equip demand skills, improving their employability, and allowing them to contribute to real-world projects, these programs play a key role in shaping the next generation of developers and meeting the ever-growing demand for tech talent.
2			Challagiri Babji						
3			Challa Suresh						
4			Vanjavakam Nandhini						
5			Vemasani Chethana						
6			Chillakuru Eekshith Reddy						
7	24-11-2021 to 21-12-2021	Integration of software and hardware to create devices that can perform specific functions.	Gangadevi Chakradhar	6	Pantech Solutions, Chennai	Embedded system	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO9, PO12	PSO1, PSO2	Students can understand the embedded development, including design, testing, debugging, and optimization, while also honing their professional and problem-solving skills.
8			Gattamaneni Mohan						
9			Challa Vishnu vardhan reddy						
10			Kunnavakam Vignesh						
11			Vanipenta Rakesh						
12			Malli Hemalatha						
13	06-12-2021 to 29-12-2021	To provide hands-on experience in the field of web development, allowing them to acquire practical knowledge and skills required to build, deploy, and maintain web applications.	Namala Venkata Sravankumar	8	Kaashiv InfoTech, Chennai	Web development	PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO12		To gain hands-on experience with coding, debugging, and building real-world web applications. This is a great way to reinforce and expand on the knowledge learned in a classroom setting.
14			Papareddy Bheeshmitha						
15			Logeshwari S						
16			Pulibandla Naveen Kumar						
17			Chennamgari Nandini						
18			Chandragiri Sai Bhargavi						
19			Pidugu Phani Kumar						
20			Kiruthish M						

21	06-11-2021 to 28-12-2021	To gain hands-on experience with popular Python libraries and frameworks, such as Flask, Django, Pandas, or NumPy.	Vijay Kumar S	8	Techso Technologi es, Chennai	Python	PO1, PO2, PO3, PO4, PO5, PO9, PO12	PSO1	Clearer picture of the different career paths within Python programming, such as backend development, data science, web development, or automation.	
22			Utlapalli Manjunadh							
23			Abhignya G							
24			Darapaneni Bhavana							
25			Gurram Pavani							
26			Thenmozhi S							
27			Shaik Abdul Kaleem							
28			Keerthivasan S							
29	25-05-2022 to 25-06-2022	To create intuitive, engaging, and user-friendly applications for Android users, ensuring seamless navigation and interaction.	Penubala Poorna Rakesh	5	U.N.I.Q Technologi es, Chennai	Android app developm ent	PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO12	PSO1	Hands-on experience with Android programming languages like Java or Kotlin, as well as Android SDKs and tools such as Android Studio. This practical experience allows them to apply theoretical knowledge in real-world scenarios.	
30			Samadhi Jayanth							
31			Yempuluru Balaji					PSO2		
32			Somu Sathvika							
33			Vinega K							

Table 2.2.5 g: Industrial Visits Feedback



J.N.N INSTITUTE OF ENGINEERING

Approved by AICTE, New Delhi (affiliated to Anna University, Chennai) & MAAT, W. Bengal
ISO 9001:2015 Certified Institute as Recognized by AICTE under Section 2(f) of AICTE Act 1987
36, Dharma Dharini, Namangalpet, Chennai - 600 045, India
Tiruvallur Dist., Tamil Nadu - 601 102.

Industry Visit Feedback Form

Name : Chella Suresh

Department : EECE

SEM/YEAR : VI / IV

Name of the Industry : ICF

Description	Excellent	Very Good	Good	Poor
Organization of the Industrial Visit	✓			
Knowledge gain		✓		
Scope of enhancement in skills	✓			
The visit is oriented Technology		✓		

Signature





J.N.N INSTITUTE OF ENGINEERING

AUTONOMOUS

Regulation No. 100/23, Date: 2007, Affiliated to Anna University, Chennai - 600 025. It is an ISO 9001:2015 Certified Institution. Recognized by AICTE Under Section 3(2) of UGC Act 1956.
 68, Madhav Narayan, Kumbakonam, District - Pudukkottai-605 006.
 Telephone: 0414- 3446644-447 712.

Industry Visit Feed Back Form

Name: Naveen Kumar - D

Department: ECG

SEM/YEAR: V / IV

Name of the Industry: Ashok Leyland

Description:	Excellent	Very Good	Good	Poor
Organization of the Industrial Visit	✓			
Knowledge gain		✓		
Scope of enhancement in skills	✓			
The visit is oriented Technology	✓			

Signature _____

Naveen Kumar - D



J.N.N INSTITUTE OF ENGINEERING

AUTONOMOUS

Approved by AICTE, New Delhi - Affiliated to Anna University, Chennai - UAC - 78 Degree
Reg No: 2012 (Approved Institution) - Bangalore for UGC Centre, Section 23 of Act No 1099
88, Vishnu Ganes, Kumbhagiri, Chennai - Periyar Express Highway,
Pondicherry 605 002, Tamil Nadu - 605 002

Industry Visit Feed Back Form

Name : Om Prakash Ruddy.

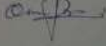
Department : EECE

SEM/YEAR : V / III

Name of the Industry : BSTNL

Description	Excellent	Very Good	Good	Poor
Organization of the Industrial Visit	✓			
Knowledge gain		✓	✓	
Scope of enhancement in skills	✓			
The visit is oriented Technology		✓		

Signature



D. Student Feedback on Initiative

Students provide written feedback after attending industrial training and industrial visits, highlighting their learning experiences, overall training exposure, and key outcomes. This feedback is analyzed to determine the effectiveness of the training, and based on the insights gained, additional batches are planned for industrial training at the same industry.

Additionally, students are required to present their industrial training experiences. To enhance industry exposure, we invite industrial experts to deliver guest lectures and conduct industry-oriented programs. Feedback from students on guest lectures, industrial visits, and value-added courses is collected and utilized for continuous improvement and future program enhancements.

Internship Feedback - Action Taken

Table 2.2.5 h: Internship Feedback – Action Taken

Academic Year 2023 – 24				
S.No	Register Number	Name of the student	Comment given	Action Taken
1	110722106301	Akash kumar J	To arrange Workshop	A workshop arranged for two days (17.02.2025 & 18.02.2025) on “programming embedded systems with Arduino IDE” .
2	110721106021	Reena sree G	Recommended for juniors.	Comments noted. Can be recommended for upcoming batch students.
3	110722106008	Cheerla Sivakumar	Recommended for juniors.	Comments noted. Can be recommended for upcoming batch students.
4	110722106022	Palleti Jaichowdari	Recommended for juniors.	Comments noted. Can be recommended for upcoming batch students.

Academic Year 2022 – 23				
S.NO	Register Number	Name of the student	Comment given	Action Taken
1	110719106038	Vinega K	Recommended for juniors.	Arranged internship to the next batch students.
2	110719106032	Somu Sathvika	Recommended for juniors.	Arranged internship to the next batch students.
3	110719106026	Sanchi Pavan Kumar	To arrange hands on training related to embedded system.	A workshop arranged for two days (17.08.2023 & 18.08.2023) on “ Embedded system design & IOT ”.

Academic Year 2021 – 22				
S.NO	Register Number	Name of the student	Comment given	Action Taken
1	110718106002	Annabathina Vyshnavi	Recommended for juniors.	Arranged internship to the next batch students.
2	110718106005	Challagiri Babji	To arrange Guest talk on web development.	A workshop arranged for two days (23.03.2023 & 24.03.2023) on “ Web Development ”.
3	110718106007	Challa Suresh	To arrange hands on training for web development.	A workshop arranged for two days (23.03.2023 & 24.03.2023) on “ Web Development ”.
4	110718106013	Chillakuru Eekshith Reddy	To arrange Workshop for web development.	A workshop arranged for two days (23.03.2023 & 24.03.2023) on “ Web Development ”.
5	110718106020	Gangadevi Chakradhar	To arrange Workshop for Embedded system.	A workshop arranged for two days (20.02.2023 & 21.02.2023) on “ Embedded system design ”.
6	110718106032	Kunnavakam Vignesh	Recommended for juniors.	Arranged internship to the next batch students.
7	110718106037	Malli Hemalatha	Recommended for juniors.	Arranged internship to the next batch students.
8	110718106071	Vijay Kumar S	To arrange hands on training for any programming related subjects	A workshop arranged for two days (23.03.2023 & 24.03.2023) on “ Web Development ”.
9	110718106056	Shaik Abdul Kaleem	To arrange hands on training on program related subjects	A workshop arranged for two days (23.03.2023 & 24.03.2023) on “ Web Development ”.

Criterion 3	Course Outcomes and Program Outcomes	120
-------------	--------------------------------------	-----

3.1. Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs)
 (Program Outcomes as mentioned in Annexure I and Program Specific Outcomes as defined by the Program)

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **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.
3. **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.
4. **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.
5. **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.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **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.
11. **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.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage independent and life-long learning in the broadest context of technological change.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

Graduates of Bachelor of Computer Science and Engineering will have the ability and capability to

- ✓ **PSO1:** Analyze and develop solutions in domains like IOT, Embedded, VLSI and other emerging technologies.
- ✓ **PSO2:** Understand and architect wired and wireless analog and digital communication systems and products.

3.1.1 Course Outcomes (COs) (SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked)

Process of framing Course outcomes:

- ✓ Course Outcomes are framed by the Course in-charge and the Program Coordinator
- ✓ This is followed by submitting the same for approval of Head of the Department.
- ✓ Five Course Outcomes have been formulated for every course of the program.
- ✓ The need for formulating Course Outcomes for each course of a program is to assess whether the objective of the course has been fulfilled and thereby meet the respective program outcomes.

Table 3.1.1 Course Outcomes (COs)

SEMESTER III	
Regulation / Course Code / Name: 2022/ 22ECT302 / SIGNALS AND SYSTEMS	
Course Name/Year of Study : C204/ 2023-2024	
CO	Course Outcome Statement
C204.1	To be able to determine if a given system is linear/causal/stable
C204.2	Capable of determining the frequency components present in a deterministic signal
C204.3	Comprehend the effects of characterizing LTI systems in the time domain
C204.4	Explain the features of LTI systems in the frequency domain
C204.5	Computing an LTI system's output in the frequency and temporal domains
SEMESTER IV	
Regulation / Course Code / Name: 2022/22ECT404 / Control Systems	
Course Name/Year of Study : C214/ 2023 – 2024	
C214.1	Identify the various control system components and their representations
C214.2	Analyze the various time domain parameters
C214.3	Analysis the various frequency response plots and its system
C214.4	Apply the concepts of various system stability criteria
C214.5	Design various transfer functions of digital control system using state variable models
SEMESTER V	
Regulation / Course Code / Name : 2021/ EC3551/ TRANSMISSION LINES AND RF SYSTEMS	
Course Name/Year of Study : C301/ 2023 – 2024	
C301.1	Explain the characteristics of transmission lines and its losses.
C301.2	Calculate the standing wave ratio and input impedance in high frequency transmission lines.
C301.3	Analyze impedance matching by stubs using Smith Charts.
C301.4	Comprehend the characteristics of TE and TM waves.
C301.5	Design a RF transceiver system for wireless communication.
SEMESTER VI	
Regulation / Course Code / Name: 2021/ ET3491/ EMBEDDED SYSTEMS AND IOT DESIGN	
Course Name/Year of Study : C308/ 2023 – 2024	
C308.1	Explain the architecture and features of 8051.

C308.2	Develop a model of an embedded system.
C308.3	List the concepts of real time operating systems.
C308.4	Learn the architecture and protocols of IoT
C308.5	Design an IoT based system for any application
SEMESTER VII	
Regulation / Course Code / Name: 2017/ EC8751/ Optical Communication	
Course Name/Year of Study : C402/ 2023 - 2024	
C402.1	Realize basic elements in optical fibers, different modes and configurations.
C402.2	Analyze the transmission characteristics associated with dispersion and polarization techniques.
C402.3	Design optical sources and detectors with their use in optical communication systems.
C402.4	Construct fiber optic receiver systems, measurements and coupling techniques.
C402.5	Design optical communication systems and its networks.
SEMESTER VIII	
Regulation / Course Code / Name: 2017/ EC8094/ Satellite Communication	
Course Name/Year of Study : C410/ 2023 – 2024	
C410.1	Analyze the satellite orbits
C410.2	Investigate the earth segment and space segment
C410.3	Examine the satellite Link design
C410.4	Evaluate different access and coding schemes
C410.5	Design various satellite applications

3.1.2 CO-PO matrices of courses selected in 3.1.1 (six matrices to be mentioned; one per semester from 3rd to 8th semester)

The contribution of each course towards various POs and PSOs are decided according to the course outcomes framed for a particular course. First, the relevance of CO towards various POs and PSOs is verified. If the particular CO is having relevance, then by using the k-levels of CO and PO, contribution is prepared. For high contribution the weightage is ‘3’, for medium contribution the weightage is ‘2’ and for low contribution the weightage is ‘1’. If the CO is not having relevance with the POs, it is marked as ‘-’.

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) 4: No correlation “-”

Table 3.1.2 CO-PO matrices of courses

SEMESTER III														
Regulation / Course Code / Name: 2022/ 22ECT302 / SIGNALS AND SYSTEMS														
Course Name/Year of Study : C204/ 2023-2024														
Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C204.1	3	-	3	-	3	2	-	-	-	-	-	3	-	-
C204.2	3	-	3	-		2	-	-	-	-	-	3	-	3
C204.3	3	3	-	-	3	2	-	-	-	-	-	3	2	-
C204.4	3	3	-	-	3	2	-	-	-	-	-	3	-	3
C204.5	3	3	-	3	3	2	-	-	-	-	-	3	-	3
C204	3	3	3	3	3	2	-	-	-	-	-	3	2	3
SEMESTER IV														
Regulation / Course Code / Name: 2022/ 22ECT404 / Control Systems														
Course Name/Year of Study : C214/ 2023-2024														
Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C214.1	3	1	1	-	-	-	-	-	-	-	-	1	1	-
C214.2	3	2	1	1	-	-	-	-	-	-	-	1	1	-
C214.3	3	3	2	2	-	-	-	-	-	-	-	1	1	-
C214.4	3	2	2	2	-	-	-	-	-	-	-	1	1	-
C214.5	3	2	1	1	-	-	-	-	-	-	-	1	1	-
C214	3	2	1.4	1.5	-	-	-	-	-	-	-	1	1	-
SEMESTER V														
Regulation / Course Code / Name: 2021/ EC3551/ TRANSMISSION LINES AND RF SYSTEMS														
Course Name/Year of Study : C301/ 2023-2024														
Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C302.1	3	3	3	3	2	1	-	-	-	1	-	1	2	1
C302.2	3	2	2	3	2	1	-	-	-	1	-	1	2	1
C302.3	3	3	3	2	1	2	-	-	-	1	-	1	2	1
C302.4	3	3	2	3	2	1	-	-	-	1	-	1	2	1
C302.5	3	2	3	2	2	1	-	-	-	1	-	1	2	1
302	3	3	3	3	2	1	-	-	-	1	-	1	2	1

SEMESTER VI														
Regulation / Course Code / Name: 2021/ ET3491/ EMBEDDED SYSTEMS AND IOT DESIGN														
Course Name/Year of Study : C308/ 2023 – 2024														
Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C308.1	3	3	3	2	2	-	-	-	-	-	-	-	3	2
C308.2	3	3	3	2	2	-	-	-	-	-	-	-	3	2
C308.3	3	3	2	2	2	-	-	-	-	-	-	-	2	1
C308.4	3	3	2	2	2	-	-	-	-	-	-	-	3	3
C308.5	3	3	3	3	3	-	-	-	-	-	-	-	3	3
C308	3	3	2.6	2.2	2.2	-	-	-	-	-	-	-	2.8	2.2
SEMESTER VII														
Regulation / Course Code / Name: 2017/ EC8751/ Optical Communication														
Course Name/Year of Study : C402/ 2023 – 2024														
Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C402.1	3	2	1	1	-	-	-	-	-	-	-	-	2	-
C402.2	3	3	2	2	-	-	-	-	-	-	-	-	2	-
C402.3	3	2	2	2	-	1	-	-	-	-	-	-	2	-
C402.4	3	2	2	2	-	1	-	-	-	-	-	-	2	-
C402.5	3	2	3	2	-	1	-	-	-	-	-	-	2	1
C402	3.00	2.2	2	1.8	-	1	-	-	-	-	-	-	2	1
SEMESTER VIII														
Regulation / Course Code / Name: 2017/ EC8094/ Satellite Communication														
Course Name/Year of Study : C410/ 2023 - 2024														
Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C410.1	3	1	-	-	-	-	-	-	-	-	-	-	2	-
C410.2	3	1	-	-	-	-	-	-	-	-	-	-	2	-
C410.3	3	1	-	-	-	1	-	-	-	-	-	-	2	-
C410.4	3	1	-	-	-	-	-	-	-	-	-	-	2	-
C410.5	3	1	-	-	-	1	-	-	-	-	-	-	2	-
C410	3	1	-	-	-	1	-	-	-	-	-	-	2	-

3.1.3 Program level course – PO matrix of all courses including first year

Table 3.1.3 Courses – PO – PSO Mapping: Academic Batch 2019 - 2023

Sl. No.	Course Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
1	EC101	Communicative English	-	-	-	-	-	1	1	-	2	3	-	1	-	-
2	EC102	Engineering Mathematics – I	2.2	2.2	1.8	1.8	1.5	1.5	1	1.75	-	-	1	-	1	-
3	EC103	Engineering Physics	3	3	3	2.2	-	1.25	2	-	-	-	-	1	1	-
4	EC104	Engineering Chemistry	2.8	2.4	2.6	2.8	3	2	2.5	1.5	3	2.5	2	2.5	-	-
5	EC105	Problem Solving and Python Programming	2.20	1.60	2.40	0.60	2.40	1.00	0.80	0.80	0.80	0.80	0.20	0.80	1.20	1.20
6	EC106	Engineering Graphics	3	3	-	-	-	-	-	-	-	2	-	-	3	2
7	EC107	Problem Solving and Python Programming Laboratory	2.2	2	3	3	3	-	-	-	-	-	1	1	1	1
8	EC108	Physics and Chemistry Laboratory	3	2.4	3	3	2.8	2.25	3	2.2	2.4	2	2	3	2	-
9	EC109	Technical English	-	2	1	-	-	2	2	3	-	3	-	2	-	-
10	EC110	Engineering Mathematics – II	2.2	2	2	1.6	1	-	-	1	-	-	-	-	1	-
11	EC111	Physics for Electronics Engineering	3	3	2	2.5	1.5	2	1	-	-	-	-	1.5	2	-
12	EC112	Basic Electrical and Instrumentation Engineering	2	2.4	2.6	2	2	-	-	-	-	2	2	2	3	2
13	EC113	Circuit Analysis	2.6	1.6	2	-	-	-	-	-	-	-	-	-	1	1
14	EC114	Electronic Devices	3	3	3	1	1.8	2	2	2	1.6	2	2	2	2	2
15	EC115	Circuits and Devices Laboratory	3	3	3	3	-	2	2	3	3	3	2	2	2	2
16	EC116	Engineering Practices Laboratory	1.8	1.4	1	1	1.5	1.2	1	1	1	1	1	1.6	1.8	2
17	EC201	Linear Algebra and Partial Differential Equations	3	3	2	2	1	-	-	-	-	-	-	1	3	2

CRITERION 3

NBA SAR Department of ECE

2023-2024

Sl. No.	Course Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
18	EC202	Fundamentals of Data Structures In C	2.4	2.75	-	1.667	-	1	-	-	1.25	1.5	1.5	1.25	2	2.6
19	EC203	Electronic Circuits- I	2.8	2.2	1.6	1.8	1	-	-	-	-	-	-	-	2	1
20	EC204	Signals and Systems	3	3	1	1.667	3	-	-	-	-	-	-	-	1	2
21	EC205	Digital Electronics	3	2.6	2	1.8	-	-	-	-	-	-	-	1	2	2
22	EC206	Control System Engineering	2.8	2.8	2.8	2.4	2.2	1.4	2.2	1.4	1.8	1.6	1.4	2.6	3	2.6
23	EC207	Fundamentals of Data Structures in C Laboratory	2.8	2.8	2.8	3	2	-	-	-	-	-	-	2.2	3	1.667
24	EC208	Analog and Digital Circuits Laboratory	3	2.333	2	1.5	3	2	1	-	2	2	-	-	2	2
25	EC209	Interpersonal Skills/Listening & Speaking	-	-	-	-	-	-	-	2	2.25	3	-	1	-	-
26	EC210	Probability and Random Processes	3	2.2	-	-	-	-	-	-	-	-	-	1	3	2
27	EC211	Electronic Circuits II	2.6	2	1.8	1.6	1	-	-	-	-	-	-	0.667	1.25	1
28	EC212	Communication Theory	3	3	2.2	-	1.8	-	-	2.6	-	-	1	1	-	1
29	EC213	Electromagnetic Fields	3	3	1.75	-	2.6	-	-	-	-	-	1	-	-	2
30	EC214	Linear Integrated Circuits	2.2	1.8	2.8	1.2	1.2	-	1.25	-	-	1	1.6	1.4	2.2	1.8
31	EC215	Environmental Science and Engineering	1.6	1.6	1.5	1.5	1.5	1.2	1.6	1	1.25	1.5	1	1.5	-	-
32	EC216	Circuits Design and Simulation Laboratory	3	2	2	1.2	1	-	-	-	-	-	-	-	2	1.4
33	EC217	Linear Integrated Circuits Laboratory	3	2	2	1.25	2	2	-	1	-	-	-	1	-	2
34	EC301	Digital Communication	3	2	1	-	1	-	-	-	-	-	-	1	1.7	3
35	EC302	Discrete-Time Signal Processing	3	2.6	2.8	2.6	2	2.4	2.4	-	-	-	-	1.333	2.25	1
36	EC303	Computer Architecture and Organization	3	2	1.4	1	-	1	-	1	1	-	1	2	2	2

CRITERION 3

NBA SAR Department of ECE

2023-2024

Sl. No.	Course Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
37	EC304	Communication Networks	2.4	2.4	2.333	1.75	2.333	1.5	2	-	-	2	-	-	2.2	2.2
38	EC305	Total Quality Management - Professional Elective I	2	1.6	1.6	1	1	-	-	-	2	2	2.2	1	-	-
39	EC306	Basics of Biomedical Instrumentation - Open Elective I	2.2	2.2	2	1.6	1.333	1.333	2	-	-	-	-	1	1.6	1.2
40	EC307	Digital Signal Processing Laboratory	3	2.4	1.8	2	2.4	2	-	-	-	-	2.333	1.75	2.2	1.5
41	EC308	Communication Systems Laboratory	3	3	3	2.75	3	3	-	-	-	2	2.5	2.5	2	2
42	EC309	Networks Laboratory	3	2.4	2.2	2.6	2.6	1	-	-	1	-	1.8	2	2.4	1
43	EC310	Microprocessors and Microcontrollers	2.6	2.6	3	2.6	2.75	3	1	2.75	1.75	2.75	3	3	1.8	1.4
44	EC311	VLSI Design	2.6	2.8	2.2	1.6	1.5	-	-	-	-	-	-	-	2.6	2.2
45	EC312	Wireless Communication	2.6	2.4	1	2.8	1.5	1	-	1	-	1	-	1.8	3	-
46	EC313	Principles of Management	-	-	-	2	-	2.2	1.75	3	3	2.4	3	2.6	-	2
47	EC314	Transmission Lines and RF Systems	3	3	1	2	2.333	-	-	-	-	-	-	-	1	1
48	EC315	Wireless Networks - Professional Elective -II	3	3	2	2	1	-	-	-	-	-	-	1	1.2	2
49	EC316	Microprocessors and Microcontrollers Laboratory	3	3	3	3	3	-	-	-	3.0	3.0	3.0	3.0	2.2	2
50	EC317	VLSI Design Laboratory	2.6	2.75	3	2.333	3	-	-	-	-	2.0	2.5	2.5	2.0	2
51	EC318	Technical Seminar	3	3	2	2	1	-	-	-	-	-	-	1	1.2	2
52	EC319	Professional Communication	-	-	-	-	-	1.333	-	2	1.667	3	1.5	2	-	-
53	EC401	Antennas and Microwave Engineering	1.6	2.2	2.2	2.8	2.6	-	-	-	-	2	1.5	1	1.6	1.6
54	EC402	Optical Communication	2.8	1.6	1.5	1.5	2	-	-	-	1	1	1	2	1	1
55	EC403	Embedded and Real Time Systems	2	2	2.2	2	2.8	-	-	-	2	3	2	2	2	2.8

CRITERION 3

NBA SAR Department of ECE

2023-2024

Sl. No.	Course Code	Subject Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
56	EC404	Ad hoc and Wireless Sensor Networks	3	2	2	-	-	-	-	1	1	1	1	1	1	1
57	EC405	Disaster Management - Professional Elective -III	2.2	1.5	2.667	2.75	2	2	2.5	1.5	2.5	1.667	2.5	2	-	-
58	EC406	Nalaya Thiran	3	3	3	3	3	3	3	3	3	3	3	3	3	3
59	EC407	Embedded Laboratory	2.8	3	3	2.5	2.5	2	2.333	2	2.5	2.6	2.5	2.2	3	2.8
60	EC408	Advanced Communication Laboratory	2.6	2.2	2	2	2	-	-	-	-	-	-	-	2	2
61	EC409	Professional Ethics in Engineering - Professional Elective - IV	2.2	1.8	1.8	-	-	1	1	3	2	2	-	2	2.6	2
62	EC410	Satellite Communication - Professional Elective - V	2.8	2.4	1.8	1.6	2.2	1.4	1.4	-	1.75	1.8	2	2.6	2	1.4
63	EC411	Project Work	3	3	3	3	3	3	3	2.333	3	3	3	3	2.333	2.154
Average Courses CO – PO – PSO Mapping			2.46	2.25	1.92	1.65	1.55	0.92	0.74	0.74	0.87	1.16	0.98	1.37	1.59	1.41

CRITERION 3

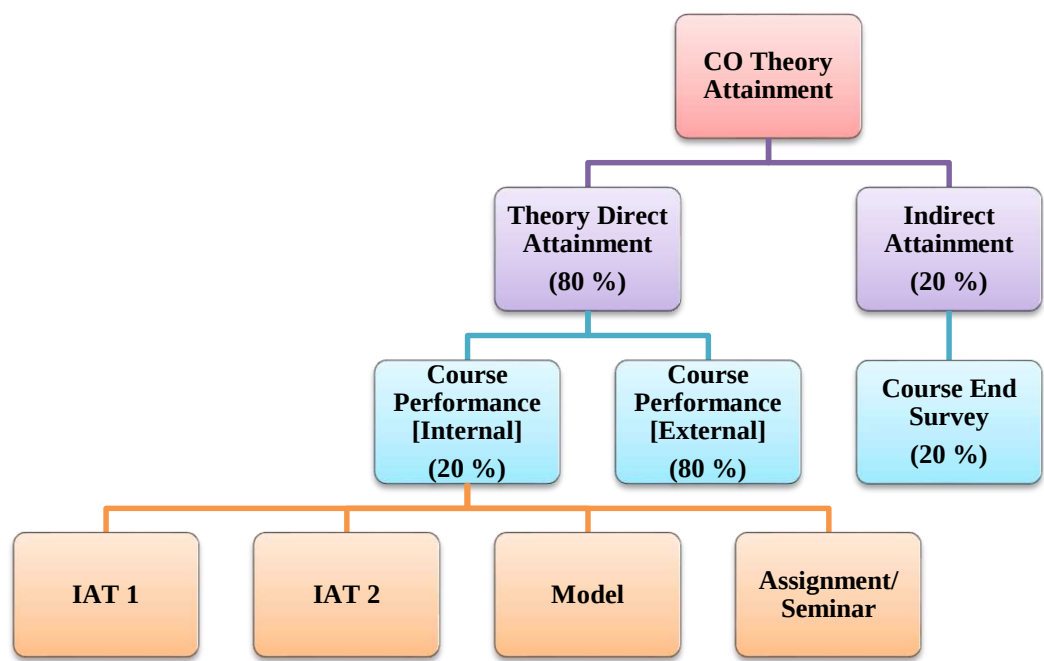
NBA SAR Department of ECE

2023-2024

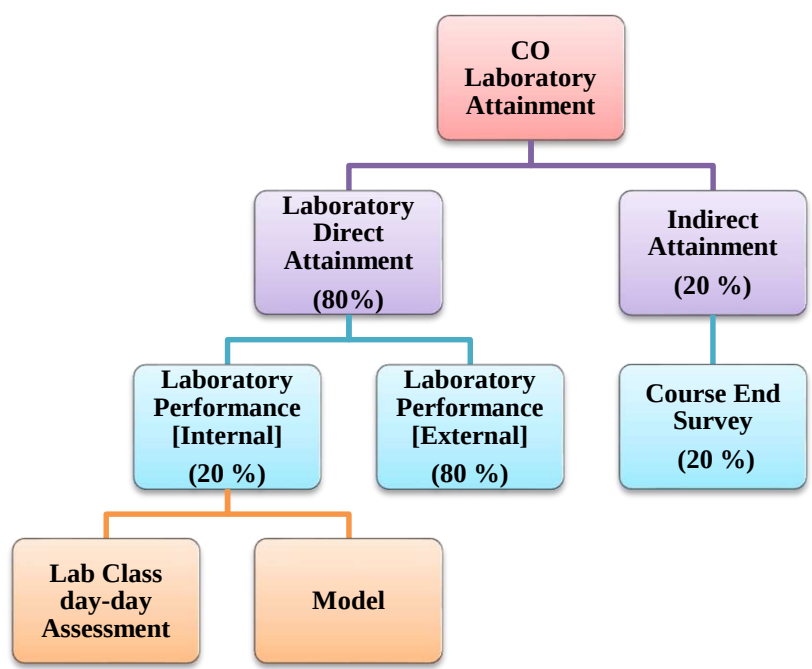
3.2. Attainment of Course Outcomes

3.2.1. Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based.

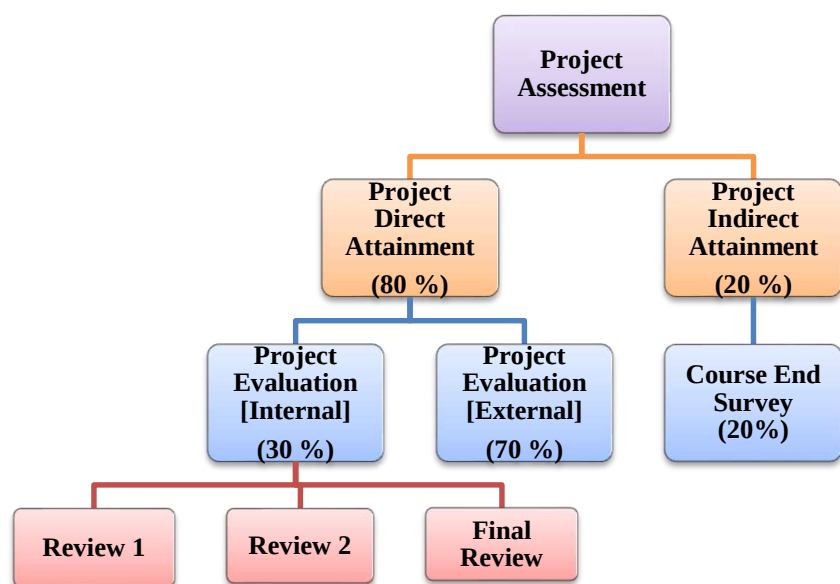
To evaluate the Course Outcomes, the data are gathered using the following process.



a. Course Attainment



b. Laboratory Attainment



c. Project Attainment

Fig. 3.2.1 Flowchart for attainment of Course Outcomes

Assessment tools to assess the course outcomes:

Direct Attainment:

Direct methods display the students' knowledge and skills from their performance in the Internal Assessment-I, Internal Assessment-II, Model Examination & University Examination along with assignments.

Table 3.2.1.1 Direct Assessment Methods

Assessment Tools	CO Assessment Methods	Description
Theory Course Assessment	Course Performance -IA	It is a metric to assess the attainment of COs continuously and students’ learning domains, thus improving the teaching–learning process. The Internal Assessment (IA) marks in a theory paper shall be based on IAT-1, IAT-2, and Model Assessments generally conducted each semester. The retests will be conducted for the failed students and absentees after each assessment to allow them to improve their understanding of the subject with the permission of HEI.
	Course Performance – Assignment/ Seminar	The assignment marks in a theory paper shall be based on assignments from 3 units and assignment cum seminar from 2 units of 10 marks each to assess the learning outcomes of the course every semester.
	Course Performance –	The ESE are the metric to assess whether all the course

	EA	outcomes are attained.
Laboratory Assessment	Lab. class day-day Assessment and Model Exam -IA	Lab assessment mainly assesses students' practical knowledge with their designing capabilities. The IA marks achieved for practical shall be based on the weightage of each experiment in the record and observation notebooks on day-by-day practical sessions and the results of the model examination, which is held at the end of the semester.
	Laboratory Performance ESE -IA	Practical ESE is focused on the performance of experiments and viva-voce.
Theory Cum Lab. Course Assessment	Course cum lab. Performance – IA	The IA marks in a theory cum lab. course shall be based on IAT-1, IAT-2, and Model Assessments generally conducted end of each semester, like theory course. The IA marks achieved for practical shall be based on the weightage of each experiment in the record and observation notebooks on day-day practical sessions. The ESE are the metric to assess whether all the course outcomes are attained.
Project Assessment	Project Work -IA	The marks in case of project work in the final year shall be based on the evaluation in 8th semester by PRC consisting of HoD and project coordinator, along with the project guide. They award internal marks for the project work. The project coordinator monitors the students project's progress in three reviews at various stages of the project implementation. Individual and team performance is evaluated in each of the reviews.
	Project Work ESE-EA	The University conducts a viva-voce examination for the students, and their projects are evaluated by the External Examiners based on the presentation, contents of the report and the demonstration.

Indirect Attainment:

Indirect attainment of COs can be determined from the course exit survey. The exit survey form should be designed to get feedback from students on all the COs.

Course Outcome Assessment methodology, tools and frequency of use for direct method described in the following table 3.2.1.2.

Table 3.2.1.2 Course Outcome Assessment methodology, tools and frequency of use for direct method

Assessment Tools	Assessment Method	Assessment frequency	Assessment Tool	In charge	Reviewer
Theory Course Assessment	Course Performance – IA	Thrice in a semester.	Students’ performance in internal assessment.	Course in charge and Course Coordinator	HoD
	Course Performance – Assignment - IA	At least one Assignment from each unit.	Students’ performance in submitting the assignment/seminar		
	Course Performance, ESE-EA	At the end of the semester	Students’ performance in ESE	External Examiners	
Lab. Assessment	Lab. Class Assessment-IA	Lab Classes	Students’ performance in doing experiments	Course Coordinator	HoD
	Lab. Model-IA	At the end of the semester	Students’ performance in Model Exam	Course Coordinator	HoD
	Lab. ESE-EA	At the end of the semester	Students’ performance in ESE	External Examiners	
Theory Cum Lab. Course Assessment	Course Performance – IA	Thrice in a semester.	Students’ performance in internal assessment.	Course in charge and Course Coordinator	HoD
	Course Performance – Assignment -IA	At least one Assignment from each unit.	Students’ performance in submitting the assignment/seminar		

	Course Performance, ESE-EA	At the end of the semester	Students' performance in ESE	External Examiners
	Lab Class Assessment - IA	Lab Classes	Students' performance in doing experiments	Course Coordinator
	Lab. Performance, ESE-EA	At the end of the semester	Students' performance in ESE	External Examiners
Project Assessment	Project Work - IA	During 8 th semester, (zeroth, 1st, 2nd, and final review)	Reviews, demonstration, viva-voce, conference presentation, and journal publication	Project Guide/Project Coordinator
	Project Evaluation ESE-EA	End of 8th semester	Students' performance in ESE	Internal and External Examiners

3.2.2. Record the attainment of Course Outcomes of all courses with respect to set attainment levels

Rubrics for internal and external assessment

The attainment of Course Outcome is evaluated under two categories – University Examination and Internal Assessment. The set attainment levels for Course Outcome is given as below.

In IAT 1/IAT 2/ Model	
Level 1	60% of students scoring above 60%
Level 2	70% of students scoring above 60%
Level 3	80% of students scoring above 60%
In Assignment/Seminar	
Level 1	60% of students scoring above 70%
Level 2	70% of students scoring above 70%
Level 3	80% of students scoring above 70%
In Laboratory Internal Exam	
Level 1	60% of students scoring above 80%
Level 2	70% of students scoring above 80%
Level 3	80% of students scoring above 80%
In University Exam	
Level 1	60% of students scoring above 50%
Level 2	70% of students scoring above 50%
Level 3	80% of students scoring above 50%

Table.3.2.2.2 Attainment of Course Outcome for the Academic Year 2022– 2023
[Batch 2019 – 2023]

S NO	COURSE CODE	COURSE NAME	DIRECT ATTAINMENT		INDIRECT ATTAINMENT		CO ATTAINMENT	TARGET
			LEVEL	80%	LEVEL	20%		
1	EC101	Communicative English	2.88	2.30	2.95	0.59	2.89	3
2	EC102	Engineering Mathematics – I	1.32	1.06	2.89	0.58	1.63	1.7
3	EC103	Engineering Physics	1.12	0.90	2.85	0.57	1.47	2.3
4	EC104	Engineering Chemistry	2.84	2.27	2.85	0.57	2.84	3
5	EC105	Problem Solving and Python Programming	1.08	0.86	2.76	0.55	1.42	1.8
6	EC106	Engineering Graphics	2.68	2.14	2.75	0.55	2.69	2.7
7	EC107	Problem Solving and Python Programming Laboratory	3.00	2.40	2.78	0.56	2.96	3
8	EC108	Physics and Chemistry Laboratory	3.00	2.40	3.00	0.60	3.00	3
9	EC109	Technical English	2.72	2.18	3.00	0.60	2.78	3
10	EC110	Engineering Mathematics – II	2.88	2.30	3.00	0.60	2.90	3
11	EC111	Physics for Electronics Engineering	2.84	2.27	2.95	0.59	2.86	2.6
12	EC112	Basic Electrical and Instrumentation Engineering	2.72	2.18	2.94	0.59	2.76	2.56
13	EC113	Circuit Analysis	2.84	2.27	2.68	0.54	2.81	1.6
14	EC114	Electronic Devices	2.60	2.08	2.78	0.56	2.64	2.1
15	EC115	Circuits and Devices Laboratory	3.00	2.40	2.95	0.59	2.99	3
16	EC116	Engineering Practices Laboratory	3.00	2.40	2.45	0.49	2.89	3
17	EC201	Linear Algebra and Partial Differential Equations	3.00	2.40	2.54	0.51	2.91	1.7
18	EC202	Fundamentals of Data Structures In C	2.00	1.60	2.58	0.52	2.12	1.42
19	EC203	Electronic Circuits- I	1.80	1.44	2.68	0.54	1.98	1.6
20	EC204	Signals and Systems	1.80	1.44	2.67	0.53	1.97	1.5
21	EC205	Digital Electronics	2.00	1.60	2.95	0.59	2.19	2.5
22	EC206	Control System Engineering	1.32	1.06	2.40	0.48	1.54	2
23	EC207	Fundamentals of Data Structures in C Laboratory	2.92	2.34	2.40	0.48	2.82	3
24	EC208	Analog and Digital Circuits Laboratory	2.92	2.34	2.40	0.48	2.82	3
25	EC209	Interpersonal Skills/Listening &Speaking	2.92	2.34	2.40	0.48	2.82	3

26	EC210	Probability and Random Processes	2.80	2.24	2.40	0.48	2.72	3
27	EC211	Electronic Circuits II	2.60	2.08	2.40	0.48	2.56	3
28	EC212	Communication Theory	2.64	2.11	2.40	0.48	2.59	3
29	EC213	Electromagnetic Fields	2.60	2.08	2.40	0.48	2.56	3
30	EC214	Linear Integrated Circuits	2.64	2.11	2.40	0.48	2.59	3
31	EC215	Environmental Science and Engineering	2.68	2.14	3.00	0.60	2.74	3
32	EC216	Circuits Design and Simulation Laboratory	2.80	2.24	3.00	0.60	2.84	3
33	EC217	Linear Integrated Circuits Laboratory	2.80	2.24	3.00	0.60	2.84	3
34	EC301	Digital Communication	2.84	2.27	3.00	0.60	2.87	3
35	EC302	Discrete-Time Signal Processing	2.60	2.08	3.00	0.60	2.68	2.2
36	EC303	Computer Architecture and Organization	2.60	2.08	3.00	0.60	2.68	2.8
37	EC304	Communication Networks	2.64	2.11	3.00	0.60	2.71	2.8
38	EC305	Total Quality Management - Professional Elective I	2.60	2.08	3.00	0.60	2.68	2.4
39	EC306	Basics of Biomedical Instrumentation - Open Elective I	2.64	2.11	3.00	0.60	2.71	2.9
40	EC307	Digital Signal Processing Laboratory	2.76	2.21	3.00	0.60	2.81	3
41	EC308	Communication Systems Laboratory	2.84	2.27	3.00	0.60	2.87	3
42	EC309	Networks Laboratory	2.80	2.24	2.94	0.59	2.83	3
43	EC310	Microprocessors and Microcontrollers	1.00	0.80	2.90	0.58	1.38	2.8
44	EC311	VLSI Design	1.08	0.86	2.60	0.52	1.38	2.8
45	EC312	Wireless Communication	1.04	0.83	2.70	0.54	1.37	2.8
46	EC313	Principles of Management	2.60	2.08	2.63	0.53	2.61	2.8
47	EC314	Transmission Lines and RF Systems	1.00	0.80	2.69	0.54	1.34	2.8
48	EC315	Wireless Networks - Professional Elective -II	1.08	0.86	2.65	0.53	1.39	2.8
49	EC316	Microprocessors and Microcontrollers Laboratory	2.84	2.27	2.58	0.52	2.79	3
50	EC317	VLSI Design Laboratory	2.76	2.21	3.00	0.60	2.81	3
51	EC318	Technical Seminar	2.87	2.29	3.00	0.60	2.89	2.8
52	EC319	Professional Communication	2.64	2.11	3.00	0.60	2.71	2.8
53	EC401	Antennas and Microwave Engineering	1.24	0.99	2.85	0.57	1.56	2.8
54	EC402	Optical Communication	1.16	0.93	2.86	0.57	1.50	2.9

CRITERION 3

NBA SAR Department of ECE

2023-2024

55	EC403	Embedded and Real Time Systems	2.60	2.08	2.64	0.53	2.61	2.8
56	EC404	Ad hoc and Wireless Sensor Networks	1.00	0.80	2.78	0.56	1.36	2.8
57	EC405	Disaster Management - Professional Elective - III	2.60	2.08	2.68	0.54	2.62	2.8
58	EC406	Nalaya Thiran Course	3.00	2.40	2.55	0.51	2.91	3
59	EC407	Embedded Laboratory	2.88	2.30	3.00	0.60	2.90	3
60	EC408	Advanced Communication Laboratory	2.72	2.18	3.00	0.60	2.78	3
61	EC409	Professional Ethics in Engineering - Professional Elective - IV	2.60	2.08	2.95	0.59	2.67	3
62	EC410	Satellite Communication - Professional Elective - V	2.60	2.08	3.00	0.60	2.68	3
63	EC411	Project Work	3.00	2.40	2.84	0.57	2.97	3

3.3 Attainment of Program Outcomes and Program Specific Outcomes

3.3.1. Describe assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes

i) PO and PSO Assessment Instructions:

Direct assessment and Indirect assessment are the two tools that are being used for assessing the attainment of POs and PSOs.

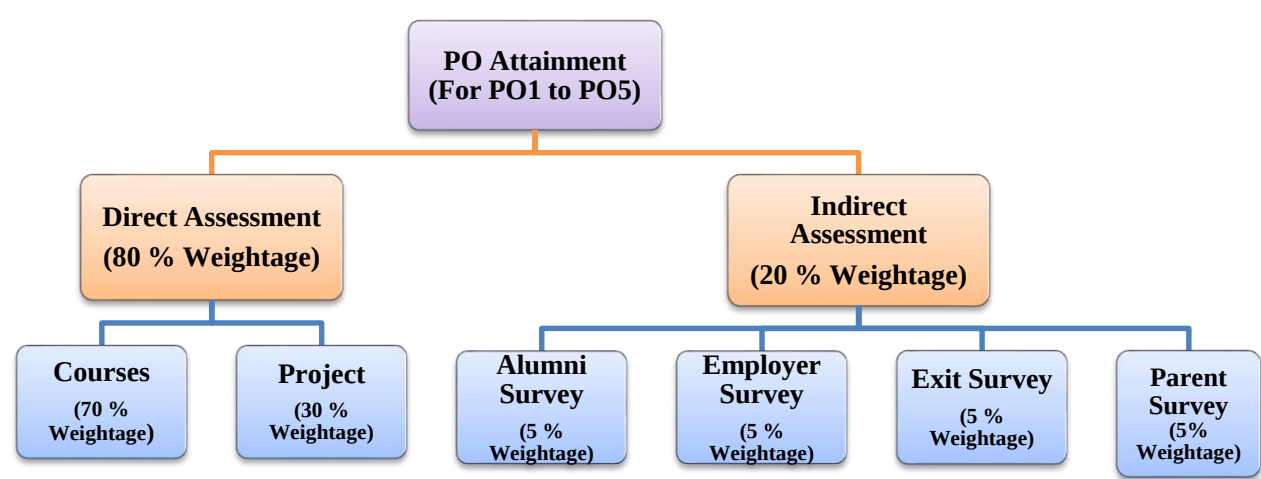


Figure 3.3.1 Assessment tools and processes for PO1 to PO5

PO assessment for PO1 to PO5 is done by giving 80% Weightage to direct assessment and 20% Weightage to indirect assessment. Direct assessment is based on COURSES and PROJECT attainment where 70% Weightage is given to attainment through Courses and 30% Weightage is given to attainment through Projects. Indirect assessment is done through Alumni survey, Exit survey, Employer survey and Parent survey are given equal Weightage.

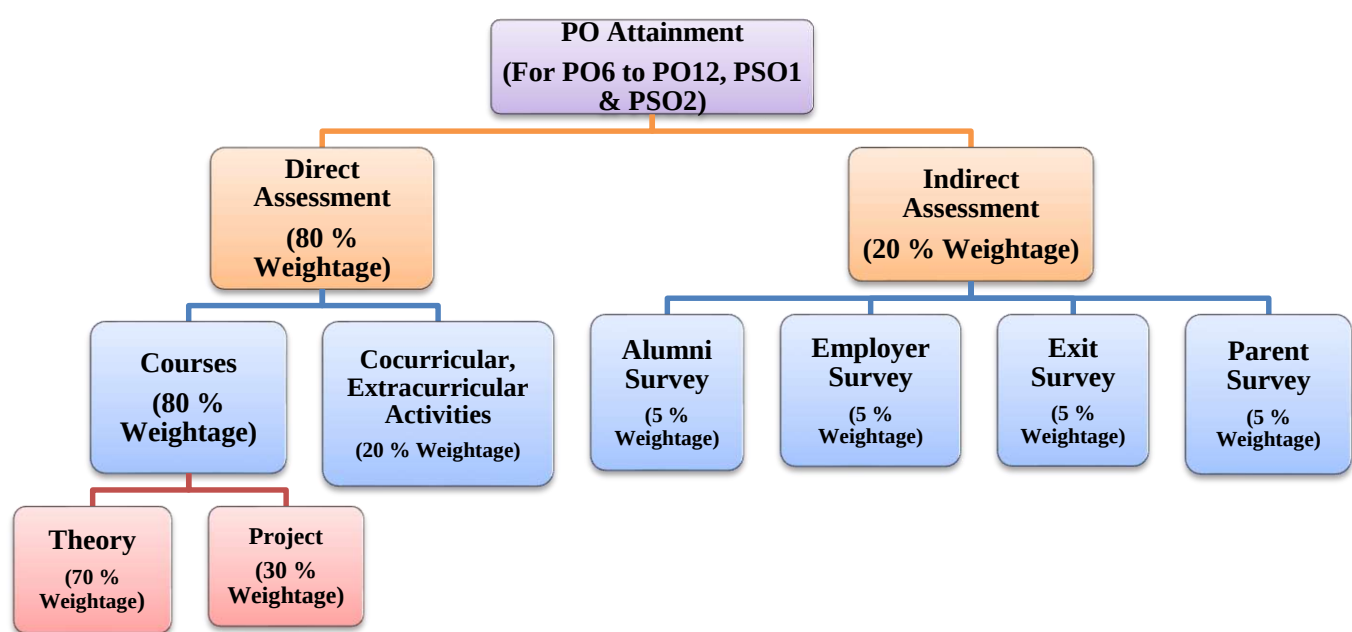


Figure 3.3.2 Assessment tools and processes for PO6 to PO12 & PSO1 to PSO2
PO/PSO assessment for PO6 to PO12, PSO1 and PSO2 is done by giving 80% Weightage to direct assessment and 20% Weightage to indirect assessment. Direct assessment is based on Courses and Co-Curricular & Extra Co-Curricular attainment where 80% Weightage is given to attainment through Courses (70% Weightage is given to attainment through Courses and 30 % Weightage is given to attainment through Projects) and 20% Weightage is given to attainment through co-curricular & extra co- curricular activities. Indirect assessment is done through Alumni survey, Exit survey, Employer survey and Parent survey are given equal weightage.

ii) PO and PSO Assessment Tools:

The various direct and indirect assessment tools used to evaluate POs & PSOs and the frequency with which the assessment processes are carried out are listed in Table 3.3.1.1

Table 3.3.1.1 Assessment tools and processes used for evaluation of PO and PSO Attainment

Direct Assessment	Courses	Course Type	Assessment tools	Frequency
Direct Assessment	Courses	Theory	Internal Assessment	Three per course
			Assignment/seminar	Five per course
			ESE	One per course
		Practical	Day by day performance	Every lab session
			Internal Lab. Exam.	One per course
			ESE	One per course
	Project	Project Review	Zeroth Review	One per course
			First Review	One per course
			Second Review	One per course
			Final Review	One per course
			ESE	One per program
	Co-Curricular and Extra Curricular Activities			
Indirect Assessment	Surveys	Program Exit Survey		Once in a year
		Employer Survey		Once in a year
		Alumni Survey		Once in a year
		Parent Survey		Once in a year

iii) Direct Assessment Tools

The direct assessments are done to determine the extent to which the POs and PSOs are achieved by the students. The assessment method used is as given below:

- a. Courses: It involves theory and practical for direct assessment of POs and PSOs which are described in section 3.2.1.
- b. Project: The assessment process for project is described in section 3.2.1.
- c. Extra / Co-Curricular Activities: The various Co / Extracurricular activities

considered for assessment is described in table 3.3.1.2

Table 3.3.1.2. Assessment tools of Co-curricular, Extra Curricular and Students Participation

CO	Organized/ Attended	Rubrics		
		Level 3	Level 2	Level 1
Guest lecture	Organized	More than 6	More than 3	Less than 3
EDC Activity	Organized	More than 5	More than 2	Less than 2
NSS Activity	Attended	More than 80 % students' participation	More than 50% students' participation	Less than 50% students' participation
Soft skills Training	Attended	100 % students' participation	More than 80% students participation	Less than 80% students participation
Competitive Exams/Career Guidance	Attended	More than 75 % students Participation	More than 50% students Participation	Less than 50% students' participation
Club Activity / Student Chapter	Organized	More than 80% students' participation	More than 60% students' participation	Less than 50% students' participation
Inplant Training/ Internships	Attended	100 % students Participation	More than 80% students participation	Less than 50% students participation
Industrial Visit	Organized	More than 4	More than 2	Less than 2
Yoga/ Meditation	Attended	More than 75 % students participation	More than 50% students participation	Less than 50% students participation
Hackathon		More than 50% students	More than 20% students	Less than 20% students

	Attended	participation	participation	participation
Sports Activities	Attended	More than 50% students' participation	More than 20% students' participation	Less than 20% students' participation
Cultural Activities	Attended	More than 50% students Participation	More than 20% students Participation	Less than 20% students Participation
Value Added Course	Organized	More than 60% Students Participation	More than 30% Students Participation	Less than 30% Students Participation

Activity Chart: The organizing and participation details of students in activities like paper presentation, project contests, seminars etc. are grouped. An activity chart is framed relating to these activities which contributes to each POs and PSOs. The activity chart mapping is given in Table 3.3.1.2:

Table 3.3.1.2 Activity Chart Mapping for Academic Batch 2019 – 2023

CO	Batch 2019- 2023	PO							PSOs	
		6	7	8	9	10	11	12	1	2
Guest lecture	6	-	-	2	-	2	-	2	2	2
EDC Cell Activity	4	2	2	2	2	2	2	-	-	-
NSS Activity	68%	2	2	2	2	2	2	2	-	-
Soft skills Training	85%	2	-	2	2	2	-	2	-	-
Competitive Exams/Career Guidance	64%	2	-	2	2	2	2	2	2	2
Club Activity / Student Chapter	85%	3	3	3	3	3	3	3	3	3
Inplant Training/ Internships	85%	3	3	3	3	3	3	3	3	3
Industrial Visit	4	3	3	3	3	3	3	3	3	3
Yoga/ Meditation	85%	-	-	3	3	3		3	3	3
Hackathon	20%	2	2	2	2	2	2	2	2	2
Sports Activities	20%	2	2	2	2	2	2	2	2	2
Cultural Activities	20%	2	2	2	2	2	2	2	2	2
Value Added Course	40%	2	2	2	2	2	2	2	2	2
Curriculum Gap Filling Activities		2.27	2.33	2.31	2.33	2.31	2.30	2.40	2.40	2.40

CRITERION 3

NBA SAR Department of ECE

2023-2024

iv) Indirect Assessment:

This method of assessment includes the data interpretation of results obtained from the following:

- Programme Exit Survey.
- Alumni Survey
- Employer Survey
- Parent Survey

Programme Exit, Alumni, Employer Survey and Parent Survey:

Program exit survey is collected at final semester of a batch. Alumni Survey, Employer Survey and Parent Survey are collected once in a year. This assessment is done for all students in order to estimate the degree to which the student has achieved the expected outcome of the Programme. Also the overall average outcome of the batch is found using this assessment.

Table 3.3.1.3 Frequency of Assessment components

S. No	Component	Frequency
1.	Program Exit Survey	Final semester of a batch
2	Alumni Survey	Once in a year
3.	Employer Survey	Once in a year
4.	Parent Survey	Once in a year

Process for PO attainment

The process for PO attainment is shown in Figure 3.3.1. Direct assessment and Indirect assessment tools are used for the PO attainment process. In direct assessment, CO-PO mapping for all the courses are framed and CO attainments are calculated using the process described in section 3.2.1. The PO attainment has been computed using CO-PO mapping. Further, PO attainment through Alumni, Employer, Parent and Exit survey has been computed in the indirect assessment. The overall CO-PO attainment has been calculated by considering 80% of PO attainment obtained in direct assessment and 20% of PO attainment obtained in indirect assessment.

3.3.2. Provide results of evaluation of each PO & PSO

Program shall set Program Outcome attainment levels for all POs & PSOs.

(The attainment levels by direct (student performance) and indirect (surveys) are to be presented through Program level Course-PO & PSO matrix as indicated).

Table 3.3.2.1 Attainment of POs and PSOs for the 2019 – 2023 Batch

Sl. No.	Course Code	Course Name	PROGRAM OUTCOME												Program Specific Outcome	
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
1	EC101	Communicative English	-	-	-	-	-	0.96	0.96	-	1.93	2.89	-	0.96	-	-
2	EC102	Engineering Mathematics – I	1.20	1.20	0.98	0.98	0.82	0.82	0.54	0.95	-	-	0.54	-	0.54	-
3	EC103	Engineering Physics	1.47	1.47	1.47	1.08	-	0.61	0.98	-	-	-	-	0.49	0.49	-
4	EC104	Engineering Chemistry	2.65	2.27	2.46	2.65	2.84	1.89	2.37	1.42	2.84	2.37	1.89	2.37	-	-
5	EC105	Problem Solving and Python Programming	1.04	0.76	1.13	0.28	1.13	0.47	0.38	0.38	0.38	0.38	0.09	0.38	0.57	0.57
6	EC106	Engineering Graphics	2.69	2.69	-	-	-	-	-	-	-	1.80	-	-	2.69	1.80
7	EC107	Problem Solving and Python Programming Laboratory	2.17	1.97	2.96	2.96	2.96	-	-	-	-	-	0.99	0.99	0.99	0.99
8	EC108	Physics and Chemistry Laboratory	3.00	2.40	3.00	3.00	2.80	2.25	3.00	2.20	2.40	2.00	2.00	3.00	2.00	-
9	EC109	Technical English	-	1.85	0.93	-	-	1.85	1.85	2.78	-	2.78	-	1.85	-	-

CRITERION 3

NBA SAR Department of ECE

2023-2024

10	EC110	Engineering Mathematics – II	2.13	1.94	1.94	1.55	0.97	-	-	0.97	-	-	-	-	0.97	-
11	EC111	Physics for Electronics Engineering	2.86	2.86	1.91	2.39	1.43	1.91	0.95	-	-	-	-	1.43	1.91	-
12	EC112	Basic Electrical and Instrumentation Engineering	1.84	2.21	2.40	1.84	1.84	-	-	-	-	1.84	1.84	1.84	2.76	1.84
13	EC113	Circuit Analysis	2.43	1.50	1.87	-	-	-	-	-	-	-	-	-	0.94	0.94
14	EC114	Electronic Devices	2.64	2.64	2.64	0.88	1.58	1.76	1.76	1.76	1.41	1.76	1.76	1.76	1.76	1.76
15	EC115	Circuits and Devices Laboratory	2.99	2.99	2.99	2.99	-	1.99	1.99	2.99	2.99	2.99	1.99	1.99	1.99	1.99
16	EC116	Engineering Practices Laboratory	1.73	1.35	0.96	0.96	1.45	1.16	0.96	0.96	0.96	0.96	0.96	1.54	1.73	1.93
17	EC201	Linear Algebra and Partial Differential Equations	2.91	2.91	1.94	1.94	0.97	-	-	-	-	-	-	0.97	2.91	1.94
18	EC202	Fundamentals of Data Structures In C	1.69	1.94	-	1.18	-	0.71	-	-	0.88	1.06	1.06	0.88	1.41	1.83
19	EC203	Electronic Circuits- I	1.84	1.45	1.05	1.19	0.66	-	-	-	-	-	-	-	1.32	0.66
20	EC204	Signals and Systems	1.97	1.97	0.66	1.10	1.97	-	-	-	-	-	-	-	0.66	1.32
21	EC205	Digital Electronics	2.19	1.90	1.46	1.31	-	-	-	-	-	-	-	0.73	1.46	1.46
22	EC206	Control System Engineering	1.43	1.43	1.43	1.23	1.13	0.72	1.13	0.72	0.92	0.82	0.72	1.33	1.54	1.33
23	EC207	Fundamentals of Data Structures in C Laboratory	2.63	2.63	2.63	2.82	1.88	-	-	-	-	-	-	2.07	2.82	1.56
24	EC208	Analog and Digital Circuits Laboratory	2.82	2.19	1.88	1.41	2.82	1.88	0.94	-	1.88	1.88	-	-	1.88	1.88

CRITERION 3

NBA SAR Department of ECE

2023-2024

25	EC209	Interpersonal Skills/Listening & Speaking	-	-	-	-	-	-	-	1.88	2.11	2.82	-	0.94	-	-
26	EC210	Probability and Random Processes	2.72	1.99	-	-	-	-	-	-	-	-	-	0.91	2.72	1.81
27	EC211	Electronic Circuits II	2.22	1.71	1.54	1.37	0.85	-	-	-	-	-	-	0.57	1.07	0.85
28	EC212	Communication Theory	2.59	2.59	1.90	-	1.56	-	-	2.25	-	-	0.86	0.86	-	0.86
29	EC213	Electromagnetic Fields	2.56	2.56	1.49	-	2.22	-	-	-	-	-	0.85	-	-	1.71
30	EC214	Linear Integrated Circuits	1.90	1.56	2.42	1.04	1.04	-	1.08	-	-	0.86	1.38	1.21	1.90	1.56
31	EC215	Environmental Science and Engineering	1.46	1.46	1.37	1.37	1.37	1.10	1.46	0.91	1.14	1.37	0.91	1.37	-	-
32	EC216	Circuits Design and Simulation Laboratory	2.84	1.89	1.89	1.14	0.95	-	-	-	-	-	-	-	1.89	1.33
33	EC217	Linear Integrated Circuits Laboratory	2.84	1.89	1.89	1.18	1.89	1.89	-	0.95	-	-	-	0.95	-	1.89
34	EC301	Digital Communication	2.87	1.91	0.96	-	0.96	-	-	-	-	-	-	0.96	1.63	2.87
35	EC302	Discrete-Time Signal Processing	2.68	2.32	2.50	2.32	1.79	2.14	2.14	-	-	-	-	1.19	2.01	0.89
36	EC303	Computer Architecture and Organization	2.68	1.79	1.25	0.89	-	0.89	-	0.89	0.89	-	0.89	1.79	1.79	1.79
37	EC304	Communication Networks	2.17	2.17	2.11	1.58	2.11	1.36	1.81	-	-	1.81	-	-	1.99	1.99
38	EC305	Total Quality Management - Professional Elective I	1.79	1.43	1.43	0.89	0.89	-	-	-	1.79	1.79	1.97	0.89	-	-
39	EC306	Basics of Biomedical Instrumentation - Open	1.99	1.99	1.81	1.45	1.21	1.21	1.81	-	-	-	-	0.90	1.45	1.08

CRITERION 3

NBA SAR Department of ECE

2023-2024

		Elective I														
40	EC307	Digital Signal Processing Laboratory	2.81	2.25	1.68	1.87	2.25	1.87	-	-	-	-	2.18	1.64	2.06	1.40
41	EC308	Communication Systems Laboratory	2.87	2.87	2.87	2.63	2.87	2.87	-	-	-	1.91	2.39	2.39	1.91	1.91
42	EC309	Networks Laboratory	2.83	2.26	2.07	2.45	2.45	0.94	-	-	0.94	-	1.70	1.89	2.26	0.94
43	EC310	Microprocessors and Microcontrollers	1.20	1.20	1.38	1.20	1.27	1.38	0.46	1.27	0.81	1.27	1.38	1.38	0.83	0.64
44	EC311	VLSI Design	1.20	1.29	1.01	0.74	0.69	-	-	-	-	-	-	-	1.20	1.01
45	EC312	Wireless Communication	1.19	1.10	0.46	1.28	0.69	0.46	-	0.46	-	0.46	-	0.82	1.37	-
46	EC313	Principles of Management	-	-	-	1.74	-	1.91	1.52	2.61	2.61	2.08	2.61	2.26	-	1.74
47	EC314	Transmission Lines and RF Systems	1.34	1.34	0.45	0.89	1.04	-	-	-	-	-	-	-	0.45	0.45
48	EC315	Wireless Networks - Professional Elective -II	1.39	1.39	0.93	0.93	0.46	-	-	-	-	-	-	0.46	0.56	0.93
49	EC316	Microprocessors and Microcontrollers Laboratory	2.79	2.79	2.79	2.79	2.79	-	-	-	2.79	2.79	2.79	2.79	2.04	1.86
50	EC317	VLSI Design Laboratory	2.43	2.57	2.81	2.18	2.81	-	-	-	-	1.87	2.34	2.34	1.87	1.87
51	EC318	Technical Seminar	2.89	2.89	1.93	1.93	0.96	-	-	-	-	-	-	0.96	1.16	1.93
52	EC319	Professional Communication	-	-	-	-	-	1.21	-	1.81	1.51	2.71	1.36	1.81	-	-
53	EC401	Antennas and Microwave Engineering	0.83	1.15	1.15	1.46	1.35	-	-	-	-	1.04	0.78	0.52	0.83	0.83

CRITERION 3

NBA SAR Department of ECE

2023-2024

54	EC402	Optical Communication	1.40	0.80	0.75	0.75	1.00	-	-	-	0.50	0.50	0.50	1.00	0.50	0.50
55	EC403	Embedded and Real Time Systems	1.74	1.74	1.91	1.74	2.43	-	-	-	1.74	2.61	1.74	1.74	1.74	2.43
56	EC404	Ad hoc and Wireless Sensor Networks	1.36	0.90	0.90	-	-	-	-	0.45	0.45	0.45	0.45	0.45	0.45	0.45
57	EC405	Disaster Management - Professional Elective -III	1.92	1.31	2.33	2.40	1.74	1.74	2.18	1.31	2.18	1.45	2.18	1.74	-	-
58	EC406	Nalaya Thiran Course	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91	2.91
59	EC407	Embedded Laboratory	2.71	2.90	2.90	2.42	2.42	1.94	2.26	1.94	2.42	2.52	2.42	2.13	2.90	2.71
60	EC408	Advanced Communication Laboratory	2.41	2.04	1.85	1.85	1.85	-	-	-	-	-	-	-	1.85	1.85
61	EC409	Professional Ethics in Engineering - Professional Elective - IV	1.96	1.60	1.60	-	-	0.89	0.89	2.67	1.78	1.78	-	1.78	2.31	1.78
62	EC410	Satellite Communication - Professional Elective - V	2.50	2.14	1.61	1.43	1.97	1.25	1.25	-	1.56	1.61	1.79	2.32	1.79	1.25
63	EC411	Project Work	2.97	2.07	2.97	1.98	2.25	1.62	1.98	1.98	2.97	2.97	2.97	2.97	2.34	2.43

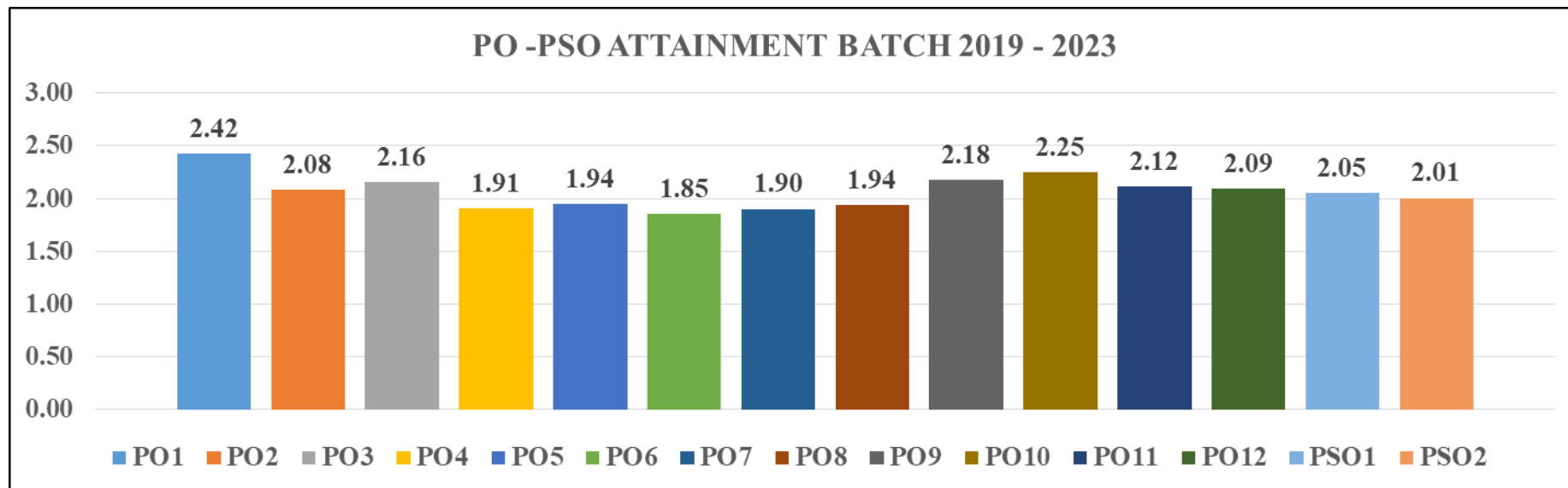
CRITERION 3

NBA SAR Department of ECE

2023-2024

Sl. No.	Course Code	Course Name	PROGRAM OUTCOME												Program Specific Outcome	
			PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02
		Direct Attainment from Courses	2.18	1.95	1.77	1.65	1.66	1.47	1.50	1.56	1.66	1.77	1.52	1.44	1.62	1.50
		Direct Attainment from Courses (70%)	1.53	1.37	1.24	1.16	1.16	1.03	1.05	1.09	1.16	1.24	1.07	1.01	1.13	1.05
		Project Work (30%)	0.89	0.62	0.89	0.59	0.67	0.49	0.59	0.59	0.89	0.89	0.89	0.89	0.70	0.73
		Curriculum Gap Filling Activities						2.27	2.33	2.31	2.33	2.31	2.3	2.4	2.4	2.4
		Direct Attainment from Courses	2.42	1.99	2.13	1.75	1.84	1.66	1.78	1.81	2.11	2.16	2.02	2.00	1.95	1.90
		Direct Attainment from Courses including curriculum Gap Filling Activities	1.93	1.59	1.71	1.40	1.47	1.33	1.43	1.45	1.68	1.73	1.62	1.60	1.56	1.52
		Indirect Attainment	2.45	2.47	2.27	2.54	2.38	2.60	2.38	2.47	2.46	2.59	2.48	2.48	2.47	2.43
		Direct Attainment 80%	0.49	0.49	0.45	0.51	0.48	0.52	0.48	0.49	0.49	0.52	0.50	0.50	0.49	0.49
		Indirect Attainment 20%	2.42	2.08	2.16	1.91	1.94	1.85	1.90	1.94	2.18	2.25	2.12	2.09	2.05	2.01
		PO ATTAINMENT	2.18	1.95	1.77	1.65	1.66	1.47	1.50	1.56	1.66	1.77	1.52	1.44	1.62	1.50

Figure 3.3.2.1: Attainment of POs and PSOs for 2019 – 2023 Batch



POs and PSOs attainment for the batch 2019 – 2023 of students are shown in the table 3.3.2.1. In the DAC meeting held in the department, 2.25 target value of the attainment level was fixed as mentioned in the figure 3.3.2.1. POs and PSOs with the attainment level less than 2.25 are discussed in the Criteria 7.

