Hyderabad Institute of Technology and Management

SELF ASSESSMENT REPORT(TIER - I) FOR Electronics & Communication Engineering

Part A : Institutional Information

1 Name and Address of the Institution

Hyderabad Institute of Technology and Management,
Gowdavelli Village Medchal Mandal Ranga Reddy District Telangana State PIN 501401

2 Type of the Institution:

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

3 Year of establishment of the Institution:

2001

4 Ownership Status:

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

5 Name and Address of Affiliating University(if any)

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY-JNTUH

KUKATPALLY

HYDERABAD-500085

TELANGANA

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

Name of Institutions	Year of Establishment	Programs of Study	Location

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
Electronics & Communication Engineering	UG	2001	2001	60	Yes	60	Granted accreditation for 3 years for the period (specify period)	2019	2025		4

Sanctioned Intake for Last Five Years for the Electronics & Communication Engineering	
Academic Year	**Sanctioned Intake**
2024-25	60
2023-24	60
2022-23	60
2021-22	60
2020-21	60
2019-20	120

Electrical and Electronics Engineering	UG	2001	2001	60	No	30	Granted accreditation for 3 years for the period (specify period)	2022	2025	No	4
Mechanical Engineering	UG	2002	2002	60	Yes	30	Granted accreditation for 3 years for the period (specify period)	2022	2025	No	4

Sanctioned Intake for Last Five Years for the Mechanical Engineering	
Academic Year	**Sanctioned Intake**
2024-25	30
2023-24	30
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	Computer Science and Engineering
2	Under Graduate	Engineering & Technology	Electrical & Electronics Engineering
3	Under Graduate	Engineering & Technology	Electronics & Communication Engineering
4	Under Graduate	Engineering & Technology	Mechanical Engineering

Table No. A8.2

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

9 Total Number of Faculty Members in Various Departments:

ID	Deparment Name	Number of faculty members in the Department (UG and PG)											
		2024-25 (CAY)				2023-24 (CAYm1)				2022-23 (CAYm2)			
		No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members
1	Electronics and Communication Engineering	2	3	8	13	2	2	11	15	4	0	13	17
2	Electrical and Electronics Engineering	1	1	12	14	1	1	11	13	1	0	12	13
3	Mechanical Engineering	1	2	12	15	2	0	12	14	2	0	12	14

10 Total Number of Engineering Students in Various Departments:

ID	Deparment Name	Number of students in the Department (UG and PG)		
		2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)
1	Electronics and Communication Engineering	198	198	264
2	Electrical and Electronics Engineering	165	198	198
3	Mechanical Engineering	165	198	264

11 Vision of the Institution:

To be a role model technological university of national repute that imparts research-based multi-disciplinary competencies in students to enable their career aspirations and contribute to society.

12 Mission of the Institution:

1. Build students' competencies through HITAM's 'Doing Engineering' approach with relevant curriculum, pedagogy and assessment.

2. Collaborate with industry and institutions for capacity building in research, innovation and real time knowledge.

3. Develop employability skills for emerging trends and societal needs

4. Excel by adopting NEP 2020 and improving Accreditations & national rankings.

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

Head of the Institution	
Name	Dr. Arvind Siddapuram
Designation	Principal
Mobile No.	9573714385
Email ID	principal@hitam.org
NBA Coordinator, If Designated	
Name	Dr. Devika SV

Designation	Professor
Mobile No.	9000448835
Email ID	associate.deanaccreditation@h

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	OUTCOME-BASED CURRICULUM	120	119.00
2	OUTCOME-BASED TEACHING LEARNING	120	112.00
3	OUTCOME-BASED ASSESSMENT	120	120.00
4	STUDENTS' PERFORMANCE	120	90.50
5	FACULTY INFORMATION	100	96.76
6	FACULTY CONTRIBUTIONS	120	89.00
7	FACILITIES AND TECHNICAL SUPPORT	100	100.00
8	CONTINUOUS IMPROVEMENT	80	72.00
9	STUDENT SUPPORT AND GOVERNANCE	120	117.00
	Total	**1000**	**916**

Part B : Criteria Summary

1 OUTCOME-BASED CURRICULUM (120)

Total Marks 119.00

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

Total Marks 35.00

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

Institute Marks : 5.00

Vision of the institute	To be a role model technological university of national repute that imparts research-based multi-disciplinary competencies in students to enable their career aspirations and contribute to society.
Mission of the institute	1. Build students' competencies through HITAM's 'Doing Engineering' approach with relevant curriculum, pedagogy and assessment. 2. Collaborate with industry and institutions for capacity building in research, innovation and real time knowledge. 3. Develop employability skills for emerging trends and societal needs 4. Excel by adopting NEP 2020 and improving Accreditations & national rankings.

Vision of the Department	To achieve academic and research excellence in Electronics and Communication Engineering by imparting multidisciplinary skills that prepare students to meet industry needs, achieve career goals, and contribute to society.
Mission of the Department	

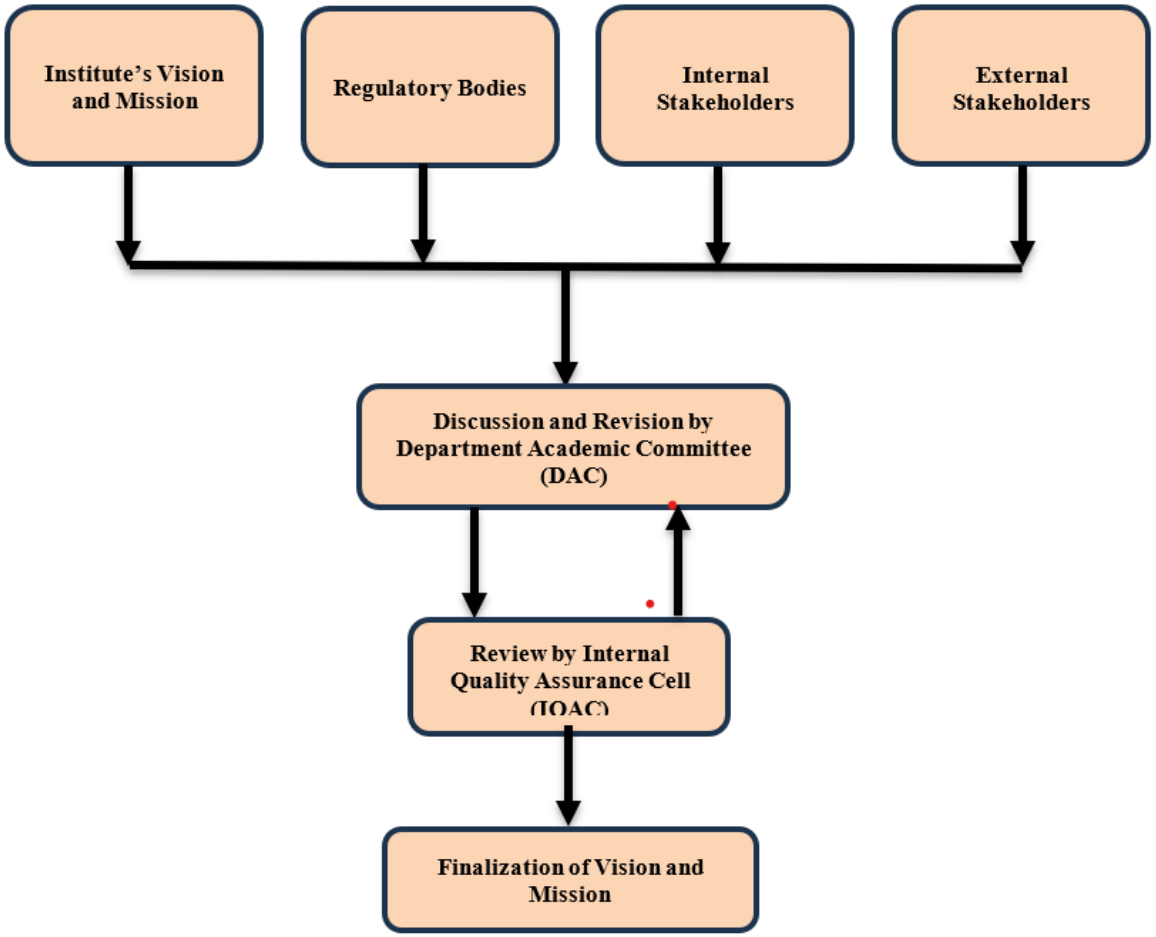
Mission No.	Mission Statements
M1	To build a strong foundation in Electronics and Communication Engineering with a focus on practical skills, problem-solving and technical knowledge.
M2	To promote a student-centric ecosystem that promotes innovation, multi-disciplinary learning, and collaborative research in emerging technologies.
M3	To nurture socially responsible engineers by encouraging sustainable practices, ethical values, and active engagement with industry and community.

1.1.2 State PEOs of the Program (5) — Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	To exhibit strong team collaboration and professional competence in both IT and core electronic sectors.
PEO2	To excel in higher education and research with strong technical knowledge, critical thinking, and innovative skills in emerging technologies.
PEO3	To address society needs through multidisciplinary engineering projects approach.

1.1.3 Process of Defining Vision, Mission and PEOs (10) — Institute Marks : 10.00

- The process of formulating the Vision and Mission of the department begins with referencing the Institute's Vision and Mission to ensure alignment. This alignment ensures that the department's aspirations and commitments contribute meaningfully to the broader goals of the institution. Inputs are also considered from regulatory bodies such as AICTE and NBA, which provide policy frameworks and educational standards to be reflected in the department's guiding statements. Figure 1 shows the process for brief understanding.



In parallel, the department actively engages both internal stakeholders such as faculty members, administrative staff and current students and external stakeholders including alumni and industry professionals. These stakeholders offer critical perspectives and expectations that enrich the relevance and practicality of the Vision and Mission statements. The goal is to ensure that the statements are not only aspirational but also grounded in the realities and evolving demands of the academic and professional ecosystem.

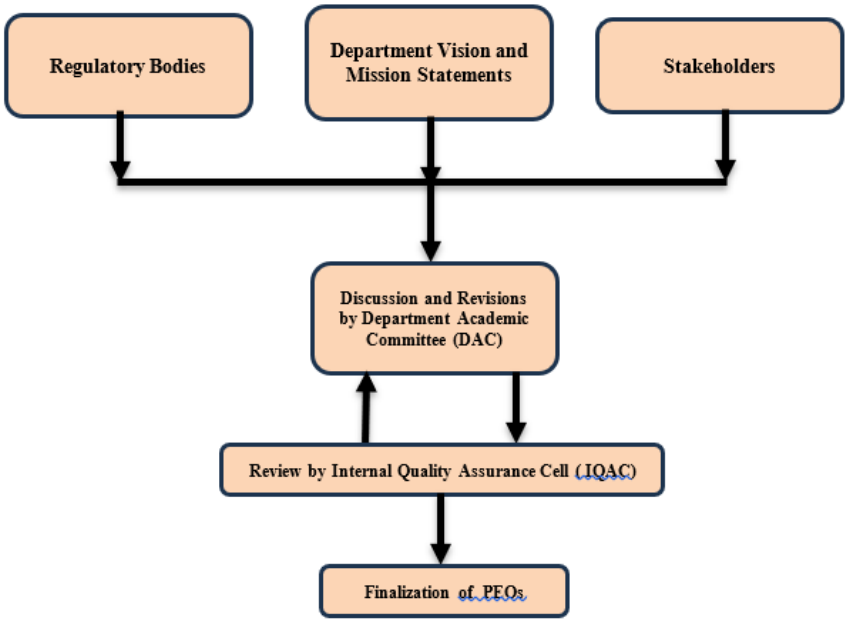
Following the collection of these inputs, a draft version of the Vision and Mission is prepared and presented for discussion and revision by the Department Academic Committee (DAC). This committee evaluates the alignment of the draft with the institutional vision, stakeholder expectations and guidelines. The DAC proposes modifications and refinements if any.

After revisions, the updated Vision and Mission statements are submitted to the Internal Quality Assurance Cell (IQAC) for review. The IQAC validates the process, checks for consistency with quality benchmarks and ensures that the statements meet institutional and accreditation standards. Based on IQAC's approval or suggestions, final adjustments are made.

The final step involves the formalization of the Vision and Mission. These finalized statements are then communicated through official institutional channels such as websites, brochures, curriculum documents and public displays within the department.

Process flowchart for framing PEOs of the Department.

The process of defining Program Educational Objectives (PEOs) in the Electronics and Communication Engineering (ECE) department is initiated by gathering inputs from three primary sources: regulatory bodies, the departments vision and mission statements and key stakeholders. Regulatory bodies such as AICTE and NBA provide essential guidelines to ensure the PEOs align with national educational standards. Simultaneously, the department's vision and mission offer internal direction, ensuring the objectives are consistent with long-term institutional goals. Stakeholders comprising faculty, students, alumni, industry representatives and employers contribute valuable insights that reflect current trends, industry expectations and societal needs. Figure 2 shows the process of framing PEOs of ECE Program.



Using this collective input, a preliminary draft of the PEOs is developed. This draft aims to incorporate the essence of the department's strategic intentions while remaining grounded in practical relevance and future-readiness. The drafted PEOs are then presented to the Department Academic Committee (DAC) for further discussion. The DAC, comprising senior faculty, undertakes a critical review to validate the objectives. During this stage, revisions or course corrections may be recommended based on feedback, stakeholder perspectives, or evolving educational trends.

Following this internal deliberation, the revised PEOs are forwarded to the Internal Quality Assurance Cell (IQAC) for formal review. The IQAC ensures that the process followed is systematic, transparent and in line with institutional quality assurance practices. Their evaluation also confirms that the PEOs support broader academic and strategic goals, including compliance with Outcome-Based Education (OBE) principles.

Once receiving the endorsement from IQAC, the PEOs are finalized. These finalized PEOs are then published and disseminated.

1.1.4 Dissemination of Vision, Mission and PEOs (5) | Institute Marks : 5.00

Dissemination of Vision, Mission and PEOs: The Vision, Mission, and Program Educational Objectives (PEOs) of the institution and department are disseminated through the platforms to ensure awareness among both internal and external stakeholders. These are published on the college website, displayed in departmental faculty rooms, classrooms, and laboratories and included in all official departmental documents. Faculty introduce and explain them to students at the beginning of each semester, reinforcing their relevance. The Learning Management System (MOODLE), accessed daily by faculty and students, hosts these elements on each course page. The institutional newsletter also carries the Vision, Mission and Values, further extending outreach to alumni, employers and other external stakeholders. This multi-channel approach ensures consistent communication and alignment with the institution's goals.

Sl. No.	Location	Description
1	College Website	https://hitam.org/electronics-and-communication-engineering/ (https://hitam.org/electronics-and-communication-engineering/)
2	Departmental Faculty Room	The Vision, Mission and PEOs of the department are displayed in the faculty room noticeboards.
3	Departmental Classrooms	The HOD briefs the Vision, Mission and PEOs of the department to the students at the beginning of every semester. The PEOs of the department are displayed in all classrooms.
4	Departmental Laboratories	The Vision, Mission and PEOs of the department are displayed in all labs.
5	Departmental Documents	Printed and attached in the files related to various documents in the department
6	LMS(MOODLE)	HITAM maintains MOODLE platform for sharing the course details and material with the students. All the faculty and students have access to MOODLE every day. Hence College vision, mission & values and Department vision, mission, PEOs are uploaded in the respective faculty course page of LMS.
7	Newsletter	Vision, Mission and Values of the institution are included in the Institutional News letter twice a year.
8	Department Notice Board	Vision, Mission and Values of the institution are displayed in the department notice board

1.1.5 Mapping of PEOs with Mission (10) | Institute Marks : 10.00

PEO Statements	M1	M2	M3
To exhibit strong team collaboration and professional competence in both IT and core electronic sectors.	2	2	3
To excel in higher education and research with strong technical knowledge, critical thinking, and innovative skills in emerging technologies.	3	2	2
To address society needs through multidisciplinary engineering projects approach.	2	3	3

There are three Mission statements and three PEOs for Electronics and communication Engineering. The consistency between PEOs and Mission of the department was established by Department Academic committee in consultation with faculty members.

PEO Statements	M1 Problem -solving	M2 Multi-disciplinary learning	M3 Sustainable Practices
PEO1: To exhibit strong team collaboration and professional competence in both IT and core electronic sectors.	2	2	3
PEO2: To excel in higher education and research with strong technical knowledge, critical thinking, and innovative skills in emerging technologies.	3	2	2
PEO3: To address society needs through multidisciplinary engineering projects approach.	2	3	3

Justification of PEOs mapping with Mission statements:

PEOs	Justification with Mission Elements
	M1 (Moderate – 2): Curriculum is designed with a balance of theoretical knowledge and applied skills through lab work, mini-projects, and design-based

PEO1	learning, preparing students for IT and electronics roles. M2 (Moderate – 2): Collaboration across IT and electronics demands knowledge integration from multiple disciplines. M3 (Strong – 3): Industry-focused training via programs like workshops and technical fest and expert sessions on tools like Xilinx and MATLAB help students align with global industry expectations, supporting sustainable and long-term career readiness.
PEO2	M1 (Strong – 3): Research-driven pedagogy using simulation tools and hands-on labs fosters deep understanding and encourages analytical thinking essential for postgraduate education. M2 (Moderate – 2): Participation in interdepartmental symposiums and research expos fosters limited but valuable multidisciplinary knowledge for innovation. M3 (Moderate – 2): Emerging technologies often combine multiple fields, requiring foundational multi-disciplinary knowledge.
PEO3	M1 (Moderate – 2): Engagement in problem-solving through community projects and engineering challenges strengthens application of core knowledge to societal issues. M2 (Strong – 3): Structured multidisciplinary platforms like EPICS, hackathons, and innovation clubs allow students to work with peers from different domains to address real-world problems. M3 (Strong – 3): Students work on community-focused problems such as sustainable energy, rural technology, and smart solutions, embedding sustainability and ethical practices into their engineering approach.

1.2 Curriculum Structure and Features (30) — **Total Marks 29.00**

1.2.1 State the Process for Developing/Revising the Program Curriculum (10) — Institute Marks : 10.00

The curriculum development or revision process begins with a Gap Analysis that considers existing course offerings considering expected Graduate Attributes, industry requirements, emerging technologies and accreditation standards such as those from NBA. This step identifies the gaps in the current curriculum and suggests directions for improvement. The outcome of the analysis informs the next stage of action.

Once gaps are identified, the proposed changes are reviewed by the Department Academic Committee (DAC). The DAC, comprising senior faculty members and subject experts, discusses the findings and provides direction for curriculum enhancement. Based on this input, the Detailed Course Structure is prepared, which outlines the number of credits, course distribution across semesters and integration of new modules if necessary.

Following this, a draft syllabus for each course is developed with the involvement of subject experts. These experts bring in domain-specific insights to ensure that the proposed syllabus is appropriate, up-to-date and relevant. Once the syllabus is drafted, it is presented in a Pre-Board of Studies (Pre-BoS) meeting for preliminary evaluation. This meeting provides an opportunity to suggest modifications or enhancements before the formal review.

If the Pre-BoS committee suggests changes, the draft undergoes modifications. Otherwise, if accepted, the curriculum progresses to the Board of Studies (BoS) for official review. The BoS, comprising internal and external academic and industry members, evaluates the curriculum thoroughly. If approved, the curriculum is forwarded to the Academic Council (AC) for final ratification.

After obtaining final approval by the Academic Council, the revised or newly developed curriculum is ready for implementation. The institution then proceeds to communicate these changes to faculty, update course documents and initiate delivery in the academic calendar.

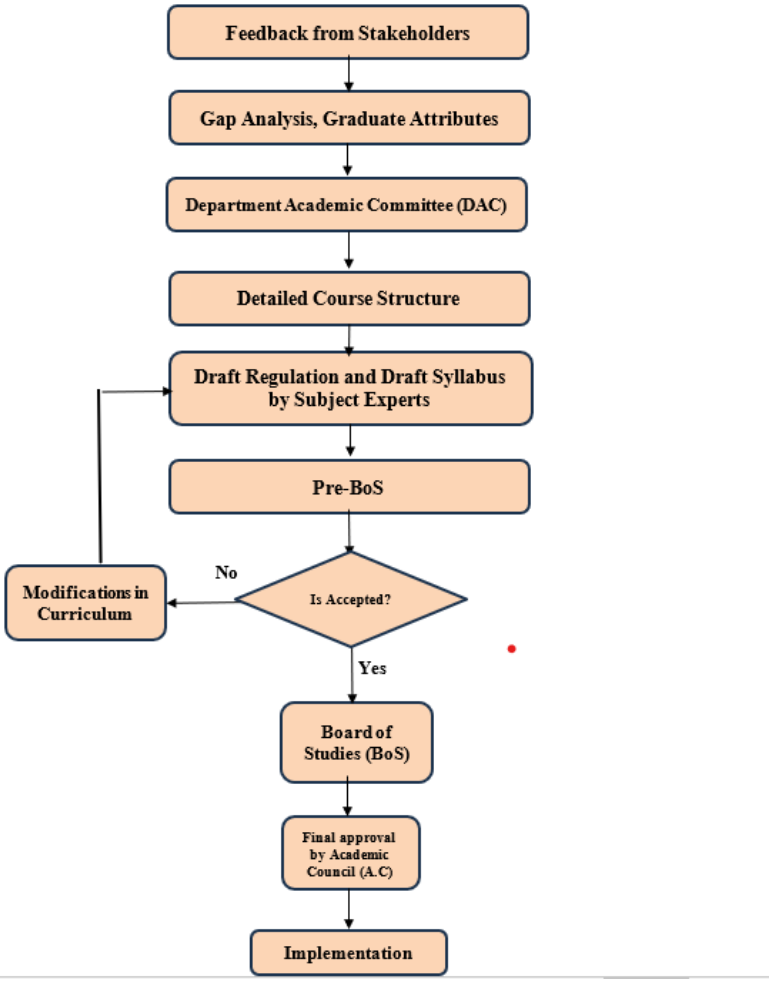


Fig. 1.2.1. Process flow of Content Delivery of Autonomous curriculum for attaining PO's & PSO's

1.2.2 Curriculum Structure (10) Institute Marks : 10.00

ID	Course Code	Course Title	Classroom Instruction (CI) (in hours per semester)		Lab Instruction (LI) (in hours per semester)	Term Work (TW) and Self Learning (SL) (TW+ SL) (in hours per semester)	Total no. of Hours per semester	Total Credits (C)* (Total Hours/30)
			L	T	P	SL		
1	21BS1MT01	Matrix Algebra and Calculus	48	16	0	56	120	4.00

1.2.3 Components of Curriculum (5) Institute Marks : 5.00

Course Components	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	13.75	336.00	21.00
Basic Engineering	14.37	368.00	23.00
Humanities and Social Sc	5.62	160.00	10.00
Program Core	36.87	944.00	59.00
Program Electives	11.25	288.00	18.00
Open Electives	7.5	192.00	12.00
Project(s)	8.12	208.00	13.00
Internships/Seminars	2.5	64.00	4.00
Any other (Please specify	0	0.00	0.00
Total number of Credits			**160.00**

1.2.4 Strategies for Education Reforms (5) Institute Marks : 4.00

HITAM strives to offer engineering education by embedding experiential learning, interdisciplinary engagement and real-world relevance into its academic practices. The institute adopts strategies to ensure that students are equipped with domain-specific knowledge and develop the ability to work across disciplines, think critically and contribute meaningfully to society.

1. Unnat Bharat Abhiyan (UBA): Connecting Classroom with Community

Through its participation in Unnat Bharat Abhiyan, HITAM has adopted nearby villages and engages faculty and students in identifying local challenges during field visits. These interactions offer firsthand exposure to real-world problems, allowing students to explore technological and social interventions through interdisciplinary collaboration. The insights gained are translated into project-based learning, embedding relevance and responsibility into the academic journey.

2. APAAR and Academic Bank of Credits (ABC): Flexible and Connected Learning

To facilitate student mobility and academic flexibility, HITAM has implemented the APAAR ID system and enabled credit recording in alignment with the Academic Bank of Credits (ABC). Awareness sessions, detailed demonstrations, and faculty mentoring helped students complete their registration. These systems enhance student autonomy and support diverse learning pathways, encouraging participation in courses beyond traditional disciplinary boundaries.

3. Indian Knowledge Systems (IKS): Enriching the Curriculum with Cultural Insight

HITAM has introduced the Indian Knowledge Systems (IKS) course into the undergraduate curriculum to offer students a broader perspective on knowledge traditions. With themes spanning mathematics, metallurgy, architecture, linguistics, and environmental practices, IKS encourages interdisciplinary thinking and critical reflection. Faculty are encouraged to use experiential pedagogies such as case studies, mini-projects, and reflective assignments. A dedicated library section supports further inquiry into indigenous knowledge systems.

4. Grand Challenges Scholars Program (GCSP): Integrated Learning for Global Impact

As the first institution in Telangana recognized under the GCSP, HITAM integrates five key dimensions into the student experience: research, entrepreneurship, global exposure, interdisciplinary learning, and service. Students engage in long-term projects that require combining technical knowledge with an understanding of economic, social, and environmental factors. The program supports holistic development and prepares students to address contemporary challenges with creativity and purpose.

5. Aalborg-Inspired PBL Model: Faculty Empowerment for Pedagogical Change

To strengthen PBL practices, HITAM draws on the globally recognized Aalborg model of PBL, adapted to suit local needs. Faculty members receive structured training to implement PBL effectively, focusing on facilitation, problem design, and reflective assessment. This has led to a gradual shift in the teaching-learning culture—from instruction-led delivery to facilitated exploration and problem-solving.

HITAM has made Problem-Based Learning (PBL) a core instructional approach across its engineering programs. Students work in small teams to solve complex, real-world problems by integrating knowledge from multiple subjects. This model fosters self-directed learning, critical thinking, and collaboration, while enhancing students' ability to apply classroom knowledge to practical contexts. PBL is systematically embedded in course design, instructional methods, and assessment patterns across all years of study.

6. EPICS: Engineering for Social Impact

Through Engineering Projects in Community Service (EPICS), HITAM offers students an opportunity to work on interdisciplinary, socially relevant projects. Teams of students design solutions for challenges in areas like sanitation, education, healthcare, and sustainability. EPICS reinforces the importance of empathetic engineering, while also building skills in project management, teamwork, and ethical decision-making.

HITAM's educational strategy focuses on preparing students to thrive in real-world environments. Through initiatives like UBA, APAAR, IKS, GCSP, PBL, and EPICS, the institute integrates experiential and interdisciplinary learning into its curriculum and pedagogy. These efforts reflect HITAM's commitment to producing engineers who are technically proficient, socially responsible, globally aware and capable of innovating for meaningful impact.