CRITERION 4	STUDENTS PERFORMANCE	60
-------------	----------------------	----

Table 4.1 ENROLLMENT RATIO

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2023-24 (CAY)	2022-23 (CAY m1)	2021-22 (CAY m2)	2020-21 (CAY m3)	2019-20 (CAY m4)	2018-19 (CAY m5)	2017-18 (CAY m6)
Sanctioned intake of the program(N)	60	60	60	60	120	120	90
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	35	38	30	29	39	69	82
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	1	2	0	3	0	0	0
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme (N1 + N2 + N3)	36	40	30	32	39	69	82

4.1 ENROLLMENT RATIO

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2023-24 (CAY)	60	35	58.33
2022-23 (CAYm1)	60	38	63.33
2021-22 (CAYm2)	60	30	50.00

Average [(ER1 + ER2 + ER3) / 3]: 57.22
Assessment: 12.00

Table 4.2 SUCCESS RATE WITHOUT BACKLOGS

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2023-24 (CAY)	46	23	0	0	0
2022-23 (CAYm1)	40	32	23	0	0
2021-22 (CAYm2)	30	2	1	1	0
2020-21 (CAYm3)	32	7	0	0	0
2019-20 (LYG)	39	10	8	3	3
2018-19 (LYG m1)	69	21	12	8	8
2017-18 (LYGm2)	82	42	18	14	5

Table 4.3 SUCCESS RATE WITH BACKLOGS

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	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
2023-24 (CAY)	46	35	0	0	0
2022-23 (CAYm1)	40	38	40	0	0
2021-22 (CAYm2)	30	26	26	25	0
2020-21 (CAYm3)	32	29	28	29	29
2019-20 (LYG)	39	39	39	38	37
2018-19 (LYG m1)	69	69	69	69	69
2017-18 (LYGm2)	82	82	82	82	82

4.2 SUCCESS RATE in the Stipulated Period of the Program

4.2.1 Success Rate without Backlogs in any semester / year of study

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation (m-1), LYGm1 (2018-19)	Latest Year of Graduation (m-2) LYGm2 (2017-18)
(X) Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	39	69	82
(Y) Number of students who have graduated without backlogs in the stipulated period	3	8	5
Success Index [SI = Y / X]	0.08	0.12	0.06
Assessment [25 * Average SI]: 2.17			

4.2.2 Success Rate in Stipulated Period

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation (m-1), LYGm1 (2018-19)	Latest Year of Graduation (m-2) LYGm2 (2017-18)
(X) Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	39	69	82
(Y) Number of students who have graduated in the stipulated period	26	63	76
Success Index [SI = Y / X]	0.67	0.91	0.93
Assessment [15 * Average SI]: 15*0.84= 12.55			

4.3 Academic Performance in Third Year

Academic Performance	CAYm1 (2020-2021)	CAYm2 (2019-2020)	CAYm3 (2018-2019)
Mean of CGPA or mean percentage of all successful students (X)	7.12	8.06	7.60
Total number of successful students (Y)	29	38	69
Total number of students appeared in the examination (Z)	29	38	69
API [X*Y/Z]	7.12	8.06	7.60

Average API [(API+AP2+AP3)/3]: 7.59

Assessment [1.5*Average API]: 11.39

4.4 Academic Performance in Second Year

Academic Performance	CAYm1 (2021-2022)	CAYm2 (2020-2021)	CAYm3 (2019-2020)
Mean of CGPA or mean percentage of all successful students (X)	7.81	7.65	8.79
Total number of successful students (Y)	26	28	39
Total number of students appeared in the examination (Z)	30	32	39
API [X×Y/Z]	6.76	6.93	8.79

Average API [(API+AP2+AP3)/3]: 7.49

Assessment [1.5×Average API]: 11.24

4.5 Placement / Higher Studies and Entrepreneurship

Item	CAY 2022-23	LYG 2021-22	LYG m1 2020-21
Total No of Final Students (N)	39	69	82
No of Students placed in the companies or government sector (X)	27	46	54
No of Students admitted to higher studies with valid qualifying scores (GATE or equivalent state or national level test, GRE, GMAT, etc) (Y)	3	8	2
No of Students turned entrepreneur in engineering / technology (Z)	1	0	0
X+Y+Z =	31	54	56
Placement Index [(X+Y+Z)/N]	0.76	0.78	0.68

Average Placement [(P1+P2+P3)/3] = 0.74

Assessment [40×Average placement] = 29.6

HIGHER STUDIES

Academic Year	Total No of Higher Studies
2023 – 2024	1
2022 – 2023	3
2021 – 2022	8
2020 – 2021	2

ACADEMIC YEAR 2023 – 2024

S.No	Register Number	Student Name	Degree	College Name
1.	110720106012	JAYASRI B	M.Tech	Vel Tech Multi Tech

ACADEMIC YEAR 2022 – 2023

S.No	Register Number	Student Name	Degree	College Name
1.	110719106005	CHRYSLITE JOY S	M.E.VLSI Design	Government College of Technology,Coimbatore
2.	110719106013	KOVI PAVAN	Master in information systems	Central Michigan University
3.	110719106018	M REDDY VARA PRASAD	Masters in computer science	Wright State University

ACADEMIC YEAR 2021 – 2022

S.No	Register Number	Student Name	Degree	College Name
1.	110718106005	CHALLAGIRI BABJI	M.S	Wright State University
2.	110718106014	DARAPANENI BHAVANA	M.S	Cumberland University
3.	110718106016	DEVATHA CHANDU	M.Tech	Vellore Institute of Technology
4.	110718106017	DHINAKARAN K	MBA	Sri Venkateswara Institute of Science and Technology
5.	110718106025	GURRAMPAVANI	M.S	Bradley University
6.	110718106052	RAJSHREE R	M.S	The University of Texas at Dallas
7.	110718106069	VEMASANI CHETHANA	M.S	Rivier University
8.	110718106072	VILUPURU JASWANTH REDDY	M.S	University of Cincinnati

ACADEMIC YEAR 2020 – 2021

S.No	Register Number	Student Name	Degree	College Name
1.	110717106011	CATHERIN D	MBA	Sri Venkateswara Institute of Science and Technology
2.	110717106021	DIVYABARATHI K	MBA	Sri Venkateswara Institute of Science and Technology

CRITERION 4

NBA-SAR Department of ECE

2023-24

Entrepreneur

Batch	Student Name
2020 -2024	Kathiravan A

Placement

Assessment Year: LYG (2019-2023)

S.NO	STUDENTS NAME	UNIVERSITY SERIAL NUMBER	DISCIPLINE	YEAR OF PASSING FROM INSTITUTION	ON/OFF CAMPUS PLACED	NAME OF THE EMPLOYER
1	ABEL FRANCIS	110719106001	ECE	2023	OFF	CSS CORP
2	ASMA S	110719106003	ECE	2023	OFF	CSS CORP
3	DEVIPRIYA P	110719106006	ECE	2023	ON	FOCUS EDUMATICS
4	GANESH P	110719106008	ECE	2023	OFF	TEKION
5	JEEVANA A L	110719106009	ECE	2023	ON	QSPIDERS
6	KEERTHIVASAN S	110719106011	ECE	2023	OFF	TEKION
7	KURAPATI BHARATH	110719106014	ECE	2023	ON	FOCUS EDUMATICS
8	LOGHANANDHINI K	110719106015	ECE	2023	ON	FOCUS EDUMATICS
9	MADDALI DIVYA	110719106016	ECE	2023	OFF	CSS CORP
10	MOHAN S	110719106017	ECE	2023	ON	FOCUS EDUMATICS
11	MUNAGASETTY VENKATA PAVAN KUMAR	110719106019	ECE	2023	OFF	CSS CORP
12	MUTHYALA CHANDRIKA	110719106020	ECE	2023	ON	QSPIDERS,FOCUS EDUMATICS
13	NALLAREDDY VIJITHA	110719106021	ECE	2023	OFF	TEKION
14	PENUBALA POORNA RAKESH	110719106023	ECE	2023	ON	FOCUS EDUMATICS
15	POODI VASUDHA	110719106024	ECE	2023	ON	SUTHERLAND
16	SANCHI PAVAN KUMAR	110719106026	ECE	2023	ON	SUTHERLAND
17	SAMADHI JAYANTH	110719106027	ECE	2023	OFF	TCS,FOCUS EDUMATICS
18	SAMADHI SRIKANTH	110719106028	ECE	2023	ON	QSPIDERS
19	SANJAY S	110719106029	ECE	2023	ON	FLOWSERVE

CRITERION 4NBA-SAR Department of ECER2023-24

20	SANTHOSH KUMAR M	110719106030	ECE	2023	ON	SUTHERLAND
21	SOMU SATHVIKA	110719106032	ECE	2023	OFF	TCS,QSPIDERS
22	SRUTHI GNANA PRIYA D	110719106033	ECE	2023	ON	FOCUS EDUMATICS
23	VADLAMUDI RAKESH	110719106035	ECE	2023	ON	SUTHERLAND
24	VALLURU MAHESH BABU	110719106036	ECE	2023	OFF	TECH MAHINDRA,RINEX
25	VEMPULURU HARI KIRAN	110719106037	ECE	2023	ON	FOCUS EDUMATICS
26	VINEGA K	110719106038	ECE	2023	ON	FOCUS EDUMATICS
27	YEMPULURU BALAJI	110719106039	ECE	2023	ON	FLOWSERVE

Assessment Year: LYG m1 (2018-2022)

S.NO	STUDENTS NAME	UNIVERSITY SERIAL NUMBER	DISCIPLINE	YEAR OF PASSING FROM INSTITUTION	ON/OFF CAMPUS PLACED	NAME OF THE EMPLOYER
1	ABHIGNYA G	110718106001	ECE	2022	ON	FLOWSERVE
2	ANNABATHINA VYSHNAVI	110718106002	ECE	2022	OFF	PRELUDESYS
3	BHARATH KUMAR L	110718106004	ECE	2022	OFF	WIPRO
4	CHALLA SURESH	110718106007	ECE	2022	ON	TEKION
5	CHALLA VISHNUVARDHAN REDDY	110718106008	ECE	2022	OFF	WIPRO,TEKION,MI ND TREE
6	CHANDRAGIRI SAI BHARGAVI	110718106010	ECE	2022	OFF	QUALITEST
7	CHENNAMGARI NANDINI	110718106011	ECE	2022	OFF	PRELUDESYS
8	CHENTHATI POOJITHA	110718106012	ECE	2022	OFF	PRELUDESYS
9	DHINAKARAN K	110718106017	ECE	2022	OFF	CSS CORP
10	DILLIBABU M	110718106018	ECE	2022	OFF	QUALITEST
11	DUVVURU NIREESHA	110718106019	ECE	2022	OFF	SUTHERLAND
12	GATTAMANENI MOHAN	110718106021	ECE	2022	OFF	INFOSYS,QUALITE ST
13	GAYATHIRI S	110718106022	ECE	2022	OFF	PRELUDESYS
14	GUDI HYMAVATHI	110718106023	ECE	2022	OFF	WIPRO
15	GUDLURU SAI KUMAR	110718106024	ECE	2022	OFF	SUTHERLAND

16	INKUNTA VAMSI	110718106026	ECE	2022	OFF	CSS CORP
17	JINNKALA SATHEESH	110718106027	ECE	2022	OFF	FACE PREP
18	KANDUKURI ROHITH	110718106028	ECE	2022	OFF	QUALITEST
19	M.KIRUTHISH	110718106030	ECE	2022	OFF	FLOWSERVE
20	KONDURU CHANDU REDDY	110718106031	ECE	2022	OFF	TERRALOGIC SOFTWARE SOLUTION PVT LTD
21	KUNNAVAKAM VIGNESH	110718106032	ECE	2022	OFF	MPHASIS, FLOWSERVE, INFOSYS
22	LAGUMSANI SRAVANTHI	110718106033	ECE	2022	OFF	MPHASIS
23	LATHA M	110718106034	ECE	2022	OFF	PRELUDESYS
24	MALLELA CHARATH KUMAR REDDY	110718106036	ECE	2022	OFF	PRELUDESYS
25	MALLIHEMALATHA	110718106037	ECE	2022	OFF	FLOWSERVE
26	MODEPALLI VARUN SAI CHOWDARY	110718106038	ECE	2022	OFF	INFOSYS
27	NAMALA VENKATA SRAVAN KUMAR	110718106039	ECE	2022	OFF	FACE PREP
28	NARESH KUMAR R	110718106040	ECE	2022	OFF	SUTHERLAND
29	NIKKUDALA RAMYA	110718106041	ECE	2022	OFF	SUTHERLAND
30	PALURU PRABHAKAR	110718106042	ECE	2022	OFF	WIPRO
31	PANEM SRIVIDYA	110718106043	ECE	2022	OFF	CSS CORP
32	PAPAREDDY.BHEESHMITHA	110718106044	ECE	2022	OFF	MPHASIS, CSS CORP, FLOWSERVE
33	PAVITHRA BASKARAN	110718106045	ECE	2022	OFF	CSS CORP
34	PEJJAI DHARANIDHAR REDDY	110718106046	ECE	2022	OFF	PRELUDESYS, CAPGEMINI
35	PRIYA R	110718106048	ECE	2022	OFF	PRELUDESYS
36	PUDI JASWANTH	110718106049	ECE	2022	OFF	SUTHERLAND
37	PULI LOKESWAR REDDY	110718106051	ECE	2022	OFF	QUALITEST
38	RAJSHREE R	110718106052	ECE	2022	OFF	QUALITEST
39	SANGAVI V	110718106053	ECE	2022	OFF	WIPRO

40	SHAIK ABDUL HASEEB	110718106055	ECE	2022	OFF	PRELUDESYS,INFO SYS
41	SNEHA R	110718106057	ECE	2022	OFF	PRELUDESYS
42	SOMU SUMITHA	110718106058	ECE	2022	OFF	FACE PREP
43	VIGNESH ROHITH R	110718106070	ECE	2022	OFF	QUALITEST
44	S.VIJAY KUMAR	110718106071	ECE	2022	ON	MPHASIS,TEKION
45	YADANAPARTHI SASIKALA	110718106073	ECE	2022	OFF	SUTHERLAND
46	YUVANYA K	110718106074	ECE	2022	OFF	PRELUDESYS

Assessment Year: LYG m2 (2017-2021)

S.NO	STUDENTS NAME	UNIVERSITY SERIAL NUMBER	DISCIPLINE	YEAR OF PASSING FROM INSTITUTION	ON/OFF CAMPUS PLACED	NAME OF THE EMPLOYER
1	ABDUL RAHMAN M I	110717106001	ECE	2021	OFF	COOVM SYSTEM
2	AKASH	110717106002	ECE	2021	OFF	INFINITE SOLUTIONS
3	ARCHANA A	110717106004	ECE	2021	OFF	COOVM SYSTEM
4	ARUN KUMAR V	110717106005	ECE	2021	OFF	COOVM SYSTEM
5	BANU PRIYA S	110717106007	ECE	2021	OFF	TECH DIGITAL
6	BEERA VIJAY KIRAN	110717106008	ECE	2021	OFF	COOVM SYSTEM
7	BHARATHI J	110717106009	ECE	2021	OFF	COOVM SYSTEM
8	BHEEMANENI SRINADH	110717106010	ECE	2021	OFF	COOVM SYSTEM
9	ALAHARI CHARUKESH	110717106013	ECE	2021	OFF	TECH DIGITAL
10	CHEEDELLA RUPALYA	110717106014	ECE	2021	OFF	TECH DIGITAL
11	DALUVAI LAKSHMI	110717106017	ECE	2021	OFF	EC SOFT SOLUTIONS
12	DHINUGA M	110717106019	ECE	2021	OFF	MINDTREE
13	ERAGANA BOYINA PAVAN KUMAR	110717106022	ECE	2021	OFF	APPOSE ENGINEERING PVT LTD
14	GATTAMANENI SIVAKUMAR	110717106025	ECE	2021	OFF	MIND READERS SOFTWARE
15	GEETHANJALI SHARMA	110717106026	ECE	2021	OFF	INFOSYS
16	GIRI PRASADH T V	110717106027	ECE	2021	OFF	GAVS TECHNOLOGIES

17	GNANA SOWNDARI	110717106028	ECE	2021	OFF	EC SOFT SOLUTIONS
18	GAURAV SINGH	110717106029	ECE	2021	OFF	MINDTREE
19	GUJJALAPUDI PUSHYANTHI	110717106030	ECE	2021	OFF	INFINITE SOLUTIONS
20	GUTHI AISHWARYA	110717106032	ECE	2021	OFF	TECH DIGITAL
21	HARISH KUMAR M	110717106033	ECE	2021	OFF	EC SOFT SOLUTIONS
22	ISWARYA A L	110717106034	ECE	2021	OFF	MINDTREE
23	KAKARLA VAMSIDHAR REDDY	110717106035	ECE	2021	OFF	INFINITE SOLUTIONS
24	KAMALINI D	110717106037	ECE	2021	OFF	EC SOFT SOLUTIONS
25	KAMALI VARSHA K	110717106038	ECE	2021	OFF	MINDTREE
26	KAMESHWARAN K	110717106039	ECE	2021	OFF	TATA CONSULTING SERVICES
27	KAVYA M	110717106041	ECE	2021	OFF	TECH DIGITAL
28	KEERTHANA M	110717106042	ECE	2021	OFF	MINDTREE
29	KEERTHANA R	110717106043	ECE	2021	OFF	TECH DIGITAL
30	KIRTHANA K	110717106044	ECE	2021	OFF	INFINITE SOLUTIONS
31	KOMMALA JOY BENJAMIN	110717106045	ECE	2021	OFF	EC SOFT SOLUTIONS
32	KOPPOLU VENKATA TEJA	110717106047	ECE	2021	OFF	MINDTREE
33	KOTA ARUN	110717106048	ECE	2021	OFF	TECH DIGITAL
34	LAVANYA V	110717106050	ECE	2021	OFF	INFINITE SOLUTIONS
35	MADHUBALA P	110717106051	ECE	2021	OFF	EC SOFT SOLUTIONS
36	MALINEE M	110717106053	ECE	2021	OFF	TECH DIGITAL
37	MARIYAMMAL K	110717106054	ECE	2021	OFF	MINDTREE
38	MERCY J	110717106055	ECE	2021	OFF	TECH DIGITAL
39	NERASALA BALA VENGALIAH	110717106060	ECE	2021	OFF	CAPGEMINI
40	NIROSHA A	110717106063	ECE	2021	OFF	INDIA POST (BRANCH POST MASTER)
41	PADMARAJU PAVAN KALYAN	110717106065	ECE	2021	OFF	INFINITE SOLUTIONS

42	PALUGULLA SURENDRA REDDY	110717106066	ECE	2021	OFF	EC SOFT SOLUTIONS
43	PINDI ALEKYA	110717106067	ECE	2021	OFF	INFINITE SOLUTIONS
44	PRIYANKA S	110717106069	ECE	2021	OFF	TECH DIGITAL
45	PUCHAKATLA VENKATESH	110717106070	ECE	2021	OFF	EC SOFT SOLUTIONS
46	ROHITH KUMAR D	110717106074	ECE	2021	OFF	MINDTREE
47	SABITHA T	110717106075	ECE	2021	OFF	INFINITE SOLUTIONS
48	SANGEETHA B	110717106076	ECE	2021	OFF	EC SOFT SOLUTIONS
49	SHAIK ARSHAD	110717106078	ECE	2021	OFF	TECH DIGITAL
50	SHAPNA RAO A	110717106081	ECE	2021	OFF	TECH DIGITAL
51	SIVADA DIVIJA	110717106083	ECE	2021	OFF	CAPGEMINI
52	SUBIKSHA R	110717106087	ECE	2021	OFF	EC SOFT SOLUTIONS
53	SWETHA N	110717106089	ECE	2021	OFF	INFINITE SOLUTIONS
54	YAMUNA N	110717106093	ECE	2021	OFF	NTT DATA

4.6 PROFESSIONAL ACTIVITIES

4.6.1 Professional Societies / chapters and organising engineering events

A. Professional Societies/Chapters

S. No	Name of the Professional Society	Year of Inauguration	Category
1	The Institute of Engineers (India)	2020	Institution/Student
2	ICT Academy	2020	Institution
3	Indian Society for Technical Education (ISTE)	2021	Institution
4	Institution of Electronics and Telecommunication Engineers(IETE)	2022	Institution/Student

Details of Student Membership

S. No	Academic Year	No. of Students Enrolled for IE(I)Membership	No. of Students Enrolled for IETE Membership

1	CAY (2023-2024)	54	40
---	--------------------	----	----

B. Engineering Events organized at institute

S. No	Academic Year	Events
1	CAY (2024-25)	1
2	CAY m1(2023-24)	6
3	CAY m2 (2022-23)	10
4	CAY m3 (2021-22)	10

Details of the Students Chapter Activities (2024-2025)

S.NO	TOPIC	RESOURCE PERSON	DATE	CHAPTER
1	Technical Quiz, Circuit Debugging, Paper Presentation, Project Expo	II, III, IV Year Students Symposium	16.10.2024	IETE

Details of the Students Chapter Activities (2023-2024)

S.NO	TOPIC	RESOURCE PERSON	DATE	CHAPTER
1	Technical Seminar Topic: Future Trends Set to Revolutionized in Electronics and Communication Industry.	Dr. Prajin Duraisamy, Founder &CEO, Prajin group of companies, Chennai	20.03.2024	IETE
2	Technical Seminar Topic: Fuzzy Logic Controller	Dr. Kameswari M Professor, Kalasalingam Academy of Research and Education, Virudhunagar	08.03.2024	IETE
3	Technical Seminar Topic: IOT and Embedded System Design	Dr. Swarna Ravindra Babu,Founder & CEO of Coovum Smart Systems and Services Private Limited, Chennai.	20.02.2024	ISTE

4	Workshop Topic: Soldering	Dr. J. Vijay Anand, Assistant Professor, J.N.N Institute of Engineering, Chennai	13.02.2024	ISTE
5	Workshop Topic: Sensors and Arduino	Dr. T. Srihari, Professor, J.N.N Institute of Engineering, Chennai	05.02.2024	ISTE
6	Technical Quiz, Circuit Debugging Paper Presentation, Project Expo	II, III, IV Year Students Symposium	08.11.2023	ISTE

Details of the Students Chapter Activities (2022-2023)

S.NO	TOPIC	RESOURCE PERSON	DATE	CHAPTER
1	Guest Lecture Topic: Recent Trends in IoT	Ms. Arockiya Magelene, AP,Parisutham Institute of Science and Technology, Thanjavur	11.08.2022	IETE
2	Technical Seminar Topic: Security Issues in Internet of Things	Dr. Swarna Ravindra Babu, Founder& CEO of Coovum Smart Systems and Services Private Limited, Chennai.	13.10.2022	ISTE
3	Workshop Topic: Embedded System Design – ARM Cortex M4	Mr. S.S Manikandan Asst. Prof, RMKEC, Chennai	14.09.2022	IETE
4	Workshop Topic: Sensor Guided Robotics	Dr. Kannan, Professor Dr. MGR University, Chennai	22.08.2022 to 24.08.2022	IETE
5	Technical Quiz, Circuit Debugging Paper Presentation, Project Expo	II, III, IV Year Students Symposium	18.11.2022	ISTE
6	Students Activity Topic: Ideathon (Encouraged students to give solutions to real world problems)	Ms. M. Mariselvam, AP, Student Coordinator, J.N.N Institute of Engineering, Chennai	27.01.2023	ISTE
7	Students Activity Topic: Coding and debugging for Students	Dr. J. Vijay Anand, Assistant Professor, J.N.N Institute of Engineering, Chennai	14.02.2023	IETE

8	Workshop Topic: Robotic Arm	Dr. R. Partheepan, Knowledge Base, Chennai	20.02.2023 to 24.02.2023	IETE
9	Workshop Topic: IOT using Raspberry Pi	Dr. T. Srihari, Professor, J.N.N Institute of Engineering, Chennai	05.04.2023	ISTE
10	Technical Talk Topic: Basics and Importance of –Python & Artificial Intelligence	Dr. Prajin Duraisamy, Founder &CEO, Prajin group of companies, Chennai	11.04.2023	ISTE

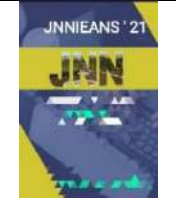
Details of the Students Chapter Activities (2021-2022)

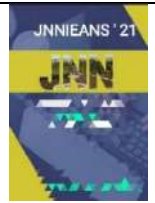
S.NO	TOPIC	RESOURCE PERSON	DATE	CHAPTER
1	Guest Lecture Topic: Opportunities for Engineers in the field of Plant Design Construction & Operation	Mr M Kannan Plant Design and Construction Founder Coimbatore	07.06.2021	ISTE
2	Technical Seminar Topic: Diy Robotics	Mr Praveen Pandian Founder and Lead Engineer, Evolve Lab, Chennai	23.06.2021	ISTE
3	Guest Lecture Topic: Student to Professional Transformation (S2p)	Mr Vijay Anandh, Assurance Manager, Mcdermott, Chennai	18.06.2021	ISTE
4	Technical Seminar Topic: Design Thinking Life Cantered Design	Dr. S Gupta, AP, Biomedical Engineering, NIT Rajpur	16.06.2021	ISTE
5	Technical Quiz, Circuit Debugging, Paper Presentation, Project Expo	II, III, IV Year Students Symposium	25.11.2021	ISTE
6	Webinar Topic: System on chip	Dr. Prajin Duraisamy, Founder& CEO of Prajin group of companies, Chennai	28.01.2022	ISTE

7	Technical Seminar Topic: Smart Pixels Array	Dr Karthick Sekhar AP/ECE,SRMIST, Chennai	22.07.2021	ISTE
8	Webinar Topic: Social and environment responsibility	Mr. J. Madhavan Knowledge Exchange, Chennai	26.10.2021	ISTE
9	Workshop Topic: Hands on training Microcontrollers	Dr. Prajin Duraisamy, Founder& CEO, Prajin group of companies, Chennai	02.03.2022 to 04.03.2022	ISTE
10	Webinar Topic: Believing in yourself	Dr. Ayesha Begum Saveetha School of Engineering, Chennai	10.02.2022	ISTE

4.6.2 Publication of Technical Magazines, Newsletters, etc.

S.No	Academic Year	Name of the Magazine	Student Convenor	Faculty Coordinator	Cover Design
1	June 2023- May 2024	Tech Hertz'23	Godson J David Abishek M Balavignesh S	Ms. N. Malathy	
		Tech Hertz'23	Godson J David Abishek M Balavignesh S	Ms. N. Malathy	
2	June 2022- May 2023	Tech Hertz'22	Valluru Mahesh Babu Godson J David Abishek M	Mr. M. Mariselvam	

		Tech Hertz'22	Valluru Mahesh Babu Godson J David Abishek M	Mr. M. Mariselvam	
		Tech Hertz'22	Valluru Mahesh Babu Godson J David Abishek M	Mr. M. Mariselvam	
		Tech Hertz'22	Valluru Mahesh Babu Godson J David Abishek M	Mr. M. Mariselvam	
		Tech Hertz'22	Valluru Mahesh Babu Godson J David Abishek M	Mr. M. Mariselvam	
3	June 2021- May 2022	Tech Hertz'21	Vignesh Rohith R Loghanandhini K Godson J	Ms. B. Shanmathi	
		Tech Hertz'21	Vignesh Rohith R Loghanandhini K Godson J	Ms. B. Shanmathi	
		Tech Hertz'21	Vignesh Rohith R Loghanandhini K Godson J	Ms. B. Shanmathi	

		Tech Hertz'21	Vignesh Rohith R Loghanandhini K Godson J	Ms. B. Shanmathi	
		Tech Hertz'21	Vignesh Rohith R Loghanandhini K Godson J	Ms. B. Shanmathi	

4.6.3 Participation in inter-institute events by students of the program of study

Events inside the state (List of students participated in the state)

S.No	Year	Total Number of Students Participated
1	2023-2024	25
2	2022-2023	17
3	2021-2022	10
	Total	52

2023-2024

S.No	Name(s) of the Student(s)	Name of the event in which he/she participated	Name of the Organizing Institute	Date of event	POs
1	Deepadayana IV ECE	Paper Presentation	RMK Engineering College, Chennai	08-10-2023	P01,P02 PO3,PO7
2	Sangeetha IV ECE	Paper Presentation	RMK Engineering College, Chennai	08-10-2023	P01,P02 PO3,PO7
3	Sangeetha IV ECE	Project Expo	RMK Engineering College, Chennai	09-10-2023	P01,P02 PO3,PO5, PO7,PO9, PO10
4	Deepadayana IV ECE	Project Expo	RMK Engineering College, Chennai	09-10-2023	P01,P02 PO3,PO5, PO7,PO9, PO10

CRITERION 4

NBA-SAR Department of ECE

2023-24

5	Balavignesh.S II ECE	Circuit Debugging	Velammal Institute of Technology, Chennai	14-10-2023	P01,P02 PO3,PO5, PO7,PO9, PO10
6	Sivagnanabharathi. II ECE	Circuit Debugging	Velammal Institute of Technology, Chennai	14-10-2023	P01,P02 PO3,PO5, PO7,PO9, PO10
7	Imran.U II ECE	Circuit Debugging	Velammal Institute of Technology, Chennai	14-10-2023	P01,P02 PO3,PO5, PO7,PO9, PO10
8	Nikeleshwaryaa.S II ECE	Circuit Debugging	Velammal Institute of Technology, Chennai	14-10-2023	P01,P02 PO3,PO5, PO7,PO9, PO10
9	Amirthaa.S II ECE	Circuit Debugging	Velammal Institute of Technology, Chennai	14-10-2023	P01,P02 PO3,PO5, PO7,PO9, PO10
10	Jayasree.R II ECE	Circuit Debugging	Velammal Institute of Technology, Chennai	14-10-2023	P01,P02 PO3,PO5, PO7,PO9, PO10
11	Sireesha A III ECE	Paper Presentation	Vel Tech University	28-02-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
12	Ranjith kumar.P II ECE	Non-Technical	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
13	Naveen kumar.N II ECE	Non-Technical	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
14	Sivagnanabharathi K II ECE	Technical - GenAI	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
15	Gowtham.M II ECE	Non-Technical	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
16	Nikeleshwaryaa.S II ECE	Non-Technical	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
17	Nivetha.B III ECE	Non-Technical	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6P O7,PO8, PO9,P10 PO11
18	Amirthaa.S II ECE	Non-Technical	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
20	Prashita.M II ECE	Non-Technical	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
21	Revathi.M II ECE	Non-Technical	Amrita Vishwa Vidyapeetham, Chennai	05-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11

CRITERION 4

NBA-SAR Department of ECE

2023-24

22	Sireesha .A III ECE	Idea factory – IGNITRON 24	Velammal Institute of Technology, Chennai	08-03-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
23	Dhanush Raj H III ECE	Paper presentation	ARJUN College of Technology ,coimbatore	12-04-2024 13-04-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
24	Jayasri .T III ECE	Paper presentation	ARJUN College of Technology ,coimbatore	12-04-2024 13-04-2024	P01,PO6 PO7,PO8, PO9,P10 PO11
25	Karthikeyan L III ECE	Paper presentation	ARJUN College of Technology ,coimbatore	12-04-2024 13-04-2024	P01,PO6 PO7,PO8, PO9,P10 PO11

2022-2023

S.No	Name(s) of the Student(s)	Name of the event in which he/she participated	Name of the Organizing Institute	Date of event	POs
1	Loghanandini IV ECE	Paper Presentation	Kings Engineering College, Chennai	17-03-2022	P01,PO2 PO3,PO7
2	Chrysolite Joy IV ECE	Paper Presentation	Kings Engineering College, Chennai	17-03-2022	P01,PO2 PO3,PO7
3	Sanjay IV ECE	Paper Presentation	Kings Engineering College, Chennai	17-03-2022	P01,PO2 PO3,PO7
4	Ganesh IV ECE	Paper Presentation	Kings Engineering College, Chennai	17-03-2022	P01,PO2 PO3,PO7
5	Vignesh.S III ECE	Project Expo	SSN College of Engineering, Chennai	27-04-2022	P01,PO2 PO3,PO5 PO7,PO9 PO10
6	Samadhi Venkatesh III ECE	Project Expo	SSN College of Engineering, Chennai	27-04-2022	P01,PO2 PO3,PO, PO7,PO9 PO10
7	Divya II ECE	Non-Technical	SSN College of Engineering, Chennai	27-04-2022	P01,PO6 PO7,PO8 PO9,P10 PO11
8	Pulla Nikhil IV ECE	Non-Technical	SSN College of Engineering, Chennai	27-04-2022	P01,PO6 PO7,PO8 PO9,P10 PO11
9	Penubala Poorna IV ECE	Project Expo	SSN College of Engineering, Chennai	27-04-2022	P01,PO2 PO3,PO5 PO7,PO9 PO10
10	Samadhi srikanth IV ECE	Non-Technical	SSN College of Engineering, Chennai	27-04-2022	P01,PO6 PO7,PO8 , PO9,P10 PO11

CRITERION 4

NBA-SAR Department of ECE

2023-24

11	Sharmila III ECE	Paper Presentation	TJS Engineering College, Chennai	21-10-2022	P01,PO2 PO3,PO5 PO7,PO9 PO10
12	Sharmila III ECE	Circuit Debugging	TJS Engineering College, Chennai	21-10-2022	P01,PO2 PO3,PO5 PO7,PO9 PO10
13	Sharmila III ECE	Technical Quiz	TJS Engineering College, Chennai	21-10-2022	P01,PO2 PO3,PO7
14	Arun Kumar L III ECE	Paper Presentation	Velammal Institute of Technology, Chennai	23-03-2023	P01,PO2 PO3,PO7
15	Godson J III ECE	Paper Presentation	Velammal Institute of Technology, Chennai	23-03-2023	P01,PO2 PO3,PO7
16	Akalya III ECE	Paper Presentation	Velammal Institute of Technology, Chennai	23-03-2023	P01,PO2 PO3,PO7
17	Jayasri III ECE	Paper Presentation	Velammal Institute of Technology, Chennai	23-03-2023	P01,PO2 PO3,PO7

2020-2021

S.No	Name(s) of the Student(s)	Name of the event in which he/she participated	Name of the Organizing Institute	Date of event	POs
1	Kovi Pavan III ECE	Project Expo - Spark 2k21	Velammal Institute of Technology, Chennai	19-03-2021	P01,PO2 PO3,PO5 PO7,PO9 PO10
2	Sanjay S III ECE	Project Expo - Spark 2k21	Velammal Institute of Technology, Chennai	19-03-2021	P01,PO2 PO3,PO5 PO7,PO9 PO10
3	Saranya S III ECE	Project Expo - Spark 2k21	Velammal Institute of Technology, Chennai	19-03-2021	P01,PO2 PO3,PO5 PO7,PO9 PO10
4	Sruthi Gnana Priya D III ECE	KALAm 21 -Tech CID	Dr. MGR Educational Research and Institute, Chennai	05-10-2021	P01,PO6 PO7,PO8 PO9,P10 PO11
5	Valluru Mahesh Babu III ECE	KALAm 21 -Tech CID	Dr. MGR Educational Research and Institute, Chennai	05-10-2021	P01,PO6 PO7,PO8 PO9,P10 PO11
6	Saranya S III ECE	KALAm 21 -Ellucidation	Dr. MGR Educational Research and Institute, Chennai	06-10-2021	P01,PO6 PO7,PO8 PO9,P10 PO11

CRITERION 4

NBA-SAR Department of ECE

2023-24

7	Loghanandhini K III ECE	KALAm 21 -Ellucidation	Dr. MGR Educational Research and Institute, Chennai	06-10-2021	P01,PO6 PO7,PO8 PO9,P10 PO11
8	Mohan III ECE	Connexions	Alpha College of Engineering, Chennai	25-10-2021	P01,PO6 PO7,PO8 PO9,P10 PO11
9	Keerthi Vasan III ECE	Connexions	Alpha College of Engineering, Chennai	25-10-2021	P01,PO6 PO7,PO8 PO9,P10 PO11
30	Ganesh P III ECE	Connexions	Alpha College of Engineering, Chennai	25-10-2021	P01,PO6 PO7,PO8 PO9,P10 PO11

B. Events outside the state (List of students participated in other state)

Events outside the state (List of students participated in other state)

S.No	Year	Total Number of Students Participated
1	2023-2024	11
2	2022-2023	18
3	2021-2022	15
	Total	45

2023-2024

S.No	Name(s) of the Student(s)	Name of the event in which he/she participated	Name of the Organizing Institute	Date of event	POs
1	Manoj R III ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
2	Nelamala Yashwanth R III ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
3	Surendhar R III ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology,	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10

CRITERION 4

NBA-SAR Department of ECE

2023-24

			Puducherry		
4	Sangeetha L III ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
5	David Abishek M III ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
6	Avula Venkata Vamsi Krishna II ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
7	Jayasree R II ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
8	Mallang Mohseena Taj Begum II ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
9	Nivetha B II ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
10	Prashitha G II ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10
11	Ranjith Kumar P II ECE	Mitilence 2024	Mankula Vinayagar Institute of Technology, Puducherry	16.03.2024	P01,PO6 PO7,PO8, PO9,PO10

2022-2023

S.No	Name(s) of the Student(s)	Name of the event in which he/she participated	Name of the Organizing Institute	Date of event	POs
1	Deepadayana S III ECE	ELITES-2K2	Narayana Engineering College, Nellore, Andhra Pradesh	18-06-2022	PO1,PO2 PO3,PO7
2	Patapanthula Simhadri III ECE	ELITES-2K2	Narayana Engineering College, Nellore, Andhra Pradesh	18-06-2022	PO1,PO2 PO3,PO7
3	Samadhi Venkatesh III ECE	ELITES-2K2	Narayana Engineering College, Nellore, Andhra Pradesh	18-06-2022	PO1,PO2 PO3,PO7
4	Abirami a II ECE	ELITES-2K2	Narayana engineering college, Nellore, Andhra Pradesh	18-06-2022	PO1,PO2 PO3,PO7
5	Divya k II ECE	ELITES-2K2	Narayana engineering college, Nellore, Andhra Pradesh	18-06-2022	PO1,PO2 PO3,PO7
6	Tembeti Mouneesha III ECE	Debugging	CHRIST College of Engineering and Technology, Puducherry	10.03.2023	P01,PO6 PO7,PO8, PO9,PO10
7	Koneru Narayana II ECE	Debugging	CHRIST College of Engineering and Technology, Puducherry	10.03.2023	P01,PO6 PO7,PO8, PO9,PO10

CRITERION 4

NBA-SAR Department of ECE

2023-24

8	M Reddy Vara Prasad IV ECE	Debugging	CHRIST College of Engineering and Technology, Puducherry	10.03.2023	P01,PO6 PO7,PO8, PO9,PO10
9	Samadhi Jayanth IV ECE	Debugging	CHRIST College of Engineering and Technology, Puducherry	10.03.2023	P01,PO6 PO7,PO8, PO9,PO10
10	Valluru Mahesh Babu IV ECE	Debugging	CHRIST College of Engineering and Technology, Puducherry	10.03.2023	P01,PO6 PO7,PO8, PO9,PO10
11	Vadlamudi Rakesh IV ECE	Debugging	Mankula Vinayagar Institute of Technology, Puducherry	24.03.2023	P01,PO6 PO7,PO8, PO9,PO10
12	Manoj R III ECE	Debugging	Mankula vinayagar Institute of Technology	24.03.2023	P01,PO6 PO7,PO8, PO9,PO10
13	Praveen M III ECE	Debugging	Mankula vinayagar Institute of Technology	24.03.2023	P01,PO6 PO7,PO8, PO9,PO10
14	Vempuluru Hari Kiran IV ECE	Non-Technical	Mankula Vinayagar Institute of Technology, Puducherry	24.03.2023	P01,PO6 PO7,PO8, PO9,P10 PO11
15	Chrysolite Joy S IV ECE	Non-Technical	Mankula Vinayagar Institute of Technology, Puducherry	24.03.2023	P01,PO6 PO7,PO8, PO9,P10 PO11
16	Sanchi Pavan Kumar IV ECE	Non-Technical	Mankula Vinayagar Institute of Technology, Puducherry	24.03.2023	P01,PO6 PO7,PO8, PO9,P10 PO11
17	Jeevana A L IV ECE	Non-Technical	Mankula Vinayagar Institute of Technology, Puducherry	24.03.2023	P01,PO6 PO7,PO8, PO9,P10 PO11
18	Devipriya P IV ECE	Non-Technical	Mankula Vinayagar Institute of Technology, Puducherry	24.03.2023	P01,PO6 PO7,PO8, PO9,P10 PO11

2021-2022

S.No	Name(s) of the Student(s)	Name of the event in which he/she participated	Name of the Organizing Institute	Date of event	POs
1	Arun Kumar L II ECE	Tech Events	Pondicherry Engineering College, Puducherry	09-09-2021	P01,PO6 PO7,PO8, PO9,PO10
2	Godson J II ECE	Tech Events	Pondicherry Engineering College, Puducherry	09-09-2021	P01,PO6 PO7,PO8, PO9,PO10
3	Noor Jakeer II ECE	Tech Events	Pondicherry Engineering College, Puducherry	09-09-2021	P01,PO6 PO7,PO8, PO9,PO10

CRITERION 4

NBA-SAR Department of ECE

2023-24

4	Jayasri B II ECE	Tech Events	Pondicherry Engineering College, Puducherry	09-09-2021	P01,PO6 PO7,PO8, PO9,PO10
5	Balakrishnan k II ECE	Tech Events	Pondicherry Engineering College	09-09-2021	P01,PO6 PO7,PO8, PO9,PO10
6	Chekuri divya II ECE	Tech Events	Pondicherry Engineering College	09-09-2021	P01,PO6 PO7,PO8, PO9,PO10
7	Akalya K II ECE	NTSEE-2021	Narayana engineering college	30-12-2021	P01,PO6 PO7,PO8, PO9,PO10
8	Lokeshwari B II ECE	NTSEE-2021	Narayana engineering college	30-12-2021	P01,PO6 PO7,PO8, PO9,PO10
9	Priyadharshini P II ECE	NTSEE-2021	Narayana engineering college	30-12-2021	P01,PO6 PO7,PO8, PO9,PO10
10	Sharmila R II ECE	NTSEE-2021	Narayana engineering college	30-12-2021	P01,PO6 PO7,PO8, PO9,PO10
11	Yellu jaya sai II ECE	NTSEE-2021	Narayana engineering college	30-12-2021	P01,PO6 PO7,PO8, PO9,PO10
12	Samadhi Venkatesh II ECE	NTSEE-2021	Narayana Engineering College, Nellore, Andra Pradesh	30-12-2021	P01,PO6 PO7,PO8, PO9,P10 PO11
13	Vignesh S II ECE	NTSEE-2021	Narayana Engineering College, Nellore, Andra Pradesh	30-12-2021	P01,PO6 PO7,PO8, PO9,P10 PO11
14	Tembeti Mouneesha II ECE	NTSEE-2021	Narayana Engineering College, Nellore, Andra Pradesh	30-12-2021	P01,PO6 PO7,PO8, PO9,P10 PO11
15	Patapanthula Simhadri II ECE	NTSEE-2021	Narayana Engineering College, Nellore, Andra Pradesh	30-12-2021	P01,PO6 PO7,PO8, PO9,P10 PO11

C. Prizes/awards received in such events

2022

S.No	Name of the Student	Event Participated	Name of the organization	Year	Position/ Prize, if any received	POs
1	Sharmila II ECE	Paper Presentation	TJS Engineering College, Chennai	2022	2nd Prize	P01,PO6 PO7,PO8, PO9,PO10

2	Ganesh III ECE	Paper Presentation	Kings Engineering College, Chennai	2022	1st Prize	P01,PO6 PO7,PO8, PO9,PO10
3	Loghanandini III ECE					
4	Chrysolite Joy III ECE					
5	Sanjay III ECE					

2023

S.No	Name of the Student	Event Participated	Name of the organization	Year	Position/ Prize, if any received	POs
1	Arun Kumar II ECE	Paper Presentation	Velammal Institute of Technology, Chennai	2023	3 rd Prize	P01,PO6 PO7,PO8, PO9,PO10
2	Godson II ECE					
3	Akalya II ECE					
4	Jayasri II ECE					
5	Deepadayana II ECE	Non-Technical	Velammal Institute of Technology, Chennai	2023	1st Prize	P01,PO6 PO7,PO8, PO9,PO10
6	Priyadharshini II ECE					
7	Sangeeetha II ECE					

CRITERION 5	Faculty Information and Contributions													200
-------------	---------------------------------------	--	--	--	--	--	--	--	--	--	--	--	--	-----

S. No	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is “No”)	Nature of Association (Regular/Contract)
		Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	Dr. D.JOSEPH JEYAKUMAR	M.E., Ph.D	Anna University	31-05-2016	Y	Professor	04-07-2018	04-07-2018	ECE	VLSI	05	NIL	NIL	No	Regular
2	Mr.U. SIDDHARTH NAMBI	M.E.	University of Madras	31-05-2001	Y	Associate Professor	01-04-2017	02-06-2009	ECE	Applied Electronics	NIL	NIL	NIL	No	Regular
3	Mrs. R.NITHYA	M.E.	Anna university	31-05-2011	Y	Assistant Professor	-	02-07-2012	ECE	Communication Systems	01	NIL	NIL	No	Regular
4	Mr. M. MARISELVAM	M.E.	Anna university	30-04-2013	Y	Assistant Professor	-	01-07-2013	ECE	VLSI Design	05	NIL	NIL	No	Regular
5	Dr .N.MALATHY	M.E.	Anna university	31-07-2013	Y	Assistant Professor	-	27-06-2018	ECE	Power Electronics	03	NIL	YES	No	Regular
6	Mrs.P.B. SMITHA	M.E.	Sathyabama university	30-04-2005	Y	Assistant Professor	-	22-08-2022	ECE	Electronics and control	02	NIL	NIL	No	Regular
7	Mr.K.T.PANNERSELVAM	M.E.	Anna university	31-05-2008	Y	Assistant Professor	-	03-10-2022	ECE	Computer and Communication	NIL	NIL	NIL	30-05-2024	Regular
8	Mrs.C.MULLAI KODI	M.E.	Anna university	30-06-2017	Y	Assistant Professor	-	09-08-2023	ECE	Communication and Networks	01	NIL	NIL	No	Regular

CRITERION # 5

Department of ECE, J.N.N Institute of Engineering

Department of ECE, J.N.N Institute of Engineering

239 of 546

9	Dr.G.AYAPPAN	M.E.	Anna university	30-06-2007	Y	Assistant Professor	-	24-08-2023	ECE	VLSIDesign	05	NIL	YES	30-05-2024	Regular
10	Dr.J.VIJAY ANAND	M.Tech., Ph.D	Anna university	06.03.2022	Y	Associate Professor	22-08-2022	22-08-2022	ECE	Control and Instrumentation	10	NIL	NIL	30-05-2024	Regular
11	Mr.J.PRAVEENKUMAR	M.E.	Anna university	30-04-2014	Y	Assistant Professor	-	03-07-2017	ECE	VLSIDesign	NIL	NIL	NIL	30-04-2024	Regular
12	MS.B.SHANMATHI	M.E.	Anna university	31-05-2018	N	Assistant Professor	-	10-07-2019	ECE	Applied Electronics	01	NIL	NIL	02-11-2023	Regular
13	Mrs.N.REVATHY	M.E.	Anna university	30-06-2007	N	Associate Professor	06-05-2015	06-05-2015	ECE	Embedded systems technologies	02	NIL	NIL	26-06-2023	Regular
14	Dr.R.SENTHIL RAMA	M.E., Ph.D	Anna university	20-12-2019	N	Associate Professor	09-04-2021	09-04-2021	ECE	Power Electronics	05	NIL	NIL	05-07-2023	Regular
15	Dr.N.HEMALATHA	M.E, Ph.D	Anna university	31-03-2020	N	Associate Professor	09-04-2021	09-04-2021	ECE	Power Electronics	05	NIL	NIL	30-07-2023	Regular
16	Dr.R.PARTHEEPAN	M.E.	Anna university	31-05-2011	N	Assistant Professor	-	18-02-2012	ECE	VLSIDesign	05	NIL	NIL	23-06-2023	Regular
17	Mr.S.TAMILVANAN	M.Tech.	Anna university	31-05-2013	N	Assistant Professor	-	24-07-2019	ECE	Embedded System	NIL	NIL	NIL	27-06-2023	Regular
18	Mrs.R.RAJARAJESWARI	M.E.	Anna university	30-04-2020	N	Assistant Professor	-	25-10-2021	ECE	Applied Electronics	NIL	NIL	NIL	07-05-2023	Regular
19	Mrs.T.INDHUMATHI	M.E.	Anna university	30-04-2009	N	Assistant Professor	-	05-08-2019	ECE	Medical Electronics	NIL	NIL	NIL	07-03-2023	Regular
20	Dr.A.V.MAYAKANNAN	M.E., Ph.D	Sathyabama university	30-04-2013	N	Professor	16-12-2019	16-12-2019	ECE	ECE	06	NIL	NIL	26-06-2022	Regular
21	Mr.M.KARTHIK PRABU	M.E.	Anna university	30-06-2013	N	Assistant Professor	-	03-07-2017	ECE	VLSIDesign	NIL	NIL	NIL	27-06-2022	Regular
22	Mrs.R.CHANDRALEKHA	M.E.	Anna university	30-06-2018	N	Assistant Professor	-	01-07-2019	ECE	Communication System	NIL	NIL	NIL	07-07-2022	Regular
23	Ms.S.SOUNDARYA	M.E.	Anna university	30-06-2020	N	Assistant Professor	-	21-12-2020	ECE	Wireless Technology	NIL	NIL	NIL	28-06-2022	Regular
24	Ms.D.V.SWATHI	M.E.	VIT University	30-06-2020	N	Assistant Professor	-	21-12-2020	ECE	Embedded System	NIL	NIL	NIL	30-06-2022	Regular
25	Ms.S.INDIRA	M.E.	Anna university	30-07-2020	N	Assistant Professor	-	22-01-2021	ECE	VLSIDesign	NIL	NIL	NIL	07.05.2022	Regular

CRITERION # 5

Department of ECE, J.N.N Institute of Engineering

Department of ECE, J.N.N Institute of Engineering

240 of 546

26	Mrs.A.EVANGELIN EBENEZER	M.E.	Anna university	30-04-2021	N	Assistant Professor	-	01-10-2021	ECE	Wireless Communication	NIL	NIL	NIL	29-06-2022	Regular
27	Ms.C.RAMYA	M.E.	Anna university	31-07-2021	N	Assistant Professor	-	13-12-2021	ECE	Wireless and Network Communication	NIL	NIL	NIL	07-08-2022	Regular
28	Dr. ANAND KUMAR	M.Tech., Ph.D	MGR university	15-08-2023	Y	Assistant Professor	-	05-03-2024	ECE	VLSI DESIGN	04	NIL	NIL	No	Regular
29	Dr. G. THANIGAIVEL	M.E., ,Ph.D	Annamalai university	28-02-2022	Y	Assistant Professor	-	09-09-2024	ECE	Applied Electronics	02	NIL	NIL	No	Regular
30	Mrs. S. SOWMYA	M.E.	Anna university	30-04-2021	Y	Assistant Professor	-	04-03-2024	ECE	Applied Electronics	NIL	NIL	NIL	No	Regular

CRITERION # 5

Department of ECE, J.N.N Institute of Engineering

5.1. STUDENT-FACULTY RATIO (SFR)

UG

No. of UG Programs in the Department

1

 :

5.1 STUDENT FACULTY RATIO				
No. of UG programs in Department	n	01		
		CAY 2023-24	CAYm1 2022-23	CAYm2 2021-22
No. of students in UG Second Year	U1	60+2	60+0	60+2
No. of students in UG Third Year	U2	60+0	60+2	120+0
No. of students in UG Fourth Year	U3	60+2	120+0	120+0
Total No. of Students in the Department (S)		184	242	302
No. of Faculty in the Department(F)		11	16	22
Student Faculty Ratio(SFR)		16.73	15.125	13.73
Average SFR		15.19		

Note: All the faculty whether regular or contractual (except Part-Time), will be considered. The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Faculty Student Ratio. However, following will be ensured in case of contractual faculty:

1. Shall have the AICTE prescribed qualifications and experience.
2. Shall be appointed on full time basis and worked for consecutive two semesters during the particular academic year under consideration.
3. Should have gone through an appropriate process of selection and the records of the same shall be made available to the visiting team during NBA visit

5.1.1 Provide the information about the regular and contractual faculty as per the format mentioned below:

	Total number of regular faculty in the department	Total number of contractual faculty in the department	Total number of contractual faculty in the department
CAY(2023-24)	11	0	0
CAYm1(2022-23)	16	0	0
CAYm2(2021-22)	22	0	0

Average SFR for three assessment years : 15.19

5.2. FACULTY CADRE PROPORTION

Year	Professor		Associate Professor		Assistant Professor	
	Required	Available	Required	Available	Required	Available
	F1		F2		F3	
CAY (2023-24)	1.00	1.00	2.00	1.00	6.00	9.00
CAYm1 (2022-23)	1.00	1.00	2.00	3.00	8.00	12.00
CAYm2(2021-22)	1.00	2.00	3.00	2.00	10.00	18.00
Average Number	RF1= 1.00	AF1=1.33	RF2=2.33	AF2=2	RF3= 8.00	AF3=13
CADRE RATIO MARKS = $[(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5$						

= 24.5

5.3 FACULTY QUALIFICATION

Q=2.5 x [(10X+4Y)/Y]								
Where X is number of regular faculty with Ph.D.,								
Y is the number of regular faculty with M.Tech.,								
F is the number of regular faculty required to comply 20:1								
Faculty Student Ratio (Number of faculty and Number of students required)								
Year		Intake	Required Faculty	X	Y	F	FQ=2.5 x [(10X+4Y)/Y]	FQ
CAY	2023-24	184	9	2	9	9		15.56
CAYm1	2022-23	242	11	5	12	11		22.27
CAYm2	2021-22	302	14	5	17	14		21.071
Average Assessment								19.63

5.4 FACULTY RETENTION

CRITERION 5 FACULTY INFORMATION CONTRIBUTIONS:				
Years		Actual No. of Faculty	No. of Faculty retained from CAYm2 to CAY	
			No. of Faculty Retained	% of Faculty Retained
CAYm2	2021-22	22	5	50%
CAYm1	2022-23	16		
CAY	2023-24	10		

S. No.	Name of the Faculty Member	CAY 2023-24	CAYm1 2022-23	CAYm2 2021-22
1	Dr. D.JOSEPH JEYAKUMAR	YES	YES	YES
2	Mr. U. SIDDHARTH NAMBI	YES	YES	YES
3	Mrs. R.NITHYA	YES	YES	YES
4	Mr. M. MARISELVAM	YES	YES	YES
5	Dr .N.MALATHY	YES	YES	YES
6	Mrs. P. B. SMITHA	YES	YES	NO
7	Mr.K.T.PANNERSELVAM	NO	YES	NO
8	Mrs. C. MULLAI KODI	YES	NO	NO
9	Dr. G. AYAPPAN	YES	NO	NO
10	Dr. J. VIJAY ANAND	YES	YES	NO
11	Mr. J. PRAVEENKUMAR	YES	YES	YES
12	MS.B.SHANMATHI	NO	YES	YES
13	Mrs. N. REVATHY	NO	YES	YES
14	Dr. R. SENTHIL RAMA	NO	YES	YES
15	Dr. N. HEMALATHA	NO	YES	YES
16	Dr. R. PARTHEEPAN	NO	YES	YES
17	Mr. S.TAMILVANAN	NO	YES	YES
18	Mrs. R. RAJARAJESWARI	NO	NO	YES
19	Mrs. T.INDHUMATHY	NO	NO	YES
20	Dr. A.V.MAYAKANNAN	NO	NO	YES
21	Mr. M.KARTHIK PRABU	NO	NO	YES
22	Mrs. R. CHANDRALEKHA	NO	NO	YES
23	Ms. S . SOUNDARYA	NO	NO	YES
24	Ms. D. V. SWATHI	NO	NO	YES

CRITERION # 5

Department of ECE, J.N.N Institute of Engineering

25	Ms. S. INDIRA	NO	NO	YES
26	Mrs .A. EVANGELIN EBENEZER	NO	NO	YES
27	Ms. C. RAMYA	NO	NO	YES
	No of Faculty Retained	6	14	14
	Total No of Faculty	12	16	22
	% of Faculty Retained	50	93	63
	Average	71		

5.5 INNOVATIONS BY THE FACULTY IN TEACHING AND LEARNING

The use of an innovative approach to teaching and learning for students to comprehend the curriculum. This helps in bridging the knowledge gap between the industry and the curriculum.

- To help students grasp concepts in greater detail, faculty members use contemporary teaching tools in the classroom, such as PowerPoint presentations, videos, blogs, and live demonstrations.
- The Department of Electronics and Communication Engineering places a high value on using cutting-edge instructional methods. All faculty members are encouraged to attend department-level events, such as faculty development workshops and initiatives that foster innovative teaching methods.
- The faculty members are directed to adapt the educational resources they have acquired while attending programmes in order to advance the teaching and learning process. In addition, the instructors urge their students to take part in extracurricular and intra curricular activities.
- To expand their expertise, faculty members and learners are encouraged to present and publish their work in national and international conferences and journals.

Following are the steps taken by the Faculty to improve teaching learning methodology.

- based Link Exposure: Students receive URL links for further study and comprehension of the subject.
- students grasp how various courses are applied in the real world.

- Faculties are encouraged students to utilize college & department library for reference.

Details of innovative teaching methods adopted are listed in the below table

Innovative Method	Process	Outcomes
E-Content	Online	• Students make in understanding and applying the course content.
Video Class	Live Demonstration	• These classes are very informative and give other ideas apart from the curriculum. • Separate classes are assigned for the students to refresh and enhance their knowledge. • In every video class different kinds of topics were focused and the overall topic was covered with appropriate video clips.
Group Discussion	Student takes responsibility while working in a team.	• Promote a deeper understanding of a topic and increase long-term retention. • Group discussions can also help maintain their focus by

		involving them in the learning process.
Flipped Class	Students learn new concept pre-class and check their understanding during various class activities.	- Improved academic performance, increased engagement and greater comprehension. - Develop critical thinking skills.
Brain Storming	The overall objective of this process is every student suggest many ideas based on their diverse knowledge.	It involves the spontaneous contribution of creative ideas and solutions.
Class Poll	- Student uses classroom polling technology in large lecture hall. - Classroom polling allows teacher to quickly ask a question and instantly receive responses from students during class. - Students can use online/mobile polling with computer.	Use polls to have students make predictions about course content, stimulate class discussion with peers and generate new ideas.
	The overall objective of this program is to motivate	This practice improves Listening and speaking skills.

Seminar	students for Self-learning and peer learning process.	• Student takes responsibility while working in a team. • The communication skills get build up through oral communication in seminars. • For delivering seminars students prepare, produce and use apt visual aids for effective presentation.
Demo	Demonstration of working model of the project.	Enhances the knowledge towards hardware aspect.
Visual Quiz	Presentation	To test the student understanding level at the end of each course topic.

ACADEMIC YEAR 2023-2024

S.No	Name of the Faculty	Subject Code/ Subject Name	Innovative practice
1	Dr.D.Joseph Jeyakumar	MX3084/Disaster Risk Reduction and Management	• E-Content • Videos • Group Discussion • Flipped Class • Brainstorming
		GE8071/Disaster Management	• Zero minute speech • Class Poll • Videos • E-content • Brainstorming

2	Mr.U.Sidharth Nambi	22ECT302/Signals and Systems	• Seminar • Videos • E-Content • Brain Storming • Minute paper presentation
		EC8791/Embedded and Real Time Systems	• Mind Map • Seminar • Videos • E-content • Brain Storming
3	Ms.Nithya	EC3551/Transmission lines and RF Systems	• Class poll • Zero-minute speech • Videos • E-Content • Brain Storming
4	Mr.M.Mariselvam	22ECT303/Digital Electronics	• Questioning strategy • Demonstration • Class poll • Seminar • Visual Quiz
		EC3552/VLSI and Chip Design	• Seminar • Video • E-Content • Mind Map • Class poll
5	Ms.P.B.Smitha	EC8701/Antennas and Microwave Engineering	• Zero-minute speech • Videos • Minute paper presentation • Demonstration • Guest lecture
		CEC345/Optical Communication and Networks	• Questioning Strategy • Demonstration • Class poll • Seminar • Visual quiz
6	Ms.N.Malathy	EC8751/Optical Communication	➤ Demonstration ➤ Class poll ➤ Seminar ➤ Visual quiz
			➤ Questioning Strategy

CRITERION # 5

Department of ECE, J.N.N Institute of Engineering

		CBM368/Therapeutic Equipment	➤ Random name picker ➤ Mind map ➤ Seminar ➤ Visual quiz
7	Mr.K.T.Panneer Selvam	22ECT301/Electronics Circuits	• Class poll • Roll play • E-Content • Mind map • Zero minute speech
		CEC366/Image Processing	• Seminar • Videos • E-Content • Brain storming • Minute paper presentation
8	Ms.C.Mullaikodi	EC8702/Ad hoc and Wireless Sensor Networks	• Zero minute speech • Videos • E-Content • Brainstorming
		EC3501/Wireless Communication	• Videos • E-Content • Field Visit • Visual quiz • Guest lecture
9	Mr.G.Ayappan	OBM752/Hospital Management	• Class poll • Videos • E-Content • Zero minute speech • Brainstorming
		22HST301/Entrepreneurship and startups	• Zero minute speech • E-Content videos • Group Discussion • Flipped Class

ACADEMIC YEAR 2022-2023

S.NO	Name of the Faculty	Subject Code /Subject Name	Innovative Paractice
			➤ Seminar ➤ Videos

1	Mr.Siddharth nambi	EC3452/ Electromagnetic Fields	➤ E-Content ➤ Brain Storming ➤ Minute paper presentation
		GE8076/Professional Ethics in Engineering	➤ Class poll ➤ Videos ➤ E-Content ➤ Zero-minute speech ➤ Brainstorming
2	Ms. N.Revathy	EC8652/ Wireless Communication	➤ Field visit ➤ Class poll ➤ Videos ➤ Zero-minute speech ➤ Brainstorming
3	Ms.N.Revathy	EC3401/ Networks and Security	➤ Questioning strategy ➤ Demonstration ➤ Class poll ➤ Seminar ➤ Visual quiz
4	Mr. Paneer selvam	EC3451/ Linear Integrated Circuits	➤ Class poll ➤ Videos ➤ E-Content ➤ Zero-minute speech ➤ Brainstorming
5	Mr.Mariselvam	EC3492/ Digital Signal Processing	➤ Mind map ➤ Class poll ➤ Videos ➤ Zero-minute speech ➤ Brainstorming
		EC8095/VLSI Design	➤ Zero-minute speech ➤ E-content ➤ Videos ➤ Group Discussion ➤ Flipped Class
6	Ms.Shanmathi	EC3491/ Communication Systems	➤ Field visit ➤ Class poll ➤ Videos ➤ Zero-minute speech ➤ Brainstorming

7	Dr.D.Joesph Jayakumar	GE3451/ Environmental Science and Sustainability	• Class poll • Roll play • E-Content • Mind map • Zero-minute speech
8	Ms.P.B Smitha	EC8691/Microprocessor and Microcontrollers	• Mind map • Class poll • Videos • Zero-minute speech • Brainstorming
9	Ms.N. Revathy	EC8651/Transmission Lines and RF Systems	• Class poll • Roll play • E-Content • Mind map • Zero-minute speech
10	Ms.Nithya	EC8004/Wireless Networks	• Seminar • Videos • E-Content • Brain storming • Minute paper presentation
		EC8094/Satellite Communication	• Questioning strategy • Demonstration • Class poll • Seminar • Visual quiz



Figure 5.5.1. Seminar



Figure 5.5.2. Mind Map



Figure 5.5.3. Class Poll



Figure 5.5.4. Demo

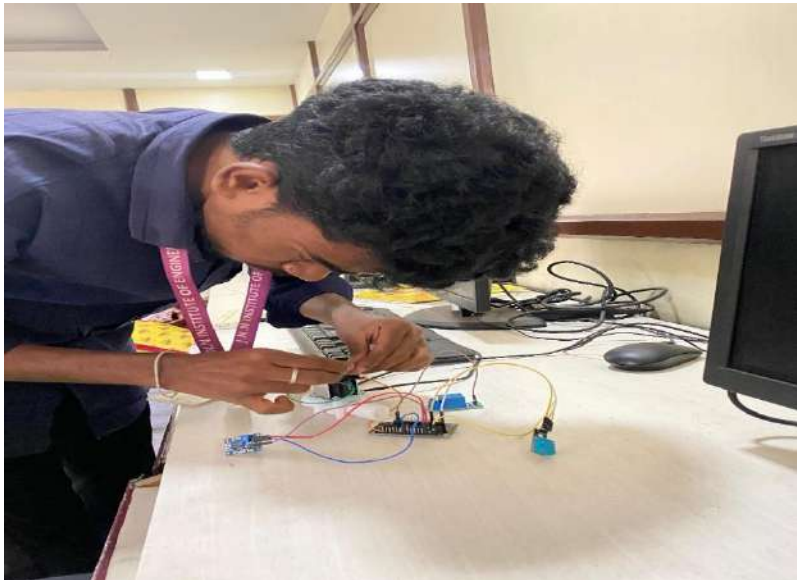


Figure 5.5.5 Mini Project



Figure 5.5.6 Mini Project

5.6. Faculty as participants in Faculty development

S.No	Name of the faculty	Max.5 per faculty			
		CAY	CAYm1	CAYm2	CAYm3`
		2023-2024	2022-2023	2021-2022	2020-2021
1	Dr. D.Joesph Jeyakumar	5	5	5	5
2	Mr. U.Siddharth Nambi	5	5	5	5
3	Mrs. R.Nithya	5	5	5	5
4	Mr. M.Mariselvam	5	5	5	5
5	Dr. N.Malathy	5	5	0	0
6	Mrs. P.B.Smitha	5	5	0	0
7	Mrs. C.Mullaikodi	5	0	0	0
8	Mrs. S.Sowmiya	0	0	0	0
9	Dr. B.Anand Kumar	0	0	0	0
10	Dr. G.Thanigaivel	0	0	0	0
11	Mr. K.T.Pannerselvam	5	5	0	0
12	Mr. G.Ayappan	5	0	0	0
13	Dr. J.VijayAnand	5	5	5	0
14	Mr. J.Praveen Kumar	5	0	0	5
15	Ms. B.Shanmathi	5	5	5	5
16	Mrs. N.Revathy	0	0	5	5
17	Dr. R.SenthilRama	0	5	0	0
18	Dr. N.Hemalatha	0	5	0	0
19	Mr. R.Partheepan	0	5	0	5
20	Mr. S.Tamilvanan	0	5	0	5
21	Mrs. R.Rajarajeawari	0	0	5	0

22	Mrs. T.Indhumathi	0	5	5	5
23	Dr. A.V. Mayakannan	0	0	0	5
24	Mr. M.Karthikprabhu	0	0	5	5
25	Mrs. R.Chandralekha	0	0	5	5
26	Ms. S.Soundarya	0	0	5	5
27	Ms. D.V.Swathi	0	0	5	5
28	Ms. S.Indria	0	0	5	5
29	Mrs. A.Evangelin Ebenezer	0	0	5	0
30	Ms. C.Ramya	0	0	5	0
SUM		60	70	80	80
RF=Number of faculty required to comply with 20:1 student-Faculty ratio as per 5.1		9	12	15	15
Assessment=3*(sum/0.5RF)(Marks limited to 15)		40	35	32	32
Average assessment over last four years (Marks limited to 15)=		34.75			

5.7 RESEARCH AND DEVELOPMENT

5.7.1 ACADEMIC RESEARCH

RESEARCH PAPER PUBLICATIONS

S. No.	Name of the Faculty Member	Designation	No. of Research Publications
1	Dr. D.JOSEPH JEYAKUMAR	Professor	05
2	Mr.U. SIDDHARTH NAMBI	Associate Professor	NIL
3	Mrs. R.NITHYA	Assistant Professor	01
4	Mr. M. MARISELVAM	Assistant Professor	05
5	Dr .N.MALATHY	Assistant Professor	03
6	Mrs.P.B. SMITHA	Assistant Professor	02
7	Mr.K.T. PANNERSELVAM	Assistant Professor	NIL
8	Mrs.C.MULLAI KODI	Assistant Professor	01
9	Dr.G.AYAPPAN	Assistant Professor	05
10	Dr.J.VIJAY ANAND	Associate Professor	10
11	Mr.J.PRAVEEN KUMAR	Assistant Professor	NIL
12	MS.B.SHANMATHI	Assistant Professor	01
13	Mrs.N.REVATHY	Associate Professor	02
14	Dr.R. SENTHIL RAMA	Associate Professor	05
15	Dr.N.HEMALATHA	Associate Professor	05
16	Dr.R.PARTHEEPAN	Assistant Professor	05

17	Mr.S.TAMILVANAN	Assistant Professor	NIL
18	Mrs.R. RAJARAJESWARI	Assistant Professor	NIL
19	Mrs.T.INDHUMATHY	Assistant Professor	NIL
20	Dr.A.V. MAYAKANNAN	Professor	06
21	Mr.M. KARTHIK PRABU	Assistant Professor	NIL
22	Mrs.R. CHANDRALEKHA	Assistant Professor	NIL
23	Ms.S.SOUNDARYA	Assistant Professor	NIL
24	Ms.D.V.SWATHI	Assistant Professor	NIL
25	Ms.S. INDIRA	Assistant Professor	NIL
26	Mrs.A.EVANGELIN EBENEZER	Assistant Professor	NIL
27	Ms.C.RAMYA	Assistant Professor	NIL
28	Dr. ANAND KUMAR	Assistant Professor	04
29	Dr. G. THANIGAIVEL	Assistant Professor	02
30	Mrs. S. SOWMYA	Assistant Professor	NIL

ACADEMIC YEAR 2024-25

S.No.	Title of paper	Name of the author/s	Name of journal	Year of Publication
1	Fabrication of Highly Porous and Sheet Like Fe3O4-Carbon Nanocomposites: A Versatile Catalyst for Electrocatalytic Oxygen Evolution Reactions	Dr. Anand Kumar	Chemistry select, Wiley	August, 2024
2	Implementation of an Automatic and Real-Time Detection of Glucose Levels based on	Dr. D. Joseph Jeyakumar, M.Mariselvam,	International Journal of Novel Research And Development	August, 2024

	Machine Learning Techniques			
3	Heterojunction interface engineering for stable and effective porous Fe ₃ O ₄ -ZnO nanocomposites: a highly efficient synergistic catalyst for oxygen evolution reaction	Dr. Anand Kumar	Springernature	April, 2024
4	Q-learning based forecasting early landslide detection in internet of thing wireless sensor network	Devasahayam Joseph Jeyakumar, Boominathan Shanmathi , Parappurathu Bahulayan Smitha, Shalini Chowdary, Thamizharasan Panneerselvam, Rajagopalan Srinath, Muthuraj Mariselvam, Mohanani Murali	International Journal of Electrical and Computer Engineering (IJECE	February, 2025
5	An Examination of the Most Recent Developments in Electronics for Communication	Sowmya.S	International Journal of Scientific Research in Engineering and Management (IJSREM)	August, 2024

	Engineers			
--	-----------	--	--	--

ACADEMIC YEAR 2023-24

S.No.	Title of paper	Name of the author/s	Name of journal	Year of Publication
1	Improved start-up strategy for a doubly fed induction machine fed large rated variable speed Pumped storage unit in pumping mode operation.	Malathy, N	Electrical Engineering	September, 2023
2	Implementation of deep CNN model for the detection of planet leaf disease	,Dr. J. Vijay Anand,	Journal on Recent and Innovation trends in Computing and Communication	August, 2023
3	Rotor short-circuited start-up strategy for a doubly fed induction machine-fed large-rated variable-speed pumped storage unit operating in pumping mode.	Malathy, N	Journal of Power Electronics	June, 2023
4	Novel Approach for Health Monitoring System Integration in Wearable Device.	Dr. Vijayanand. J	International Journal of All Research Education and Scientific Methods (IJARESM),	January, 2024
5	Implementation of deep CNN model for the detection of planet leaf disease	Dr. J. Vijay Anand	Journal on Recent and Innovation trends in Computing and Communication	August, 2023

6	Edge Detection Using SOC Technique	Dr. J. Vijay Anand	International Journal of Food and Nutritional Sciences,	January, 2023
7	Cloud-based Architecture Integrated with IoT Framework for Smart Agriculture Applications for Increased Productivity	Dr. J. Vijay Anand	International Journal of Food and Nutritional Sciences	January, 2023
8	Flood and Water Level Monitoring System Utilizing Wireless Sensor Network as a Solution for Smart Environmental Monitoring System	Dr. J. Vijay Anand	Asian Journal of Organic & Medicinal Chemistry	January, 2023
10	Control Strategy for Fuel Cell-Based Quasi Z Source Inverter	Dr. J. Vijay Anand	Energy, Materials and Communication Engineering (ICEMCE), International Conference on	December, 2023
11	Recent Trends in Detecting Crop Ailmer Using Machine Learning Techniques”	J. Vijay Anand	International Conference on Emerging Trends in Materials, Energy, Electronics and Information	December, 2023
12	Greening the Grid: Harnessing Solar Energy and Hybrid Active Power Filters for Superior Power Quality	J. Vijay Anand	International Conference on Multidisciplinary Research and Development	December, 2023

ACADEMIC YEAR 2022-23

S.No.	Title of paper	Name of the author/s	Name of journal	Year of Publication
1	Hermitan matrices based malicious cognitive radio detection and bayesian method for detecting primary user emulation attack	Dr. Joseph Jeyakumar , Ms. Shanmathi B , Ms. Smitha P. Mr. Murali M , Mr. Mariselvam M	Indonesian Journal of Electrical Engineering and Computer Science	May, 2023
2	Visualization of Occipital Lobe and Zygomatic arch of Brain Region Through Non Linear Perspective Projection using DCO Algorithm	R. Partheepan, J. Raja Paul Perinbam, M. Krishnamurthy, N. R. Shanker, Krishna Kumari & B.Chinthamani	Journal of Soft Computing	August, 2022

ACADEMIC YEAR 2021-22

S.No.	Title of paper	Name of the author/s	Name of journal	Year of Publication
1	Visualization of Dentate Nucleus, Pontine Tegmentum, Pontine Nuclei from CT Image via Non-Linear Perspective Projection”	R. Partheepan,	Journal of Signal, Image and Video Processing	July, 2021

2	"Visualization of Pterygomaxillary Fissure Structure and Shape in CT Image via Non-Linear Perspective Projection"	R. Partheepan,	Journal of Medical Imaging and Health Informatics	June, 2021
---	---	----------------	---	------------

ACADEMIC YEAR 2020-21

S.No.	Title of paper	Name of the author/s	Name of journal	Year of Publication
1	Heat And Mass Transfer Characteristics Of A Anofluid Flow Past A Vertical Slender Permeable Cylinder	Mariselvam, A V Mayakannan, Ashok G, R Partheepan	Journal Of Information And Computational Science	August, 2020
2	A Study On Online Spam Review Detection Methods By Machine Learning Approach	D Joseph jeyakumar, A V Mayakannan, Ashok G, Tamil vanan S	Journal Of Information And Computational Science	August, 2020

List of Faculty Pursing Ph.D.

S.No.	Name of the Faculty	Name of the Supervisor	Research Area	University	Status
1	R.Nithya	Dr. Edna Professor-ECE SSN College of Engineering	Cryptanalysis	Anna University	Ph.D Confirmation done. Yet to submit Synopsis

2	Ms.P.B. Smitha	Dr.P Kavipriya Professor- ECE Sathiyabama Institute of science and Technology	Cyber Physical System	Sathiyabama University	Ph.D Confirmation done. Yet to submit Synopsis.
---	----------------	---	--------------------------	---------------------------	---

Ph.D. awarded during the assessment period while working in the Institute

S. No .	Name of the Faculty	Title	Name of the Supervisor	Resear ch Area	University	Status
1	Dr. R.Partheeban	Visualization of Human Brain Structure in Medical Images Through Dyadic Wavelet Transform and Cat Swarm Optimization Algorithm.	Raja Paul Perinbam, J	Medical Image Processing	Anna University	Completed Year : 2022 https://shodhganga.inflibnet.ac.in/handle/10603/509516
2	Dr. G. Ayappan	Certain Investigation on Classification and Prediction of COVID-19 Cough Audio Signals using Improved Deep Learning Models-Based Optimization Algorithms.	Anila, S	Medical Signal Processing	Anna University	Completed Year : 2024 https://shodhganga.inflibnet.ac.in:8443/jspui/handle/10603/569107
3	Dr. N. Malathy	Improved starting methods of a	Dr. Y Sukhi	Power System	Anna University	Completed

		doubly fed induction machine fed pumped storage power plant operating in pumping mode.				Year: 2024
--	--	---	--	--	--	------------

RESEARCH PUBLICATIONS CITATIONS:

S. No.	Name of the Faculty Member	Designation	No. of Citations
1	Dr. D.JOSEPH JEYAKUMAR	Professor	07
2	Mr.U. SIDDHARTH NAMBI	Assistant Professor	NIL
3	Mrs. R.NITHYA	Assistant Professor	NIL
4	Mr. M. MARISELVAM	Assistant Professor	NIL
5	Dr .N.MALATHY	Assistant Professor	13
6	Mrs.P.B. SMITHA	Assistant Professor	NIL
7	Mr.K.T. PANNERSELVAM	Assistant Professor	NIL
8	Mrs.C.MULLAI KODI	Assistant Professor	NIL
9	Dr.G.AYAPPAN	Assistant Professor	15
10	Dr.J.VIJAY ANAND	Assistant Professor	139
11	Mr.J.PRAVEENKUMAR	Assistant Professor	NIL
12	MS.B.SHANMATHI	Assistant Professor	NIL
13	Mrs.N.REVATHY	Assistant Professor	NIL
14	Dr.R. SENTHIL RAMA	Assistant Professor	52
15	Dr.N.HEMALATHA	Assistant Professor	359
16	Dr.R.PARTHEEPAN	Assistant Professor	103

17	Mr.S.TAMILVANAN	Assistant Professor	NIL
18	Mrs.R. RAJARAJESWARI	Assistant Professor	NIL
19	Mrs.T.INDHUMATHY	Assistant Professor	NIL
20	Dr.A.V.MAYAKANNAN	Professor	147
21	Mr.M. KARTHIK PRABU	Assistant Professor	NIL
22	Mrs.R. CHANDRALEKHA	Assistant Professor	NIL
23	Ms.S.SOUNDARYA	Assistant Professor	NIL
24	Ms.D.V.SWATHI	Assistant Professor	NIL
25	Ms.S. INDIRA	Assistant Professor	NIL
26	Mrs.A.EVANGELIN EBENEZER	Assistant Professor	NIL
27	Ms.C.RAMYA	Assistant Professor	NIL
28	Dr. ANAND KUMAR	Assistant Professor	15
29	Dr. G. THANIGAIVEL	Assistant Professor	NIL
30	Mrs. S. SOWMYA	Assistant Professor	NIL

5.7.2 SPONSORED RESEARCH

2022-23 (CAYm1)

Project Title	Duration	Funding Agency	Amount
NIL	NIL	NIL	0.00
			Total Amount(z):0.00

2021-22 (CAYm2)

Project Title	Duration	Funding Agency	Amount
NIL	NIL	NIL	0.00

			Total Amount(z):0.00
2020-21 (CAYm3)			
Project Title	Duration	Funding Agency	Amount
NIL	NIL	NIL	0.00
			Total amount(z):0.00

Cumulative Amount(X + Y + Z) = 0 .00

5.7.3 DEVELOPMENT ACTIVITIES

Product Developmen: The best innovative Product developed by our student has been listed below.

S.No	Title of the Project	Student Name	Guide Name	Academic Year
1	Tech Army Suit	Ganesh P, Keerthivasan S, Sanjay S	Mr.M.Mariselvam	2022-2023
2	Human Alive Detection Robot	Kovi Pavan, M Reddy Vara Prasad, Yempuluru Balaji	Mr.K.T.Panneerselvam	
3	IOT Based Biometric Electronic Voting Machine	Chandragiri Sai Bhargavi, Annabathina Vyshnavi, Malli Hemalatha, Rajshree R	Mr.M.Mariselvam	2021-2022
4	Sea way border alert system for the person in the boat by	Abhignya G, Latha M, Priya R, Thenmozhi S	Mrs.N.Malathy	

	implementing RSSI			
5	Fire Fighting Robot Using GSM And Camera Module	K.Divya Bharathi, M.Keerthana, R.Keerthana	Ms. R. Nithya	2020-2021
6	A Novel Technique For Rail Damage Detention And Garbage Disposal Using Robotic Mechanism	J.Mercy, C.Sowmiya, A.Shapna Rao, R.Subiksha	Mrs. R. Chandralekha	

RESEARCH LABORATORIES

The aim of Research & Development Laboratories is to promote research activities among students and faculty members as well as to provide a robust platform for sharing, implementing innovative and creative ideas. It is used to facilitate exchange of information and interaction among the various research institutes and industries to develop skilled manpower in various emerging fields related with electronics and communication engineering department.

Objectives:

- To Promote Research & Development activities in newly emerging challenges in information and communication engineering technology.
- Application of qualitative as well as quantitative Research technique to enhance knowledge, capability of students and faculty members in emerging fields.

Goals:

- Promotion of Research & Development Activities with special emphasis on emerging domain.
- Motivate faculty members and students to participate in seminar/Conference/Workshop and further share his/her knowledge, experience with external members.
- To motivate faculty members and students to present/publish Research paper in reputed national & international journals.

The following laboratories are created for enhancing Research & Development activities

CRITERION # 5

Department of ECE, J.N.N Institute of Engineering

1. IOT LABORATORY

The IoT Lab is an initiative established to support and enlighten the colleges students in the Internet of Things and related fields. The primary objective is to help students gain new skills, advance their knowledge of the Internet of Things, while focusing on a variety of related fields. In addition, this will make it easier for the students to learn from one another. The IoT lab provides a community for students to discussions, understand about, and contribute on IoT-related proposals. Seminars, workshops, short courses, certifications, hackathons, project contests, and expositions are available to students and faculty members. The students will attempt to establish and maintain an environment at the educational institution that will greatly benefit both present and upcoming batches of students.

FACULTY ADVISOR: Ms. Malathy N, Assistant Professor

RESOURCES AVAILABLE:

Classrooms for conducting sessions and Computer Labs if possible for some sessions Basic Components like Arduino’s, Raspberry Pi’s, Node MCU’s, Various sensors, Robo Chasis, Relay Modules, Connecting Wires, Batteries etc.

Our faculty members have gone through online course related to IoT and gained the certificate.

S.No	Name of the Faculty	Course Details
1	Malathy N	Introduction and Programming with IoT Board an online course authorized by Pohang University of Science and Technology and offered through Coursera on October, 2022.

Details of training given by Resource member and our faculty member to our students.

S.No	Date	Activity	Resource Person with designation	Student Benefited
1	24-07-24	Expert talk On IOT	Mr. M. Gopu	II, III and IV Year
2	24-07-23	Guest Talk On IoT for Healthcare	Mr. C. Ganesh	III and IV Year
3	12.11.2022		Dr. Swarna Ravindra babu,	II, III and IV Year

		Expert Talk on Industry 4.0	Founder of COOVUM Smart System and Service Private Limited	
4	16.09.2022	Industry Application on IoT using Python	Mr. Muhammed Ilyas, C.E.O IT Experts Training	III and IV Year
5	10.07.2022	Students will have hands on experience in experiments related to IoT.	Ms. Malathy N/ ECE/ AP	II, III and IV Year
6	10.07.2021	Hands on training on IoT	Mr. M. Ganesh Kumar	II, III and IV Year

2. Physical Design Laboratory

The lab helps the students, researchers and all enthusiasts to acquire the essential concepts to deal with different practical experiments. The vision that lead to the inception of this venture have so far been achieved to a great extent and will always be tried to. The focus of this lab is widely spread towards different pros and cons of the entire upgrading VLSI and Embedded Systems domain. Development works at different levels like semiconductor device simulation, circuits & system design and research in recent improvements in Embedded platform are helping the students and faculty.

Our faculty members have gone through online course related to VLSI and gained the certificate.

S.No	Name of the Faculty	Course Details
1	Mariselvam M	Completed Certification Course “Static Timing Analysis”, 2023.

i. Instructional materials

Instructional materials are the **tools** used in active learning and assessment. Instructional Materials, also known as Teaching/Learning Materials (TLM) it involves collection of materials including animate, objects resources like laboratory manuals, e-lectures, lecture videos that a faculty may use in teaching and learning situations to help achieve desired learning objectives. Instructional materials may aid a student in strengthening a learning experience so as to make learning more exciting, interesting and interactive. It includes all the materials and physical means

an instructor might use to implement instruction and facilitate student’s achievement of instructional objectives.

LABORATORY MANUALS

Data Sheets

Learning Materials (LMS)

Laboratory Manual: Each academic year laboratory manuals are prepared by corresponding faculty members which includes objective, list of experiments, aim, apparatus/components required, circuit/logic/pin diagram, Program, theory, procedure, tabulation, model graph, Viva voce questions & learning outcomes. The laboratory manuals will be applied for copyright in the upcoming semester. The Laboratory manuals are kept in the laboratory for reference.

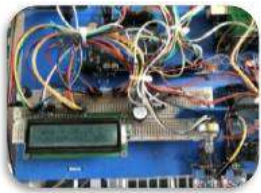
Course Materials: Faculty members prepare the e-materials for the benefits of students by posting them on the CAMU Learning Management System. Camu platform provides course materials for all subjects to assist students readily.

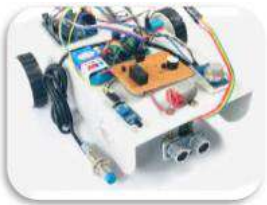
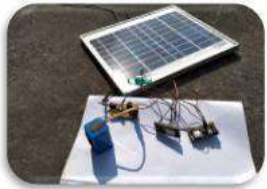
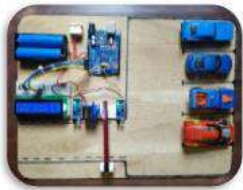
Data Sheets: Data sheets for electronic components are prepared and made available in the laboratory. Opcode sheet for Microprocessor and Microcontroller laboratory is prepared. Data sheet for processors such as TMS320C5X,6X fixed and floating point DSP Processor, ARM Processor.

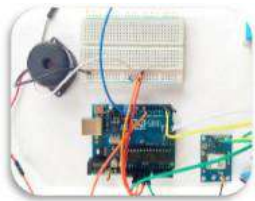
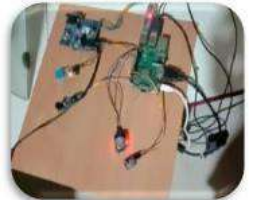
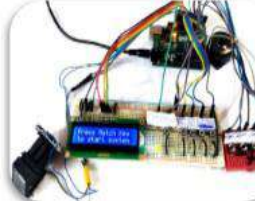
Learning materials: Each faculty member prepared lecture notes, university 2-mark question with answers, Part B & Part C questions for all units and given to the students through LMS (Learning Management System) CAMU.

ii. Working Models

A working model of an object is a physical representation of the product that shows its outlook, nature of working. The model is often smaller than the object it represents. It is a model of an actual or proposed prototype that replicates the working of product. Some of the working models are shown in the table below.

S.No	Title Of The Working Model	Outcomes	Photo Of Working Model
1	Smart Poultry Farm Incorporating GSM And IOT	A smart poultry farm utilizing GSM and IoT technologies can improve monitoring, management, and automation of poultry farming operations,	

		leading to increased efficiency, productivity, and profitability.	
2	Spy Robot for Border Surveillance	A spy robot designed for border surveillance can enhance border security by providing real-time monitoring, reconnaissance, and data gathering capabilities in remote or dangerous areas. Its deployment can improve situational awareness, response times, and overall border protection effectiveness.	
3	Smart Powering and Monitoring MPPT Based Solar Pv System Using IOT	Integrating IoT with Maximum Power Point Tracking (MPPT) technology in solar PV systems enables smart monitoring and control, optimizing energy output, efficiency, and maintenance, leading to increased renewable energy utilization and cost savings.	
4	Novel Parking Management System	A novel parking management system utilizes IoT sensors and smart algorithms to optimize parking space utilization, reduce traffic congestion, and enhance user experience through real-time parking availability information and automated payment systems.	
5	Sea-Way Border Alert System for The Person in The Boat by	A Sea-Way Border Alert System utilizing RSSI (Received Signal Strength Indication) technology	

	Implementing RSSI	provides real-time alerts and tracking for people in boats near maritime borders, enhancing safety and security measures. This system helps monitor and respond to potential border violations or emergencies effectively.	
6	IOT Based Biometric Electronic Voting Machine	An IoT-based biometric electronic voting machine enhances voting security and efficiency by integrating biometric authentication and IoT connectivity, enabling secure, convenient, and transparent voting processes with real-time data monitoring and analysis.	
7	Forest Monitoring System on IOT Based	An IoT-based forest monitoring system offers real-time tracking and analysis of environmental data, enabling timely detection of forest fires, illegal logging, and wildlife activities, facilitating prompt intervention and conservation efforts.	
8	A Railway Collision Avoidance System Exploiting Inter-Vehicle Communications	A railway collision avoidance system utilizing inter-vehicle communications enhances safety by enabling trains to exchange real-time position and speed data, facilitating automatic braking and collision avoidance, thereby reducing the risk of accidents and	

		improving railway operational efficiency.	
--	--	---	--

CONSULTANCY(FROM INDUSTRY)

ACADEMIC YEAR 2022-23 (CAYM1)

Project Title	Duration	Funding Agency	Amount
Automated Waste Segregator	12 Months	SESBL Foundation, Chitlapakkam,Chennai	80000.00
Machine Overheat Detection and Noise Level Alert	24 Months	Srivar Enterprises, Gummidipoondi	160000.00
Production System in industry	12 Months	V Formation, Madurai	125000.00
			Total Amount(X): 365000.00

ACADEMIC YEAR 2021-22 (CAYM2)

Project Title	Duration	Funding Agency	Amount
Design and Development of Electronic control system for automated water leak testing setup in Aluminum casting production industry	12 Months	Srivari Enterprises, Gummidipoondi	85000.00
			Total Amount(Y): 85000.00

ACADEMIC YEAR 2020-21 (CAYM3)

Project Title	Duration	Funding Agency	Amount
Nil	Nil	Nil	0.00
			Total Amount(Z): 0.00

Cumulative Amount(X + Y + Z) = 450000.00

5.8 FACULTY PERFORMANCE APPRAISAL AND DEVELOPMENT SYSTEM (FPADS)

Faculty members of Higher Educational Institutions today have to perform a variety of tasks pertaining to diverse roles. In addition to instruction, faculty members need to innovate and conduct research for their self-renewal, keep abreast with changes in technology, and develop expertise for effective implementation of curricula. They are also expected to provide services to the industry and community for understanding and contributing to the solution of real-life problems in industry. Another role relates to the shouldering of administrative responsibilities and co-operation with other Faculty, Heads-of-Departments and the Head of Institution. An effective performance appraisal system for faculty is vital for optimizing the contribution of individual Faculty to institutional performance.

The assessment is based on:

- A well-defined system for faculty appraisal for all the assessment years.
- Its implementation and effectiveness

BACKGROUND

The policy document is designed by HODs of all departments in consultation with Principal and Management. It is discussed with teaching and non-teaching staff in department meetings. The inputs and suggestions are taken into account for designing policy. The policy document is approved in the meeting of HODs, Principal and Management on 01-03-2019. This appraisal system will be effective from the academic year 2018-2019. Performance appraisal policy is the way to ensure the performance-oriented work environment in the organization, it helps employees to achieve the set objects and act as a reward for their contribution in the progress of the organization. J.N.N Institute of Engineering continuously makes efforts to improve the academic training and research environment in its constituent colleges. This is achieved not only by improving the infrastructure facilities but also by using effective teaching and learning methodologies. To assess the success of the inputs given by the institution, it is important to understand, whether the user of such facilities is indeed satisfied and getting the expected outcomes from the initiatives made.

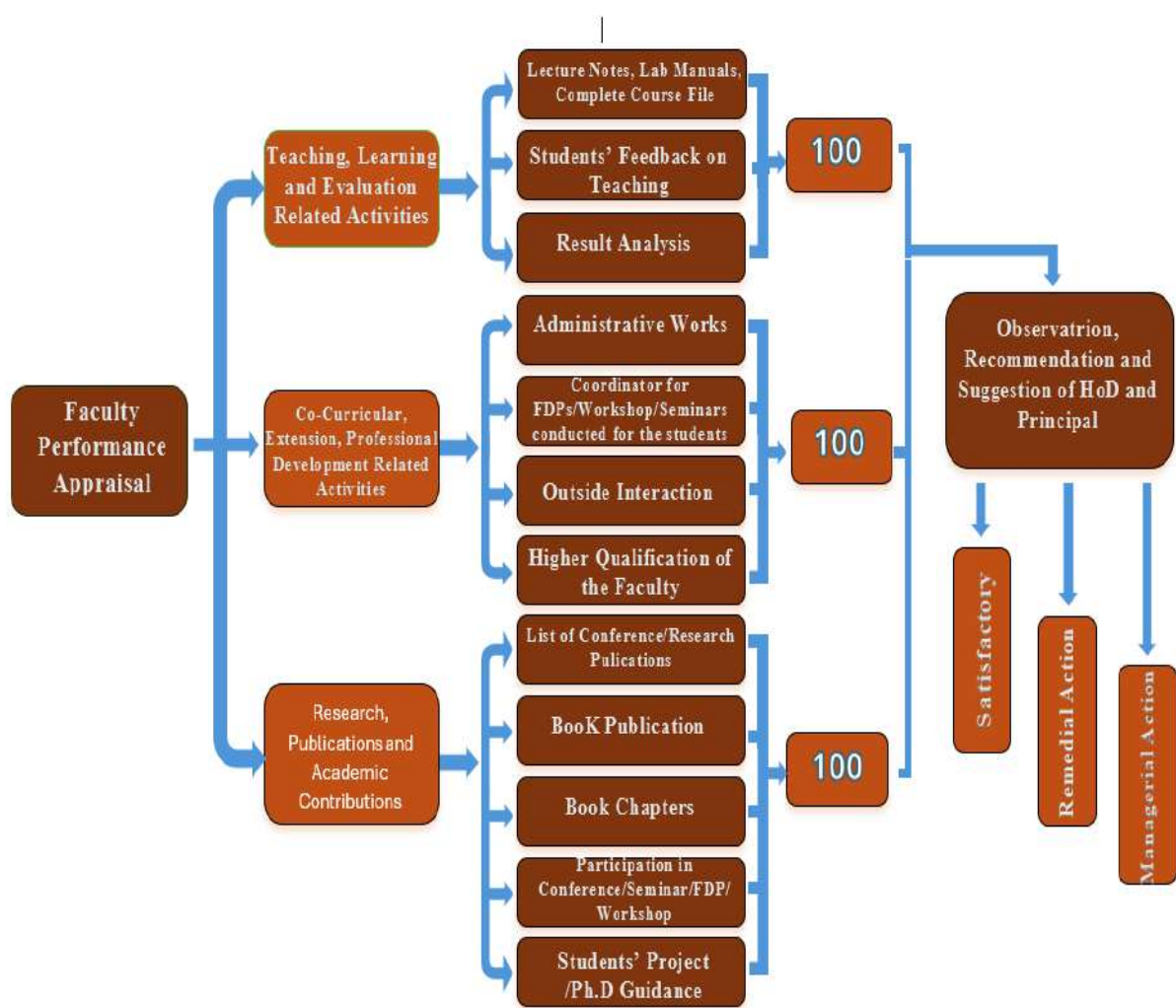


Figure 5.8.1

FACULTY PERFORMANCE APPRAISAL AND DEVELOPMENT SYSTEM (FPADS)

THE INSTITUTION HAS SELF-APPRAISAL MECHANISM FOR TEACHING STAFF:

In this direction, the institution has structured an objective assessment mechanism with scope for improvement. The Three tier assessment involves:

- Teaching, learning and evaluation related activities
- Co curricular , extension, professional development related activities.
- Research, publications, and academic contributions

Policy for Appraisal of Teaching Faculty (The Faculty appraisal is to be carried out on three parameters

S.NO	PARAMETER	ACTION
1	TEACHING, LEARNING, AND EVALUATION	Lecture notes Lab Manuals Complete course file Student's feedback on teaching Result Analysis
2	CO-CURRICULAR, EXTENSION, PROFESSIONAL DEVELOPMENT	Administrative Works Coordinator for FDP/Workshop Outside Interaction Higher Qualification of faculty
3	RESEARCH, PUBLICATION AND ACADEMIC CONTRIBUTION	Detailed list of conferences/Research Publications Book publication and Book chapters Participation in conference/Seminar/FDP/Workshop Project and Phd Guidance

OVERALL POINTS SECURED

AVERAGE PERCENTAGE=(OVERALL POINTS SECURED/300)*100

The self-assessment mechanism does not have any negative impact on the staff as he is provided with the opportunity to comment on the evaluation outcomes and give opportunity for improvement. The institution rewards and recognizes teachers commending them for their teaching approaches and research initiatives, which helps them to work with renewed zeal.

The Institution has Self-Appraisal Mechanism for Non-Teaching Staff

- The works of the Nonteaching staff are assessed periodically through a structured mechanism:
- Work efficiency and commitment.
- Initiative towards learning newer trends in their respective areas.
- Leadership and team work.
- Discipline and regularity

POLICY FOR APPRAISAL OF NON-TEACHING FACULTY:

The faculty appraisal is to be carried out on Five parameters

S.NO	PARAMETER
1.	Training Support
2.	Skills Development
3.	Active Participation in the team work
4.	Involvement
5.	Housekeeping nd adapting safety practices

Its implementation and effectiveness

The feedback had helped take the following decisions.

- Conduct of language and soft skill programme for non-teaching and administrative staff.
- Leadership training programme for faculty to identify the succession lines. faculty to identify the succession lines.
- Deputation of staff to various orientation programs relating government policies and rules concerning HR management and Education.

CONCLUSION OF APPRAISAL

Students feedback, appraisal by HOD and Principal will be taken into consideration for final conclusion as per following table

S.No	Appraisal Score in percentage Observations	Conclusion	Remedial/Action
1	85&above	Excellent	However, staff will be encouraged to sustain the performance with increment/incentive/Awards

2	60-84	Good	Staff will be encouraged for further improvement if required. Staff will be encouraged to attend more FDP, Conference and Publication
3	<60	Fair	Need improvement in weaker areas. Motivation and support will be given for improvement like FDP, Conference and Publication

 **J.N.N INSTITUTE OF ENGINEERING**
AUTONOMOUS
Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai / NAAC 'A' Grade
ISO 9001 : 2015 Certified Institution / Recognized By UGC Under Section 2(f) of UGC Act 1956
90, Ushaa Garden, Kannigaipair, Chennai - Periyapalayam Highway,
Tiruvallur Dist, Tamilnadu - 601 102.

Name: Mrs. R. Nithya Designation: Assistant professor
Department: ELECTRONICS AND communication Engineering Date of Joining: 2/4/2012
Self-Appraisal to be done by Faculty Member

To be filled by faculty:
Suggestions from last academic year appraisal:
Use modern Tech Tools like Google Class Room, stimulation Software.
Actions taken: Adapted interactive teaching methods and project based Assessments.
Improvement or progress thereby:
Higher Students satisfaction and better engagement levels.

To be filled by HoD:
General comments and overall assessment of the faculty:
- NPTEL courses should be completed.
- Attend conferences, workshops and FDPs to enhance research exposure.

To be filled by Principal:
Recommendation to the Faculty:
Increase research outputs by publishing papers in ScI journals

Faculty Self Appraisal, JNNIE. Page 1

Figure 5.8.1 Faculty self-appraisal sample 1

C-I B: Students' feedback on teaching

Semester	Name of the subject	Feedback percentage	Distribution of Points	Claimed	verified
V	EC3552 VLSI and chip design	84.47	Odd semester- 10 points Even semester- 10 Points	8	
VI	EC352 satellite communication	83.37		8	
VIII	EC8094 satellite communication	82.08		8	
V	EC3561 VLSI Laboratory	80.43		8	

Student Feedback-Theory:
Feedback (%) ≥ 91%; P = No. of courses * 10
Feedback (%) <90 & ≥ 81%; P = No. of courses * 8
Feedback (%) <80 & ≥ 71%; P = No. of courses * 6
Feedback (%) <70% & ≥ 60; P = No. of courses * 4
Feedback (%) <59% & ≥ 0; P = No. of courses * 0

C-I C Result Analysis

Semester	Name of the subject	Pass Percentage	Claimed	Verified
V	EC3552 VLSI chip Design	94	10	
VI	EC352 satellite communication	91	10	
VIII	EC8094 satellite communication	95	10	
V	EC3561 VLSI laboratory	100	10	

Distribution of points:

SNo	Non-Engineering course (Except Mathematics)		Engineering courses	
	Result Analysis (%)	Points awarded	Result Analysis (%)	Points awarded
1	≥91	10	≥81	10
2	>81-≤90	8	>71-≤80	8
3	>71-≤80	6	>61-≤70	6
4	>61-≤70	4	>51-≤60	4
5	≤60	0	≤50	0

Faculty Self Appraisal, INNIE.

Page 3

Figure 5.8.2 Faculty self-appraisal sample 2

J.N.N INSTITUTE OF ENGINEERING
AUTONOMOUS

Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai / NAAC 'A' Grade
ISO 9001 : 2015 Certified Institution / Recognized By UGC Under Section 2(f) of UGC Act 1956
90, Ushaa Garden, Kannigaipair, Chennai - Periyapalayam Highway,
Tiruvallur Dist, Tamilnadu - 601 102.

Name: Mr. M. Maniselvam Designation: Assistant Professor
Department: ELECTRONICS AND COMMUNICATION ENGINEERING Date of Joining: 1/7/2013

Self-Appraisal to be done by Faculty Member

To be filled by faculty:
Suggestions from last academic year appraisal:
Encourage students for Internships, Hackathon and Technical competition.
Actions taken: conducted skilled based Training programs with Industry Experts.
Improvement or progress thereby:
Encourage startup culture among students.

To be filled by HoD:
General comments and overall assessment of the faculty:
- Participation in AICTE sponsored / University organized programs.
- More contribution is needed in Research activities.

To be filled by Principal:
Recommendation to the Faculty:
Organized outreach programs, technical training for students

Faculty Self Appraisal, INNIE.

Page 1

Figure 5.8.3 Faculty self-appraisal sample 3

Student Feedback-Theory: Feedback (%) $\geq 91\%$; P = No. of courses * 10 Feedback (%) <90 & $\geq 81\%$; P = No. of courses * 8 Feedback (%) <80 & $\geq 71\%$; P = No. of courses * 6 Feedback (%) $<70\%$ & $\geq 60\%$; P = No. of courses * 4 Feedback (%) $<59\%$ & $\geq 0\%$; P = No. of courses * 0	Semester	Name of the subject	Feedback percentage	Distribution of Points	Claimed	verified
	III	22EC1303 Digital Electronics	88.79	Odd semester- 10 points Even semester- 10 Points	8	
	VI	ET3491 Embedded system and IoT	85.57		8	

C-I C Result Analysis					
1 semester - 10 points (max) If more than two subjects are taken average is considered.	Semester	Name of the subject	Pass Percentage	Claimed	Verified
	III	22EC1303 Digital Electronics	91	10	
	VI	ET3491 Embedded system and IoT	96	10	

Distribution of points:

SNo	Non-Engineering course (Except Mathematics)		Engineering courses	
	Result Analysis (%)	Points awarded	Result Analysis (%)	Points awarded
1	≥ 91	10	≥ 81	10
2	>81 & ≤ 90	8	>71 & ≤ 80	8
3	>71 & ≤ 80	6	>61 & ≤ 70	6
4	>61 & ≤ 70	4	>51 & ≤ 60	4
5	≤ 60	0	≤ 50	0

Faculty Self Appraisal, JNNIE,Page 3

Figure 5.8.3 Faculty self-appraisal sample 4

5.9 VISITING/ADJUNCT/EMERITUS FACULTY ETC

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc. for all the assessment years:

- Provision of inviting/having visiting/adjunct/emeritus faculty
- Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc.

ACADEMIC YEAR 2024-25

S. No	Name	Qualification	Designation	Company Name	Experience	Subject Name	No. of Hours
1.	Dr.N.R.Shanker	B.E,M.Tech.,Ph.D	Visiting Professor	Chase Technologies	26 Years	Discrete-Time Signal Processing	On going
2.	Mr.CL Lokesh Kumar	B.E.IIM	Visiting Professor	Augumented Reality Products and design	11 years	4G/5G	36

ACADEMIC YEAR 2023-24

S. No	Name	Qualification	Designation	Company Name	Experience	Subject Name	No. of Hours
1.	Dr.Swarna Ravindra Babu	Ph.D	Visiting Professor	Coovum smart systems and services private limited	17 years	Wireless Communication	30
2.	Mr. Muhhamed Iliyas	M.E	Visiting Professor	IT Expert Training, Chennai	15 Years	Embedded systems and IOT Design	22

ACADEMIC YEAR 2022-23

S. No	Name	Qualification	Designation	Company Name	Experience	Subject Name	No. of Hours
1	Dr.SwarnaRavindraBabu	Ph.D	Visiting Professor	Coovum smart systems and services private limited	.16 years	Signals and Systems	36
2.	Mr.Muhammed Iliyas	M.E	Visiting Professor	IT Expert Training	14 years	Embedded and Real time system	20

ACADEMIC YEAR 2021-22

S. No	Name	Qualification	Designation	Company Name	Experience	Subject Name	No. of Hours
1.	Mr.Kumar	B.E, M.S	Visiting Professor	VLSI Mentors,Bengaluru	20 years	VLSI Design and VLSI Lab	51 hours

CRITERION 6	Facilities and Technical Support	80
--------------------	---	-----------

6. Facilities and Technical Support

6.1 Adequate and well equipped laboratories and technical manpower (30)

Table 6.1 Adequate and well equipped laboratories and technical manpower

S. No	Name of the laboratory	No. of students per setup (batch)	Name of the Software/ Equipment	Weekly utilization status (all the courses for which lab is utilized)	Technical man power		
					Name of the technical staff	Designation	Qualification

1	Electronics circuits and devices lab	30	CRO (30 MHz)-15 DSO (100 MHz) with Inbuilt Function Generator (2MHz)-5 Signal Generators / Function Generators (3 MHz)- 15 Dual Regulated Power Supplies (0-30 V)-15 Standalone desktops PC with SPICE Simulator -2 Digital Multimeter-5 Decade Resistance Box-10 Voltmeter-30 Ammeter-30 Digital LCR Meter-2 Single Phase house wiring setup-2 Three phase house wiring setup-2 Staircase wiring setup-2 Fluorescent lamp wiring setup-2 Emergency lamp wiring setup-2 Iron Box wiring setup-2 Soldering Kit-15 Continuity tester-10	➤ EC8261- Circuits and Devices Lab ➤ GE8261- Engineering Practices Lab ➤ EC8361-Analog and Digital Circuits Lab ➤ EC3271- Circuit Analysis lab (R-2021) ➤ EC3361- Electronic Devices and Circuits Lab(R-2021) ➤ EC8461- Circuits Design and Simulation Lab ➤ 22ECP201- Circuits and devices laboratory ➤ 22ESP201- Engineering Product Laboratory	Mr. T.P. Lakshmi Narayanan	Lab Assistant	B.E
			Total No of Hrs: 3 Hours/ Week (Odd) Total No of Hrs: 24 Hours/ Week (Even)				

2	Digital Electronics Laboratory	30	IC Trainer Kit- 15 CRO(30 MHz)- 8 DSO (100 MHz) with Inbuilt Function Generator (2MHz)- 7 Signal Generators / Function Generators (3 MHz)- 15 Dual Regulated Power Supplies (0-30 V) - 10 Single Power Supplies- 5 Digital Multimeter-5 IC Tester -5 Standalone desktops PC- 2 Digital LCR Meter - 2 8086 Microprocessor trainer kit with power supply- 15 8051 Microcontroller trainer kit- 15 Traffic light control interfacing card compatible with 8086 & 8051 kits -5 Stepper motor control interfacing compatible with 8086 & 8051kits- 5 Digital clock interfacing board compatible with 8086 & 8051 kits- 5 Keyboard & Display interface board compatible with 8086 & 8051 kits- 5 Printer interfacing card compatible with 8086 & 8051 kits -5 A/D and D/A interfacing card compatible with 8086 & 8051 kits- 5 Serial and Parallel interfacing card compatible with 8086 & 8051 kits- 5 8255 PPI-5 8259 Interrupt Controller- 5 Load, Torque and Force using Strain Gauge Measurement setup- 1 Pressure Sensor and Piezoelectric Force Sensor Measurement setup-1 LVDT setup- 1	➤ EC8681- Microprocessors and Microcontroller Lab ➤ EC8462-Linear Integrated Circuits Lab ➤ EC3462-Linear Integrated Circuits Lab ➤ 22ECP401-Linear integrated circuits laboratory ➤ 22ECP302-Digital electronics laboratory ➤ 22RAP406-Sensors and Instrumentation Laboratory Total No of Hrs: 3 Hrs/ Week (Odd) Total No of Hrs: 5 Hrs/ Week (Even)	Mr. Santhosh Kumar S	Lab Assistant	B.E
---	--------------------------------	----	--	--	----------------------	---------------	-----

		Temperature Sensors measurement setup with RTD, Thermocouple and Thermistor-1 Measurement setup Optical Sensors LDR, Photo transistor, photo diode-1 Measurement setup -Ultrasonic and Laser Sensor- 1 Gyroscope measurement setup 1 Accelerometer measurement setup 1 Magnetometer measurement setup 1 Absolute Encoders and Incremental encoder setup 1 DAQ with sensor or transducer 1 3 axis force sensor with measurement setup 1 Tactile Sensor with touch measurement setup 1				
--	--	---	--	--	--	--

3	VLSI Laboratory	25	DSO (100 MHz) with Inbuilt Function Generator (2MHz)- 15 Signal Generators / Function Generators (3 MHz)- 15 Standalone desktops PC with SPICE Simulator- 25 Spartan 3 FPGA Boards- 15 DSP Processors kit-10	➤ EC8562-Digital Signal Processing Lab ➤ 22ECP501 - VLSI Laboratory ➤ 22ECT302- Signals and Systems Lab ➤ 22ECT502- Discrete Time Signal Processing LAB ➤ 22VLT402- Digital Signal Processing Lab Total No of Hrs: 9 Hrs/ Week (Odd) Total No of Hrs: 2 Hrs/ Week (Even)	Mr. Sutharsan K	Lab Assistant	B.E
---	-----------------	----	---	---	-----------------	---------------	-----

4	Embedded Systems Laboratory	25	CRO (30 MHz)- 15 Signal Generators / Function Generators (3 MHz) - 15 Standalone Desktops - 25 Embedded trainer kits with ARM board-10 Embedded trainer kits suitable for wireless communication-10	➤ EC8563- Communication Networks Lab ➤ 22ECP502 - Simulation Laboratory ➤ 22ECP601 - Embedded Systems Laboratory ➤ 22ECE031- 4G/5G Communication Networks Lab Total No of Hrs: 3 Hrs/ Week (Odd) Total No of Hrs: 6 Hrs/ Week (Even)	Mr. Ashok Kumar D	Lab Assistant	B.E
---	-----------------------------	----	---	--	----------------------	---------------	-----

5	Communication Systems Lab	30	Trainer Kits for AM - 2 FM- 2 Signal Sampling- 2 TDM- 2 PCM- 2 PAM- 2 PPM- 2 PWM- 2 DM- 2 Line Coding Schemes- 2 Trainer Kits for ASK - 2 Trainer Kits for FSK - 2 Trainer Kits for PSK- 2 CRO (30 MHz)- 9 DSO (100 MHz) with Inbuilt Function Generator (2MHz)- 6 Signal Generators / Function Generators (3 MHz)- 15 MATLAB or equivalent open source software package for simulation Experiments- 2 Standalone desktops PC-2 Patch cords-100 Trainer kit for carrying out LED and PIN diode characteristics, Photodiode, Digital multi meter and optical power meter-2 Trainer kit for determining the mode characteristics, losses in optical fiber-2 Trainer kit for analyzing Analog and Digital link kit, 2 Mbps PRBS Data source, 10 MHz signal generator, 20 MHz Digital storage Oscilloscope- 2 Klystron Oscillator Setup -1 Gun Oscillator Setup - 1	➤ EC8561- Communication Systems Lab ➤ EC3461- Communication Systems Lab ➤ EC8761- Advanced Communication ➤ 22ECP402 - Communication Systems Lab ➤ 22ECP701- Advanced Communication Laboratory ➤ 22VLP401- Analog And Digital Communication Lab Total No of Hrs: 6 Hrs/ Week (Even)	Mr. Sutharsan K	Lab Assistant	B.E
---	---------------------------	----	---	--	-----------------	---------------	-----

6	BEEE Laboratory	30	DC Regulated Power supply (0 - 30 V variable)-1 Multimeter- 1 Function Generator 1 KHz- 1 CRO 20 MHz-1 Ammeter MC (0-20A)- 3 Voltmeter MC (0-300)V- 3 Rheostat 7.5 Ω , 10 A- 3 Field Rheostat 175 Ω , 1.5 A- 3 Tachometer- 1 DC Shunt Motor- 2 Single phase Transformer- 1 Wattmeter – 300V, 5A, UPF- 1 Autotransformer- 1 Single phase Induction motor- 1	➤ 22ESP203- Basics of Electrical and Electronics Lab ➤ 22EEP101 - Product Tinkering Laboratory ➤ 22ESP202 - Basic Electrical, Electronics Engineering and Measurements Laboratory Total No of Hrs: 12Hrs/ Week (Odd) Total No of Hrs: 15 Hrs/ Week (Even)	Mr. Amuthan T. S	Lab Assistant	B.E
---	-----------------	----	---	---	------------------	---------------	-----

6.2 Additional facilities created for improving the quality of learning experience in laboratories (25)

Table 6.2 Additional facilities created for improving the quality of learning experience in laboratories

S. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to enhanced learning	Relevance to POs/PSOs
1	Electronic Circuits ns Devices Lab	Students are provided with tools to Design Filter Design for electronics communication	To develop their knowledge in comparing theoretical and practical design for filters in various applications of Electronics and communication	Beyond Lab Hours	Subjects (communication, Real time application oriented subjects) which have design, simulation and fabrication can be easily analyzed and visualized.	PO1-PO7, PO9-PO10,PO12,PSO1
2	Digital Electronics Lab	Students are provided with respective IC's for odd-even parity checker and 1 bit, 2 bit magnitude comparator Design for electronics communication	To develop their knowledge in comparing theoretical and practical design for digital models in various applications of Electronics.	Beyond Lab Hours	. To bridge the band gap between real and classroom curriculum	PO1-PO7, PO9-PO10,PO12,PSO1
3	Communication Networks Lab	Students are provided with tool to check the CRC error detection and topology of respective computer network.	To enhance their knowledge in comparing theoretical and practical design values for various applications of communications.	Beyond Lab Hours	To have more knowlegde in concern software which is beyond their syllabus so that they come to know about different needs of society	PO1-PO7, PO9-PO10,PO12,PSO1
4	VLSI (FPGA/Aurdino)	To provide students with well-versed knowledge about this experiment Finite State Machine and universal shift register in the respective lab	To understand Moore/Mealy models in VLSI Platform	Beyond Lab Hours	To have more knowlegde in concern software which is be To have more knowlegde in concern software so that they come to know about	PO1-PO7, PO9-PO10,PO12,PSO1

S. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to enhanced learning	Relevance to POs/PSOs
					different needs of society.	
5	Advance Communication Lab	Groups of students can work with dedicated lab components to study Dipole antenna radiation and pattern, to calculate gain and directivity.	To enhance their knowledge in comparing theoretical and practical design values for various applications of communications.	Beyond Lab Hours	To have more knowlegde in concern components of advanced communication lab, so that they come to know about different needs of society	PO1-PO7, PO9-PO10,PO12,PSO1
6	IOT LAB	Few Groups of students can work with available Aurdino boards	-To support the students for doing academic projects on controller based applications. -To understand I/O device interfacing IOT Platform	Entire Period of their study in college	For better understanding of processor and controller based systems. Usage of assembly and embedded C languages to develop embedded products.	PO1-PO12, PSO1
7	Incubation centre	Space, desk and chairs are provided along with Wi-Fi facility	To support all members of IOT ecosystem to translate innovation into products, processes and services that are commercially developpe in respective Feild	Entire Period of their study in college	Transform ideas into products.	PO1-PO12, PSO2
8	Additional lab exercise (Content Beyond the syllabus)	To enhance their knowledge in respective lab Feild	To have additional knowledge on various programs other then their curriculum.	Concerned lab timings	To have more knowlegde in concern software which is beyond their syllabus so that they come to know about different needs of society	PO1-PO5,PO9,PO10,PO11,PO12

6.3 Laboratories: Maintenance and Overall Ambience

Role of Department in lab maintenance:

- The Department is equipped with sophisticated laboratories and state of art instruments to satisfy the curriculum requirements.
- A faculty in charge and a technical assistant looks after the maintenance of each laboratory.
- They put together propose the budget for the required consumables, new equipment, repairs & maintenance and back up if required.
- The technical assistant maintains the log book for equipment of the laboratory.
- They prepare the preventive maintenance schedules under the guidance of faculty in- charge and carry out regular maintenance as per the schedules. Technical assistants are in-charge of each electronics and communication laboratory are responsible for maintenance of equipments, system and Software.
- Each laboratory maintains a stock register with details of the equipment. The maintenance is carried out on both preventive and breakdown bases. Laboratories run on a UPS and electrical main power, which is maintained through annual maintenance.

Role of Lab assistant in maintenance:

- After successful completion of laboratory for the academic year, Lab assistant checks the operating condition of equipment.
- If minor problem exists in the equipment, Lab assistants correct the problem by themselves.
- If any major problems in the equipment, service technicians will be called for servicing. Once servicing is over for particular equipment, Lab assistant monitors the condition of the corresponding equipment over a period of time.
- Apart from this, each lab is cleaned regularly to ensure clean and dust free ambience.

All laboratories are spacious, well ventilated and provided with adequate electrical fittings to take care of ambience. Salient features regarding maintenance and ambience of laboratory facilities are as follows.

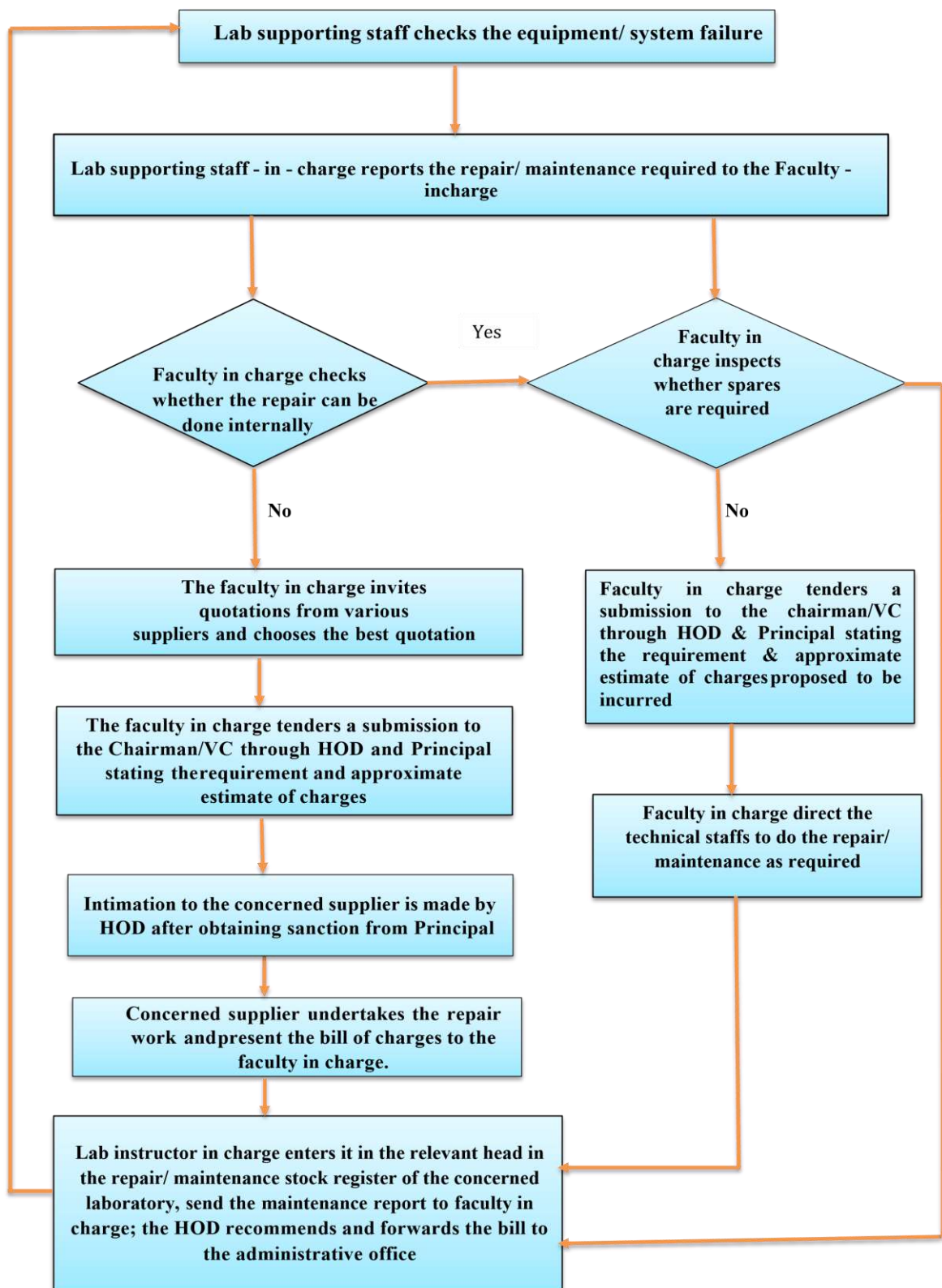
Maintenance:

- All the equipments in laboratories are maintained on a regular basis by the concerned lab technician under the supervision of faculty members.
- Regular maintenance of equipment is carried out before commencement of academic year. Servicing of equipments is also done whenever necessary.
- Stock registers are maintained in each laboratory and verified regularly.

- Maintenance register is maintained separately for each laboratory to maintain the record, repair and servicing if carried out for the equipments. 5 All the essential software used in computer labs are installed and maintained.
- Grounding is checked time to time.
- Qualified technical assistants are available for maintenance of the equipments and software in labs.
- Do's and Don'ts and Safety measures rules are displayed in each laboratory.
- Servicing of each laboratory is doing frequently.
- Maintenance of the each laboratory is done frequently.

Ambience:

- All laboratories are acoustics having sufficient natural light and proper ventilation with tubes and fan arrangement.
- For proper ventilation and natural light, sufficient numbers of windows are available in every laboratories and classroom.
- Laboratory manuals are provided to students.
- Labs are equipped with green/white board facilities.
- Fire extinguishers are provided on the entire floor.
- Bread board and components are available for testing and designing of circuits.
- Exclusively, a project lab has been provided for the students to carry out their mini and major project work.
- All the labs are conducted and evaluated every week.
- Conditions of chairs/benches are in good condition. Chair with desk are provided for individual students in Labs.



6.4 Project Laboratories (5)

- A dedicated laboratory is available exclusively for the project work to be carried out by the students. Electronics & Communication engineering degree is taught through a mixture of lectures, laboratory work and projects.
- The projects help in producing engineers equipped with skills required to address the real life problems. Project lab plays a key role in promoting practical and hands-on education throughout the undergraduate career in Electronics & Communication engineering.
- J.N.N Institute of Engineering has witnessed an exponential growth in Research and Development activities. Our institute promotes collaborative research and consultancies. Also creation of research facilities for the benefit of students and faculty.
- Further the institute has taken initiative to setup IOT Incubation center
- It is a multidisciplinary project lab, which supports both technically and financially to design, build, assemble, test, and market the innovative ideas. This also facilitates students and faculty to become entrepreneurs.

Table 6.3: Project laboratory

S. No	Laboratory	Facilities Available	Utilization	Relevance to POs and PSOs
1	Project Laboratory	PC with Software (Matlab, MPlab XC8, Xilinx, Microwind, Arduino IDE , Proteus 8) - 10 PCB Design layout kit- 10 PIC kit – 3 -2 Nos PIC kit – 2 – 2 Nos Development Board -5 Soldering Kit (Soldering Gun, Iron lead, Flux, Scrubber,		PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2

		PCB Cutter, Thinner) - 10 Desoldering Gun-10 Arduino Board-10 Raspberry Pi-2 Node MCU ESP8266- 5 Vernier Caliper-1 Blower - 1 Tweezers-1 Screw drivers kits-1		
--	--	---	--	--

Project lab utilization

Using the facilities available in the project laboratory as mentioned in Table 6.3, the students undertake various projects on different technologies and platforms based on their area of interest. Some of the specialized areas in which the students perform the projects are given below.

6.5 Safety measures in laboratories (10)

S.NO	Laboratory Name	Safety Measures
1	Electronics and circuit Devices Laboratory	1. First Aid Box and Fire Extinguisher are available in the laboratory 2. The laboratory instructions/guidelines are displayed in the laboratory. 3. Electrical wires are protected by MCB (Miniature Circuit Breaker), RCBO (Residual Current Breaker Operator) and Fuses 4. Avoid the use of condemned equipment and provides needful equipment and components. 5. Equipment’s in the laboratory are with fuses of correct ratings 6. Equipment’s in the laboratory are protected using proper grounding and ensured proper wiring. 7. Maintain a clean and organized laboratory. 8. Cell phones usages are prohibited. 9. Availability of Fire Extinguisher
2	Digital Electronics Laboratory	
3	VLSI Laboratory	
4	Embedded System Design	
5	Communication Lab	
6	BEEE Laboratory	

General Instructions given to the students:

- General Instructions to the students in the Laboratories are displayed.

2. Students should be in proper dress code while entering the laboratory.
3. Disabling or removing safety devices is dangerous and should be avoided.
4. Avoiding the use of damaged equipment and providing needful equipment and components.
5. Maintain a clean and organized laboratory. Carefully inspect all protective equipment prior to use.
6. Before doing the experiment, students should verify the circuit connections with the course instructor.
7. After completing the experiment, students must disconnect the circuit connections properly.
8. Do not operate electrical equipment that has frayed or damaged power cords or connectors.
9. Do not plug in external devices without scanning them for computer viruses.
10. Students should bring their observations and record note books. Students should prepare for their Viva-Voce for the experiments.

CRITERION 7	CONTINUOUS IMPROVEMENT	50
-------------	------------------------	----

7.1. Actions taken based on the results of evaluation of each of the POs & PSOs (20)

POs & PSOs Attainment Levels and Actions for improvement – 2023-2024

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.			
PO1	2.25	2.36	TARGET LEVEL ATTAINED Observations: - The attainment indicates success in applying mathematics, science and electronics fundamentals to solve complex engineering problems. - In EC310 Microprocessors and Microcontrollers, Our curriculum primarily focused on 8085/8086 microprocessors, which are outdated compared to modern architectures used in industries.
Proposed actions for continuous quality enhancement: We organized a guest lecture on ARM and RISC-V architecture, offering students valuable insights into advanced RISC-based microprocessors.			
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.			
PO2	2.25	2.26	TARGET LEVEL ATTAINED Observations: - The target level was attained which indicates that students have generally met the expected outcomes in problem analysis. - In the subject EC203 - Electronic Circuits-1, primarily covers

			traditional semiconductor devices (like silicon-based BJTs, MOSFETs, and diodes) but lacks a focus on next-generation materials such as GaN, SiC, and organic semiconductors. 3. However, a gap persisted in their practical problem-solving abilities, particularly in basic circuit assembly, soldering techniques, and hardware troubleshooting.
Proposed actions for continuous quality enhancement: 1. A guest lecture was conducted on advanced semiconductor materials such as Gallium Nitride (GaN), Silicon Carbide (SiC), and Organic Semiconductors to enhance students' understanding of next-generation electronic devices, their properties, and applications in high-power, high-frequency, and flexible electronics. 2. An industrial visit to IIT Madras Research Park was organized, allowing students to observe real-world research and engineering innovations and how they are applied to solve complex problem. 3. A soldering workshop was conducted for II year students to enhance students' circuit assembly, soldering, and troubleshooting skills, essential for subjects like Electronic Circuits, Digital Electronics, VLSI Design, and Embedded Systems. 4. Teachers actively encouraged students to engage in mini projects and research papers.			
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.			
PO3	2.25	2.11	TARGET IS PARTIALLY DEVIATED Observations: 1.In EC210-Probability and Random Process, the students find it difficult to analyze different types of problems.

			2.In EC203-Electronic circuits-1, Some students struggled with advanced simulations and the integration of theory with practical applications, indicating a need for more hands-on training with the tools.
Proposed actions for continuous quality enhancement: 1. In EC210-Probability and Random Process, more number of problems will be solved and the basic knowledge regarding the theorems will be taught. 2. A guest lecture on design tools such as Multisim and PSpice was organized for students to enhance their ability to design solutions using industry-standard simulation tools.			
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.			
PO4	2.25	2.04	TARGET LEVEL PARTIALLY DEVIATED Observations: Students encountered challenges when integrating multiple sensors and working with more advanced sensor data.
Proposed actions for continuous quality enhancement: 1.The BSNL Industrial Visit served as a platform to expose students to industry practices. In addition, more industry visits and internship opportunities are being explored to give students firsthand experience of how to apply research methods and data interpretation in professional settings. 2. Hands-on workshops on” Sensors and Arduino” were organized focusing on real-time data collection, sensor calibration, and signal conditioning techniques. This helps students to work on more complex systems, using advanced sensors and real-time data analysis.			

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.

PO5	2.25	2.08	TARGET LEVEL PARTIALLY DEVIATED Observations: 1. In EC205 - Digital Electronics, PO5 has been partially deviated, as students have encountered difficulties in visualizing and comprehending the intricacies of VHDL 2. Students faced challenges in understanding the application of Fuzzy Logic Controllers in real-world systems.
-----	------	------	---

Proposed actions for continuous quality enhancement:

1. A guest lecture **on “VHDL and Verilog programming** “was organized, where an expert provided practical insights and hands-on demonstrations.
- 2.A seminar **on “Fuzzy Logic Controllers”** was organized, where an expert explained the fundamentals of fuzzy logic and its real-world applications in control systems.
3. We conducted a seminar on **“Learn Power BI in Just 2 Days”** on **16/08/2023 and 17/08/2023** to equip students with hands-on experience in modern data visualization tools, enhancing their ability to analyze and interpret data for real-world applications.

PO6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO6	2.25	2.06	TARGET LEVEL PARTIALLY ATTAINED Observations: 1. In the EC305 - Total Quality Management, students faced challenges in fully understanding how health, safety, and societal
-----	------	------	--

			responsibilities are integrated into quality management systems.
Proposed actions for continuous quality enhancement: 1. An industrial visit to “ Ramyaa Electro Gear Pvt. Ltd. ” was organized, where students observed the practical application of quality management systems in a real-world manufacturing environment. The visit highlighted health, safety regulations, and societal responsibilities in the production process. 2. Events like Ayudha Pooja and Women’s Day & Safety Awareness promoted cultural values, ethical responsibility, and social awareness, encouraging students to respect traditions and contribute to a sustainable and inclusive society.			
PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			
PO7	2.25	1.92	TARGET LEVEL MODERATELY DEVIATED Observations: 1. Attainment level is moderately deviated. To improve the level, following actions are made.
Proposed actions for continuous quality enhancement: 1. Students are motivated to do projects related to sustainability and environment safety. 2. An Awareness program on tree plantation drive on 29/9/23 was organized to promote environmental responsibility and sustainability by encouraging students to understand the impact of engineering solutions on the environment.			
PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO8	2.25	1.94	TARGET LEVEL MODERATELY DEVIATED Observations: 1. Attainment level is moderately deviated. To improve the level, following actions are made.
Proposed actions for continuous quality enhancement:			

1. A **mission under Unnat Bharat Abhiyan (UBA)** was conducted on **11.09.2023** with our **NSS volunteers**, focusing on rural development through technological interventions and community engagement.
2. In the course **EC409-Professional Ethics**, more case studies and presentations are made to enhance ethical principles and exhibit high degree of professionalism.
3. Students are motivated and mentored to undertake projects which will cater to societal needs.
4. Students are advised to participate in Student Associations and Professional Societies and do more social activities.

PO9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO9	2.25	1.94	TARGET LEVEL MODERATELY DEVIATED. Observations: 1. The attainment level for PO9 is moderately deviated from the target, highlighting a gap in students' ability to collaborate effectively in multidisciplinary teams, take leadership roles, and adapt to diverse working environments.
------------	-------------	-------------	---

- Proposed actions for continuous quality enhancement:**
1. Our NSS team conducted **Blood Donation Awareness Program** on 12.10.2023 to promote social responsibility, ethical values, teamwork and community welfare.
 2. A symposium was organized on 08.11.2023 for II, III, and IV-year students to enhance their technical knowledge, problem-solving skills, and teamwork through paper presentations, workshops, and interactive sessions.
 3. Events such as **Friendship Day, Onam Celebration, Merry Christmas, Pongal Celebration, and JNN Euphoria 2024** were conducted to foster teamwork, collaboration, and interpersonal skills among students.

PO10: 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.

PO10	2.25	2.13	TARGET LEVEL PARTIALLY DEVIATED Observations: 1. Target level was partially deviated indicating a gap in students' ability to effectively communicate technical concepts through reports, presentations, and documentation.
Proposed actions for continuous quality enhancement: 1. Technical Seminars on latest topics are to be improved, so that students can enhance his communication skills as well as technical skills. 2. Events like Induction Day, JNN Euphoria 2024, and the Grand Inauguration of the Ashok Kumar Amphitheatre enhanced students' communication, public speaking, and event coordination skills, helping them engage effectively in professional and social interactions. 3. The curriculum for EC319-Professional Communication and EC209-Interpersonal Skills has been revised to include industry-related case studies.			
PO11: 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.			
PO11	2.25	1.95	TARGET LEVEL MODERATELY DEVIATED Observations: Attainment level is moderately deviated. To improve the level, following actions are made.
Proposed actions for continuous quality enhancement: 1. Project hours are integrated into the curriculum, with additional sessions planned to enhance project quality. 2. Internships were facilitated to provide students with hands-on experience in project management, budgeting, and multidisciplinary collaboration.			

3. An MoU was signed with industry partners to provide internships, seminar and project-based learning, enhancing students' project management and financial skills. 4. Students were encouraged to participate in Technical Paper Presentations & Research Symposiums, allowing them to showcase their project work, enhance project management skills, and collaborate in multidisciplinary teams.			
PO12: Lifelong 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.			
PO12	2.25	2.06	TARGET LEVEL PARTIALLY DEVIATED Observations: 1. EC311-VLSI Design subject lacks sufficient coverage of VHDL/Verilog programming and FPGA-based real-time applications, creating a gap in practical implementation and industry readiness.
Proposed actions for continuous quality enhancement: 1.A guest lecture on VHDL/Verilog programming for real-time applications was organized, covering HDLs, FPGA-based design, and real-time system implementation. The session aimed to equip students with industry-relevant skills, fostering adaptability to emerging technologies and promoting lifelong learning. 2. A seminar on " Future Trends Revolutionizing the Electronics and Communication Industry " was organized to enhance students' awareness of emerging technologies, fostering adaptability and continuous learning in alignment with PO12 . 3. The PrepInsta Prime Access Program was introduced for II, III, IV-year students to enhance students' career readiness and continuous learning by providing industry-focused training, equipping them with essential skills for professional growth. 4. The International Study Opportunities in the USA and Europe seminar for II, III, IV-year students provided insights into global education pathways, guiding students on higher studies and career advancement in international institutions. 5.Students are encouraged to utilize library hours effectively and engage in independent development of models, kits, and prototypes			

Actions taken based on the results of evaluation of each of the PSOs

PSO1: To apply software engineering principles and practices for developing quality software for scientific and business applications.			
PSO1	2.25	2.15	TARGET LEVEL PARTIALLY DEVIATED Observations: Attainment level is partially deviated. To improve the level, following actions are made 1. The course EC302 -Discrete Time Signal Processing (DTSP) provides limited coverage of machine learning applications in signal processing.
Proposed actions for continuous quality enhancement: 1.A guest lecture on " Machine Learning Applications in Signal Processing " was conducted in the subject EC302 – Discrete Time Signal Processing to enhance students' understanding of AI-driven techniques in speech, image, and biomedical signal processing. 2. Seminar on” Power BI “was conducted to enhance students' skills in data visualization and analytics, enabling them to apply data-driven solutions in scientific and business applications. 3.Students are also given access to NPTEL videos for enhanced learning.			
PSO2: To adapt to emerging Information and Communication Technologies (ICT) to innovate ideas and solutions for existing or novel problems.			
PSO2	2.25	2.03	TARGET LEVEL PARTIALLY DEVIATED Observations: 1. The attainment level is below the target, indicating a gap in students' ability to adapt to emerging Information and Communication Technologies (ICT) for innovation and problem-solving.

			2. The EC401 – Antenna and Microwave Engineering syllabus provides limited exposure to advanced simulation tools like HFSS, CST, and MATLAB, resulting in a gap in students' practical knowledge of modern antenna design and analysis techniques.
Proposed actions for continuous quality enhancement: 1.A seminar on "International Study Opportunities in the USA and Europe" was conducted to educate students about higher education pathways, research prospects, and emerging technologies in ICT. 2. A guest lecture on Antenna Design Tools was conducted to familiarize students with modern simulation software such as HFSS, CST and MATLAB for designing and analyzing antennas. This session enhanced their ability to adapt to advanced ICT tools for solving real-world communication challenges. 2. An industrial visit to"HTC Global Services "was organized for II,III,IV year students to provide with insights into emerging ICT technologies, software solutions, and industry practices.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10)

Our Institution is an ISO 9001:2015 certified. By adopting proper guidelines, the process of ISO Internal and External Academic Audit intends to observe and enhance the standards of technical education. An academic audit is held annually.

IQAC-Academic Audit:

IQAC focuses on the academic performance of the students, teaching-learning process and monitors continuous improvement through an academic audit. The academic audit team comprising of senior faculty from all the departments focuses on the following objectives

- To review the implementation process.
- To ensure the quality of teaching and administration.
- To identify strengths and areas of improvement of the faculty member, department and institution.

The members visit the departments, offices and cells to monitor both the performance and the maintenance of proper records. The committee insists on systematic documentation and recording of all events in academic and extra-curricular activities. The purpose of the academic audit is to observe the effectiveness of the educational processes at the department level, ensure and encourage the quality in teaching, research and extension activities.

IQAC facilitates the auditing format which includes all the activities pertaining to academics and the target planned during the beginning of the semester. Once the IQAC audit team completes the audit, the report is discussed with respective HoD to provide suitable recommendations for the improvement.

Assessment Criteria:

The auditors will focus the following details during the audit:

i) Monitoring of syllabus coverage:

All the faculty members should strictly adhere to the lesson plan regarding the coverage of syllabus. If any deviations found, faculty members will take the additional classes to compensate the deviations. The audit members will verify this coverage of syllabus in comparison with the lesson plan.

ii) Conduction of Value Added Courses

Value added courses will be conducted for the curriculum gap identified in the regulations. Feedback will be taken from the students to appraise the course. Auditors will verify the feedbacks and provide the suitable suggestions if required.

iii) Attendance Maintenance:

The students' attendance will be maintained everyday by the department and the same will be updated in the university website for the students for the awareness of their presence to the class. Audit members will verify the maintenance of attendance by the department and add some suitable suggestions if required.

iv) Lecture Notes & Log Book Maintenance:

Lecture notes will be maintained by the faculty members. Log books are updated by the faculty members every day. The audit members will verify this lecture notes and log book maintenance and they will provide suitable advice to the faculty members.

v) Preparation of Internal Assessment Test Question paper, Answer Key and Question Bank:

Step 1: The Course Instructors prepare the Internal Assessment Test question paper along with the answer key by considering the following factors:

- Blooms Taxonomy
- Previous year University questions
- Course coverage as per the assessment plan

Step 2: The Head of the Department validates the question paper set and also recommend for the modification if required.

Step 3: The Course instructors evaluate the answer sheets based on the answer key prepared by them and the evaluation is verified by the Head of the Department randomly.

Step 4: After evaluation, audit members will verify the quality of question paper, answer keys and question banks prepared by the faculty members.

vi) Student Centric Activities:

Co-curricular activities such as industrial visits, symposium, guest lectures, short term courses and value added courses will be organized every year.

The audit members will verify the feedbacks obtained from the industrial visit and value added courses. The student projects evaluation procedure will be verified by the audit members. Suggestions will be provided by the audit members.

vii) Mentoring System:

Institution uses mentoring system for the academic performance improvement of the department. In mentoring systems, each faculty advisor is put in charge of some students to monitor, guide and advise them to ensure their overall comprehensive growth in academic achievements. Counseling is given for each student to get rid of their problems to improve their studies. The audit members will verify the counseling methodology followed by the faculty members and add some suitable suggestions if required.

viii) Remedial Coaching:

Subject handled by the faculty members will identify the slow learners based on the results obtained in the previous semester and the internal marks. Slow learners will be given separate coaching after the class hours. The audit members will verify the schedule for the coaching classes and they interact with the faculty members for the effectiveness of the coaching class and provide suitable advice.

ix) Students' Progress Report:

Faculty members will be generating the consolidated mark list of internal assessment test for all the students and the individual students marks will be sent to the parents. The audit members will verify the consolidated mark list and ensure the faculty members regarding the information sent to the parents.

x) Class Committee Meeting and Follow Up Action:

Four class committee meetings per semester are conducted by the committee coordinator along with the faculty members handling the subjects and student representative. The quality in the teaching methodology is improved based on the feedbacks given by the students having one to one interaction with the respective faculty members. The audit members will verify the report containing the minutes of Class Committee meeting.

xi) Budget and Utilization:

The budget for the academic activities and utilization chart will be maintained in the department. The audit members will verify the utilization of budgets for every semester.

xii) Conduct of the Internal Assessment Test:

Three internal assessment tests will be conducted for every semester. Test will be conducted as per the schedule planned by the department. Faculty members will correct the answer sheets within

three days after the completion of respective subject and the marks will be handed over to the department.

xiii) Maintenance of Mark List:

The department will maintain the marks obtained by the students and analysis will be made for the marks obtained. The audit members will be verifying the marks and analysis made for the test marks.

xiv) Result Analysis of University Examinations:

Result analysis for the University results will be prepared by the department. The audit members will verify the analysis and they provide the suitable suggestions to improve the University result.

xv) Library, Laboratories and Internet Facilities:

The audit members will verify the utilization register of the library and the books being maintained in the library. The audit members will verify the lab utilization and internet facilities available in the department

Action Plan:

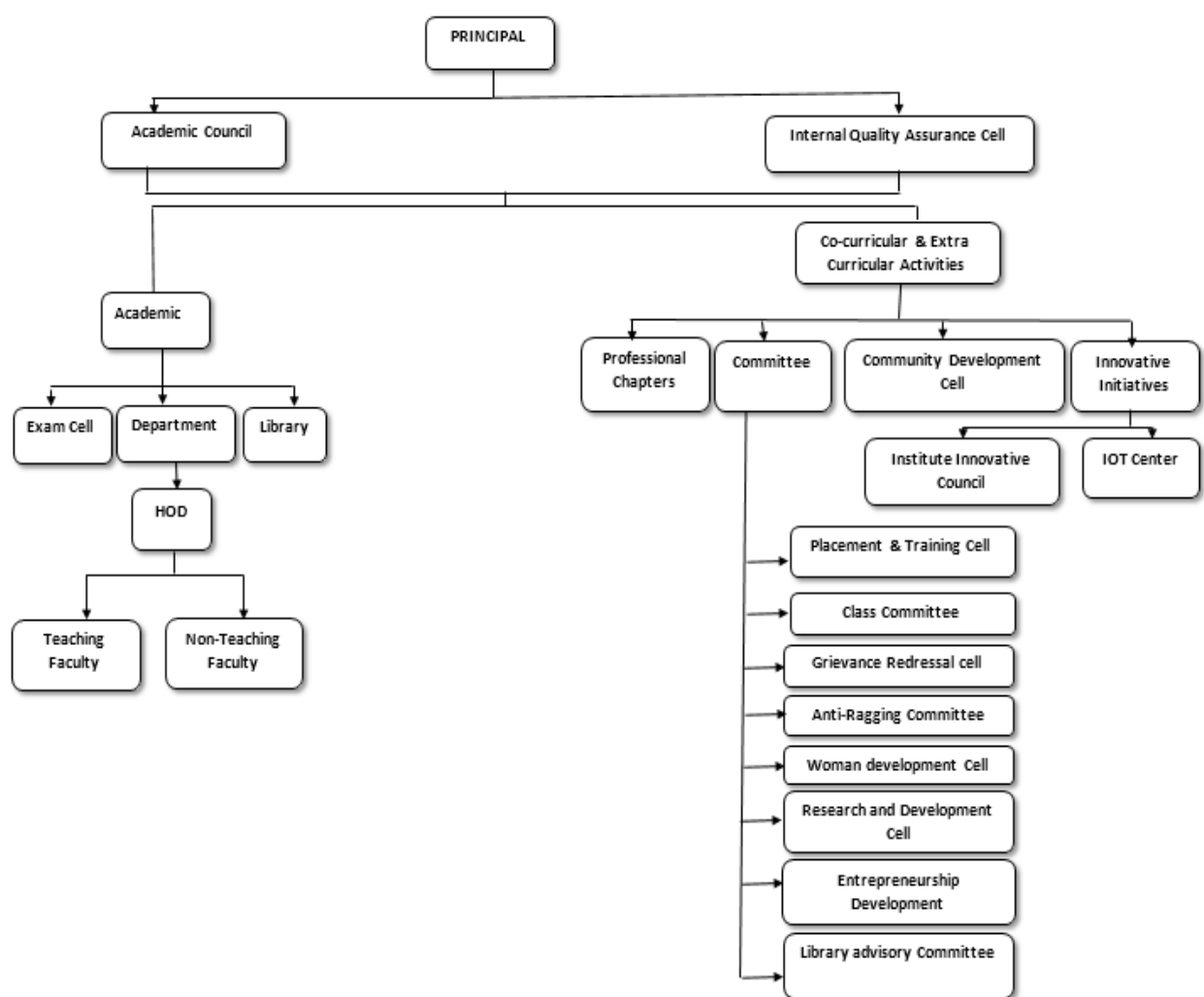
Observations and Non-conformities report are given for the deviations which also contain suitable suggestions given by the audit members.

Implementation & Effectiveness:

The suggestions given by the audit members are accepted and implemented in the department to make the academic process effectively.

Academic Audit is conducted by the Internal Quality Audit Cell.