1.3 PO, PSO and their Mapping with Courses (20)	**Total Marks 20.00**
1.3.1 POs and PSOs (5)	:

PSO1	Apply the Knowledge of Domain Skills in the Design and Development of Electronic Circuits, VLSI and Embedded Systems
PSO2	Demonstrate the Competency in Solving the Practical problems using Signal Processing and Communication systems that Contribute towards societal needs

1.3.2 Mapping between the Courses and POs/PSOs (15) Institute Marks : 15.00

PO:

PO Number	List of Courses
PO1	1. Matrix Algebra and Calculus 2. Applied Physics 3. Basic Electrical and Electronics Engineering 4. Basic Electrical and Electronics Engineering-Lab 5. Applied Physics Lab 6. Advanced Calculus for Engineers 7. Engineering Chemistry 8. Problem Solving using C 9. Engineering Chemistry Lab 10. Problem Solving using C -Lab 11. Signals and Systems 12. Electronic Devices and Circuits 13. Electronic Devices and Circuits Lab 14. Digital Logic Design Lab 15. Laplace Transforms, Numerical Methods & Complex variables 16. Digital Logic Design 17. Elements of Bioelectronics 18. Communication Systems 19. Linear Integrated circuit applications 20. Control Systems 21. Communication Systems Laboratory 22. Signals and Systems Laboratory 23. Electromagnetic field & Waves 24. Doing Engineering-1 25. Digital Communication 26. Microcontrollers and its Applications 27. Antennas and Wave Propagation 28. Doing Engineering-2 29. Microcontrollers and its Applications Lab 30. Digital Communication Lab 31. Computer Networks DIGITAL SIGNAL PROCESING 32. Optical Communications 33. VLSI Design LAB 34. VLSI Design 35. DIGITAL SIGNAL PROCESSING LAB 36. Python Programming-Lab 37. Sensors and Devices 38. Microwave Engineering 39. Cellular and mobile communication 40. Wireless Communications and Networks 41. Global Positioning Systems 42. Microwave Engineering Laboratory
PO2	1. Basic Electrical and Electronics Engineering 2. Basic Electrical and Electronics Engineering-Lab 3. Engineering Chemistry 4. Problem Solving using C 5. Engineering Chemistry Lab 6. Signals and Systems 7. Electronic Devices and Circuits 8. Electronic Devices and Circuits Lab 9. Digital Logic Design Lab 10. Internship-1 11. Digital Logic Design 12. Elements of Bioelectronics 13. Communication Systems 14. Linear Integrated circuit applications 15. Control Systems 16. Communication Systems Laboratory 17. Linear and Digital IC Applications Laboratory 18. Signals and Systems Laboratory 19. Electromagnetic field & Waves 20. Doing Engineering-1 21. Digital Communication 22. Microcontrollers and its Applications 23. Antennas and Wave Propagation 24. Microcontrollers and its Applications Lab 25. Digital Communication Lab 26. Computer Networks 27. Data Security 28. Digital Signal Processing 29. Optical Communications 30. VLSI Design Lab 31. Digital Signal Processing Lab 32. Python Programming-Lab 33. Sensors and Devices 34. Microwave Engineering 35. Cellular and mobile communication 36. Wireless Communications and Networks 37. Global Positioning Systems 38. Microwave Engineering Laboratory
PO3	1. Problem Solving using C 2. Signals and Systems 3. Electronic Devices and Circuits 4. Electronic Devices and Circuits Lab 5. Digital Logic Design Lab 6. Internship-1 7. Digital Logic Design 8. Linear Integrated circuit applications 9. Communication Systems Laboratory 10. Linear and Digital IC Applications Laboratory 11. Electromagnetic field & Waves 12. Doing Engineering-1 13. Antennas and Wave Propagation 14. Doing Engineering-2 15. Microcontrollers and its Applications Lab 16. Digital Communication Lab 17. Python Programming 18. Digital Signal Processing 19. VLSI Design Lab 20. VLSI Design 21. Sensors and Devices 22. Microwave Engineering 23. Cellular and mobile communication
PO4	1. Basic Electrical and Electronics Engineering-Lab 2. Electronic Devices and Circuits Lab 3. Internship-1 4. Communication Systems Laboratory 5. Linear and Digital IC Applications Laboratory 6. Electromagnetic field & Waves 7. Doing Engineering-2 8. Digital Communication Lab 9. Data Security 10. Python Programming-Lab 11. Microwave Engineering Laboratory
PO5	1. Basic Electrical and Electronics Engineering 2. Basic Electrical and Electronics Engineering-Lab 3. Problem Solving using C 4. Problem Solving using C -Lab 5. Signals and Systems 6. Electronic Devices and Circuits Lab 7. Digital Logic Design Lab 8. Internship-1 9. Communication Systems 10. Control Systems 11. Signals and Systems Laboratory 12. Doing Engineering-1 13. Digital Communication 14. Microcontrollers and its Applications 15. Doing Engineering-2 16. Digital Communication Lab 17. Computer Networks 18. Python Programming 19. VLSI Design Lab 20. VLSI Design 21. Python Programming Lab 22. Sensors and Devices
PO6	1. Signals and Systems 2. Internship-1 3. Internship-1 4. Antennas and Wave Propagation 5. Data Security
PO7	1. Digital Logic Design Lab 2. Internship-1 3. Antennas and Wave Propagation 4. Data Security
PO8	1. English 2. English Language Communication Skills Lab 3. Internship-1 4. Communication Systems 5. English for Employability 6. English for Employability-Lab 7. Advanced English Communication Skills-Lab 8. Sensors and Devices 9. Microwave Engineering 10. Entrepreneurship
PO9	1. Basic Electrical and Electronics Engineering 2. English 3. English Language Communication Skills Lab 4. Business Economics and Financial Accountancy 5. Signals and Systems 6. Digital Logic Design Lab 7. Internship-1 8. Communication Systems 9. English for Employability 10. English for Employability-Lab 11. Microcontrollers and its Applications Lab 12. Advanced English Communication Skills-Lab 13. Global Positioning Systems 14. Entrepreneurship

PO10	1. Business Economics and Financial Accountancy 2. Internship-1 3. Entrepreneurship
PO11	1. Engineering Workshop 2. Electronic Devices and Circuits 3. Embedded System Design 4. Industry Oriented Mini Project 5. Project Stage-I 6. Non-Conventional Sources of Energy 7. Major Project

PSO:

PO Number	List of Courses
PSO1	1.Electronic Devices and Circuits 2. Electronic Devices and Circuits Lab 3.Digital System Design Lab 4.Digital System Design 5.Linear IC Applications 6.Electronic Circuit Analysis 7.IC Applications Lab 8.Electronic Circuit Analysis Lab 9.Industry Oriented Mini Project 10.Seminar 11.Project Stage-I 12.Digital Image Processing 13.System On Chip Architecture 14.Project Stage-II
PSO2	1.Signals And Systems 2.Probability Theory and Stochastic Processes 3.Electronic Devices and Circuits Lab 4.Basic Simulation Lab 5.Network Analysis and Transmission Lines 6.Analog And Digital Communications 7.Linear IC Applications 8.Electronic Circuit Analysis 9.Analog And Digital Communications Lab 10.IC Applications Lab 11.Electronic Circuit Analysis Lab 12.Electromagnetic Fields & Waves 14.Control Systems 15.Data Communications & Networks 16.Data Communications and Networks Lab 17.Microwave Engineering 18.Microwave Engineering Lab 19.Industry Oriented Mini Project 20.Seminar 21.Project Stage-I 22.Wireless Sensor Networks 23.Project Stage-II

1.4 Course Outcomes and Course Articulation Matrix (30) **Total Marks 30.00**

1.4.1 Course Outcome (Semester Wise) (15) Institute Marks : 15.00

No. of Core Courses : 10	**C2 :** 4	**C3 :** 4	**C4 :** 2

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

Course Code :	**21PC3EC01**	**Semester :**	**3**

Course Outcome	Statements
21PC3EC01.1	Understand the characteristics of various electronic components and their applications.
21PC3EC01.2	Analyze the Bipolar Junction Transistor characteristics and the biasing techniques
21PC3EC01.3	Evaluate the Field Effect Transistor characteristics and its applications
21PC3EC01.4	Design and analyze the Small Signal BJT and FET Amplifiers

Course Code :	**21PC3EC02**	**Semester :**	**3**

Course Outcome	Statements
21PC3EC02.1	Explain the principles of number systems, binary codes, and Boolean algebra to simplify and construct basic logic functions.
21PC3EC02.2	Develop and evaluate combinational circuits including adders, subtractors, multiplexers, decoders, encoders, and code converters
21PC3EC02.3	Illustrate the functionality of sequential circuits using flip-flops, registers, and counters; transform one type of flip-flop into another to meet design specifications
21PC3EC02.4	Design finite state machines, logic gate implementations using discrete components such as diodes and transistors, and CMOS logic family comparisons

Course Code :	21PC4EC06	Semester :	4

Course Outcome	Statements
21PC4EC06.1	Analyze various modulation and demodulation techniques used in communication systems.
21PC4EC06.2	Explain the concepts and characteristics of random processes relevant to communication.
21PC4EC06.3	Describe the nature and impact of noise in communication systems.
21PC4EC06.4	Design different pulse modulation techniques for signal transmission.

Course Code :	21PC4EC08	Semester :	4

Course Outcome	Statements
21PC4EC08.1	Explain the fundamental laws, concepts, and proofs related to electrostatic fields.
21PC4EC08.2	Describe the basic laws, concepts, and proofs related to magnetostatic fields.
21PC4EC08.3	Differentiate between static and time-varying fields and derive Maxwell's equations and boundary conditions.
21PC4EC08.4	Analyze the characteristics of uniform plane waves (UPW) in various media, including reflection and transmission coefficients.

Course Code :	21PC5EC15	Semester :	5

Course Outcome	Statements
21PC5EC15.1	Describe fundamental antenna engineering parameters and associated terminology.
21PC5EC15.2	Analyze the basic principles of electromagnetic wave radiation and reception.
21PC5EC15.3	Design practical antenna prototypes and perform measurements of key antenna parameters.
21PC5EC15.4	Evaluate atmospheric and terrestrial effects on radio wave propagation.

Course Code :	21PC5EC16	Semester :	5

Course Outcome	Statements
21PC5EC16.1	Understand Computer Architecture and Microprocessor Fundamentals Explain the internal architecture, organization and Addressing modes of 8086 Microprocessors.
21PC5EC16.2	Explain the internal architecture, organization and Addressing modes of 8086 Microprocessors.

21PC5EC16.3	Apply Programming Techniques in MSP430 Microcontroller Architecture
21PC5EC16.4	Describe the functions of various peripherals which are interfaced with microcontroller for different applications.

Course Code :	**21PC6EC19**	**Semester :**	**6**

Course Outcome	**Statements**
21PC6EC19.1	Analyze the characteristics of Linear Time-Invariant (LTI) systems and multi-rate signal processing techniques.
21PC6EC19.2	Describe the interrelationships between the Discrete Fourier Transform (DFT) and other signal transforms.
21PC6EC19.3	Design digital filters to meet specified performance criteria.
21PC6EC19.4	Evaluate different digital filter structures and assess the impact of round-off errors on system performance.

Course Code :	**21PC6EC20**	**Semester :**	**6**

Course Outcome	**Statements**
21PC6EC20.1	Explain the fundamental concepts of MOS, CMOS, BiCMOS technologies and their electrical characteristics relevant to VLSI circuits.
21PC6EC20.2	Analyze the design and layout of basic MOS/BiCMOS circuits including inverters, logic gates, and sequential elements using stick diagrams and design rules.
21PC6EC20.3	Design subsystem components such as ALUs, shifters, multipliers, and memory arrays using MOS and CMOS technologies.
21PC6EC20.4	Evaluate programmable logic devices, testing techniques, and modern VLSI design trends including low power and SoC design.

Course Code :	**21PC7EC23**	**Semester :**	**7**

Course Outcome	**Statements**
21PC7EC23.1	Understand Wave Propagation and Modes in Rectangular Waveguides
21PC7EC23.2	Apply Design Principles to Microwave Passive Devices and Ferrite Components
21PC7EC23.3	Analyze Microwave Tubes and Solid-State Devices for Amplification and Oscillation
21PC7EC23.4	Describe the role of S-parameters in microwave component design and the procedures for measuring microwave parameters

Course Code :	**21PC7EC24**	**Semester :**	**7**

Course Outcome	**Statements**

21PC7EC24.1	Describe the concepts of cellular mobile radio systems
21PC7EC24.2	Apply System design concepts to Address Interference and Capacity Challenges
21PC7EC24.3	Analyze the influence of different propagation environments and diversity techniques to improve communication quality.
21PC7EC24.4	Explain various Multiple Access Schemes of cellular communication

1.4.2 Course Articulation Matrix (15) :

1 . course name : C221PC3EC01

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C221PC3EC01	Understanc	3	2	-	-	-	-	-	-	-	-	-
C221PC3EC01	Analyze the	3	2	-	2	-	-	-	-	-	-	-
C221PC3EC01	Evaluate th	3	2	-	2	-	-	-	-	-	-	-
C221PC3EC01	Design and	3	2	-	2	-	-	-	-	-	-	-
Average		**3.00**	**2.00**	**0.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2 . course name : C221PC3EC02

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C221PC3EC02	Explain the	3	2	-	-	-	-	-	-	-	-	-
C221PC3EC02	Develop an	3	3	2	-	-	-	-	-	-	-	-
C221PC3EC02	Illustrate th	3	3	2	-	-	-	-	-	-	-	-
C221PC3EC02	Design finit	3	2	2	-	-	-	-	-	-	-	-
Average		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3 . course name : C221PC4EC06

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C221PC4EC06	Analyze var	3	3	-	-	2	-	-	-	-	-	-
C221PC4EC06	Explain the	3	-	-	-	-	-	-	-	-	-	-
C221PC4EC06	Describe th	3	-	-	-	-	-	-	-	-	-	-
C221PC4EC06	Design diffe	3	-	1	-	1	-	-	-	-	-	-

Average		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4 . course name : C221PC4EC08

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C221PC4EC08	Explain the	3	3	-	-	-	-	-	-	-	-	-
C221PC4EC08	Describe th	3	3	-	-	-	-	-	-	-	-	-
C221PC4EC08	Differentiat	3	3	-	2	-	-	-	-	-	-	-
C221PC4EC08	Analyze the	3	2	-	2	2	-	-	-	-	-	-
Average		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

5 . course name : C321PC5EC15

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C321PC5EC15	Describe fu	3	-	-	-	-	-	-	-	-	-	-
C321PC5EC15	Analyze the	3	2	-	2	2	-	-	-	-	-	-
C321PC5EC15	Design prac	3	2	2	2	2	-	-	-	-	-	-
C321PC5EC15	Evaluate at	3	2	-	-	-	-	-	-	-	-	-
Average		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6 . course name : C321PC5EC16

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C321PC5EC16	Understanc	1	-	-	-	-	-	-	-	-	-	-
C321PC5EC16	Explain the	3	2	-	-	-	-	-	-	-	-	-
C321PC5EC16	Apply Prog	3	2	2	-	2	-	-	-	-	-	-
C321PC5EC16	Describe th	3	2	-	-	2	-	-	-	-	-	-
Average		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

7 . course name : C321PC6EC19

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

C321PC6EC19	Analyze the	3	2	-	2	-	-	-	-	-	-	-
C321PC6EC19	Describe th	3	2	-	-	-	-	-	-	-	-	-
C321PC6EC19	Design dig	3	2	2	-	-	-	-	-	-	-	-
C321PC6EC19	Evaluate dif	3	2	2	-	-	-	-	-	-	-	-
Average		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

8 . course name : C321PC6EC20

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C321PC6EC20	Explain the	3	2	-	-	-	-	-	-	-	-	-
C321PC6EC20	Analyze the	3	3	2	-	-	-	-	-	-	-	-
C321PC6EC20	Design sub	3	2	3	-	-	-	-	-	-	-	-
C321PC6EC20	Evaluate pr	3	2	2	-	-	-	-	-	-	-	-
Average		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

9 . course name : C421PC7EC23

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C421PC7EC23	Understanc	3	2	-	-	-	-	-	-	-	-	-
C421PC7EC23	Apply Desig	3	2	-	-	-	-	-	-	-	-	-
C421PC7EC23	Analyze Mi	3	2	-	-	-	-	-	-	-	-	-
C421PC7EC23	Describe th	3	2	2	-	-	-	-	-	-	-	-
Average		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

10 . course name : C421PC7EC24

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
C421PC7EC24	Describe th	3	2	-	-	-	-	-	-	-	-	-
C421PC7EC24	Apply Syste	2	2	-	-	-	-	-	-	-	-	-
C421PC7EC24	Analyze the	1	3	-	-	-	-	-	-	-	-	-
C421PC7EC24	Explain vari	2	2	-	-	-	-	-	-	-	-	-
Average		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1 . Course Name : C221PC3EC01

Course	PSO1	PSO2
C221PC3EC01	3	3
C221PC3EC01	2	2
C221PC3EC01	2	2
C221PC3EC01	2	2
Average	**1.75**	**0.00**

2 . Course Name : C221PC3EC02

Course	PSO1	PSO2
C221PC3EC02	2	1
C221PC3EC02	2	1
C221PC3EC02	2	1
C221PC3EC02	2	1
Average	**1.00**	**0.00**

3 . Course Name : C221PC4EC06

Course	PSO1	PSO2
C221PC4EC06	1	3
C221PC4EC06	-	2
C221PC4EC06	1	2
C221PC4EC06	1	3
Average	**0.00**	**2.50**

4 . Course Name : C221PC4EC08

Course	PSO1	PSO2
C221PC4EC08	1	2
C221PC4EC08	1	2

C221PC4EC08	-	3
C221PC4EC08	-	2
Average	**0.00**	**2.50**

5 . Course Name : C321PC5EC15

Course	PSO1	PSO2
C321PC5EC15	-	3
C321PC5EC15	1	3
C321PC5EC15	-	3
C321PC5EC15	-	2
Average	**0.00**	**2.75**

6 . Course Name : C321PC5EC16

Course	PSO1	PSO2
C321PC5EC16	2	-
C321PC5EC16	3	-
C321PC5EC16	2	-
C321PC5EC16	2	2
Average	**2.33**	**2.00**

7 . Course Name : C321PC6EC19

Course	PSO1	PSO2
C321PC6EC19	-	3
C321PC6EC19	-	3
C321PC6EC19	1	3
C321PC6EC19	1	3
Average	**0.00**	**3.00**

8 . Course Name : C321PC6EC20

Course	PSO1	PSO2
C321PC6EC2(	3	-
C321PC6EC2(	2	-
C321PC6EC2(	2	-
C321PC6EC2(	2	-
Average	**2.25**	**0.00**

9 . Course Name : C421PC7EC23

Course	PSO1	PSO2
C421PC7EC23	-	2
C421PC7EC23	1	2
C421PC7EC23	2	3
C421PC7EC23	1	2
Average	**0.00**	**2.25**

10 . Course Name : C421PC7EC24

Course	PSO1	PSO2
C421PC7EC24	-	3
C421PC7EC24	-	3
C421PC7EC24	-	3
C421PC7EC24	-	2
Average	**0.00**	**2.00**

1.5 Program Articulation Matrix (5) — Total Marks 5.00

Program Articulation Matrix :

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
21BS1MT01	3	2			1						

21BS1PH01	3										
21HS1EG01									2	2	
21ES1EE01	2	2			1						
21HS1MB01											2
21BS1PH02	3										
21HS1EG02									2	2	
21ES1EE02	2	3									
21BS2MT02	3	2			1						
21BS2CH01	3	1									
21BS2CH02	3										
21ES2CS01	2.25	2	2		2						
21ES2CS02	3		2		2						
21ES2ME02	3	1	1	1	3						
21BS3MT05	3	1			1						
21PC3CS01	2	2									
21PC3EC01	3	2		2							
21PC3EC02	3	2.5	2								
21PC3EC03	3	1									
21ES3CS05		3	3		2						
21PC3EC04	3	2	3								
21PC3EC05	3	2									
21PC4EC06	3	3	1		1						
21PC4EC07	3	2	2								
21PC4EC08	3	2.25	2	2							
21PC4EE07	3	2			2						
21PC4EC10	3	3									
21HS4EG03								3	2	3	
21HS4EG04		3							2	3	
21PC4EC12	3	2			1						
21PC4EC13	3	2			3						

21PC5EC14	3	2			2						
21PC5EC15	3	2	2	2	2						
21PC5EC16	2.5	2	2		2						2
21PE5EC14	2	2			2						
21PC5EC17	3	2	2		3						
21PC5EC18	3	3	3							3	
21HS5EG05									2	3	
21ES6CS03			2		2						
21PC6EC19	3	2	2		2						
21PC6EC20	3	2.25	2.25								
21HS6MB02									2	2	2
21PC6EC21	3	2	2		3						
21ES6CS04		1	1		2						
21PC6EC22	3	3	3	3	3			2	2	3	
21PC7EC23	3	2	2								
21PC7EC24	2	2.25									
21PC7EC25	2	1	2	1							
21PR7PS01	3	3	2	2	3	3	2	2	3	3	2
21PR8PS02	3	3	2	2	3	3	2	2	3	3	2
21PE8EC53	2.25	2.25									
21PE8EC64	1.25	1	1								
21PC4EC11	3	2			1						

Course Code	PSO1	PSO2
21BS1MT01		
21BS1PH01	1	1
21BS1PH02		
21BS2CH01		1
21BS2CH02		
21BS2MT02		
21BS3MT05	1	1

21ES1EE01	2	FS02
21ES1EE02	3	FS02
21ES2CS01	FS01	1.5
21ES2CS02	FS01	1
21ES2ME01	FS01	FS02
21ES2ME02	3	3
21ES3CS05	1	1
21ES6CS03	FS01	1
21ES6CS04	1	1
21HS1EG01	FS01	FS02
21HS1EG02	FS01	FS02
21HS1MB01	FS01	FS02
21HS4EG03	1	1
21HS4EG04	1	1
21HS5EG05	1	1
21HS6MB02	1	1
21PC3CS01	1	1
21PC3EC01	2.25	2.25
21PC3EC02	2	1
21PC3EC03	3	1
21PC3EC04	3	1
21PC3EC05	3	1
21PC4EC06	1	2.5
21PC4EC07	3	1
21PC4EC08	1	2.25
21PC4EC10	3	1
21PC4EC11	1	3
21PC4EC12	3	1
21PC4EC13	3	1
21PC4EE07	3	1

21PC5EC14	1	3
21PC5EC15	1	2.75
21PC5EC16	2.25	2
21PC5EC17	1	3
21PC5EC18	1	2
21PC6EC19	1	3
21PC6EC20	2.25	[illegible]
21PC6EC21	1	3
21PC6EC22	1	3
21PC7EC23	1.33	2.25
21PC7EC24	[illegible]	2.75
21PC7EC25	1	3
21PE5EC14	1	2
21PE8EC53	[illegible]	2
21PE8EC64	[illegible]	1
21PR7PS01	3	3
21PR8PS02	3	3

2 OUTCOME-BASED TEACHING LEARNING (120)

Total Marks 112.00

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

Total Marks 20.00

Institute Marks : 20.00

The Department of ECE ensures curriculum delivery through a process which enables us to deliver the quality teaching in line with the principles of Outcome-Based Education (OBE) that focuses on learning outcomes for every course. In order to implement OBE effectively we follow the below process. The process flow diagram is shown in figure 2.1.1.

An Academic Calendar is prepared before the commencement of the semester.

Each faculty is required to furnish their choice of courses to teach for the coming semester.

The course allocation will be done by considering:

a. Faculty Specialization.

b. No of times same course is taught by the faculty.

c. Previous performance in their teaching.

d. Faculty Presentation if new course.

Once the subject is allotted, the faculty will prepare the following documentation for review by the DAC.

1. Lesson Plan (scheduling, TLOs, COs, CO-PO mapping, planned pedagogies).

2. Course File:

- Course Structure.
- Course Contents.
- Lesson Plan.
- Study Material/Lecture Notes.
- Course Applications.
- Assignments.
- Sample/Model Questions.
- Previous Question Papers if any.
- Sample Course Level Project Proposals if any.

3. Course Delivery.

4. CIE Assessments towards Theory Courses and Day to Day Evaluation for Laboratory Courses.

5. Identification of Fast and Slow Learners.

6. Supportive Actions towards the Slow Learners

7. Initiatives towards Fast Learners.

8.Once the course is completed the faculty will add the following information for later use in the next academic year.

- Observations from CIE and SEE
- Recommendations for Course Corrections if any.

9. Faculty Conclave to present the pedagogies implemented to achieve the OBE outcomes.

10. Attainment of Course Outcomes and CO-PO.

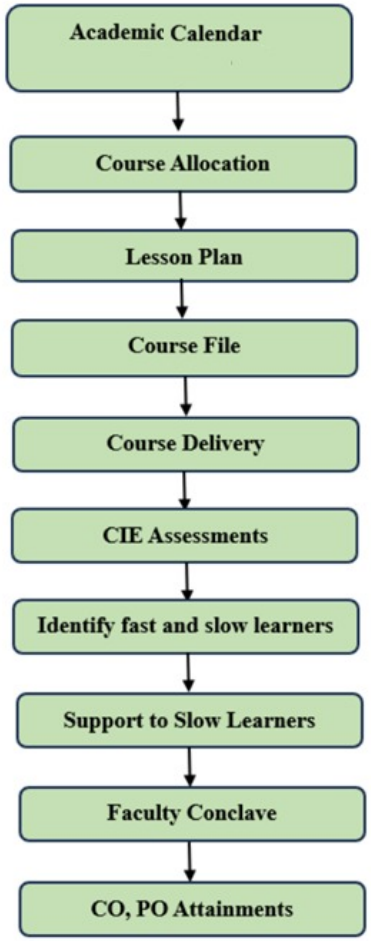


Figure.2.1.1 Teaching Learning Process Flowchart

A.Structured Academic Planning

Department of ECE ensures adherence to the academic calendar which is prepared considering the guidelines from the affiliating university and state government. Being an Autonomous Institution we design the course structure and its contents based on the AICTE model curriculum and the local industry needs.