INTERNAL QUALITY AUDIT CELL (IQAC) [ACADEMIC COUNCIL]



7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10)

Our college has an excellent record of placement. The following are the placement details of the department

Quality Placement:

Table. 7.3.1 Number of Students Placed

AY	TOTAL STRENGTH	PLACED COUNT	OVERALL STUDENTS PLACED %
2022-23	39	30	77
2021-22	69	51	74
2020-21	82	56	68

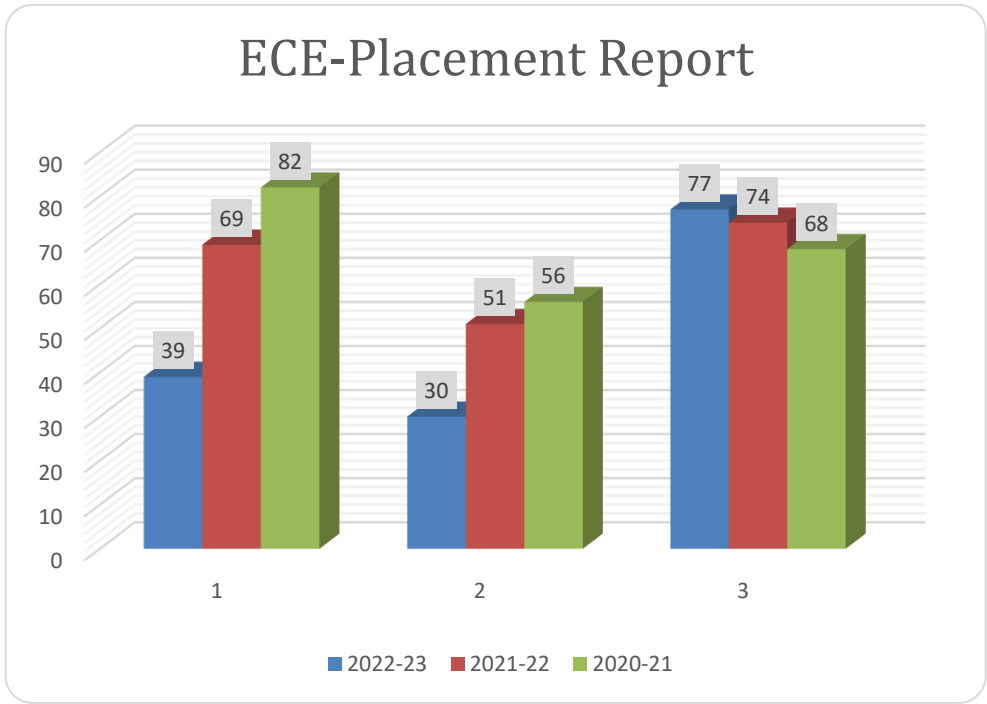


Fig. 7.3.1 Number of Students Placed

PLACEMENTS 2023-24

S.No	STUDENTS NAME	UNIVERSITY SERIAL NUMBER	DISCIPLINE	YEAR OF PASSING FROM INSTITUTION	ON/OFF CAMPUS PLACED	NAME OF THE EMPLOYER	PACKAGE (LPA)
1	AKALYA K	110720106001	ECE	2024	ON	NEOLYNC TELECOMMUNICATION,RIALTO ENTERPRISES PVT LTD,FOXCONN	2.5,2.5,2.5
2	BALAKRISHNAN K	110720106004	ECE	2024	ON	STATSPERFORM	3.15
3	CHEKURIDIVYA	110720106005	ECE	2024	ON	NEOLYNC TELECOMMUNICATION ,FOXCONN	2.5,2.5
4	DEEPADAYANA S	110720106006	ECE	2024	ON	FOXCONN ,RIALTO ENTERPRISES PVT LTD	2.5,2.5
5	DEEPAN KUMAR V	110720106007	ECE	2024	ON	RIALTO ENTERPRISES PVT LTD	2.5
6	KIRTHIGAP	110720106013	ECE	2024	ON	FOXCONN	2.5
7	LINGESHWARAN R	110720106014	ECE	2024	ON	FOXCONN ,RIALTO ENTERPRISES PVT LTD	2.5,2.5
8	LOKESHWARI B	110720106015	ECE	2024	ON	FOXCONN ,RIALTO ENTERPRISES PVT LTD	2.5,2.5
9	NOOR JAKEER	110720106016	ECE	2024	ON	COAPPS,Q-SPIDERS	4,4.5-6
10	PATTAPUKARTHEEK	110720106018	ECE	2024	ON	Q-SPIDERS,GLOBAL PVT LIMITED	4.5-6,3
11	SANGEETHA L	110720106022	ECE	2024	ON	NEOLYNC ,RIALTO ENTERPRISES PVT LTD,FOXCONN BLUESTAR	2.5,2.5,2.5,2.5
12	SHARMILAR	110720106025	ECE	2024	ON	FOXCONN,Q-SPIDERS, CAPGEMINI	2.5,2.5,4
13	SRUTHILAYA.K	110720106027	ECE	2024	ON	COAPPS,CORIZO,Q-SPIDERS	4,4-6,4.5-6

CRITERION 7

PLACEMENTS 2022-23

S.No	STUDENTS NAME	UNIVERSITY SERIAL NUMBER	DISCIPLINE	YEAR OF PASSING FROM INSTITUTION	ON/OFF CAMPUS PLACED	NAME OF THE EMPLOYER	PACKAGE (LPA)
1	ABEL FRANCIS	110719106001	ECE	2023	OFF	CSS CORP	2.5
2	ASMA S	110719106003	ECE	2023	OFF	CSS CORP	2.5
3	DEVIPRIYA P	110719106006	ECE	2023	ON	FOCUS EDUMATICS	3
4	GANESH P	110719106008	ECE	2023	OFF	TEKION	5
5	JEEVANA A L	110719106009	ECE	2023	ON	QSPIDERS	3
6	KEERTHIVASAN S	110719106011	ECE	2023	OFF	TEKION	2.5
7	KURAPATI BHARATH	110719106014	ECE	2023	ON	FOCUS EDUMATICS	3
8	LOGHANANDHINI K	110719106015	ECE	2023	ON	FOCUS EDUMATICS	3
9	MADDALI DIVYA	110719106016	ECE	2023	OFF	CSS CORP	2.5
10	MOHAN S	110719106017	ECE	2023	ON	FOCUS EDUMATICS	3
11	MUNAGASETTY VENKATA PAVAN KUMAR	110719106019	ECE	2023	OFF	CSS CORP	2.5
12	MUTHYALA CHANDRIKA	110719106020	ECE	2023	ON	QSPIDERS,FOCUS EDUMATICS	3,3
13	NALLAREDDY VIJITHA	110719106021	ECE	2023	OFF	TEKION	5
14	PENUBALA POORNA RAKESH	110719106023	ECE	2023	ON	FOCUS EDUMATICS	3
15	POODI VASUDHA	110719106024	ECE	2023	ON	SUTHERLAND	1.68
16	SANCHI PAVAN KUMAR	110719106026	ECE	2023	ON	SUTHERLAND	1.68
17	SAMADHI JAYANTH	110719106027	ECE	2023	OFF	TCS,FOCUS EDUMATICS	3.36, 3
18	SAMADHI SRIKANTH	110719106028	ECE	2023	ON	QSPIDERS	3
19	SANJAY S	110719106029	ECE	2023	ON	FLOWSERVE	5.6
20	SANTHOSH KUMAR M	110719106030	ECE	2023	ON	SUTHERLAND	1.68
21	SOMU SATHVIKA	110719106032	ECE	2023	OFF	TCS,QSPIDERS	3.36, 3
22	SRUTHI GNANA PRIYA D	110719106033	ECE	2023	ON	FOCUS EDUMATICS	3

CRITERION 7

23	VADLAMUDI RAKESH	110719106035	ECE	2023	ON	SUTHERLAND	1.68
24	VALLURU MAHESH BABU	110719106036	ECE	2023	OFF	TECH MAHINDRA,RIN EX	3.25, 3
25	VEMPULURU HARI KIRAN	110719106037	ECE	2023	ON	FOCUS EDUMATICS	3
26	VINEGA K	110719106038	ECE	2023	ON	FOCUS EDUMATICS	3
27	YEMPULURU BALAJI	110719106039	ECE	2023	ON	FLOWSERVE	5.6

PLACEMENTS 2021-22

S.No	STUDENTS NAME	UNIVER SITY SERIAL NUMBE R	DISCIP LINE	YEAR OF PASSIN G FROM INSTIT UTION	ON/OFF CAMPUS PLACED	NAME OF THE EMPLOYER	PACKAG E(LPA)
1	ABHIGNYA G	1107181 06001	ECE	2022	ON	FLOWSERVE	5.6
2	ANNABATHINA VYSHNAVI	1107181 06002	ECE	2022	OFF	PRELUDESYS	4
3	BHARATH KUMAR L	1107181 06004	ECE	2022	OFF	WIPRO	3.5
4	CHALLA SURESH	1107181 06007	ECE	2022	ON	TEKION	5
5	CHALLA VISHNUVARDHA N REDDY	1107181 06008	ECE	2022	OFF	WIPRO,TEKIO N,MIND TREE	3.5, 5, 4
6	CHANDRAGIRI SAI BHARGAVI	1107181 06010	ECE	2022	OFF	QUALITEST	4
7	CHENNAMGARI NANDINI	1107181 06011	ECE	2022	OFF	PRELUDESYS	4
8	CHENTHATI POOJITHA	1107181 06012	ECE	2022	OFF	PRELUDESYS	4
9	DHINAKARAN K	1107181 06017	ECE	2022	OFF	CSS CORP	2.5
10	DILLIBABU M	1107181 06018	ECE	2022	OFF	QUALITEST	4
11	DUVVURU NIREESHA	1107181 06019	ECE	2022	OFF	SUTHERLAND	1.68
12	GATTAMANENI MOHAN	1107181 06021	ECE	2022	OFF	INFOSYS,QUA LITEST	3.6, 4
13	GAYATHIRI S	1107181 06022	ECE	2022	OFF	PRELUDESYS	4
14	GUDI HYMAVATHI	1107181 06023	ECE	2022	OFF	WIPRO	3.5
15	GUDLURU SAI KUMAR	1107181 06024	ECE	2022	OFF	SUTHERLAND	1.68
16	INKUNTA VAMSI	1107181 06026	ECE	2022	OFF	CSS CORP	2.5

CRITERION 7

17	JINNkala SATHEESH	1107181 06027	ECE	2022	OFF	FACE PREP	2.4
18	KANDUKURI ROHITH	1107181 06028	ECE	2022	OFF	QUALITEST	4
19	M.KIRUTHISH	1107181 06030	ECE	2022	OFF	FLOWSERVE	5.6
20	KONDURU CHANDU REDDY	1107181 06031	ECE	2022	OFF	TERRALOGIC SOFTWARE SOLUTION PVT LTD	4
21	KUNNAVAKAM VIGNESH	1107181 06032	ECE	2022	OFF	MPHASIS,FLO WSERVE,INFO SYS	3.25, 5.6, 3.6
22	LAGUMSANI SRAVANTHI	1107181 06033	ECE	2022	OFF	MPHASIS	3.25
23	LATHA M	1107181 06034	ECE	2022	OFF	PRELUDESYS	4
24	MALLELA CHARATH KUMAR REDDY	1107181 06036	ECE	2022	OFF	PRELUDESYS	4
25	MALLI.HEMALA THA	1107181 06037	ECE	2022	OFF	FLOWSERVE	5.6
26	MODEPALLI VARUN SAI CHOWDARY	1107181 06038	ECE	2022	OFF	INFOSYS	3.6
27	NAMALA. VENKATA SRAVAN KUMAR	1107181 06039	ECE	2022	OFF	FACE PREP	2.4
28	NARESH KUMAR R	1107181 06040	ECE	2022	OFF	SUTHERLAND	1.68
29	NIKKUDALA RAMYA	1107181 06041	ECE	2022	OFF	SUTHERLAND	1.68
30	PALURU PRABHAKAR	1107181 06042	ECE	2022	OFF	WIPRO	3.5
31	PANEM SRIVIDYA	1107181 06043	ECE	2022	OFF	CSS CORP	2.5
32	PAPAREDDY.BHE ESHMITHA	1107181 06044	ECE	2022	OFF	MPHASIS,CSS CORP,FLOWSE RVE	3.25, 2.5, 5.6
33	PAVITHRA BASKARAN	1107181 06045	ECE	2022	OFF	CSS CORP	2.5
34	PEJJAI DHARANIDHAR REDDY	1107181 06046	ECE	2022	OFF	PRELUDESYS, CAPGEMINI	4, 4
35	PRIYA R	1107181 06048	ECE	2022	OFF	PRELUDESYS	4
36	PUDI JASWANTH	1107181 06049	ECE	2022	OFF	SUTHERLAND	1.68
37	PULI LOKESWAR REDDY	1107181 06051	ECE	2022	OFF	QUALITEST	4
38	RAJSHREE R	1107181 06052	ECE	2022	OFF	QUALITEST	4
39	SANGAVI V	1107181 06053	ECE	2022	OFF	WIPRO	3.5

CRITERION 7

40	SHAIK ABDUL HASEEB	1107181 06055	ECE	2022	OFF	PRELUDESYS,I NFOSYS	4, 3.6
41	SNEHA R	1107181 06057	ECE	2022	OFF	PRELUDESYS	4
42	SOMU SUMITHA	1107181 06058	ECE	2022	OFF	FACE PREP	2.4
43	VIGNESH ROHITH R	1107181 06070	ECE	2022	OFF	QUALITEST	4
44	S.VIJAY KUMAR	1107181 06071	ECE	2022	ON	MPHASIS,TEKI ON	3.25, 5
45	YADANAPARTHI SASIKALA	1107181 06073	ECE	2022	OFF	SUTHERLAND	1.68
46	YUVANYA K	1107181 06074	ECE	2022	OFF	PRELUDESYS	4

CRITERION 7

Higher studies:

Academic Year	No of students opted higher studies	Successful in GATE,GRE, GMAT, CAT etc.
2023-2024	1	1 GRE
2022-2023	3	1 TANCET
		2 GRE
2021-2022	8	3 TANCET
		5 GRE

Table. 7.3.2 Number of Students – Higher Studies

Entrepreneur:

Academic Year	Total No of Entrepreneur	Name of the Student
2023 – 2024	1	Kathiravan A

7.4. Improvement in the quality of students admitted to the program (10)

Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students.

Table 7.4

Item		2023-24	2022-23	2021-22
National Level Entrance Examination(Name of the Entrance Examination)	No of Students Admitted	NA	NA	NA
	Opening Score/Rank	NA	NA	NA
	Closing Score/Rank	NA	NA	NA
State/University/Level Entrance Examination/Others (Name of the Entrance Examination)	No of Students Admitted	43	37	32
	Opening Score/Rank	86%	97%	95%
	Closing Score/Rank	46%	41%	59%
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of Students Admitted	2	-	3
	Opening Score/Rank	75%	-	70%
	Closing Score/Rank	65%	-	66%
Average [CBSE/Any Other Board Result of admitted students (Physics, Chemistry & Maths)]		69	65	73

CRITERION 7

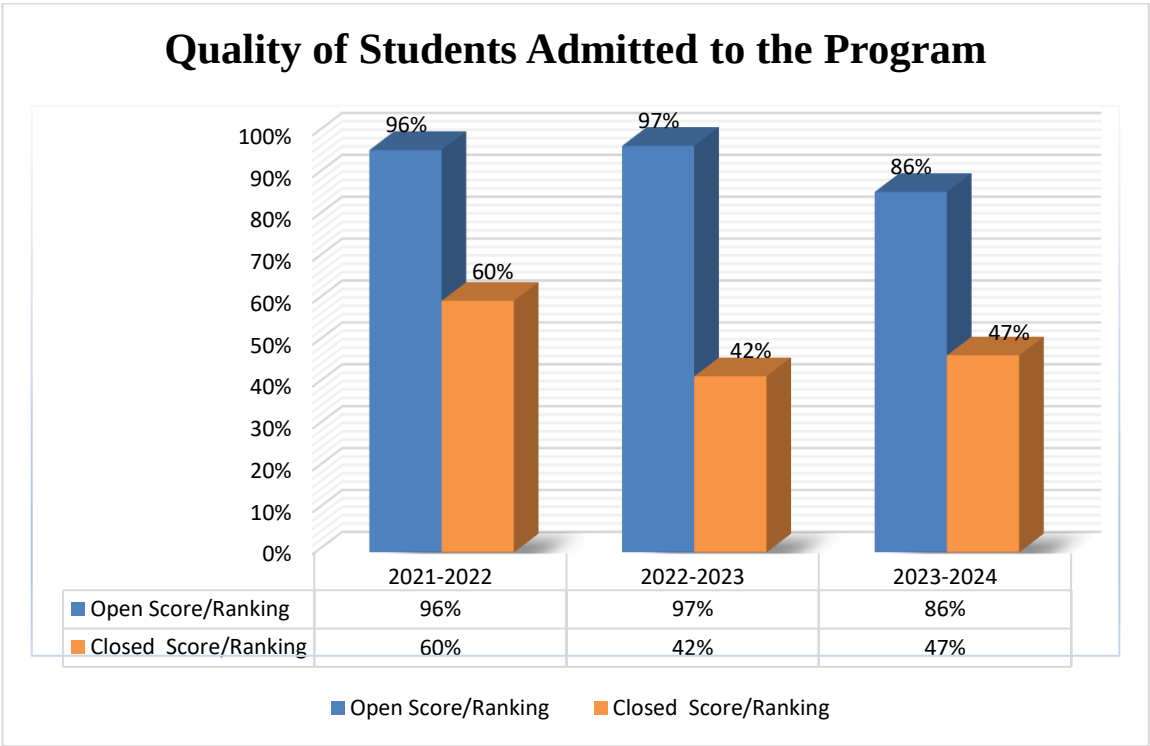


Fig. 7.4.1 Number of Students Opening and Closing Marks - Year wise

CRITERION 7

Criterion 8	First Year Academics	50
-------------	----------------------	----

8.1. First Year Student-Faculty Ratio (FYSFR) (5)

Assessment = (5×20)/Average FYSFR

(Limited to Max. 5) Data for first year courses to calculate the FYSFR is shown below in Table 8.1.1.

Table 8.1.1 First Year Student-Faculty Ratio

Year	Number of Students (Approved Intake Strength)	Number of Faculty Members (Considering Fractional Load)	FYSFR
2021-22	360	20	20
2022-23	360	20	20
2023-24	420	25	17
Average	380	22	19
Assessment= (5 × 20)/Average FYSFR (Limited to Max. 5) = 5.00			

8.2 Qualification of Faculty Teaching First Year Common Courses (5)

Assessment of qualification = (5x +3y)/RF, x= Number of Regular Faculty with Ph.D., y = Number of Regular Faculty with Post-graduate qualification RF= Number of faculty members required as per SFR of 20:1.

Table 8.2.1 Qualification of Faculty Teaching First Year Common Courses

Year	X	Y	RF	Assessment of Faculty Qualification (5x + 3y)/RF
2021-22	5	14	18	3.72
2022-23	5	14	18	3.72
2023-24	5	15	21	3.33
Average Assessment = 3.59				

8.3. First Year Academic Performance (10)

Academic Performance = ((Mean of 1st Year Grade Point Average of all successful Students on a10 point scale) or (Mean of the percentage of marks in First Year of all successful students/10)) × (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year.

Academic Performance	2023-24 (CAY)	2022-23 (CAYm1)	2021-22 (CAYm2)
Mean of CGPA or Mean Percentage of all successful Students (X)	7.59	7.71	7.64
Total Number of Successful Students (Y)	35	38	24
Total Number of Students appeared in the Examination (Z)	35	38	24
API=(X*(Y/Z))	7.59	7.71	7.64

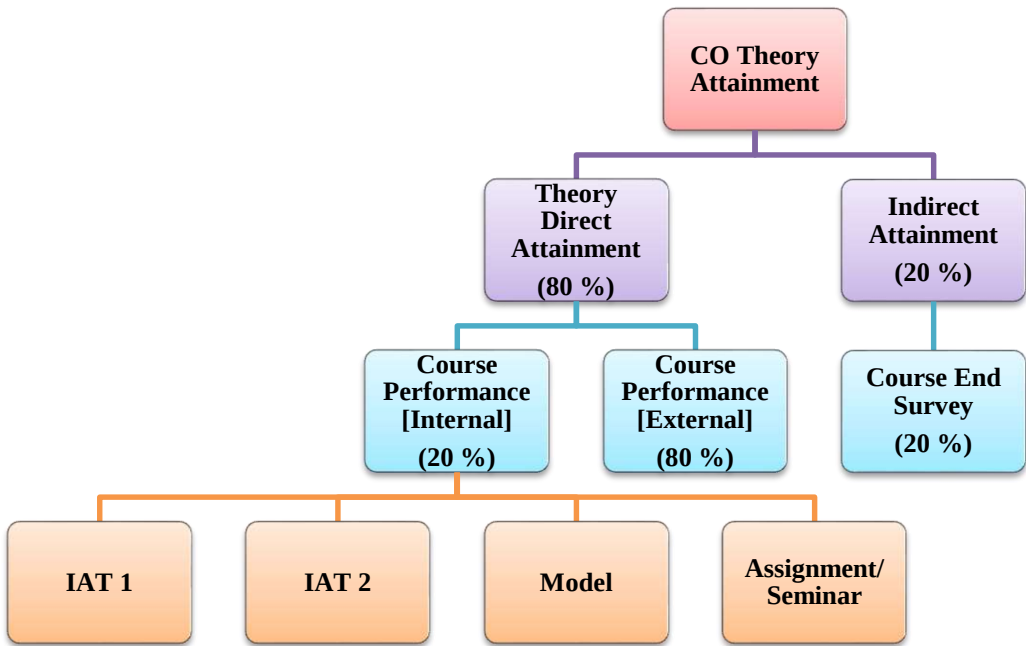
Average API = (AP1+AP2+AP3)/3: 7.65

8.4 Attainment of Course Outcomes of first year courses (10)

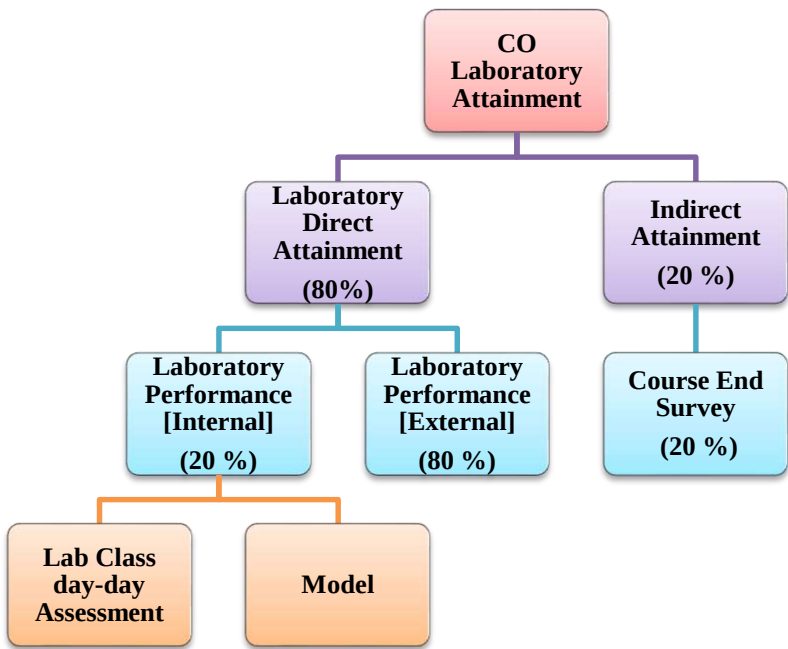
8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)

(Examples of data collection processes may include, but are not limited to, specific exam questions, laboratory tests, internally developed assessment exams, oral exams assignments, presentations, tutorial sheets etc.)

To evaluate the Course Outcomes, the data are gathered using the following process.



a. Course Attainment



b. Laboratory Attainment

Fig.8.4.1 Flowchart for attainment of Course Outcomes

Assessment tools to assess the course outcomes:

Direct Attainment:

Direct methods display the students' knowledge and skills from their performance in the Internal Assessment Test-I, Internal Assessment Test-II, Model Examination & University Examination along with assignments. Indirect methods are obtained based on course end survey.

Table 8.4.1.1 Direct Assessment Methods

Assessment Tools	CO Assessment Methods	Description
Theory Course Assessment	Course Performance -IA	It is a metric to assess the attainment of COs continuously and students' learning domains, thus improving the teaching-learning process. The Internal Assessment (IA) marks in a theory paper shall be based on IAT-1, IAT-2, and Model Assessments generally conducted each semester. The retests will be conducted for the failed students and absentees after each assessment to allow them to improve their understanding of the subject with the permission of HEI.
	Course Performance – Assignment/ Seminar	The assignment marks in a theory paper shall be based on assignments from 3 units and assignment cum seminar from 2 units of 10 marks each to assess the learning outcomes of the course every semester.
	Course Performance – EA	The ESE are the metric to assess whether all the course outcomes are attained.
Laboratory Assessment	Lab. class day-day Assessment and Model Exam -IA	Lab assessment mainly assesses students' practical knowledge with their designing capabilities. The IA marks achieved for practical shall be based on the weightage of each experiment in the record and observation notebooks on day-by-day practical sessions and the results of the model examination, which is held at the end of the semester.
	Laboratory Performance ESE - IA	Practical ESE is focused on the performance of experiments and viva-voce.

Theory Cum Lab. Course Assessment	Course cum lab. Performance – IA	The IA marks in a theory cum lab. course shall be based on IAT-1, IAT-2, and Model Assessments generally conducted end of each semester, like theory course. The IA marks achieved for practical shall be based on the weightage of each experiment in the record and observation notebooks on day-day practical sessions. The ESE are the metric to assess whether all the course outcomes are attained.
--	---	---

Indirect Attainment:

Indirect attainment of COs can be determined from the course exit survey. The exit survey form should be designed to get feedback from students on all the COs.

Table 8.4.1.2 Course Outcome Assessment methodology, tools and frequency of use for direct method

Assessment Tools	Assessment Method	Assessment frequency	Assessment Tool	In charge	Reviewer
Theory Course Assessment	Course Performance – IA	Thrice in a semester.	Students’ performance in internal assessment.	Course in charge and Course Coordinator	HoD
	Course Performance – Assignment - IA	At least one Assignment from each unit.	Students’ performance in submitting the assignment/seminar		
	Course Performance, ESE-EA	At the end of the semester	Students’ performance in ESE	External Examiners	
Lab. Assessment	Lab. Class Assessment-IA	Lab Classes	Students’ performance in doing experiments	Course Coordinator	HoD
	Lab. Model-IA	At the end of the semester	Students’ performance in Model Exam	Course Coordinator	HoD
	Lab. ESE-EA	At the end of the semester	Students’ performance in ESE	External Examiners	

Theory Cum Lab. Course Assessment	Course Performance – IA	Thrice in a semester.	Students’ performance in internal assessment.	Course in charge and Course Coordinator	HoD
	Course Performance – Assignment -IA	At least one Assignment from each unit.	Students’ performance in submitting the assignment/seminar		
	Course Performance, ESE-EA	At the end of the semester	Students’ performance in ESE	External Examiners	
	Lab Class Assessment - IA	Lab Classes	Students’ performance in doing experiments	Course Coordinator	
	Lab. Performance, ESE-EA	At the end of the semester	Students’ performance in ESE	External Examiners	

The attainment of Course Outcomes of all courses with respect to set attainment levels

The attainment of Course Outcome is evaluated under two categories –University Examination and Internal Assessment. The set attainment levels for Course Outcome is given as below.

In IAT 1/IAT 2/ Model	
Level 1	60% of students scoring above 60%
Level 2	70% of students scoring above 60%
Level 3	80% of students scoring above 60%
In Assignment/Seminar	
Level 1	60% of students scoring above 70%
Level 2	70% of students scoring above 70%
Level 3	80% of students scoring above 70%
In Laboratory Internal Exam	
Level 1	60% of students scoring above 80%
Level 2	70% of students scoring above 80%
Level 3	80% of students scoring above 80%
In University Exam	
Level 1	60% of students scoring above 50%
Level 2	70% of students scoring above 50%
Level 3	80% of students scoring above 50%

8.4.2. Record the attainment of Course Outcomes of all first-year courses (5)

Program shall have set attainment levels for all first-year courses.

(The attainment levels shall be set considering average performance levels in the university examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the COs of a subject plus the performance in the University examination)

Table 8.4.2.1 Attainment of Course Outcome for the Academic Year 2023 – 2024

Course Code	Course Name	Direct Attainment		Indirect Attainment		Co Attainment	% of Attainment
		LEVEL	80 %	LEVEL	20 %		
C101	Professional English	2.8	0.56	3	2.4	2.96	99%
C102	Basic Mathematics for Engineers	2.6	0.52	3	2.4	2.92	97%
C103	Engineering Physics	2.4	0.48	3	2.4	2.88	96%
C104	Engineering Chemistry	2.8	0.56	3	2.4	2.96	99%
C105	Problem Solving and Python Programming	2.8	0.56	3	2.4	2.96	99%
C106	Engineering and Professional Skills	3	0.60	3	2.4	3.00	100%
C107	Problem Solving and Python Programming Laboratory	3	0.60	3	2.4	3.00	100%
C108	Physics and Chemistry Laboratory	3	0.60	3	2.4	3.00	100%
C109	Product Tinkering Lab	3	0.60	3	2.4	3.00	100%
C110	Heritage of Tamils	2.2	0.36	3	2.4	2.84	95%
C111	Japanese Language	2.84	0.56	3	2.4	2.96	99%
C112	Transforms and Numerical Methods	3	0.60	2	1.6	2.20	73%
C113	Electronic Devices	2.6	0.52	2	1.6	2.12	71%
C114	Basics of Electrical Engineering and Circuits	2.6	0.52	3	2.4	2.92	97%
C115	Engineering Graphics	2.8	0.56	3	2.4	2.96	99%
C116	Innovation and Design Thinking	2.6	0.56	3	2.4	2.92	97%
C117	Engineering Product Laboratory	3	0.60	3	2.4	3.00	100%
C118	Circuits and Devices Laboratory	3	0.60	3	2.4	3.00	100%
C119	Tamils and Technology	2.80	0.56	3.00	2.4	2.96	99%

8.5 Attainment of Program Outcomes from first year courses (20)

8.5.1 Indicate results of evaluation of each relevant PO and/or PSO, if applicable (15)

The relevant program outcomes that are to be addressed at first year need to be identified by the institution. Program Outcome attainment levels shall be set for all relevant POs and/or PSOs through first year courses. (Describe the assessment processes that demonstrate the degree to which the Program Outcomes are attained through first year courses and document the attainment levels. Also include information on assessment processes used to gather the data upon which the evaluation of each Program Outcome is based indicating the frequency with which the se processes are carried out)

CO – PO – PSO MAPPING:**Table 8.5.1.1 Courses – PO – PSO Mapping: Academic Year 2023 - 2024**

Course Code	Course Name	SUBJECTWISE CO VS PO MAPPING AVERAGE													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C101	Professional English	2.00	2.20	2.00	1.50	2.00	3.00		1.80	1.60	2.80	1.00	3.00		
C102	Basic Mathematics for Engineers	2.40	2.20	2.00	2.00	2.00	1.40		2.20	1.50	1.80		2.40	1.00	
C103	Engineering Physics	3.00	3.00	2.00	2.80	2.00	1.00	2.00	1.00	1.00					0.00
C104	Engineering Chemistry	2.25	2.00	2.00	2.80	2.00	2.00	2.00	1.50	1.50					0.00
C105	Problem Solving and Python Programming	3.00	3.00	3.00	2.00	3.00	3.00			2.00	1.00		1.00	2.00	1.00
C106	Engineering and Professional Skills	2.80	3.00	3.00	3.00						2.00		3.00		0.00
C107	Problem Solving and Python Programming Laboratory	1.80	2.00	1.80	2.00	1.60	1.67			1.67			0.00	1.75	2.00
C108	Physics and Chemistry Laboratory	3.00	2.00	2.00						2.00			0.00	0.00	0.00
C109	Product Tinkering Lab	2.75	2.25	1.50	1.50	1.75	2.00	0.00	1.50	1.25	1.50	0.00	2.75	0.00	0.00
C110	Heritage of Tamils	1.60	2.20	2.20	2.00	2.00			3.00	2.00	2.00		2.00		
C111	Japanese Language	2.40	2.20	1.60	1.40				1.25	1.25	1.40		1.50		0.00
C112	Transforms and Numerical Methods	2.40	2.80	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.50		1.50		0.00
C113	Electronic Devices	2.80	2.60	2.60	2.60	1.00			2.40	2.60	2.40		2.00		0.00
C114	Basics of Electrical Engineering and Circuits	2.20	2.60	2.60	2.60	1.20	1.60		1.40	1.00	1.20		1.00		0.00
C115	Engineering Graphics	3.00	1.60	2.00	2.00	2.00					3.00		2.00		0.00
C116	Innovation and Design Thinking	3.00	3.00	3.00	9.75	2.50	2.50		2.50	2.00	1.75	2.50	2.00	2.50	1.00
C117	Engineering Product Laboratory	2.20	2.20	2.00	2.00	2.00				1.75			1.75		0.00
C118	Circuits and Devices Laboratory	1.67	1.67	1.00	1.00	0.00	0.00	0.00	2.33	1.00	1.33	0.00	0.00	0.00	0.00
C119	Tamils and Technology						1.60	1.60	1.60	1.60	1.60		1.60		

CRITERION 8**NBA SAR Department of ECE****2024-25**

PO ATTAINMENT

Table 8.5.1.2 Attainment of POs and PSOs for the 2023 – 2024

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C101	Professional English	1.97	2.17	1.97	1.48	1.97	2.96	-	1.78	1.58	2.76	0.99	2.96	-	-
C102	Basic Mathematics for Engineers	2.34	2.14	1.95	1.95	1.95	1.36	-	2.14	1.46	1.75	-	2.34	0.97	-
C103	Engineering Physics	2.88	2.88	1.92	2.69	1.92	0.96	1.92	0.96	0.96	-	-	-	-	-
C104	Engineering Chemistry	2.22	1.97	1.97	2.76	1.97	1.97	1.97	1.48	1.48	-	-	-	-	-
C105	Problem Solving and Python Programming	2.96	2.96	2.96	1.97	2.96	2.96	-		1.97	0.99		0.99	1.97	0.94
C106	Engineering and Professional Skills	2.80	3.00	3.00	3.00	-	-	-	-	-	2.00	-	3.00	-	-
C107	Problem Solving and Python Programming Laboratory	1.80	2.00	1.80	2.00	1.60	1.67	-	-	1.67	-	-	-	1.75	2.00
C108	Physics and Chemistry Laboratory	3.00	2.00	2.00	-	-	-	-	-	2.00	-	-	-	-	-
C109	Product Tinkering Lab	2.75	2.25	1.50	1.50	1.75	2.00	-	1.50	1.25	1.50	-	2.75	-	-
C110	Heritage of Tamils	1.51	2.08	2.08	1.89	1.89	-	-	2.84	1.89	1.89	-	1.89	-	-
C111	Japanese Language	2.37	2.17	1.58	1.38	-	-	-	1.23	1.23	1.38	-	1.48	-	-
C112	Transforms and Numerical Methods	1.76	2.05	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.10	-	1.10	-	-
C113	Electronic Devices	1.98	1.84	1.84	1.84	0.71	-	-	1.70	1.84	1.70	-	1.41	-	-
C114	Basics of Electrical Engineering and Circuits	2.14	2.53	2.53	2.53	1.17	1.56	-	1.36	0.97	1.17	-	0.97	-	-
C115	Engineering Graphics	2.96	1.58	1.97	1.97	1.97	-	-	-	-	2.96	-	1.97	-	-
C116	Innovation and Design Thinking	2.92	2.92	2.92	9.49	2.43	2.43	-	2.43	1.95	1.70	2.43	1.95	2.43	0.97
C117	Engineering Product Laboratory	2.20	2.20	2.00	2.00	2.00	-	-	-	1.75	-	-	1.75	-	-
C118	Circuits and Devices Laboratory	1.67	1.67	1.00	1.00	-	-	-	2.33	1.00	1.33	-	-	-	-
C119	Tamils and Technology	-	-	-	-	-	1.58	1.58	1.58	1.58	1.58	-	1.58	-	-
Direct Attainment from Courses		2.35	2.24	2.03	2.41	1.84	1.90	1.73	1.75	1.53	1.701	1.71	1.87	1.78	1.30

CRITERION 8

NBA SAR Department of ECE

2024-25

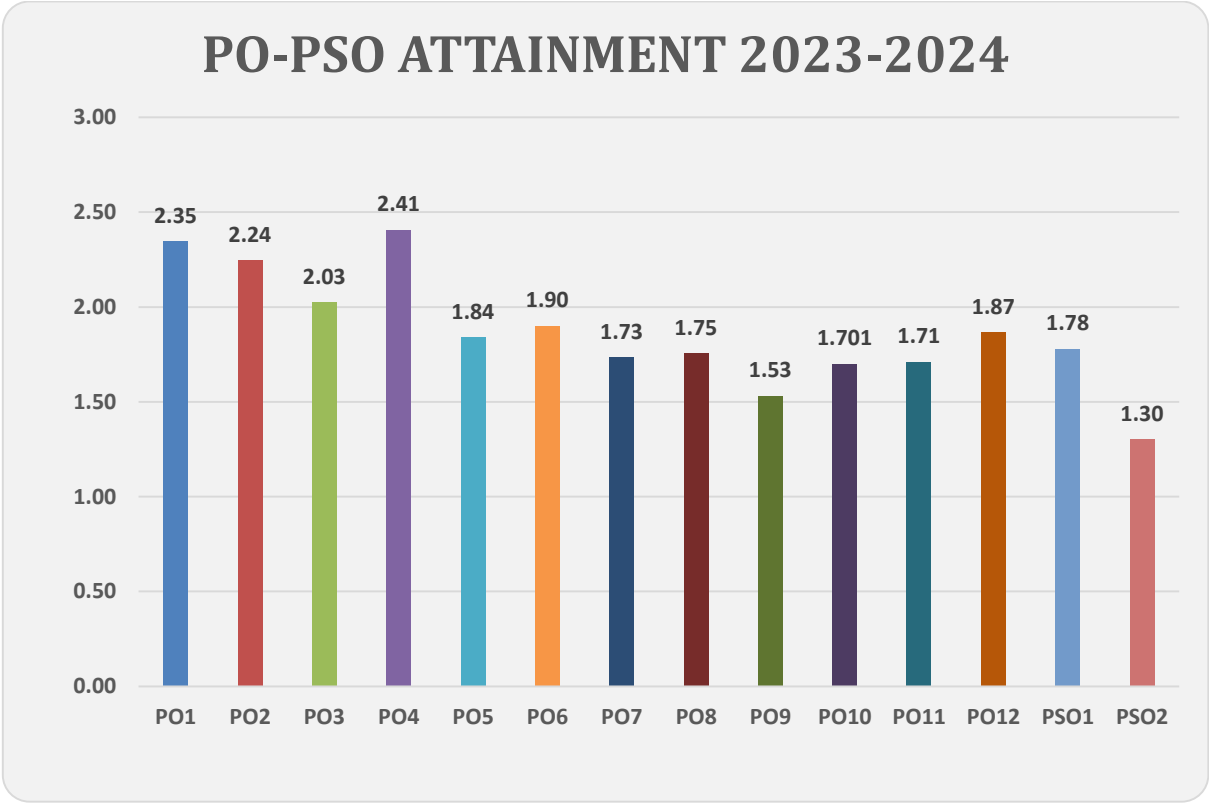


Figure 8.5.1 PO Attainment for First Year 2023 – 24

8.5.2 Actions taken based on the results of evaluation of relevant POs (5)

(The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated)

Table 8.5.2.1 PO Attainment Levels and Actions for Academic Year 2023 – 24

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.			
PO1	1.95	2.35	TARGET LEVEL ATTAINED Observations: 1. Basic Engineering Knowledge: The students have generally acquired adequate basic engineering knowledge in most subjects. 2. Integration of Mathematics and Engineering Science: Students

			effectively leverage their foundational understanding of mathematics and engineering science, gained during intermediate courses, along with orientation programs and tutorial classes at college. This combination helps them perform well in both internal assessments and university examinations. 3. Challenges in Problem-Solving: Despite this foundational knowledge, students face challenges when applying engineering principles to address complex engineering problems.
Proposed actions for continuous quality enhancement: 1. Directing studio sessions that leverage industry experts to enhance practical knowledge. 2. Conducting tutorials focused on foundational engineering concepts. 3. Providing more practice questions for numerical subjects that must be solved. 4. Scheduling expert lectures and webinars on the latest technologies to advance technical expertise. 5. Presenting examples of various real-world concepts in the classroom. 6. Conducting activities such as quizzes and utilizing National Programme on Technology Enhanced Learning (NPTEL) video lectures during teaching.			
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.			
PO2	1.95	2.24	TARGET LEVEL ATTAINED Observations: 1. Target level is achieved. 2. The majority of mathematics courses only sporadically use the

			ability to solve problems and analyze data in practical settings. 3. It was found that greater attention was required for the analysis of conformal mappings, pass band digital communication performance, steady state behavior of the control system, voice processing, and spread spectrum performance analysis.
Proposed actions for continuous quality enhancement: 1. Workshops and seminars aimed at students to enhance their fundamental design knowledge, while also providing ongoing support for experienced professionals in their field. 2. Innovative pedagogies, such as crossword puzzles, snakes and ladders puzzles, and emoji puzzles, have been introduced to improve students' analytical skills. 3. A session with a project guidance expert is scheduled to boost students' abilities to recognize, articulate, and evaluate engineering problems. 4. Instructors will offer additional support by assigning more challenging homework and assisting students in utilizing self-paced, online learning resources such as skill-building courses.			
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.			
PO3	1.95	2.03	TARGET LEVEL ATTAINED Observations: 1. In many subjects, students achieve the target level. 2. First-year students have limited exposure to design concepts.
Proposed actions for continuous quality enhancement: 1. Developing introductory projects leveraging IoT and Android to address societal and environmental issues.			

2. Conducting seminars and workshops on yoga, psychology, and ethics to enhance students' behavioral education. 3. Covering topics such as public health and safety, cultural, socioeconomic, and environmental issues in both classroom and lab settings through relevant courses. 4. Encouraging faculty to assign application-based tasks to students to enhance practical understanding.			
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			
PO4	1.95	2.41	TARGET LEVEL ATTAINED Observations: 1. Engineering Problem Complexity: First-year students find complex engineering problems difficult to analyze. 2. Design and Synthesis Emphasis: More attention is needed on designing and synthesizing.
Proposed actions for continuous quality enhancement: 1. Develop research report writing skills by composing journals, articles, and case studies. 2. Assess PO4 attainment by conducting laboratory evaluations using rubrics. 3. Teach students how to use software for experiment design and analysis. 4. Introduce research paper problems from journals during tutorial and lab sessions, complementing the syllabus content. 5. Demonstrate the role of mathematical modeling through videos and courses from the National Program on Technology Enhanced Learning.			
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			
PO5	1.95	1.84	TARGET LEVEL NOT ATTAINED Observations: 1. Modern tool usage is not familiar with the students at the I Yr Level

			2. Utilization of present-day devices by the first-year students are limited.
Proposed actions for continuous quality enhancement: 1. To gain exposure to modern tools, encourage students to take part in technical events. 2. Students will be urged to participate in internships and industry training. 3. Enrollment in various courses, such as Coursera, spoken tutorials, and the National Program on Technology Enhanced Learning, is encouraged among students.			
PO6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice			
PO6	1.95	1.90	TARGET LEVEL NOT ATTAINED Observations: 1. To identify the fundamental requirements of society, National Service Scheme (NSS) activities are conducted within and around colleges. 2. Mindfulness programs such as Contemplation, Yoga, and Sports were conducted to enhance students' awareness of well-being. 3. Students were provided with the opportunity to understand the role of engineers in the general public through various lectures and activities.
Proposed actions for continuous quality enhancement: 1. As participants in the National Service Scheme (NSS), students took active roles in diverse social service initiatives. They made effective use of the dedicated library time to read periodicals and newspapers, thereby broadening their understanding of social and health-related concerns. 2. In addition, they enlightened their peers by sharing the insights gained. While conducting their practicals, the students strictly followed the laboratory safety protocols, ensuring a safe and efficient learning environment.			

3. They also participated in social events, notably the NSS-organized blood donation camp, showcasing their dedication to community service and social responsibility.			
PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.			
PO7	1.95	1.73	TARGET LEVEL NOT ATTAINED Observations: 1. Environmental Awareness Initiatives: Conducted awareness programs on Food Waste Management and Safe Drinking Water Supply. 2. Sustainable Development Awareness: Implemented Swachh Bharat initiatives in neighboring villages to address issues like pollution, hygiene, and waste management.
Proposed actions for continuous quality enhancement: 1. Increase the number of environmental sustainability-focused social service projects undertaken by students as part of the NSS Program. 2. Organize an awareness campaign to raise awareness about critical issues like safe water supply and food waste management. 3. Conduct Swachh Bharat-inspired pollution and waste management programs with students. 4. Students were given the freedom to select projects that addressed environmental challenges related to energy consumption and the adoption of renewable energy sources.			
PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO8	1.95	1.75	TARGET LEVEL NOT ATTAINED Observations: 1.First-year subjects lack ethical standards, so we developed

			programs to help students build life skills and professional ethics. 2.We conducted awareness campaigns and seminars to promote social harmony and rational thinking. 3.Many courses lacked professional and ethical values.
Proposed actions for continuous quality enhancement: 1. Educating students about professional ethics through video lectures. 2. Conducted a code of conduct induction program. 3. Value Education courses are offered to students. 4. Students were made aware of plagiarism and its impact on technological society through a presentation on the subject.			
PO9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings			
PO9	1.95	1.53	TARGET LEVEL NOT ATTAINED Observations: 1. The target level was not achieved. 2. There were not many courses connected to this PO. 3. In the majority of laboratory courses, students worked in groups to complete the experiments and also participated in group learning during tutorial sessions. 4. Despite the lack of attainment, it was recovered through quizzes and group projects.
Proposed actions for continuous quality enhancement: 1. Organized quiz programs and collaborative group projects to foster teamwork. 2. Facilitated aptitude training and conducted workshops on Group Discussions and Personal Interviews (GD-PI) related to Human Resources.			

3. Collaborated in groups to execute social service projects. 4. Encouraged team collaboration to address problems during laboratory sessions.			
PO10: 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.			
PO10	1.95	1.7	TARGET LEVEL NOT ATTAINED Observations: - Due to the limited communication skills of the majority of the other state pupils, the target level was not achieved. - We provide language learning skills training in language laboratories and English courses. - We conduct collaboration exercises and group discussions in language training communication laboratories.
Proposed actions for continuous quality enhancement: - Communication Activity: Students engage in discussions about engineering projects relevant to their streams. - Group Work: Students with varying communication skills collaborate to enhance communication abilities. - Language Lab Sessions: Participatory and activity-based, focusing on language development.			
PO11: 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			
PO11	1.95	1.71	TARGET LEVEL NOT ATTAINED Observations: First-year students lack proficiency in financial and

			project management skills due to limited opportunities to apply these skills in developing projects during their first year. 2. There is a need to prioritize the development of Engineering Economics and financial analysis skills.
Proposed actions for continuous quality enhancement: 1. Conducted video lectures to raise awareness about finance project management. 2. Encouraged students to work on group projects to enhance their project management skills. 3. Facilitated engaging group discussions on the distribution and management of financial budgets. Organized technical competitions to provide excellent opportunities for students to improve their project management abilities.			
PO12: Lifelong 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.			
PO12	1.95	1.87	TARGET LEVEL NOT ATTAINED Observations: 1. First-year students’ opportunities for lifelong learning are limited because their coursework primarily focuses on foundational areas. However, this basic knowledge can be leveraged to learn higher technologies later on.
Proposed actions for continuous quality enhancement: 1. Encourage students to engage in independent study using platforms like NPTEL and similar educational resources. 2. Incorporate a dedicated library hour into the weekly schedule to ensure effective use of reference books, magazines, and journals, helping students stay informed about the latest technological advancements and industry trends. 3. Instruct students on leveraging their existing knowledge to meet future challenges.			

PSO Attainment Levels and Actions for 2023-24

PSOs	Target Level	Attainment Level	Observations
PSO1: To apply software engineering principles and practices for developing quality software for scientific and business applications			
PSO1	1.95	1.7	TARGET LEVEL NOT ATTAINED Observations: 1. The target level of the curriculum is not being met by the students. 2. The first-year students are not adequately utilizing modern tools. 3. The students have limited opportunities to design practically for real-world or industrial projects.
Action Taken: 1. Students are encouraged to participate in activities such as project competitions, hackathons, and Unnat Bharat Abhiyan. 2. Students have access to expert seminars and webinars.			
PSO2: To adapt to emerging information and communication technologies (ICT) to innovate and create solutions to existing/novel problems.			
PSO2	1.95	1.30	TARGET LEVEL NOT ATTAINED Observations: 1. The target level is not being achieved by the students. 2. The first-year students are not utilizing modern tools effectively.
Action Taken: 1. Pupils are encouraged to participate in a diverse range of online certification programs. 2. An expert lecture is scheduled to enhance entrepreneurship skills.			

CRITERION 9	Student Support Systems	50
-------------	-------------------------	----

9. STUDENT SUPPORT SYSTEMS (50)

9.1. Mentoring system to help at individual levels (5)

Our Institution has an excellent mentoring system. Effective mentoring begins with the faculty. The institution helps to create an environment to establish a healthy relationship between faculty and students. Faculties from the Science and Humanities department mentor the first year engineering students and from second year, students are allotted to the mentors from their respective department. As a part of the mentoring process students are encouraged to discuss their ideas to go with new techniques and expand their skills.

Mentor- Mentee ratio: Around 15-20 students are tagged to each mentor.

Frequency of meeting: Mentees meet their mentors weekly once. After every internal tests and model tests, mentees meet their mentors and discuss their performance.

Mentor- Mentee ratio

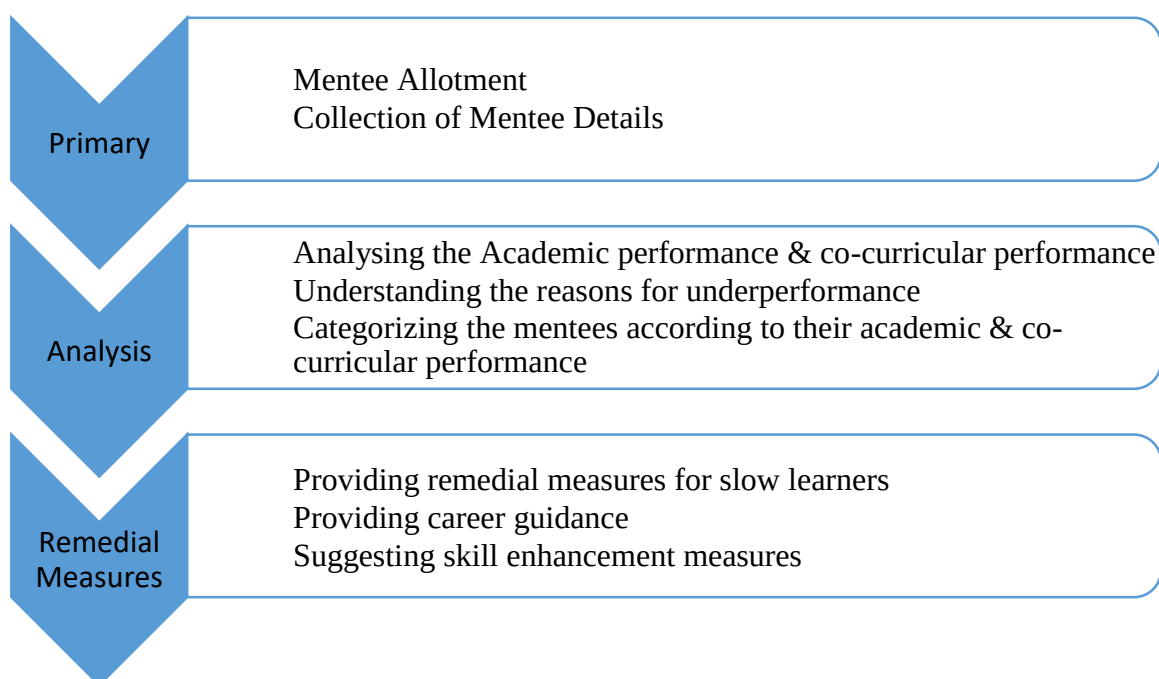
- Our institution maintains a standard mentor–mentee ratio during the following years as follows:

Year	Student Strength		Total number of Mentors	Mentor Mentee Ratio
	Boys	Girls		
2023-24	720	437	99	1:20
2022-23	477	337	78	1:15
2021-22	437	331	81	1:15
2020-21	413	319	98	1:15
2019-20	477	318	113	1:15

Mentoring Systems:

CRITERION # 9

Department of ECE, J.N.N Institute of Engineering



9.1.1 The process for Identification of advanced learners and slow learners:

(i) Collection of the students' personal information:

- Once the student is admitted, his/her previous academic performance, family's socio economic background, strengths and weaknesses, goals etc., are collected through student counselling file and analysed throughout his/her program.

(ii) Analysis of the students' personal information:

- Based on the collected data through the college counselling process, the institute identifies the slow learners.
- A teacher of the same discipline adopts some students and acts as a mentor to monitor continuous progress of these students.
- Mentors will analyse the reason for being a slow learner and counsel them accordingly.
- If necessary, they are channelized to the Counselling club, where the psychologists professionally counsel them to come out of their problem.
- Internal motivation is carried out by the institution that helps students to overcome their difficulties.
- The Institution conducts remedial classes for slow learners.

9.1.2 Scope of Mentoring

9.1.2.1 Professional Guidance to mentees

- The institute trains the students based on the requirements of the industry, by imparting required skills which are essential for the dynamic employment market.
- Mentors motivate their mentees to present research papers in International / National conferences, seminars and symposiums conducted by various other colleges.
- The soft skills, technical skills of the mentees are continuously monitored by their mentors and steps are initiated to bridge the gap, if any.
- Mentors encourage their mentees to actively take part in the activities conducted by various cells such as Entrepreneurial development cell (EDC), Institutional innovation council (IIC) and incubation hubs set up by government and other bodies, and showcase their innovation and Entrepreneurial skills.
- Mentors guide the students for drafting business proposals, business plans and getting funded from start-up/ innovation councils for their business ideas.

9.1.2.2 Career guidance to mentees

- Mentors discuss the various higher educational opportunities in India and in abroad entrance exams for pursuing higher education.
- Emphasis is given on higher educational entrance examinations such as TANCET, GATE, CAT, MAT, XAT, GRE and other examinations conducted by institutions of national importance.
- Mentors also educate their mentees about the various competitive exams conducted by Public Service Commission (PSC) and other Public Sector Undertakings (PSU).

9.1.2.3 Overall Development of mentees

- The mentees are encouraged to participate in workshops, technical fests and present technical papers.
- Mentees are encouraged to take up certification courses like NPTEL, Coursera and edX. The faculty helps the students to complete the certification course successfully.
- Mentees are also encouraged to take part in NSS, cultural activities and sports activities for the overall development.

Sample data of Student’s personal information system.

Student's Personal Data:

Date of Birth: 25-10-2003 Age: 18

Sex: FEMALE

Nationality: INDIAN State: TAMIL NADU

Religion: HINDHU

Caste: AA DHRAVIDAR Community: SC

Contact details: Landline: - Mobile: 9940139595

Email: veendaree1225@gmail.com

Sibling detail:

1. Name: VISHNU . G Age: 16 Sex: MALE

✓ Education/Profession: 12th

2. Name: - Age: - Sex: -

Education/Profession: -



Students Photo (During Admission) Father's Photo Mother's Photo Student's Photo (While Leaving College)

J.N.N INSTITUTE OF ENGINEERING
STUDENT'S MENTORING BOOKLET

Name: G. Reena Sree		Register Number: 110721106021	
Batch: 2021 - 2025		Branch: ECE	Sec: D
Parent's Name: Grandhi. D		Contact numbers: 9940139595	Blood group: AB+ve
Mother: Amaravathi. G		Landline: -	
Educational level of parents: 10th		Address for Communication: No. 4/2 1st street, pudhukuppam, Nayuru chennai - 600067	
Mother: 12th			
Parent's occupation: Driver			
Mother: -			
Permanent address (Student's)	No. 4/2 1st street, pudhukuppam, Nayuru chennai - 600067	Present Address	1 st year: No. 4/2 1st street, pudhukuppam, Nayuru ch-67
			2 nd year: No. 4/2 1st street, pudhukuppam, Nayuru ch-67
			3 rd year: -
			4 th year: -
Contact details of Local Guardian (address & number): -		Contact numbers: -	
10 th Mark & Board: 461/500 TN Board	12 th Mark & Board: 417/600	Lateral entry YES / NO: YES	VEG/NON VEG?: Both
Medium of Instruction: English	10 th Std: English	12 th Std: English	
Details of 10 th Std., (School, subjects, marks etc): Don Bosco Matric Hr. sec school	School: Don Bosco	Marks: 417	
Details of 12 th std., (School, Subjects, Marks etc): Velammal Matric Hr. Sec school	School: Velammal	Marks: 417	
	Maths: 71	Physics: 52	Chem: 64
		Biol/CS: 60	Cut off: 129/200
Lateral Entry Students - give details of Diploma (Institution, Branch, Marks): -		% of Marks: -	
Mother Tongue: Tamil		Other Languages known: English, Telugu.	
Mode of Admission: COUNSELLING- MANAGEMENT			
If you stay on your own outside the campus, give details about the place & your fellow mates: -			
Chronic Illness (if any): -		Vision Problem?: -	
Social economic details:			
Father's Annual Income: 72,000	Mother's Annual Income: -		
Other source of Income (if any): -			
Do you under take part-time job? (If yes, give details): -			
Do you get scholarship? (If yes, give details): -			
Do you get any other financial assistance? (If yes give details): -			

Personal Ambition:		
A. Long Term perspective		
Aim/Goal	Business	
Objectives	Study well and get selected in placement	
What are your plans to achieve your aim/goal?	Higher Studies	Job Entrepreneur
B. Career Options (tick your choice)		
What are your preparation to achieve this?		
Do you take any extra coaching?	-	
What kind of help do you want from the dept/college in pursuing your career?	Guidance	
Have you received any prize/award/ recognition?	-	
LIVING STYLE		
If you are a hosteller, describe your room mates	-	
Describe the hostel environment/ situation	-	
How often do you communicate with your parents?	During my free time	
How often do your parents communicate with you?	Everyday	
If you are a day student, with Whom are you staying?	Parents Guardian With friends On my own	(tick the right choice)
Have you performed SWOT analysis?		
- your strength (academic)		
- your strength (in genral)		
How do you spend holidays/ weekend free time/	Travelling to new places	
ACADEMIC/COCURRICULAR MATTERS		
Do you like the branch?	Yes	
If not, tell us why?		
How strong you are in the fundamental of Mathematics?	Good	
How strong are you in the fundamental of your core Subjects?		
Are you capable of raising questions in the class?	Yes	
Do you take tuition/extra coaching?	-	
Are you interested in sports & games?	Event/Game: Chess, Carrom	Prizes/awards won: 1
Do you have the contact details of your mentor, Class coordinator and HOD (Mobile number and Email id)	Level of Participation: School	
	Mentor: Yes	
	Class coordinator: Yes	
	HOD: Yes	

Sample pages from Mentor Book for a particular Semester:

SEMESTER WISE MENTORING ACTIVITY	
Year: III	Semester: VI
Section:	
What is your field of Interest?	List:
What is your favourite Subject and reason?	
Who is your favourite Teacher and reason?	
What is your easiest Subject and reason?	
What is your hardest Subject and reason?	
Do you understand the subjects easily?	1.
If not describe your problems subject wise?	2.
	3.
	4.
	5.
	6.
Do you require any special class/ coaching?	
Do you require any special attention from the college? (both academic or otherwise)	
Do you have any distraction at home or outside?	
[in both academic/personal life]	
Understanding laboratory courses:	
a) Understanding theoretical concept before entering lab	
b) Keeness in completion of experiments	
c) Punctuality in submission of observation and record work	
What about your arrears?	Give history:
Are you not able to clear any subject after a number of attempts	
How often do you go the library?	
What are subject related books borrowed from our library?	
What are the other titles your have borrowed from our library?	
What are the books you have referred for the subjects in this semester?	
Do you visit other library?	
If yes, give details	
Do you read dailies? Give list	
How do you update yourself?	
What are the efforts to improve communication skills?	
Have you improved over a period of time?	

Overall remarks about the student by the mentor	
Disciplinary issues, if any	
Specific observation of the mentor about the student [please specify whether he/she require follow up mentoring by HOD/Principal/Management]	
Details of follow up mentoring by HOD/Principal/Management (if any)	

ANALYSIS SHEET (To be filled in by the mentor)			
Observations/Findings in the previous year/semester:			
STRENGTH: (Positive points in terms of attendance, discipline, academic and co /extra-curricular activities to be summarized)		WEAKNESS: (Negative points in terms of attendance, discipline, academic and co/extra-curricular activities to be summarized)	
Improvement(s) observed in the subsequent semester:			
Attendance	Discipline	Studies	Co/Extra-curricular activities

Signature(s) of

Mentor
Class Coordinator
HOD
PRINCIPAL

Mentoring Chart (for faculty's use)

Points to be discussed	Student's input (Time spent in hours)	Suggestions given by mentor	Points to be discussed	Input from faculty handling subjects	Suggestions given
I. Time Management					
A. One week			III. Examinations		
a) Academic			A. Monthly tests		
b) Professional - training & development			a) Attendance		
c) Updating knowledge			b) Seriousness		
d) Recreation			c) Preparations		
e) Personal attention			d) Material collection		
B. In a day			e) Record keeping		
I) Reading for Subject			B. University Exams	Input from students	
ii) Light reading			a) Previous year questions		
iii) Other preparations			b) Question bank		
iv) Browsing			c) Material collection - current semester notes for all sub.		
v) On social networks			d) Group Study		
vi) Physical/Sports			e) Extra coaching		
II. Class routine			V. OTHER ACTIVITIES	Input from students	
A. Classroom activity*	Input from faculty handling subjects		A. Mini Projects		
a) Attendance	S1 S2 S3 S4 S5 S6		B. Presentations		
b) Attentiveness			Conference/ Seminar/ Workshop		
c) Taking notes			C. Participations		
d) Interaction			Cultural/Sports		
e) Task completion					
B. Laboratory	Input from faculty handling lab subjects		Training programme attended		
a) Performing experiments					
b) Observation					
c) Record completion			Any other interested activity		

Note: Very Good - 5, Good - 4, Above average - 3, Average - 2, Poor - 1.

9.2 FEEDBACK ANALYSIS AND REWARD/CORRECTIVE MEASURES TAKEN, IF ANY (10)

The feedback collection is a very important process for improvement of the Institution. The faculty feedback is collected from the students every semester for the entire course. This process contributes to evaluating faculty performance for reward/corrective measures. Various types of feedback systems are followed, analysed and corrective actions are taken in the institution.

Is Feedback collected for all courses? Yes

Are actions planned based on feedback? Yes

Are corrective measures taken? Yes

(i) Types of feedbacks:

1. Online Feedback

The feedback mechanism is a well-organised system in the college. Once feedback is collected the summary is submitted to the head of department. He will analyse the feedback of each faculty and take necessary actions.

2. Oral Feedback

The principal conducts an interactive meeting with the section of students regarding the academic activities and collects the feedback from the students directly and suggestions are given to the HODs of concerned departments for necessary actions.

(ii) Reward and Corrective Measures

1. Reward

Appreciation Certificate are given to faculty members who secure 100% Result or a 90% and above percentage in feedback.

2. Corrective Measures:

CRITERION # 9

Department of ECE, J.N.N Institute of Engineering

The online questionnaire format is designed on 100-point scale. Faculty who scores less than 75% in any of the category of questions on feedback, he/she is advised by the HOD, senior staff member of the department and Principal to rectify the shortcomings. Suitable suggestions are given for the same. The faculty members are deputed for FDPs and workshops for wholesome training.

9.2.1 STUDENT FEEDBACK ON FACULTY CONSOLIDATED REPORTS:

SAMPLE FEEDBACK ANALYSIS - ECE (2nd YEAR/ ODD SEM/ 2024-2025)

 J.N.N INSTITUTE OF ENGINEERING AUTONOMOUS NAAC 'A' Grade Approved by AICTE Affiliated to Anna University										
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING ACADEMIC YEAR 2024-2025/ ODD STUDENTS FEEDBACK ON FACULTY – CONSOLIDATED REPORT										
Class: II Year			Semester - III							
S.No	Subjects	22BST302	22ECT301	22VLT301	22ECT303	22HST301	22EST401	22ECP301	22ECP302	22EEP301
	Faculty	Dr.Sampat kraj	Mr.S.Sau mya	Mr.R.Nithya	Mr. N.Malathy	Dr.P.Yarha dha	Dr.T.Muthu	Mr.S.B.Sa umya	Mr.P.B.S mitha	Dr.Ayisha Bequm
Questions										
1	Has the Teacher covered entire Syllabus as prescribed by University/ College	84.86	84.32	89.19	82.70	88.11	76.22	82.70	85.95	92.43
2	Has the Teacher covered relevant topics	81.62	80.54	88.11	78.92	77.84	87.57	84.32	80.54	84.32
3	Effectiveness of Teacher in terms of:									
	(a) Technical content/course content	72.97	80.00	82.70	83.24	84.32	78.92	85.41	88.11	85.95
	(b) Communication skills	73.51	81.62	85.41	80.54	87.57	82.70	81.08	86.49	82.16
	(c) Use of teaching aids	81.08	80.00	88.65	82.70	83.24	83.78	85.41	90.81	83.24
4	Pace on which contents were covered	82.70	78.92	87.03	87.57	82.16	82.16	88.65	85.41	81.62
5	Motivation and inspiration for students to learn	72.97	81.08	88.65	88.11	88.11	89.19	84.32	81.08	82.16
6	Support for the development of Students' skill									
	(i) Practical demonstration	79.46	82.16	87.57	84.32	79.46	80.00	81.08	87.57	89.19
	(ii) Hands-on training	82.16	81.62	86.49	81.62	81.62	78.38	81.08	86.49	82.16
7	Clarity of expectations of students	80.54	83.78	83.24	82.16	91.35	84.32	77.30	87.57	85.41
8	Feedback provided on Students' progress	82.16	80.54	83.24	81.62	87.03	80.54	82.16	77.30	81.62
9	Willingness to offer help and advice to	77.84	83.24	81.62	83.24	90.81	86.49	88.65	82.16	90.27
10	evaluation	80.00	82.16	85.95	78.38	81.08	82.70	78.92	88.65	80.54

Sign of HOD

Sign of Principal

SAMPLE FEEDBACK ANALYSIS - ECE (3rd YEAR/ ODD SEM/ 2024-2025)



**J.N.N INSTITUTE OF
ENGINEERING
AUTONOMOUS**

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ACADEMIC YEAR 2024-2025/ ODD SEMESTER
STUDENTS FEEDBACK ON FACULTY - CONSOLIDATED REPORT**

Class: III Year

Semester : V

S.NO	Subjects	22ECT501	22ECT502	22ECT503	22ECE026	22EET501	22MGT006	22ECP501	22ECP502
	Faculty	Dr.B.Anandkumar	Mr.M.Marielvaran	Mr.U.Siddharth Nambi	Mr.P.B.Smitha	Mr.Shreeba	Mr.U.Siddharth Nambi	Dr.Anandkumar	Mr.N.Malathy
	Questions								
1	Has the Teacher covered entire Syllabus as prescribed by University/ College	92.38	86.67	90.48	84.76	88.57	82.86	92.38	83.81
2	Has the Teacher covered relevant topics	91.43	88.57	80.95	85.71	80.95	85.71	88.57	85.71
3	Effectiveness of Teacher in terms of:								
	(a) Technical content/course content	90.48	80.00	86.67	88.57	81.90	84.76	94.29	78.10
	(b) Communication skills	95.24	81.90	85.71	85.71	84.76	85.71	89.52	90.48
	(c) Use of teaching aids	96.19	85.71	84.76	82.86	86.67	86.67	87.62	83.81
4	Pace on which contents were covered	81.90	80.95	78.10	85.71	80.95	83.81	93.33	82.86
5	Motivation and inspiration for students to learn	91.43	78.10	83.81	84.76	85.71	92.38	94.29	88.57
6	Support for the development of Students' skill								
	(i) Practical demonstration	88.57	77.14	78.10	87.62	89.52	89.52	90.48	82.86
	(ii) Hands-on training	90.48	92.38	80.95	90.48	85.71	80.00	91.43	86.67
7	Clarity of expectations of students	89.52	85.71	77.14	82.86	87.62	81.90	89.52	81.90
8	Feedback provided on Students' progress	87.62	87.62	84.76	79.05	85.71	83.81	85.71	84.76
9	Willingness to offer help and advice to	89.52	86.67	85.71	89.52	87.62	85.71	86.67	85.71
10	evaluation	93.33	82.86	88.57	88.57	86.67	80.00	87.62	82.86

Sign of HOD

Sign of Principal

SAMPLE FEEDBACK ANALYSIS - ECE (4th YEAR/ ODD SEM/ 2024-2025)



**J.N.N INSTITUTE OF
ENGINEERING
AUTONOMOUS**

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ACADEMIC YEAR 2024-2025/ ODD SEMESTER
STUDENTS FEEDBACK ON FACULTY - CONSOLIDATED REPORT**

Class: IV Year

Semester : VII

S.NO	Subjects	GE3791	GE3792	OHS352	OFD351	OMR351
	Faculty	Mr.N.S.Nancy Jaganani	Dr.D.Jayakumar	Dr.R.Marilyn Sujatha	Dr.R.Marilyn Sujatha	Mr.N.Malathy
	Questions					
1	Has the Teacher covered entire Syllabus as prescribed by University/ College	88.00	90.00	86.00	82.00	86.00
2	Has the Teacher covered relevant topics	87.00	91.00	84.00	84.00	88.00
3	Effectiveness of Teacher in terms of:					
	(a) Technical content/course content	86.00	87.00	81.00	81.00	85.00
	(b) Communication skills	90.00	86.00	80.00	82.00	91.00
	(c) Use of teaching aids	84.00	89.00	82.00	85.00	82.00
4	Pace on which contents were covered	83.00	88.00	84.00	84.00	90.00
5	Motivation and inspiration for students to learn	92.00	81.00	81.00	83.00	89.00
6	Support for the development of Students' skill					
	(i) Practical demonstration	91.00	90.00	85.00	85.00	85.00
	(ii) Hands-on training	82.00	86.00	82.00	82.00	84.00
7	Clarity of expectations of students	88.00	87.00	89.00	79.00	80.00
8	Feedback provided on Students' progress	90.00	83.00	91.00	80.00	84.00
9	Willingness to offer help and advice to students	85.00	84.00	87.00	82.00	81.00
10	Use of ICT tools in the teaching and evaluation	84.00	88.00	85.00	84.00	87.00

Sign of HOD

Sign of Principal

9.2.2 ALUMNI FEEDBACK - FEEDBACK ANALYSIS

CRITERION # 9

Department of ECE, J.N.N Institute of Engineering

Alumni feedback is collected online. This reflects the learning outcome and benefits attained upon OBE, including higher education, employment, and entrepreneurship.

9.2.3 PARENTS FEEDBACK - FEEDBACK ANALYSIS

Parents feedback not only helps parents contribute positively to their children’s learning experience, but it also can be an indicator of institutions overall success. By sharing their opinions, parents provide useful insights that may otherwise go unnoticed.

9.2.4 EMPLOYER FEEDBACK - FEEDBACK ANALYSIS

The feedback collected from the employer of the alumni about the curriculum is given due weightage to review the implications of Outcome Based Education. Based on the constructive ideas collected, necessary measures are initiated for continuous improvement in OBE.

Student Feedback on Faculty

Third Semester

S.No.	Name of the Faculty	Suggestions/ Issues	Action Plan	Corrective measures taken
1	Dr.Sampathraj	Students find difficulty in understanding certain difficult problems in Maths	Two extra hours to be given to practice difficult sums	Additional 2 hours allotted on Saturdays to work out more problems.

9.3. FEEDBACK ON FACILITIES (5)

CRITERION # 9 **Department of ECE, J.N.N Institute of Engineering**

The Institution has adequate infrastructure and physical facilities for teaching-learning, viz., classrooms, laboratories, computing equipment etc.. Following are the list of facilities available in the institution.

9.3.1 Classrooms / Smart Classrooms

There are well-furnished ICT enabled classrooms, smart classrooms with interactive panels and high-speed internet for the immersive learning experience of our department students.