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AUTONOMOUS)
ACADEMIC CALENDAR 2024-25

B.TECH. III & VII SEMESTER

S. No	Description	Duration	
		From	To
1	Commencement of Class work	**29.07.2024**	
2	1st Spell of Instructions (09 Weeks)	29.07.2024	01.10.2024
3	First Mid Term Examinations	03.10.2024	05.10.2024
4	Intramural Sports	07.10.2024	09.10.2024
5	Dasara & Batukamma Holidays	10.10.2024	15.10.2024
6	Submission of First Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	09.10.2024	
7	Parents Teacher Meeting -1	12.10.2024	
8	2nd Spell of Instructions (7 Weeks)	16.10.2024	07.12.2024
9	Second Mid Term Examinations	09.12.2024	11.12.2024
10	Submission of Second Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	13.12.2024	
11	Parents Teacher Meeting -2	14.12.2024	
12	End Semester Examinations	16.12.2024	27.12.2024
13	Practical Examinations	28.12.2024	03.01.2025
14	Submission of SEE marks	04.01.2025	
15	Elysian-Sports &Cultural events	**8.1.2025 to 11.1.2025**	
16	Commencement of Class work for IV Semester	**17.01.2025**	

B.TECH. IV & VIII SEMESTER

S. No	Description	Duration	
		From	To
1	Commencement of Class work	**17.01.2025**	
2	1st Spell of Instructions (8 Weeks)	17.01.2025	15.03.2025
3	First Mid Term Examinations	17.03.2025	19.03.2025
4	Submission of First Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	22.03.2025	
5	Parents Teacher Meeting -1	22.03.2025	
6	2nd Spell of Instructions	20.03.2025	28.05.2025
7	Second Mid Term Examinations (8 Weeks)	29.05.2025	31.05.2025
8	Submission of Second Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	02.06.2025	
9	Summer Vacation	11.05.2024	24.05.2024
10	End Semester Examinations	02.06.2025	14.06.2025
11	Practical Examinations	17.06.2025	21.06.2025
12	Submission of SEE marks	20.06.2025	

PRINCIPAL

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AUTONOMOUS)
ACADEMIC CALENDAR 2024-25

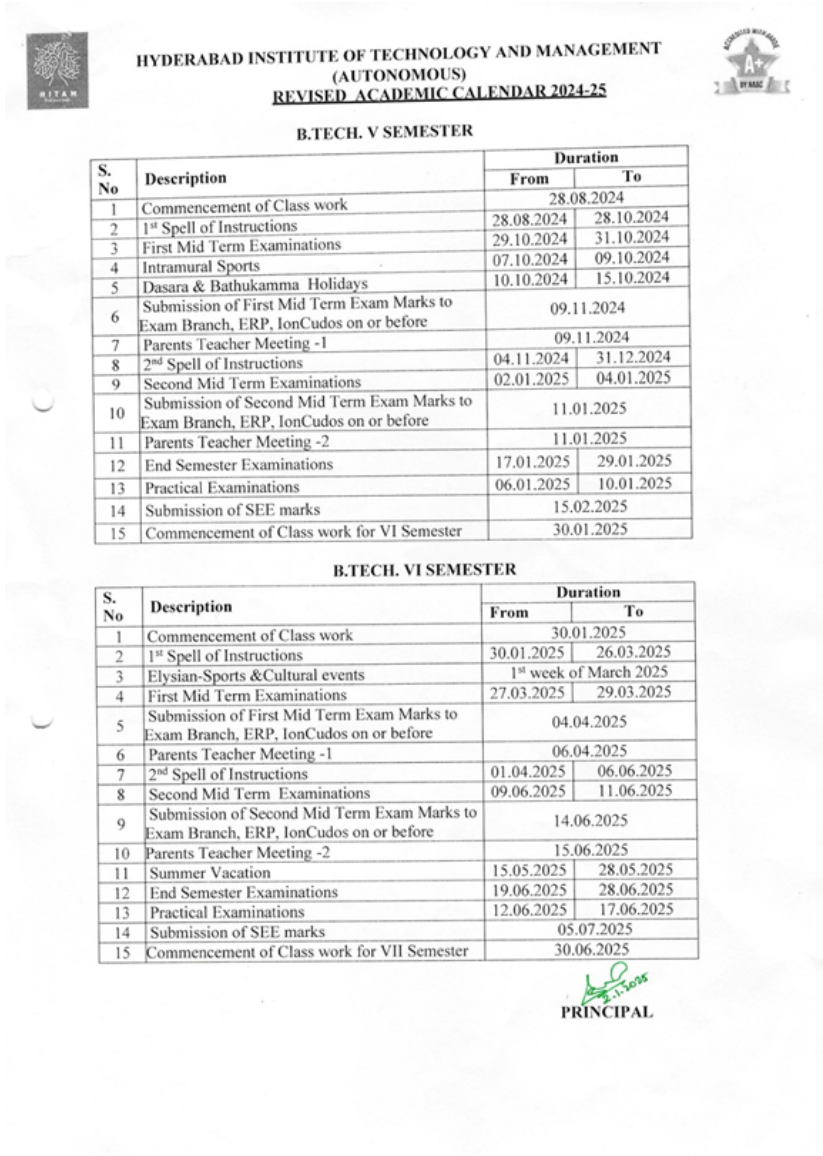
B.TECH. III & VII SEMESTER

S. No	Description	Duration	
		From	To
1	Commencement of Class work	**29.07.2024**	
2	1st Spell of Instructions (09 Weeks)	29.07.2024	01.10.2024
3	First Mid Term Examinations	03.10.2024	05.10.2024
4	Intramural Sports	07.10.2024	09.10.2024
5	Dasara & Batukamma Holidays	10.10.2024	15.10.2024
6	Submission of First Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	09.10.2024	
7	Parents Teacher Meeting -1	12.10.2024	
8	2nd Spell of Instructions (7 Weeks)	16.10.2024	07.12.2024
9	Second Mid Term Examinations	09.12.2024	11.12.2024
10	Submission of Second Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	13.12.2024	
11	Parents Teacher Meeting -2	14.12.2024	
12	End Semester Examinations	16.12.2024	27.12.2024
13	Practical Examinations	28.12.2024	03.01.2025
14	Submission of SEE marks	04.01.2025	
15	Elysian-Sports &Cultural events	**8.1.2025 to 11.1.2025**	
16	Commencement of Class work for IV Semester	**17.01.2025**	

B.TECH. IV & VIII SEMESTER

S. No	Description	Duration	
		From	To
1	Commencement of Class work	**17.01.2025**	
2	1st Spell of Instructions (8 Weeks)	17.01.2025	15.03.2025
3	First Mid Term Examinations	17.03.2025	19.03.2025
4	Submission of First Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	22.03.2025	
5	Parents Teacher Meeting -1	22.03.2025	
6	2nd Spell of Instructions	20.03.2025	28.05.2025
7	Second Mid Term Examinations (8 Weeks)	29.05.2025	31.05.2025
8	Submission of Second Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	02.06.2025	
9	Summer Vacation	11.05.2024	24.05.2024
10	End Semester Examinations	02.06.2025	14.06.2025
11	Practical Examinations	17.06.2025	21.06.2025
12	Submission of SEE marks	20.06.2025	

PRINCIPAL



HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AUTONOMOUS)
REVISED ACADEMIC CALENDAR 2024-25

B.TECH. V SEMESTER

S. No	Description	Duration	
		From	To
1	Commencement of Class work	28.08.2024	
2	1st Spell of Instructions	28.08.2024	28.10.2024
3	First Mid Term Examinations	29.10.2024	31.10.2024
4	Intramural Sports	07.10.2024	09.10.2024
5	Dasara & Bathukamma Holidays	10.10.2024	15.10.2024
6	Submission of First Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	09.11.2024	
7	Parents Teacher Meeting -1	09.11.2024	
8	2nd Spell of Instructions	04.11.2024	31.12.2024
9	Second Mid Term Examinations	02.01.2025	04.01.2025
10	Submission of Second Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	11.01.2025	
11	Parents Teacher Meeting -2	11.01.2025	
12	End Semester Examinations	17.01.2025	29.01.2025
13	Practical Examinations	06.01.2025	10.01.2025
14	Submission of SEE marks	15.02.2025	
15	Commencement of Class work for VI Semester	30.01.2025	

B.TECH. VI SEMESTER

S. No	Description	Duration	
		From	To
1	Commencement of Class work	30.01.2025	
2	1st Spell of Instructions	30.01.2025	26.03.2025
3	Elysian-Sports &Cultural events	1st week of March 2025	
4	First Mid Term Examinations	27.03.2025	29.03.2025
5	Submission of First Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	04.04.2025	
6	Parents Teacher Meeting -1	06.04.2025	
7	2nd Spell of Instructions	01.04.2025	06.06.2025
8	Second Mid Term Examinations	09.06.2025	11.06.2025
9	Submission of Second Mid Term Exam Marks to Exam Branch, ERP, IonCudos on or before	14.06.2025	
10	Parents Teacher Meeting -2	15.06.2025	
11	Summer Vacation	15.05.2025	28.05.2025
12	End Semester Examinations	19.06.2025	28.06.2025
13	Practical Examinations	12.06.2025	17.06.2025
14	Submission of SEE marks	05.07.2025	
15	Commencement of Class work for VII Semester	30.06.2025	

PRINCIPAL

Figure 2.1.2.: Academic Calendar for Academic year 2024-25

B.Pedagogies implemented :

For an effective teaching we adopt various pedagogical approaches. These include:

- One-minute paper
- Flipped Classrooms
- Problem-Based Learning (PBL)
- Brainstorming sessions

- Poster Presentation
- Virtual labs to enhance conceptual clarity
- Peer learning strategies
- Problem Solving
- Group Discussion

These initiatives are strategically implemented to enhance critical thinking, problem-solving skills, and long-term retention, while also encouraging communication, collaboration, and leadership among students.

Sample Pedagogy implementation report of ECE Faculty:

Name of the Activity : **Problem Solving**

Course : Digital Logic design

Name Of Topic : SOP and POS

Problem Solving:

The Problem Solving activity is conducted in the classroom only. One day before I divided entire class into groups as per their lab batch. In this activity, for every batch I provided a set of problems (this activity is conducted on counter design), each batch done the solution for the problems by discussing with their batch mates.

Implementation:

- One day before I gave the set of problems to the students that is Counter Design examples.
- In this activity I will call randomly any student, he/she has to come and explain the given counter design problem to their classmates.

Proof:

Figure2.1.3: Problem Solving

Outcome:

With these activity students can learn the topic deeply as well it will improve communication skills and removes stage fear also.

Challenges:

1. Require support of another faculty.

No of Students Participated: 59

Student Feedback:

1. More active to participate in the activity

2. feels more satisfactory with outcome of activity

Mode of Feedback: ORAL

Group Discussion:

The Group Discussion technique is a method of organizing classroom activity that makes students dependent on each other to succeed. It breaks classes into groups and breaks assignments into pieces that the group assembles to complete the (Group Discussion) puzzle.

Implementation:

- I formed 6 teams with size of 6 members according to order of their roll numbers.
- I assigned different segments (total 6 parts) to individual student in group.
- I gave 15 min to learn independently, later I formed teams who complete same segment in groups as a new group named as expert group.
- In expert group they shared their points and returned to their own group after completing the discussion in expert group.
- Now students shared complete information to their own groups and finally they presented.

Figure 2.1.4: Group Discussion

Outcome:

It helps students learn cooperation as group members share responsibility for each others learning by using critical thinking and social skills to complete an assignment. Subsequently, this strategy helps to improve listening, communication, and problem-solving skills.

Time taken to complete the Activity: 60 min

Best Performer:

- Thirupathi
- Nagesh

Slow performer:

- Pradeep
- Sai

Suggestions given to Slow Learner: counseling given to student how to mingle with their classmates to share their points.

Challenges:

a. Time not sufficient

b. Required support of another faculty.

Number of the students :60

Participated: 42

Number of Batches : 7

Students Feedback:

a. More active to participate in the activity

b. Feels more satisfactory with outcome of activity

Mode of Feedback: Oral

C.Quality of Classroom teaching

Each class room is provided with Information and Communication Technology (ICT) facilities so as to enable the faculty to make use of the same during their lecture delivery. As part of ICT each class room is provided with Internet, Audit-Visual equipment for make use of online presentations and communications. Each Faculty make of these digital resources for presentations, videos, simulations, and learning management systems to explain concepts and provide additional reference materials. These tools are also towards real-time interaction between faculty and students through quizzes. Online assessments and automated evaluation tools are used for monitoring progress. Communication between faculty and students is maintained through emails, forums, and messaging platforms. Overall, ICT facilities support the organization, delivery, and assessment of academic content in the classroom.

For certain quality improvement we will take regular Feedback collected from students at different stages through Class Representatives (CRs), the Student Self Governance (SSG) Cell, and HR feedback. These feedbacks will help us to redesign our method of teaching to ensure teaching quality.

Outcome-Based Education (OBE) Implementation

Each of the faculty members are either certified in International Engineering Educator Certification Program(IIEECP), or PBL Certification from Aalborg University, Denmark or enhance their teaching methodologies by participating in workshops on Outcome-Based Education (OBE). Each session in the class begins with a clear articulation of the objectives of the class and concludes with the topic-level outcomes, allowing students to assess their understanding and the value of the sessions.

This active learning approach ensures continuous student engagement, promotes higher-order thinking, collaboration and critical thinking among learners.

D.Conduct of Laboratory Experiments

The curriculum includes experiments designed to support theoretical concepts and practical applications. These experiments are developed and reviewed through discussions in the Board of Studies (BOS) meetings, which involve academic members and industry representatives. Inputs from the BOS help ensure that the experiments are relevant to current practices and technologies used in the industry. The content and structure of the experiments are mapped with industry requirements to provide students with exposure to tools, methods, and procedures.

If students perform all the experiments, they reach a stage where they can implement course-level projects. The experiments included in the curriculum, approved by the Board of Studies (BOS), form part of the process followed to support the implementation of course-level projects.

To ensure clarity and precision in execution, each experimental cycle begins with faculty-led demonstrations, providing students with a clear understanding of the underlying concepts and procedures. A comprehensive list of experiments is shared with students in two distinct phases:

- **Cycle 1:** Completed before Mid-Term 1
- **Cycle 2:** Completed before Mid-Term 2

Students are given detailed laboratory manuals and are required to attend each session with their observation books and a preliminary understanding of the assigned experiment. Faculty members verify these preparations and organize students into batches for systematic execution of the experiments. During lab sessions, students engage in performing the experiments, accurately record data, and draw graphs based on their observations. These results are reviewed and validated by the faculty.

A key element of the laboratory process is the day-to-day evaluation, which serves as an important criterion in assessing student performance. It ensures that students remain consistent, engaged, and technically sound throughout the course. This continuous assessment approach allows faculty to monitor individual progress, identify learning gaps, and provide timely feedback for improvement.

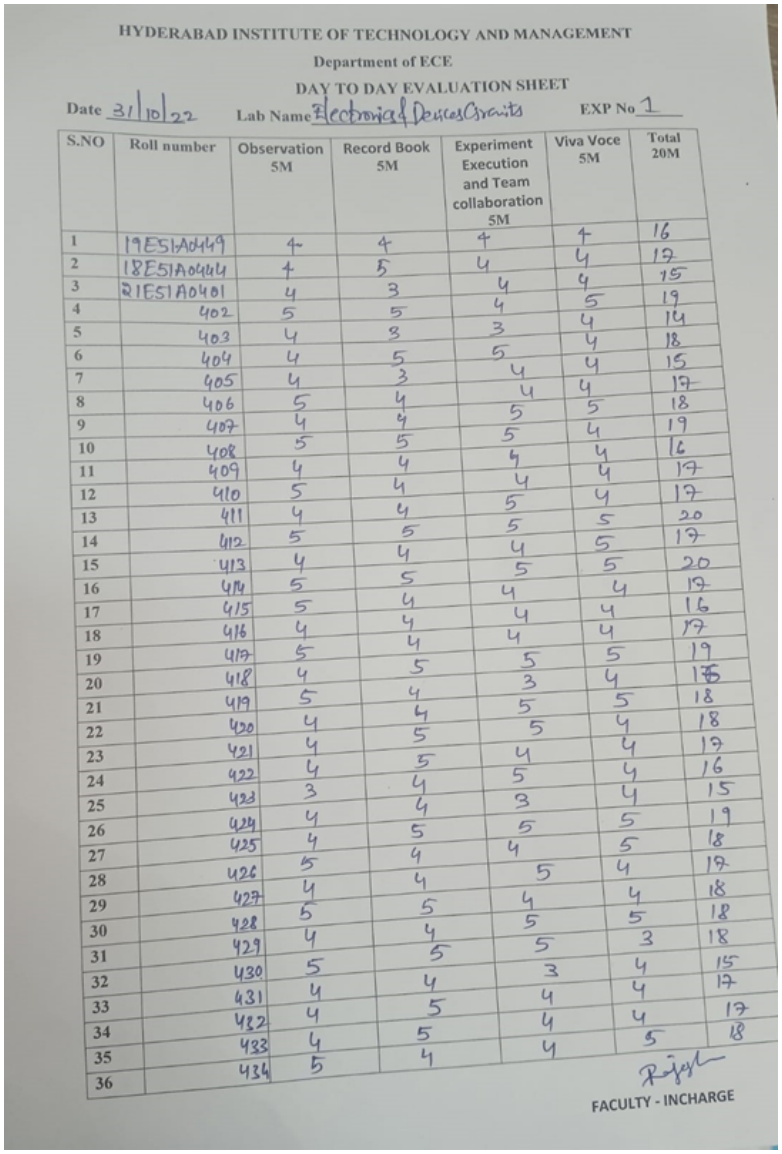
Evaluation of Laboratory:

Each Laboratory is evaluation for 40 marks towards CIE covering Day to Day Evaluation for 20 marks, and 20 marks towards the Mid assessments and 60 Marks towards SEE.

Rubrics for Day to Evaluation:

Criteria	**Excellent (5 Marks)**	**Good (3–4 Marks)**	**Needs Improvement (1–2 Marks)**
Observation	Actively engaged, follows instructions, attentive throughout	Generally attentive, minor distractions or prompting needed	Often distracted, uninterested, or needs constant guidance
Record Book	All entries complete, neat, well-organized, accurate	Most entries complete, legible, minor errors	Incomplete, untidy, or contains major errors
Experiment Execution and Team collaboration	Performs steps accurately and shows clear understanding among team members	Performs with minor help, small errors	Needs major help or makes critical mistakes
Viva Voce	Answers confidently with clear, accurate understanding	Answers most questions correctly, some hesitation or errors	Poor or incorrect answers, lack of understanding

Table 2.1.1 Rubrics for Day to day Evaluation



HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Department of ECE

DAY TO DAY EVALUATION SHEET

Date 31/10/22 Lab Name Electronic Devices Circuits EXP No 1

S.NO	Roll number	Observation 5M	Record Book 5M	Experiment Execution and Team collaboration 5M	Viva Voce 5M	Total 20M
1	19E51A0449	4	4	4	4	16
2	18E51A0444	4	5	4	4	17
3	21E51A0401	4	3	4	4	15
4	402	5	5	4	5	19
5	403	4	3	3	4	14
6	404	4	5	5	4	18
7	405	4	3	4	4	15
8	406	5	4	4	4	17
9	407	4	4	5	5	18
10	408	5	5	5	4	19
11	409	4	4	4	4	16
12	410	5	4	4	4	17
13	411	4	4	5	4	17
14	412	5	5	5	5	20
15	413	4	4	4	5	17
16	414	5	5	5	5	20
17	415	5	4	4	4	17
18	416	4	4	4	4	16
19	417	5	4	4	4	17
20	418	4	5	5	5	19
21	419	5	4	3	4	16
22	420	4	4	5	5	18
23	421	4	5	5	4	18
24	422	4	5	4	4	17
25	423	3	4	5	4	16
26	424	4	4	3	4	15
27	425	4	5	5	5	19
28	426	5	4	4	5	18
29	427	4	4	5	4	17
30	428	5	5	4	4	18
31	429	4	4	5	5	18
32	430	5	5	5	3	18
33	431	4	4	3	4	15
34	432	4	5	4	4	17
35	433	4	5	4	4	17
36	434	5	4	4	5	18

FACULTY - INCHARGE

Figure 2.1.5 Day to Day Evaluation

E. Classification of Fast & Slow Learners

HITAM has initiated a Student Progression Framework (SPF) to provide personalized guidance and support to students across the academic spectrum. Students are classified into four performance bands—A, B, C, and D.

A & B category of students falls under fast learners and C & D category of students falls under slow learners based on key parameters. This classification enables targeted academic support, mentoring, and engagement strategies aligned with students learning needs and aspirations.

Students are classified using a Band Metric, calculated based on the following factors:

1. **Attendance** - considered for the period from the previous band classification to the current classification
2. **Score in continuous internal examinations, including the mid examination** - considered from the time of previous band classification
3. **Active backlogs** as on the date of band classification (Note: If the supplementary result for a subject is awaited as on date of the band classification, it will be considered as an active backlog for that cycle)

Frequency of SPF Bands classification:

- SPF band classification is done **twice a semester**, once after the performance evaluation after Mid-1 and second one after the announcement of Mid-2 and SEE performance.

'Band Metric' classification:

Band Metric is the total score achieved by a student based on their attendance, backlogs and

continuous internal examination score, and is used for band classification.

Band Classification based on Band Metric

Band Classification	
Band Metric (Range)	**Band**
75 to 100	A
60 to 75	B
45 to 60	C
Less than 45	D

Attendance weightage towards the Band Metric:

Maximum contribution of attendance towards the metric: 30

Attendance Percentage	Contribution Towards Band Metric
Less than 75	0
75 to 80	5
80 to 85	10
85 to 90	15
90 to 95	20
95 to 100	30

CIE contribution towards the Band Metric:

Maximum contribution of CIE towards the metric: 30

Average of Score in Continuous Internal Examinations and Mid Examination (Scaled to 100)	Contribution Towards Band Score
Less than 40%	0
40 to 50	5
50 to 60	10
60 to 75	20

75 to 100	30

Backlogs towards the Band Metric:

Maximum contribution of backlogs towards the metric: 40

Number of Active Backlogs (Theory and Lab Included)	Contribution Towards Band Score
More than 5	0
4	5
3	10
2	20
1	30
0	40

Initiatives for Fast Students:

Department of ECE provides value-added opportunities for fast Learners to participate in the following events

1)Participating & organizing Hackathons: Every year, alumni from industry return to campus and provide real-world problem statements to conduct hackathons. These events serve as a platform for fast learners' students to apply theoretical knowledge to industry-relevant challenges

2)Participating in Industrial Visits: Industrial visit to the Olectra, T-Hub, CITD, CII-IGBC, and others. Fast learner students are taken on visits to these institutions for hands-on exposure to industry practices, sustainable technologies, and cutting-edge innovations. These visits often lead to internship opportunities and real-time learning.

3)Leadership Development: HITAM cultivates leadership through structured activities:

a. IUCEE EWB HITAM, ECE students are taking part and organizing competitions.
b. TEDxHITAM
c. Student Skill Development Center (SSDC): SSDC empowers students with industry-relevant skills through hands-on training in areas like programming and IoT.
d. Grand Challengers Scholar Program (GCSP
e. Students taking part in NCC, FMAE & NSS.

Support towards C & D Band Students:

Recognizing the academic and personal challenges faced by students in C and D categories, we offers a robust academic support system:

a. **Remedial Classes:** Scheduled into the official timetable, these sessions focus on:

- Reinforcing core concepts
- Solving previous examination papers
- Clarifying doubts in smaller groups

b. **Mentor Hour**: A dedicated Mentor Hour is built into the academic schedule

- Faculty mentors visit classrooms to discussions with students
- Mentors help identify and address both academic difficulties and personal challenges
- A Mentoring Policy guides this initiative

c. **Counseling Support:** Professional **student counselors** are available on campus to address

- Emotional or psychological stress

- Time management and concentration issues
- Career and personal development concerns

d. **Peer Mentorship:** Senior students are encouraged to mentor juniors, especially those in C & D bands, offering support in:

- Understanding complex topics
- Preparing for exams
- Adapting to the campus environment

Impact of Remedial class & Mentoring

- After conduction of Remedial classes & mentoring 10% of students improved their academic performance & more than 60% of the students clear their backlogs and migrate to the next level learners.

2.2 Quality of Student Capstone Project (25)	**Total Marks 22.00**
	Institute Marks : 22.00

Each student is required to implement the Capstone Project as per the course structure for those regulations.

General Procedure for Project Selection and implementation:

Each student submits the aspirations detailing the area of interest, domain/technology interested to the coordinator at the beginning of the semester. The aspirations of the students are mapped to the faculty who has the specialization and or interest in that domain.

Student Groups will be formulated based on the common aspirations based on their SPF bands, and a faculty mentor is assigned to each group for further necessary action.

The students group along with the faculty mentors arrive at the various problems statements leading towards employability, mapping to sustainable development goals, to be considered for implementation and the same will be submitted to the PRC committee for final approvals.

Faculty Specialization 2023-2024		
Sl.No	**Faculty Name**	**Specialization**
1	Dr J Rajeswar Goud	Communication Systems
2	Dr B Lokeswara Rao	Communication Systems
3	Dr S V Devika	Communication Systems
4	Dr K Bindhu Madhavi	VLSI
5	Dr K Satish Reddy	VLSI & Embedded Systems
6	Dr. Panakala Rajeshkumar	VLSI & Embedded Systems
7	Dr G Om Prakash	Signal Processing
8	P Santhosh	VLSI
9	Kondalarao Punati	Embedded Systems
10	V M Rani	VLSI
11	Ch Shanthi Priya	Embedded Systems
12	V Tejaswi	Embedded Systems
13	PNV Naveen Kumar	Embedded Systems
14	R Jagadeesh	Communication Systems
15	T Venkanna Babu	VLSI

Table 2.2.1. Faculty list with their Specialization

Implementation process:

The project implementation process begins with students submitting a one-page abstract of their proposed project, formatted according to a predefined template shared by the department. This abstract provides a brief overview of the problem statement, objectives, proposed methodology, and expected outcomes. The initial project review is conducted by the Project Review Committee (PRC), where students present their ideas and receive constructive feedback and suggestions to refine their approach and solution strategy.

Following the initial review, students engage regularly with their assigned project guides, who mentor them throughout the development process. The guides play a crucial role in monitoring progress, providing technical guidance, and ensuring that the students remain aligned with the project goals and timelines.

A second review is scheduled mid-way through the project timeline, during which the PRC evaluates the progress made, including any prototypes or models developed. This stage is crucial for ensuring that the students are on track and any deviations or challenges are addressed in a timely manner.

The final review serves as the comprehensive evaluation of the completed project. At this stage, the PRC assesses the overall quality of the work, implementation of the proposed solution, technical innovation, and effectiveness in addressing the problem statement.

After the final review, students prepare a detailed dissertation following the sample template shared by the Project Coordinator. This dissertation is submitted to their respective guides for thorough verification and feedback. Once approved, students proceed with printing and formally submit their final thesis.

Before their external viva-voce, projects were demonstrated in Project Expo and best projects were selected and awarded by the organization through internal and external evaluators. In parallel, students are encouraged to prepare a research paper based on their project work and submit it to peer-reviewed journals, promoting a culture of research and publication.

A detailed project schedule as given below, including timelines, milestones, and review dates, was then communicated to the students to ensure a structured and goal-oriented project execution process.