9.3.2 Seminar Hall

One seminar hall with different seating capacities is available for overall institutional and departmental usage. Sophisticated PA systems and ICT equipment enable effective delivery of content. They are put to excellent use during National level Symposiums, Conferences, Pre-Placement orientation, Project reviews etc.

9.3.3 Laboratories

The Institute has adequate laboratories with hardware and software required for effective curriculum delivery as per the AICTE norms. Each laboratory has a stock register and maintenance register. The list of equipment and the list of experiments are displayed in all laboratories. All the laboratories have adequate lighting and ventilation to allow students to work comfortably. Fire safety equipment and first aid boxes are available at all laboratories. A project lab has been set up expressly for students to work on their mini and main projects. Each laboratory has a descriptive chart on display. Dimensional boards and name boards are available in all labs.

9.3.4 Computing Equipment, Internet & Wi-Fi

The Institute has 3 computer labs equipped with 300 systems of exemplary configuration (Intel i5) connected through LAN. All the computers have internet access via high-quality manageable switches. All the buildings (academic, laboratories, common areas, mess hall, hostels) are Wi-Fi enabled through Wi-Fi access points. The internet leased line is a broadband connection with a speed of 100 Mbps.

9.3.5 Central Library

The Central Library is spread across an area of 7000 sq. ft. Auto Lib Integrated Library Management System (ILMS) is used for managing library services. The library has many books, titles, journals, magazines and project reports.

9.3.6 Auditorium

The college boasts a spacious auditorium with a seating capacity of 800 people to conduct various curricular and co-curricular activities. Apart from the facilities mentioned above, the institution has Faculty and HOD cabins, Restrooms, Canteen, Dining halls, Guestrooms and Administrative offices. Separate hostels for boys and girls with facilities for indoor games are made available for the benefit of the students. All common areas are under CCTV surveillance. The available infrastructure is optimally utilized during and beyond college hours to conduct certificate courses, placement training and other co-curricular activities.

FACILITIES FEEDBACK - FEEDBACK ANALYSIS

S.No	Question's	Excellent	Very Good	Good	Fair	Poor	Total Weightage	Percentage	3-Scale Weightage
1	The condition of the sports facilities provided at our college	59	22	0	0	0	433	95.16%	2.85
2	The condition of the exterior and interior lighting facilities at our college	36	53	2	0	0	398	87.47%	2.62
3	The condition of the restrooms facilities available at our college	44	41	5	1	0	401	88.13%	2.64
4	The condition of the classrooms facilities provided at our college	45	41	3	0	2	400	87.91%	2.64
5	The availability of parking spaces facilities provided at our college	44	42	4	1	0	402	88.35%	2.65
6	The condition of Lab facilities provided at our college	36	52	3	0	0	397	87.25%	2.62
7	The condition of hostel facilities provided at our college	36	50	3	2	0	393	86.37%	2.59
8	The condition of Library facilities provided at our college	46	41	3	0	1	404	88.79%	2.66
9	The condition of xerox/photostat facilities provided at our college	43	44	4	0	0	403	88.57%	2.66
10	The condition of Drinking water facilities provided at our college	48	40	3	0	0	409	89.89%	2.70
OVER ALL PERCENTAGE							404.00	88.79%	2.66

S.No	Question's	Excellent	Very Good	Good	Fair	Poor	Total Weightage	Percentage	3-Scale Weightage
1	The condition of the sports facilities provided at our college	15	4	0	0	0	91	95.79%	2.87
2	The condition of the exterior and interior lighting facilities at our college	6	11	2	0	0	80	84.21%	2.53
3	The condition of the restrooms facilities available at our college	6	8	4	1	0	76	80.00%	2.40
4	The condition of the classrooms facilities provided at our college	9	6	2	0	2	77	81.05%	2.43
5	The availability of parking spaces facilities provided at our college	6	10	2	1	0	78	82.11%	2.46
6	The condition of Lab facilities provided at our college	6	11	2	0	0	80	84.21%	2.53
7	The condition of hostel facilities provided at our college	7	8	3	1	0	78	82.11%	2.46
8	The condition of Library facilities provided at our college	6	10	2	0	1	77	81.05%	2.43
9	The condition of xerox/photostat facilities provided at our college	11	4	4	0	0	83	87.37%	2.62
10	The condition of Drinking water facilities provided at our college	6	11	2	0	0	80	84.21%	2.53
OVER ALL PERCENTAGE							80.00	84.21%	2.53

FEEDBACK ANALYSIS & CORRECTIVE MEASURES TAKEN

Sl. No.	Suggestions	Action Plan	Corrective measures taken
1	The conditions of the classrooms Ambience to be improved	Plan to install LCD projectors in classrooms.	LCD projectors are installed in classrooms.
2	The condition of the restrooms facilities to be improved	Discussed with Maintenance engineer to improve cleanliness in restrooms	Check-list is maintained in rest rooms and follow up by the floor supervisor Liquidiser in rest rooms are filled periodically Napkin vending machine was installed in the girls rest room.
3	Usage of library to be improved	Additional library hours are planned	Additional library hours are included in the Timetable
4	Indoor sports Facilities to be improved	Facilities to be improved in Indoor games are discussed in sports committee and plan of action derived	Indoor games are improved

9.4 SELF LEARNING

A. Scope for self-learning

Our Institute has provided a personalized learning path to the students to learn on their own as per their interest. This learning includes a blend of online and offline resources. Our institute has provided a various resources and motivational support to encourage the students for self-learning. This support helps the student to develop their Career and Personal development, Entrepreneurship, Networking and Collaboration, Critical thinking, time management etc. The available facilities and resources are Smart Classroom, Laboratories, Central and Department Library, Activities (like Seminars, Webinars, workshops, conferences etc.), E-resources (like NPTEL, Coursera, EDX, NDLI etc). A well-equipped library is available for students from 8:00 A.M. to 7.00 P.M., offering access to e-journals through advanced computers. Moreover, free Wi-Fi is accessible throughout the campus and in the hostels for students' convenience.

The **J.N.N Central Library** plays a pivotal role in enhancing the subject knowledge of students and faculty members, fostering an increased orientation towards research, and nurturing life skills. It also brings awareness to social, political, and global events, ensuring that the learning experience extends beyond textbooks and the classroom. Its spread across **4950 sq. ft.** in the **Alamelu Ammal Block**, the library houses various sections including the **Reference Section, Reading Room, Circulation Section** and **Digital Library**. With a comprehensive collection of resources, the library supports a wide array of disciplines such as **Agricultural Engineering, Biomedical Engineering, Artificial Intelligence and Data Science, Electrical and Electronics Engineering, VLSI, Computer Science Engineering, Cyber Security, Robotics and Automation and Science & Humanities**. Additionally, there is a strong focus on **Personality Development** and **Placement & Training**.

LIBRARY TIMINGS

WORKING DAYS		
	FROM	TO
WORKING HOURS	08.30 am	07.00 pm
TRANSACTION HOURS	09.00 am	06.00 pm
HOLIDAYS		
	FROM	TO
WORKING HOURS	09.00 am	04.00 pm
TRANSACTION HOURS	09.30 am	03.30 pm

BOOK BORROWING SYSTEM

RESOURCES	STUDENTS			FACULTY		STAFF	
Books	Category	Quantity	Duration	Quantity	Duration	Quantity	Duration
	UG	6	30 Days	6	6 Month	3	15 Days

LIST OF BOOKS AVAILABLE IN LIBRARY BOOKS

DEPARTMENT	TITLES	VOLUMES
Agriculture Engineering / Civil Engineering	216	1625
Artificial Intelligence & Data Science / Computer Science Engineering/Cyber Security	439	6321
Biomedical Engineering / Electronics & Communication Engineering/ VLSI	571	7651
Robotics & Automation / Mechanical Engineering	343	5077
MBA	198	1281
S & H	104	5386
Total	1871	27341

Integrated Library Management System (ILMS)

Name of ILMS Software: AutoLib

Nature of Automation: Fully

Version: AutoLib Advanced Edition

Year of Automation: 2010

The library is fully automated with AutoLib, a web-based ILMS. AutoLib provides state of the art Cataloguing, Circulation, Web OPAC (Online Books searching & Reservation), Journals/Periodicals, Various Reports modules and Barcoded Circulation. The users can search the catalogue by author's name, title, subject, and other keywords within the campus through LAN. All the Departments are provided with OPAC facility to search books, journals and other reading materials available in the library. All the books, CDs, Projects, back volumes are accessioned with barcode stickers for an automatic scan during an issue and return to the library for the stakeholders.

Modules in AutoLib

1. Database Management – (Cataloguing)

This module allows creating, update/edit and maintaining the databases such as books, journals etc.

2. Search Online Public Access Catalogue (OPAC)

This module is designed to search all the databases using necessary fields and print the search results as per requirements. OPAC is provided at the entrance of the library for searching the availability of library materials through author, title, and subject

3. Circulation Management

This module is designed for all types of counter transactions (for all documents types) such as Issue/Renewal /Return/Recall.

4. Report Management

This module is designed to generate and print a large number of reports such as, List of books by author, accession register, catalogues etc. All types of statistics/reports can be generated.

5. System Administration

This module allows to Create new user log-in, password and grant rights to access various modules.

6. E-Resource Linking

This module allows linking various e-resources on the web with details.

7. Stock Verification

This module allows for stock verification of library resources using Barcode Scanner and generates books reports.

Advanced Modules

8. Acquisition Control System (Book Ordering)

This module is designed to automate various book ordering and processing activities.

9. Serial Control System (Journals)

This module is designed to automate various activities involved in the subscription of journals, such as Creation and maintenance of journal master, claiming missing issues/replacement.

10. Article Indexing

This module allows creating and maintaining journal articles database, searching and retrieving data based on several fields.

11. Question Bank

This module allows to create, maintain question banks and retrieve questions.

12. Student E-Gate

Library user’s login to the library through e-gate at the entrance of the library by scanning their ID cards and log out while exiting from the library. Reports will be generated on the usage of the library.

B. The institution needs to specify the facilities, materials for learning beyond syllabus, Webinars, Podcast, MOOCs etc. and demonstrate its effective utilization.

SELF LEARNING PLATFORMS

<u>S.No</u>	RESOURCES	URL
1.	NPTEL	https://nptel.ac.in/
2.	COURSERA	https://www.coursera.org/
3.	DIGIMAT: A Digital Repository of Web Courses & Video Lectures	http://www.digimat.in/
4.	DELNET- CONCOUR	https://concour1.delnet.in/vision.php
5.	MOOC	https://www.mooc.org/
6.	KHAN ACADEMY	https://www.khanacademy.org/

<u>S.No</u>	E-RESOURCES	URL
1.	IEI: Institutional Membership	https://www.ieindia.org/webui/iei-home.aspx
2.	DELNET: Institutional Membership	https://discovery.delnet.in/
3.	NDL (National Digital Library)	https://ndl.iitkgp.ac.in/
4.	Springer – E-Journals	http://link.springer.com/
5.	e-Shodhganga	https://shodhganga.inflibnet.ac.in/
6.	IEEE	http://www.ieee.org/

DIGITAL LIBRARY/ E-LEARNING CENTRE

The Digital Library/ E-Learning Centre equipped with 35 desktop computers and 35 headsets is designed to offer an enhanced, modern educational experience that integrates technology and learning. This setup allows users to access a vast range of digital resources, including e-books, online journals, educational software, and interactive learning tools, enabling a more immersive and efficient study environment.

KEY FEATURES AND BENEFITS:

1. **Access to Digital Resources:** With 35 desktop computers, the Digital Library/ E-Learning Centre can provide simultaneous access to a wide variety of online resources. Users can browse research papers, academic articles, digital books, multimedia content, and participate in e-learning platforms.
2. **Interactive Learning Experience:** The inclusion of 35 headsets creates a focused environment where users can engage with online courses, webinars, and video tutorials. The headsets ensure clear audio for virtual lessons or lectures, making them ideal for immersive learning in subjects such as language learning, STEM education, and digital humanities.
3. **Collaborative Learning:** The Digital Library/ E-Learning Centre encourages collaboration by providing workstations where students can work on group projects or study together. The desktop computers are equipped with communication tools that allow for video conferencing, screen sharing, and joint research, fostering collaboration even in a remote learning environment.
4. **Enhanced Audio for Specialized Learning:** For specific fields that require in-depth listening, such as linguistics, or foreign language studies, the headsets provide high-quality sound, allowing users to engage deeply with their educational content.
5. **Technology for All:** Whether college students, or faculty, the Digital Library/ E-Learning Centre's setup caters to diverse educational needs. It offers a technological solution to bridge gaps in access to quality educational content, making learning more accessible and flexible.
6. **Flexible Space:** The Digital Library/ E-Learning Centre offers flexible use of space for users who may need to focus on individual tasks, like research or writing, or collaborate on group assignments. The physical setup encourages focus, collaboration, and efficiency, providing a versatile and dynamic space for learning.

LEARNING MATERIALS:

- Students can access a wide range of learning materials from the Digital Library, which includes:
 - **E-Books:** Downloadable books on various subjects, offering easy access to textbooks and reference materials.
 - **Videos:** Educational videos, including lectures, tutorials, and NPETL videos, which are designed to enhance learning and cater to different learning styles.

- **Research Papers & Journals:** Access to a variety of academic papers, peer-reviewed journals, and articles to assist students with their research and assignments.
 - **Online Courses:** Links to free or paid online courses that are related to their field of study, expanding the opportunities for self-paced learning.
 - **Websites and Databases:** Access to educational websites, open courseware platforms, and research databases.
- ✓ or other institutional penalties.

E-BOOKS

S.No	Name of Provider	e-Books database URL
1.	DELNET (e-books)	https://knowledgegainer.delnet.in/MyResearch/Home
2.	Directory of Open Access Books	http://www.doabooks.org/
3.	E-Books Directory	https://www.e-booksdirectory.com/listing.php?category=73
4.	Intech	https://www.intechopen.com/books
5.	New Free Books	http://newfreebooks.com/
6.	ACS e-Books	http://pubs.acs.org/search/advanced
7.	UC Press E-Books Collection	http://publishing.cdlib.org/ucpressebooks/
8.	GPO ACCESS	http://www.gpo.gov/fdsys/
9.	INTERNET ARCHIVE	http://archive.org/details/texts
10.	PROJECT GUTENBERG	http://www.gutenberg.org/wiki/Gutenberg:About
11.	Page by Page Books Online	http://www.pagebypagebooks.com/

S.No	Name of Provider	e-Books database URL
1.	DELNET (e-books)	https://knowledgegainer.delnet.in/MyResearch/Home
12.	Biodiversity Heritage Library	http://www.biodiversitylibrary.org/
13.	Free book centre	http://www.freebookcentre.net
14.	Get free books	https://Www.Getfreebooks.Com/400-Free-Business-Sales-Career-Economics-And-Financial-Ebooks/#Humanresources

E-NEWSPAPER

S.No	SERVICE PROVIDER	URL
1.	DELNET (e-newspaper)	https://discovery.delnet.in/enewspapers.html
2.	NDLI- Newspaper Archive	https://ndl.iitkgp.ac.in/ndl_nw

OPEN ACCESS E-JOURNALS:

S.No	Name of Provider	E-Journals URL
1.	Directory of Open Access Journals	https://doaj.org/
2.	BioMed Central	https://www.biomedcentral.com/journals
3.	Scientific Research Publishing	https://www.scirp.org/
4.	Springer Open Journals	https://www.springeropen.com/journals
5.	Science Publications:	http://thescipub.com
6.	International Association of Engineering and Management	http://www.iaeme.com/
7.	IBIMA Publishing	http://ibimapublishing.com
8.	Indian Academy of Sciences	http://www.ias.ac.in

CRITERION # 9

Department of ECE, J.N.N Institute of Engineering

S.No	Name of Provider	E-Journals URL
9.	Hindawi publishers	https://www.hindawi.com/
10.	CSC Open-Access Library	http://www.cscjournals.org/
11.	OMICS International	https://www.omicsonline.org
12.	Elsevier Online Periodicals Repository	https://www.elsevier.com/about/open-science
13.	IEEE	https://open.ieee.org/
14.	Krishikosh	http://krishikosh.egranth.ac.in/
15.	Journal of Digital Information	http://journals.tdl.org/jodi/index.php/jodi
16.	International Journal of Online Engineering	http://www.online-journals.org/i-joe/
17.	Intelligent Control and Automation	http://www.scirp.org/journal/ica/
18.	International Journal of Computers Communications & Control	http://univagora.ro/jour/index.php/ijccc/index
19.	The Journal of Engineering (JoE)	http://digital-library.theiet.org/content/journals/joe/
20.	Journal of Information Technology in Construction	http://www.itcon.org/

OPEN ACCESS E-THESES

S.No	E-THESES	URL
1.	British Library EThOS service	https://ethos.bl.uk/Home.do
2.	Corvinus University dissertations	http://phd.lib.uni-corvinus.hu/
3.	Durham e-Theses	http://etheses.dur.ac.uk/view/departments/
4.	MIT Theses	http://dspace.mit.edu/handle/1721.1/7582

E-JOURNAL COUNT

E-JOURNALS	No. Of Journals Available	
DELNET- DEPARTMENT WISE	NATIONAL	61
	INTERNATIONAL	1088
DELNET- TOTAL JOURNALS	5000+ Full Text Journals	
IEI	4	
DOAJ	21367	
NDLI	10613	
TOTAL	38133	

LIBRARY SERVICES & FACILITIES

- Reference and Information Services
- Current Awareness Service [CAS]
- Lending Service
- Digital Library with CD / DVD's
- Scanning Facility
- Printing Facility
- Reprographic Facility

CRITERION # 9

Department of ECE, J.N.N Institute of Engineering

- Periodicals/ Magazines
- OPAC
- NPTEL / SwayamPrabha
- E-Books & E- Journals
- User Orientation Programme
- New Arrivals Display
- Previous University Question Banks with Answers
- Institutional Membership with DELNET, IEI and NDLI
- Fully Automated and Bar Code System
- Surveillance Camera Facility
- Periodicals Bound Volumes

Core Library Services:

- **Reference and Information Services:** Access to expert advice and information on various subjects.
- **Current Awareness Service (CAS):** Stay updated with the latest research, developments, and articles in your field.
- **Lending Service:** Borrow books, journals, and other resources for personal use.
- **Digital Library with CD/DVD's:** Access digital content and multimedia resources for research and learning.
- **Scanning Facility:** Scan and digitize documents for academic or professional use.
- **Printing Facility:** Print research papers, assignments, and materials directly from library systems.
- **Reprographic Facility:** Copy documents and materials for personal or academic purposes.

Additional Facilities:

- **Periodicals/Magazines:** Browse through a wide variety of periodicals, magazines, and journals for both academic and recreational reading.
- **OPAC (Online Public Access Catalog):** Search the library's entire catalog of books, journals, and other resources easily and efficiently.
- **NPTEL/SwayamPrabha:** Access online courses and educational videos from NPTEL and SwayamPrabha to enhance your learning experience.
- **E-Books & E-Journals:** Access a wide range of e-books and e-journals for research and academic purposes.
- **User Orientation Programme:** Get familiar with the library's resources and services through informative orientation sessions.
- **New Arrivals Display:** Check out newly acquired books, journals, and resources regularly displayed in the library.

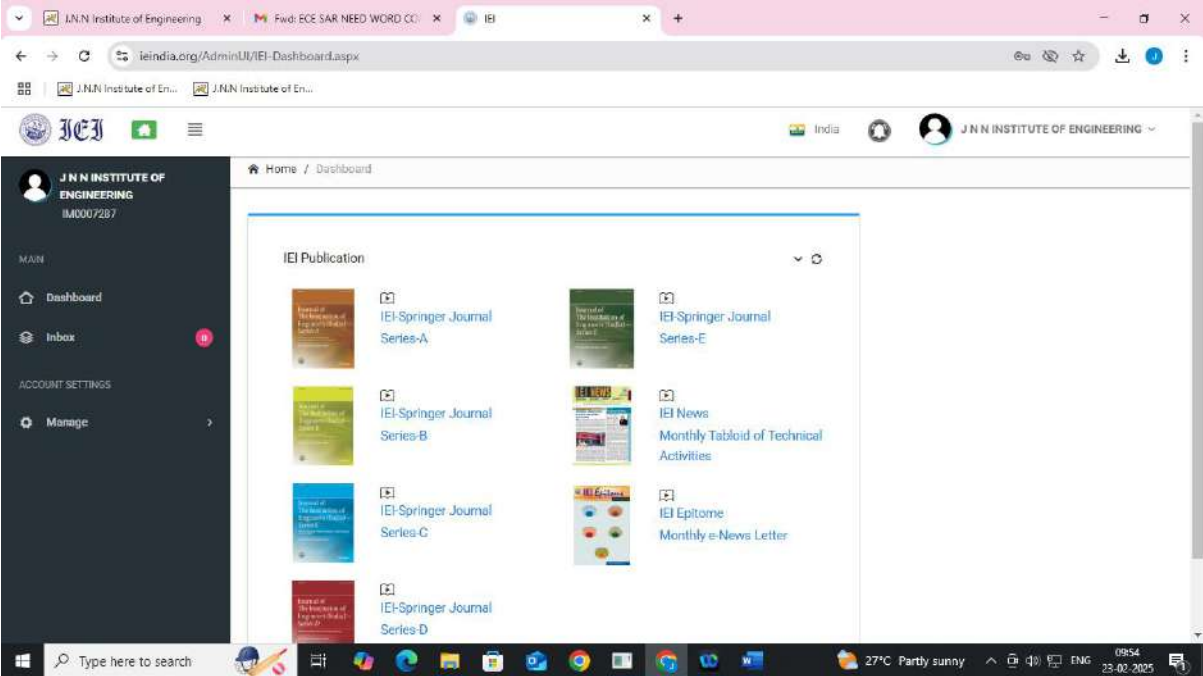
- Previous University Question Banks with Answers:** Access past examination papers to help with preparation and practice.

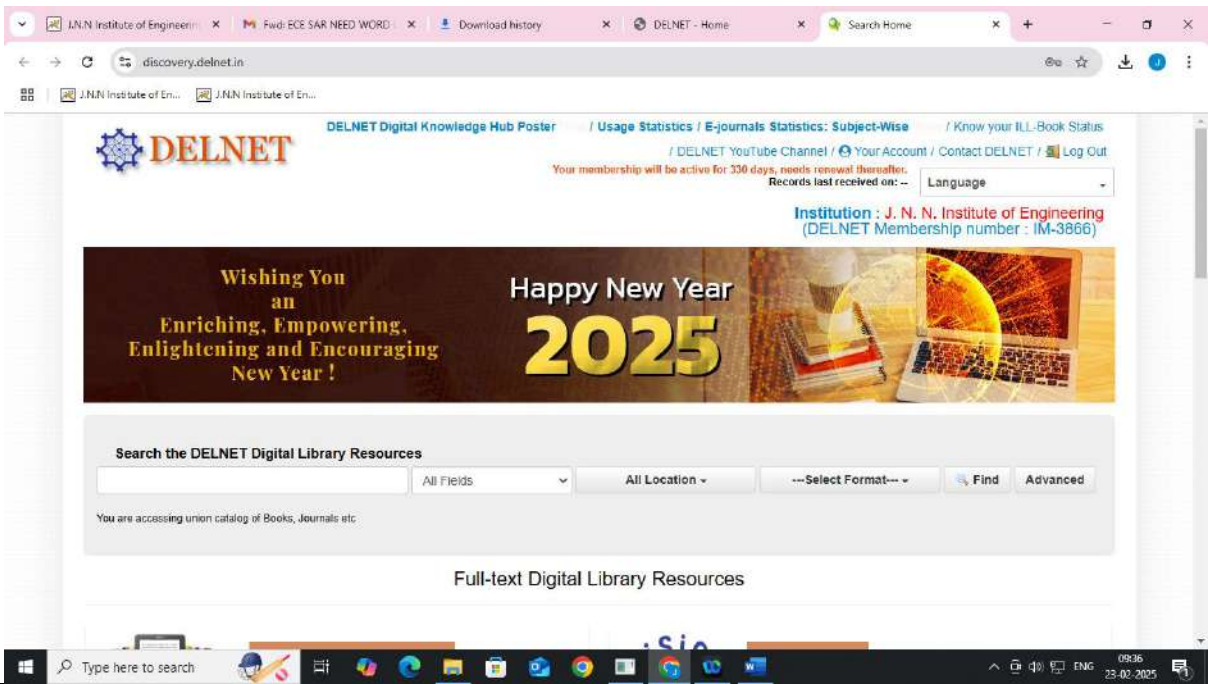
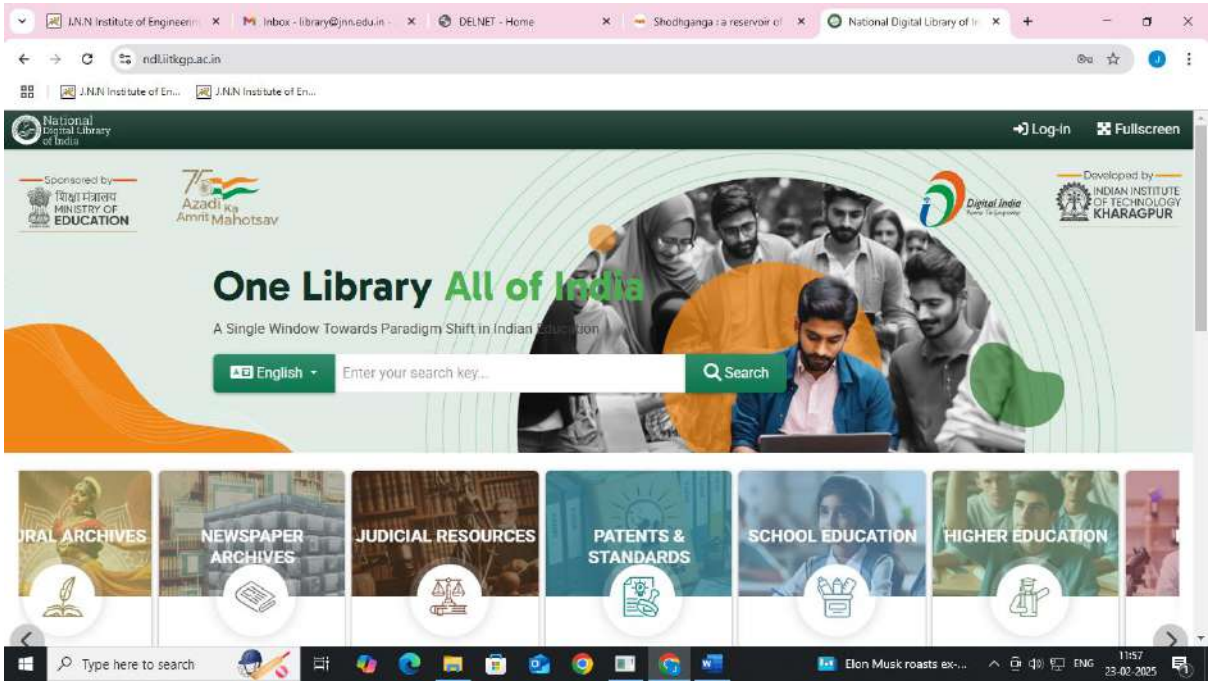
Institutional Memberships: The library is an institutional member of DELNET, IEI and NDLI providing extended access to various databases and resources.

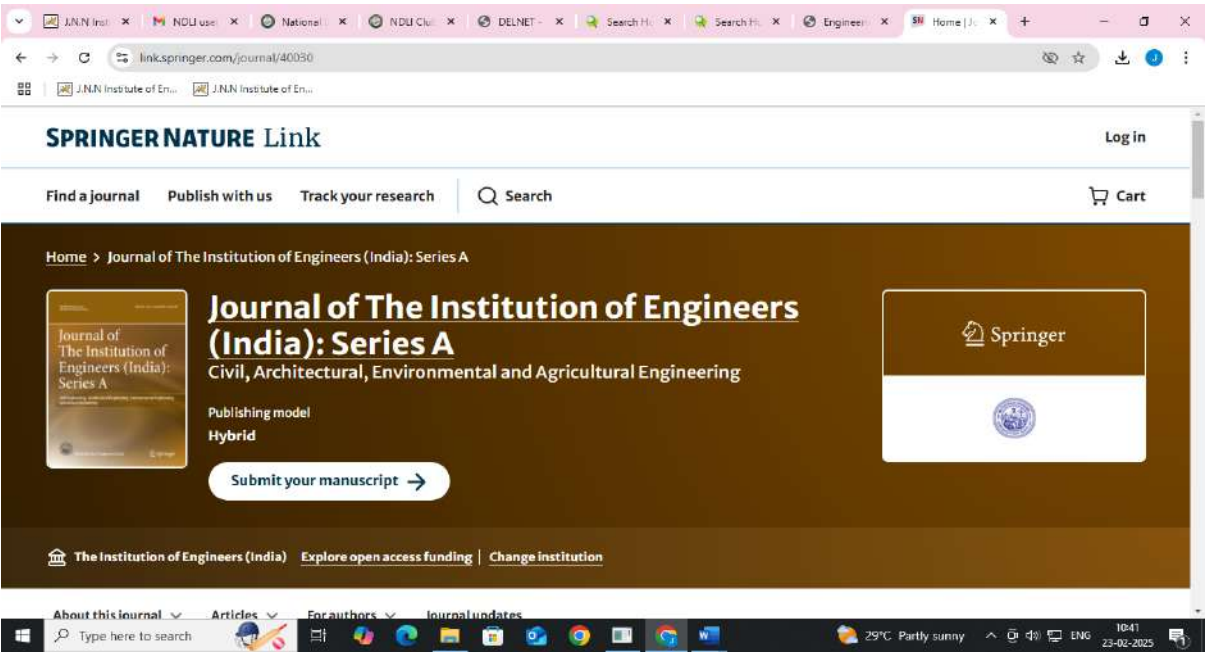
Modern Library Features:

- Fully Automated and Bar Code System:** The library operates using a fully automated system for easy tracking and management of books and resources.
- Surveillance Camera Facility:** Ensuring safety and security within the library premises.
- Periodicals Bound Volumes:** Back issues of periodicals and journals are bound and preserved for future reference.

E-RESOURCES

TYPE OF RESOURCES	NAME OF THE RESOURCES	URL
E-Journal	IEI: Institutional Membership	https://www.ieindia.org/webui/iei-home.aspx
		
E-Journal	DELNET: Institutional Membership	https://discovery.delnet.in/

		
E-Journal	NDL (National Digital Library)	https://ndl.iitkgp.ac.in/
		
E-Journal	Springer – E-Journals	http://link.springer.com/



E-Theses

e-Shodhganga

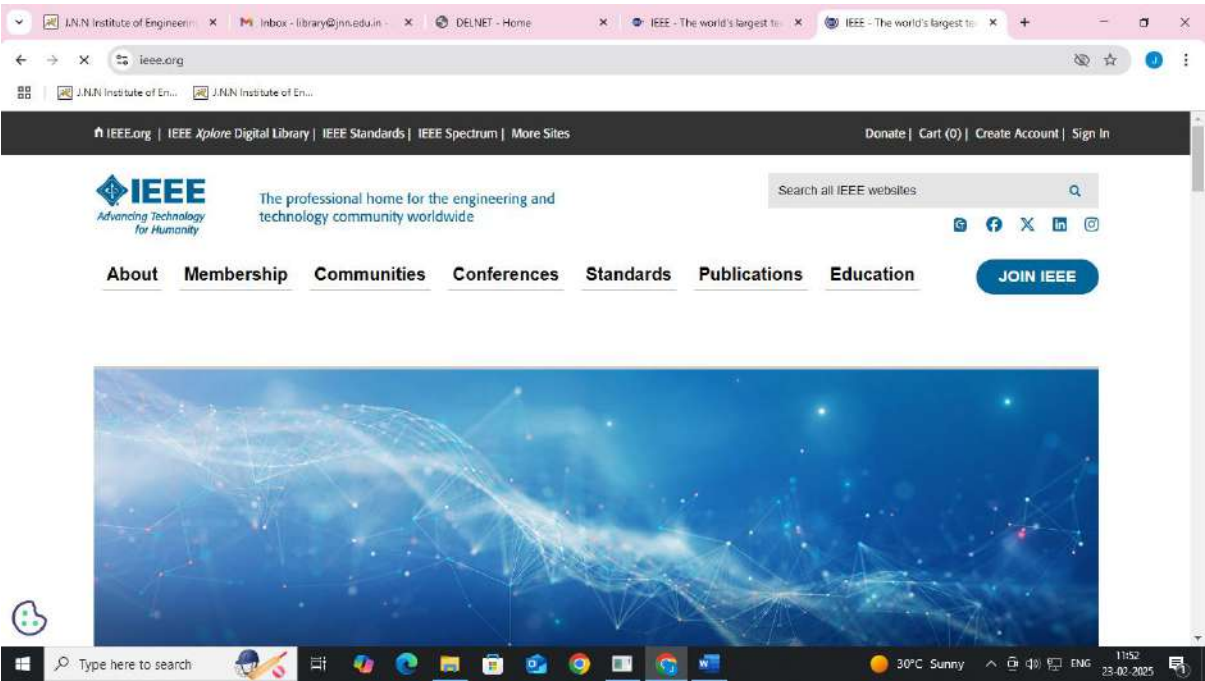
<https://shodhganga.inflibnet.ac.in/>



E-Journal

IEEE

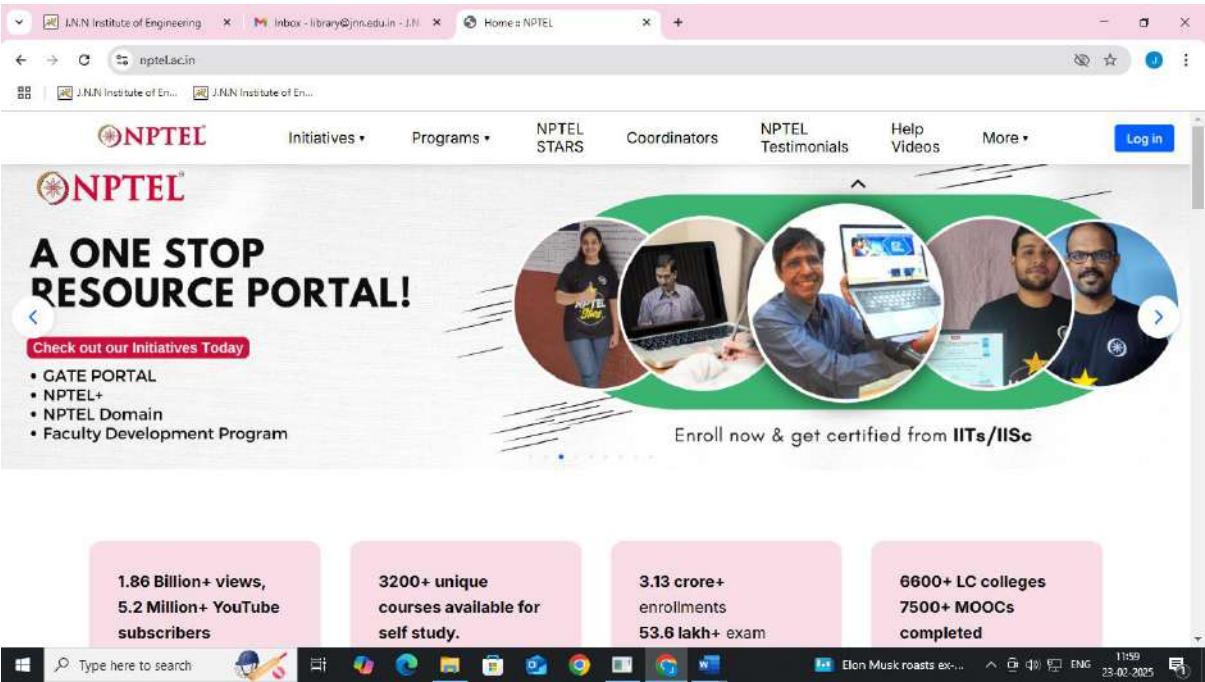
<http://www.ieee.org/>



Self-learning
portal

NPTEL

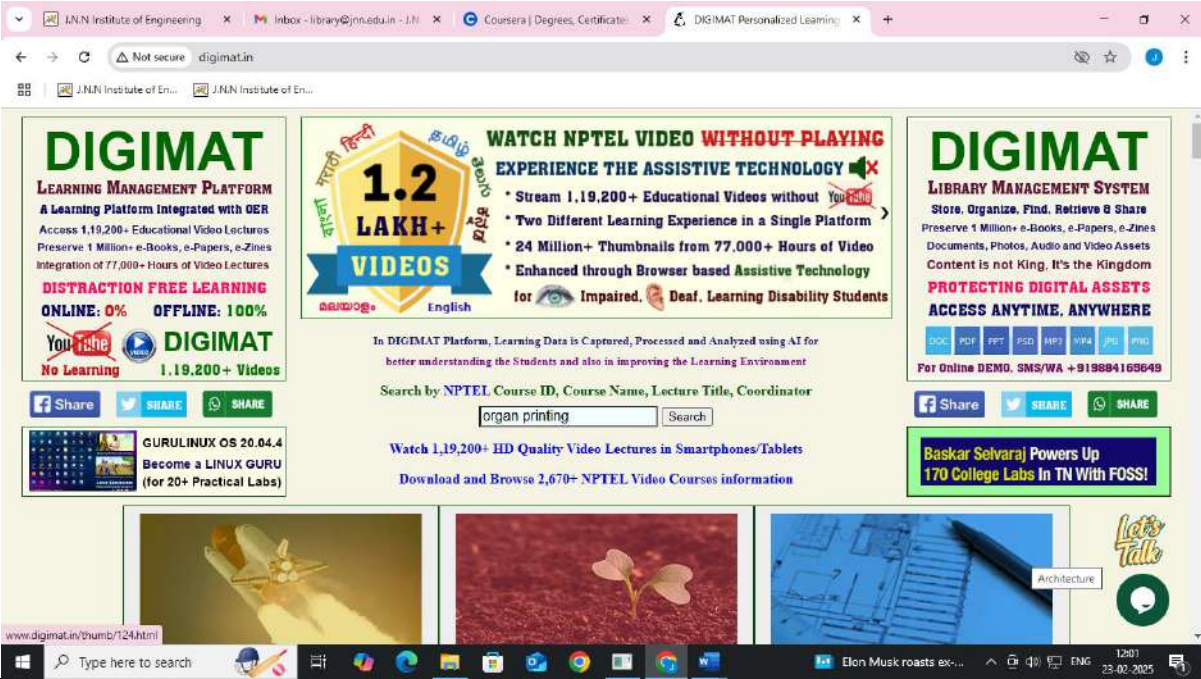
<https://nptel.ac.in/>

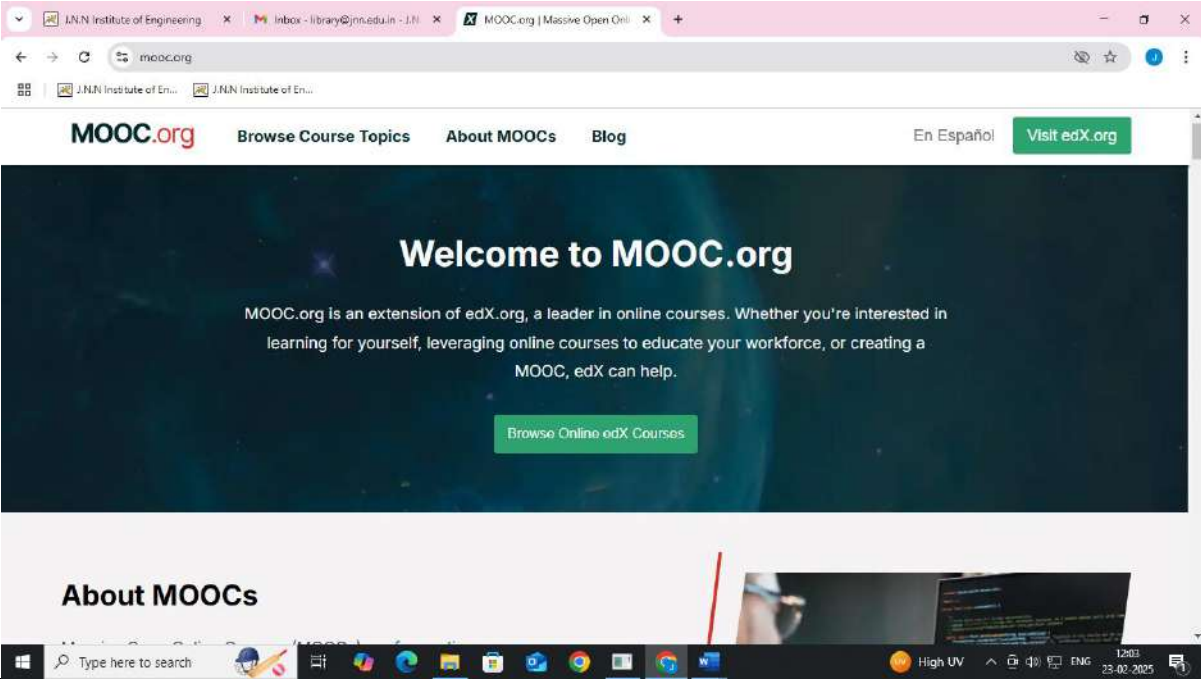
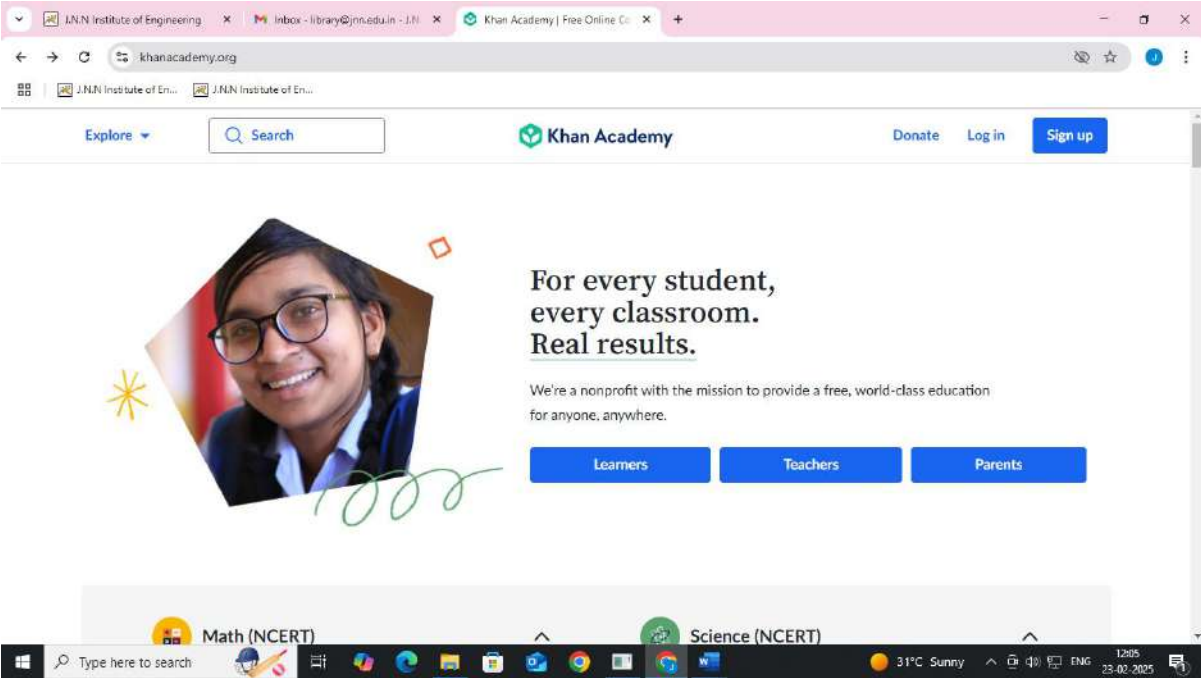


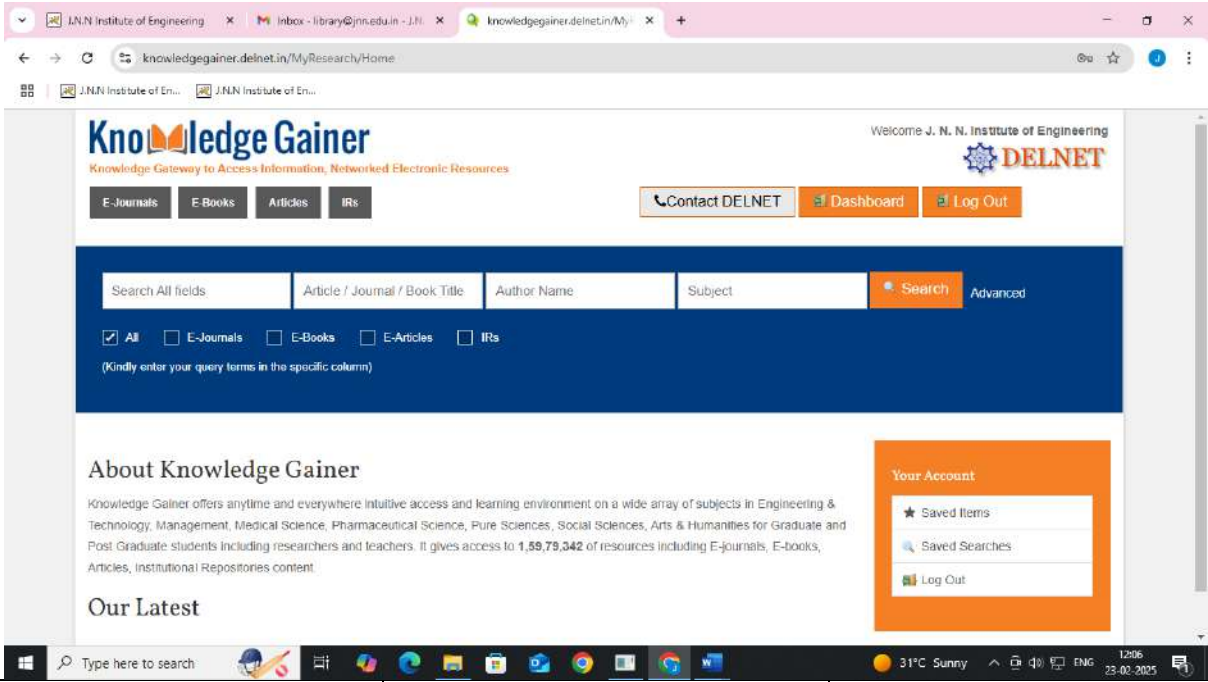
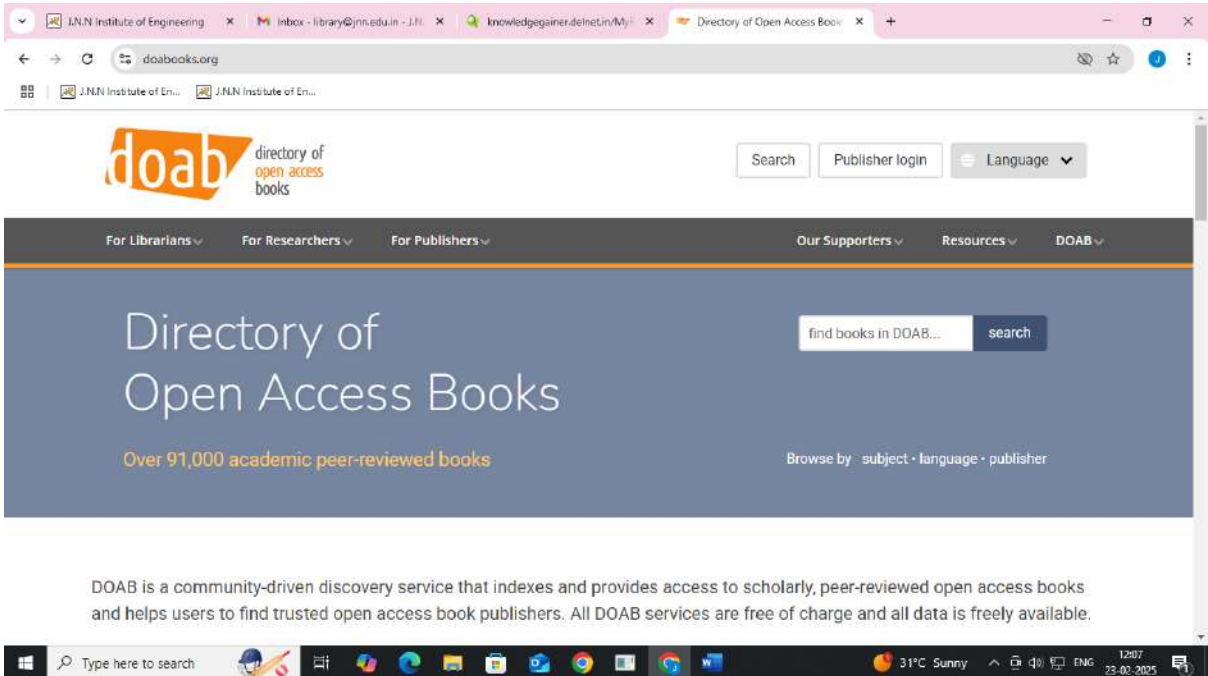
CRITERION # 9

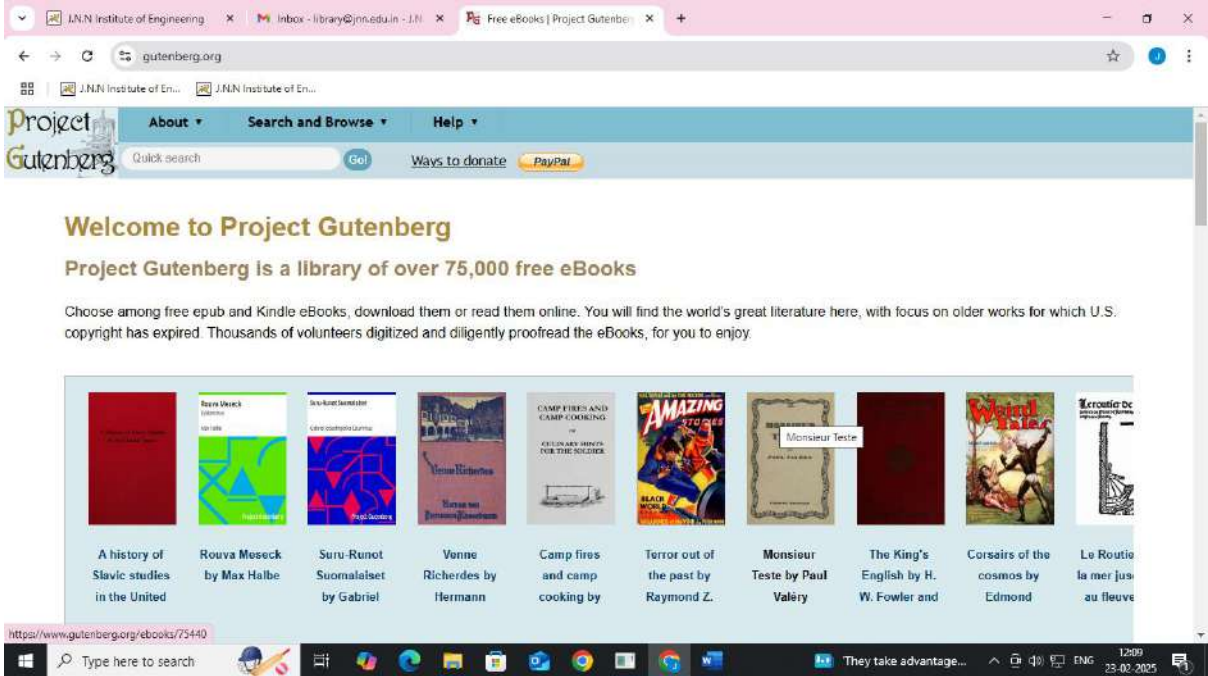
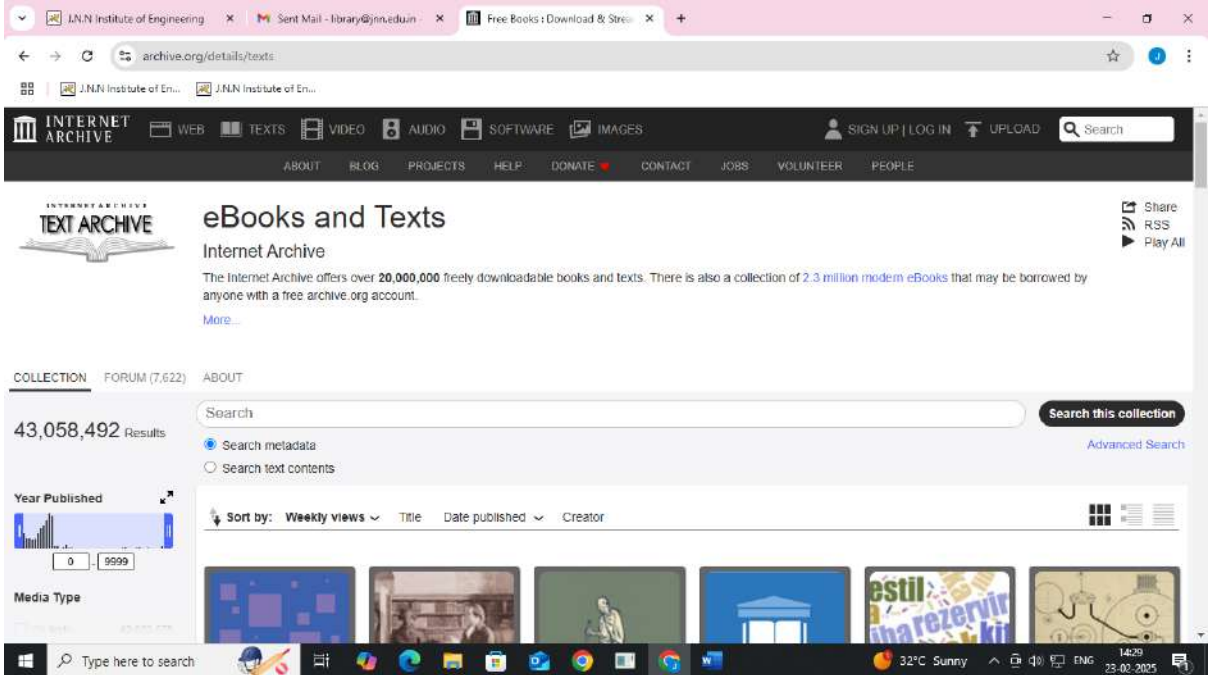
Department of ECE, J.N.N Institute of Engineering

Self-learning portal	COURSERA	https://www.coursera.org/
Self-learning portal	DIGIMAT: A Digital Repository of Web Courses & Video Lectures	http://www.digimat.in/

		
Self-learning portal	DELNET- CONCOUR	https://concour1.delnet.in/vision.php
		
Self-learning portal	MOOC	https://www.mooc.org/

		
Self-learning portal	KHAN ACADEMY	https://www.khanacademy.org/
		

E-books	DELNET (e-books0	https://knowledgegainer.delnet.in/MyResearch/Home
		
E-books	Directory of Open Access Books	http://www.doabooks.org/
		

E-books	PROJECT GUTENBERG	http://www.gutenberg.org/wiki/Gutenberg:About
		
E-books	INTERNET ARCHIVE	http://archive.org/details/texts
		

ACADEMIC YEAR 24-25

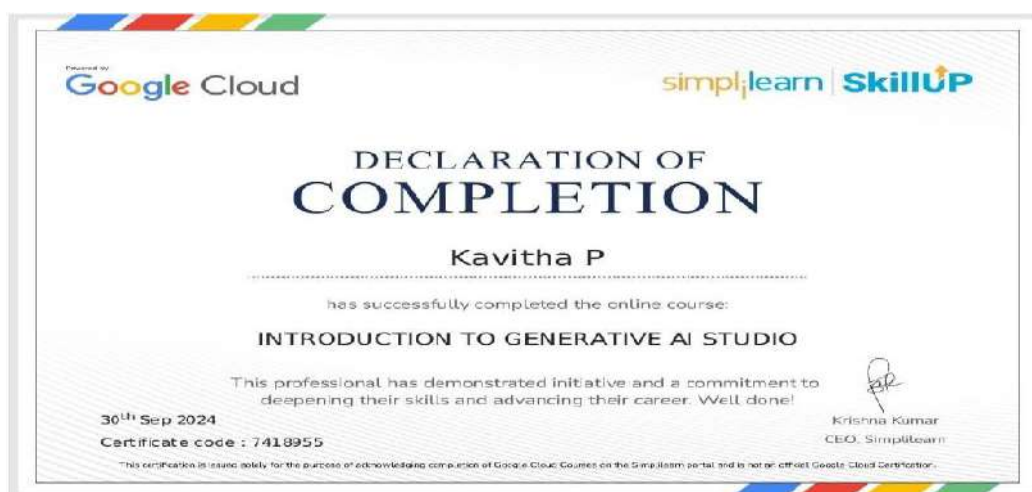
S.NO.	Courses
1	NPTEL COURSES
2	Introduction to Responsible artificial Intelligence
3	Introduction to generative artificial Intelligence studio
4	Responsible AI Applying AI principles with google clouds
5	Fundamentals of Database
6	Introduction to artificial Intelligence
7	Machine Learning
8	Machine learning basics
9	Introduction to Digital Transformation with Google cloud
10	Innovating with Google cloud AI
11	Introduction to Software Testing
12	AWS application Migration Service a technical introduction
13	Intoduction to AWS Inferentia and Amazon EC2 inf1 instances
14	Google Drive
15	Japanese
16	Basic Coding in C/C++
17	C Programming
18	Intermediate Coding in C/C++
19	Pseudocode
20	Generative AI
21	Business Intelligence using Power BI
22	ESG Job Simulation
23	ChatGPT for everyone by GUVI
24	Python Zero to Hero

25	Git by Prepinsta Technologies
26	Learn with GUVI season two-build your own ticketing app
27	AWS certified cloud practitioner course

Utilization and Its Effectiveness

- ❖ The overall aim of this review is to evaluate the effectiveness of self-directed learning on the professional development of students
- ❖ Students are motivated to improve their initiation in reaching their goals.
- ❖ Students can scan through the reading material available to them.
- ❖ Many of the needs of students are best met by the learning process. The students are encouraged to learn by themselves for their present and future needs.





9.5 CAREER GUIDANCE, TRAINING, PLACEMENT (10)

9.5.1. CAREER GUIDANCE

The Training & Placement Cell of Institution strives hard in the endeavors of inviting various industries for conducting campus placements. It is one of the satisfying and remarkable facts that the college is able to conduct campus interviews even during the tough situations like global recession, industries unwillingness to come far off places to conduct Campus Interviews etc.

The Institution has a structured mechanism for career guidance including counselling for campus placement support, industry interaction for training, internship and placement through Training and Placement Cell. The Institution has a separate support

CRITERION # 9

Department of ECE, J.N.N Institute of Engineering

system for the students appearing and qualifying in various competitive examinations and higher studies.

The training and placement cell has the vision of transforming every student as an employer’s choice and working with the mission of developing the students to face a global competitive world with confidence and attain desired placement.

Initiatives for career guidance

To enhance the competency level and threshold level of the students, the institution offers career guidance by conducting the following activities.

- Organizing guest lectures, workshops, training programs, employability skill enhancement programs for the benefit of the students.
- Creating awareness about various competitive examinations at PAN India level, state level through expert talks, seminars, and webinars.
- Creating awareness about various competitive exams to pursue higher education in institutions of national importance and international importance.
- Conducting capacity building programs and skill enhancement programs partnered with vendors and subject matter experts.
- Guiding and helping the students in pursuing internship opportunities with various reputed companies.

Strategic partnerships by the institution for students’ capacity enrichment

Apart from regular academics to enrich and enhance the competency, capacity of the students, the institution has entered strategic partnerships with professional bodies and professional development consulting firms. They are as follows:

Name of the organization/ professional body	Mode of career development activities
NIIT	Conducting seminars, guest lectures, on career development and capacity enrichment
KC Overseas Education	Personality development programs through inbound and outbound training programs, webinars and other sessions

Table 9.5.1 Committee Members (2024-2025)

NAME	DESIGNATION	POSITION
Dr.K.Ganesan	Principal	Chair-Person
Dr.K.Ayisha Begam	Head-Training&Placement	Co-Ordinator
Mr.M.Mariselvam	Assistant Professor/ECE	Members-Faculty
Mrs.Geeetha	Assistant Professor/Ai&DS	Members-Faculty
Mr.Karthikeyan	Assistant Professor/CSE	Members-Faculty
Mrs.Suresh Annamlai	Assistant Professor/R&A	Members-Faculty
Mr.Naveen Prasath	Assistant Professor/BME	Members-Faculty
Ms.Jenifer	Assistant Professor/ Agricultural Engineering	Members-Faculty
Mr.Karthikeyan L	IV-ECE	Members-Student
Mr .Vignesh.S	IV-CSE	Members-Student
Ms.GuruKeerthika	IV-AI&DS	Members-Student
Mr .Balavignesh.S	III-ECE	Members-Student
Ms.Mohitha	III-CSE	Members-Student
Mr Yogeshwaran	II-ECE	Members-Student
Ms.Kishori Sowmya	II--CSE	Members-Student
Mr.Kishore.S	II-AI&DS	Members-Student

Table 9.5.2 Career Guidance cell events (2023-2024)

S.No	Program	Date	Participants	Resource Person
1	Guest Lecture on Higher studies & Job opportunities in Abroad by SI-Global	23.08.2024	230	Mr.Mervin Rajesh,Manger-Business Development,SI-Global,Chennai-86
2	Career enrichment Program-Engineer your Future	20.08.2024	224	Mr.Krishnan Balagurunathan,Birctor-Early Careers,Chief Mavericks Mentor-Hexaware
3	Mastering the USA Higher Education Application Process from start to Finish by Galvanize Global Education	19.07.2024	150	Mr.Adhithyaraj,Assistant Manger-Galvanize Global Education

4	Career Guidance Program	06.03.2024	210	Mr.B.Ramachandar,Director of Business operations-Codoid
5	Student Enablement Program under the CSR initiative of Paypal India implemented by ICT Academy	04.03.2024-28.03.2024	80	Mr.Deep.Senior Trainer from ICT Academy
7	Importance & Value and Job Opportunities of Red Hat Certified System Administrator (RHCSA)-EX200 Certification	06.10.2023	156	Dr.Vivek Yogannath Senoir Technical Support Engineer-Openshift Security Specialist from Red Hat India Pvt Limited Bangalore.
8	Learn Power BI in Just 2 days	16.08.2023 - 17.08.2023	75	Mr..Venkatesh Prasanna B.R,Freelance Analytic Trainer
9	International Study Opportunities in USA and Europe	07.08.2023	222	Mr.H.Abdul Navas ,Senior Manager from KC Overseas ,Chennai
10	Unlock your full potential with prepinsta prime access program-Your path to success	6.08.2023	210	MR. G. Ram Kumar, National Lead - Statergy Alliances Prespinsta Technology Private Limited

Table 9.5.3 Career Guidance cell events (2022-2023)

S.No	Program	Date	Participants	Resource Person
11	Career Guidance Opportunities	17.10.2022	295	Dr.Ms.Arulmani,Actor and Motivational Speaker
12	Preparation for Higher Examination	15.11.2022	307	Dr.R.Shanmugam,COE

13	Seminar on NIIT Preplacement talk	20.01.2023	73	HR team of NIIT
14	Preparation for Higher Education Opportunities	23.02.2023	266	KC Overseas Education

T

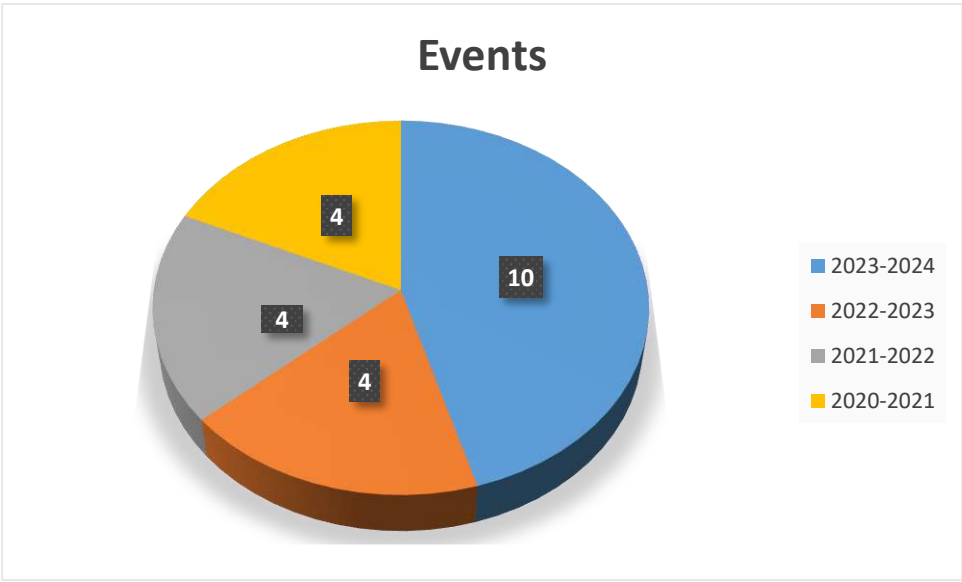
Table 9.5.4 Career Guidance cell events (2021-2022)

S.No	Program	Date	Participants	Resource Person
15	Preparation for Self Determined Career Research	02.01.2022	315	Dr. S. Lavanya, Assistant Professor, NSS Officer, Bharathi Women's College
16	Seminar on Be a part of Steel Frame	09.10.2021	266	Mr. Elanbagavath, IAS, Director, Directorate of Public libraries Government of Tamilnadu
17	Seminar On Career Guidance	27.09.2021	203	Department of Training and Placement, J.N.N Institute of Engineering
18	Seminar on GRE Examination	17.08.2021	295	Mr. Anantha Krishnan, founder, GRE edge, Chennai

Table 9.5.5 Career Guidance cell events (2020-2021)

S.No	Program	Date	Participants	Resource Person
19	Preparation for Career Guidance opportunities in India	07.05.2020	74	Mr. U Poongundran, Asst Prof, Rajalakshmi Institute of Technology
20	Effective Time Management	23.09.2020- 25.09.2020	97	Dr. Ptharaniya, Assistant Professor, Rajalakshmi Institute of Engineering
21	Entrepreneurial Awareness	01.10.2020	94	Dr. T. Srihari, Assistant Professor, KSR Institute of Engineering and Technology

22	Preparation for GATE and other Government examinations	06.01.2021	74	Mr.S.D.Kishore Kumar,Regional Manager
----	--	------------	----	---------------------------------------





**J.N.N INSTITUTE OF
ENGINEERING**
AUTONOMOUS
NAAC 'A' Grade & NBA Accredited | Affiliated to Anna University



Hearty Welcome to
**Engineer
your Future**
Career Enrichment Program
for J.N.N Learners

Resource Person
Mr. Krishna Balagurunathan,
Director-Early Careers @ Hexaware,
Chief Mavericks Mentor



 **G.D Naidu Hall**
Tuesday, August 20th 2024

 Near Red Hills, Chennai

    www.jnn.edu.in



**J.N.N INSTITUTE OF
ENGINEERING**
AUTONOMOUS
NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University



DEPARTMENT OF
TRAINING AND PLACEMENT

CAREER GUIDANCE PROGRAM





Resource Person
RAMACHANDAR D
DIRECTOR OF BUSINESS OPERATIONS
CODOID

 **06th MARCH, 2024**  **10:00 AM**  **GD NAIDU HALL**

Chennai - Periyapalayam Highway, **NEAR REDHILLS**     www.jnn.edu.in

CRITERION # 9

Department of ECE, J.N.N Institute of Engineering











B. Counselling for Higher studies (GATE/GRE.GMAT, etc.) (2)

Table9.5.6 Academic year wise higher studies details

CRITERION # 9

Department of ECE, J.N.N Institute of Engineering

S.No	Batch	Student Name	Degree	College Name
1	2020-2024	JAYASRI B	M.Tech	Vel Tech Multi Tech
2	2019-2023	CHRYSLITE JOY S	M.E.VLSI Design	Government college of technology, Coimbatore
3	2019-2023	KOVI PAVAN	Master in information systems	Central Michigan University
4	2019-2023	M REDDY VARA PRASAD	Masters in computer science	Wright state university
5	2018-2022	CHALLAGIRI BABJI	M.S	Wright State University
6	2018-2022	DARAPANENI BHAVANA	M.S	Cumberland University
7	2018-2022	DEVATHA CHANDU	M.Tech	Vellore Institute of Technology
8	2018-2022	DHINAKARAN K	MBA	Sri Venkateswara Institute of Science and Technology
9	2018-2022	GURRAMPAVANI	M.S	Bradley University
10	2018-2022	RAJSHREE R	M.S	The University of Texas at Dallas
11	2018-2022	VEMASANI CHETHANA	M.S	Rivier University
12	2018-2022	VILUPURU JASWANTH REDDY	M.S	University of Cincinnati

C Pre-Placement Training

The institute has established dedicated Training & Placement to foster coordination and synergy between education, training and employment. The Placement Officer and their team actively engage in planning and executing training programs, organizing campus recruitments and fostering Industry-Institute relationships. Consistent efforts are made to conduct job-oriented courses and special training programs. The comprehensive training provided to students covers aptitude, communication, technical skills, and soft skills, resulting in successful student placements. The relentless efforts of the Training Placement cell have led to the nearly complete placement of all eligible students in their final year. This program focusses on self-discovery, understanding learning and thinking styles, goal setting and time management. The overarching goal is to groom and motivate students to become successful professionals.

The Training and Placement cell is committed to delivering impactful training programs tailored to enhance the skills of our students. Our systematic approach begins with engaging parents in introductory training meetings/

Table 9.5.6 Pre-Placement Training Module

S.No.	Year	Training	Training Module	Training Partners
1	II	Soft Skills training	GD, Presentation skills, Professional Grooming, Personality development	• Aptitude Busters Private Limited • Channel B-Tech • Tallent -64 • Prepintsa Prime • CodeTantra • Inhouse Training team
		Employability Enhancement training	Quantitative Aptitude and Logical Reasoning-I	
2	III	Employability Enhancement training	Quantitative Aptitude and Logical Reasoning-II	
		Soft skill training	Resume building, Written communication, Interview tips	
3	IV	Company Specific Training	Company Specific	
		Mock Interview	Mock Interview	

Table 9.5.6.1 Pre-Placement Training Events

S.No	AY	Name of the Training Program	Pre placement Training Modules	Target Audience	Training Dates		Number of days	Number of students
1	2023-2024	TCS- Company specific training- by In-house training team	Aptitude, Verbal & Technical Training	4th Year	29.1.24	22.2.24	20	108
2	2023-2024	Campus specific training-- Embedd UR by inhouse trainers	Aptitude, Verbal & Technical Training	4th Year	10.10.23	20.10.23	10	13
3	2023-2024	Channel B.Tech	Aptitude, Verbal & Technical Training	4th Year	25.7.23	4.8.23	9	236
4	2023-2024	PREP INSTA PRIME	E-learning Platform- Quantitative Aptitude, Verbal ability. Coding,Certificate courses	2nd,3rd,4th year students	Open to access at any time	Open to access at any time	2 years subscription	690
5	2023-2024	Talent '64'	Aptitude, Verbal & Technical Training	3rd Year	25.7.23	4.8.23	9	230
6	2022-2023	Talent '64'	Aptitude, Verbal & Technical Training	3rd Year	27.1.23	13.2.23	15	255

7	2022-2023	Talent '64'	Aptitude, Verbal & Technical Training	3rd Year	18.7.22	22.7.22	10	236
8	2022-2023	SHLIndia Private Limited	AMCAT Assessment test (3tests)	2024 Passing out batch students	20.2.23	14.8.23	1 Day/Semester	228
9	2022-2023	Aptitude Buster	Placement Preparation E-Learning Module	2nd Year	Open to access at any time	Open to access at any time	2 years subscription	240
10	2022-2023	Aptitude Buster	Placement Preparation E-Learning Module	3rd Year	Open to access at any time	Open to access at any time	1 year subscription	246
11	2021-2022	Channel B.Tech	Training Aptitude & C-Programming	4th Year	6.12.21	18.12.21	11	174

1.Interview Skills Training:

This foundational level covers the basics of interview skills, focusing on building a strong foundation for students entering the professional arena.

2. Specialized Training:

Our training initiatives place a significant emphasis on Aptitude, soft skills, and technical training, with a particular focus on honing problem-solving abilities.

3. HR Connect:

As part of our unique approach, corporate HR representatives visit our premises to directly interact with students. This HR Connect initiative facilitates direct exposure to industry practices and expectations.

4. Contests:

We conduct contests to assess and further enhance students problem-solving skills, ensuring they are well-equipped for the challenges in the professional world.