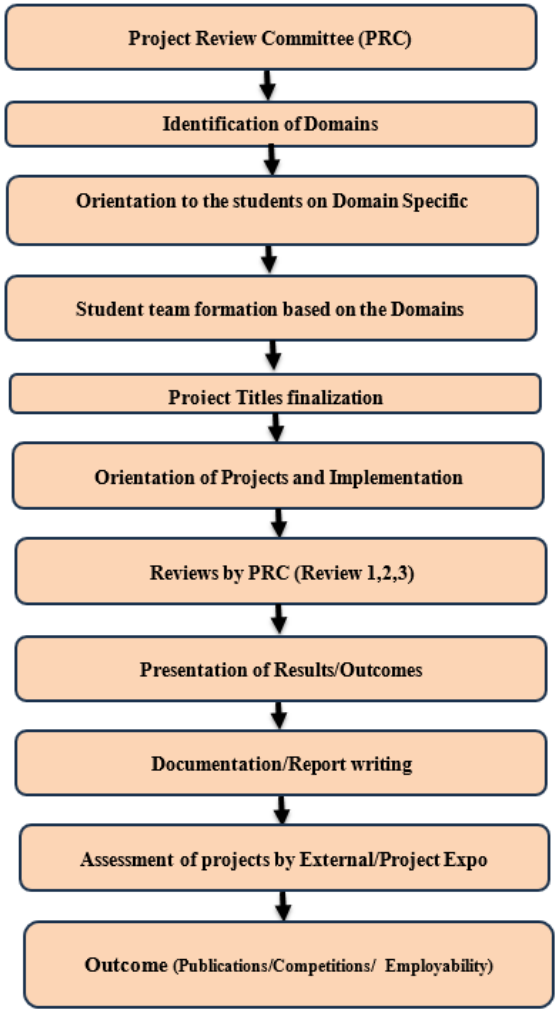


Fig. 2.2.1 The flow chart of the project

Project PRC committee A.Y 2023-24

1.Project committee chairman- Dr.J Rajeshwar Goud

2.Project committee Member- Mrs K Bindhu Madhavi

3.Project committee Member- Kondalarao Punati

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT
Department of Electronics and Communication Engineering
PROJECTS (2023-24) Schedule

S.No (http://s.no/)	Title	Date
1	**Title Submission**	14/08/2023
2	**Problem Submission**	17/08/2023
3	**First Review**	22/08/2023
4	**Second Review**	28/09/2023
5	**Third Review with prototype**	31/10/2023
6	**Project Stage-I Report Submission**	30/11/2023

Table 2.2.2 Project Schedule

Hyderabad Institute of Technology and Management

Department of ECE

MAJOR PROJECTS (2023-24)

Batch	Roll No	Name of student	Project title	Classification	PO&PSO Addressed	Justification
1	20E51A0402	Akshitha Thakur	Pick and place Robot using ARM processor	Application/Product (Focus on automation, robotics, and industrial efficiency)	PO1, PO3,5,10,11,12 PSO1, PSO2	Involves design and implementation of ARM-based control for automation tasks (PO1, PO3), technical documentation (PO10), use of embedded tools (PO5), with real-world industrial relevance (PO12), and focus on robotics (PSO1, PSO2).
	20E51A0445	Sharath Bhargav Eshwarapragada				
	20E51A0413	Erla Sai Kiran				
	21E55A0404	Dadi Vijay Kumar				
	21E55A0413	Vukkalkar Ravi Kiran			PO3,5,9,11,12	

2			SKY Smart Mirror	Application/Product (Focus on Smart Home Technology and AI Integration)		utilizes modern tools (PO5), encourages innovation in smart home automation (PO3), promotes teamwork (PO9), includes project planning and budgeting (PO11), and encourages lifelong learning through emerging technologies (PO12). Aligns with PSO1 by developing embedded and IoT-based solutions for daily life automation.
	20E51A0424	Kaushik Vijayakumar			PSO1	
	20E51A0427	Laxmi Amulya Nathi				
	20E51A0417	Grandhi Surya Nandini				
3	20E51A0426	Labhi Venkata Sai Yamini	Detection of Blood cells in Human Body Samples using Microscopic Images	Biomedical Image Processing	PO 4,5,11,12	Applies ML/image processing techniques to healthcare diagnostics. Promotes interdisciplinary design with medical relevance and sustainability in medical tech
	20E51A0425	Kotapathi Sakshi Sruthi			PSO 1,2	
	20E51A0410	Deepthi Maddela				
	20E51A0409	Chinta Tharun				
4	21E55A0402	Bhukya Nagesh	Dual band microstrip patch antenna for wireless LAN Applications	Antenna Design and Wireless Communication, with applications in Wireless Local Area Networks (WLAN) and RF Engineering.	PO3,4,5,11,12	Focuses on designing antennas using simulation tools (HFSS/CST). Aligns with telecom industry standards and efficient WLAN design (PSO1, PO12).
	20E51A0403	Alla Sai Divya				
	20E51A0408	Chilakamarri Manvitha				
	21M95A0412	Uradi Tirupathi			PSO 1,2	
5	21E55A0411	Ramannagari Pradeep Kumar	Analysis Leaf Disease using SVM Classifier	It involves analyzing leaf images to detect and classify diseases using Support Vector Machine (SVM) classifiers.	PO2,4,5,11,12	Integrates machine learning with agriculture to classify plant diseases and provide early alerts using SVM models (PSO1, PO5).
	20E51A0434	Mylaram Nandini				
	21E55A0408	Margam Ajay				
	20E55A0420	Sara Aravind Kumar			PSO 1,2	
6	20E51A0435	Neeraty Sushma Sri	Smart Door Receptionist System	IoT and Smart Security Systems, with applications in office security, and visitor management	PO3,4,5,11,12	It involves the design and implementation of an IoT-based smart receptionist system that automates visitor identification and access control using technologies such as RFID, cameras, motion sensors, or facial recognition.
	20E51A0443	Sandhi Satvika Sri				
	20E51A0452	V Varsha				
	20E51A0453	Valluru Thanmayee			PSO 1,2	
7	20E51A0441	Ragam Vinaykumar	Traffic controller based on density with RF remote Override	Embedded Systems, IoT, and Intelligent Transportation Systems,	PO3,4,5,11,12	Develops a real-time traffic management system using sensors to detect vehicle density and RF modules for emergency override. Enhances urban mobility,

	21E55A0409	Peddoju Sai		with applications in urban traffic management and smart city infrastructure.		reduces congestion, and supports smart city infrastructure through embedded and IoT technologies.
	20E51A0446	Sontike Manothra				
	21E55A0401	Beerla Omprasad			PSO 1,2	
8	20E51A0411	Depala Kirthi	FPGA Based Implementation of Hamming Encoder and Decoder	It involves designing and implementing a Hamming encoder and decoder using Field-Programmable Gate Arrays (FPGA).	PO3,,4,5,11,12	Enhances digital design skills and error control coding using HDL tools. Promotes design, simulation, testing (PO3, PO4, PO5), and real-time prototyping. Encourages self-learning (PO12) and resource planning (PO11). Strengthens digital systems knowledge (PSO1) and FPGA application (PSO2).
	20E51A0439	Priya Purushottam				
	20E51A0449	Thota Deekshitha			PSO 1,2	
	20E51A0450	Undekar Keerthana				
9	21E55A0412	Sandu Yadagiri	Design of Microstrip antenna using different Feeding Techniques	involves designing and analyzing microstrip antennas using various feeding techniques to optimize performance.	PO2,3,4,5,11,12	Applies EM and communication knowledge for antenna optimization. Simulates realistic design scenarios (PO2-PO5), promotes cost/time estimation (PO11), and supports continuous learning (PO12). Uses specialized tools (PSO1) and RF-focused design (PSO2).
	20E51A0437	Patha Mounika				
	20E51A0444	Sepuri Shreya			PSO 1,2	
	21E55A0407	Kshirasagar Naveen				
10	20E51A0451	V Sateesh	Motion Activated Class Room Light	It involves designing a motion-activated lighting system that enhances energy efficiency and automation in classrooms.	PO2,3,4,5,11,12	Encourages sustainable automation (PO2-PO4) and embedded design using tools (PO5). Planning and implementation within budget (PO11), and adoption of smart building practices (PO12). Applies embedded system skills (PSO1) and sensor integration (PSO2).
	20E51A0431	Mangolla Pooja				
	21E55A0405	Dontaraboina Harika			PSO 1,2	
	21E55A0410	Pooja Kumari				
10	20E51A0429	Mallugari Saiteja Goud	Real Time Navigation ROBOT with path Memorizing Algorithm	It involves designing a real-time navigation robot that memorizes and optimizes its movement paths.	PO2,3,4,5,11,12	Combines automation and AI logic to optimize routes. Problem solving (PO2), system design (PO3), path evaluation (PO4), and embedded programming (PO5) are covered. Encourages innovative learning (PO12) and planning (PO11). Uses robotics (PSO1) and control systems (PSO2).
	20E51A0430	Manepalli Hemanth				
	20E51A0406	Banda Pranav Reddy			PSO 1,2	
	20E51A0407					

		Bantu Ganesha				
11	20E51A0428	Mali Patel Anjil Reddy	Efficient Railway track detection system	It involves designing an automated system to detect railway tracks efficiently for safety and maintenance purposes.	PO2,3,4,5,11,12	Promotes railway safety through automation and sensor-based detection (PO2-PO5). Introduces practical implementation and smart infrastructure alignment (PO11, PO12). Applies embedded safety systems (PSO1) and IoT concepts (PSO2).
	20E51A0412	Eega Srushank				
	20E51A0423	Kanne Akshith Kumar			PSO 1,2	
	20E51A0404	Avusula Ramesh Chary				
12	20E51A0438	Peyyeti Murali Krishna	DTMF and RF Controlled ROBOT Car	It involves designing a robot car controlled via Dual-Tone Multi-Frequency (DTMF) and Radio Frequency (RF) communication.	PO2,3,4,5,11,12	Demonstrates use of dual communication methods for robot control. Encourages embedded circuit design (PO3, PO5), control logic implementation (PO2, PO4), and hardware integration. Enhances remote control applications (PSO1) and real-time response (PSO2).
	20E51A0448	Thanikonda Abhinav				
	20E51A0420	Jalanila Bhanuprakash			PSO 1,2	
	20E51A0433	Mutharaboina Rajesh				
13	21E55A0406	Illa Giri Naveen Sai	Real time automation of agriculture system using ARM	It involves designing an ARM-based system for real-time automation in agriculture to enhance productivity and resource efficiency.	PO2,3,4,5,11,12	Supports sustainable agriculture through smart automation. Design and deployment of sensor systems (PO3-PO5), agriculture-specific challenges (PO2), project planning (PO11), and current tech use (PO12). Embeds real-world automation (PSO1) and multidisciplinary knowledge (PSO2).
	20E51A0405	Baisa Srividya				
	20E51A0440	Pusuluri Gopikrishna			PSO 1,2	
	20E51A0415	Gaddam Shashikanth				
14	20E51A0442	Ranga Naveen Kumar Goud	Image Steganography	It involves developing a system for embedding secret information within digital images using steganographic techniques.	PO2,3,4,5,11,12	Implements data security techniques in image files. Problem formulation (PO2), algorithm development (PO3), evaluation (PO4), and tool usage
	20E51A0432	Md Sohail Abrar Shareef				
	20E51A0421	K RAHUL			PSO 1,2	

						(PO5). Promotes digital forensics knowledge (PSO1) and software-hardware integration (PSO2).
	20E51A0447	Tanneru Sri Hari				
15	21E55A0403	Chennaboina Pranathi	Digitalization of Archery scoring System	It involves developing a system for digitizing archery scoring to enhance accuracy and efficiency.	PO2,3,4,5,11,12 PSO 1,2	Encourages innovation in sports tech using embedded systems. Involves real-time data acquisition (PO2-PO5), efficient display and automation (PO3), and interdisciplinary system design (PSO1, PSO2).
16	20E51A0436	Padala Sirisha	Automatic shetter closing system using Aurduino	It involves designing an Arduino-based system for automatic shutter control.	PO2,3,4,5,11,12	Practical embedded application for building security and comfort. Embedded logic design (PO3, PO4), actuator integration (PO5), budgeted execution (PO11), and automation (PO12). Applies smart home concepts (PSO1, PSO2).
	20E51A0414	Gabbita Sriharsha Sai			PSO 1,2	

Table 2.2.3 Students Capstone Projects

Selection of the Best project:

Project expo is organized to display the proto types/ simulation to the Experts from Industry and academia. The Experts suggest the participants about the scope of the project for patent/start-up.

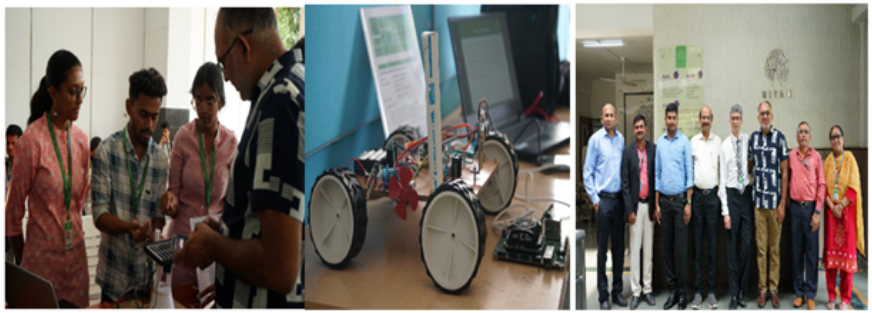
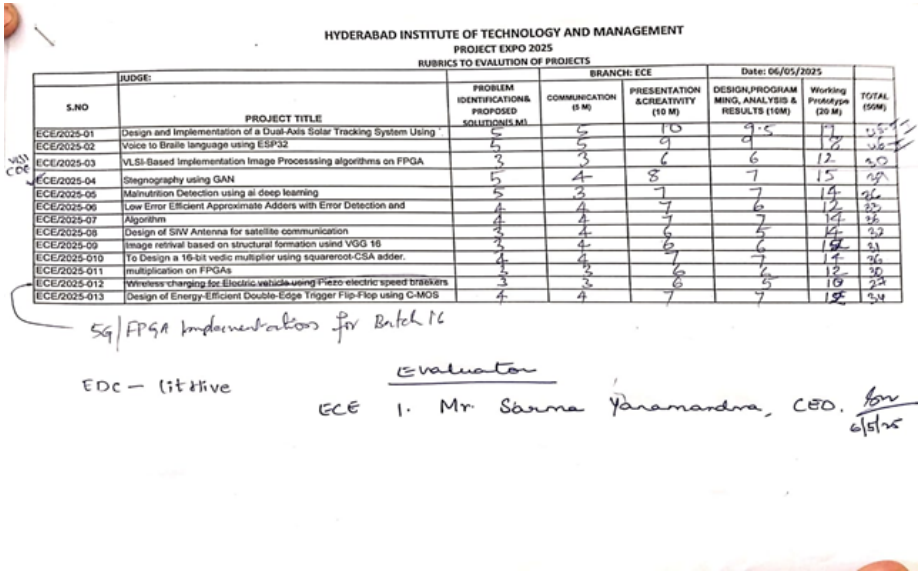


Figure 2.2.2: Project Expo



HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT
PROJECT EXPO 2025
RUBRICS TO EVALUTION OF PROJECTS

	JUDGE:	BRANCH: ECE			Date: 06/05/2025		
S.NO	PROJECT TITLE	PROBLEM IDENTIFICATION& PROPOSED SOLUTIONS M)	COMMUNICATION (5 M)	PRESENTATION &CREATIVITY (10 M)	DESIGN,PROGRAM MING, ANALYSIS & RESULTS (10M)	Working Prototype (20 M)	TOTAL (50M)
ECE/2025-01	Design and Implementation of a Dual-Axis Solar Tracking System Using	5	5	10	9.5	19	48.5
ECE/2025-02	Voice to Braille language using ESP32	5	5	9	9	18	46
ECE/2025-03	VLSI-Based Implementation Image Processsing algorithms on FPGA	3	3	6	6	12	30
ECE/2025-04	Stegnography using GAN	5	4	8	7	15	39
ECE/2025-05	Malnutrition Detection using ai deep learning	5	3	7	7	14	36
ECE/2025-06	Low Error Efficient Approximate Adders with Error Detection and	4	4	7	6	12	33
ECE/2025-07	Algorithm	4	4	7	7	14	36
ECE/2025-08	Design of SIW Antenna for satellite communication	3	4	6	5	14	32
ECE/2025-09	Image retrival based on structural formation usind VGG 16	3	4	6	6	18	37
ECE/2025-010	To Design a 16-bit vedic multiplier using squareroot-CSA adder.	4	4	7	7	14	36
ECE/2025-011	multiplication on FPGAs	3	3	6	6	12	30
ECE/2025-012	Wireless charging for Elodric vehicle using Piezo electric speed braakers	3	3	6	5	10	27
ECE/2025-013	Design of Energy-Efficient Double-Edge Trigger Flip-Flop using C-MOS	4	4	7	7	15	37

5G | FPGA Implementation for Batch 16

EDC – Initiative

Evaluator
ECE 1. Mr. Sarma Yaramandra, CEO.

Figure 2.2.3: Project Expo evaluation

2.3 Internship/Industrial Training (10)	**Total Marks 9.00**
	Institute Marks : 9.00

An internship is a professional work experience where the student takes on responsibilities in that organization and participates in observing and learning while actively performing duties supporting the business endeavours. The importance of an internship is for the student to make a clear and distinct connection between their academic learning and the professional work place.

- An intern is someone who works in a temporary position with an emphasis on on-the-job training rather than merely employment, making it similar to an apprenticeship.
- A job taken by a student in order to learn a profession or trade.

In order to participate in any of the internships offered by various companies, a student will put up a requisition for permission to the institute through the Career Design Centre (CDC) upon getting selected for any of the company.

The CDC verifies for the authenticity of the company and the standard of internships provided to the students then recommends the same for approval.

Once the internship requisition is approved then a student will be permitted to carry out the internship in the said company for not less than 2-4 weeks after every semester as per the company norms and selection criteria.

The assessment of the internship is carried out in the subsequent semester as per the evaluation guidelines provided in the Academic Regulations (HR21, HR22, HR24). During the assessments the learning outcomes from the internship is mapped suitably to the relevant POs/PSOs.

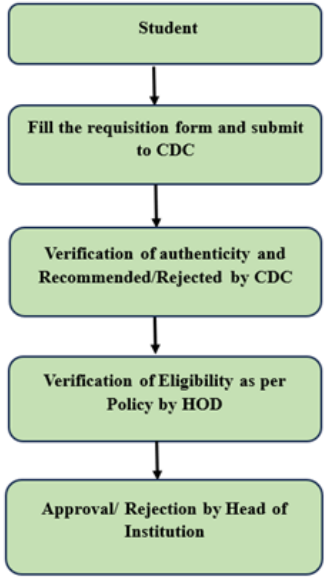


Figure 2.3.1: Flow chart of Internship

Efforts to collaborate with organizations such as CITD, IIIT-H, HBL, and BHEL provide opportunities for students to receive training and address industry-related problems. Students can explore internships through these collaborations, or they may apply on their own to companies, start-ups, or research institutes, in line with institutional procedures. A list of potential companies offering internships is shared with students by the CDC.

Ensuring the internship aligns with their academic program and contributes to Program Outcomes (POs) and Program Specific Outcomes (PSOs).

Some of the companies where our Students did Internship as listed below

S.No	Name of Company or Institute
1	Central Institute of Tool Design-CITD
2	IIIT HYDERABAD

3	HIEE Empowering Engineering Pvt Ltd
4	NIT-Warangal
5	IBM
6	NSIC
7	BIONICS
8	BHEL
9	MSEME
10	Talentio

Table 3.1.1. List of Companies our Students under gone Internship

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT					
ELECTRONICS AND COMMUNICATION ENGINEERING					
INTERNSHIP					
S.No	**Roll Number**	**Name of the Student**	**Name of the Company**	**Duation**	**PO & PSO Mapping**
1	20E51A0402	AKSHITHA THAKUR	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
2	20E51A0403	ALLA SAI DIVYA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
3	20E51A0404	AVUSULA RAMESH CHARY	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
4	20E51A0405	BAISA SRIVIDYA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
5	20E51A0406	BANDA PRANAV REDDY	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
6	20E51A0407	BANTU GANESHA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
7	20E51A0408	CHILAKAMARRI MANVITHA	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2

8	20E51A0409	CHINTA THARUN	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
9	20E51A0410	DEEPTHI MADDELA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
10	20E51A0411	DEPALA KIRTHI	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
11	20E51A0412	EEGA SRUSHANK	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
12	20E51A0413	ERLA SAI KIRAN	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
13	20E51A0414	GABBITA SRIHARSHA SAI	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
14	20E51A0415	GADDAM SHASHIKANTH	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
15	20E51A0417	GRANDHI SURYA NANDINI	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
16	20E51A0420	JALANILA BHANUPRAKASH	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
17	20E51A0421	K RAHUL	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
18	20E51A0423	KANNE AKSHITH KUMAR	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
19	20E51A0424	KAUSHIK VIJAYAKUMAR	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
20	20E51A0425	KOTAPATHI SAKSHI SRUTHI	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
21	20E51A0426	LABHI VENKATA SAI YAMINI	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
22	20E51A0427	LAXMI AMULYA NATHI	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
23	20E51A0428	MALI PATEL ANJIL REDDY	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
24	20E51A0429	MALLUGARI SAITEJA GOUD	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
25	20E51A0430	MANEPALLI HEMANTH	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
26	20E51A0431	MANGOLLA POOJA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
27	20E51A0432	MD SOHAIL ABRAR SHAREEF	Talentio		

				26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
28	20E51A0433	MUTHARABOINA RAJESH	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
29	20E51A0434	MYLARAM NANDINI	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
30	20E51A0435	NEERATY SUSHMA SRI	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
31	20E51A0436	PADALA SIRISHA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
32	20E51A0437	PATHA MOUNIKA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
33	20E51A0438	PEYYETI MURALI KRISHNA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
34	20E51A0439	PRIYA PURUSHOTTAM	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
35	20E51A0440	PUSULURI GOPIKRISHNA	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
36	20E51A0441	RAGAM VINAYKUMAR	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
37	20E51A0442	RANGA NAVEEN KUMAR GOUD	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
38	20E51A0443	SANDHI SATVIKA SRI	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
39	20E51A0444	SEPURI SHREYA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
40	20E51A0445	SHARATH BHARGAV ESHWARAPRAGADA	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
41	20E51A0446	SONTIKE MANOTHRA	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
42	20E51A0447	TANNERU SRI HARI	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
43	20E51A0448	THANIKONDA ABHINAV	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
44	20E51A0449	THOTA DEEKSHITHA	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
45	20E51A0450	UNDEKAR KEERTHANA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
46	20E51A0451	V SATEESH	Talentio		

				26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
47	20E51A0452	V VARSHA	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
48	20E51A0453	VALLURU THANMAYEE	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
49	20E55A0420	SARA ARAVIND KUMAR	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
50	21E55A0401	BEERLA OMPRASAD	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
51	21E55A0402	BHUKYA NAGESH	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
52	21E55A0403	CHENNABOINA PRANATHI	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
53	21E55A0404	DADI VIJAY KUMAR	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
54	21E55A0405	DONTARABOINA HARIKA	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
55	21E55A0406	ILLA GIRI NAVEEN SAI	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
56	21E55A0407	KSHIRASAGAR NAVEEN	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
57	21E55A0408	MARGAM AJAY	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
58	21E55A0409	PEDDOJU SAI	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
59	21E55A0410	POOJA KUMARI	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
60	21E55A0411	RAMANNAGARI PRADEEP KUMAR	Cranes India Pvt Ltd	11th to 27th Sep 2023	PO1, PO2, PO3, PO5, PO9, PO10 ,PSO1,2
61	21E55A0412	SANDU YADAGIRI	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
62	21E55A0413	VUKKALKAR RAVI KIRAN	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1
63	21M95A0412	URADI TIRUPATHI	Talentio	26th September to 9th october 2022	PO1, PO2, PO5, PO8, PO9, PO10 PSO1

Table 3.1.2. Students Internships with PO, PSO mapping

Impact Analysis:

After the completion of the internship feedback will be collected from students. The students will submit a report of the internship as it will be evaluated by the Committee consisting of HOD & Senior faculty from the department. During the internships it is being observed that the students:

a) Students gained a better understanding of how theoretical concepts apply to real-world scenarios, which improved their ability to apply what they have learned in practical settings.

b) Industry experts provided valuable insights into the latest tools and technologies, ensuring that students gained a clear understanding of current industry standards and best practices.

c) students who were mentored by industry professionals gained skills that closely align with current job market demands, enhancing their employability and making them more attractive to potential employers. Additionally, the internship experience helped students in the following ways:

d) Identified the right career path based on real-world exposure and hands-on experience.
e) Established professional networks that may support future career opportunities.
f) Developed confidence through practical learning, teamwork, and problem-solving in an industry setting.

Real-world exposure gained through these internships in the form of hands-on training at companies like **IIIT Hyderabad**, Cranes Varsity Pvt Ltd, Talentio,HIEE,VLSI Prof and CITD has provided:

- Practical understanding of core engineering concepts.
- Improved technical and communication skills.
- Familiarity with corporate environments and expectations.

These internships have resulted in creating an impact in getting the placements in various companies. Out of 63 students, **over 100% secured internships**, and more than **60% of those were successfully placed.** This indicates a strong correlation between internship exposure and placement sucess.

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

ELECTRONICS AND COMMUNICATION ENGINEERING

Mapping Internship with Placement(AY:2023-24)

S.No	Roll Number	Name of the Student	Name of the Company	Placement Company
1	20E51A0404	AVUSULA RAMESH CHARY	Talentio	HIGH - TECHNEXT
2	20E51A0407	BANTU GANESHA	Talentio	DEXTERITY
3	20E51A0408	CHILAKAMARRI MANVITHA	Cranes India Pvt Ltd	GLOBAL QUEST
4	20E51A0411	DEPALA KIRTHI	Cranes India Pvt Ltd	Q SPIDERS
5	20E51A0412	EEGA SRUSHANK	Cranes India Pvt Ltd	PIE INFOCOMM
6	20E51A0413	ERLA SAI KIRAN	Cranes India Pvt Ltd	HIGH - TECHNEXT
7	20E51A0415	GADDAM SHASHIKANTH	Talentio	HANODALE
8	20E51A0424	KAUSHIK VIJAYAKUMAR	Cranes India Pvt Ltd	AMAZON
9	20E51A0425	KOTAPATHI SAKSHI SRUTHI	Talentio	Q SPIDERS

10	20E51A0426	LABHI VENKATA SAI YAMINI	Talentio	PALLE TECHNOLOGIES
11	20E51A0427	LAXMI AMULYA NATHI	Cranes India Pvt Ltd	HANODALE
12	20E51A0428	MALI PATEL ANJIL REDDY	Cranes India Pvt Ltd	PIE INFOCOMM
13	20E51A0430	MANEPALLI HEMANTH	Talentio	TECHNOLOGICS GLOBAL
14	20E51A0435	NEERATY SUSHMA SRI	Cranes India Pvt Ltd	Q SPIDERS
15	20E51A0437	PATHA MOUNIKA	Talentio	1stop
16	20E51A0438	PEYYETI MURALI KRISHNA	Talentio	Q SPIDERS
17	20E51A0439	PRIYA PURUSHOTTAM	Cranes India Pvt Ltd	PIE INFOCOMM
18	20E51A0441	RAGAM VINAYKUMAR	Cranes India Pvt Ltd	PIE INFOCOMM
19	20E51A0442	RANGA NAVEEN KUMAR GOUD	Talentio	RINEX
20	20E51A0443	SANDHI SATVIKA SRI	Cranes India Pvt Ltd	EXCEL R
21	20E51A0444	SEPURI SHREYA	Talentio	Swhizz
22	20E51A0445	SHARATH BHARGAV ESHWARAPRAGADA	Cranes India Pvt Ltd	PIE INFOCOMM
23	20E51A0446	SONTIKE MANOTHRA	Cranes India Pvt Ltd	HANODALE
24	20E51A0449	THOTA DEEKSHITHA	Cranes India Pvt Ltd	FUTURE MARKETS INSIGHTS
25	20E51A0450	UNDEKAR KEERTHANA	Talentio	Q SPIDERS
26	20E51A0451	V SATEESH	Talentio	PALLE TECHNOLOGIES
27	20E51A0452	V VARSHA	Cranes India Pvt Ltd	Q SPIDERS
28	20E51A0453	VALLURU THANMAYEE	Cranes India Pvt Ltd	PROLIFIICS
29	20E55A0420	SARA ARAVIND KUMAR	Talentio	PIE INFOCOMM
30	21E55A0402	BHUKYA NAGESH	Talentio	PIE INFOCOMM

31	21E55A0403	CHENNABOINA PRANATHI	Cranes India Pvt Ltd	Tata Motors
32	21E55A0404	DADI VIJAY KUMAR	Cranes India Pvt Ltd	Shreedar Instruments
33	21E55A0405	DONTARABOINA HARIKA	Talentio	Q SPIDERS
34	21E55A0406	ILLA GIRI NAVEEN SAI	Cranes India Pvt Ltd	Q SPIDERS
35	21E55A0407	KSHIRASAGAR NAVEEN	Cranes India Pvt Ltd	PIE INFOCOMM
36	21E55A0408	MARGAM AJAY	Cranes India Pvt Ltd	HANODALE
37	21E55A0410	POOJA KUMARI	Cranes India Pvt Ltd	PIE INFOCOMM
38	21E55A0412	SANDU YADAGIRI	Talentio	HANODALE

Table 3.1.3 Mapping of Students Internship with the placement

Enhanced Employability through Internship:

Internships have significantly contributed to students' placement readiness. Real-world exposure through hands-on training at companies like IIIT Hyderabad, Cranes Varsity Pvt Ltd, HIEE, VLSI Prof and CITD has provided:

- Practical understanding of core engineering concepts.
- Improved technical and communication skills.
- Familiarity with corporate environments and expectations.