5. Soft Skills Training:

Specialized training sessions are conducted to equip students with the necessary skills for effective participation in group discussions, a crucial aspect of various selection processes.

6. Mock Interviews:

Mock interviews are conducted annually to provide students with a real-world simulation, enabling them to refine their interview techniques and build confidences.

7. Career Guidance:

Our comprehensive career guidance program encompasses specialized training in digital marketing, Japanese language proficiency, government exam preparations, and effective communication skills.

8. HR Conclave:

HR Conclave on counselling and career guidance are conducted to prepare students for higher education pursuits and equip them with the knowledge and skills needed for successful careers.

Through these initiatives, we are dedicated to ensuring that our students are not only academically proficient but also well-prepared for the dynamic and competitive professional landscape.

The list of agencies supporting training and career guidance is as follows:

- Aptitude Busters Private Limited
- Channel B-Tech
- Tallent -64
- Prepintsa Prime
- CodeTantra

D.Placement Process and Support (3)

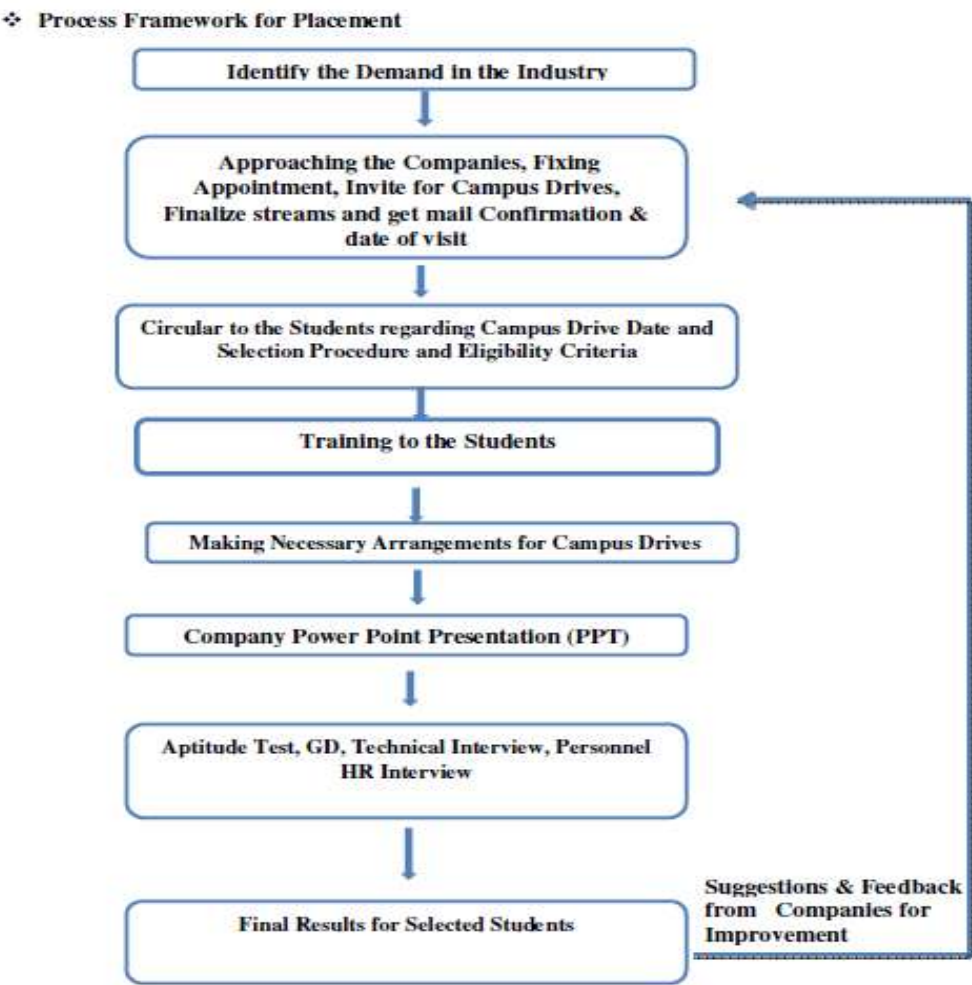


Figure.9.5.6 Placement Process

Table-9.5.7 Support system for Placement

S.No	Support System	Description
1	Technical support (Test and online Assessment)	- Online Test via Mobile Application-Aptitude buster - Programming test via web application: code Tantra
2	Infra structure support	- GD Rooms - Panel Rooms - Waiting hall for interview students - Placement cell Room - Special Dining Hall for HR Experts
3	Personal support	.Mr.Mariselvam,AP-ECE-Placement Coordinator - Mr.Karthikeyan-AP/CSE-Placement Coordinator

		• Mrs.Geetha-AP/AI&DS-Placement Coordinator • Mrs.Latha-B.E/Trainer • Ms.Dhakchayini B.E/Trainer
--	--	--

Table-9.5.8 Recruiters list

RECRUITERS LIST-2023-2024		
S.NO	RECRUITERS	PACKAGE(LPA)
1	TCS	7
2	CAPGEMINI	3.5
3	HEXAWARE	6
4	PROPEL	6
5	PRESIDIO	9.5
6	MITSOGO	10
7	REVATURE	6
8	EMBEDD URL SYSTEMS	11
9	COAPPS	5.5
10	CORIZO	6
11	PALLE TECHNOLOGIES	3 to 5
12	RINEX	4.2
13	INTELLIPAAT	7.25
14	HIDUSTSAN MEDICAL TECHNOLOGY	3.5
15	Q-SPIDERS	4.5-6
16	PENNAR INDUSTRY LIMITED	2.5-3.5
17	FOXCONN	2.5-3.5
18	VIVIMED	2.5-3.5
19	NEOLYNC TELECOMMUNICATION	2.5-3.5
20	AGARWAALS HEALTH CARE	2.5-3.5
21	OMEGA HEALTH CARE	2.5-3
22	NIVA BUPA HEALTH INSURANCE COMPANY	3.5
23	INDIAMART	4
24	HDFC BANK	2.5

25	R K M POWERGEN PVT LTD	3.5
26	PHILIPS	2.5
27	RIALTO ENTERPRISES PRIVATE LIMITED	2.5
28	TECH MAHINDRA	2.5-3
29	KODNEST	4
30	FACTNA	3.5
31	GS MEDICAL IMAGING PVT LTD	2.5
32	DR YOUTH CLINIC	2.5
33	ACADEMOR	6
34	STATS PERFORM	4
35	INTRAIN TZ	4
36	AVASOFT	4
37	ARTHA MED DEVICES	2.5
38	PANASONIC	2.5
39	CADMACRO	3
40	ENVEE SOLUTIONS	3
RECRUITERS LIST-2022-2023		
S.NO	RECRUITERS	PACKAGE(LPA)
1	AESS	3
2	AXION INDIA PVT LTD / KIA MOTORS	2.8
3	CSS CORP	2.5
4	ECSOFT	3
5	FLOWSERVE	5.6
6	FOCUS EDUMATICS	3
7	PALLE TECHNOLOGIES	3
8	PRELUDSYS	4
9	QSPIDERS	3
10	RINEX	3
11	SUTHERLAND	1.68

12	TCS	3.36
13	TECH MAHINDRA	3.25
14	TEKION	5
RECRUITERS LIST-2021-2022		
S.NO	RECRUITERS	PACKAGE(LPA)
1	AVASOFT	4
2	CAPGEMINI	4
3	CSS CORP	2.5
4	DELLOITE	3.2
5	FACE PREP	2.4
6	FLOWSERVE	5.6
7	HEXAWARE	4
8	INFOSYS	3.6
9	MIND TREE	4
10	MPHASIS	3.25
11	PRELUDESYS	4
12	QUALITEST	4
13	SUTHERLAND	1.68
14	TCS	3.36
15	TEKION	5
16	TWIXOR	2.5
17	WIPRO	3.5
RECRUITERS LIST -2020-2021		
S.NO	RECRUITERS	PACKAGE(LPA)
1	ACCENTURE TECHNOLOGY	3.2
2	AESS	3
3	APTEAM	8.5
4	BOSON LABS	3.2

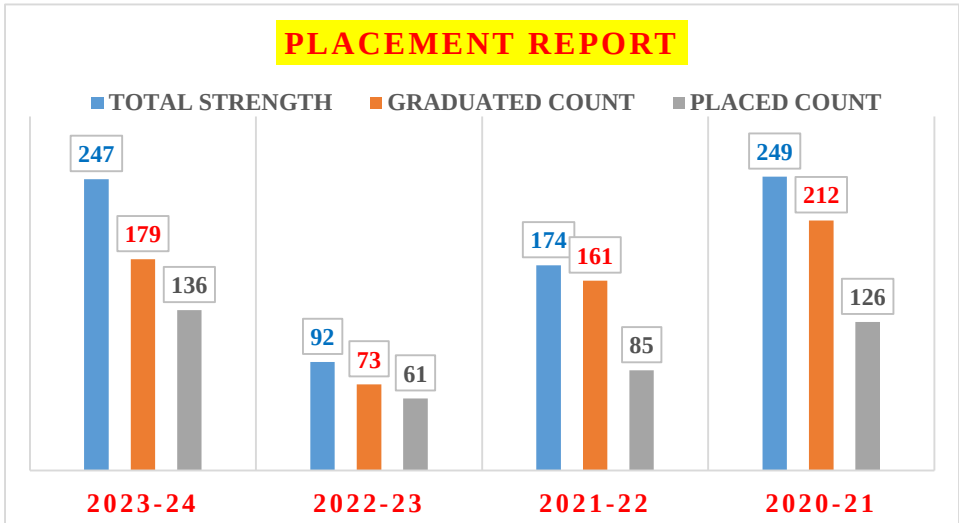
5	COOVM SYSTEMS	2.6
6	EC SOFT SOLUTION	3
7	ERNEST & YOUNG , JAIPUR	8
8	HCL TECHNOLOGIES	3.65
9	INFINITE SOLUTION	2.4
10	MIND READERS SOFTWARE	3.2
11	MIND TREE	1.4
12	MOURI TECH	1.5
13	MSC TECHNOLOGY , AMBATTUR (JOB)	3.2
14	PRIMERA MEDICAL TECHNOLOGY	2.8
15	SITEL INDIA PRIVATE LIMITED	3.4
16	SJV MARINE , ACCOUNTANT	1.5
17	SJV MARINE , ADMIN	1.5
18	TCS	3.36
19	TECH DIGITAL	2.28
20	WIPRO TECHNOLOGIES	1.8

Table-9.5.9 Consolidated Placement details of all the departments

Details	2023-2024	2022-2023	2021-2022	2020-2021
Graduated Count	179	73	161	212
Placement Count	136	61	85	126
Placement Percentage	76	83	53	59
Highest Package	700000	560000	560000	850000
Average Package	400000	350000	325000	300000
Lowest Package	250000	168000	168000	140000

Table-9.5.10 Placement Report

AY	TOTAL STRENGTH	GRADUATED COUNT	PLACED COUNT	OVERALL STUDENTS PLACED %
2023-24	247	179	136	76
2022-23	92	73	61	83
2021-22	174	161	85	53
2020-21	249	212	126	59



9.6 Entrepreneurship Cell (5)

A. Entrepreneurship Initiatives (1)

The Entrepreneurship Development Cell aims to complement academic education by fostering the entrepreneurial spirit within students. Each department has played a key role in educating and motivating students in their respective fields, particularly in techno-entrepreneurship.

In response to the evolving trends in Entrepreneurship Development, the dedicated E & D Cell was formed to ensure that students stay up-to-date with the latest in entrepreneurial thinking and practices. We are committed to encouraging students to embrace entrepreneurial mind-sets early in their academic journeys. Through

various initiatives, workshops, and hands-on learning experiences, the Cell continues to inspire students to transform their ideas into viable enterprises.

Roles of an Entrepreneurship Development Cell

- 1. **Entrepreneurial Training:** Provide training programs and workshops to develop entrepreneurial skills among students and aspiring entrepreneurs.
- 2. **Business Incubation:** Offer support and resources for startups, including mentorship, office space, and access to funding.
- 3. **Networking Opportunities:** Facilitate connections between entrepreneurs, investors, and industry experts to promote collaboration.
- 4. **Awareness Programs:** Conduct seminars and events to raise awareness about entrepreneurship and its significance.
- 5. **Resource Centre:** Serve as a hub for information on entrepreneurship, including market research, business planning, and legal advice.

Responsibilities of an Entrepreneurship Development Cell

- 1. **Curriculum Development:** Design and implement courses or programs focused on entrepreneurship and innovation.
- 2. **Mentorship Programs:** Connect aspiring entrepreneurs with experienced mentors for guidance and support.
- 3. **Funding Assistance:** Help entrepreneurs access funding options, such as grants, loans, or venture capital.
- 4. **Assessment and Evaluation:** Monitor and assess the effectiveness of programs and initiatives, gathering feedback for continuous improvement.
- 5. **Community Engagement:** Promote entrepreneurship within the local community through outreach and partnership with local businesses and organizations.

COMMITTEE MEMBERS

Table 9.6.1 Committee members for Entrepreneurship Development cell

Name of the Committee	Entrepreneurship Development cell
Chair Person	Dr. K.Ganesan, Principal
EDC Coordinator	Dr.I.Arun, BME
Members- Faculty	Ms.S.Jenefar,AP/AGRI Dr.S.Yuvaraj.AP/R&A Mrs.P.B.Smitha,AP/ECE Mr.M.Murali,AP/BME Mr.B.Raja Kumar,AP/AI&DS

Members-Student	Ms.Divya K,IV ECE Mr.Mathan,III BME Mr.Tharun Aryan,IV R&A
-----------------	--





Fig 9.6.1 Entrepreneur Field Visit



J.N.N INSTITUTE OF
ENGINEERING
AUTONOMOUS

NAAC 'A' Grade & NBA Accredited | Affiliated to Anna University



Hearty Welcome to

Engineer
your Future

Career Enrichment Program
for J.N.N Learners

Resource Person

Mr. Krishna Balagurunathan,
Director-Early Careers @ Hexaware,
Chief Mavericks Mentor

 G.D Naidu Hall

Tuesday, August 20th 2024

 Near Red Hills, Chennai

 www.jnn.edu.in







Fig 9.6.2 Entrepreneur Events

List of activities conducted by the EDC

Table 9.6.2 Entrepreneur event details for the academic year

S.No	Date	Title	Resource Person	Total No.of Students
1	09.01.2025	Field/Exposure visit to UmanageTN 2025	Mr.D.Dinesh Babu The Manager Alliance and Marketing Chennai.	54
2	05.10.2024	Field/Exposure visit to IIT Research Park	Mr.Ganesan Scientist Incubation Cell IIT Research Park. Guindy. Chennai.	61

3	20.08.2024	Engineer your Future	Mr.Krishna Balagurunathan Director-Early Careers Hexawave Chennai.	54
4	21.02.2025	Entrepreneurship Awareness Program	Mr.R.Praveen Kumar Founder & CEO VAETO Technologies Chennai.	40

9.6 Entrepreneurship Cell (5)

A. Entrepreneurship Initiatives (1)

The Entrepreneurship Development Cell aims to complement academic education by fostering the entrepreneurial spirit within students. Each department has played a key role in educating and motivating students in their respective fields, particularly in techno-entrepreneurship.

In response to the evolving trends in Entrepreneurship Development, the dedicated E & D Cell was formed to ensure that students stay up-to-date with the latest in entrepreneurial thinking and practices. We are committed to encouraging students to embrace entrepreneurial mind-sets early in their academic journeys. Through various initiatives, workshops, and hands-on learning experiences, the Cell continues to inspire students to transform their ideas into viable enterprises.

Roles of an Entrepreneurship Development Cell

- 1. **Entrepreneurial Training:** Provide training programs and workshops to develop entrepreneurial skills among students and aspiring entrepreneurs.
- 2. **Business Incubation:** Offer support and resources for startups, including mentorship, office space, and access to funding.
- 3. **Networking Opportunities:** Facilitate connections between entrepreneurs, investors, and industry experts to promote collaboration.
- 4. **Awareness Programs:** Conduct seminars and events to raise awareness about entrepreneurship and its significance.
- 5. **Resource Centre:** Serve as a hub for information on entrepreneurship, including market research, business planning, and legal advice.

Responsibilities of an Entrepreneurship Development Cell

- 1. **Curriculum Development:** Design and implement courses or programs focused on entrepreneurship and innovation.
- 2. **Mentorship Programs:** Connect aspiring entrepreneurs with experienced mentors for guidance and support.

- Funding Assistance:** Help entrepreneurs access funding options, such as grants, loans, or venture capital.
- Assessment and Evaluation:** Monitor and assess the effectiveness of programs and initiatives, gathering feedback for continuous improvement.
- Community Engagement:** Promote entrepreneurship within the local community through outreach and partnership with local businesses and organizations.

COMMITTEE MEMBERS

Table 9.6.1 Committee members for Entrepreneurship Development cell

Name of the Committee	Entrepreneurship Development cell
Chair Person	Dr. K.Ganesan, Principal
EDC Coordinator	Dr.I.Arun, BME
Members- Faculty	Ms.S.Jenefar,AP/AGRI Dr.S.Yuvaraj.AP/R&A Mrs.P.B.Smitha,AP/ECE Mr.M.Murali,AP/BME Mr.B.Raja Kumar,AP/AI&DS
Members-Student	Ms.Divya K,IV ECE Mr.Mathan,III BME Mr.Tharun Aryan,IV R&A





Fig 9.6.2 Entrepreneur Events

List of activities conducted by the EDC

Table 9.6.2 Entrepreneur event details for the academic year

S.No	Date	Title	Resource Person	Total No.of Students
1	09.01.2025	Field/Exposure visit to UmagineTN 2025	Mr.D.Dinesh Babu The Manager Alliance and Marketing Chennai.	54
2	05.10.2024	Field/Exposure visit to IIT Research Park	Mr.Ganesan Scientist Incubation Cell IIT Research Park. Guindy. Chennai.	61
3	20.08.2024	Engineer your Future	Mr.Krishna Balagurunathan Director-Early Careers Hexawave Chennai.	54
4	21.02.2025	Entrepreneurship Awareness Program	Mr.R.Praveen Kumar Founder & CEO VAETO Technologies Chennai.	40

9.7 Co-curricular and Extra-Curricular Activities

J.N.N Institute of Engineering creates a platform for the active participation of the students in the various academic & administrative bodies. J.N.N Institute of Engineering gives myriad importance to co-curricular & extracurricular activities. These activities are integrated and spread over the entire academic year, as they have insightful impact in shaping up the overall personality of a student. All activities are pre- planned and included in the college academic calendar. The activities are conducted by various clubs, associations, cells and student council at college level. The students are supported financially and non-financially by the institute. Peer to peer learning, learning from alumni, result oriented activities, modern tool and software usages are the outcomes of these activities. Every Year, the institute organizes technical competitions and symposia in coordination with the student chapters. J.N.N Institute of Engineering students actively participate at various levels and win prizes continuously in cultural and technical events

organized by other organizations. A strong unit of NSS (National Service Scheme) organizes various activities leading toward energy saving, environmental protection, rural development, sanitation, flood relief, conservation of natural resources, women’s health, rural irrigation, youth development etc. The NSS team also works on state/central government schemes. Institution has also adopted a few villages where the NSS team is instrumental.

A. Availability of Sports and Cultural facilities

Indoor Games (Boys)

S.No	Particulars	Available
1	Chess Board	13
2	Carrom Board	12
3	Table Tennis Board	2
4	Shuttle Badminton Court	1

Outdoor Games (Boys)

S.No	Game	Available
1	Kho - Kho Court	1
2	Basket ball	1
3	200 M Track	1
4	Volley ball	1
5	Tennikiot Court	1
6	Throw ball	1
7	Kabaddi	1
8	Football Field	1

Indoor Games (Girls)

S.No	Game	Number Available
1	Chess Board	13
2	Carrom Board	12
3	Table Tennis Board	2
4	Shuttle Badminton Court	1

Outdoor Games (Girls)

S.No	Game	Number Available
1	Kho - Kho Court	1
2	Basket ball	1
3	200 M Track	1
4	Volley ball	1
5	Tennikiot Court	1
6	Throw ball	1
7	Kabaddi	1

Facilities for Track and Field Events:

S. No.	Facility	Dimension	Quantity
1	200m Non Standard Track	2 Straight lines x35.688 = 71.376mts x 2 Curves 128.624 Meters Lane with 1.22mts	1
2	Long Jump Pit	Runway – 40 to 45mts With – 1.22mts Pit Length – 10mts With – 2.75mts to 3mts	1
3	Shot put Throw	Semi Circle – 1.067mts Extension Line – 75cm Stop board – 1.22mts With – 30cm Sector length -20mts Sector Angle -34.92 ⁰	1
4	Discus Throw	Semi Circle – 1.25mts Extension Line – 75cm Sector length -40mts Sector Angle -34.92 ⁰	1
5	Javelin Throw	Runway – 30 to 36mts	

		With – 4mts White Square – 5 x 5 cm Extension Line – 75cm Sector length -28.96 ⁰ mts Sector Angle -34.92 ⁰	
--	--	--	--

NCC, NSS AND OTHER CLUB:

- The institution endorses the extension activities through self-supported schemes such as NSS and other clubs.
- NSS and YRC are established and several activities organized.
- Number of student volunteers:

S. No	Name of the Club	Coordinator Names	Year of Establishment
1	Debate Club	Dr.T.Muthu	2021
2	Leadership Club	Mrs.Smitha	2021
3	Next Big Idea Club	Yuvaraj S, M.E.,	2021
4	Personality Development Club	Shalini S, M.Sc., M.Phil.,	2021
5	Photography Club	Dr.R.Malathy	2021
6	Sports Club	Dr.Thangamuth PD	2021
7	Cultural Club	Dr.S.Shalani	2021

EXTRA-CURRICULAR ACTIVITES:

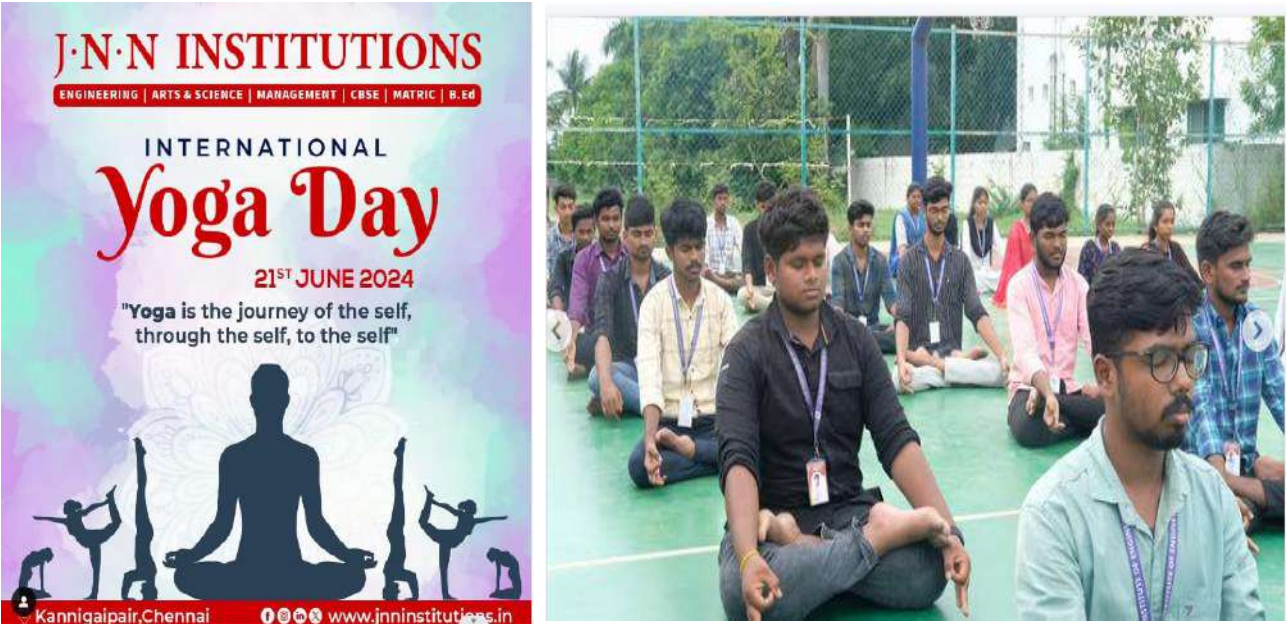
NATIONAL SERVICE SCHEME

NSS (National Service Scheme): Focuses on social service, organizing community outreach, health camps, and environmental drives.

S.NO	DATE	EVENTS	No of participants
1	21-06-2024	Workshop on yoga and meditation	50
2	05-08-2024	Awareness on blood donation and eye checkup	60
3	15-08-2024	Independence day	30
4	23-08-2024	Awareness program on tree plantation drive	40
5	26-01-2025	Republic day	40

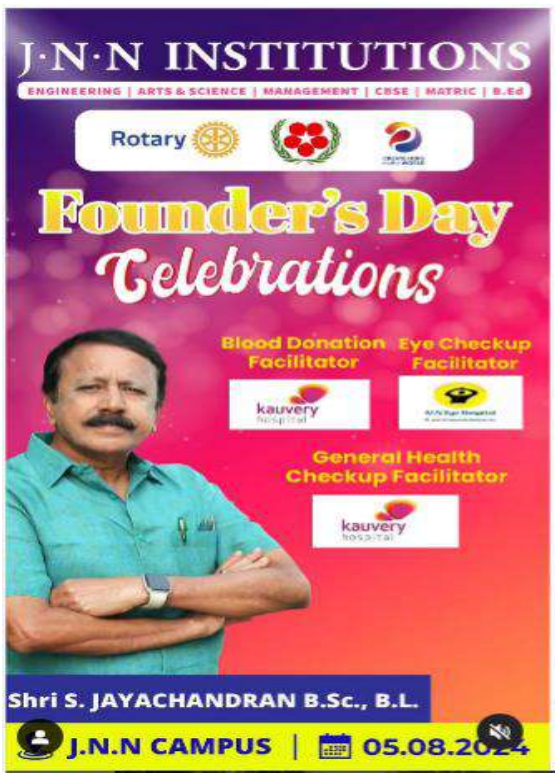
WORKSHOP ON YOGA AND MEDITATION

Meditation is relaxation and rejuvenates the body and mind. With this aim in mind, an online workshop was organized on 21st JUNE 2024 on account of International Yoga Day. The yoga instructor, Mr. Rajesh and Mr. Mani Maren took yoga sessions with great dedication. The teachers participated with full interest, enthusiasm and eagerness. It’s all about achieving balance and inner piece as we embark on this educational journey together.



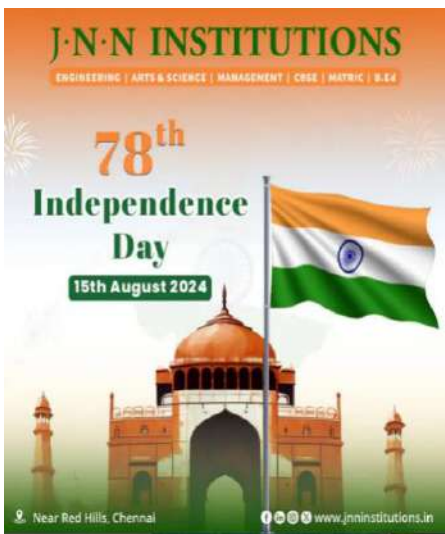
AWARENESS ON BLOOD DONATION AND EYE CHECKUP

The awareness program on Blood Donation Eye Checkup Camp was conducted on 05th August 2024. The Vice Chairman, started this program by donating his blood firstly. After that, all the students especially the YRC and NSS Volunteers participate in the program by donating their blood in a very positive way. Even faculty members, lab assistant and other staff members in JNN Institution did their blood donation by becoming a part of this program.



INDEPENDENCE DAY

The J.N.N Institute of Engineering celebrated the 78th Independence Day with great patriotism and enthusiasm. The event aimed to honor the sacrifices of our freedom fighters and to instill a sense of national pride among students and faculty.



AWARENESS PROGRAM ON TREE PLANTATION DRIVE

The campaigns aim was to direct students mind in constructive activities with the positive outcome through the facilitation of contributing to the society.

The students planted 800+ various tree saplings like Teak wood. Red sandal, Mahogany, etc. The students participated in the drive enthusiastically and helped each other in planting the saplings. All the saplings were planted in the campus grounded by students.



REPUBLIC DAY

J.N.N Institute of Engineering celebrated the **76th Republic Day** on 26th January 2025 with great enthusiasm and patriotism. The event highlighted the importance of the Indian Constitution and paid tribute to the leaders who shaped the nation.



CULTURALS

S.NO	DATE	EVENT	EVENT COORDINATOR
1	29-07-2024 -02-08-2024	FOUNDERS DAY CELEBRATION	Dr.S.Shalani HOD/S&H
2	02-08-2024	FRIENDSHIP DAY CELEBRATION	Dr.S.Shalani HOD/S&H
3	06-08-2024	FRESHER DAY	Dr.S.Shalani HOD/S&H
4	08-08-2024	INAUGURATION OF OUR NEW JNN FITNESS HUB	Dr.S.Shalani HOD/S&H
5	12-08-2024	WORKSHOP ON YOUTH DAY CELEBRATION	Dr.S.Shalani HOD/S&H
6	20-08-2024	ENGINEER YOUR FUTURE	Dr.S.Shalani HOD/S&H

7	22-08-2024	CHENNAI DAY	Dr.S.Shalani HOD/S&H
8	05-09-2024	TEACHER’S DAY	Dr.S.Shalani HOD/S&H
9	09-09-2024	INDUCTION DAY	Dr.S.Shalani HOD/S&H
10	14-09-2024	ONAM CELEBRATE	Dr.S.Shalani HOD/S&H
11	15-09-2024	ENGINEERS DAY CELEBRATION	Dr.S.Shalani HOD/S&H
12	02-10-2024	GANDHI JAYANTI CELEBRATION	Dr.S.Shalani HOD/S&H
13	11-10-2024	AYUDHA POOJA	Dr.S.Shalani HOD/S&H
14	07-11-2024	VEETUKU ORU VINYANI	Dr.S.Shalani HOD/S&H
15	09-01-2025	PONGAL DAY CELEBRATION	Dr.S.Shalani HOD/S&H

FOUNDERS DAY CELEBRATION

The Founders Day celebration at **J.N.N Institute of Engineering** was held from **29 July to 2 August 2024** to honor the vision and leadership of the institution's founders, whose commitment to excellence laid the foundation for the institute’s growth. The weeklong event involved a series of activities aimed at reflecting on the values and principles set forth by the founders and reinforcing the mission of academic and cultural growth within the institution.



CRITERION # 9

Department of ECE, J.N.N Institute of Engineering

FRIENDSHIP DAY CELEBRATION

The J.N.N Institute of Engineering hosted a vibrant **Friendship Day Celebration** on 2 August 2024. The event aimed to strengthen the bonds of friendship among students and staff and promote a sense of unity and camaraderie within the campus.



FRESHER DAY

Fresher’s Day celebration at **J.N.N Institute of Engineering** was organized on **05.08.2024** to welcome the newly admitted students to the institute. This event marked the beginning of a new chapter in the academic journey of the first-year students. The celebration aimed to help them feel comfortable, get acquainted with the college environment, and encourage interaction with seniors and faculty members. The event was filled with fun, energy, and excitement, providing a memorable experience for all attendees.



INAUGURATION OF OUR NEW JNN FITNESS HUB

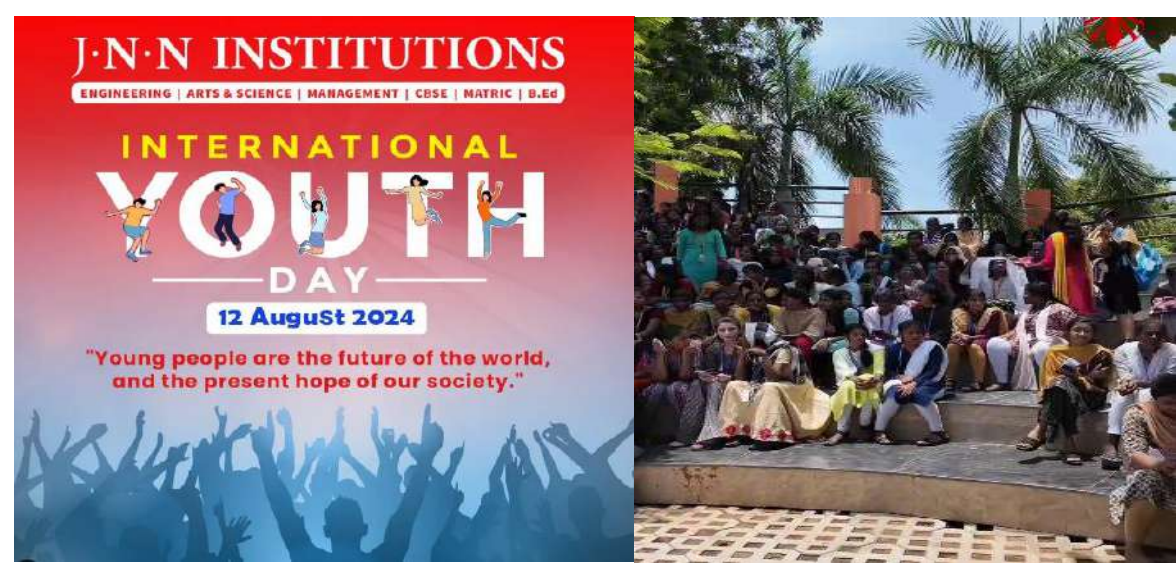
The inauguration of the **JNN Fitness Hub** took place on **5th August 2024** at the **J.N.N Institute of Engineering**. The event marked a significant milestone in the institution's commitment to promoting the physical and mental well-being of students, faculty, and staff. The Fitness Hub aims to provide a state-of-the-art facility for fitness and recreational activities, further enhancing the overall campus experience.





WORKSHOP ON YOUTH DAY CELEBRATION

National Youth Day is celebrated on 12th August 2024. National Youth Day creates awareness and provides knowledge about the rights of people in India. It is a day to educate people to behave properly in the country. The main objective behind the celebration is to make a better future for the country by motivating the youths.



CAREER ENRICHMENT PROGRAM FOR J.N.N LEARNERS “ENGINEER YOUR FUTURE”

Engineer Your Future – Career Enrichment Program was held on **20th August 2024** at the **J.N.N Institute of Engineering**, aimed at empowering students with the knowledge, skills, and insights necessary to shape successful careers in engineering and related fields. The program was specifically designed for **JNN Learners** (students of the institute) and provided them with valuable resources for professional development, industry insights, and career guidance

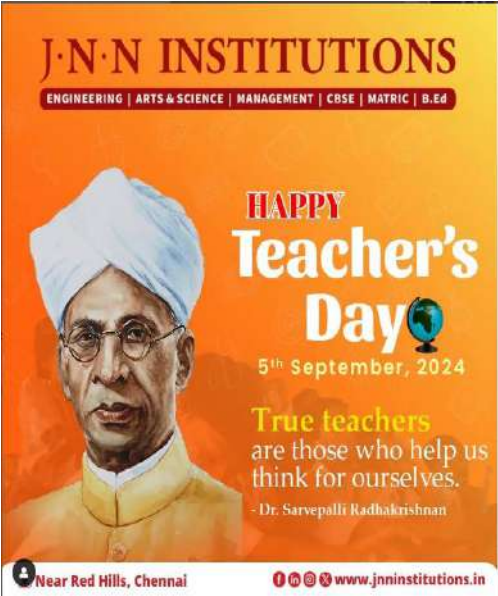


CHENNAI DAY

Chennai Day is a celebration of the vibrant culture, rich heritage, and dynamic spirit of the city of Chennai, Tamil Nadu. To honor this occasion, a **Talent Show** was organized at **J.N.N Institute of Engineering** on 22-08-2024. The event aimed to provide a platform for students to showcase their diverse talents while celebrating the essence of Chennai's culture, history, and traditions. The event was met with great enthusiasm, bringing together students from various departments to display their creativity and skills.



Teacher’s Day, celebrated annually on September 5th in India, marks the birthday of Dr. Sarvepalli Radhakrishnan, a renowned philosopher, scholar, and the second President of India. The day is dedicated to honoring teachers for their invaluable contributions to society and education. In our engineering college, Teacher’s Day was celebrated with great enthusiasm and respect, where students and faculty came together to pay tribute to the teaching community.



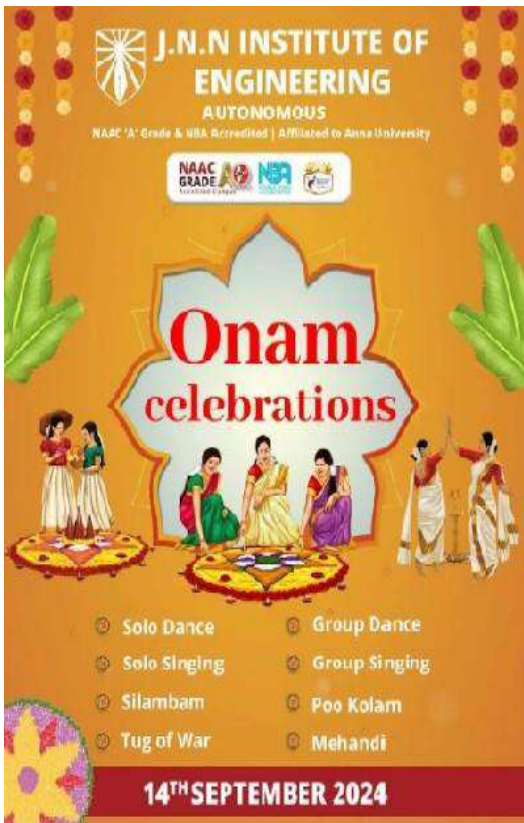
INDUCTION DAY

The 17th Induction Day at J.N.N Institute of Engineering marked a significant beginning for the incoming batch of 1st-year students. The event aimed to introduce students to the institution's culture, academic structure, and facilities while fostering a sense of belonging within the JNN family.



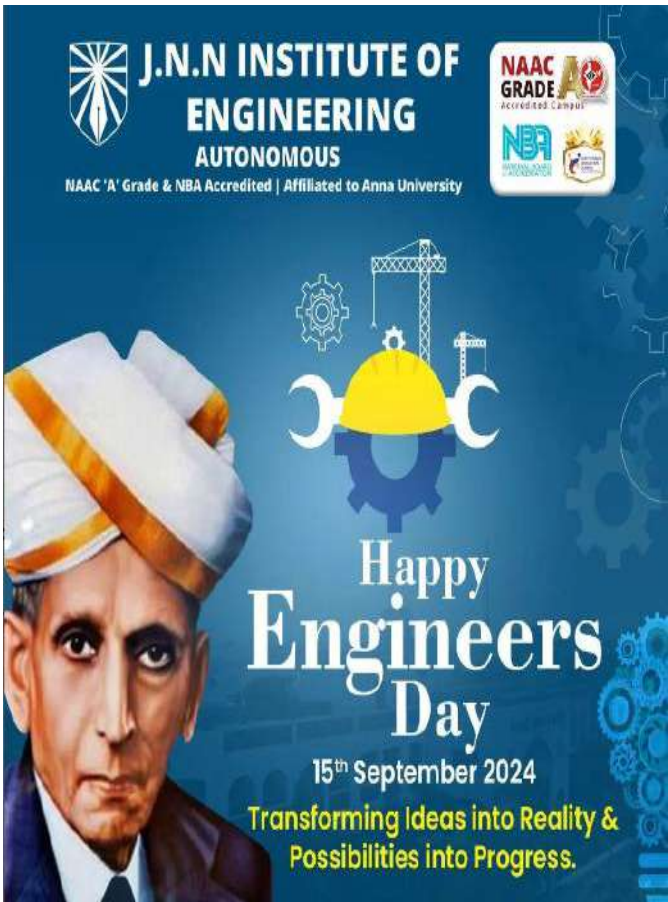
ONAM CELEBRATION

Onam, one of the most important and colorful festivals of Kerala, is a celebration that reflects the rich cultural heritage of the state. It marks the annual homecoming of the legendary King Mahabali and is a symbol of prosperity, harmony, and joy. On **14th September 2024**, the students and staff of J.N.N Institute of Engineering came together to celebrate Onam, a festival that brings people of all backgrounds together to celebrate the values of unity and inclusivity. This year's Onam celebration was a vibrant and engaging experience for all participants, filled with cultural performances, traditional games, and an authentic Onam feast.



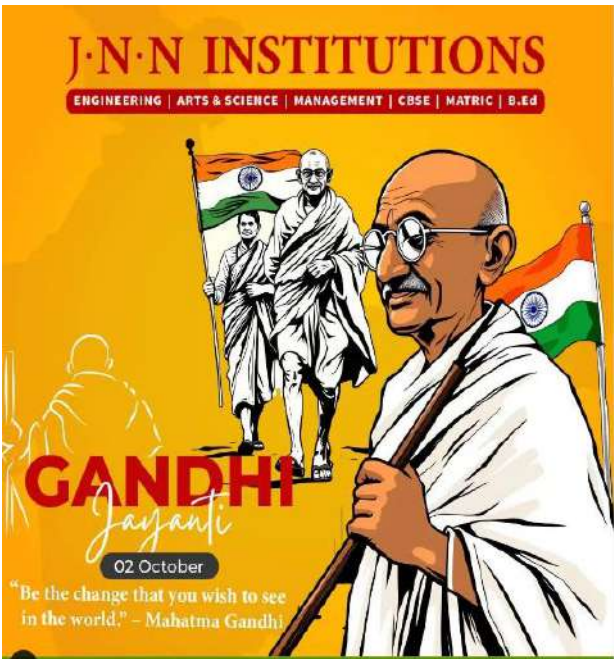
ENGINEERS DAY CELEBRATION

The J.N.N Institute of Engineering Celebrated Engineers Day on 15 September 2024 with great enthusiasm, honoring the legacy of Bharat Ratna Sir M. Visvesvaraya, whose birthday marks this special occasion. The event brought together faculty, students, and industry professionals to recognize the vital role engineers play in shapes society and driving innovation



GANDHI JAYANTI CELEBRATION

The J.N.N Institute of Engineering organized a special event on **Gandhi Jayanti**, commemorating the 155th birth anniversary of **Mahatma Gandhi**, the Father of the Nation. The event aimed to honor his contributions to India’s independence and promote the values of non-violence, truth, and simplicity among students and staff.



AYUDHA POOJA

Ayudha Pooja, a significant festival celebrated across India, was observed with great enthusiasm and devotion at **J.N.N Institute of Engineering** on **11.10.2024**. The event is traditionally dedicated to the worship of tools, machines, and vehicles, symbolizing respect for the instruments that aid in daily work. This day holds great significance in technical institutions as it highlights the importance of tools and equipment used in engineering and technical fields.



CRITERION # 9 **Department of ECE, J.N.N Institute of Engineering**

VEETUKU ORU VINYANI

The concept of applying scientific thinking and problem-solving within the home environment is an innovative approach to making science accessible and enjoyable, particularly for children and young learners. It encourages individuals to engage with scientific principles in a playful, educational, and practical manner, fostering curiosity, creativity, and critical thinking. The aim is to make science accessible, foster curiosity, and inspire creative solutions to everyday household challenges. It encourages people, especially children, to engage with scientific concepts through real-life examples and experiments. This approach empowers individuals to explore scientific concepts through real-life examples and simple experiments, demonstrating that science is not confined to the classroom or laboratory but can be part of daily life.



CRITERION # 9 **Department of ECE, J.N.N Institute of Engineering**

PONGAL DAY CELEBRATION

Pongal, a traditional South Indian harvest festival, was celebrated with great enthusiasm and fervor at J.N.N Institute of Engineering on January 12, 2025. The event was organized by the Cultural Committee, bringing together students, faculty, and staff to honor the agricultural significance and cultural heritage of the festival.



CRITERION 10	Governance, Institutional Support and Financial Resources	120
-------------------------	--	------------

**10. GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL
RESOURCES (120)**

10.1. Organization, Governance and Transparency (40)

10.1.1 State the Vision and Mission of the Institute (5)

(Vision statement typically indicates aspirations and Mission Statement states the broad approach to achieve aspirations)

VISION

Lead the transformation of engineering and management learning experience to educate the next generation of innovators and entrepreneurs who want to make the world a better place.

MISSION

- To develop the required resources and infrastructure and to establish a conducive ambience for the teaching-learning process.
- To nurture professional and ethical values in the students and to instil in them a spirit of innovation and entrepreneurship.
- To encourage a desire for higher learning and research in the students and to equip them to face global challenges.
- To provide opportunities for students to learn job-relevant skills to make them industry ready.
- To interact with industries and other organisations to facilitate transfer of knowledge and know-how.

Our Core Values

We, the J.N.N Institute of Engineering community, are committed to:

- **Excellence in Education** – Offer a rigorous, high quality education to all students
- **Student Success** – Place learner needs at the center of our academic and service planning, policies, and programs
- **Education Access** – Provide all qualified students with access to higher education
- **Diversity** – Achieve multicultural understanding as a priority of educational and civic life
- **Integrity** – Operate with fairness, honesty, and the highest ethical standards to sustain a community of trust
- **Civility** – Support a civil, engaging, and respectful campus climate
- **Environmental Sustainability** – Model environmentally responsible and sustainable operations and education

10.1.2 Governing body, administrative Setup, functions of various bodies, service rules, procedures, recruitment and Promotional policies (10)

List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed.

The published rules including service rules, Policies and Procedures; year of Publication shall be listed. Also state the extent of awareness among the employees/students.

I GOVERNING BODY

The Governing Body has formulated the policy and has been directing the affairs of the institution. The Governing body conducts meeting at the month of March every year. Governing body of JNNIE consists of 13 members with 4 management members. It includes 5 members nominated by the Board of Trustees and nominated members from AICTE, DOTE, Anna University and Principal of the institution as member secretary and two faculty members. The governing body **has been conducted meeting once in a year** to assess the performance of the institution and to discuss the future developmental activities.

Functions of the Governing Body

The Governing Body shall:

- Guide the college while fulfilling the objectives of the college.
- Institute scholarships, fellowships, studentships, medals, prizes and certificates on the recommendations of the Academic Council
- Approve new programmes of study leading to degrees.
- All recruitments of Teaching Faculty/Principal shall be made by the Governing Body as applicable in accordance with the policies laid down by the UGC and State Government from time to time.
- To approve annual budget of the college before submitting the same at the UGC.
- Perform such other functions and institute committees, as may be necessary and deemed fit for the proper development of the college

S. No	Name of the Member	Position
1	Mr. S Jayachandran	Chairman
2	Mrs. Usha Jayachandran	Chairperson
3	Mr. Naveen Jayachandran	Vice-Chairman
4	Ms. Nandhini Jayachandran	Representing Management
5	Prof Dr. Krishnan Baskar Director, IIIT, SENAPATHY, Manipur	Representing Educationist
6	Dr. S.Valli Professor and Head, Department of CSE GEG campus, Anna University, Chennai – 600 025	Nominee of the Affiliating University
7	Mr. M.Vasu Advisor, Kodambakkam, Chennai	Representing Educationist
8	Dr. S.Gopi Assistant Director - Planning Directorate of Technical Education (DOTE) 53, Sardar Patel Road, Guindy, Chennai	Nominee of the State Government
9	Mr. A.R.Vinod Kumar, CEO, King Foods, Chennai	Representing Industrialist
10	Dr. K.Ganesan Principal, JNNIE	Member Secretary
11	Dr. D.Joseph Jeyakumar, Professor Department of Electronics and Communication Engineering, J.N.N Institute of Engineering	Senior Faculty Member
12	Shri. P.G.Seetharam, Assistant Professor Department of Agricultural Engineering, J.N.N Institute of Engineering	Senior Faculty Member
13	Dr. T.Dinesh Controller of Examinations J.N.N Institute of Engineering	Senior Faculty Member



J.N.N INSTITUTE OF ENGINEERING

AUTONOMOUS

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

90, Ushaa Gardern, Kanigaipair, Chennai – Periyapalayam Hwy, Chennai - 601 102

Ref: Letter/GBM/AGENDA/2023-24/01

Date 14-06-2023

AGENDA FOR 16th GOVERNING BODY MEETING

Date: 15-06-2023, Time: 11.30 a.m.

Venue: Board Room

Welcome address by Dr. K.Ganesan, Principal, J.N.N. Group of Institutions, Chennai

Item No	Agenda Item	Annexure
16.01a	Opening Remarks - Chairman, Governing Council	
16.01b	Approval of 16th GBM agenda	
	A. General	
16.02a	To Confirm the minutes of the earlier meeting (15th GCM) held on 29-07-2022 at 10.00 a.m.	I
16.02b	To consider the report on the action taken on the recommendations and decisions taken in the last Governing Council Meeting. Action taken report by principal	II
16.02c	Report on Future Plan of Institution Development - Report by Ms. Naveen Jayachandran, Vice Chairman	III
16.02d	Report by the Principal on the progress of the College during the period June 2022 - May 2023	IV
16.03	To consider and ratify the members nominated for the Academic Council by the Governing Body	V
16.04	To Consider and Approve the MOM: The Resolutions and Regulation Passed in 1 st Meeting of the Academic Council and BOS	VI
	B. ADMINISTRATION	
16.05a	To peruse the role of the administration of the institute under the Autonomous Status Autonomous was sanctioned By UGC: UGC's Letter No.F.22-1/2022(AC) dated 10.10.2022. By Anna University: Letter No. 5417/AU/CAC/Autonomous/2022 dated 23.11.2022	VII
16.05b	New Teaching Learning process under Autonomous systems Curriculum and syllabus devolvement for all UG/PG programmes,	VIII

	New autonomous Regulation 2022	
16.05c	Establishment of COE office and appointment of COE	
16.05d	Change of vision and mission statements of the CSE department	IX
16.06	C. INCOME EXPENDITURE STATEMENT/ BUDGET	
16.06a	Approval of Audited statement of Income and expenditure for the financial year 2021-2022	X
16.06b	Approval of minutes of FCM	XI
16.07	D. APPROVAL OF THE PERSPECTIVE PLAN	
16.07a	To peruse and approve the perspective plan of the institution extension • Extension of AICTE approval • Extension of ANNA University affiliation approval • Changes in students intake for 2023-24	
16.07b	To peruse and approve the perspective plan of the institution for further development • NBA for CSE dept. • NBA for ECE dept. • Proposal for applying for permanent affiliation to Anna University	
16.08	E. ADMISSIONS	
	To Peruse and approve the UG/PG student admission in the academic year 2022-2023 (Note on Department-wise Admission status)	XII
16.09	F. INFRASTRUCTURE	
16.09a	To peruse and approve the infrastructure development 1. Girls hostel third floor: built-up area 5050 sq ft. 2. Sports Arena at Rajalakshmi Ammal block 3. Main Approach Road Paver block laying 4. A/C indoor Auditorium at AAB topfloor: 16900 sq ft. 5. Open air theatre Capacity in front of AAB: 1200 seating capacity 6. 11000 sq ft. TECH HUB at Rajalakshmi Ammal Block 7. Apple I-Mac lab with 25 systems 8. Lab Establishment (Robot for RA lab. Electrical/Electronic labs. Agricultural Engg lab. Biomedical Engg lab) 9. Establishment of Centre of excellence-IOT 10. Relocation of IQAC room / COE office	XII
16.09b	To ratify the list of equipment/software procured since last meeting of the Governing Council. Purchase of 1. Examination Management Software 2. Colour Printer for Mark sheet and certificate printing	XIII

	3. Xerox machine 4. Furniture items/computers/books	
16.10	G. FACULTY/STAFF	
16.10a	To record and ratify the following faculty/staff members who are appointed in various posts on various dates in our institute	XIV
16.10b	To record and ratify the following faculty/staff members resignations	XV
16.10c	Faculty activities and achievements	XVI
16.10d	Current Staff and faculty strength: 1:20	
16.11	H. RESEARCH AND DEVELOPMENT	
	To peruse and review progress in R&D work: The incentive plan	XVII
16.12	I. ENTREPRENEURSHIP DEVELOPMENT CELL	
	To peruse the activities of the Entrepreneurship Development Cell	XVIII
16.13	J. NCC, NSS EVENTS	
	To peruse and approve the proposal to establish NCC in the institution	
16.14	N. STUDENTS	
16.14a	Students' activities and achievements	XVIII
16.14b	Arranging institution Extension activities NSS and Unnath Bharath Abhiyan	
16.15	Q UNIVERSITY EXAM RESULTS	
	To record the results of University examinations held during April/May/June. 2022	XIX
16.16	R. PLACEMENT	
	To report on the placement of students for the year 2022-23	XX
16.17	Any other item with the permission of the Chair.	
16.18	Vote of Thanks by Dr. K.Joseph Jayakumar	

Chairman,
Governing Body



J.N.N INSTITUTE OF ENGINEERING

AUTONOMOUS

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

90, Usha Gardern, Kanigaipair, Chennai – Periyapalayam Hwy, Chennai - 601 102

Ref: Letter/GBM/attendance/2023-24/01

Date 15-06-2023

List of Members Present

S.No	Name	Address	Signature
1	Shri S.Jayachandran, Chairman	Founder Chairman, J.N.N Group of Institutions	
2	Shri. Usha Jayachandran, Trustee	Chairperson, J.N.N Group of Institutions	
3	Shri. Naveen.Jayachandran, Representing Management	Vice-Chairman, J.N.N Group of Institutions	
4	Ms. Nandini Jayachandran, Representing Management	Director, J.N.N Group of Institutions	
5	Shri. M Vasu, Educationist	Advisor, J.N.N Institute of Engineering.	
6	Prof.. Dr. Krishnan Basker, Educationist	Director, IIIT, Manipur	
7	Mr. A R Vinod Kumar, Industrialist	CEO, King Foods, Chennai	
8	Dr. S Valli, Nominee, Anna University	Professor and Head, Dept. of CSE, CEG campus, Anna University	
9	Dr. S Gopi, State Government Nominee.	Assistant Director, Planning, DOTE	
10	Dr. D. Joseph Jeyakumar, Senior faculty Member	Professor, ECE Department, J.N.N Institute of Engineering	
11	Mr. P G Seetharam, Senior faculty Member	Assistant Professor, Department of Agricultural Engineering, J.N.N Institute of Engineering	
12	Dr. T Dinesh, Senior faculty Member	Controller of Examinations J.N.N Institute of Engineering	
13	Dr. K Ganesan, Member Secretary	Principal J.N.N Institute of Engineering	
14	Dr. P Rajalakshmi, Special Invitee	Principal J.N.N. Arts & Science Women's College	



90, Ushaa Garden, Kannigaipair, Chennai Periyapalayam Highway, Tamil Nadu 601102

**Action Taken Report for the 15th GOVERNING COUNCIL MINUTES OF MEETING
HELD ON 27th July 2022. AT 10.30 AM**

Item No. 3 – Intake Details

Council ratified the applications submitted to AICTE and Anna University for the Reduction of the Intake for the academic year 2022-23 and starting of the new course B.E. Computer Science Engineering (Cyber Security).

- i. B.E – Agriculture Engineering - Reduction in Intake from 60 to 30.
- ii. B.E – Biomedical Engineering - Reduction in Intake from 60 to 30.

New Course to be applied for AY 2022-23

- i. B.E. Computer Science Engineering (Cyber Security) with an applied intake of 60.

The AICTE and Anna University has accepted the reduction of intake B.E – Agriculture Engineering, B.E – Biomedical Engineering and approved the New Course B.E. Computer Science Engineering (Cyber Security) in the AY 2022-23 with an intake of 60

Item No. 4 – Autonomous Status

The Governing Body recommended the head of the institute to follow up on the status of Autonomous application and to enhance the facilities for Autonomous.

The UGC Autonomous Inspection held in September, has conferred autonomous status in the Month of October 2022. Anna University Issued the Order by November 2022, Accordingly Board of Studies, Academic Council Meeting, and Finance Committee meeting were conducted.

Item No. 5 – IQAC

Council reviewed the activities of the Internal Quality Assurance Cell (IQAC)

The IQAC was revamped according to the Autonomous requirements.

Item No. 6 – Laboratory Requirements

Council reviewed the Required Equipment for the Laboratories for the New Courses and Approved the Laboratories requirements for the academic year 2022-23.

New Laboratories were established for the new courses accordingly.

Item No. 7 – Placement statistics

The principal presented the report of placement records of 2021 passing out students. The committee appreciated the placement activities that showed the improvement in the average salary of the students.

More Value added Courses were conducted to enhance the skills of the Final Year Students.

Training relevant to placement was arranged for third-year and fourth-year students for 15 days at the beginning of the 8th semester and 6 sem. respectively using an external training agency in addition to internal trainers

Item No. 8 – Budget Members reviewed the budget proposal and utilization for the academic year 2020-2021 and the members appreciated the management for sanctioning the requested amount for improving the infrastructure of the institution to improve the overall performance of the students and faculty members. Members approved the annual budget for the academic year 2022-2023.
Budget Utilization is reviewed and encouraged to use all the allocated funds effectively.
Item No. 9 – Research & Development To Report on Research & Development the brief background on the research activities carried out by the institution was discussed. Committee appreciated the efforts carried out by the faculty members in publishing papers in various reputed journals. Members reviewed the increase in citations and h-index of the institution in Google Scholar. The Scopus Members advised to improve the quality of publication and they asked to analyze the gap to get the NIRF ranking. Members were advised to improve the number of research publications through student's project works (minor and major project).
The incentive scheme for submitting the research proposal and patent application was also announced
Item No. 10 – Others Any other items with the approval of the Chairman The Chairman of Governing Council highlighted the following points: • Setting up of specific goals and following time-bound implementation so as to achieve excellence on par with reputed institutions. • Analyze the gap and work towards getting NIRF rank. • Improve the research publications by involving the students and giving more importance to student's research work.
The faculty members are advised to submit two SCI/SCIE/Scopus journal papers for publication per year for claiming the yearly increment We are adding faculty members having experience and expertise to carry out research and consultancy projects. An incentive program is devised to motivate faculty members to improve their publications and participation in conferences.



J.N.N INSTITUTE OF ENGINEERING

AUTONOMOUS

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

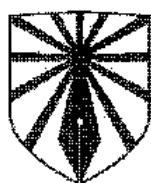
90, Ushaa Gardern, Kanigaipair, Chennai – Periyapalayam Hwy, Chennai - 601 102

Ref: Letter/GBM/attendance/2023-24/01

Date 15-06-2023

List of Members Present

S.No	Name	Address	Signature
1	Shri S.Jayachandran, Chairman	Founder Chairman, J.N.N Group of Institutions	
2	Shri. Usha Jayachandran, Trustee	Chairperson, J.N.N Group of Institutions	
3	Shri. Naveen.Jayachandran, Representing Management	Vice-Chairman, J.N.N Group of Institutions	
4	Ms. Nandini Jayachandran, Representing Management	Director, J.N.N Group of Institutions	
5	Shri. M Vasu, Educationist	Advisor, J.N.N Institute of Engineering.	online
6	Prof.. Dr. Krishnan Basker, Educationist	Director, IIIT, Manipur	online
7	Mr. A R Vinod Kumar, Industrialist	CEO, King Foods, Chennai	
8	Dr. S Valli, Nominee, Anna University	Professor and Head, Dept. of CSE, CEG campus, Anna University	
9	Dr. S Gopi, State Government Nominee.	Assistant Director, Planning, DOTE	
10	Dr. D. Joseph Jeyakumar, Senior faculty Member	Professor, ECE Department, J.N.N Institute of Engineering	
11	Mr. P G Seetharam, Senior faculty Member	Assistant Professor, Department of Agricultural Engineering, J.N.N Institute of Engineering	
12	Dr. T Dinesh, Senior faculty Member	Controller of Examinations J.N.N Institute of Engineering	
13	Dr. K Ganesan, Member Secretary	Principal J.N.N Institute of Engineering	
14	Dr. P Rajalakshmi, Special Invitee	Principal J.N.N. Arts & Science Women's College	



J.N.N INSTITUTE OF ENGINEERING

AUTONOMOUS

NAAC 'A' Grade | Approved by AICTE | Affiliated to Anna University

90, Ushaa Garden, Kannigaipair, Chennai Periyapalayam Highway, Tamil Nadu 601102

16th GOVERNING COUNCIL MINUTES OF MEETING HELD ON 15th JUNE 2023. AT 11.30 AM

Minutes of Governing Council Meeting

Name and Address of Member	Position
Mr. JAYACHANDARAN S NO.2, OLD. NO. 24, Q-BLOCK, 17 STREET, ANNA NAGAR WEST – CHENNAI, - 600040	Chairman
Mrs. USHA JAYACHANDRAN NO.2, OLD. NO. 24, Q- BLOCK, 17TH STREET, ANNA NAGAR WEST – CHENNAI -600040	Chairperson
Mr. NAVEEN JAYACHANDRAN NO. 2, OLD NO.24, Q- BLOCK, 17TH STREET, ANNA NAGAR WEST – CHENNAI – 600040	Vice-Chairman
Ms. NANDHINI JAYACHANDRAN NO. 2, OLD NO. 24, Q- BLOCK, 17TH STREET - ANNA NAGAR WEST, CHENNAI - 600040	Representing Management
Dr. BASKAR K. Director, IIIT Manipur. (former Vice-Chancellor of Manonmaniam Sundaranar University, Tirunelveli)	Representing Educationist
Mr. VASU M Advisor KODAMBAKKAM, CHENNAI - 600024	Representing Educationist
Dr. S VALLI, Professor and Head, Department of Computer Science and Engineering, GEG Campus, Anna University, Chennai – 600 025	Nominee Anna University

Dr. S GOPI, Assistant Director, Planning, DIRECTORATE OF TECHNICAL EDUCATION (DOTE), 53, SARDAR PATEL ROAD, GUINDY, CHENNAI – 600 025.	Nominee of the State Government
Mr. A R VINOD KUMAR CEO, KING FOODS, CHENNAI	Representing Industrialist
Dr. T DINESH, Controller of Examinations J.N.N INSTITUTE OF ENGINEERING	Faculty Member
Dr. D. JOSEPH JEYAKUMAR, PROFESSOR, DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING, J.N.N INSTITUTE OF ENGINEERING	Faculty Member
Mr. P G SEETHARAM ASSISTANT PROFESSOR DEPARTMENT OF AGRICULTURAL ENGINEERING, J.N.N INSTITUTE OF ENGINEERING	Faculty Member
Dr. P RAJALAKSHMI Principal J.N.N Arts and Science Women's College	Special Invitee
Dr. GANESAN K Principal J.N.N INSTITUTE OF ENGINEERING	Member Secretary

Welcome Address Dr. GANESAN K, Principal, JNNIE welcomed the Members of the Governing Council.

Principal gave a brief overview of JNNIE with respect to the programmes offered, NIRF Ranking, NAAC and NBA Accreditations, Autonomous status, Researcher Centres, Sports, Infrastructure, and other facilities.

Item No. 16.01b

Approval of 16th GBM agenda

Council ratified the 16th GBM agenda.

Item No. 16.02a

To Confirm the minutes of the earlier meeting (15th GCM) held on 29-07-2022 at 10.30 a.m.

Council ratified the minutes of the earlier meeting (15th GCM) held on 29-07-2022 at 10.30 a.m

Item No. 16.02b

To consider the report on the action taken on the recommendations and decisions taken in the last Governing Council Meeting.

Council ratified the action taken on the recommendations and decisions taken in the last Governing Council Meeting.

Item No.16.02c

Report on Future Plan of Institution Development.

The Council appreciated the Future Plan towards the development of the Institution Development.

Item No. 16.02d

Report by the Principal on the progress of the College during the period June 2022 - May 2023

The Council appreciated about the various progress of the College during the period June 2022 - May 2023.

Item No. 16.03

To consider and ratify the members nominated for the Academic Council by the Governing Body

It is resolved to approve the nomination of the following members for the Academic Council

Item No. 16.04

To Consider and Approve the MOM: The Resolutions and Regulation Passed in 1 st Meeting of the Academic Council and BOS

Resolved to approve the minutes of the first meeting of the Academic Council, BOS

Item No. 16.05a

To peruse the role of the administration of the institute under the Autonomous Status
Autonomous was sanctioned

By UGC: UGC's Letter No.F.22-1/2022(AC) dated 10.10.2022.

By Anna University: Letter No. 5417/AU/CAC/Autonomous/2022
dated 23.11.2022

The Governing Body congratulated the Chairperson, the Management Members, the Principal and all the Faculty members for their persistent efforts in attaining the Autonomous Status for J.N.N Institute of Engineering.

Item No. 16.05b New Teaching Learning process under Autonomous systems.
Resolved to approve Regulations, Curriculum and Syllabi for various courses of UG and PG Programmes offered in the College which was approved by the respective Board of Studies of all the departments and the Academic Council for the Academic year 2022 – 2023.
16.05c Establishment of COE office and appointment of COE.

Resolved to approve the establishment of COE Office and appointment of Dr. T DINESH, Professor & Head, Department of Robotics and Automation as the Controller of Examinations with effect from 11.01.2023.

Item No. 16.05d Change of vision and mission statements of the CSE department

Council ratified and approved the new vision and mission statements of the CSE department.

Item No. 16.06 C. INCOME EXPENDITURE STATEMENT/ BUDGET

Council ratified and approved Income Expenditure Statement/ Budget 2023- 24, The council also appreciated that there is a continuous improvement in the establishment of laboratory, R&D and Library in the past Income Expenditure Statement.

Item No. 16.06a

Approval of Audited statement of Income and expenditure for the financial year 2021-2022

Council ratified and approved Audited statement of Income and expenditure for the financial year 2021-2022 for the college.

Item No. 16.06b Approval of minutes of FCM

It is resolved to approve the minutes of FCM held on 06.01.2023.

Item No. 16.07 D. APPROVAL OF THE PERSPECTIVE PLAN

It is resolved to approve the perspective plan of the institution.

Item No. 16.07a

To peruse and approve the perspective plan of the institution extension

- Extension of AICTE approval
- Extension of ANNA University affiliation approval
- Changes in student's intake for 2023-24

It is resolved to approve the perspective plan of the institution.

Item No. 16.07b

To peruse and approve the perspective plan of the institution for further development

- NBA for CSE dept.
- NBA for ECE dept.

Proposal for applying for permanent affiliation to Anna University.

Governing Body appreciated the efforts taken regarding the NBA accreditation for the eligible departments such as Computer Science and Engineering and Electronics and Communication Engineering.
The Council asked to initiate the necessary action for the application for the permanent affiliation for the eligible courses.

Item No. 16.08 E. ADMISSIONS

To Peruse and approve the UG/PG student admission in the academic year 2022-2023
It is resolved to approve the UG/PG student admitted in the academic year 2022-2023.
Council has decided to concentrate on Admission process for the academic year 2023-24 through reputed consultants and strengthen the admission.

Item No. 16.09 F. INFRASTRUCTURE

16.09a

To peruse and approve the infrastructure development

1. Girls hostel third floor: built-up area 5050 sq ft.
2. Sports Arena at Rajalakshmi Ammal block
3. Main Approach Road Paver block laying
4. A/C indoor Auditorium at AAB topfloor: 16900 sq ft.
5. Open air theatre Capacity in front of AAB: 1200 seating capacity
6. 11000 sq ft. TECH HUB at Rajalakshmi Ammal Block
7. Apple I-Mac lab with 25 systems
8. Lab Establishment (Robot for RA lab. Electrical/Electronic labs. Agricultural Engg lab. Biomedical Engg lab)
9. Establishment of Centre of excellence-IOT
10. Relocation of IQAC room / COE office

Council ratified and approved the infrastructure development of the institution.

Item No. 16.09b To ratify the list of equipment/software procured since last meeting of the Governing Council.

Purchase of

1. Examination Management Software
2. Colour Printer for Mark sheet and certificate printing
3. Xerox machine
4. Furniture items/computers/books

Council ratified and approved equipment/software procured.

Item No. 16.10 G. FACULTY/STAFF

16.10a

To record and ratify the following faculty/staff members who are appointed in various posts on various dates in our institute.

Council ratified and approved faculty/staff members who are appointed in various posts on various dates in our institute till date.

Item No. 16.10b To record and ratify the following faculty/staff member's resignations.

Council ratified and approved faculty/staff member's resignations in various posts on various dates in our institute till date.

Item No. 16.10c Faculty activities and achievements

Council ratified and approved Faculty activities and achievements

16.10d Current Staff to student strength: 1:20

Council ratified and approved Current Staff to student strength 1:20.

Item No. 16.11 H. RESEARCH AND DEVELOPMENT

To peruse and review progress in R& D work. The incentive plan.

Council ratified and approved the current R& D work of the institution. The Council appreciated the management for the announcement of the incentive plan to the faculty.

Item No. 16.12 I. ENTREPRENEURSHIP DEVELOPMENT CELL

To peruse the activities of the Entrepreneurship Development Cell

Council ratified and approved the activities of the Entrepreneurship Development Cell.

Item No. 16.13 J. NCC, NSS EVENTS

To peruse and approve the proposal to establish NCC in the institution

Council ratified and approved the proposal to establish NCC in the institution.

Item No. 16.14 N. STUDENTS

16.14a Students' activities and achievements

Council ratified and approved Students' activities and achievements held during the academic year 2022-23.

Item No. 16.14b

Arranging institution Extension activities NSS and Unnath Bharath Abhiyan

The council appreciated the institution for encouraging the students getting involved in Extension activities NSS and Unnath Bharath Abhiyan.

Item No. 16.15 Q UNIVERSITY EXAM RESULTS

To record the results of University examinations held during April/May 2022 and Nov / Dec 2022.

The Controller of Examination Dr. T Dinesh, Presented the results for the University examinations held during April/May 2022 and Nov / Dec 2022. The council ratified and approved the results. The council has suggested to conduct remedial special classes for the students for their improvement in results.

Item No. 16.16 R. PLACEMENT

To report on the placement of students for the year 2022-23.

Council ratified and approved the placement of students for the year 2022-23.

Item No. 16.17 Any other item with the permission of the Chair.

Dr. S Gopi, State Government Nominee suggested to include more Choice based subjects to be included from apartment from the Anna University Curriculum and Syllabus for all the UG and PG programmes.

Stream vise placemats training can be arranged.

A septate faculty can be nominated for concentrating National level hackathon events.

An Idea Lab can be established for students in an area of 1500 Sq feet, to create a product from their idea.

Answer scripts can be shown to the students to verify the marks before publication of end semester examination results.

Its always important on how the institution can effectively use the internships, mini and major project works, concomitancy and collaborative research.

Dr. Krishnan Basakar, Director, IIT Manipur suggested pass percentage can be improved by giving more attention to dull students in terms of mentoring, effective special coaching.

Summer coaching classes will also support the students to score more marks. Spending more on quality aspects will support the institutions growth in long run.

New and Emerging courses can be introduced in the curriculum.

Shri. M Vasu, Advisor suggested to concentrate more on research activities and research Publications.

Item No. 16.18 Vote of Thanks by Dr. K.Joseph Jayakumar

The meeting ended with a vote of thanks to the Chairman & Members for active participation in the entire proceedings of the meeting. The meeting came to its close at 12:00 PM.


Principal


Chairman



J.N.N INSTITUTE OF ENGINEERING

NAAC 'A' Accredited. ISO 9001:2015 Certified Institution.
Approved by AICTE. Affiliated to Anna University, Chennai.

90, Ushaa Garden, Kannigaipair, Chennai Periyapalayam Highway, Tamil Nadu 601102

15th GOVERNING COUNCIL MINUTES OF MEETING HELD ON 29th July 2022. AT 10.30 AM

Minutes of Governing Council Meeting

Name and Address of Member	Position
Mr. JAYACHANDARAN S NO.2, OLD. NO. 24, Q-BLOCK, 17 STREET, ANNA NAGAR WEST – CHENNAI, - 600040	Chairman
Mrs. USHA JAYACHANDRAN NO.2, OLD. NO. 24, Q- BLOCK, 17TH STREET, ANNA NAGAR WEST – CHENNAI -600040	Chairperson
Mr. NAVEEN JAYACHANDRAN NO. 2, OLD NO.24, Q- BLOCK, 17TH STREET, ANNA NAGAR WEST – CHENNAI – 600040	Vice-Chairman
Ms. NANDHINI JAYACHANDRAN NO. 2, OLD NO. 24, Q- BLOCK, 17TH STREET - ANNA NAGAR WEST, CHENNAI - 600040	Representing Management
Dr. BASKAR K. Director, IIIT Senapati, Manipur. (former Vice-Chancellor of Manonmaniam Sundaranar University, Tirunelveli and THE DIRECTOR - CTDI AND COORDINATOR)	Representing Educationist
Dr. K Shanmuga Sundaram. Professor, Department of Mechanical Engineering Anna University Chennai - 600 025.	Nominee of the Affiliating University
Mr. VASU M Advisor KODAMBAKKAM, CHENNAI - 600024	Representing Educationist

REGIONAL OFFICER & DEPUTY DIRECTOR SOUTHERN REGIONAL OFFICE (SRO) SHASTRI BHAWAN, 26 HADDOWS ROAD, CHENNAI-600006	Nominee of the All India Council for Technical Education
COMMISSIONER DIRECTORATE OF TECHNICAL EDUCATION (DOTE), 53, SARDAR PATEL ROAD, GUINDY, CHENNAI – 600 025.	Nominee of the State Government
Mr. A R VINOD KUMAR CEO, KING FOODS, CHENNAI	Representing Industrialist
Dr. GANESAN K Principal 13 SIVA GARDEN, SINGANALLUR, COIMBATORE - 5	Member Secretary
Dr. D. JOSEPH JEYAKUMAR, PROFESSOR, DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING, J.N.N INSTITUTE OF ENGINEERING	Faculty Member
Mr. M MURALI ASSISTANT PROFESSOR DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING, J.N.N INSTITUTE OF ENGINEERING	Faculty Member

Welcome Address Dr. GANESAN K, Principal, JNNIE welcomed the Members of the Governing Council. Our Chairman Sri. S Jayachandran, introduced our Principal Dr. GANESAN K briefed on the appointment as the Principal w.e.f. 21st March, 2022, sought the ratification of the appointment from the Council members and the same was ratified.

Principal gave a brief overview of JNNIE with respect to the programmes offered, NIRF Ranking, NAAC and NBA Accreditations, Autonomous status, Researcher Centres, Sports, Infrastructure, and other facilities.

Item No. 1 – Action Taken Report

Action Taken Report with respect to the suggestions given by the Members of the Council during the meeting that was held on 03th February 2022 was presented.

Approved by the Members.

Item No. 2 – Institutional Details

Principal presented the activities carried out by the Institute during the period under the report.

- (a) Programmes Offered by JNNIE A brief on the list of programmes offered by the institute along with the respective intake was presented by the Principal.

Item No. 3 – Intake Details

Council ratified the applications submitted to AICTE and Anna University for the Reduction of the Intake for the academic year 2022-23 and starting of the new course B.E. Computer Science Engineering (Cyber Security).

- i. B.E – Agriculture Engineering - Reduction in Intake from 60 to 30.
- ii. B.E – Biomedical Engineering - Reduction in Intake from 60 to 30.

New Course to be applied for AY 2022-23

- i. B.E. Computer Science Engineering (Cyber Security) with the Applied intake of 60.

The council has also approved to release the required funds for the establishment of the New Course B.E. Computer Science Engineering (Cyber Security).

Item No. 4 – Autonomous Status

The Governing Body recommended the head of the institute to follow-up the status of Autonomous application and to enhance the facilities for Autonomous.

Item No. 5 – IQAC

Council reviewed the activities of the Internal Quality Assurance Cell (IQAC)

Item No. 6 – Laboratory Requirements

Council reviewed the Required Equipment's for the Laboratories for the New Courses and Approved the Laboratories requirements for the academic year 2022-23.

Item No. 7 – Placement statistics

Principal. presented the report of placement records of 2021 passing out students. The committee appreciated the placement activities that showed the improvement in the average salary of the students.

Item No. 8 – Budget

Members reviewed the budget proposal and utilization for the academic year 2020-2021 and the members appreciated the management for sanctioning the requested amount for

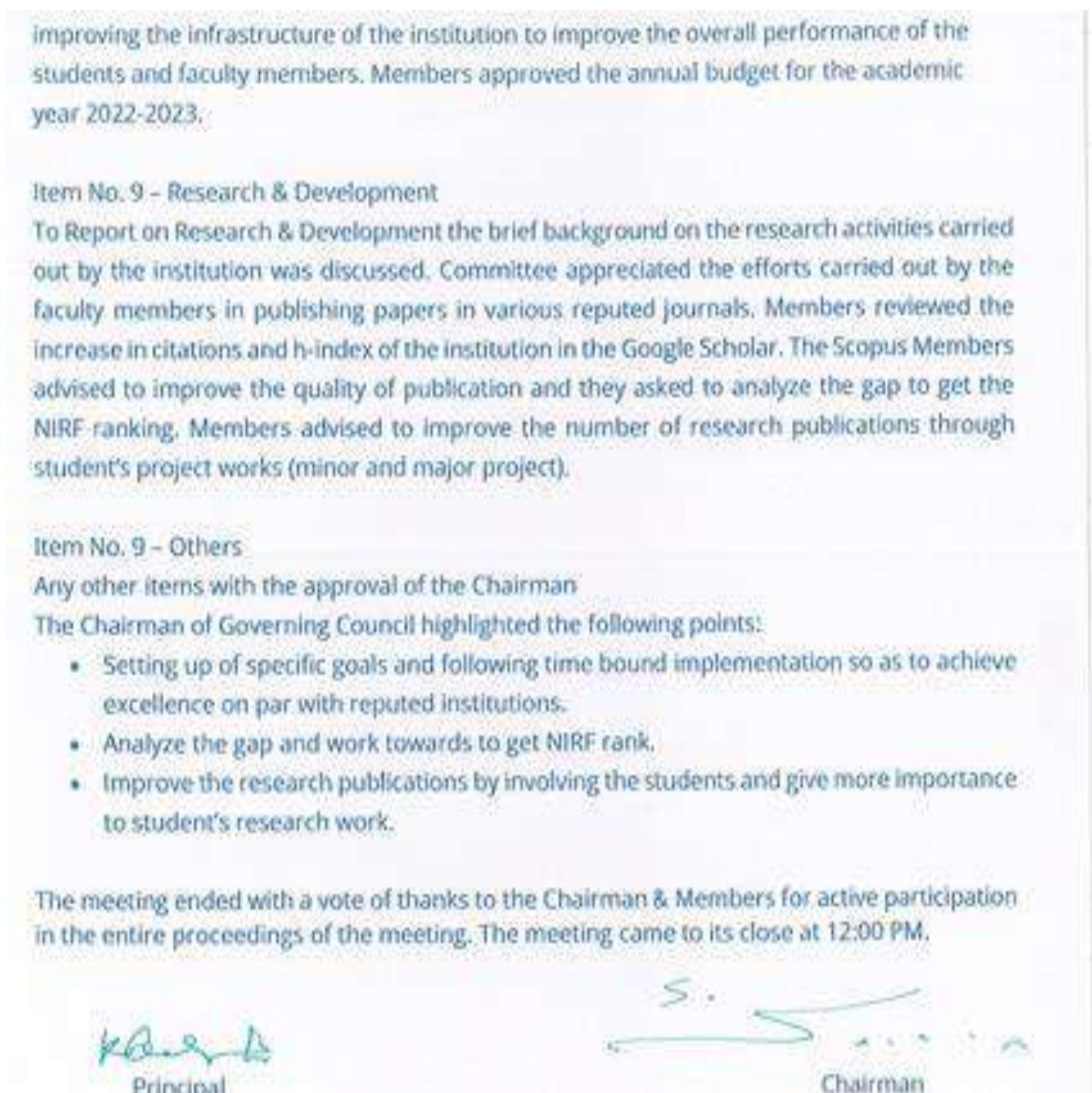


Fig. 10.1.2.1 Governing Body-Minutes of Meeting

II ADMINISTRATIVE SETUP

Established in 2005 in the fond memory of his beloved mother, Smt. Alamelu Ammaal, by the visionary and multifaceted Shri. S. Jayachandran, Alamelu Ammaal Educational Trust is a well-known name in the educational arena of Tamil Nadu. The Trust, which runs a number of educational institutions under the name ‘J.N.N Institutions,’ which has remained strongly dedicated to delivering quality education to the future of the nation, since the very beginning of its establishment.

The Institution has an enthusiastic and visionary Management. Sri S.Jayachandran is the Chairman, Mrs. Usha Jayachandran is acting as Chairperson, Mr. Naveen Jayachandran M.S is the vice-chairman, who is acting as a driving force of our J.N.N Institute of Engineering

To ensure the effective implementation of the Institution’s policies and plans, the institution formed its regulatory bodies like (1) Governing Body, (2) Academic Council, (3) BOS, (4) Finance Committee and (5) Internal Quality Assurance Cell (IQAC) and Offices of Principal, Head of the Department, Training and Placement, CoE, EDC with the support from Technical and Non-technical staff for the smooth functioning of the organization.

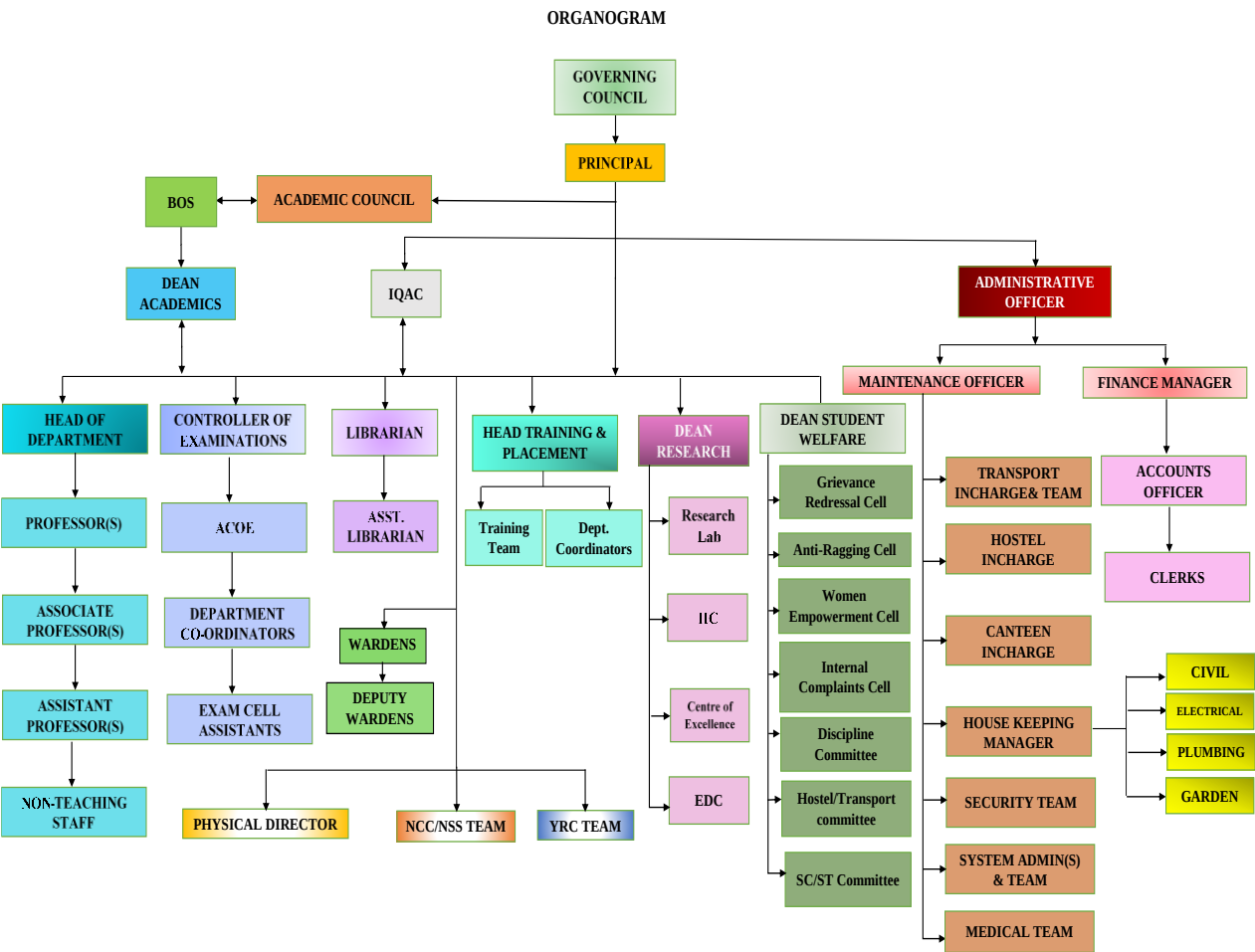


Fig. 10.1.2.2 Organization chart for J.N.N Institute of Engineering

INTERNAL QUALITY ASSURANCE CELL (IQAC)

Name of the Cell / Committee:	Internal Quality Assurance Cell (IQAC)
Core Activity	▪ To ensure continuous improvement in the entire operations of the Institution. ▪ To ensure stakeholders connected with education including parents, teachers, staff, employers, funding agencies, society in general, of its own quality and probity. ▪ To develop a quality system for conscious, consistent and programmed action to improve the academic and administrative performance of the institution. ▪ To promote measures for driving institutional functioning towards quality enhancement and Institutionalization of best practices.
Title	Name & Designation
Chairperson	Dr. K.Ganesan, Principal
Management Member	Mr. Naveen Jayachadran, Vice Chairman
Administrative Officer	Mr. C.R.Ravisanker
Members – Faculty	Dr. S.Yuvaraj – Robotics & Automation
	Mr. B.Rajakumar– AI&DS
	Mrs. N.Malathy – ECE
	Mr. S.Senthilnathan- CSE
	Mr. J.Balachander–CSE (Cyber)
	Ms. V.Kavitha – AGRI
	Mrs. G.GnancySubha– BME
	Mrs. V.Tharakeswari- S&H
	Dr. P.Yasodha – MBA

Members – Students	Ms. P.Priyadharshini, III YEAR, ECE
	Ms. P.Supriya, IV YEAR, AI&DS
	Mr. G.R.Lokkeshwaran, III Year, R&A
	Ms. Vakati Lasya, IV Year, CSE
Alumni	Ms. Roobini Chitra V – ECE (Batch 2016-2020)
	Ms. Pavithra K– CSE (Batch 2017-2021)
Industrialist	Mr. M. Murugan, M V Power Consultant Engg. Pvt. Ltd.
Coordinator	Dr. N.Venkatesvara Rao – CSE
Frequency of the meeting	Once in a Semester

LIBRARY ADVISORY COMMITTEE

Name of the Cell/ Committee:	Library Advisory Committee
Core Activity	- To maintain liaison between Central Library and various Academic Departments for the purchase of networking of Departmental libraries with the Central Library. - The Mission of the library committee is to advice on resource development and other activities related to users' needs to library of institute. - Library Advisory Committee's role is appreciated in as balancing act of all subject's resource development.
Chair Person	Dr. K.Ganesan, Principal
Co-Ordinator	Mrs. P. Meena PriyaDharshini, Librarian
Members- Faculty	Dr. B. Anandkumar, ECE Mr. A.Iyyanarappan, CSE Mr. P.G.Seetharam, Agriculture Engineering Mr. A.Ramachandran, R&A Mrs. D.Shanthini, S & H

Student Members	Mr. E Manikandan, IV R&A Mr. K Bhojendraraj– IV Agriculture Engineering Mr. S.Sanjay, IV CSE Mr. L.Karthikeyan-III ECE Ms. S.Swetha– IV BME Ms. D.Reeta, IV AI & DS
Frequency of the Meeting	Once in a year or as when required

RESEARCH AND DEVELOPMENT CELL

Name of the Cell /Committee:	R & D Cell
Core Activity	▪ To oversee and supervise Research and Development activities in the Institute and to ensure performance, by proper monitoring of research projects and engagement in all the research thrust areas, with the management. ▪ Arranging lectures and seminars periodically to providing academic support and guidance to researchers based on recommendation from Empowered Counseling Committee members. ▪ Monitoring quality of dissertations and thesis topics and reports. ▪ Exploring possibilities of research collaborations, nationally and internationally for long term development.
Convener	Dr. Meryln Sujatha R, BME
Members-Faculty	Mr. B.Raja Kumar, AP/AI&DS Mr. S.Senthilnathan, AP/CSE
Members- Student	Mr. B.Ashok, IV AGRI Ms. K.Divya, III ECE Mr. S.Yuvaraj, III R&A
Frequency of the Meeting	Once in a semester/As when required

Training & Placement Cell

Name of the Cell /Committee	Training & Placement Cell
Core Activity	▪ Supervision in the labs during the aptitude conducted by the recruiting companies. ▪ Maintain discipline and decorum in the Conference Hall where students are assembled during placement. ▪ Assist in setting up labs along with the Lab Assistants during on-line tests. ▪ Updating TPC data on the college website from time to time.
Chairperson	Dr. K.Ganesan, Principal
Coordinator	Mrs. K.Ayisha Begam, Head -Training & Placement
Members-Faculty	Mr. B.Raja Kumar, AP/AI&DS Mr. M.Mariselvam, AP/ECE Mr. R.Nandhakumar, AP/R&A Mr. V.Senthilkumar, AP/CSE Mrs. G.GnancySubha, AP/BME Ms. Kavitha V, AP/Agricultural Engineering Mrs. K.Vanishree, AP/CSE
Members- Student	Ms. Mounika Aula- III CSE Ms. Genji Nagarathnamma- IV CSE Mr. Parrapu Kartheek-IV ECE
Frequency of the Meeting	Once in a Semester/As when required

Transport Committee

Name of the Cell /Committee	Transport Committee
	▪ Provide transportation facility to cover around 50 km radius both for students and staff. ▪ Supervise the daily bus operation and giving instructions to the bus in-charges.

Core Activity	▪ Coordinate various bus routes regularly with the help of bus in- charges. ▪ Inspecting the condition of the buses and reporting for necessary actions. ▪ Periodically Reporting to the superiors as when required. ▪ Checking the documents of the buses. ▪ Maintaining the documents.
Convener	Mr. G. Ashok, HOD -BME
Transport in Charge	Mr. Lingam
Members- Student	Mr. Sakthivel, III AGRI Mr. Dhanush E, IV CSE Mr. Jagadish R, IV ECE Mr. Ohm Prakash M, IV BME
Frequency of the Meeting	Once in a year

Sports Club

Name of the Cell /Committee	Sports Committee
Core Activity	▪ Recommend the student to participate in the inter- intra college sports events. ▪ Encourage the student to participate in the intra and inter collegiate cultural events intercollege. ▪ To encourage students to express their thoughts, feelings and creativity through the various visual art forms. We provide an opportunity to the students to let their imagination run wild and provides them with the sight to see things in a different way. ▪ The main objective is to encourage the students in various arts activities. ▪ To improve the imagination skill in Entertainment.
Physical Director	Mr. P.Thangamuthu
Members - Faculty	Mrs. C.Mullai Kodi, AP/ECE Mr. A.Suresh, AP/R&A Mrs. K.Monika, AP/AGRI Mr. A.Iyyanarappan, AP/CSE Ms. P. Priya, AP/CSE Mr. C.Suresh, AP/MBA Mr. S Nagarajan, AP/AI&DS

Members- Student	Mr. R.Sowndhar III AGRI
	Mr. L.Karthikeyan, III ECE
	Ms. Putti Nandhitha, IV CSE
	Mr. M.Premkumar, IV R&A
Frequency of the Meeting	Once in a Year

ENTREPRENEURSHIP DEVELOPMENT CELL

Name of the Cell /Committee	Entrepreneurship Development Cell
Core Activity	▪ To create greater awareness of opportunities and benefits of entrepreneurship among the students, to make them realize their dream business through innovative products and to develop greater entrepreneurial culture within the institution. ▪ To create greater number of sustainable startup business with potential for further growth. ▪ To create awareness among students on industrial business and on the availability of financial assistance enabling them to start their own Industrial ventures.
Chair Person	Dr. K.Ganesan, Principal
EDC Coordinator	Dr. Vijayanand J, ECE
Members- Faculty	Ms. S.Jenefar, AP/AGRI Dr. S.Yuvaraj,AP- R&A Mrs. P.B.Smitha, AP-ECE Dr. R.Meryl Sujatha, AP/BME Mr. M. Murali, AP/BME Ms. A.Poornima, AP/CSE Ms. C.Kavya, AP/MBA Mr. B.Raja Kumar, AP/AI&DS

Members- Student	Ms. Divya K, III ECE Mr. ValuruBalaji, IV CSE Mr. Tharun Aryan III R&A
Frequency of the Meeting	Once in a Semester/As Required

ALUMNI ASSOCIATION

Name of the Cell / Committee:	Alumni Association
Core Activity	▪ Role model and inspiration ▪ Career Mentor ▪ Providing Expertise ▪ Opportunity to access Professional Development ▪ Improve Student recruitment efforts ▪ Role model and inspiration ▪ Support the university’s reputation
President	Ms. S. Vidhya-Civil Engineering
Vice President	Ms. J. Priya- Electronics and Communication Engineering
Secretary	Ms. B. Shanmathi – Electronics and Communication Engineering
Joint-Secretary	Mr. P. Mithun- Mechanical Engineering
Treasurer	Mrs. A. Geethanjali- Computer Science Engineering
Co-Ordinator	Mrs. J. Vishnu Priya- Master of Business Administration
Frequency of the meeting	Once in a year

NATIONAL SERVICE SCHEME UNIT

Name of the Cell /Committee:	National Service Scheme Unit
Core Activity	▪ Objectives of NSS in higher education which in turn create social responsibility among the students. ▪ NSS volunteers work in rural areas, adopted villages and school to the serving the cause of society through survey, education and health awareness programme ▪ Identifying the needs of the community in which they work and involve the local people in their task.
Convener	Dr. T. Muthu, AP/S&H
Members – Faculty	Mrs. D.Shanthini AP- S&H Mrs. N.S.Nancy Jebarani, AP/S&H
Student Members	Ms. Yaraswini,- IV CSE Mr. Adhishesan K, - IV AI & DS Mr. Barani J, - IV BME
Frequency of the Meeting	Twice in a semester or as when required

YOUTH RED CROSS (YRC)

Name of the Cell / Committee:	Youth Red Cross
Core Activity	▪ Protection of Health & Life ▪ Service to the Sick & Suffering ▪ Promotion of National & International Friendship, to develop the mental and moral capacities of the youth ▪ Informing youth members and others the roles and responsibilities of the Red Cross and encourage them to

	contribute. ▪ Awareness on the care of their own health and that of others. ▪ Understanding and acceptance of civic responsibilities and acting accordingly with humanitarian concern, to fulfill the same. ▪ To enable the growth and development of, spirit of service and sense of duty with dedication and devotion in the minds of youth. ▪ To foster better friendly relationship with all, without any discrimination.
Convener	Mr. V.Senthil Kumar, AP/CSE
Members – Faculty	Mrs. N.Malathy,AP ECE Ms. S.Jenefar, AP AGRI Mr. A.Suresh AP R&A
Student Members	Ms. Mounika Aula, III CSE Mr. Noor Jakeer, IV ECE Ms. J.VishnuPriya, IV AGRI
Frequency of the Meeting	Twice in a semester or as when required

PROGRAM LEVEL COMMITTEES

PROGRAM ASSESSMENT COMMITTEE (PAC)

Roles and Responsibilities	•Monitoring the achievements of Program Outcomes (POs), Program Specific Outcomes (PSOs) and Program Educational Objectives (PEOs). • Evaluating program effectiveness and proposing necessary changes. • Preparing periodic reports on program activities, progress, status or other special reports for management. • Motivating the faculty and students towards attending workshops, developing projects, working models, paper
-----------------------------------	--

	publications and engaging in research activities. • Interacting with students facilitating the achievement of POs, PSOs and PEOs.	
Name of the chairman	Dr. D. Joseph Jeyakumar	HOD - Electronics and Communication Engineering
Name of the program coordinator	Dr. N. Malathy	Programme coordinator
Module coordinators	1. Ms. S.Sowmya 2. Ms.P.B.Smitha 3. Mr.U.Siddharth Nambi 4. Dr. G.Thanigaivel 5. Mr.M.Mariselvam	Faculty Member/ECE Faculty Member/ECE Faculty Member/ECE Faculty Member/ECE Faculty Member/ECE
Members from other department	1. Mr.G.Ashok 2. Ms. G.Geetha	Faculty Member/BME Faculty Member/AI&DS
Frequency of the meeting	Once in a semester	

DEPARTMENT ADVISORY COMMITTEE (DAC)

Roles and Responsibilities	1. The committee develops and recommends new or revised goals and objectives of the program 2. The committee also reviews and analyses the gap between curriculum and Industry requirement and gives necessary feedback or advice actions	
S.No	Name of the Committee Member	Designation
1.	Dr. D. Joseph Jeyakumar	HOD-Electronics and Communication Engineering
2.	Er. R. Vinoth Kumar	Team lead, Data Engineer & Head of Practice Python CWC Technologies Pvt.Ltd

3.	Mr. Krishna Kumar	CEO, Skillup by Simplilearn
4.	Mr. K.Srinadh	Alumni Representative/Foxcon
5.	Dr. N. Malathy	Programme coordinator
6.	Dr. J. Vijay Anand	Faculty Representative
7.	Mr. Noor Jakeer	Student Representative-IV year
8.	Ms. G.Reena Sree	Student Representative-III year
9.	Mr. K. Gowtham	Student Representative-II year

QUALITY IMPROVEMENT PANEL (QIP)

Roles and Responsibilities	1. Providing opportunities to faculty members of the degree level Engineering to improve their qualifications 2. Organising Short Term Courses for serving Faculty members	
S.No	Name of the Committee Member	Designation
1.	Dr. D. Joseph Jeyakumar	Principal
2.	Mr. A.Anand Kumar	QIP coordinator
3.	Ms. S.Sowmya	Faculty Member
4.	Dr. N.Malathy	Faculty Member
5.	Ms. P.B.Smitha	Faculty Member

III FUNCTIONS OF VARIOUS BODIES

The roles of Governing Body, BOS, Academic Council, Administrative Officer, Principal, Head of the Department, Faculty members etc. are listed below:

1. Governing Body

- Attending J.N.N Institute of Engineering Governing Council Governing Council meetings. This is also governed by the by-laws. If a Governing Council member misses more than three meetings, they can be asked to step down.
- An organization, especially an all-volunteer organization, cannot function if its Governing Council fails to perform its duties. Therefore, it is essential to attend the meetings to take care of business.
- J.N.N Institute of Engineering strives to be economical in use of meeting times, and to take care of as much business as possible in other ways (e.g., electronic communication).
- Maintain personal annual membership dues.
- Make every effort to attend the annual meeting.
- Support resource development for whatever ways are best suited.
- Participate in the recruitment of new general members, committee members, committee chairs and officers.
- Encourage collaboration between other organizations.
- Work to increase awareness of J.N.N Institute of Engineering to the society.
- Participate in J.N.N Institute of Engineering committees and committee activities. The committees need to feel connected to the leadership of the organization and vice versa; therefore, every Governing Council member is encouraged to join a committee as a member, or a co-chair.
- Participate in activities related to the realization of the J.N.N Institute of Engineering mission.
- Become knowledgeable about the J.N.N Institute of Engineering budget and participating in the budget planning process.
- Be familiar with all J.N.N Institute of Engineering policies and activities.

2. Academic Council

- Scrutinize and approve the proposals with or without modification of the Boards of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant to etc., provided that where the Academic Council differs on any proposal, it shall have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so.
- Make regulations regarding the admission of students to different programmes of study in the college keeping in view the policy of the Government.
- Make regulations for sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels.
- Recommend to the Governing Body proposals for the institution of new programmes of study.
- Recommend to the Governing Body institution of scholarships, studentships, fellowships, prizes and medals, and to frame regulations for the award of the same.
- Advise the Governing Body on suggestions(s) pertaining to academic affairs made by it.
- Perform such other functions as may be assigned by the Governing Body.

3. Board of Studies

- Seeks feedback from all the stakeholders (students, parents, alumni, industry experts, academic peers, community persons)
- Discusses the feedback by the Departmental Curriculum Committee
- Makes change request and develops agenda items
- Discusses the changes required in BOS
- Makes recommendations to the academic council
- Makes the approved changes and come out of view version of curriculum and bring the necessary changes for implementing the curriculum

- To recommend the courses of studies, teaching and examination schemes in their respective subjects.
- To prepare a panel of paper setters and examiners for the semester-end examination.
- To advise on all matters relating to their respective subjects referred to them by the faculty or the Academic Council.
- To recommend books and reading materials for subjects concerned.

FUNCTIONS OF ADMINISTRATIVE HEADS

4. Principal

- Monitoring the functioning of the academic and administrative staff and to see that they fulfill all their responsibilities as prescribed.
- Monitoring the student discipline and conduct (including attendance) and maintaining the decorum of the institution.
- Monitoring effective teaching as per the prescribed curriculum and as per the teaching/institutional methodology suggested by the Anna University/AICTE/Management.
- Monitoring all the procedures to be followed by the office which include admission, fee collection, attendance, **recruitment**, salary payments, purchases and procurements, accounts, and audit and any such other matter related to the administration of the college.
- Monitoring all the liaisoning activities with governmental, corporate, and other academic bodies/institutions.
- Monitoring the liaison of activities with departments within the college and most importantly with the top management of J.N.N.
- Monitoring the conduct of meetings on behalf of the institution which include the meetings of staff, HOD's, Coordinators, College Academic Council, and the Governing Council

- Monitoring the procurement and purchase of the entire necessary infrastructure like furniture & fittings, lab equipment, books and any such other requirement for the institution as per the prescribed procedures.
- Monitoring the auditing and inspections of the institution conducted by the regulator bodies such as AICTE, government, and Anna University apart from the ones conducted by the top management.
- Maintaining the infrastructure of the institution with the help of concerned staff and protecting the life and property of all those connected with the institution.
- Maintaining cordial relations with the staff, students, parents, and with all those connected to the institution both directly and indirectly.
- Sanction of funds for teaching staff to participate in development courses, Conference etc.

5. Administrative Officer

- Assists the Principal in the day-to-day administrative functions of the college, and in developing policies, procedures, and systems which ensure productive and efficient operations.
- As the custodian of the college property records, manages the filing, storage, and security of documents.
- Assists in the preparation of contract agreement/document for canteen operations, Security services, general maintenance, and supply of Private Vehicles by Travel agencies, as required.
- Oversees and manages the transport operations with the assistance of Transport-in-charge and ensures provision of convenient, safe, and hassle-free transport to the students and staff as per the college policy and in conformance with J.N.N rules.
- Makes logistic arrangements for College Day, Graduation Day, Traditional Day, FDPs, placements, conferences, Governing Body meetings, Academic Council meetings, faculty selection interviews, Industrial visits, and such other events.
- Liaisons with consulting architects/engineers for translating college's needs into specific requirements.

- Co-ordinate's provision of, and maintains, the campus infrastructure, installations, office equipment like classroom, staff rooms, laboratories, washrooms, electrical installations, RO plants, bore wells, furniture, campus green cover, transport vehicles, telephones, photo copiers, Fax machines, Air conditioners, Computers, Printers, Cash Counting Machines, CC Cameras, Water Coolers etc.
- Manages admission process of students for Category seats and spot admission for unfilled management quota seats for all the programs.
- Ensures campus security and safety of personnel through administering the Agreement with security service providers, comprising monitoring of the work of security staff, enforcing the terms of the agreement, and compliance with the instructions issued by the college from time to time.
- Oversees the functions of Caretaker, responsible for care and upkeep of buildings, grounds, offices etc.
- Monitors CCTV and other surveillance equipment, if any, to guard against vandalism, break-ins and promptly reports such incidents to Principal, and management, and to Police, with proper approvals.
- Oversees canteen services, administers canteen service contract, with the assistance of Canteen committee.
- Co-ordinates response to legal notices, filing of petitions and liaisons with advocates representing the college.
- Co-ordinate's disposition/resolution of individual problems and disputes involving
- Students, staff, faculty, or members of the public as they arise.
- Manages distribution of incoming mails, and dispatch of out-going mails.
- Identifies training needs of office staff and organizes staff development programmers.
- Recruits contingency staff, and drivers in co-ordination with HR department, following proper procedures.
- Carries out periodical shuffling of department and contingency staff across departments/sections, in co-ordination with HOD's/ Sections-in-charge, following proper procedures.

- Monitors fuel efficiency of transport vehicles periodically and takes corrective actions as required.
- Monitors and controls repair and maintenance expenses towards vehicles, furniture, sanitary fittings, plumbing work, etc.
- Keeps an inventory of office equipment and furniture, identifies them with unique asset Nos., co-ordinates annual verification of the assets

6. Controller of Examinations

- Collection of student bio-data from the students.
- Mapping electives from the students for the current semester.
- Activities related to Continuous Internal Assessment of all courses of all programmes.
- Semester End Examinations – Theory and Practical.
- Collection of Practical Examination schedule from the departments.
- Exam schedule preparation for Semester End Examinations.
- Appointment of External Examiners for practical examinations.
- Appointment of Evaluators, Chief Examiners and Chairman for Valuation.
- Approving the payment of remuneration to the question paper setters and the examiners.
- Arrangement for valuation of Semester End Examinations theory scripts.
- Meetings on examination related matters.
- Processing and declaration of results after approval of Governing body
- preparing and sending the semester mark sheets and the cumulative mark sheets to the HOD's and keeps the record
- Recommend to Anna University for the award of degree to the qualified candidates.
- Issue of Duplicate Grade Sheet/ Certificate etc.,
- Addressing grievances of students, faculty and staff on examination related issues

7. Head of the Department

- To take advise/sanction from the Principal for implementation of academic, co-curricular and extracurricular activities.
- Assigns duties to teaching and non-teaching staff of the Department.
- Ensures allocation of workload (teaching load and practical load) to all faculty members and technical non-teaching staff
- To co-ordinate with the teaching and non-teaching staff of the department for smooth function of conduction of academic, co-curricular and extracurricular activities of the department.
- To present the departmental budget/requirement to the Principal.
- To take the lesson plan from the teachers and ensures they follow the plan and syllabi is completed in the stipulated time.
- To ensure smooth conduct of examinations including paper setting, assessment of theory and lab.
- To submit recommendations, if any, to the examination committee for processing of results.
- To ensure purchases and maintenance of stock registers are done properly by the Laboratory Assistant.
- To ensure Quality, Maintenance, and cleanliness of the department.
- To recommend leave of the departmental Colleagues.
- To motivate faculty towards Research Proposals to various research funding agencies such as AICTE, DST, DRDO, etc.
- To encourage research/innovative programs in the department.
- To organize need based workshop/seminars/symposia/visits/excursions etc.
- To invite guest speakers for interaction and guidance to UG/PG students.
- To guide the students for career opportunities.
- To facilitate faculty in the preparation and processing of self-appraisal of performance

- To ensure that college equipment/facilities under the department's control is properly maintained and serviced as required.
- Adherence to the procedures of staff (Teaching and Non-Teaching) of the department/college.
- Coordinating the activities of the department and assisting the Principal of the College.

8. Dean (Academics)

- Deciding the number of sections, batches for each theory and lab. Courses.
- Preparation of time table.
- Launch of new academic programmes, up gradation of existing programme structure, course content, etc.
- Adherence of academic rules by all teaching faculty.
- Regular and effective conduct of classes by teaching faculty.
- Follow up of evaluation system in its true spirit and maintain liaison with Dean (Evaluation & Academic Registration).
- Transparency in Evaluation System.
- Students' Feedback - collection, analysis and proper action.
- Development of human resources teaching and nonteaching technical.
- To prepare the Budget Proposal.
- To participate and contribute in the Committees for which they are ex-official, nominated or elected members.
- Shall work to facilitate and promote quality research in the College, Satellite Campuses and recognized research centers/laboratories.

9. Dean (Research)

- Shall coordinate and facilitate for timely Board of Research Studies meeting in various faculties.

- Ensure a suitable ecosystem for research and development in the institution
- Formulate and amend suitable research policies and practices that are to be followed in the Institution
- Ensure integrity and ethical practices in research activities by facilitating approvals in formal committees
- Equip faculty, research scholars and students through capacity building initiatives.
- Promote and facilitate collaborative and/or interdisciplinary research and enhancement of research networking capacity and infrastructure
- Encourage faculty and students to be involved in research projects and publish papers in indexed journals through incentives and awards
- Facilitate access to grants and funding for research projects through governmental and non-governmental organizations at national and international levels.
- To assist departments in establishing research centers with state-of-the-art equipment.
- Organizing the resources to the HODs and research faculty available in the R&D centers.
- Organizing review meetings on the progress of the research projects and consultancy works once in a quarter and to submit a report to the Dean (R&D).
- Interacting with the HODs in fixing the focus areas of research and consultancy assignments opted by the faculty, breaking the research areas into modules and modules into mini projects and major projects.
- Research and Development Cell, Institution Innovation council and startup Incubation centre would be created which would be function under Dean Research and the Cell would be responsible for timely disposal of all matters, including financial issues related to research projects, fellowships and scholarships.
- Shall recommend to the Principal, recurring and non-recurring expenditure provided under the sanctioned research projects.
- Shall be responsible to sign the Utilization Certificates of research projects and timely submission of utilization certificates to concerned funding agencies.

- Shall provide necessary guidance and encourage teachers/researchers to write research project proposals and suggest incentives/other initiatives to the Principal for the purpose.
- Shall prepare an annual research report and identify the initiatives to be taken for promoting/maintaining quality of the research work.
- In absence of the Principal the Dean Research shall chair the meeting of Committees related to research.
- Shall be responsible for the effective utilization of grants from Central/State agencies for development of research related infrastructure.
- Shall be responsible for timely purchase/procurement of scientific equipment in consultation with Principal

10. Dean (Student Affairs)

- Responsible in campus discipline of the students and coordinate the same with the hostel wardens.
- Chairperson of the Proctorial Committee to prevent ragging.
- Encourage healthy living and lively positive relationships among students and the campus community.
- Plan and organize various co- and extra-curricular activities.
- Analyze placement data to gather an understanding for future trends and articulate needs for institute level planning and budgeting.
- Student's projects- mid tem and final Placement activities.
- Involve faculty members in Pre-Placement Talk, project selection and final placement of students.
- Regularly meet with faculty members to solicit the expertise in placement activities with regard to initializing and planning for future activities.
- Interact with students to keep them informed about the latest market trends and skills demands so that they can update themselves and prepare best for their career.

- Boost up student morale and counsel them before they undergo summer and final placement activities.
- Provide feedback to faculty members on placement opportunities.
- Build relationships with Alumni through seminars, annual meets, etc.
- Act as Institute-Industry interface including publicity, news bulletins, brochures preparation/distribution, etc.
- Plan for accommodation of parents and family members of students during Admission, Convocation, etc.

11. Faculty Members

- Development of course handout material
- Development of audio-visual/multimedia materials for the topic presented
- Prepares and executes Lesson Plan.
- Completing syllabus within the stipulated time.
- Reports to the class on time.
- Utilizes classroom assessment techniques
- Develops test questions in consultation with the Dean Academics
- Evaluates tests (if appropriate, based on type of test)
- In consultation with the Dean Academics, assures that course content allows students to meet outcomes associated with that course
- Be available for student consultation on a regular basis, informing students of their availability for student consultations (both with and without appointments and makes sincere attempt to solve their difficulties (academic and personal counselling)
- Informs Dean Academics within a reasonable time about students' progress and how effectively students are learning.
- Keeps a secure record of each student's results, both electronically and in hard copy,
- Provides data relating to results in assessment tasks/exam events and attendance, if required, to the Dean Academics

- Attends meetings of the course instructors and Dean Academicsto discuss issues affecting learning and other classroom issues
- Attends meetings with the class representatives for the course to obtain feedback
- A faculty shall help the concerned HOD to enforce and maintain discipline amongst the students.
- A faculty shall perform any other co-curricular work related to the College as may be assigned to him from time to time by the concerned HOD.
- Maintain attendance record of students
- Provides information about job opportunities in their respective field to placement cell.
- Guides students on career opportunities.
- Maintain teacher's handbook.
- If associated with the lab,
 - a) designs new experiments, if any,
 - b) prepares lab workbooks/lab manual
 - c) ensures the availability of him/herself in the lab during laboratory periods for explanation, if needed
 - d) ensures availability of equipment needed for the lab in proper functioning
 - e) evaluates lab workbooks and provides feedback to student on timely basis recommends for procurement of equipment if any for the smooth conduct of all experiments,
 - f) keeps the lab clean and tidy
- Ensures quality, maintenance, and cleanliness of the dept.
- Carries out research/innovative programs in the department.
- Organizes need based workshop/seminars/symposia/visits/excursions etc. by coordinating with the concerned HOD
- Invites guest speakers for interaction and guidance with UG/PG students

12. Technical Staff

- Facilitates procurement of hardware, software, and other consumable items well before commencement of the semester. This can be done by visits to other colleges, by contacting teachers who are teaching or have taught similar subjects in our college or other colleges, etc.
- Requisition for consumables shall be submitted to the HOD, who in turn shall verify the same and forward to the Principal for necessary action.
- Ensures that the infrastructure facilities in the labs are adequate so that each batch has ample opportunity to complete practical subjects satisfactorily.
- Prepares lab manuals and arrange to get them printed as per the required number.
- Introduces new experiments, if any that can reinforce the student learning.
- Arranges to display the laboratory schedule
- If it's a computer lab
 - a) Arranges to manage network taps and server capacity and configurations.
 - b) Arranges to manage hardware and software configurations and updates.
 - c) If tests require server or client computer configuration changes, the changes need to be scheduled and communicated to other lab users.
 - d) Makes periodic server backups
- Coordinates periodical testing of equipment
- Develops and monitors the changes in the lab, if any, which defines who is allowed to make changes to the lab environment.
- Maintains lab documentation (such as lab descriptions, diagrams, and processes).
- Establishes physical security.
- The lab i/c takes measures to prevent unauthorized use of lab equipment and manages lab access with keys and locks.
- Sets up an inventory control system.
- Establishes a lab budget for support costs.

- Labels hardware, including cabling.
- Resolves environmental problems, if any.
- Implements a preventative maintenance program for equipment.
- To hold those responsible for any breakage / loss etc. and recover costs.
- In order to prevent theft/damage, the Lab In-charge shall take the following action:
 - a) Lab In-charge and Lab Assistants are to report the matter in writing immediately to the HOD as soon as they come to know about the missing/damaged item in their Lab.
 - b) They also have the responsibility to find out/enquire about the missing/damaged item/article and suggest further action to compensate the loss as well as prevent recurrence of the same.
 - c) Lab Assistants in turn shall note down the missing items in the respective Lab Register.
 - d) If the students are responsible for the loss/missing item, then an amount equal to the cost of the item as fine shall be levied from the concerned students. Students shall not be allowed to purchase and bring the item on their own, as compensation for the loss/missing item.
- Establishes an approval process for removing any equipment.
- Ensuring the lab is kept clean and orderly.
- Any other duty as may be assigned by the HOD/Principal from time to time.
- Ultimately, a lab I/C is responsible for making the lab as usable and flexible as possible.

13. Office Staff

- Taking up dictation and typing work to help the Head/Principal concerned in various ways such as maintenance in a methodical manner all confidential, personal papers, arranging of meetings, conferences, tours, telephone calls, interviews, appointments, and special duties.

- Initiates prompt action on files and proposals and their disposal including promptly putting up notes and files to the higher authorities and maintain all the files and records.
- Initiate various proposals and prepare drafts and submits the same to the higher authorities for consideration and approval in a time bound manner.
- Assists the Head/Principal in drafting letters, putting up items with suitable notes, precedents, etc.
- Maintains inward/outward registers and uses them for sending/receiving all official communication.
- Maintains leave record, permission records of faculty, staff and students as may be applicable
- Informs HOD regarding the faculty who are absent and assists in the adjustment of class work whenever a need arises
- Posts attendance of the students daily, prepares fortnightly attendance reports of the students, sends the same to class advisers/mentors and HOD
- Maintains personal register regarding the appointments etc. if any
- Provides any data and statistical particulars that has been requested by authorities and other sections of the institute and any other agency are to be provided in time
- Assists in holding of meetings, preparation of agenda, drafting the minutes of various committees of the Institute.
- Organizes the work schedule, sorting out routine incoming and outgoing papers promptly, in order of priority and maintaining registers for the same.
- Drafts letters/notes for the officer and handling correspondence independently as and when required.
- Maintains excellent public relations and arranging meetings, if any, as required.
- Summarizes from documents and prepares information for Annual Reports, Newsletter, etc. pertaining to the activities of the department/section.
- Refers/directs callers (in person/telephone)/papers to appropriate persons of the Department/College, as the case may be

- Supervises the work of the sub staff in the department/section.
- Be responsible for the safe custody of all the files in the department/section and maintain strict confidentiality on all matters related to the office work of any nature.
- Enters data, maintains data entered, and backs up data files periodically
- Be aware that the incumbent to the post may be transferred to any other section or department as per the exigency of situation.

14. Department's Coordinator (Placement, Alumni, and Career Guidance)

- Acts as a link between Students, Alumni, and the Placements Cell.
- Provides the list of students eligible for placements from time-to-time to the Placements Cell.
- Keeps close contact with Placements Cell on daily basis for information and circulate the same to concerned students, HOD and others related in the matter.
- Provides Campus Placements Training attendance statements of students undergoing such training to the placements cell, and HOD immediately the next day of the completed training session.
- Highlights the absentees' names along with Roll numbers and provide the same to the Placements Cell and HOD.
- Analyses students' performance in each of the tests conducted as part of Campus Placements Training from time-to-time and share the same with students, HOD, and Placements Cell. Keep a record of the same.
- Provides information regarding the students going abroad for higher education to the Placements Cell from time-to-time so that Placements Cell can update its database that can be shared later with the junior students whenever a need arises.
- Facilitates in up-gradation of the students' skill sets commensurate with the expectations of the industry.
- Interacts with students of parent department regarding any issues and bring the same to the notice of the Placements Cell in written form.

- Provides suggestions in improving the functioning of the Placements Cell may also be given in written form to the Placements Cell.
- Attends all meetings called by Placements Cell and conveys the outcomes of such meetings to the concerned students, and HOD.
- Facilitates printing the material provided for students (testing material, reading material, etc.) by Placements Cell.
- Facilitates Placements Cell in procuring any material that may be of some value addition to the students as suggested by Placements Cell.
- Contacts alumni of the department and finding the various opportunities that may be available to students for internships, placements, etc. in the organization in which alumni is working.
- Contacts alumni and apprises them about the various activities undertaken by the institute.
- Contacts the alumni and requests them to deliver some lectures for the benefit of the department's students (lectures on special topics of relevance, career guidance to students, etc.)
- Contacts the alumni and requests them to attend alumni association meeting conducted from time-to-time.
- Maintains database of the department's alumni and sharing the same with the Placements Cell.
- Keeps close contact with alumni who went for higher education and enquire vis-à-vis their wellbeing and performance and share the same with the HOD, and the Placements Cell. Passes this information to the students concerned on request
- Conduct programmes to give awareness on higher education in Indian and Foreign Universities

15. System Administrator

- Performing systems requirements and related activities pertaining to obtaining quotations for procurement of hardware and software

- Administering and configuring servers and System performance tuning
- Facilitating development and maintenance of institute's websites and updating the same
- Installation and maintenance of software for the systems in the campus including operating system updates, patches, and configuration changes Installing and configuring new hardware and software
- Administering campus wide LAN and Internet services thereby ensuring that the network infrastructure is up and running
- Facilitating conduct of periodic computer awareness/literacy courses/training programs for the students, and other staff in the college
- Identify and help implement installation of ICT and MIS requirements for the institute
- Analysing system logs and identifying potential issues with computer systems.
- Introducing and integrating new technologies into existing data centre environments.
- Performing routine audits of systems and software.
- Performing backup of data and files.
- Adding, removing, or updating user account information, resetting passwords, etc.
- Answering technical queries
- Be responsible for security of systems and network
- Any other work assigned from time to time

16. Training and Placement officer

- Liaisons with industry
- Identifies and provides for training needs of students
- Arranges campus interviews
- Proposes annual Training& Placement budget

- Prepares database of some top international/national companies consisting of their addresses, details of operations, their expectations, their HR team etc. for which services of some students could be utilized.
- Assists students develop/clarify their academic and career interests, and their short and long-term goals through individual counselling and group sessions.
- Assists students develop and implement successful job search strategies.
- Works with faculty members/department Heads and administration to integrate career planning and academic curriculum as well as coordinate Project Work/ Summer Training/internship programs.
- Prepares an audio-video presentation or a colorful hand-out on the college to be presented before potential employers.
- Compiles and maintains a data bank on student profiles and resumes along with their photographs.
- Prepares a placement brochure having all the student profiles.
- Undertakes a rigorous placement campaign.
- Assists employers achieve their hiring goals.
- Empowers students with life-long career decision-making skills.
- Provides resources and activities to facilitate the career planning process.
- Acts as a link between students, alumni, and the employment community
- Up gradation of the students' skill sets commensurate with the expectations of the industry.
- Generation of awareness in the students regarding future career options available to them.
- Assists different companies in recruiting candidates as per their requirements.
- Assists students in obtaining final placement in reputed companies.
- Keeps track of all the advertisements related to placements appropriate to the profiles of aspirants.
- Communicates the resume of suitable candidates to the potential employers.

- Provides right placement to the right candidate so that students excel in their future life.
- Organizes placement training for the students and make them ready for interview and group discussion.
- Shall be a live wire connecting the students and the industrial houses.
- Arranges to find suitable summer assignments to the students and help, guide, and counsel them in securing permanent placement by bringing them in contact with the prospective employers.
- Provides information on the schedule of recruitment drives well in advance to all department's placements coordinator, HOD's, Principal, and students.
- Places request for resources required well in advance and coordinates with the concerned and ensures availability of the same
- Details of placed candidate's vis-a-vis the companies are sent to all HOD's, departments' placement coordinators, Students, immediately after the recruitment drive is completed and placements announced
- Sends hard copies of all appointment orders of students recruited to the concerned HOD

17. Librarian

- To facilitate the students, faculty, and staff with all the literature that may be needed for their scholarly activities.
- To manage library as well as digital library of the college.
- Arranges to prepare the library budget and policies relating to the library/Digital library.
- To encourage widespread usage of available information access facilities.
- To be continuously in touch with the students and faculty to understand/assess their needs of Books/ Journals /Magazines /CDs etc. and apprise the Principal, Academics about the same for procurement

- Ensures procurement of books, CD-ROMs, Software, Journals etc., which are essential and/or recommended by the faculty.
- Provides URL links/resources for information on various study material
- Weeding out obsolete study material as per the college norms
- Disposal of weeded out material
- Ensures availability of reprographic facilities at library
- Maintaining the books in good condition
- Seeks reviews on books recommended
- Seeks suggestions/feedback from the students.
- Provides digital library access.
- Establishes specialized search facilities for faculty's teaching and research needs.
- Establishes a repository of cases and keeps adding new cases on a continuous basis.
- Provides adequate access and borrowing facilities to faculty pursuing Doctoral program.
- Provides content page service.
- Encourages use of smart card for library services.
- Facilitates conduct of reading sessions.
- Organizes various functions and activities such as library week or to install clubs such as reading club essentially to develop a very interactive and vibrant reading culture among the students, faculty, and staff.
- Plans in the library for hooking up laptops.
- Develops a system for posting new additions online.
- Any other work related to library that may be assigned from time to time.
- Ensures availability of previous years question papers (semester end examination), lab manual, syllabus copies, thesis/dissertation reports
- Coordinates with departmental library in-charge for smooth functioning of department's library

- Provides all statistical information pertaining to the library

18. Physical Director

- Reports to Principal about Students' participation and achievements in sports activities
- Ensures smooth conduct of sports
- Ensures proper use of sports material and facilities
- Purchase of sport items by coordinating with AO
- Encourages students to participate in zonal/university tournaments
- Creation and upkeep of sports facilities
- Proposing annual budget for sports
- Ensures discipline among students in campus
- Ensures NO Ragging activity takes place
- Oversees medical facilities on campus
- Organizes training camps, if any, and report the same to office of HOD's, Students, with a copy forwarded to Principal on monthly basis
- Helps in the organization of various events in the college

19. Hostel Warden

- Received Instructions from Chief Warden/Principal and deliver it to the students
- Assists Principal (Chief Warden) in all the hostel related activities.
- Responsible for allotment of rooms to the students.
- Responsible for maintenance for Hostel.
- Looks after the quality of food served in the hostels.
- Keeps strict discipline in incoming and outgoing of students from the hostels.
- Reports to the Principal in case of any indiscipline or misbehaviour by the students.
- Looks into the grievances/complaints of the students if found genuine.

20. Faculty Advisor/Mentor

- Be familiar with the personal history of assigned student including Educational and Family background.
- Attempts should be made to determine the reason for the student's problem, counsel, and provide guidance to the student to correct the problem and recommend a remedial program, if necessary.
- Assists student in periodic evaluation of his/her academic progress.
- Assists student in initial exploration of long range occupational and professional plans, referring him/her to sources for specialized assistance.
- Explains to the student the program in general and basic education as it relates to the branch of the student, and to preparation for life pursuits generally.
- Helps student understand and examine the graduation requirements for the curriculum leading to the Bachelor's degree.
- Explains student importance of attendance and its implication to do well in examinations
- Explains importance of participation in the class activities
- Explains importance of Internal Assessment Test and its consequence in the end semester examinations
- Explains importance of marks in the previous semester examination and its consequence in the later part of the degree and subsequently in career as well
- Explains importance of submission of assignments and its consequence on the performance of Internal Assessment Test and End semester examinations
- Explains importance of laboratory exercises and their correlation with theory
- Helps the student explore the career fields in the student's branch of engineering and provides information about Higher education and job opportunities.
- Serves as a "Teacher Friend" to the student by demonstrating a personal interest in him / her and in his / her adjustment to college; by serving as a central contact person in obtaining information that can be used to help the student; and by allowing the

student freedom to make his own choices after the limitations, alternatives, and consequences involved in deciding.

- Explains importance of getting a meritorious Engineering Degree and how the degree helps in building a career in other areas and programs such as M.S/M. Tech, MBA, Civil Services, Group Services, etc.
- Assembles, organizes, channels, and centralizes all information, observations, and reports from every source related to his student's progress, needs, abilities, and plans
- Assists the student at regular intervals to make adequate Mentor manual
- Explains importance of Self-Motivation to do well in career and subsequently in life.
- Counsel's students whose progress is unsatisfactory and reports the same to HOD
- Monitors the interim whenever required.

21. Maintenance Officer

- Responsible for quality control and technical support of the reactive repairs services, annual servicing, maintenance and stock improvement works of the Association.
- Co-ordinate void property repair, medical alteration and insurance repair works.
- Provide technical support to co-workers, Maintenance Manager and Technical Management to improve and develop the organisations Technical services.
- Contribute to the organisations Asset Management Strategy by carrying out stock condition inspections.
- Through traditional and modern techniques communicate with contractors, residents and co-workers on progress and issues relating to reactive repairs, maintenance and stock improvement works.
- Carry out any other duties to meet the needs of the business.
- Inspect and report on void related works e.g. tenant transfers and terminations, void repairs and post work inspections. Liaise with tenants, staff and contractors accordingly.

- Inspect, authorize and advise on alterations/improvements for tenants Respond to and resolve property insurance claims, including inspecting and directing works after major/minor fire or flood damage.
- Ensure compliance with Abertay standard specifications.
- Resolve quality or specification problems on repairs, voids, etc.
- Resolve and/or recommend changes to specifications or quality issues on reactive repairs, insurance, medical, void or other maintenance works.
- Record issues and progress of issues in appropriate database (Microsoft Excel, SDM and Keystone).

22. Finance Manager

- Forecasting and planning: The financial manager needs to be aware of the current market trends and should be able to assume the future too.
- Finance Manager needs to interact with other executives and lay the business plans carefully, shaping the future of the organisation
- Coordination and control: Finance Manager should exhibit proper coordination with other departments and control the overall organization financially.
- Finance Manager needs to consider all the decisions and activities of the organization and integrate them into his financial planning.
- Raising of funds: An organization will need enough cash and liquidity to meet all its obligations. It can raise funds in the form of debt or equity.
- A financial manager needs to tactfully decide the ratio between equity and debt. Maintaining this ratio is quite necessary.
- Allocation of funds: After raising funds through various channels, it is necessary to allocate the funds properly. While allocating the funds, the finance should be used in an optimum manner.

23. Accounts Officer

- Writing and maintaining accounts, cash books / ledgers

- Preparation of monthly accounts including writing of cash books, journals
- Verifying bills prepared
- Preparation and consolidation of budgets pertaining to all departments/sections/centres
- Cash collection
- Supervision of challan writing and remittance to bank
- Supervision of postal accounts if any
- Preparation of daily receipts and challans and submission of associated details along with remittance details to Principal for scrutiny Verification of cheques and bills
- Writing daily collection register for college accounts.
- Writing demand draft register, and other forms of money value register
- Preparation of audit reports and replies
- Preparation of salary reports
- Preparation of acquittance register and obtaining signatures of all employees
- Attending to the subject of income tax, and performing TDS at source for all payment transactions
- Writing Caution deposit register if any
- Any other accounts related function assigned from time to time

IV Service rules, Procedures, Recruitment and Promotional Policies

Human Resource Planning

- The Principal shall assess in the month of April every year, the staff requirement for the subsequent academic year.
- He will obtain the staff requirement lists from all the Heads of department and arrive at the number of faculty members and Lab assistants required with the following guidelines in mind.
- He will consider appointing a professor to be the Head of every discipline, besides the number of Assistant Professors required in accordance with the teacher student ratio prescribed herein.
- The teacher student ratio shall be 1:20 and for this purpose the Professor shall also be included in counting the number of teachers.
- He will appoint a selection committee for recruitment in each discipline, composed of the Principal, HOD, and the Department's Advisors/Experts from the neighboring institutions.

Recruitment

- In general, the following recruitment procedure is adopted. In April every Academic Year, the department wise faculty and staff requirement are calculated and HODs submit the required faculty and staff details. The faculty requirements are calculated based on AICTE & AU norms and workload.
- The Principal reviews the details submitted by HOD and final requirements of faculty and staff are finalized
- The faculty & staff requirements are submitted to the management and permission for recruitment is obtained.
- Wanted Advertisement is given in leading English daily and Tamil daily (if required) with last date for applying. Faculty/staff wanted details are displayed in the college website, as well.
- After the last date, HOD and Principal screen the applications received. In general, applicants are called for interview on the specified date in the 1: 3 ratios.

- The Staff Selection Committee (SSC) will interview the applicants. The composition of the SSC is as follows:
 - i. The Principal
 - ii. HOD of the concerned department
 - iii. 1 or 2 senior faculty of the department
 - iv. External experts (if management decides)
- Based on the approval of the Management, the Principal issues the appointment order.
- The advertisement will be released in April / May and appointment process is completed in May / June and newly recruited faculty will join in June / July.
- If there is any vacancy arises during the middle of the Academic Year, the Chairman, Principal and the HOD of the concerned department complete the recruitment of the faculty / staff.
- In case of college side supporting staff, similar procedure is followed up to the interview stage. The Chairman of the trust, Principal and the concerned department HOD conducts the selection interview.
- In case of Administrative, Maintenance, Hostel and Transport department supporting staff, the Administrative Officer carries out the staff selection.
- The interview is conducted and faculty and staff are selected by the SSC. The Principal decides the pay scale and pay by mutual discussion with the candidate. The final faculty and staff shortlisted for appointment is submitted to the management for approval.

Orientation

The new incumbents are inducted to the concerned departments where they are familiarized to the people, process and practices in order to orient them towards the work culture of JNNIE.

- To make them familiar with the other co staff members, the new recruits are introduced by the Management to all the members of the Institution at a gathering

- The Management of JNNIE strongly believes that continuous updating of knowledge and technology is the hallmark of a teacher. To meet this need, the Institution encourages the departments to organize FDP (Faculty Development Program) for the benefit of its faculty and lends support when the faculty wants to attend FDP in other reputed institutions. Besides FDP, research publications, too, are appreciated and given due weightage by including these components in the performance evaluation.

Salaries, Incentives

Positions and Pay Scales

- The college will have the following positions of Hierarchy in the teaching departments: Principal, Professors, Associate Professors, and Assistant Professors.
- HODs appointment should decide by the Management.
- In addition, each department shall support staff like programmers, Lab assistants.
- The college office will have the following positions of hierarchy in the administrative department: PA to Principal, Accountant, office supporting staff and office Assistants.
- The Scales of pay for various teaching positions will be as follows:
- Principal and Special Positions Pay as per AICTE norms, commensurate with the qualifications and experience.
- Professor- Rs. 37,400-67,000 Grade pay 10,000
- Associate Professor-Rs. 37,400-67,000 Grade pay 9,000
- Assistant Professor-Rs. 15,600-39,100 Grade pay 6,000.

Leave Provisions

- Holidays observed by the Central and State Governments would be observed by the organization as a whole.
- Faculty/Staff are entitled for 12 days of Casual Leave (CL) and 8 days of Medical Leave (ML) each academic year. Medical Leave can also be taken as Casual Leave.

- Faculty/Staff can only take leave with the approval of the HOD and Principal, and only after proper alternative arrangements have been made. Only in the event of an emergency, Faculty will take leave, informing over the phone.
- Faculty can take Maternity leave for six months.
- Faculty members and staff will request one hour of time off twice a month.
- Leaves cannot be accrued and carried on to the next academic year.

Vacation

- Teaching staff are normally eligible for four weeks' vacation per academic year, one week in winter and three weeks in the summer or four weeks in summer.
- Non-teaching staff are normally eligible for 10-days' vacation per year.
- The Principal has the right to prevent any staff member from availing a portion or the whole of vacation if the services of the particular individual are considered essential.
- Only staff members who have completed 6 months of service, as on the date of commencement of the vacation period, are entitled for full vacation Proportionate
- No leave can be combined with the vacation. The staff member should be present on the last working day before the vacation and also on the first working day after the vacation to become eligible to draw the vacation salary.
- Personal On-Duties / leave will not be adjusted in the vacation in general. However, Principal may permit based on genuine needs (like serious health issues, marriage)

On-Duty Provisions

- On-Duty (OD) permission can be availed for official work, Career Development Programs (FDP, Conferences, Workshops, Research Work, Coursework examinations, STTP and others), and Anna University Examination Duty.
- Prior permission from the HOD and Principal with proper alternate arrangement is essential.

- A faculty can avail OD up to 10 working days per semester including university examinations related works. Based on special requests from University, Principal can permit the faculty additionally.
- In general, faculty shall not be eligible for OD for the examination related works of other universities.

Promotion Policy

- All promotions shall be considered based on merit - cum- seniority basis.
- Staff is eligible for promotion only after completion of one year of service in the Institution.
- Person entering the teaching profession with PG Degree shall be designated as Assistant Professor and shall be placed in the Pay Band of 15600 with AGP of 6000. Promotion of Faculty members to next level as per AICTE guidelines for Associate Professor and Professor.

Performance Appraisal

The objectives of performance appraisal of our institution are as follows:

- Provide feedback of the employees on their performance.
- Assessment of Training needs.
- Compensation (Increment) decisions.
- Bench mark for Promotions.
- Personal development of the employee.

The HR team will be responsible for the performance appraisal process, which will also provide guidance on conducting appraisals, will coordinate timely execution on the same. HR also imparts skill to concerned evaluators for executing on an objective on impartial basis. All performance appraisal evaluations are monitored by concerned Heads of the department (HODs). The evaluation scores are used to determine the annual increment and their promotions.

10.1.3 Decentralization in working and grievance redressal mechanism (10)

List the names of the faculty members who have been delegated powers for taking administrative decisions. Mention details in respect of decentralization in working. Specify the mechanism and composition of grievance redressal cell including Anti Ragging Committee & Sexual Harassment Committee

Decentralization in Working

The Institution encourages and motivates the culture of decentralization and participative management. The faculty members involve themselves in administrative roles and manage responsibilities by taking the roles such as Heads of the Departments, Faculty in-charges etc. They associate themselves with various committees namely Disciplinary committee, Class Committee, Grievance Redressal Committee, Internal Compliance Committee ICC, Internal Quality Assurance Cell and many more. The faculty members are actively involved in driving a change through the Mission of the Institution in order to identify and design the road map to attain the Vision of the Institution.

J.N.N Institute of Engineering is committed to address grievances of all stakeholders through a transparent Grievance Redressal Process. Students/Parents/Faculty can submit their grievances online through the following link:

<https://www.jnn.edu.in/committees-grievance-redressal-committee/>

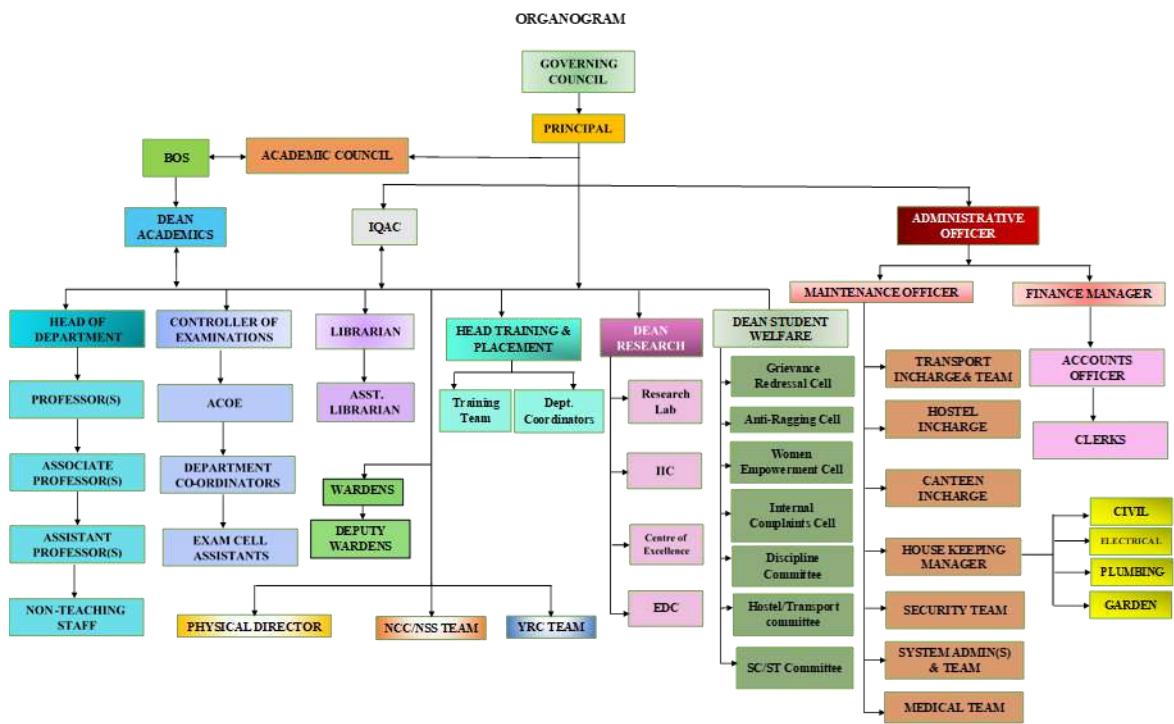


Fig. 10.1.3.1 Organogram of the Institution-Decentralization of Authority

Principal and Heads of the Department

S.No	Names	Designation
1	Dr. K. Ganesan	Principal
2	Dr. N. Venkatesvara Rao	HOD/CSE
3	Dr. D. Joseph Jeyakumar	HOD/ECE
4	Mr. P.G. Seetharam	HOD/Agricultural Engineering
5	Dr. T.Dinesh	HOD/Robotics and Automation
6	Mr. G.Ashok	HOD/Biomedical Engineering
7	Dr. P.G Kuppusamy	HOD/Artificial Intelligence and Data Science
8	Dr. S.Shalini	Coordinator/Science and Humanities
9	Dr. P.Yasodha	HOD/MBA

Other Academic Heads

S.No	Names	Designation
1	Mr. C.R.Ravisanker	Administrative Officer
2	Dr. T.Dinesh	Controller of Examinations
3	Mr. G.Ashok	Dean (Academics)
4	Dr. N.Swaminathan	Dean (Research)
5	Dr. D.Joseph Jeyakumar	Dean (Student Affairs)
6	Dr. N.Venkatesvara Rao	IQAC Coordinator
7	Dr. K. Ayisha Begam	Placement Officer
8	Mrs. P.Meena Priya Dharshini	Librarian
9	Mrs. Durgadevi	Finance Manager
10	Mr. P.G.Seetharam	Maintenance Officer

Grievance redressal Mechanism

The Institutional Complaint Management Mechanism operates across three tiers within the institution:

- At the departmental level, grievances are addressed by the respective class Coordinators, Counselors, and Department Heads. They play an essential role in managing concerns specific to their departments
- To facilitate the resolution of grievances at the department level, student coordinators and staff coordinators within the grievance redressal cell act as intermediaries. They assist in communication and the initial sorting of grievances.
- If grievances remain unresolved at the departmental level, they are then escalated to the Grievance Redressal Cell of the institution, which deals with more complex or persistent issues.
- Additionally, the institution maintains transparency and accountability by regularly reporting the status of grievances. A monthly Status Report, detailing the number of

grievances received, resolved, and pending as of the last day of the previous month, is submitted to AICTE through the online feedback report on the AICTE web portal. Furthermore, to inform students and staff about the online Grievance Redressal Mechanisms, the institution displays relevant details near the office. This information includes the URL of the online Grievance Redressal Portal (<https://www.jnn.edu.in/committees-grievance-redressal-committee/>) and contact information, such as names, contact numbers, and email IDs of the Grievance Committee members.

- For any grievances, individuals can contact the Grievance Redressal Committee via email at grc@jnn.edu.in.

The Grievance Redressal Protocol outlines the steps followed in the grievance resolution process:

- Registration of grievances through email, in-person submission to GRC or Department Coordinators, or via the online registration system.
- Immediate acknowledgment of grievance receipt.
- Forwarding the grievance to the Grievance Redressal Cell for further action.
- Scrutiny of the redressal process by reviewing the grievances.
- If a resolution is not satisfactory within a stipulated time, a hearing or inquiry may be initiated.
- If necessary, the grievance may be forwarded to the student counselor.
- The final resolution or decision is reached by the grievance redressal committee.
- Communication of the final decision to both parties involved.
- Closure of the grievance and preparation of a report.
- Continuous feedback collection for the improvement of the redressal process.