Measures for Enhancing Internship-to-Placement Conversion:

1. **Strategic Internship Tie-ups with Tech-Driven Companies**

- Partner with industries working in AI/ML, IoT, Automation, Cybersecurity, Renewable Energy, and Embedded Systems.
- Encourage internships with startups and innovation labs to boost adaptability and innovation skills.

2. **Skill Development Before Internship**

- Organize pre-internship training program**s** to equip students with tools used in the industry (e.g., MATLAB, Raspberry pi, **A**rduino Programming).

3. **Certification and Micro-Credentials**

- Make certifications in Python, MATLAB, Arduino Programming, AI/ML, Cloud Computing mandatory or elective.
- Promote platforms like Coursera, NPTEL for domain-specific learning.

4. **Mock Interviews and Resume Building**

- Regular mock interviews with industry experts and alumni.
- Workshops on resume building tailored to specific job roles and technologies.

2.4 Seminar and Mini/Micro Projects (10) | **Total Marks 10.00**

Institute Marks : 10.00

As part of the course structure students need to present a seminar on any of the technical topics relevant to the trends in the industry. An awareness session will be provided to the students about selection of Seminar topics. Students select topics related to current technologies, social issues, or their area of interest in consultation with faculty mentors. The Seminar Coordinator reviews and approves the topics based on relevance. Students then carry out a review of available literature, collect information, and study the selected topic. Faculty mentors assist in improving the content and presentation. Students present their seminar to a panel that includes HOD, Seminar Coordinator and one senior faculty, and are assessed on the content, communication, and responses to questions. Coordinator share the sample report template to students as per that the seminar report will be prepared, verified by the respective guides before they submit the documentation.

The report should be well-formatted, original. The technical seminar process in JNTUH is designed to inculcate research aptitude, technical knowledge, communication skills, and professionalism among engineering students. By following a structured methodology—from topic selection to final presentation students are better prepared for industry challenges, higher education, and research opportunities.

Evaluation and Marks Allocation

The evaluation is typically based on a rubric-based scoring system, The seminar report and the seminar presentation shall be evaluated for 100 marks.

Hyderabad Institute of Technology and Management										
Department of ECE										
SEMINAR 2023-2024				**Panel Members Marks**						
S.NO (http://s.no/)	**Roll Number**	**Name of the Student**	**Attair(5)**	**Introduction(5)**	**Content (10)**	**Slides Design (5)**	**Presentation (5)**	**Querries (10)**	**Total (40)**	**Signature**
1										

Hyderabad Institute of Technology and Management									
Department of ECE									
SEMINAR 2023-2024			**Guide Marks**						
S.NO (http://S.NO)	**Roll number**	**Name of the Student**	**Introduction (2)**	**Content (3)**	**Slides Design (1)**	**Presentation (2)**	**Queries (2)**	**Total (10)**	**Signature**
1									

Table 2.4.1. Seminar Presentation Sample Evalution sheet of Guide and panel Member

Mini/Micro Project Process:

Mini and micro projects at Department of ECE are an essential component of the academic curriculum designed to foster hands-on learning, innovation, and application of theoretical knowledge. These projects are implemented under the umbrella of Course-Level Projects or Problem-Based Learning (PBL) initiatives, promoting experiential learning and interdisciplinary problem-solving skills.

The following structured process is adopted for the effective implementation of mini/micro projects:

Ensuring the quality of mini projects at Department of ECE that align with students aspirations is crucial for fostering meaningful learning experiences. In the Project Review meeting, faculty research interests were gathered to identify key focus areas and as per student's aspirations to decide specific domains of expertise within the department. To further enrich this process, faculty members submitted open-ended problem statements aligned with their research interests.

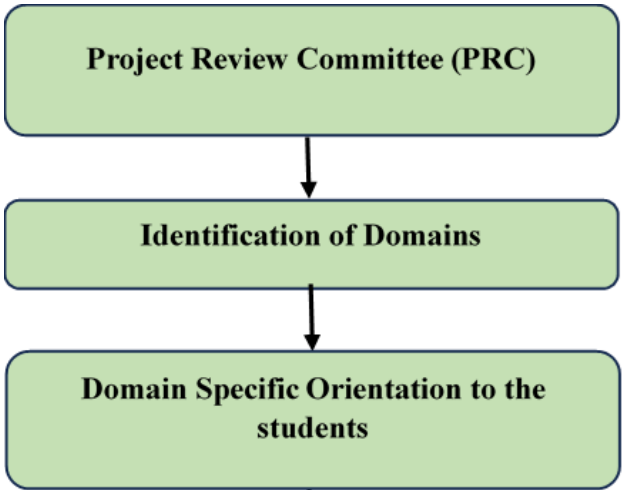
These problem statements were then thoroughly reviewed and discussed in the Project Review Committee (PRC) meeting. Once validated, the finalized domains and associated problem statements were shared with students to help them explore and select areas that matched their interests and career aspirations. Student preferences were collected and analyzed in conjunction with their SPF bands to ensure balanced and effective batch formation. Based on this data-driven approach, student project groups were formed strategically to promote collaborative learning and domain-specific engagement. Following this, the Project Coordinator assigned appropriate faculty guides to each batch, ensuring that guidance aligned with the chosen domain and problem complexity.

A detailed project schedule as given below, including timelines, milestones, and review dates, was then communicated to the students to ensure a structured and goal-oriented project execution process.

Implementation process

The mini project implementation process begins with students submitting a one-page abstract of their proposed project, formatted according to a predefined template shared by the department. This abstract provides a brief overview of the problem statement, objectives, proposed methodology, and expected outcomes. The initial project review is conducted by the Project Review Committee (PRC), where students present their ideas and receive constructive feedback and suggestions to refine their approach and solution strategy.

Following the initial review, students engage regularly with their assigned project guides, who mentor them throughout the development process. The guides play a crucial role in monitoring progress, providing technical guidance, and ensuring that the students remain aligned with the project goals and timelines.



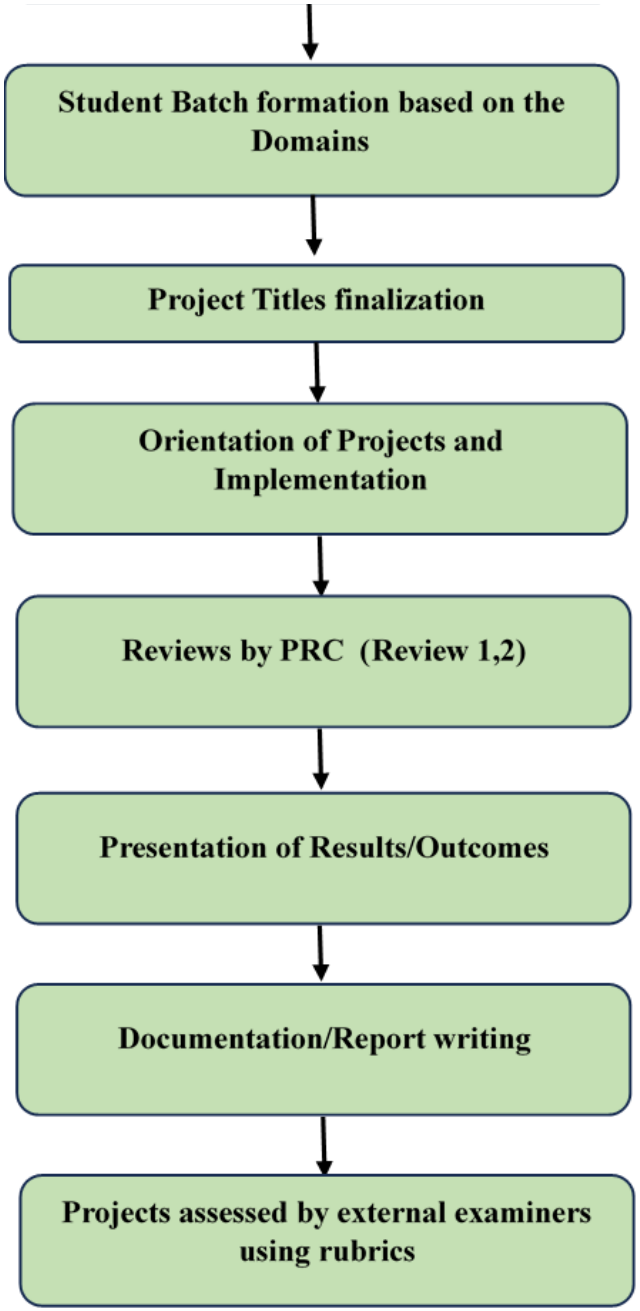


Figure 2.4.1 Flow chart of Mini Project

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

ELECTRONICS AND COMMUNICATION ENGINEERING

MINI PROJECTS(AY:2022-23)

S. No	Name of the Student	Roll Number	Project Title	PO and PSO addressed	Process
1	Madhushudan	20E55A0401	AI MAZE SOLVING ROBOT WITH ML	PO3, PO5, PO9, PO11,PO12 & PSO1,2	The robot uses a trained ML model to navigate mazes via sensors and controllers, with path planning tested in real-time.
2	G. RAMYA	19E51A0423			
3	B Prabhakar	19E51A0406			
4	Sai ram	20E55A0409			
5	B.Poojitha	19E51A0410	DESIGN AND IMPLEMENTATION OF REAL TIME TRAFFIC CONTROL SYSTEM USING VERILOG	PO3, PO5, PO9, PO11,PO12 & PSO1,2	FSM-based traffic logic is coded in Verilog, simulated in ISE, and implemented on FPGA to control traffic lights.
6	B.Sandhya	19E51A0408			
7	Rakesh	19E51A0413			
8	Prashanth Reddy	18E51A0465			
9	D Harsha vardhini	19E51A0418	AMBULANCE DETECTION BY ELECTRICAL VEHICLES	PO3, PO5,PO6, PO9, PO11,PO12 & PSO1,2	Sensors detect ambulance sirens, triggering alerts in nearby vehicles using a microcontroller-based alert system.
10	A Lahari	19E51A0404			
11	K Alekhya	19E51A0437			
12	K Chandu	19E51A0431			
13	D.Greeshma	19E51A0419	GSM BASED AUTOMATED IRRIGATION	PO3,PO4, PO5,PO6, PO11,PO12	Soil moisture is sensed and irrigation is controlled via

14	K.Sathvika	19E51A0434	SYSTEM	& PSO1,2	relay; GSM sends alerts for remote farm management.
15	A.Varun teja	19E51A0402			
16	K.Manoj	20E55A0410			
17	B. varsha	19E51A0409	DROWSINESS DETECTION USING EYE BLINK SENSOR	PO3, PO4, PO5,PO6, PO11,PO12 & PSO1,2	Eye blink patterns are monitored with sensors; abnormal blinks trigger an alert system to prevent accidents.
18	D.Rikithaa sai	19E51A0417			
19	G .Sai shirisha	19E51A0427			
20	J.Suresh	20E55A0408			
21	G Rakesh	19E51A0422	RIDER SAFETY SENSING DEVICE USING ARM	PO3, PO5,PO6, PO9, PO11,PO12 & PSO1,2	ARM controller monitors fall detection sensors and sends alerts via GSM in case of emergency situations.
22	G Hemanth Reddy	19E51A0425			
23	G Sri Charan	19E51A0428			
24	B Rashmi	20E51A0404			
25	B.Neha Reddy	19E51A0407	ULTRA WIDE BAND ANTENNA FOR WIRELESS APPLICATIONS	PO3, PO4, PO5 PO11,PO12 & PSO1,2	Antenna designed in HFSS, fabricated, and tested with a VNA for performance in wireless frequency bands.
26	K.Sathwik	19E51A0429			
27	D.Sanath	19E51A0430			
28	Vikas	19E51A0432			
29	G. Sai Ram Teja	19E51A0421	IOT BASED PATIENT HEALTH MONITORING SYSTEM USING ARDUINO	PO3, PO4, PO5, PO11,PO12 & PSO1,2	Sensors capture vital signs; data is sent via Wi-Fi to an IoT dashboard for real-time health monitoring.
30	K. Nithish kumar	19E51A0435			
31	A. Vinay kumar	19E51A0403			
32	K. Harsha vardhan	19E51A0439			
33	B.Manjula	20E55A0405			Designed with filtering slots to suppress harmonics;

			HARMONIC SUPPRESSED MICROSTRIP ANTENNA FOR WLAN APPLICATIONS	PO3, PO4, PO5, PO11,PO12 & PSO1,2	simulated and tested to enhance WLAN signal clarity.
34	B.Akhila	20E55A0406			
35	B.Prudhvi	19E51A0411			
36	A.kalyan	19E51A0401			
37	Pavan	19E51A0426	OBJECT SORTING STATION BASED ON COLOUR SENSING	PO3, PO4, PO5,PO6, PO11,PO12 & PSO1,2	Color sensors classify objects; microcontroller operates servos to automate sorting based on color.
38	Ayan	19E51A0405			
39	Laxman	19E51A0416			
40	Ratnakumar	18E51A0494			
41	G. Mounika	19E51A0424	SECURITY ENHANCEMENT OF INFORMATION USING MULTILAYERED CRYPTOGRAPHIC ALGORITHM	PO3, PO4, PO5,PO6, PO11,PO12 & PSO1,2	Multilayer encryption implemented in Python/MATLAB ensures secure transmission of sensitive data.
42	K. Shiva reddy	19E51A0433			
43	Ch. Chandrashekar	19E51A0415			
44	K. Sai suprith	19E51A0436			
45	G.Sanjana	20E55A0407	AUTOMATED CAR PARKING INDICATOR USING MATLAB	PO3, PO4, PO5,PO9, PO11,PO12 & PSO1,2	Sensor data determines parking availability; MATLAB GUI displays real-time parking slot status.
46	A.Pranay	20E55A0402			
47	A.Ramakrishna	20E55A0403			
48	C.Naveen	19E51A0414			
49	K Anusha	19E51A0440	RIVER CLEANING BOT	PO3, PO4, PO5,PO6,PO9,	Floating bot with debris collection mechanism operates

50	M jithender Reddy	19E51A0441		PO11,PO12 & PSO1,2	via remote control; designed for surface waste removal.
51	K Asrita	19E51A0438			
52	Dibya kumari	19E51A0420			

2.4.2 :List of Mini Projects

Evaluation of Mini-Project: The Mini-Project in the relevant area shall be registered by the student in consultation with the supervisor and shall be carried out during the semester. Extensive research is conducted using academic resources to analyze the topic critically, understand applications, and prepare a detailed report.

It shall be evaluated for 100 marks. Out of total 100 marks allotted for the mini-project work 30 marks shall be for continuous internal evaluation and 70 marks for the end semester viva-voce examination. Out of 30 marks allocated for CIE, 30 marks shall be awarded by the Departmental Evaluation Committee consisting of Project Supervisor, and two senior faculty members nominated by the Head of the Department.

The mini-project viva-voce (SEE) shall be conducted by a committee comprising an External Examiner nominated by Head of the Institution, One Senior Faculty member nominated by Head of the Department and Project Supervisor.

2.5 Case Studies and Real-Life Examples (10)

Total Marks 8.00

Institute Marks : 8.00

At Department of ECE, the teaching methodology is centered on experiential and application-based learning, in alignment with Outcome-Based Education (OBE) principles. One of the key strategies adopted is the integration of case studies and real-life examples into the course content, which serves to bridge the gap between theoretical knowledge and practical applications. This approach ensures that students not only understand concepts but also develop the critical thinking, problem-solving, and decision-making skills necessary for professional success in engineering domains.

Types of Case Studies and Real-Life Examples Used

Case studies are selected based on relevance, complexity, and alignment with course. They fall into the following categories:

1. Descriptive Case Studies

These case studies present well-documented real-world scenarios with a focus on understanding how and why certain technologies, systems, or policies work.

Key Features:

- Emphasis on explanation rather than problem-solving.
- Used for conceptual clarity and system understanding.
- Often involve historical, industrial, or policy-based examples.

2. Application-Based Case Studies

These case studies present a real-world problem and require students to apply their technical knowledge to analyze, design, or improve a system.

Key Features:

- Focused on problem identification and solution development.
- Encourages collaborative teamwork and innovation.
- Aligned with course-level problem-solving and design COs.

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT						
Electronics and Communication Engineering						
III Year II Semester Course Level Projects						
AY:2023-24						
Sl.No (http://Sl. No)	**Roll.No** (http://Roll. No)	**Student Name**	**Description of Case Study/Real Life Example**	**PO/PSO addressed**	**Type**	**complexity**
1	21E51A0407	Chowdarigari Sai Snikhith Reddy	Capacitive coupled interconnections for cross talk analysis in high speed vlsi circuits	PO1, PO2, PO3, PSO1	Explanatory	Moderate
	21E51A0402	Akula Aishwarya				
	21E51A0408	Dadivela Pranavi				
	21E51A0405	Bhukya Hema Bindu				
2	21E51A0409	Dasari Neeraj Kumar	Employee management system using python	PO1, PO2, PO3, PO5, PSO1, PSO2	Descriptive	Simple
	21E51A0413	Erri Abhishek				
	21E51A0418	Gayatri Vurumundar				
	21E51A0420	Gouti Sai Jayanth				
3	21E51A0417	Garachetla Pradeep Reddy	EMPOWERING LIBRARIES	PO1, PO2, PO3, PO5, PSO1, PSO2	Descriptive	
	21E51A0415	Gaddam Chandraprakash				
	21E51A0446	Ponugoti Srinithya				

	21E51A0426	Kotagiri Sridevi				Simple
4	21E51A0419	Goli Meghana	Face attendance system	PO1, PO2, PO3, PO5, PSO1, PSO2	Explanatory	Moderate
	21E51A0416	Gaddameedi Bhavani				
	21E51A0457	Utkarsh Kumar				
	21E51A0431	Marada Sai Kumar				
5	21E51A0421	Jankani Shivani	CMOS Clock-Gated Synchronous Up-Down Counter with High-Speed Local Clock Generation and Compact Toggle Flip-Flop	PO1, PO2, PO3, PSO1	Explanatory	Moderate
	21E51A0424	Kanuri Venkata Nikitha				
	22E55A0404	Mandapalli Chatya Mani Kanta				
	21E51A0433	Mirza Afzal Hussain Baig				
6	21E51A0422	Jeedi Chandra Shekar	Sound Transmission Using Li-Fi	PO1, PO2, PO3, PSO1	Descriptive	Simple
	21E51A0432	Meka Chandana				
	22E55A0407	Rayudu Jagan Mouli				
	21E51A0436	Narsampalli Akash				
7	21E51A0428	Kummari Nikitha	Temperature measurement by using optical fiber	PO1, PO2, PO3, PSO1	Explanatory	Moderate
	21E51A0434	Mosra Sowmya				
	21E51A0454	Sunkari Rohit				
	21E51A0438	Pabba Sravani				

8	21E51A0435	Nallavelli Harshavardhan	Next-Gen Pest Detection for Sustainable Agriculture	PO1, PO2, PO3, PO5, PSO1, PSO2	Explanatory	Moderate
	21E51A0441	Palthyavath Shailesh				
	18E51A0444	Khamrul Islam Patel				
	21E51A0443	Payili Ashok				
9	21E51A0440	Palakondu Richitha	LoRa WAN based IOT network for campus security and Monitoring withCoAP Integration	PO1, PO2, PO3, PO5, PSO1, PSO2	Explanatory	Moderate
	21E51A0449	Ramagundam Santhosh				
	21E51A0403	Arepaga Srikanth				
	21E51A0461	Vuppula Vamshi Krishna Yadav				
10	21E51A0442	Pasedla Yesho Pavan	FM Radio Transmitter	PO1, PO2, PO3, PSO1	Explanatory	Moderate
	21E51A0451	Repaka Akshitha				
	21E51A0412	Erakar Abhishek				
	21E51A0404	Begari Sanjeev				
11	21E51A0447	Posham Indrasena Reddy	Email Spam Detector using Python	PO1, PO2, PO3, PO5, PSO1, PSO2	Explanatory	Moderate
	21E51A0459	Vedanth Lahoti				
	21E51A0414	Ettaboina Anvesh				
	21E51A0425	Kota Madhu Sudhan				
	21E51A0448	Puli Vinay				
	22E55A0402					

12		Kowdi Vigneshwara	Design and implementation of FIR filter	PO1, PO2, PO3, PSO1	Explanatory	Moderate
	21E51A0445	Pola Venkatesh				
	21E51A0427	Kothinti Manoj Reddy				
13	21E51A0450	Ramoji Sanjana	Real Time Vehicle tracking using MQTT	PO1, PO2, PO3, PO5, PSO1, PSO2	Explanatory	Moderate
	22E55A0405	Naspuri Kalyan				
	21E51A0462	Yarolla Krishna				
	21E51A0453	Savali Shushanth				
14	21E51A0460	Vungarala Rithika Patel	Design of WLAN Patch Antenna using different feeding Techniques	PO1, PO2, PO3, PSO1	Explanatory	Moderate
	22E55A0406	Poloju Tejasri				
	19E51A0470	Taniru Vinay				
	21E51A0456	Tummuru Rakesh Reddy				
15	21E51A0463	Yenna Danush	Python Powered Login Automation	PO1, PO2, PO3, PO5, PSO1, PSO2	Explanatory	Simple
	21E51A0439	Padala Deekshitha				
	21E51A0406	Busmalla Manish				
	21E51A0458	Vasansetty Uma Navya				
16	22E55A0401	Gundaiahgari Tisha	Hotel Management System using Python	PO1, PO2, PO3,	Explanatory	Moderate
	21E51A0452	Sai Krishna Raju				

	21E51A0430	Mamidi Nithin Kumar		PO5, PSO1, PSO2		
	19E51A0449	Mohammed Zaffar Hussain				
17	22E55A0403	Madasu Ashrutha	Smart crop health monitoring system using IOT sensor.	PO1, PO2, PO3, PO5, PSO1, PSO2	Explanatory	Moderate
	21E51A0401	Afghan Abubakkar Siddiq				
	21E51A0410	Dendi Shyamsunder Reddy				
	21E51A0411	Dharmapuri Rohith Goud				

Table 2.5.1. Course Level projects

Some of the Case Studies and Real Life Examples discussed in the courses are listed below

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT
ELECTRONICS AND COMMUNICATION ENGINEERING
Case Studies and Real Life Examples

S.No	**Name of the Course**	**Year/Semester**	**Case Study/ Real Life Example**	**Description of Case Study/Real Life Example**	**PO/PSO addressed**	**Type**	**complexity**
1	PSC	I/I	Real Life Example	Elevator	PO1,2,3,5, & PSO1,2	Descriptive	Simple Case
2	APP	I/II	Case Study	Smart Traffic Light System using IoT	PO1,2,3,5,6,7 & PSO1,2	Explanatory	Simple to moderate

3	IIOT	III/I	Case Study	Smart Home Automation using IoT	PO1,2,3,4,5,6,7,9,12 & PSO1,2	Descriptive Case Study	Moderately Complex Case
4	SD	III/II	Case Study	Smart Irrigation System for Precision Agriculture	PO1,2,3,4,5,6,7,9,10,12 & PSO1,2	Explanatory	Simple to moderate
5	ESD	III/II	Real Life Example	A smart vending machine	PO1,2,3,4,5,6,7,9,10,12 & PSO1,2	Explanatory	Moderately Complex Case

Table 2.5.2. Case Studies and Real Life Examples

Impact on Student Learning

- Improved conceptual clarity and practical awareness.
- Development of soft skills such as teamwork, communication, and leadership.
- Stronger alignment with industry expectations and better placement readiness.
- Increased interest in research and innovation.

2.6 SWAYAM/NPTEL/MOOC/Self Learning (10) — **Total Marks 10.00**

Institute Marks : 10.00

The students are encouraged in different self-learning through various online platforms like SWAYAM, NPTEL, and other Massive Open Online Courses (MOOCs) which are integral parts of the learning ecosystem. These platforms provide students with the flexibility to enhance their knowledge in various subjects, including those not covered in the curriculum, and to acquire skills relevant to the rapidly evolving technological landscape. The courses opted through these platforms are aligned with industry standards and best practices, allowing the students to gain not only the additional knowledge but also the certifications which are recognized globally.

These courses cover a wide range of topics in engineering. Students can pursue these courses at their own pace and convenience, allowing them to learn beyond the prescribed curriculum and deepen their understanding in areas of interest.

Awareness and Motivation:

- Orientation sessions are organized to familiarize students with the benefits of SWAYAM, NPTEL, and other MOOCs.
- Students are encouraged to enroll in Infosys springboard courses that complement their curriculum or explore their areas of interest.

Outcomes of the SWAYAM/NPTEL/MOOC/Self-Learning Process:

- Students develop a deeper understanding of their core and elective subjects.
- Enhanced employability due to certifications in industry-relevant topics.
- Strengthened academic profile of students, making them competitive on a global stage.

Number of students Registered for MOOC, SWAYAM and self-Learning Courses:

NPTEL/MOOC/SWAYAM:

S.No	Number of Students Registered	Batch	Certification	PO/PSOs Addressed
1	02	2020-24	Analysis and Design Principles of Microwave Antennas	PO1,3,6,7 & PSO1,2
			Computer Networks and Internet protocol	PO1,2,5,12 & PSO1,2
2	05	2021-25	Digital Circuits	PO1,3,5,7& PSO1
			Python for Data Science	PO1,3,5,12
			Microprocessors and Microcontrollers	PO1,2,3,5 & PSO1,2
3	09	2022-26	Google Cloud Computing Foundations	PO1,2,3,5,11 & PSO1,2
			System Design Through Verilog	PO1,2,3,5,12
			Digital System design	PO1,2,3,5,7& PSO1
			Cloud Computing	PO1,3,4,5
			Embedded Systems Design	PO1,2,3,5 & PSO1,2

Table 2.6.1. No. of student's certifications through Swayam/NPTEL Courses

Self-Learning:

S.No	Academic Year	Number of Certifications	Certification	PO/PSOs Addressed
1	2024-25	10	Python Fundamentals & IOT	PO1, 2, 3, 5, 12& PSO1,2
		15	Digital Electronics	PO1, 2, 3 & PSO1
		10	VLSI	PO1,2,3,5 & PSO1,2
2	2023-24	60	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,2
3	2022-23	60	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,2
		15	Learning IOT with Rasberry pi	PO2,3,4,12 & PSO1,2

Table 2.6.2. No. of student's certifications through Self Learning

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT				
ELECTRONICS AND COMMUNICATION ENGINEERING				
NPTEL Certified Students				
S No	**Roll number**	**Name**	**Course Name(NPTEL)**	**Pos and PSOs Addressed**
1	21E51A0446	Ponugoti Srinithya	Digital Circuits	PO1,3,5,7 & PSO1
2	22E55A0406	Poloju Tejasri	Digital Circuits	PO1,3,5,7 & PSO1
3	21E51A0459	Vedanth Lahoti	Python for Data Science	PO1,3,5,12
4	21E55A0405	D Harika	Computer Networks and Internet protocol	PO1,2,5,12 & PSO1,2
5	21E55A0402	Bhukya Nagesh	Analysis and Design Principles of Microwave Antennas	PO1,2,3,6,7 & PSO1,2
6	21E51A0459	Vedanth Lahoti	Microprocessors and Microcontrollers	PO1,2,3,5,11,12 & PSO1,2
7	22E51A0436	Heramba Sai Ganesh	Google Cloud Computing Foundations	PO1,2,3,5,12
8	23E55A0407	Veldandi Sai Krishna	System Design Through Verilog	PO1,2,3,5 & PSO1,2
9	21E51A0446	Ponugoti Srinithya	Microprocessors and Microcontrollers	PO1,2,3,5,11,12 & PSO1,2
10	22E51A0425	Kandregula Anusha	Embedded Systems Design	PO1,2,3,5 & PSO1,2
11	22E51A0434	Pachigolla Akshitha	Embedded Systems Design	PO1,2,3,5 & PSO1,2
12	22E51A0446	Sangidi Anusree	Cloud Computing	PO1,3,4,5
13	22E51A0454	Sureddi Alekhyya	Digital System Design	PO1,3,5,7 & PSO1
14	22E51A0407	Chinnam Manisha	Digital System Design	PO1,3,5,7 & PSO1
15	22E51A0453	Sunki Akhila	Digital System Design	PO1,3,5,7 & PSO1
16	23E55A0403	Janga Akshaya	Digital System Design	PO1,3,5,7 & PSO1

Table 2.6.3.NPTEL Certifications

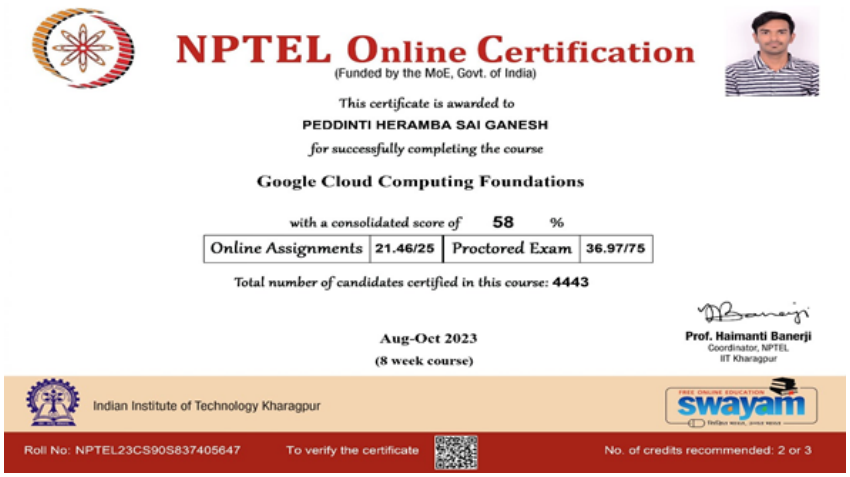


Figure 2.6.1: NPTEL Certifications

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT				
ELECTRONICS AND COMMUNICATION ENGINEERING				
Self-Learning Certified Students				
S.No	**Roll Number**	**Name of the Student**	**Course Name(Self Learning)**	**Pos & PSO addressed**
1	22E51A0401	Akuthota Sannidhi Rao	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,2
2	22E51A0403	Boddu Ranjith Kumar	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,3
3	22E51A0404	Bollaram Sravani	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,4
4	22E51A0406	Cheemala Vidayadatta	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,5
5	22E51A0410	D Naga Varun Goud	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,6
6	22E51A0411	Dangeti Sai Ruthik	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,7
7	22E51A0412	Deegoju Rajeshwari	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,8
8	22E51A0413	Devendla Bala Guru Vardhan	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,9
9	22E51A0416	Etikala Narsing Rao Anirudh	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,10
10	22E51A0417	G Manasa	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,11
11	22E51A0418	Gangi Reddy Shayanidhi Reddy	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,12
12	22E51A0419	Goteti Kritika	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,13
13	22E51A0420	Goulla Chaitanya Reddy	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,14
14	22E51A0421	Gudepu Chandu	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,15

15	22E51A0423	Gujjula Prem Kumar Reddy	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,16
16	22E51A0424	Inamdar Sudesh	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,17
17	22E51A0425	Kandregula Anusha	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,18
18	22E51A0427	Koppula Sangeetha Rao	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,19
19	22E51A0432	Myla Steeven Babu	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,20
20	22E51A0435	Pedasanaganti Ravi Krishna Naga Sai	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,21
21	22E51A0436	Peddinti Heramba Sai Ganesh	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,22
22	22E51A0437	Podila Abhilash Goud	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,23
23	22E51A0438	Prathipati Trilok Vijay Prasad	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,24
24	22E51A0439	R Sai Srujan	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,25
25	22E51A0440	Rangineni Sri Kavya	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,26
26	22E51A0443	Rayana Harini	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,27
27	22E51A0446	Sangidi Anusree	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,28
28	22E51A0447	Seelam Durga Lova Raju	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,29
29	22E51A0449	Shaik Thouhid Ali	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,30
30	22E51A0450	Shanam Joshuva	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,31
31	22E51A0451	Sivagouni Neha	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,32
32	22E51A0452	Srungaram Sneha	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,33
33	22E51A0453	Sunki Akhila	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,34
34	22E51A0454	Sureddi Alekhyya	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,35
35	22E51A0457	Thota Naga Sai Nikhileswar	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,36
36	22E51A0459	Usirikapally Akshitha	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,37
37	22E51A0460	Vaddi Reddy Praveen Reddy	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,38
38	22E51A0462	Varikuppala Pradeep	Python Fundamentals	PO3,4,5,9,10,12 & PSO1,39

Table 2.6.4. Self-Learning Certifications

2.7 Solving Complex Engineering Problems Incorporating Sustainability Goals (20)

Total Marks 18.00

Institute Marks : 18.00

Solving complex engineering problems is not only a technical challenge but also a moral responsibility. The department encourages students to approach engineering challenges through the lens of sustainable development, integrating societal, environmental, and economic considerations aligned with the United Nations Sustainable Development Goals (SDGs). This is achieved through activity-based learning strategies including PBL, mini/micro projects, integrated design, capstone projects, and hackathons.

Complex Engineering Problems (CEPs) are those that require in-depth engineering knowledge, involve wide-ranging factors such as societal, environmental, ethical, and economic issues, and cannot be resolved with straightforward solutions. These problems typically require abstraction, interdisciplinary knowledge, simulation, prototyping, and decision-making under uncertainty.

Complexity and Technology Readiness Level (TRL)

Technology Readiness Level (TRL) is a measure used to assess the maturity level of a particular technology. Complexity increases with TRL, especially in the mid-range (TRL 4–7), where prototyping, integration, and validation become necessary.

- TRL 1-3: Conceptual stage with low complexity
- TRL 4-6: Prototype development with moderate complexity
- TRL 7-9: Full-scale deployment with high complexity

Problem-Based Learning (PBL):

PBL aims to enhance students ability to visually communicate complex ideas in a concise and engaging manner. It helps in developing critical thinking, creativity, and effective presentation skills. The implementation involves students designing posters on a given topic, summarizing key concepts, findings, or innovations. These posters are displayed in a classroom, where students present their work to faculty and peers. The evaluation is based on clarity, content depth, creativity, and the ability to articulate ideas effectively.

Problem Statement: Design and develop an embedded system for an IoT-based environmental monitoring application, integrating multiple sensors to measure parameters such as temperature, humidity, and air quality.

Additional Information: The system should collect real-time data from the sensors, process it locally using a microcontroller, and transmit the data wirelessly to a central server or cloud platform for analysis. Implement power-efficient algorithms to extend battery life and ensure reliable data transmission over long periods. Evaluate the systems performance in terms of data accuracy, latency, and energy consumption, and propose improvements to enhance its scalability and effectiveness in various environmental conditions.

Steps Involved:

1. **Problem Identification:**
    - Problems are chosen based on their real-world relevance and alignment with the United Nations Sustainable Development Goals (SDGs).
2. **Requirement Analysis:**
    - Students analyze the problem from multiple perspectives, including technical, social, and environmental dimensions.
3. **Design and Development:**
    - Innovative and eco-friendly solutions are designed, keeping resource optimization and minimal environmental impact in focus.
4. **Implementation:**
    - Solutions are implemented using modern tools, sustainable materials, and emerging technologies like IoT, AI, and green energy systems.
5. **Evaluation and Validation:**
    - Solutions are evaluated for their efficiency, feasibility, and long-term impact on sustainability.

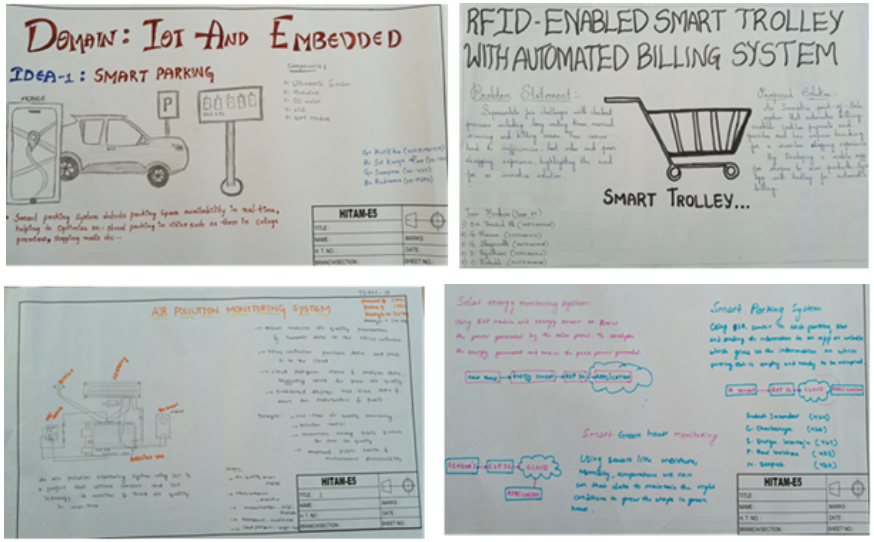


Figure2.7.1:Poster Presentations

Student Presentations: This method is focused on improving students' communication skills and their ability to explain technical concepts clearly. It allows students to take ownership of their learning by researching and presenting topics to their peers. Faculty assess students based on content depth, presentation clarity, confidence, and engagement. Constructive feedback is provided to help students refine their delivery and subject knowledge. This activity also promotes public speaking skills, which are essential for academic and professional success. Rubrics were designed and evaluated.

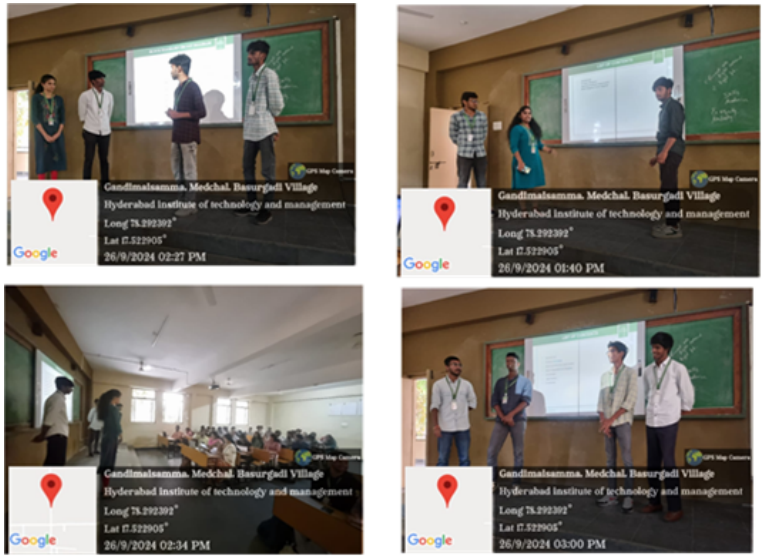


Fig 2.7.2: Presentations by the students

Problem Solving: This method focuses on developing analytical thinking and the ability to apply theoretical concepts to real-world challenges. Students are assigned structured or open-ended problems that require critical thinking and logical reasoning. They work individually or in teams to analyze, propose solutions, and justify their approach. The faculty facilitates discussions and evaluates solutions based on correctness, innovation, and clarity in problem-solving strategies.

Figure 2.7.3:Problem solving

Modules Display: The objective of this approach is to reinforce conceptual understanding by enabling students to create and showcase models or physical modules related to their coursework. These displays serve as interactive tools that help in visualizing abstract concepts. Students work on building functional or demonstrative models, which are then exhibited for peer and faculty evaluation. The effectiveness of the module, creativity, and clarity in explanation are key assessment criteria. This method bridges the gap between theory and practice.

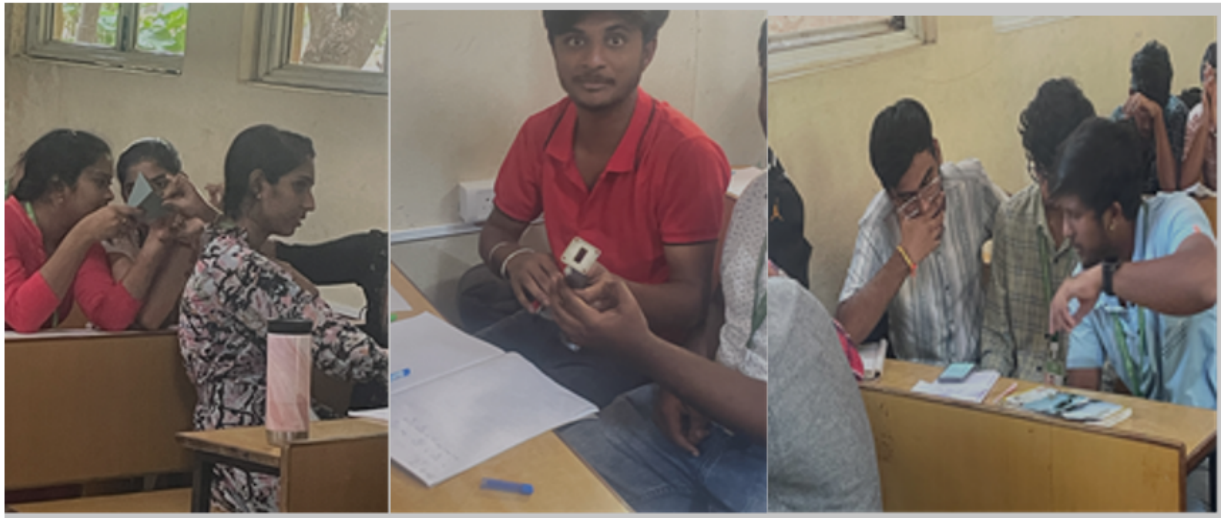


Fig2.7.4: Displaying of Horn Antenna, Directional Couplers, Attenuator, Isolator

Daily Problem solving in the classroom:

Problem statements are given to the students in the classroom in daily classroom activities. Students work in teams, do brainstorming and resolve the problems.

Fig 2.7.5: Students working on the given problem and brain storming

Project Expo: The Problem-Based Learning (PBL) Expo aims to provide students with a platform to showcase their innovative solutions to real-world challenges. It encourages teamwork, critical thinking, and industry-oriented learning. Students work in groups on problem statements provided at the beginning of the semester. The projects are then exhibited in a formal setting where a team from Aalborg University visited our campus to evident these projects and appreciated ECE Students. This approach enhances experiential learning and prepares students for practical applications in their careers.

Fig2.7.6: Prof. Xian Yundu, Head PBL from Aalborg University

HITAM has an MOU with Aalborg University. Faculty from HITAM are getting trained from the Aalborg team. Faculty at HITAM implemented PBL for this batch of ECE students. We were successful in implementing it. The student Learning Outcomes were achieved. The head of the team Prof. Xiang yun du appreciated and posted in her Linked in.

Mode of Feedback: Google forms

Many students appreciate PBL for its engaging and interactive nature. They often report improved critical thinking, problem-solving, and teamwork skills. They find it relevant and feel better prepared for real-world challenges. Some students found PBL initially uncomfortable, as it requires active participation and self-directed learning. They requested clearer guidelines and expectations. Feedback is taken from the students to understand the student's interests and suggestions for effective implementation for further semesters.

The Problem-Based Learning is a valuable educational approach for improving student engagement and academic performance in the Antennas and Wave Propagation course. By providing a structured, real-world problem for students to solve, PBL enhances their understanding of complex concepts and prepares them for professional practice. The Academic Performance of the students has been gradually improved with the experiential learning in the class. The positive results from this implementation suggest that PBL can effectively address gaps in traditional teaching methods and contribute to the achievement of Program Outcomes.

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

ELECTRONICS AND COMMUNICATION ENGINEERING

PBL -III Year(AY:2024-25)

Batch Number	Roll Number	Name	Domain	Title of the Project	Mentor	SDG Mapping	Approx TRL
1	22E51A0424	Sudesh I	Embedded & IOT	Solar Energy Monitoring System	Ms. Tejaswi V	SDG 7,13	TRL-4
	22E51A0447	Durga S					
	22E51A0420	Chaitanya G					
	22E51A0435	Ravi krishna P					

	22E51A0430	Deepak M					
2	22E51A0446	Anusree Reddy S	Embedded & IOT	IoT based Green house monitoring	Mr. Kondala Rao	SDG 2,9,13	TRL-4
	22E51A0426	Mahesh K					
	22E51A0460	Praveen V					
	22E51A0401	Sannidhi A					
3	22E51A0405	Manasa B	Embedded & IOT	Sign Language Glove	Dr. Lokeswara Rao	SDG 3,4,10	TRL-4
	22E51A0432	Steeven Babu M					
	22E51A0462	Pradeep V					
	22E51A0402	Abhilash B					
4	22E51A0436	Heramba Sai Ganesh P	Embedded & IOT	Power Smart: Intelligent Room control and energy optimization	Dr. Satish Reddy	SDG 7,11,12	TRL-4
	22E51A0429	Harsha L					
	22E51A0438	Trilok P					
	22E51A0450	Josuva S					
5	22E51A0419	Krithika G	Embedded & IOT	Parking spot monitoring using IoT	Dr. Devika SV	SDG 9,11	TRL-4
	22E51A0440	Sri Kavya R					
	22E51A0422	Swapna G					
	23E51A0401	Rudrama B					
6	22E51A0410	Nagavarun D	Communication Engineering	Wireless Morsecode communicati	Dr. Rajeshwar Goud	SDG 9	TRL-4
	22E51A0416	Anirudh E					

	22E51A0439	Sai Srujan R		on using System On Chip			
	22E51A0443	Harini R					
7	22E51A0418	Shayanidhi G	Embedded & IOT	RFID-Enabled smart trolley with automate billing and inventory management	Mr. Santhosh P	SDG 9,12	TRL-4
	22E51A0417	Manasa G					
	22E51A0449	Thouhid Ali SK					
	22E51A0412	Rajeshwari					
	22E51A0408	Rishabh C					
8	22E51A0406	Sai Krishna V	VLSI Design	FPGA Based Vending Machine using Verilog HDL	Dr. Bindu Madhavi	SDG 9	TRL-3
	22E51A0453	Akhila S					
	22E51A0459	Akshitha U					
	22E51A0461	Tharun Reddy V					
9	23E51A0402	Poorvi D	Embedded & IOT	IOT enabled indoor air quality monitoring system for sustainable health management in Green Building	Dr.Devika SV	SDG 3,11,13	TRL-4
	22E51A0457	Nikhileswar T					
	22E51A0437	Abhilash P					
	22E51A0431	Manoj M					
10	23E51A0403	Akshaya J	VLSI Design	Voting Machine using Verilog	Dr. Bindu Madhavi	SDG 9,16	TRL-3
	22E51A0441	Sunitha R					
	22E51A0445	Vaishnavi S					
	22E51A0442	Vinod R					

11	22E51A0409	Tejaswi CH	VLSI Design	Desing and implmentation of car parking system using Verilog	Ms. Rani M	SDG 9,11	TRL-4
	22E51A0454	Alekhya S					
	22E51A0451	Neha Goud S					
	22E51A0414	Vivek Chand D					
12	22E51A0425	Anusha K	VLSI Design	Elevator controller by using FSM	Mr. Santhosh P	SDG 9,11	TRL-3
	22E51A0434	Akshitha P					
	22E51A0407	Manisha CH					
	22E51A0428	Uttej K					
13	22E51A0403	Ranjith	Embedded & IOT	Panic button for women safety	Dr. Omprakash	SDG 5,16	TRL-4
	22E51A0413	Vardhan					
	22E51A0421	Chandu G					
	22E51A0427	Sangeet K					
14	22E51A0406	Datta CH	VLSI Design	Implementation of basic calculator using Verilog	Mr. PVN Naveen	SDG 4,9	TRL-3
	22E51A0423	Prem G					
	22E51A0411	Sai Ruthvik D					
	21E51A0455	Ramcharan T					
	23E51A0407	Kushal V					
	22E51A0456	Akshaya T					

15	22E51A0404	Shravani B	Embedded & IOT	Air Pollution Monitoring system	Mr. Venkanna Babu	SDG 3,13	TRL-4
	22E51A0452	Sneha S					
	23E51A0404	Sowmya M					

Table 2.7.1 Engineering Complex Projects Mapping with SDGs and classification based on TRL

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT						
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING						
COURSE LEVEL PROJECTS						
II ECE A.Y.2023-2024						
S.No (http://s.no/)**.**	**Batch Number**	**Hall Ticket Number**	**Student Name**	**Project Title**	**Mentor**	**SDG Mapping**
1	**1**	22E51A0406	Ch.Vidayadatta	Water quality monitoring system using Turbidity sensor	Dr. S V Devika	SDG 3,6
2		22E51A0404	B.Shravani			
3		22E51A0408	Ch.Rishabh			
4		22E51A0431	M.Manoj			
5	**2**	22E51A0407	ch. Manisha	TV Remote control jammer	Dr. K Bindu Madhavi	SDG 16
6		22E51A0423	G.Prem kumar			
7		22E51A0430	M.Deepak			
8		22E51A0445	S. Vaishnavi			
9	**3**	22E51A0425	K. Anusha	Morse code decoder	Dr. J Rajeshwar Goud	SDG 4,9
10		22E51A0429	L. Sai Harasha Vardhan			
11		23E55A0405	Mohammed Abdul Affan			

12		22E51A0448	Shadeel Ameen. p. k			
13	**4**	22E51A0436	P. Heramba	Virtual Remote Control system	Dr. J Rajeshwar Goud	SDG 9,11
14		22E51A0438	P. Trilok			
15		23E55A0407	V. Kushal			
16		22E51A0450	S. Joshuva			
17	**5**	22E51A0443	R. harini	Digital thermometer	Dr. Omprakash	SDG 3
18		22E51A0440	R. sri kavya rao			
19		23E55A0401	B. rudrama			
20		22E51A0460	v . praveen reddy			
21	**6**	22E51A0410	D. Nagavarun	Wireless weather monitoring system	Dr. K Satish Reddy	SDG 9,13
22		23E55A0404	Sowmya			
23		22E51A0420	G.Chaitanya			
24		22E51A0402	B. Abhilash			
25	**7**	22E51A0453	S.Akhila	Water management	Mrs. V M Rani	SDG 6,12
26		22E51A0461	V.Tharun Reddy			
27		22E51A0412	D.Rajeshwari			
28		22E51A0403	Ranjith Kumar			
29	**8**	22E51A0418	G.Shayanidhi Reddy	Wireless camera positioning system		SDG 9,16
30						

		22E51A0424	Sudesh Inamdar		Mr.T Venkanna Babu	
31		22E51A0413	Vardhan			
32		22E51A0415	Manikanta			
33	**9**	23E55A0403	J.Akshaya	Digital clock	Mr. P Santhosh	SDG 4,9
34		22E51A0459	U. Akshitha			
35		22E51A0416	E.N.Anirudh			
36		22E51A0447	S. Durga lova Raju			
37	**10**	22E51A0405	B.Manasa	Traffic light controller using 555IC	Mrs. V Tejaswi	SDG 3,11
38		22E51A0457	T.Nikhileswar			
39		22E51A0419	G.Kritika			
40		22E51A0452	S.Sneha			
41	**11**	22E51A0446	S.Anusree	Automatic street light	Mr. P Kondala Rao	SDG 7,11
42		22E51A0451	S.Neha goud			
43		22E51A0426	K.Mahesh			
44		22E51A0458	U.Vamshi			
45	**12**	22E51A0417	G.Manasa Goud	Motion based automatic door opener	Mr. P Santhosh	SDG 9,11
46		22E51A0449	S.K. Thouhid Ali			
47		22E51A0435	P.Ravi Krishna			
48		22E51A0414	T.Vivek Chand			

49	**13**	23E55A0402	D.poorvi	LED cube with arduino	Mr.P santhosh	SDG 4,9
50		22E51A0441	R.sunitha			
51		22E51A0437	P.Abhilash			
52		22E51A0411	D.Sai Ruthik			
53	**14**	22E51A0439	R.SAI SRUJAN	Circuit for detection and tracking of mobile phones	Dr. S V Devika	SDG 9,16
54		22E51A0434	P. AKSHITHA			
55		22E51A0456	T. AKSHAYA			
56		22E51A0427	K.SANGEETH RAO			
57	**15**	22E51A0454	S.Alekhyya	Sun tracking solar panel	Mr. P Santhosh	SDG 7,13
58		22E51A0432	M.Steeven			
59		22E51A0401	A.Sannidhi Rao			
60		22E51A0442	R Vinod			
61	**16**	22E51A0462	V.Pradeep	GSM based home security alarm	Dr. K Bindu Madhavi	SDG 11,16
62		22E51A0422	G.swapna			
63		22E51A0421	G.chandu			
64	**17**	23E55A0406	V.Sai Krishna	Mobile network jammer	Dr. J Rajeshwar Goud	SDG 16
65		22E51A0409	Ch. Tejaswi			
66		22E51A0428	K.Uttej			

Table 2.7.2. Engineering Course Level Projects for Second year Mapping with SDGs

2.8 Steps Taken for Enhancing Industry Institute Partnerships (15)	Total Marks 15.00
	Institute Marks : 15.00

At ECE Department, partial delivery of courses by industry experts has become an integral part of the academic process, where professionals from the industry are invited to co-deliver specific modules of both core and elective courses, especially in emerging areas like Python programming and Drone Technologies. This collaboration enables students to gain real-time insights into current industry practices, tools, and methodologies. Emphasizing experiential learning, the approach incorporates live case studies, problem-solving sessions, and interactive workshops. In parallel, ECE has partnered with industries to establish cutting-edge facilities which provide students with hands-on experience using the latest technologies and tools employed in the field. The SSDC (Students Skill Development Center) serves as collaborative spaces where students and faculty work closely with industry professionals on live projects, thereby fostering innovation, enhancing technical competence, and accelerating skill development in alignment with industry expectations.

Industry Expert Engagement:

a. Industry professionals are invited to co-deliver specific modules of core and elective courses.
b. Topics include emerging areas such as Python programming and Drone Technologies

Benefits:

a. Students gain insights into current industry practices, tools, and methodologies.
b. Hands-on experience is emphasized through live case studies, problem-solving sessions, and interactive workshops.