Grievance Redressal Cell (For students)

Name of the Cell / Committee:	Grievance Redressal Cell	
Core Activity	- Grievances of students, if any, are brought to the notice of the Head of the institution, and the issues are amicably and promptly solved. - The college management is also considerate about any issues that might need their attention and intervention. - Suggestion boxes are kept in the campus in which the stakeholders can put their grievances/complaints. The authority will go through the same and tries to solve if possible and it will be treated with confidentiality. - The Grievance Redressal Cell intends to find solutions for problems like any kind of physical or mental harassment, complaints regarding class room teaching, classroom management, completion of syllabus, teaching methods etc. - Any grievance/complaint received by the stakeholders is discussed by the grievance redressal committee to arrive at a concrete solution	
Chair Person	Dr. K.Ganesan, Principal	
Anna University Representative	Dr. P.Nirmal Kumar, Prof ECE, CEG Campus Anna University, Chennai-600025	
Members	Dr. D. Joseph Jeyakumar/HOD-ECE Mr. J.Thamilarasan/AP-R&A Mr. A.Iyyanarappan/AP-CSE Dr. B.Anand Kumar /ECE Mr. M.Murali/AP- BME Mr. J.Vijay Anand, AP-ECE	Mrs. V.Tharakeswari, AP- S & H Mrs. N.Malathy, AP/ECE Mrs. K.Vanishree,AP-CSE Ms. V.Kavitha/AP-AE Ms. L.Jain Caroline, Girls Hostel Warden
Student Members	Ms. R.Sharmila, IV ECE	

	Ms. Palem Kota Bharath, IV CSE Ms. B.Kousika, IV AGRI
Periodicity of the Meeting	Twice in a year/as when required

Anti-Ragging Committee

Name of the Cell / Committee:	Anti-Ragging Committee
Core Activity	▪ Anti-Ragging Committee Student members assist the institution in implementing rigid anti-ragging measures so that the institution becomes ragging-free campus ▪ Faculty members for monitoring the premises, includes hostels, food court, parking places, different buildings, play grounds, buses etc. where students assemble and meet one another. ▪ Disseminate about anti-ragging in the forms of circulars, flexes, posters and displaying boards and in and around college premises.
Chair Person	Dr. K.Ganesan, Principal
Members	Mr. S.Madhiarasan, Member – Police Inspector Ms. P.Lakshmi, Member - VAO Ms. Esther, Member - Official of NGO Mr. S.Lingam-Transport in-charge Mr. Vijayan, Canteen Manager Mr. D.Sivasubramaniyan, Parent Mr. Selva Kumar, Technical Assistant
Squad Members	Mr. M.Murali AP/BME Mr. P.G.Seetharam HOD/Agri Mr. M. Mariselvam AP/ECE

	Mrs. D.Shanthini AP/S&H
Student Members	Ms. Pavithra Easwari, IV CSE Mr. Atla Srinath- III ECE
Frequency of the Meeting	Once in a year/as when required

Internal Compliance Committee

Name of the Cell /Committee	Internal Compliance Committee
Core Activity	▪ To set forth the expectations of conduct and mutual respect regarding sexual harassment and the process of complaint if these expectations are not met or violated. ▪ This will create awareness on what sexual harassment is and how to deal with the conduct if it arises, to articulate the organization’s strong opposition to sexual harassment, and to identify penalties that can be imposed for such prohibited conduct. ▪ To establish clearly that this institution is committed to providing a work environment that is free from discrimination and harassment in any form
Chairperson	Mrs. P.B.Smitha/ECE
Law Support	C. Vijaya Lakshmi M.A., B.L, Advocate, Kolathur
Members- Faculty	Mrs. Soumya,AP/ECE Ms. N.Malathy, AP/ECE Ms. L.Jaincaroline, AP/ S & H Ms. V.Kavitha, AP/AGRI

	Mr.P.G.Seetharam HOD/ AGRI
Members- Student	Mr. Palem Kota Bharath- IV CSE Ms. Ysaswini,- IV CSE Ms. L.Sangeetha-IV ECE Ms. HaydenPaul,IV AI & DS Ms. Dhanalakshmi, IV BME
Frequency of the Meeting	Twice in a year/as when required

Empowerment Cell

Name of the Cell /Committee:	Women Empowerment Cell
Core Activity	▪ To prevent sexual harassment and to promote general well-being of female students, teaching and non-teaching women staff of the College. ▪ To resolve issues pertaining to girls’/women's sexual harassment. ▪ To Women's Grievance Redressal Cell has been formed to resolve issues. ▪ To equip the female students, faculty and staff members with knowledge of their legal rights. ▪ To safeguard the rights of female students, faculty and staff members. ▪ To provide a platform for listening to complaints and redressal of grievances. ▪ To incorporate hygiene habits and ensure a healthy atmosphere in and

	around the college
Chair Person	Dr. K.Ganesan, Principal
Convener	Dr. P.Yasodha HOD/MBA
Members- Faculty	Mrs. Karpagam G, AP-ECE Mrs.S. Sowmya, AP/ECE Ms. S.Jenefar, AP/AGRI Mrs. G.GnancySubha, AP- BME
Student Members	Ms. Genji Nagarathnamma, IV CSE Ms. M.Kaviya –IV AGRI Ms. Sangavi – III R&A Ms. Gracy, IV BME
Frequency of the Meeting	Once in a Semester or as when required



J·N·N
**INSTITUTE OF
ENGINEERING**

An ISO 9001:2015 Certified Institution

Approved by AICTE New Delhi | Affiliated to Anna University, Chennai
90, Ushaa Garden, Kannigaipair, Chennai - Periyapalayam Highway, Tiruvallur, TN 601102.
Tel: 044-27629613 / 9600057121, E-mail: info@jnn.edu.in, www.jnn.edu.in

Grievance Redressal Committee

Academic Year 2021-2022/Odd Semester

Minutes of Meeting

Date: 26/10/2021

Time: 11:30 am

**Venue: Seminar Hall Ground
Floor AAB Block**

Members Present

Redressal Committee Members for Boys

SLNo.	Name	Present Designation / Department	Position
1	Dr. D. Joseph Jeyakumar	HOD - ECE	Senior Faculty
2	Mr. A. Ramachandran	AP – Mechanical Engineering	Senior Faculty
3	Mr. S. Basilahamed	AP – Civil Engineering	Senior Faculty
4	Dr. K. Somasundaram	AP – CSE	Senior Faculty
5	Mr. G. Ashok	ASP – ECE	Transport Incharge
6	Mr. Pelluru Vamsi,	IV Year Mechanical	Student

Redressal Committee Members for Girls

SLNo.	Name	Designation/ Dept.	Position
1	Ms. V. Tharakeswari	ASP- S & H	Senior Faculty
2	Ms. N. Malathy	AP - ECE	Senior Faculty
3	Ms. R. Nithya	AP – ECE	Senior Faculty
4	Ms. T. Sangeetha	AP – CSE	Senior Faculty
5	Ms. V. Kavitha	AP – Civil Engineering	Senior Faculty
6	Ms. L. Jain Caroline	AP- S & H	Deputy Warden, Girls Hostel
7	Ms. Loganandhini	III ECE	Student



J·N·N
**INSTITUTE OF
ENGINEERING**

An ISO 9001:2015 Certified Institution

Approved by AICTE New Delhi | Affiliated to Anna University, Chennai
90, Ushaa Garden, Kannigaipair, Chennai - Periyapalayam Highway, Tiruvallur, TN 601102.

Tel: 044-27629613 / 9600057121, E-mail: info@jnn.edu.in, www.jnn.edu.in

Minutes

S.No	Grievances	Received Through	Actions Taken
1	Need more mentor classes	Class Committee Meeting	All Department HOD instructed to arrange periodical mentor classes
2	Need Additional Lab Classes	Class Committee Meeting	All HODs are asked to arrange special lab Sessions for Students
3	Bus Transport to nearest points	Class Committee Meeting	Informed Transport In charge to arrange the buses to nearest stop points



Copy to

1. The Chairman
2. Members of Grievance Redressal Committee
3. All HODs

A. V. Mayakannan
Principal

Dr. A.V. MAYAKANNAN, M.E. Ph.D.
PRINCIPAL
J.N.N INSTITUTE OF ENGINEERING
90, Ushaa Garden, Kannigaipair,
Chennai - Periyapalayam Highway,
Tiruvallur Dist - 601 102.



An ISO 9001:2015 Certified Institution

Approved by AICTE New Delhi | Affiliated to Anna University, Chennai
90, Ushaa Garden, Kannigaipair, Chennai - Periyapalayam Highway, Tiruvallur, TN 601102.
Tel: 044-27629613 / 9600057121, E-mail: info@jnn.edu.in, www.jnn.edu.in

Prevention of Sexual Harassment Committee

Academic Year 2021-2022/Odd semester

Date: 13/10/2021

Time: 2:00 pm

Venue: Seminar Hall Ground

Floor AAB Block

Subject: The meeting for the PSHC was conducted on 13/10/2021 with the following members

Sr.No.	Name of Member	Position	Category
1	Dr. P. Subhashini	Chairperson	Professor/ CSE
2	Ms. R. Chandralekha	Internal Member	AP/ ECE
3	Ms. N. Malathy	Internal Member	AP/ ECE
4	Ms. S.D. Poojaa	Internal Member	AP/ S & H
5	Ms. U. Monica	Internal Member	AP/ Civil Engineering
6	Ms. Gayathri	Student Member	IV Year CSE
7	Ms. Genji Nagarathnamma	Student Member	II CSE
8	Ms. Devipriya	Student Member	III Year ECE
9	Ms. Reeta	Student Member	II Year AI & DS
10	Ms. Kowsalya	Student Member	II Year BME

Report of the Meeting:

- This meeting was conducted to monitor activities regarding PSHC for the odd semester 2021-2022. The meeting started at 12.00 pm and members in the meeting expressed various awareness program for the safety of woman faculty and female students in the college.

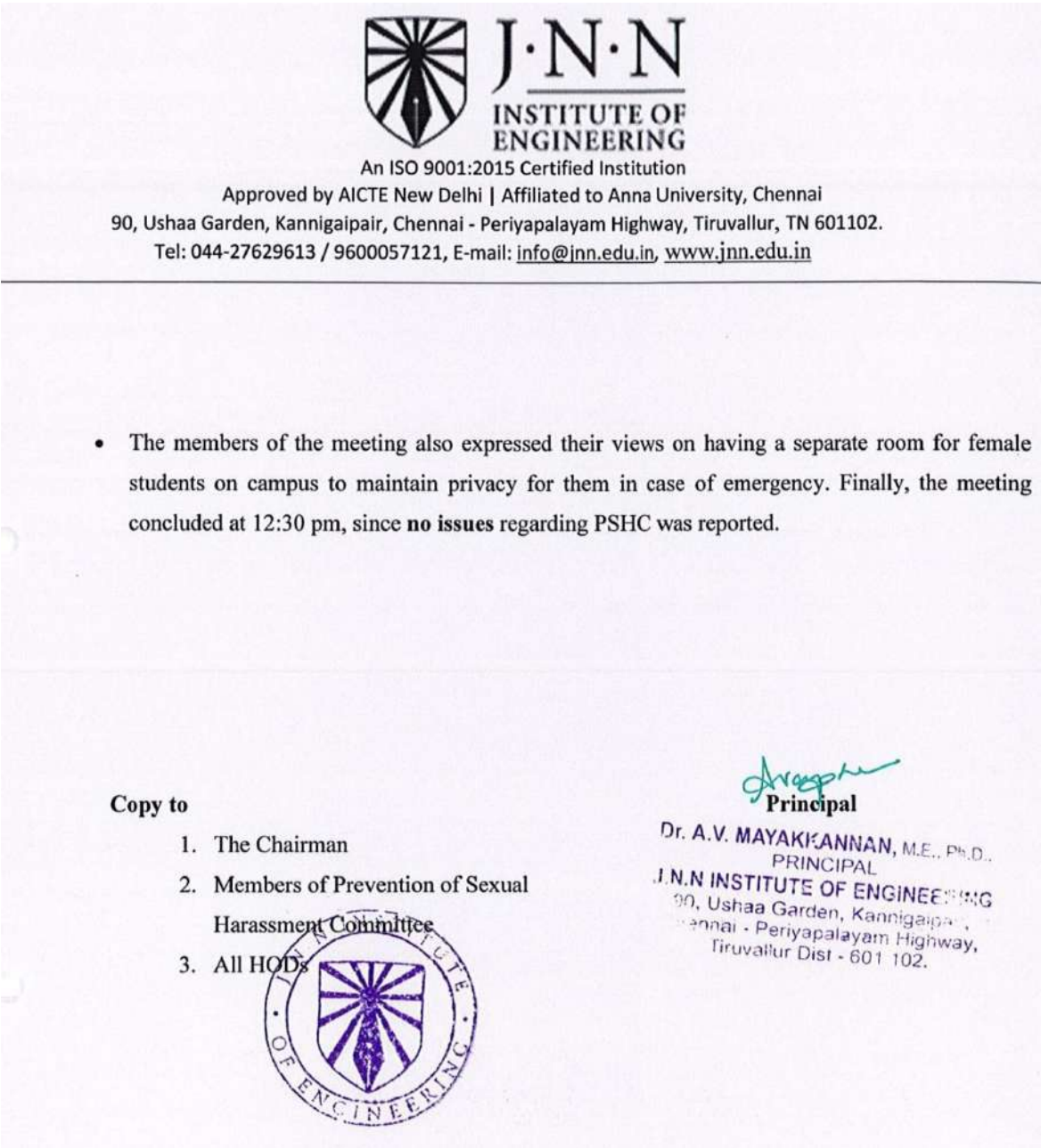


Fig. 10.1.3.2 Sexual Harassment Committee-Minutes of Meeting

10.1.4 Delegation of financial powers (10)

Institution should explicitly mention financial powers delegated to the Principal, Heads of Departments and relevant in-charges of workshops and laboratories. Demonstrate the utilization of financial powers for each year of the assessment years.

The Principal of the institution have complete financial powers pertaining to the college.

- The Principal is empowered to sanction the requisite amount of money after getting approval from the management committee.
- The HODs are delegated to use Rs 5,000 contingency in emergency purchases and repairs for the smooth running of the department.
- Annual Budget for the institution is prepared at the beginning of the year, by considering the possible income and expenditure involved. It is approved in the GB meeting.
- The HOD is the in-charge for the equipment and stores attached to the department concerned
- HOD prepares the lists of items of stores to be replenished at periodical intervals and arrange for the purchase of stores.
- Institution purchase committee carefully scrutinizes and allocates required funds to each department after acquiring proposals from all the departments regarding their requirements for the academic year.
- Purchase Committee: The Purchase Committee will consist of the following Members:
 1. Purchase Officer – Coordinator
 2. HOD – Member
- The Purchase Committee will go through the quotes and recommendations of the user and advise the concerned HOD. The concerned HOD will forward the recommendations of the Purchase Committee along with remarks to the Principal.
- The Principal will scrutinize the comparative statement and give his remarks and send the fill back to the concerned department. The HOD shall take copies of the comparative statement and the quotations and send the originals to Purchase Department for further action.
- The Principal will place order.
- Vouchers support all transactions. All bills/invoices/vouchers are scrutinized by

account staff and approved by the administrative officer.

- The bill payments are passed after ensuring proper verification/evaluation of the items. Only duly authorized persons to operate the transactions through the bank
- Audited financial statements including Income and Expenditure Account, Balance Sheet etc. are prepared by qualified auditors and submitted to banks and other regulatory

Table 10.1.4.1 Delegation of Financial Powers

Designation	Power of Sanction
Principal	Up to Rs.25,000
Dean	Up to Rs.10,000
HOD	Up to Rs. 5,000

10.1.5 Transparency and Availability of Correct/Unambiguous Information in Public Domain (5)

(Information on policies, rules, processes and dissemination of this information to stakeholders is to be made available on the website)

- The Vision, Mission and objectives of the institution are displayed in the College campus at Notice boards, Department Notice boards, Canteen, Hostel building, library and other prime locations to engross the attention of all students, faculty, staff and visitors. The same is also communicated through college website and Newsletter to all the stakeholders for wide publicity.
- The web-site of the institution publishes the information pertaining to the institute and programs for circulation to stakeholders and the general public.
- The Quality policies of the institution are available on college web-site for information and dissemination.

- Annual audited reports are published and available to the stakeholders and public in the college website.
- Notices or Circulars concerned to students are circulated in the class rooms and displayed on the notice boards.
- Circulars or notifications from the university regarding academic matters are sent to all the Heads of the departments and circulated among the faculty members and students.
- The institution is transparent in providing timely information to its staff enabling better connectivity and proficiency in day-to-day academic and administrative works.
- Regular class work schedule & examination schedule and lecture schedule are displayed on notice boards.
- Marks in internal exams & attendance particulars are displayed in Camu
- Regularly we intimate to parents/ guardian regarding the attendance and academic progress of their wards.
- Question bank and other lecture notes are given to students and uploaded in Camu for their future reference
- Grievances are collected from the college website <https://www.jnn.edu.in/committees-grievance-redressal-committee/>
- The events and the activities conducted in the college has been posted in Social media

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30)

Summary of current financial year’s budget and actual expenditure incurred (for the institution exclusively) in the three previous financial years.

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

For CFY 2023-24

Table B.10.2a (i)

Total Income: 10,82,84,740				Provisional Expenditure (till Mar 2024): 8,71,51,146			Total No. of students:1067
Fee	Govt.	Grant(s)	Other Sources (specify)	Recurring including Salaries	Non-recurring	Special Projects/Any other, specify	Expenditure Per student
10,82,84,740	-	-	-	7,91,78,386	79,72,760	0	81,678.67

For CFYm1 2022-23

Table B.10.2a (ii)

Total Income: 8,65,01,000				Provisional Expenditure (till Mar 2023): 6,31,47,470			Total No. of students:925
Fee	Govt.	Grant(s)	Other Sources (specify)	Recurring including Salaries	Non-recurring	Special Projects/Any other, specify	Expenditure Per student
8,65,01,000	-	-	-	5,89,06,170	42,41,300	-	68,267.54

For CFYm2 2021-22

Table B.10.2a (iii)

Total Income: 8,64,00,275				Actual Expenditure: 5,96,77,419			Total No. of students: 863
Fee	Govt.	Grant(s)	Other Sources (specify)	Recurring including Salaries	Non-recurring	Special Projects/Any other, specify	Expenditure Per student
8,64,00,275	-	-	-	5,70,96,819	25,80,600	-	69,151.12

For CFY m3 – 2020-21

Table B.10.2a (iv)

Total Income:8,34,30,177				Actual Expenditure: 5,41,81,435			Total No. of students: 802
Fee	Govt.	Grant(s)	Other Sources (specify)	Recurring including Salaries	Non-recurring	Special Projects/Any other, specify	Expenditure Per student
8,34,26,262	0	0	3,915	5,41,81,435	0	-	67,557.90

Table B.10.2b

Items	Budgeted in CFY 2023-24	Actual Expenses in CFY 2023-24	Budgeted in CFYm1 2022-23	Actual Expenses in CFYm1 2022-23	Budgeted in CFYm2 2021-22	Actual Expenses in CFYm2 2021-22	Budgeted in CFYm3 2020-21	Actual Expenses in CFYm3 2020-21
Infrastructure Build-Up	75,00,000	70,45,741	30,00,000	28,43,300	20,00,000	20,10,000	0	0
Library	8,00,000	7,88,963	10,00,000	9,72,000	10,00,000	9,08,100	10,00,000	10,03,695
Laboratory Equipment	10,00,000	9,27,019	15,00,000	13,98,000	5,50,000	5,70,600	4,00,000	0
Laboratory Consumables	7,00,000	6,24,502	4,00,000	4,38,100	4,20,000	3,95,981	8,00,000	9,27,436
Teaching and non-teaching staff salary	4,50,00,000	4,30,00,631	4,00,00,000	3,88,23,000	3,40,00,000	3,61,03,040	3,22,00,000	3,00,54,820
Maintenance and spares	1,30,00,000	1,30,31,544	70,00,000	63,15,500	65,00,000	66,08,125	75,00,000	98,84,545
R&D	35,00,000	32,95,000	4,00,000	2,28,500	3,00,000	2,13,500	2,00,000	1,16,800
Training and Travel	18,00,000	18,90,123	10,00,000	9,17,050	7,50,000	9,75,213	10,00,000	13,67,057
Miscellaneous expenses (Daily expense, petty cash)	7,00,000	6,77,412	4,00,000	3,82,000	4,00,000	42,060	3,00,000	64,000
Others, Specify (Interest to Bank Loan, exam/univ. fees/ honorarium)	1,60,00,000	1,58,70,211	1,00,00,000	1,08,30,020	1,00,00,000	1,18,50,800	1,00,00,000	1,07,63,082
Total	9,00,00,000	8,71,51,146	6,47,00,000	6,31,47,470	5,59,20,000	5,96,77,419	5,34,00,000	5,41,81,435

10.2.1 Adequacy of Budget Allocation (10)

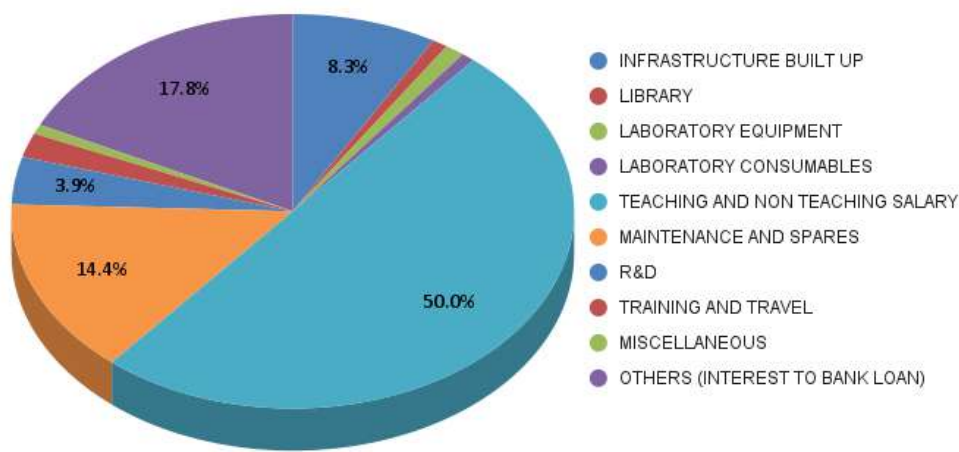
(The institution needs to justify that the budget allocated during assessment years was adequate)

Table 10.2.1 Details of Institutional Budget on Various Financial Years

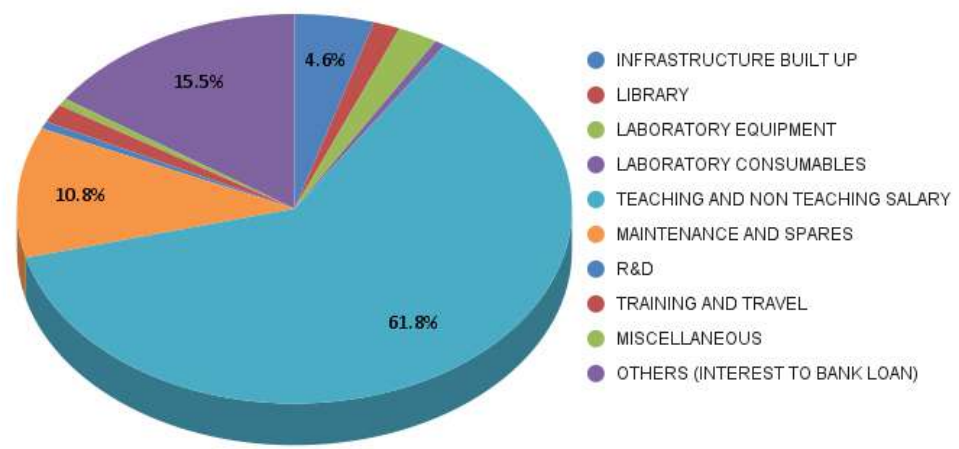
Academic Year	Items	Budgeted Amount INR	Percentage of allocation	Justification
2023-24	Infrastructure built up	75,00,000	8.33	1. Infrastructure has been considered. Open amphitheatre, in-door sports facilities, bus terminus has been in construction. So, 8% of total budget is allotted for infrastructure development. 2. The teaching and non-teaching salary allocation is about 50% of the allocated budget. 3. About 2.78% budget is allotted for equipment, consumables, and library. 4. About 14% of budget is allotted for maintaining transport, building, canteen, hostel, exam conduction and others 5. 4% of budget is allotted for R&D 6. 18% of budget is allotted for paying interest to bank, AICTE fee, etc.
	Library	8,00,000	0.89	
	Laboratory Equipment	10,00,000	1.11	
	Laboratory consumables	7,00,000	0.78	
	Teaching and non-teaching salary	4,50,00,000	50.00	
	Maintenance and spares	1,30,00,000	14.44	
	R&D	35,00,000	3.89	
	Training and Travel	18,00,000	2.00	
	Miscellaneous	7,00,000	0.78	
	Others (interest to bank loan)	1,60,00,000	17.78	
	TOTAL	9,00,00,000	100.00	
2022-23	Infrastructure built up	30,00,000	4.64	1. The teaching and non-teaching salary allocation is about 61% of the allocated budget 2.10% of budget is allocated for maintenance and spares 3.4% of the budget is allocated for infrastructure development as new computer centre and sports arena are proposed 4.Nearly 16.8% of the budget is planned to use for student and academic related activities and loan interest payment 5.Every year 5% fund is increased to achieve constant developments in all items
	Library	10,00,000	1.55	
	Laboratory Equipment	15,00,000	2.32	
	Laboratory consumables	4,00,000	0.62	
	Teaching and non-teaching salary	4,00,00,000	61.82	
	Maintenance and spares	70,00,000	10.82	
	R&D	4,00,000	0.62	
	Training and Travel	10,00,000	1.55	
	Miscellaneous	4,00,000	0.62	
	Others (interest to bank loan)	1,00,00,000	15.46	

Academic Year	Items	Budgeted Amount INR	Percentage of allocation	Justification
	TOTAL	6,47,00,000	100.00	
2021-22	Infrastructure built up	20,00,000	3.58	1. Approximately 61% of budget is allotted for salary 2. Preference was given to infrastructure development 3. 11% is allotted for maintenance of equipment, buying spares and building 6. Nearly 18% of the budget is planned to use for student and academic related activities and loan interest payment.
	Library	10,00,000	1.79	
	Laboratory Equipment	5,50,000	0.98	
	Laboratory consumables	4,20,000	0.75	
	Teaching and non-teaching salary	3,40,00,000	60.80	
	Maintenance and spares	65,00,000	11.62	
	R&D	3,00,000	0.54	
	Training and Travel	7,50,000	1.34	
	Miscellaneous	4,00,000	0.72	
	Others (interest to bank loan)	1,00,00,000	17.88	
	TOTAL	5,59,20,000	100.00	
2020-21	Infrastructure built up	0	0	1. Nearly 60% of budget is allotted for the Salary of teaching and non-teaching Staff 2. Next priority was given to Maintenance and repairs of the buildings and laboratory equipment with 14% of total budget. 3. 2% of the budget is allocated for enhancement of books and online journals for the library. 4. Training and Travel budget is about 2%.
	Library	10,00,000	1.87	
	Laboratory Equipment	4,00,000	0.75	
	Laboratory consumables	8,00,000	1.50	
	Teaching and non-teaching salary	3,22,00,000	60.30	
	Maintenance and spares	75,00,000	14.04	
	R&D	2,00,000	0.37	
	Training and Travel	10,00,000	1.87	
	Miscellaneous	3,00,000	0.56	
	Others (interest to bank loan)	1,00,00,000	18.73	
	TOTAL	5,34,00,000	100.00	

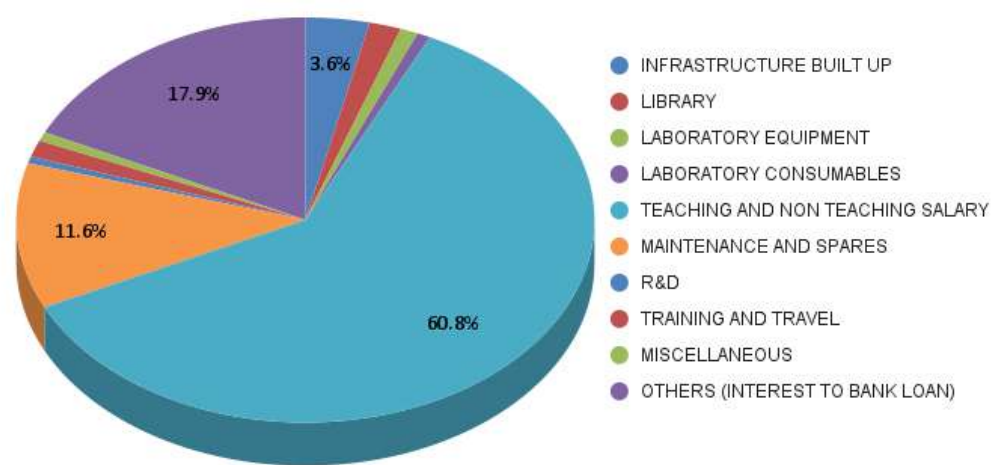
Budgeted Fund for 2023-24

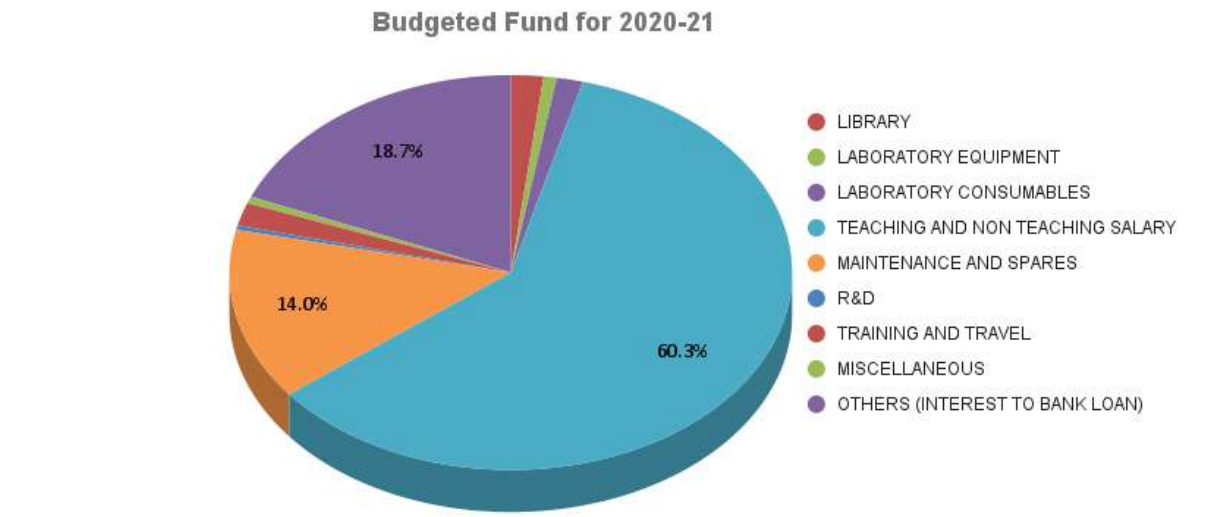


Budgeted Fund for 2022-23



Budgeted Fund for 2021-22





10.2.2 Utilization of allocated funds (15)

(The institution needs to state how the budget was utilized during assessment years)

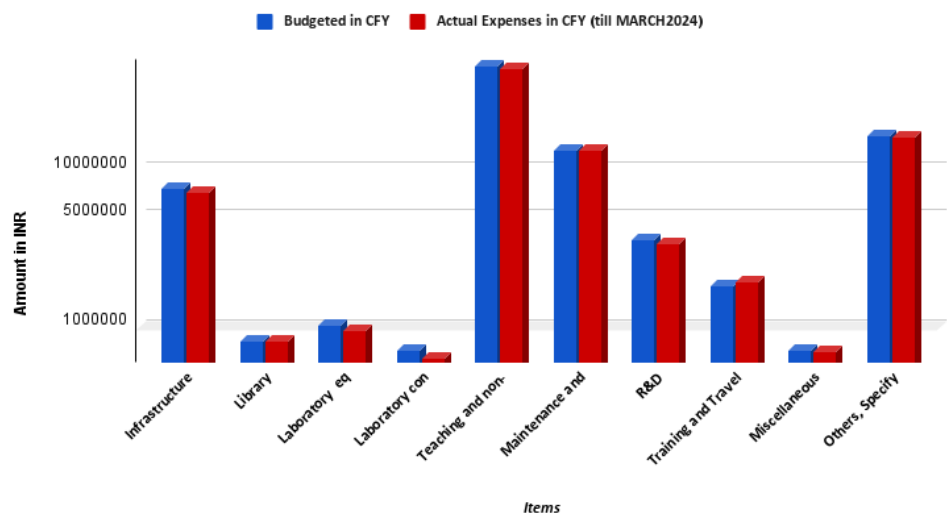
Table 10.2.2 Details of Funds Utilisation on Various Financial Years

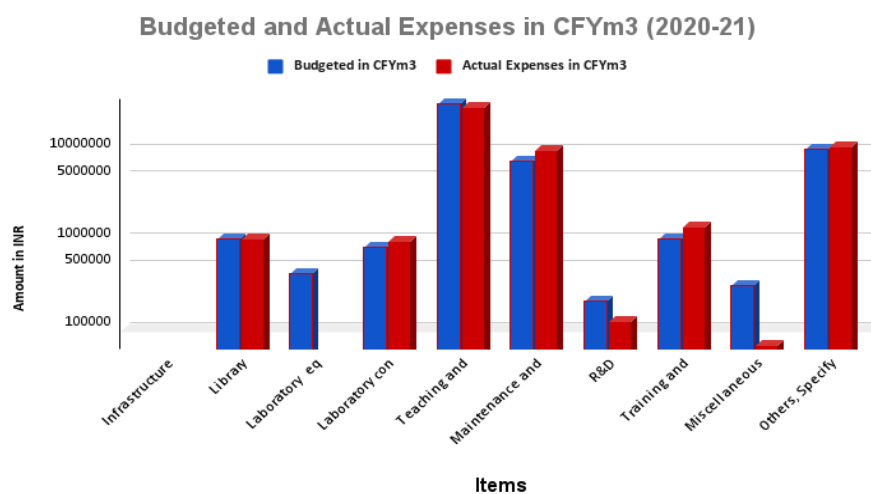
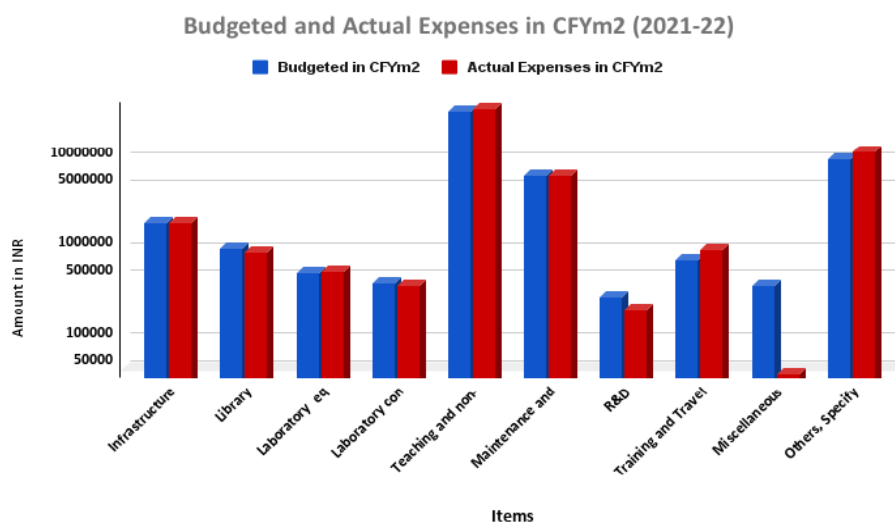
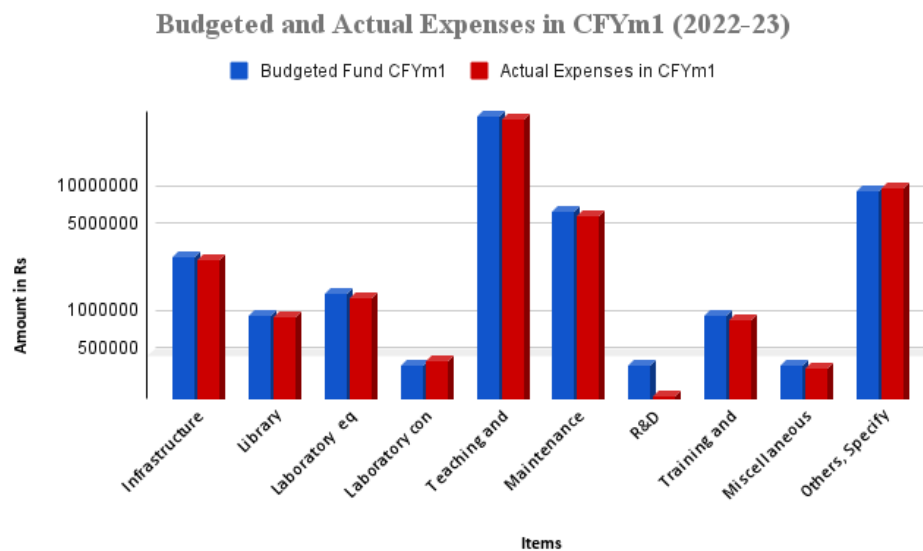
Academic Year	Items	Budgeted Amount INR	Actual Expenses INR	% of Utilization	Justification
2023-24	Infrastructure built up	75,00,000	70,45,741	94	1. The proposed budget is adequate for the financial year 2023-24 2. Under-utilisation of the budget is done on infrastructure build up, laboratory equipment and consumables. Salary, R&D and Library 3. The proposed budget could not meet up for library utilisation
	Library	8,00,000	7,88,963	98	
	Laboratory Equipment	10,00,000	9,27,019	93	
	Laboratory consumables	7,00,000	6,24,502	90	
	Teaching and non-teaching salary	4,50,00,000	4,30,00,631	96	
	Maintenance and spares	1,30,00,000	1,30,31,544	100.24	
	R&D	35,00,000	32,95,000	94	
	Training and Travel	18,00,000	18,90,123	105	
	Miscellaneous	7,00,000	6,77,412	97	

Academic Year	Items	Budgeted Amount INR	Actual Expenses INR	% of Utilization	Justification
	Others (interest to bank loan)	1,60,00,000	1,58,70,211	99	4. In general, the proposed budget is under-utilised for the financial year 2023-24
	TOTAL	9,00,00,000	8,71,51,146	97	
2022-23	Infrastructure built up	30,00,000	28,43,300	95	1. The increase in salary, consumables cost, miscellaneous and other category etc., budget allocation led to a nearly 6% increase in the yearly spending. 2. The increase in the infrastructure build-up cost was due to an increase in construction materials cost 3. The increase in salary component was due to the hike in the basic salary 4. The cost of maintenance and spares also increased about 5% due to increased cost of spares. 5. The increase in general administrative cost was due to increase in the labour cost
	Library	10,00,000	9,72,000	97	
	Laboratory Equipment	15,00,000	13,98,000	93	
	Laboratory consumables	4,00,000	4,38,100	110	
	Teaching and non-teaching salary	4,00,00,000	3,88,23,000	97	
	Maintenance and spares	70,00,000	63,15,500	90	
	R&D	4,00,000	2,28,500	57	
	Training and Travel	10,00,000	9,17,050	92	
	Miscellaneous	4,00,000	3,82,000	96	
	Others (interest to bank loan)	1,00,00,000	1,08,30,020	108	
	TOTAL	6,47,00,000	6,31,47,470	98	
2021-22	Infrastructure built up	20,00,000	20,10,000	100.50	1. Nearly 6% more than the budgeted amount is utilized. This may be increase in salary, miscellaneous and other items in the budget. 2. Additional lab facilities were created which led to an increase in lab. equipment expenditure. 3. The salary component was increased due to the addition of teaching and non-teaching staff.
	Library	10,00,000	9,08,100	90.81	
	Laboratory Equipment	5,50,000	5,70,600	103.75	
	Laboratory consumables	4,20,000	3,95,981	94.28	
	Teaching and non-teaching salary	3,40,00,000	3,61,03,040	106.19	
	Maintenance and spares	65,00,000	66,08,125	101.66	
	R&D	3,00,000	2,13,500	71.17	
	Training and Travel	7,50,000	9,75,213	130.03	
	Miscellaneous	4,00,000	42,060	10.52	

Academic Year	Items	Budgeted Amount INR	Actual Expenses INR	% of Utilization	Justification
	Others (interest to bank loan)	1,00,00,000	1,18,50,800	118.51	4. Loan interest and college level common expenses are increased marginally.
	TOTAL	5,59,20,000	5,96,77,419	106.72	
2020-21	Infrastructure Build-up	0	0		1. The utilised fund is more than the budget estimate. 2. The difference of both is about 7.8%, which is due to Pandemic, additional facilities were created for conducting online mode of teaching 3. Even though in the pandemic situation, development funds were utilised for the training activities for the students and the staffs 4. Due to pandemic and closure of institution needed more maintenance and spares purchase.
	Library	10,00,000	10,03,695	100.37	
	Laboratory Equipment	4,00,000	0	0	
	Laboratory consumables	8,00,000	9,27,436	115.93	
	Teaching and non-teaching salary	3,22,00,000	3,00,54,820	93.34	
	Maintenance and spares	75,00,000	98,84,545	131.79	
	R&D	2,00,000	1,16,800	58.40	
	Training and Travel	10,00,000	1367057	136.71	
	Miscellaneous	3,00,000	64,000	21.33	
	Others (interest to bank loan)	1,00,00,000	1,07,63,082	107.63	
	TOTAL	5,34,00,000	5,41,81,435	101.46	

Budgeted in CFY and Actual Expenses in CFY (till MARCH2024)





10.2.3 Availability of the audited statements on the institute’s website (5)

The Income and expenditure Statements from an external auditor is available at www.jnn.edu.in (<http://www.jnn.edu.in>)

Table 10.2.3 External audit Statement on Various Financial Years

Financial year	Link to the Relevant Documents
2023-24	https://www.jnn.edu.in/wp-content/uploads/2023/11/2023-2024-Income-Expenditure-Audit-Report.pdf
2022-23	https://www.jnn.edu.in/wp-content/uploads/2023/11/2022-2023-Income-Expenditure-Audit-Report.pdf
2021-22	https://www.jnn.edu.in/wp-content/uploads/2023/11/2021-2022-Income-Expenditure-Audit-Report.pdf
2020-21	https://www.jnn.edu.in/wp-content/uploads/2023/11/2020-2021-Income-Expenditure-Audit-Report.pdf

10.3 Program Specific Budget Allocation, Utilization (30)

Table 10.3 a. i) For CFY 2023-24

Total budget: 26,55,000		Provisional Expenditure (till March 2024): 24,69,948		Total No. of students: 99
Non recurring	Recurring	Non recurring	Recurring	Expenditure per student
1,25,000	25,30,000	90,514	23,79,434	24,948.97

Table 10.3 a. ii) For CFYm-1 2022-23

Total budget: 4,65,000		Provisional Expenditure: 4,63,429		Total No. of students: 102
Non recurring	Recurring	Non recurring	Recurring	Expenditure per student
75,000	3,90,000	68,488	3,94,941	4,543.42

Table 10.3 a. iii). For CFY m-2 2021-22

Total budget: 6,45,000		Actual Expenditure: 6,44,455		Total No. of students: 139
Non recurring	Recurring	Non recurring	Recurring	Expenditure per student
1,60,000	4,85,000	1,12,081	5,32,374	4,636.37

Table 10.3 a. iv) For CFY m-3 2020-21

Total budget: 4,40,000		Actual Expenditure: 3,37,127		Total No. of students:192
Non recurring	Recurring	Non recurring	Recurring	Expenditure per student
1,20,000	3,20,000	2,500	3,34,627	1,755.87

Table 10.3b Academic year wise utilization

Items	Budgeted in CFY 2023-24	Provisional Expenses in CFY (till MARCH 2024)	Budgeted in CFY m1 2022-23	Actual Expenses in CFYm1	Budgeted in CFYm2 2021-22	Actual Expenses in CFYm2	Budgeted in CFYm3 2020-21	Actual Expenses in CFYm3
Laboratory Equipment	1,00,000	74,314	50,000	54,008	60,000	1,10,531	1,00,000	0
Software	18,00,000	16,48,999	0	0	25,000	0	0	0
Laboratory Consumable Equipment	2,80,000	3,41,935	40,000	46,407	45,000	61,454	90,000	47,200
Maintenance and Spares	2,00,000	1,82,000	2,10,000	2,52,634	2,65,000	3,55,070	1,25,000	2,09,527
R&D	1,00,000	1,25,000	50,000	45,000	40,000	54,050	30,000	4,500
Training and Travel	1,50,000	81,500	90,000	50,900	1,10,000	61,800	75,000	73,400
Miscellaneous Expenses (Daily Expenses)	25,000	16,200	25,000	14,480	1,00,000	1,550	20,000	2,500
Total	26,55,000	24,69,948	4,65,000	4,63,429	6,45,000	6,44,455	4,40,000	3,37,127

10.3.1 Adequacy of budget allocation (10)

Table 10.3.1 Academic year Wise-Adequacy of budget allocation

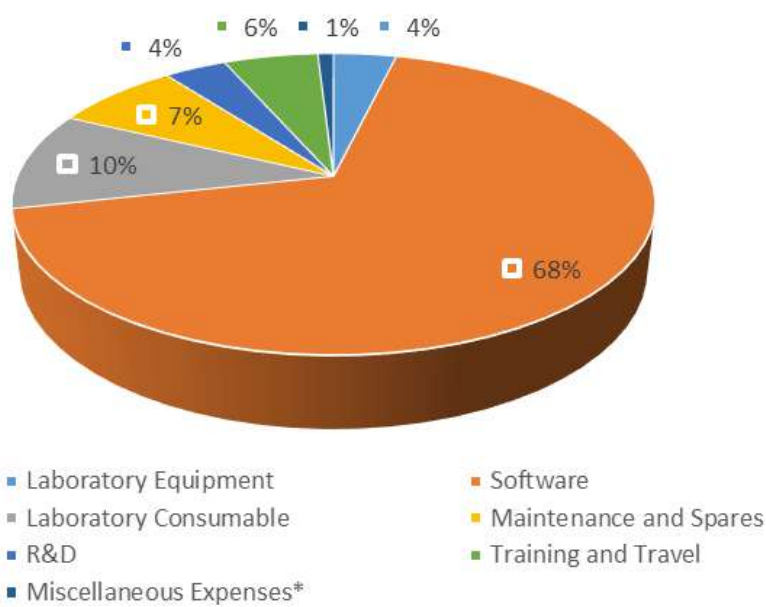
Academic Year	Items	Budgeted	Percentage of Allocation	Justification
2023-24	Laboratory Equipment	1,00,000	4	1. A software has been planned to purchase for R&D purposes. About 68% of budget has been

Academic Year	Items	Budgeted	Percentage of Allocation	Justification
	Software	18,00,000	64	allotted for purchasing software for R&D purposes 2. About 12% of total budget has been allotted for purchasing consumables for the IoT lab, and other labs. 3. Next major budget is allotted for maintaining the department, labs and purchasing spares for repairing the components. 4. About 6% is allotted for conducting departmental activities like FDP, conference etc and providing funds to students and staff for attending programs and events. 5. The proposed fund is adequate. If not, +5 to +10% additional fund will be proposed on emergency basis. On proper request, the budget will be sanctioned
	Laboratory Consumable Equipment	2,80,000	12	
	Maintenance and Spares	2,00,000	8	
	R&D	1,00,000	4	
	Training and Travel	1,50,000	6	
	Miscellaneous Expenses (Daily Expenses)	25,000	1	
	Total	26,55,000	100	
2022-23	Laboratory Equipment	50,000	14	1. 14% of total budget was allotted for purchasing new equipment in the lab, as the old equipment had been scrapped. 2. 14% of total budget was allotted for R&D. R&D was given special attention as the institution and department can grow only if the research of the student and the staff is highly concentrated. 3. About 11% of total budget has been allotted for purchasing consumables 4. Major budget is allotted for maintaining the department, labs and purchasing spares for repairing the components. 5. About 25% is allotted for conducting departmental activities like FDP, conference etc
	Software	0	0	
	Laboratory Consumable Equipment	40,000	11	
	Maintenance and Spares	2,10,000	30	
	R&D	50,000	14	
	Training and Travel	90,000	25	

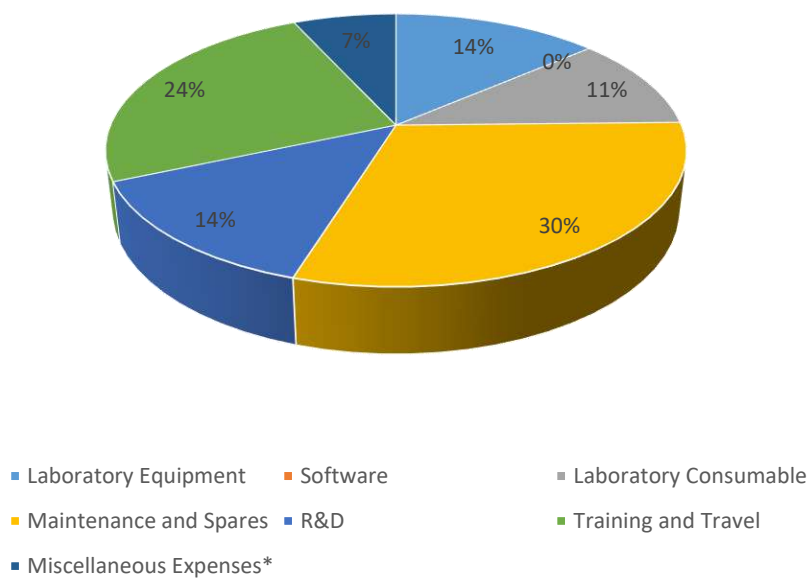
Academic Year	Items	Budgeted	Percentage of Allocation	Justification
	Miscellaneous Expenses (Daily Expenses)	25,000	7	and providing funds to students and staff for attending programs and events. 6. The proposed fund is adequate. If not, +5 to +10% additional fund will be proposed on emergency basis. On proper request, the budget will be sanctioned
	Total	4,65,000	100	
2021-22	Laboratory Equipment	60,000	9	1. About 7% of total budget was allotted for purchasing consumables 2. About 9% of budget was allotted to purchase new equipment as some of the equipment could not be used after the pandemic 3. The department planned to purchase a software. 4. R&D was also given consideration, considering the importance of research among the students and staff 5. 41% of budget was allotted for maintaining the department, labs and purchasing spares for repairing the components, as the department had to reservice all the equipment and materials after the pandemic. 6. About 17% was allotted for conducting departmental activities like FDP, conference etc and providing funds to students and staff for attending programs and events. 7. A huge amount was budgeted to improve the aesthetics of the classroom, which is categorised as miscellaneous expenses. 8. The proposed fund is adequate. If not, +5 to +10% additional fund will be proposed on emergency basis. On proper request, the budget will be sanctioned
	Software	25,000	4	
	Laboratory Consumable Equipment	45,000	7	
	Maintenance and Spares	2,65,000	41	
	R&D	40,000	6	
	Training and Travel	1,10,000	17	
	Miscellaneous Expenses (Daily Expenses)	1,00,000	16	
	Total	6,45,000	100	

Academic Year	Items	Budgeted	Percentage of Allocation	Justification
2020-21	Laboratory Equipment	1,00,000	23	- About 23% of total budget was budgeted to purchase new equipment, considering the rise of student numbers. - About 20% of total budget was allotted for purchasing consumables. - Major budget is allotted for maintaining the department, labs and purchasing spares for repairing the components. - About 17% is allotted for conducting departmental activities like FDP, conference etc and providing funds to students and staff for attending programs and events. - R&D was also given consideration The proposed fund is adequate. If not, +5 to +10% additional fund will be proposed on emergency basis. On proper request, the budget will be sanctioned
	Software	0	0	
	Laboratory Consumable Equipment	90,000	20	
	Maintenance and Spares	1,25,000	28	
	R&D	30,000	7	
	Training and Travel	75,000	17	
	Miscellaneous Expenses (Daily Expenses)	20,000	5	
	Total	4,40,000	100	

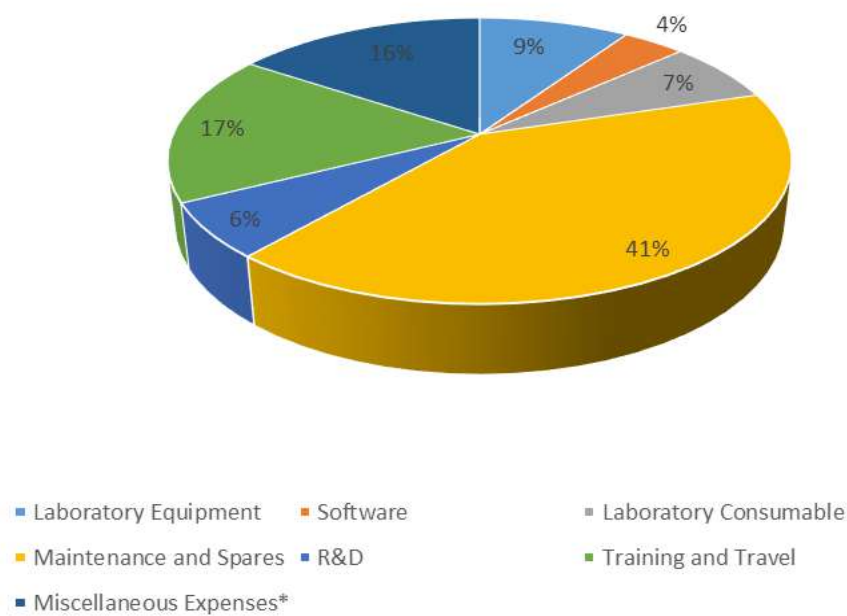
Budgeted Fund for the department of ECE in 2023-24



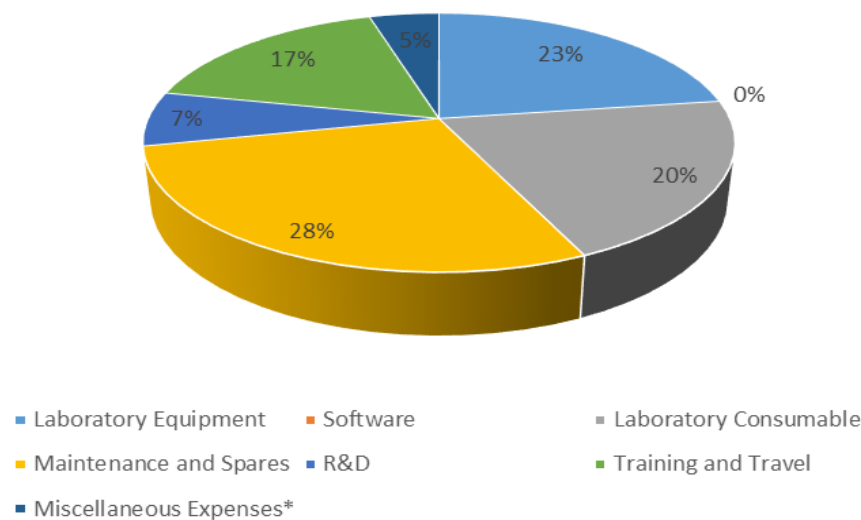
Budgeted fund for the department of ECE in 2022-23



Budgeted fund for the department of ECE in 2021-22



Budgeted fund for the department of ECE in 2020-21



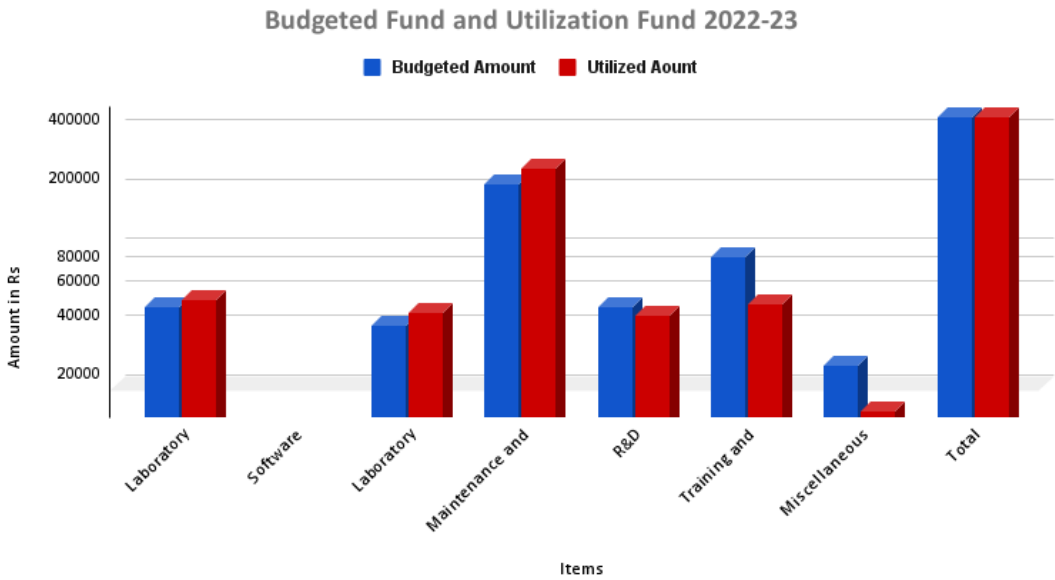
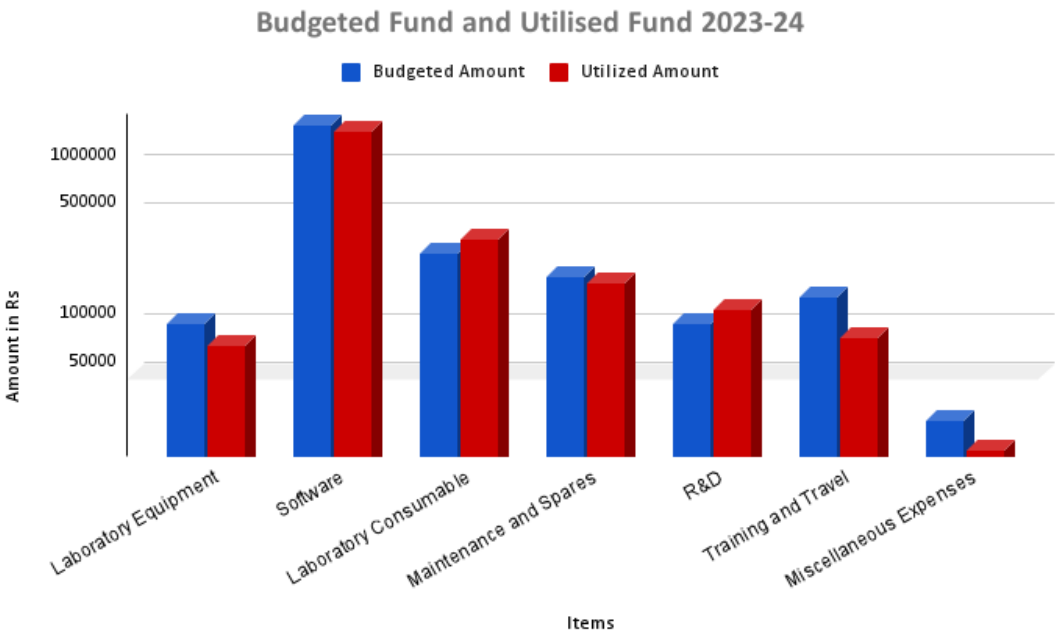
10.3.2 Utilization of Allocated Funds (20)

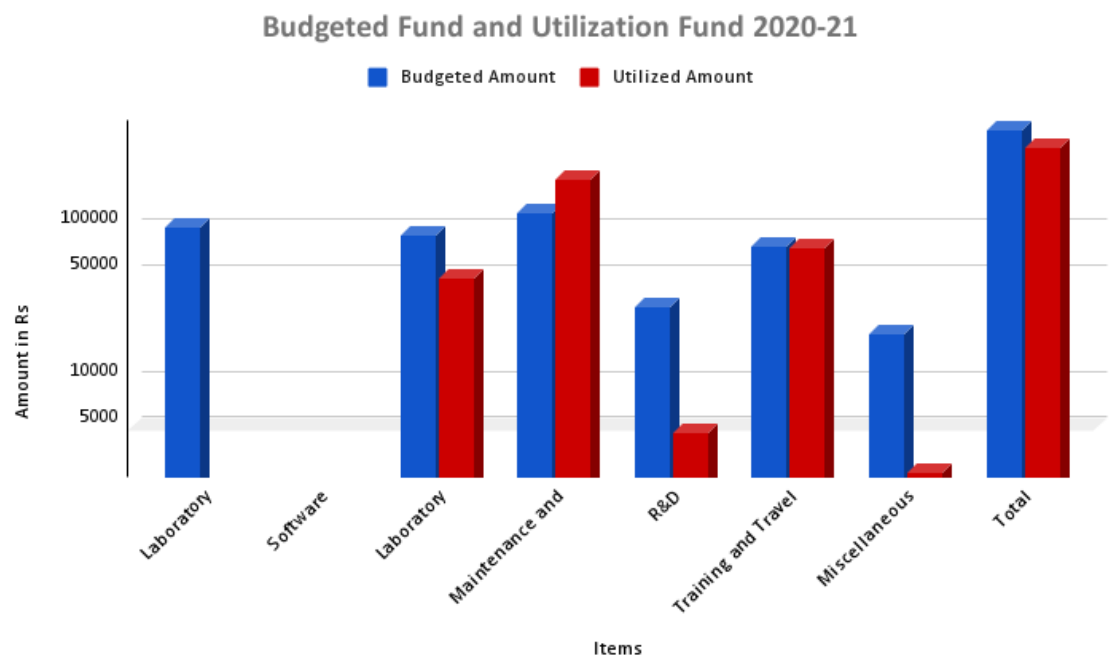
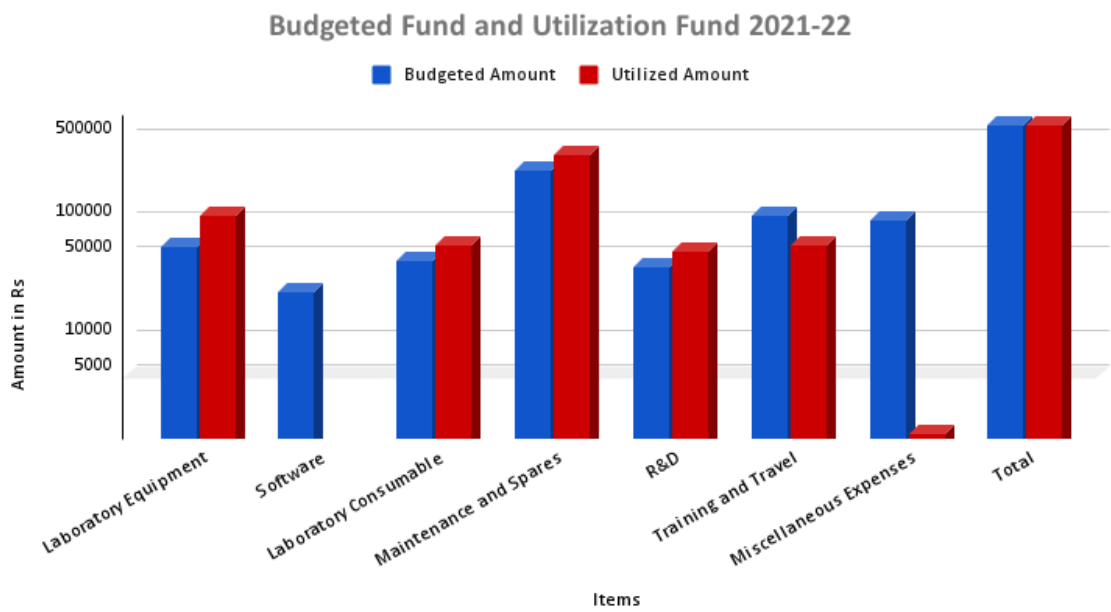
Table10.3.2 Academic year wise Utilization of Allocated Funds

Academic Year	Items	Budgeted Amount	Utilization Amount	Percentage of Utilization	Justification
2023-24	Laboratory Equipment	1,00,000	74,314	74	1. The allotted budget has been utilised on purchasing equipment, consumables and spares 2. Software has been planned to purchase. But due to the deficient to purchase software for R&D, this amount has been used and thus compensated. 3. Consumables fund is over utilised as the consumables has been required for other department students (Agri, R&A). IOT labs are used by other dept 4. Staff and students went various training programs 5. The budgeted amount for R&D is utilised effectively
	Software	18,00,000	16,48,999	91	
	Laboratory Consumable Equipment	2,80,000	3,41,935	122	
	Maintenance and Spares	2,00,000	1,82,000	91	
	R&D	1,00,000	1,25,000	125	
	Training and Travel	1,50,000	81,500	54	
	Miscellaneous Expenses (Daily Expenses)	25,000	16,200	65	
	Total	26,55,000	24,69,948	93	
2022-23	Laboratory Equipment	50,000	54,008	108	1. The fund was not allotted for software and not been utilised 2. Consumables purchase was slightly over-utilised as the cost of the materials was high than expected 3. The department needed maintenance for the new lab to establish 4. R&D was marginally and effectively utilised.
	Software	0	0	0	
	Laboratory Consumable Equipment	40,000	46,407	116	
	Maintenance and Spares	2,10,000	2,52,634	139	
	R&D	50,000	45,000	90	
	Training and Travel	90,000	50,900	57	

Academic Year	Items	Budgeted Amount	Utilization Amount	Percentage of Utilization	Justification
	Miscellaneous Expenses (Daily Expenses)	25,000	14,480	58	5. Training and travelling was under-utilised and the staff were suggested to use the fund effectively
	Total	4,65,000	4,63,429	99.57	
2021-22	Laboratory Equipment	60,000	1,10,531	184	1. The department proposed fund for equipment and consumables. Due to some unexpected damage due to Covid-19, the department needed excess equipment and consumables to meet the demand. So funds were over utilised for equipment and consumables purchase 2. Similarly, over-utilisation on maintenance was happened due to Covid-19 3. Campus recruitment programmes has been scheduled for the students 4. Faculty development programs are organized to update the skill set of few faculty members. 5. Some of the important facilities are enhanced in addition to the budgeted amount
	Software	25,000	0	0	
	Laboratory Consumable Equipment	45,000	61,454	137	
	Maintenance and Spares	2,65,000	3,55,070	134	
	R&D	40,000	54,050	135	
	Training and Travel	1,10,000	61,800	56	
	Miscellaneous Expenses (Daily Expenses)	1,00,000	1,550	2	
	Total	6,45,000	6,44,455	99.92	
2020-21	Laboratory Equipment	1,00,000	0	0	1. Maintenance, spares, travel and training and miscellaneous expenses were utilized from the allocated budget. 2. The new equipment and software required consumables were could not be purchased, due to the COVID Pandemics 2. Some of the important spares were purchased and facilities are enhanced in addition to the budgeted amount.
	Software	0	0	0	
	Laboratory Consumable Equipment	90,000	47,200	52	
	Maintenance and Spares	1,25,000	2,09,527	168	
	R&D	30,000	4,500	15	
	Training and Travel	75,000	73,400	98	

Academic Year	Items	Budgeted Amount	Utilization Amount	Percentage of Utilization	Justification
	Miscellaneous Expenses (Daily Expenses)	20,000	2,500	13	
	Total	4,40,000	3,37,127	77	





10.4 Library and Internet (20)

(Indicate whether zero deficiency report was received by the Institution for all the assessment years. Effective availability/purchase records and utilization of facilities/ equipment etc. to be documented and demonstrated)

Table 10.4.1 Library Database

Details	Required	Available	Deficiency
Titles	2200	5014	Zero deficiency
Volumes	3500	27114	Zero deficiency
E-Journals	IEI/DELNET	38133	Zero deficiency
Multimedia PC’S	30	39	Zero deficiency
Seating Capacity	50	65	Zero deficiency
NPTEL	Video Lectures	-	Zero deficiency
DELNET	Union Catalogue of books	3,45,00,298	Zero deficiency
	Current Periodicals	1,04,569	
	Union Catalogue Periodicals	20,235	
	Database of Articles	11,06,228	
	CD-ROM Databases	3,45,00,298	
	Union List of Video Recordings	6,000	
	Database of E-books	1613	
	Union List of Sound Records	1,025	
	Thesis and Dissertations	1,30,753	
National Digital Library	E-Books	80,553,458	Zero deficiency
	Video Lectures	13,000	
	Audio Lectures	700	
	Research Papers	10,000	
Barcode Facility	Yes	Yes	Zero deficiency

Annual expenditure of purchase of books/e-books and subscription to journals/e-journals year wise (INR in Lakhs)

Table 10.4.2 Library Expenditure in Lakhs

2023-24	2022-2023	2021-2022	2020-2021
7.89	9.72	9.08	10.3

10.4.1 Quality of learning resources (hard/soft) (10)

- Relevance of available learning resources including e-resources
- Accessibility to students
- Support to students for self-learning activities

The Central Library is a proud partner in the institute’s march towards its vision playing a vital role in acquisition, organization and dissemination of knowledge. As a knowledge hub of JNNIE, it offers a package of services, an ambience that is extremely conducive for assimilation and creation of new knowledge. The Central Library is totally Air Conditioned, presently covers a total user area of 4950 sq.ft, with a seating capacity of 150 and caters to the information needs of the faculty, staff and students. The Central Library has Text book section, Circulation section, Reference books, Periodical Section with rich collection of Journals and books. The separate departmental libraries are establishment in each department for quick access purpose in addition to the central library.

On working days 8:00 AM to 7:00 PM on Holidays 9:00 AM to 4:00 PM

The Quality Learning Resources in the Library:

- ❖ The printed books, national and international journals on various subjects of reputed publishers to enhance the advanced knowledge and skills of students and faculty.

- ❖ The commutative entrance books, magazines, newspapers, placement and personality development books for updating their knowledge.
- ❖ The e-resources of e-journals, e-books, video lectures (like NPTEL), audio lectures of various publisher are made available in the Digital Library for effective teaching learning process
- ❖ The Learning materials, Previous Question Papers, Project Reports of all departments are made available in the Central Library and Department libraries.
- ❖ The e-contents of the web: <https://www.jnn.edu.in/campus-life/facilities/library/> is used in the regular teaching learning process.
- ❖ DELNET Facility is available in the central library.

Multimedia animated lectures and Prototype models are used to teach the various subjects like ED, Machine design etc., for effective interpretation and understanding of the content

Table 10.4.3 Details of Printed books database in the Central library

S.NO	DEPARTMENT	TOTAL NO. OF VOLUMES	TOTAL NO. OF TITLES
1	Agricultural Engineering	1625	216
2	Artificial Intelligence and Data Science	9585	692
3	Biomedical Engineering	227	95
4	Computer Science and Engineering	5871	1478
5	Electronic and communication engineering	7233	1398
6	Robotics and automation engineering	53	42
7	Humanities and Science	5167	573

8	MBA	1222	367
	TOTAL	26309	4649

Table 10.4.4 Details of E-Resources

S. No	Subscriptions	No. of E-Resources	Link for Access
1	Delnet	45,000 Journals	http://164.100.247.26/
		1,00,000 Thesis	
		3,00,00,000 Books	
2	Gale	2233 Journals	http://infotrac.galegroup.com/itweb/jnnie
3	Nptel	56000 hrs of videos	https://nptel.ac.in/
4	NDLI	80,553,458	https://ndl.iitkgp.ac.in/
5	Springer Open	200 Journals	https://www.springeropen.com/journals
6	DIGIMAT- A Digital repository of web courses and video lectures	56000 of videos	https://kiot.ac.in/knowledge-resource-centre/
7	e-Shodhganga	350553	https://shodhganga.inflibnet.ac.in/
8	IEEE	300+	http://www.ieee.org/

Accessibility to Students:

- ★ Each student can access the library with barcodes on using their ID cards, using which he/she can lend 4 books for 30 days.
- ★ The borrowed books can be renewed before the due date
- ★ The students can access the reference books and other hard materials within the library premises during the working hours of the central library as well as the department library.
- ★ Every student can access the e-Journals, Periodicals at any time during working hours of the library and also any time through the Wi-Fi facility in the campus.

- ★ The students can watch NPTEL and other video lectures in the digital library and entire campus through the internet.

Support to the Students:

The Library staff always extends their support and services to the students to look after in various aspects mentioned below.

- Lending and returning of books and journals.
- Display the information on new arrivals and media notifications in the library on the Notice Board.
- Regularly feedback is taken from visitors, faculty and students to procure new titles to support various re
- search domains.
- All facilities of Library are available for the students beyond the college hours.
- E-resources are set readily available for the access.
- Access to the e-Journals, Periodicals is available across the entire campus
- Inter library loan facility is provided to the students and staff on DELNET.
- Previous university question papers will be provided to the students and staff as and they required.
- Library hour is included in the Timetable to enhance the usage of Library.
- The library works beyond the working hours and days.
- The students are encouraged to utilize the learning materials available in the library.

10.4.2. Internet (10)

Table 10.4.6 Details of Internet Provider

SL.NO	ITEMS	DESCRIPTION
1	Name of the Internet provider	Airnet, and Reliance Jio.
2	Available bandwidth	300 Mbps
3	Wi Fi availability	Yes
4	Internet access in labs, classrooms, library and offices of all Departments	TP Link – 24 port gigabit port switches are placed across the campus for establishing WIFI internet
5	Security arrangements	Firewall- PF Sense, Windows Antivirus

→ Wi Fi availability

Wi-Fi is facility is available throughout the campus as well as boys and girls hostel. In order to protect the unauthorized access to the Wi-Fi, a student/ faculty must register their computer with concerned authority and after the authentication they can access the internet through Wi-Fi anywhere in the campus and hostel.

→ Internet access in labs, classrooms, library and offices of all Departments

All the computers in the computer labs of all departments, library, HOD rooms, faculty rooms, computers available in office and hostels are provided with internet access through a hardwired facility. Students/faculty members can access the internet in the classroom through the Wi-Fi facility. Wi-Fi facility is also extended to hostels located inside the campus.

→ Security arrangements

In order to protect the computers from unauthorized access as well as from malicious spam wares, internet server is equipped with Firewall- PF Sense and Windows Antivirus for protection.

PART C: DECLARATION

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institute's hall fully abide by them.
- It is submitted that information provided in this Self-Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, post-visit and subsequent to grant of accreditation.

Head of the Institute

Name: Dr. K. Ganesan

Designation: Principal

Signature:

Seal of the Institution:

Place: Kannigaipair

Date: 06-04-2024

PART: C

Department of ECE, J.N.N Institute of Engineering

APPENDIX I OF SAR

(A) PROGRAM OUTCOMES (POs)

1. Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. 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.
3. 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.
4. 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.
5. 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.
6. The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. Environment and Sustain ability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary settings

APPENDIX I

- 10. 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.
- 11. 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 multi-disciplinary environments.
- 12 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.

Program should specify 2-4 Program Specific Outcomes.

(B) PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1	Analyse and develop solutions in domains like IOT, Embedded, VLSI and other emerging technologies.
PSO2	Understand and architect wired and wireless analog and digital communication systems and products.

APPENDIX I