Partial Delivery/Expert Talks:

S.No	Year/Semester	Activity Details	No.of Hours
A.Y. 2022-23			
1	II/II	Subject : Doing Engineering	48
2	III/II	Subject : Embedded Systems Design	24
3	I/II	Subject : Applied Python Programming	10
A.Y. 2023-24			
1	III/II	Subject : Python Programming	48
2	III/I	Subject : Data Communications and Computer Networks	15
3	III/II	Subject : Qualitative Aptitude	32

Table 2.8.1. Partial delivery of courses by Industry persons

Industry Interaction through Industrial Visits

S.No	Date	Year/Semester	Industry Interacted
AY 2022-23			
1	**25/11/2022**	**III/I**	**ICRISAT**

AY 2023-24			
1	**4/4/2024**	**III/II**	**NRSC**
2	**4/4/2024**	**II/II**	**NRSC**
3	**15/6/2024**	**II/II**	**CII-IGBC**
4	**15/9/2023**	**III/I**	**BHEL**
AY 2024-25			
1	**02/08/2024**	**IV/I**	**Olectra**
2	**28/01/ 2025**	**II/I**	**CII-IGBC**
3	**28/03/2025**	**II/II**	**NIT Warangal-COE Visit**

Table 2.8.2. Industry Exposure for students through Industrial Visits

Outcomes:

- Enhanced technical expertise and hands-on experience in state-of-the-art technologies.
- Exposure to research-driven environments, fostering innovation and creativity.
- Improved employability and global competitiveness in core and interdisciplinary domains.
- Strengthened collaborations with premier institutes, enriching the academic and research ecosystem

MOUs: List of MOUs in the Department as shown in Table 2.8.3

S.No	Name of the Company	Year of Signing MOU	Duration	Activities under each MOU
1	HIEE Empwering Engineering private limited	1/10/2023	5 Years	Skill Development, Certification programs, outcome based training, Placement and related services
2	IIITH	3/17/2023	2 Years	Skill Development, Certification programs, outcome based training, Placement and related services,internship
3	Adwiteya Technologies	4/29/2023	3 Years	Training programs in Emerging Technologies, Innovations
4	BSNL	6th May 2022	5 years	Training Program in communication engineering
5	Kritsnam Technologies Pvt Ltd	10th March 2023	6 Months	MATLAB code implementation algorithm.

Table 2.8.3. List of MOUs with the Department

Department of ECE has partnered with industries to establish state-of-the-art labs, including:

- **COE IOT**.

  1.It provides hands-on experience with the latest technologies and tools used in the industry.

  2.Students and faculty collaborate with industry professionals on live projects, fostering innovation and skill development.

- **AR-VR Centre**

  The AR-VR Centre is designed to foster innovation and learning in Augmented Reality (AR) and Virtual Reality (VR) technologies.

- **COE- VLSI** This center exposes the students to latest in IC Design Technology. The main objective of the center is to enabling the excellence in training for VLSI Technology and to bridge the gap between academic and VLSI industry. Also this center enables the Students to deliver projects from RTL to full custom design based on real time ideas that can be implemented onto the chip.

Industry Interaction and Impact analysis:

S.No	Industry interaction	Impact Analysis
1	Infosys SpringBoard	This academic program offers online training, qualifications, certifications and many more resources, completely free of cost.1st sem ECE students Completed C programming and 2nd sem Students completed python programming.
2	SRC Embedded solutions	Provided training to the students based AMD trainer kits and AI.Now students are willing to do the projects based on this field.
3	VLSI Prof	The VLSI training program significantly enhanced students technical and professional competencies in semiconductor design.
4	Cranes Varsity Pvt. Ltd	specialized training program conducted in **embedded systems and RTOS** to equip the students with practical skills aligned with industry standards. Students able to work confidently in this embedded environment.
5	IIIT Hyderabad	This collaborative learning experience not only enriched their academic journey but also equipped them with practical skills and insights to tackle real-world challenges in the realms of technology and communication.

Table 2.8.4. Impact Analysis after the interaction in the Industry

After Attending industry oriented training and interactions students got placed in different industries.

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

ELECTRONICS AND COMMUNICATION ENGINEERING

Impact on Placement(AY:2023-24)

S.No	Roll Number	Name of the Student	Placement of the Company
1	20E51A0404	Avusula Ramesh Chary	HIGH - TECHNEXT
2	20E51A0407	Bantu Ganesha	DEXTERITY
3	20E51A0408	Chilakamarri Manvitha	GLOBAL QUEST
4	20E51A0411	Depala Kirthi	Q SPIDERS
5	20E51A0412	Eega Srushank	PIE INFOCOMM
6	20E51A0413	Erla Sai Kiran	HIGH - TECHNEXT
7	20E51A0415	Gaddam Shashikanth	HANODALE
8	20E51A0424	Kaushik Vijayakumar	AMAZON
9	20E51A0425	Kotapathi Sakshi Sruthi	Q SPIDERS
10	20E51A0426	Labhi Venkata Sai Yamini	PALLE TECHNOLOGIES
11	20E51A0427	Laxmi Amulya Nathi	HANODALE
12	20E51A0428	Mali Patel Anjil Reddy	PIE INFOCOMM
13	20E51A0430	Manepalli Hemanth	TECHNOLOGICS GLOBAL
14	20E51A0435	Neeraty Sushma Sri	Q SPIDERS
15	20E51A0437	Patha Mounika	1STOP
16	20E51A0438	Peyyeti Murali Krishna	Q SPIDERS
17	20E51A0439	Priya Purushottam	PIE INFOCOMM
18	20E51A0441	Ragam Vinaykumar	PIE INFOCOMM
19	20E51A0442	Ranga Naveen Kumar Goud	RINEX
20	20E51A0443	Sandhi Satvika Sri	EXCEL R
21	20E51A0444	Sepuri Shreya	Swhizz
22	20E51A0445	Sharath Bhargav Eshwarapragada	PIE INFOCOMM
23	20E51A0446	Sontike Manothra	HANODALE
24	20E51A0449	Thota Deekshitha	FUTURE MARKETS INSIGHTS

25	20E51A0450	Undekar Keerthana	Q SPIDERS
26	20E51A0451	V Sateesh	PALLE TECHNOLOGIES
27	20E51A0452	V Varsha	Q SPIDERS
28	20E51A0453	Valluru Thanmayee	PROLIFIICS
29	20E55A0420	Sara Aravind Kumar	PIE INFOCOMM
30	21E55A0402	Bhukya Nagesh	PIE INFOCOMM
31	21E55A0403	Chennaboina Pranathi	TATA MOTORS
32	21E55A0404	Dadi Vijay Kumar	Shreedar Instruments
33	21E55A0405	Dontaraboina Harika	Q SPIDERS
34	21E55A0406	Illa Giri Naveen Sai	Q SPIDERS
35	21E55A0407	Kshirasagar Naveen	PIE INFOCOMM
36	21E55A0408	Margam Ajay	HANODALE
37	21E55A0410	Pooja Kumari	PIE INFOCOMM
38	21E55A0412	Sandu Yadagiri	HANODALE

Table 2.8.4. Impact Analysis of Industry Training

3 OUTCOME-BASED ASSESSMENT (120)

Total Marks 120.00

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

Total Marks 10.00

Institute Marks : 10.00

The assessment methodology for theory courses is meticulously structured to ensure continuous and comprehensive evaluation of students learning outcomes. The total evaluation as per HR21 regulation is for **100 marks**, with **30 marks allotted for internal assessment** and **70 marks for external assessment**. This process is designed to align with the Course Outcomes (COs), facilitate constructive alignment with Program Outcomes (POs), and promote academic improvement throughout the semester.

Continuous Internal Evaluation: Each student undergoes **two midterm evaluations** (Mid 1 and Mid 2), and each midterm carries **30 marks**. Each mid examination is carried out for 30 marks consisting of Subjective paper for 15 marks as Part-I and Presentations, Group Discussions, Quiz, PBL etc. for 10 marks as Part-II and 5 Marks for assignment. The final CIE Marks can be calculated by taking 80% weightage from best of the two mid examinations and 20% weightage from the least scored mid examination marks in each subject.

The first mid-term examination shall be conducted for the first 50% of the syllabus, and the second mid-term examination shall be conducted for the remaining 50% of the syllabus.

As part of the Continuous Internal Evaluation (CIE) system a structured **question bank** is developed for the **CIE-A component**, which is the theory examination carrying 15 marks in each midterm. The question bank is meticulously prepared by course instructors in alignment with the **Course Outcomes (COs)** and mapped with

appropriate **Bloom's Taxonomy levels** to ensure coverage of various cognitive domains such as understanding, application, and analysis. The questions are categorized based on difficulty levels and distributed uniformly across the syllabus. Each question is tagged with its corresponding CO and PO to ensure constructive alignment and outcome-based assessment.

Once the question bank is prepared by the faculty group, it is submitted to the **Course Coordinator** for review. The Course Coordinator ensures that the questions are relevant, clearly stated, and aligned with the intended course outcomes. After review, any necessary revisions are made, and the finalized version of the question bank is then submitted to the **Examination Cell** through the Program Head or the designated departmental representative.This process ensures standardization and fairness in the evaluation while enabling transparent measurement of student learning aligned with the program objectives.

HR21 (30M)	HR22 (40M)	HR24 (40M)
Subjective Paper-15M	Subjective Paper-25M	Subjective Paper-25M
Activity Based Assessment-10M	Activity Based Assessment-10M	Activity Based Assessment-10M
Assignments-5M	Assignments-5M	Assignments-5M

First assignment should be submitted before the commencement of the first mid-term examinations, and the second assignment should be submitted before the commencement of the second mid-term examinations. The assignments shall be specified / given by the concerned subject teacher.

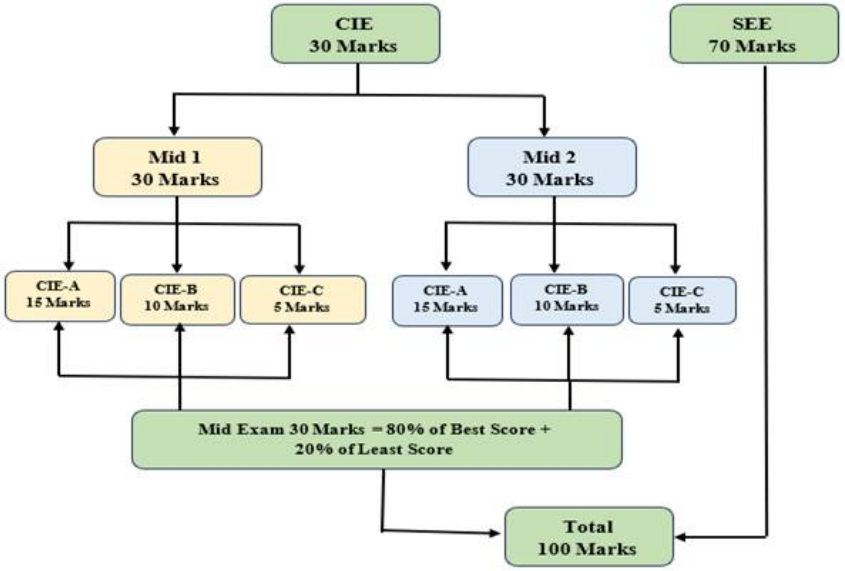
Laboratory Course Assessments:

For practical subjects, there shall be a Continuous Internal Evaluation (CIE) during the Semester for 30 internal marks and 70 marks for Semester End Examination (SEE).

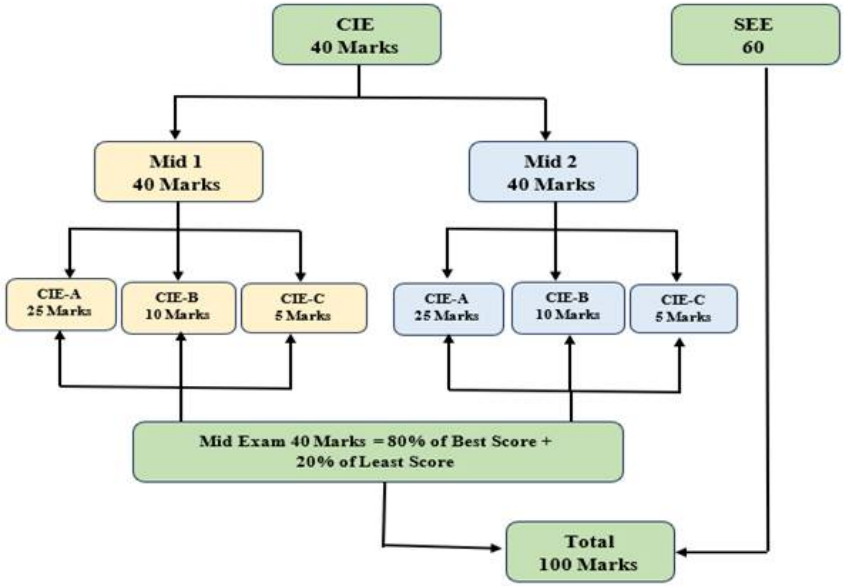
Continuous Internal Evaluation (CIE): Out of the 30 marks, 20 marks are allocated for day-to-day work evaluation and the remaining 10 marks for midterm examinations.

There shall be two mid-term examinations of 10 marks each conducted by the concerned laboratory teacher for a duration of 90 minutes and final CIE marks are calculated by taking 80% weightage from best of the two mid examinations and 20% weightage from the least scored mid examination marks in each practical subject and these are added to the marks obtained in day to day work evaluation.

For HR 21 :



For HR 22 & HR 24:



CIE- A Sample Question Paper (15 Marks)

HR 21

images	**HYDERABAD INSTITUTE OF TECHNOLOGY & MANAGEMENT** **(AUTONOMOUS)** **Gowdavelli, -Medchal Dist. – 501 401**				
CONTINUOUS INTERNAL EVALUATION MID-I Exam		**ODD Semester : 2024-25**			
Faculty In-Charge : V Mosherani		**IV Yr. I Sem / Branch**			ECE
Subject Name: Cellular and mobile communication **Subject Code :** 21PC7EC24		**Date : 4-10-2024**			**Time : 1 Hour**
Q. No	**PART-A (1 Mark Question) 1 x 5 = 5**	**Marks**	**Bloom's Level**	**COs**	**POs**
1	What are the advantages of 3G cellular systems over 2G systems?	1	1	1	1
2	Define frequency reuse ratio	1	1	1	1
3	Describe cell splitting	1	4	2	1,2
4	Explain types of Co channel Interference	1	2	1,2	1,2
5	Write equation to calculate the incident angle and elevation angle	1	3	2	1,2
Q. No	**PART-B (5 Mark Question)** **Answer Any TWO Questions 2 x 5 = 10**	**Marks**	**Bloom's Level**	**COs**	**POs**
6	Explain the principle of operation of basic cellular mobile system	5	2	1	1,2
7	What are the different types of non-co-channel interference? Explain	5	4	1,2	1,2
8	Describe the form of a point-to-point model and explain its types.	5	4	2	1,2

CIE- A Sample Question Paper (25 Marks)

HR 22

images

HYDERABAD INSTITUTE OF TECHNOLOGY & MANAGEMENT

(AUTONOMOUS)

Gowdavelli, -Medchal Dist. – 501 401

CONTINUOUS INTERNAL EVALUATION MID-II Exam		**Even Semester : 2024-25**			
Faculty In-Charge : Dr. Devika SV		**II Yr. II Sem / Branch**		ECE	
Subject Name: Analog and Digital Communications (ADC) **Subject Code :**		**Date : 12-05-2025**		**Time : 1½ Hour**	
Q. No	**PART-A (2 Mark Question) 2 x 5 = 10**	**Marks**	**Bloom's Level**	**COs**	**POs**
1	Write about Intermediate Frequency in Receiver?	2	2	3	1
2	Describe Pulse Position Modulation with waveforms?	2	3	3	1
3	Explain Quantization noise.	2	3	3	1
4	Discuss about optimum reception of Digital Signal.	2	3	4	1
5	Describe DPSK Modulator using Ex-Nor Gate?	2	3	4	1
	PART-B (5 Mark Question) **Answer All Questions 3 x 5 = 15**				
6	Explain a) RF section and characteristics of super heterodyne receiver b) Image Frequency c) Intermediate Frequency	5	3	3	1
	OR				
7	Draw the block diagram of Superheterodyne Receiver and explain its operation.	5	3	3	1
8	Explain the operation of Delta Modulation (DM) with neat block diagram and discuss the drawbacks of DM.	5	3	3	1
	OR				
9	Draw the block diagram of PCM system and explain its operation?	5	3	3	1
10	Explain DPSK Modulator using X-Nor Gate with Binary Input bit stream "100100100" and present it in truth table.	5	4	4	1
	OR				

11	Generate 8 Output phases using Quadrature Amplitude Modulation (QAM).	5	3	4	1

CIE-B Assessment Component (10 Marks):

To ensure continuous and holistic assessment of students understanding and engagement, the following components are integrated into the internal evaluation framework, collectively accounting for 10 marks:

Presentations: Students deliver individual or group presentations on assigned topics relevant to the course curriculum, promoting communication skills and conceptual clarity.

Group Discussions: Regularly conducted to foster collaborative learning, critical thinking, and articulation of ideas among students on subject-related or interdisciplinary themes.

Quiz: Periodic quizzes are administered to assess conceptual understanding, retention, and application of knowledge in a time-bound manner.

Open Book Examinations: These assessments encourage students to develop analytical and problem-solving skills by applying concepts in novel or complex scenarios, with access to textbooks and reference materials.

Project-Based Learning (PBL): Students engage in mini-projects or problem-solving activities, focusing on real-world applications and interdisciplinary knowledge, enhancing experiential learning.

CIE-C Assignment (5 Marks):

Assignment questions	**Mapped CO**	**Mapping PO,PSO**
Describe and compare at least three error detection techniques that are commonly used in satellite communication. Discuss their effectiveness, complexity, and suitability for high-latency links.	**CO 3**	**PO 1,2, PSO 2**
Compare and contrast the following error detection techniques in terms of their efficiency, reliability, and suitability for satellite communication: (a) Parity Check (b) Checksum (c) Cyclic Redundancy Check (CRC)	**CO3**	**PO 1,2** **PSO 2**

3.2 Evaluation of the Semester End Exam (SEE) Question Paper (10)	**Total Marks 10.00**
	Institute Marks : 10.00

The process of setting SEE (Semester End Examination) papers and their evaluation is carried out with a strong emphasis on maintaining transparency, quality, and alignment with Course Outcomes (COs) and Program Outcomes/Specific Outcomes (POs/PSOs). Question papers are designed using a standardized blueprint that ensures coverage of all COs at appropriate Bloom's Taxonomy levels, promoting constructive alignment between learning objectives and assessments. Each question is mapped to specific COs and POs/PSOs, and reviewed by subject experts and internal moderators to ensure clarity, relevance, and academic rigor. Evaluation is carried out using a detailed scheme of valuation to maintain uniformity and fairness. As part of our commitment to transparency, **a script view option** is provided to students, allowing them to review their evaluated answer scripts and seek clarifications if needed. All related documentation—including question paper blueprint, CO-PO mapping matrix, answer key, scheme of evaluation, sample scripts, and moderation records—is maintained in the course file as evidence of systematic assessment practices.

Semester End Examinations:

- The duration of SEE is 3 hours. The details of the question paper pattern are as follows: • The end semester examinations will be conducted for 70 marks consisting of two parts viz. **i) Part- A for 20 marks, ii) Part - B for 50 marks**. • Part-A is compulsory, which consists of ten questions (two from each unit) carrying 2 marks each.
- Part-B consists of five questions (numbered from 11 to 15) carrying 10 marks each. One question from each unit (may contain sub-questions) with internal choice.

Process for Preparing External Exam Question Paper Setting:

- Controller of Examinations (CoE) will prepare the list of experts for various courses from the identified institutions along with the internal experts.
- The Controller of examination will share the Question paper template, Syllabus copy and Blooms Taxonomy along with the guidelines to the external experts for preparing the Question papers.
- For one course 4 sets of Question papers will be collected from different experts from the panel.
- Concerned internal subject faculty will be called for moderation of the paper 2 hours prior to the exam schedule for moderation of the paper if any.
- The Subject faculty will prepare the key and share to the Additional Controller of Examinations.
- Out of the 4 sets one set will be selected by Controller of examination.
- That set will be considered for conducting the exam on the said day.

Evaluation of the SEE answer scripts:

- The CoE will select the subject expert for each course from the panel and then earmark them for doing the evaluation of the answer scripts.
- All the SEE answer scripts are digitalized and uploaded onto the server for carryout out the digital evaluation by internal and external subject experts.
- Examiners should keep their appointment strictly confidential. This is a confidential assignment and he/she must maintain strict confidentiality.
- The evaluator shall access digital bundle scripts by using his/her login credentials provided by Controller of Examinations
- The evaluator shall value a maximum of 80 answer scripts per day- 40 scripts in each session by spending at least 3 to 4 hours per session. The Examiners should follow scrupulously the (Detailed Key) scheme of valuation, in awarding marks, and have to evaluate the answer scripts uniformly.
- The evaluator should evaluate all the questions answered by the student up to the last page of the booklet.
- The marks awarded for each question should be entered in the respective box given in marks awarding table.
- If any evaluator suspects the answer scripts for any reason (i.e. suspected case of Malpractice etc.) that should be brought to the notice of the controller of examinations
- If any evaluator notices that all answers in any answer book let have been struck off, the evaluator may award only zero for such answer book.
- Avoid erratic valuation such as allotting zero marks where the candidate deserves more marks and / or not valuing some questions.
- After complete valuation the evaluators should finalize bundle and generate marks reports and same should be sent to Controller of Examinations concerned
- All the evaluators are requested to submit their filled in remuneration form to the ACE- valuation and collect the remuneration from examination cell office.
- They will complete the valuation in online mode.
- After completion of each valuation Scrutiny will be done to check marks are allotted for all the questions or not.
- All the answer scripts scrutiny process has been carried out after evaluation of the answer scripts before finalizing the secured marks
- Double valuation is followed for evaluating answer scripts of end semester examinations. The following procedure is followed for scrutiny process of answer scripts
- Internal evaluators are identified well in advance for the scrutiny of answer scripts
- Subjects will be allotted to the evaluators with briefing of the procedure to be carried out for scrutiny, they will be provided a computer centre with all relevant documents
- After scrutiny they will be handing over all the scrutiny remarks report to ACE-2.
- ACE-2 will further verify and send the scrutiny remarks to the concerned valuator for rectification.

Transparency of post evaluation process :

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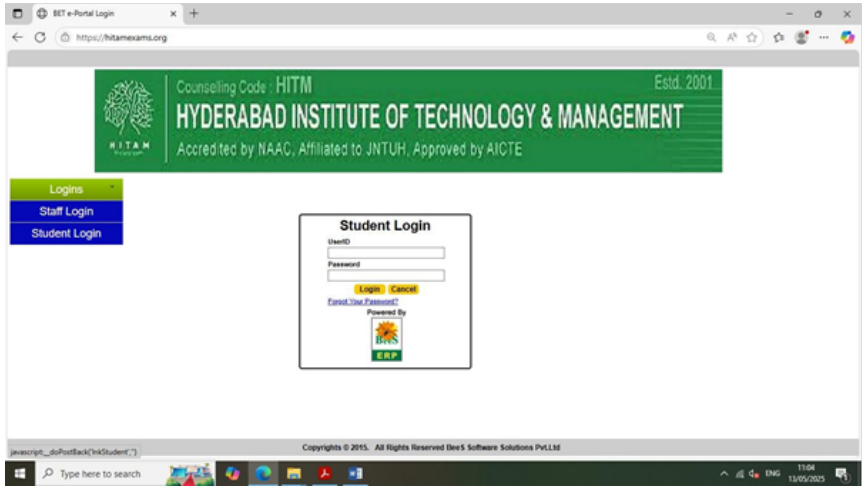
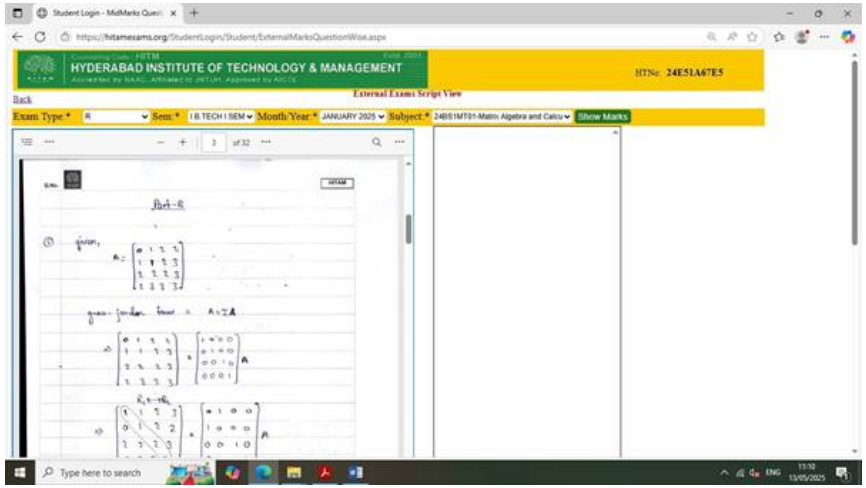


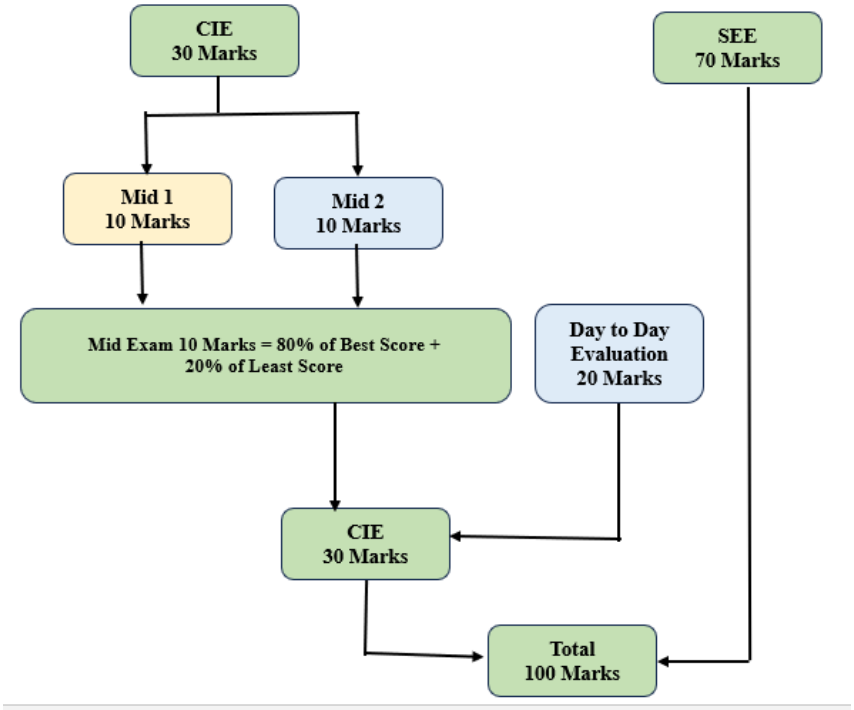
Click on student login

->Enter your credentials



3.3 Evaluation of Laboratory Work and Workshop (Continuous and SEE) (10)	**Total Marks 10.00**
	Institute Marks : 10.00

- The curriculum for the laboratory is designed to ensure effective attainment of the desired learning objectives and course outcomes.
- For practical subjects, there shall be a Continuous Internal Evaluation (CIE) during the Semester for 30 internal marks and 70 marks for Semester End Examination (SEE).



- **Continuous Internal Evaluation (CIE):** Out of the 30 marks, 20 marks are allocated for day-to-day work evaluation and the remaining 10 marks for midterm examinations.
- There shall be two mid-term examinations of **10 marks** each conducted by the concerned laboratory teacher for a duration of 90 minutes and final CIE marks are calculated by taking 80% weightage from best of the two mid examinations and 20% weightage from the least scored mid examination marks in each practical subject and these are added to the marks obtained in day to day work evaluation.

DAY TO DAY EVALUATION RUBRIC:

Criteria	Excellent (5 Marks)	Good (3–4 Marks)	Needs Improvement (1–2 Marks)
Observation (5M)	Actively engaged, follows instructions, attentive throughout	Generally attentive, minor distractions or prompting needed	Often distracted, uninterested, or needs constant guidance

Record Book (5M)	All entries complete, neat, well-organized, accurate	Most entries complete, legible, minor errors	Incomplete, untidy, or contains major errors
Experiment Execution and Team collaboration (5M)	Performs steps accurately and shows clear understanding among team members	Performs with minor help, small errors	Needs major help or makes critical mistakes
Viva Voce (5M)	Answers confidently with clear, accurate understanding	Answers most questions correctly, some hesitation or errors	Poor or incorrect answers, lack of understanding

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Department of ECE

DAY TO DAY EVALUATION SHEET

Date 31/10/22 Lab Name Electronic Devices Circuits EXP No 1

S.NO	Roll number	Observation 5M	Record Book 5M	Experiment Execution and Team collaboration 5M	Viva Voce 5M	Total 20M
1	19E51A04A9	4	4	4	4	16
2	18E51A04A4	4	5	4	4	17
3	21E51A04A01	4	3	4	4	15
4	402	5	5	4	5	19
5	403	4	3	3	4	14
6	404	4	5	5	4	18
7	405	4	3	4	4	15
8	406	5	4	4	4	17
9	407	4	4	5	5	18
10	408	5	5	5	4	19
11	409	4	4	4	4	16
12	410	5	4	4	4	17
13	411	4	4	5	4	17
14	412	5	5	5	5	20
15	413	4	4	4	5	17
16	414	5	5	5	5	20
17	415	5	4	4	4	17
18	416	4	4	4	4	16
19	417	5	4	4	4	17
20	418	4	5	5	5	19
21	419	5	4	3	4	16
22	420	4	4	5	5	18
23	421	4	5	5	4	18
24	422	4	5	4	4	17
25	423	3	4	5	4	16
26	424	4	4	3	4	15
27	425	4	5	5	5	19
28	426	5	4	4	5	18
29	427	4	4	5	4	17
30	428	5	5	4	4	18
31	429	4	4	5	5	18
32	430	5	5	5	3	18
33	431	4	4	3	4	15
34	432	4	5	4	4	17
35	433	4	5	4	4	17
36	434	5	4	4	5	18

Rajesh

FACULTY - INCHARGE

Semester End Examination (SEE): The SEE for practical subject / course in two batches per section shall be conducted at the end of the semester with duration of 3 hours by one internal and one external examiner appointed by the Head of the Institution as per the recommendation of the concerned Head of the Department.

Criteria	Excellent	Good	Needs Improvement

Design / Code (Theory) (20 Marks)	Answers are accurate, complete, and demonstrate strong understanding of design principles and coding logic. Clear, well-organized, and precise. — 15-20 marks	Answers are mostly correct with minor errors or omissions; reasoning mostly clear. — 10-14 marks	Answers are incomplete, unclear, or contain significant errors in logic or design. — 0-9 marks
Execution (15 Marks)	Demonstrates flawless implementation of the written solution; follows correct procedures; error-free operation. —13- 15 marks	Implementation is mostly correct with minor issues; follows procedures with minimal errors. — 8-12 marks	Execution is incorrect, incomplete, or fails to follow procedures. — 0-7 marks
Output / Result (15 Marks)	Produces accurate and consistent output/results that fully match expected outcomes. — 13- 15 marks	Output is mostly accurate; minor inconsistencies present but overall acceptable. —8-12 marks	Output is incorrect, inconsistent, or irrelevant to the problem statement. — 0-7 marks
Viva Voce (20 Marks)	Shows thorough understanding of concepts; answers confidently and clearly; responds correctly to all questions. — 15-20 marks	Shows adequate understanding; answers most questions satisfactorily with minor hesitations. — 10-15 marks	Lacks clarity or understanding; unable to answer majority of questions accurately. — 0-10 marks

3.4 Evaluation of Industrial Training/ Internship (Continuous and SEE) (10)	**Total Marks 10.00**
	Institute Marks : 10.00

The summer Internship shall be registered by the student in consultation with the course coordinator as per their course structure.

Once the internship is completed they will submit a report covering their learnings and will present the same during the regular reviews conducted by the department committee (consisting of the Head of the Department, the concerned supervisor, and two senior faculty members) as per the schedule. In general minimum two reviews will be conducted for 25 marks each, and the fianal presentation along with report evaluation will be assessed for 50 marks by a committee.

INTERNSHIP EVALUATION RUBRCIS:

Criteria	**Excellent**	**Satisfactory**	**Needs Improvement**
Understanding, Background, and Topic (5 Marks)	Demonstrates strong understanding; background is well-researched and topic is clearly defined. - 4-5M	Shows general understanding; background and topic are somewhat clear. -2-3M	Limited understanding; background or topic lacks clarity. - 0-1M

Specific Project Goals (3 Marks)	Goals are clearly stated, relevant, and achievable. - 3M	Goals are partially defined and somewhat relevant. - 2M	Goals are unclear or not aligned with the topic. - 0-1M
Literature Survey (2 Marks)	Thorough and relevant review of existing work. - 2M	Basic review with limited depth. - 1M	Little or no relevant literature covered. - 0M
Work Planning (5 Marks)	Detailed and logical plan with timeline and tasks. -4-5M	Basic plan with partial detail.- 2-3M	Poor or missing work plan. - 0-1M
Presentation Skills (5 Marks)	Clear, confident, engaging, with good use of visuals. - 4-5M	Understandable but with minor issues in clarity or delivery. - 2-3M	Poor delivery or difficult to understand. - 0-1M
Question and Answers (5 Marks)	Responds confidently and accurately to all questions. - 4-5M	Answers most questions reasonably well. - 2-3M	Struggles to answer questions or gives incorrect responses. - 0-1M

Rubric Criteria and PO/PSO Mapping:

Rubric Criteria	Marks	Linked POs/PSOs
Understanding, Background, and Topic	5	PO1 (Engineering Knowledge), PO2 (Problem Analysis), PSO1, PSO2
Specific Project Goals	3	PO2, PO3 (Design/Development of Solutions), PSO1, PSO2
Literature Survey	2	PO2, PO4, PSO1, PSO2
Work Planning	5	PO5 (Modern Tool Usage), PO11 (Project Management and Finance), PSO1, PSO2
Presentation Skills	5	PO10 (Communication)

Question and Answers	5	PO2, PO10, PO12 (Lifelong Learning)

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

DEPARTMENT OF ECE

INTERNSHIP EVALUATION FORM

III B. Tech-I Semester (2023-24)

Batch No: 12

Internship Title: digital notice board using esp32

Review no: 3

Candidate Details			
S. No	**Roll No**	**Candidate Name**	**Supervisor**
1	21ES1A0412	Abhishek	Mr Santosh P
2	21ES1A0470	R. Sanjana	
3	21ES1A0452	Utkarsh	
4	21ES1A0424	Manikanta	

Subject Matter	Marks(10M) Batch Members			
	1 (412)	2 (450)	3 (487)	4 (404)
Understanding background and topic(5M)	5	5	5	5
Specifies Project goals(3M)	3	3	3	3
Literature Survey(2M)	2	2	2	2
Work Planning(5M)	5	5	5	5
Presentation Skills(5M)	5	5	5	5
Question and Answers(5M)	4	5	5	5
Total(25M)	24	25	25	25

Comments Only 2 lines of data can be displayed
Not extended to mini project

Member 1 | Member 2 | Member 3 | Member 4 | Supervisor

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

DEPARTMENT OF ECE

INTERNSHIP EVALUATION FORM

III B. Tech-I Semester (2023-24)

Batch No: 11

Review 1

Internship Title: Obstacle Avoiding car

Candidate Details			
S. No	**Roll No**	**Candidate Name**	**Supervisor**
1	21ES1A0448	P. Vinay	Dr. Rajeshwar Goud
2	22ESSA0401	G. Tisha	
3	22ESSA0405	N. Kalyan	
4	22ESSA0407	R. Jagan Mouli	

Subject Matter	**Marks(10M)**			
	Batch Members			
	1 448	2 401	3 405	4 407
Understanding background and topic(5M)	5	5	5	5
Specifies Project goals(3M)	3	3	3	3
Literature Survey(2M)	2	2	2	2
Work Planning(5M)	4	4	4	4
Presentation Skills(5M)	3	5	3	4
Question and Answers(5M)	4	4	4	4
Total(25M)	21	23	21	22

Comments More clarity on the goal of the work

P. Vinay. G. Tisha N. Kal Jagan Rajesh

Member 1 **Member 2** **Member 3** **Member 4** **Supervisor**

3.5 Evaluation of Projects (20)	**Total Marks 20.00**
	Institute Marks : 20.00

- Student(s) shall start the Project Work during the VII Semester (IV-B. Tech–I–Semester) in accordance with the regulations and under the supervision of the Project Guide / Project Supervisor assigned by the Head of the Department. The topics for Mini Project, Summer Internship, Project Stage – I and Technical seminar shall be different from one another.
- The Project Work shall be carried out in two stages: Project-I (Stage – I) during VII Semester (IV-B. Tech.–I–Semester), and Project-II (Stage – II) during VIII Semester (IV-B. Tech–II–Semester), and the student has to prepare two independent Project Work Reports – one each during each stage.
- First Report shall include the Project Work carried out under Stage – I, and the Second Report (Final Report) shall include the Project Work carried out under Stage – I and Stage – II put together. Stage – I and Stage – II of the Project Work shall be evaluated for 100 marks each.
- Out of the total 100 marks allotted for each stage of the Project Work, 30 marks shall be for the Continuous Internal Evaluation (CIE), and 70 marks shall be for the End Semester Viva-voce Examination (SEE).
- The marks earned under CIE for both the stages of the Project shall be awarded by the Project Guide / Supervisor (based on the continuous evaluation of student's performance during the two Project Work stages); and the marks earned under SEE shall be awarded by the Project Viva-voce Committee / Board (based on the work carried out, report prepared and the presentation made by the student at the time of Viva-voce Examination).
- For the Project Stage - I, the Viva-voce shall be conducted at the end of the VII Semester, before the commencement of the semester End Examinations, by the Department Evaluation Committee comprising of the Head of the Department or One Senior Faculty member and Supervisor and the Project Stage – II Viva-voce shall be conducted by the Committee comprising of an External Examiner appointed by the Head of the Institution, Head of the Department and Project Supervisor at the end of the VIII Semester, before the commencement of the semester End Examinations.
- If a student does not appear (or fails) for any of the two Viva-voce examinations at the scheduled times as specified above, he may be permitted to reappear for Project Stage - I and/or Project Stage - II Viva-voce examinations, as and when they are scheduled again in that semester; if he fails in such 'one reappearance' evaluation also, he has to reappear for the same in the next subsequent semester(s), as and when they are scheduled, as supplementary candidate.
- Marks will be awarded to indicate the performance of the student in Project work based on the percentage of marks obtained in Continuous Internal Evaluation plus Semester End Examination, both taken together and corresponding letter grades shall be given.
- As a measure of the student's performance, a 10-point Absolute Grading System using the following letter grades (UGC Guidelines) and corresponding percentage of marks shall be followed.

• **% of Marks Secured (Class Intervals)**	**Letter Grade (UGC Guidelines)**	**Grade Points**
90% and above (≥ 90%, ≤ 100%)	O (Outstanding)	10
Below 90% but not less than 80% (≥ 80%, < 90%)	A^+ (Excellent)	9
Below 80% but not less than 70% (≥ 70%, < 80%)	A (Very Good)	8
Below 70% but not less than 60% (≥ 60%, < 70%)	B^+ (Good)	7
Below 60% but not less than 50% (≥ 50%, < 60%)	B (Above Average)	6

Below 50% but not less than 40% (≥ 40%, < 50%)	C (Average)	5
Below 40% (< 40%)	F (Fail)	0
Absent	Ab	0

A structured rubric-based assessment was developed and implemented for evaluating student performance in Project work (Reviews). This rubric evaluates multiple cognitive and professional competencies in accordance with the targeted Program Outcomes (POs) and Program Specific Outcomes (PSOs).

PROJECT WORK REVIEW 1 RUBRICS:

Criteria	Excellent (6 marks)	Good (4-5 marks)	Needs Improvement (0-3 marks)
Scope and Relevance (6 MARKS)	* Clearly defines the Problem and its significance. * Reviews a comprehensive range of relevant and up-to-date literature.	* Defines the research topic. * Reviews relevant literature, but may be limited in scope or outdated. * Shows some understanding of the field.	* Attempts to define the research topic. * Reviews some literature, but may not be directly relevant or current. * Limited understanding of the field.
Analysis and Synthesis (6 MARKS)	* Critically analyzes and synthesizes the reviewed literature. * Identifies key themes, trends, and gaps in research.	* Analyzes the reviewed literature. * Identifies some key themes and gaps in research. * Shows some ability to compare and contrast different perspectives.	* Attempts to analyze the reviewed literature. * May identify basic themes but lacks synthesis. * Limited ability to compare and contrast different perspectives.
Critical Evaluation (6 MARKS)	* Critically evaluates the strengths and weaknesses of the reviewed literature. * Identifies potential biases and limitations of different studies.	* Evaluates the reviewed literature. * Identifies some strengths and weaknesses of different studies. * Shows some ability to assess the credibility of sources.	* Attempts to evaluate the reviewed literature. * May identify basic strengths and weaknesses but lacks critical evaluation. * Limited ability to assess the credibility of sources.
Citation and Referencing (6 MARKS)	All sources are properly cited in the text and in a reference list.	* Uses a referencing style, but may have some inconsistencies. * Most sources are properly cited.	* Attempts to use a referencing style, but may be inconsistent or inaccurate. * Some sources may be missing citations.
Organization and Presentation (6 MARKS)	* Clear and logical organization. * Well-written and easy to understand. * Free of grammatical errors and typos.	* Generally well-organized. * Clear writing with few errors.	* Somewhat disorganized or unclear. * Writing may contain some errors.

Mapping of Rubrics with PO/PSO:

Rubric Criteria	Marks	Description	Linked POs/PSOs

Scope and Relevance	6	Assesses the ability to identify the research problem and review relevant, up-to-date literature.	PO1 (Engineering Knowledge), PO2 (Problem Analysis), PSO1
Analysis and Synthesis	6	Evaluates critical thinking, theme identification, and synthesis of literature.	PO2, PO4 (Conduct Investigations), PSO1,PSO2
Critical Evaluation	6	Assesses judgment in evaluating strengths, weaknesses, biases, and limitations in studies.	PO2, PO4, PO9 (Individual and Team Work), PSO1
Citation and Referencing	6	Checks for academic integrity and use of proper referencing standards.	PO8 (Ethics), PO10 , (Communication),PSO1,PSO2
Organization and Presentation	6	Evaluates clarity, coherence, grammar, and overall quality of presentation.	PO10, PO12 (Lifelong Learning)

Evidence of Student Assessment Through Rubrics:

- Individual student evaluation sheets, filled out by faculty evaluators during Reviews, are maintained in respective project files.
- Scores for each criterion are recorded along with qualitative feedback where applicable.
- Assessment outcomes are used to provide constructive feedback and guide students toward improvement in further project stages.

A comprehensive rubric has been designed to assess students performance in Review 2 of Project Work. This rubric ensures structured evaluation, focusing on technical and managerial competencies while aligning with targeted Program Outcomes (POs) and Program Specific Outcomes (PSOs).

PROJECT WORK REVIEW 2 RUBRICS:

Criteria	Excellent (6 marks)	Good (4-5 marks)	Average (2-3 marks)	Poor (0-1 marks)
Understanding of the Project (6 marks)	Demonstrates a clear and comprehensive understanding of the project objectives, scope, and technical challenges.	Has a good grasp of the project goals and can explain the key technical aspects.	Shows a basic understanding of the project but may lack clarity on specific technical details.	Limited understanding of the project goals and challenges.

Project Methodology (6 marks)	Clearly outlines the chosen methodology for research, design, implementation, and testing. Explains the rationale behind the approach and justifies its suitability for the project.	Describes a well-defined methodology but may lack detailed explanation for specific steps.	Presents a general approach but lacks details or may not be well-suited for the project.	Unclear or poorly defined methodology.
Progress on Work **(6 marks)**	Significant progress has been made on all project aspects (design, simulation, construction, etc.) as planned. Meets or exceeds expected milestones.	Demonstrates steady progress on the project with some completed tasks according to the plan.	Limited progress on the project. May be falling behind schedule.	Minimal or no progress made on the project tasks.
Technical Content **(6 marks)**	Demonstrates a strong understanding of relevant electrical engineering concepts and principles applied to the project. Uses appropriate technical language and terminology.	Shows a good understanding of technical concepts but may have minor inaccuracies.	Limited knowledge of technical concepts applied to the project. May exhibit significant errors.	Weak understanding of technical knowledge required for the project.
Project Management (6 marks)	Effectively manages project timelines, resources, and budget. Identifies and mitigates potential risks. Demonstrates strong communication skills for project updates.	Shows a good effort in managing the project but may lack detailed planning or communication.	Limited project management skills. Potential for delays or exceeding budget. Poor communication regarding project progress.	Unorganized approach to project management. No clear plan or communication.

Mapping of Rubrics with PO/PSO:

Rubric Criteria	Marks	Description	Linked POs/PSOs
Understanding of the Project	6	Evaluates depth of understanding of project objectives, scope, and technical challenges.	PO1 (Engineering Knowledge), PO2 (Problem Analysis), PSO1, PSO2

Project Methodology	6	Assesses clarity, rationale, and appropriateness of the chosen approach.	PO3 (Design/Development), PO4 (Investigation), PSO1, PSO2
Progression Work	6	Measures advancement in design, simulation, and construction as per milestones.	PO11 (Project Management), PSO1, PSO2
Technical Content	6	Examines the use of core engineering concepts and terminology.	PO1, PO5 (Modern Tool Usage), PSO1, PSO2
Project Management	6	Reviews planning, timeline, budget control, and communication efficiency.	PO9 (Individual and Team Work), PO10 (Communication), PO11

Evidence of Student Assessment Through Rubrics:

- Faculty evaluators conduct individual and team assessments using the rubric sheet.
- Evaluation records, scoring breakdowns, and reviewer comments are documented and stored in course files.
- These assessments are used to provide developmental feedback to students and to guide improvements in the subsequent project phases.

HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT

DEPARTMENT OF ECE

PROJECT STAGE-II EVALUATION FORM

Batch No: 01 Review 2

Project Title: Design and implementation of solar tracking system using photodiodes

Candidate Details			
S. No.	Roll No.	Candidate Name	Supervisor Name
1	21ES1A0438	P. Sravani	Mrs. V. Tejaswi
2	21ES1A0440	P. Richitha	
3	21ES1A0442	P. Yesho Pavan	
4	21ES1A0448	P. Vinay	

Subject Matter	Marks (30 Marks)			
	Batch Members			
	1	2	3	4
Understanding of the project (6 marks)	6	6	6	5
Project Methodology (6 marks)	6	6	6	6
Progress on Work (6 marks)	4	5	5	5
Technical Content (6 marks)	5	6	5	6
Project Management (6 marks)	6	5	6	5
Total (30 Marks)	27	28	28	27
Comments				

P. Sravani Member 1 | Richitha Member 2 | yesho Member 3 | P. Vinay. Member 4

Reviewer 1 | Rajesh Reviewer 2

3.6 Evidence of Addressing Sustainable Development Goals (SDG) (10) — **Total Marks 10.00**

Institute Marks : 10.00

As part of our commitment to Outcome-Based Education (OBE) and global sustainability efforts, the department actively encourages integration of United Nations Sustainable Development Goals (SDGs) into student activities, project work, and research initiatives.

To promote awareness and action on sustainability challenges, students are engaged through the following:

Project Work and Mini Projects:

Students undertake course projects and capstone projects aligned with specific SDGs such as clean energy (SDG 7), industry and innovation (SDG 9), sustainable cities (SDG 11), and climate action (SDG 13). These projects focus on real-world problems and propose feasible, innovative, and sustainable solutions.

Research and Internships:

Selected students are involved in research work and internships at reputed institutions like IIITH, NIT Warangal etc. that contribute to sustainability themes such as water conservation, smart grids, energy-efficient systems, waste management, and environmental monitoring using IoT.

Student Clubs and Activities:

Student-led initiatives and technical clubs organize awareness campaigns, sustainability workshops, clean-up drives, energy audits, and plantation activities promoting SDGs such as responsible consumption (SDG 12) and life on land (SDG 15).

A **portfolio of evidence** including project reports, photographs, posters, certificates, and documentation of student involvement is maintained. This integrated approach not only nurtures socially responsible graduates but also aligns institutional efforts with national and global development goals.

Students Project works carried out mapped to SDGs:

Batch No	Roll No	Name of student	Project title	SDG MAPPING
1	20E51A0451	V SATEESH	Motion Activated Class Room Light	SDG7 - Ensure access to affordable, reliable, sustainable and modern energy for all
	20E51A0431	MANGOLLA POOJA		
	21E55A0405	DONTARABOINA HARIKA		
	21E55A0410	POOJA KUMARI		
2	20E51A0441	RAGAM VINAYKUMAR	Traffic controller based on density with RF remote Override	SDG 11: Sustainable Cities and Communities
	21E55A0409	PEDDOJU SAI		
	20E51A0446	SONTIKE MANOTHRA		
	21E55A0401	BEERLA OMPRASAD		
3	20E55A0401	MADHUSUDHARSHAN	Efficient Tracking System for Air and Sound Pollution Using IoT	SDG 3: Good Health and Well-being SDG 11: Sustainable Cities and Communities SDG 13: Climate Action
	20E55A0402	A PRANAY		
	20E55A0403	A RAMAKRISHNA		
	19E51A0414	C NAVEEN		
4	19E51A0420	DIBYA KUMARI	AUTOMATIC FLOOD DETECTION FROM SATELLITE IMAGES USING	SDG 11: Sustainable Cities and Communities SDG 13: Climate Action SDG 15: Life on Land
	19E51A0441	M JITHENDER REDDY		
	20E55A0411	K RAMOJI RAO	Automobile	SDG 3: Good Health and Well-being SDG 9: Industry, Innovation, and
	20E55A0412	M BALAJI KUMAR		

5	20E55A0416	M VISHWESH CHARY	BlackBox System for Accident Analysis	Infrastructure SDG 11: Sustainable Cities and Communities
	20E55A0419	P KIRAN REDDY		
6	20E55A0418	P CHINNI	IOT BASED COAL MINE SAFETY MONITORING AND ALERTING	SDG 3: Good Health and Well-being SDG 8: Decent Work and Economic Growth SDG 9: Industry, Innovation, and Infrastructure
	19E51A0446	ADNAN SHAREEF		
	19E51A0455	N UMA		
	19E51A0454	N MOHINI		
7	19E51A0472	ASMITHA	Soil Properties Analysis System Using ThingSpeak	SDG 2: Zero Hunger SDG 12: Responsible Consumption and Production SDG 15: Life on Land
	19E51A0450	P SATHWIKA		
	19E51A0466	R RAKSHITHA		
8	19E51A0442	M KRISHNA VAMSHI	WEATHER MONITORING SYSTEM SING IOT	SDG 9: Industry, Innovation, and Infrastructure SDG 11: Sustainable Cities and Communities SDG 13: Climate Action
	19E51A0460	P SANJANA REDDY		
	19E51A0464	S RICHA REDDY		
	19E51A0480	V ARAVIND REDDY		
9	19E51A0473	TUSHAR SHAH	SYSTEM FOR SENSING FIRE USING TRANSFER LEARNING IN REMOTE AREAS	SDG 11: Sustainable Cities and Communities SDG 13: Climate Action SDG 15: Life on Land
10	18E51A0499	V PAVAN	Auto detection of path holes using wireless network sensor	SDG 3: Good Health and Well-being SDG 9: Industry, Innovation and Infrastructure SDG 11: Sustainable Cities and Communities
	18E51A0483			
	18E51A0463			
	18E51A04A0			

3.7 Attainment of Course Outcomes (25)	**Total Marks 25.00**
3.7.1. Describe the Assessment Tools and Processes Used to Gather the Data for the Evaluation of Course Outcome (5)	Institute Marks : 5.00

The assessment of the Course Outcomes attainment for each course is carried out through assessment consist of Continuous Internal Assessments-CIA including the Quiz, Assignments and Semester End Examinations-SEE. Each question in mid/semester end/assignment/quiz is tagged to the corresponding CO. The attainment of each CO is based on the marks scored for the assessment questions based on those Cos.

1. Mid Examinations (CIA)

This type of performance assessment is carried out during the examination sessions which are held twice a semester. Each and every exam is focused in attaining the relevant course outcomes.

2. Semester End Examination (SEE)

Semester End Examination is a metric for assessing whether all the COs are attained. Examination is more focused on attainment of course outcomes and program outcomes using a descriptive exam.

3. Rubrics for Laboratory and Project Assessments.

Rubrics are formulated for the assessment of Laboratory, Mini Project, Major projects, Seminar, and Internship courses. The attainment of Course Outcomes of all courses with respect to set attainment levels is recorded.

The expected target level of course outcomes is set in the range of 50% based on the cognitive levels of the students by the course coordinator at the beginning of the semester. The performance of the students in the examinations during the semester in each course is used to compute the level of attainment of the COs. The questions of each examination are tagged to the course outcomes by the course coordinator.

Course Outcomes – Assessment Process

- The Mid Assessment papers are framed in accordance with course outcomes and the results are analyzed to evaluate the attainments of the mapped course outcomes.
- The analysis is interpreted to find the level of attainment of COs and compared with predefined targets.
- The average of results of CO attainment of all the courses in a semester mapping to a particular PO is compared with pre-defined target of PO. Program Outcomes and Program Specific Outcomes are mapped to Course Outcomes. A performance criterion is set for all the COs.

Target: Fixed based on previous 3 years pass percentage – 50%

Levels Assigned:

Level 1: 50% of students achieving a set attainment level of 50%

Level 2: 55% of students achieving a set attainment level of 50%

Level 3: 60% of students achieving a set attainment level of 50%

Weightage for CIE & SEE: 50% for CIE and 50% for SEE

Process:

1) Enter the marks of the students as per CO wise how we enter in our award sheets given by exam branch into excel sheet for Internal and External

Internal marks include: Mid1, Quiz1, Assignment 1, Mid2, Quiz2, Assignment2

2) Find the number of students attempted CO1, CO2, CO3, CO4

3) Find the number of students getting more than 50% marks for each CO

4) CO assessment = No. of students scored more than 50% marks/No. of students attempted respective CO

5) “Threshold based attainment” can be obtained through percentage weightage for each CO.

6) Step 1 to 5 is used for Internal Assessments and Attainments.

7) Similarly, external Assessments and attainments are obtained using the same process.

8) Enter SEE marks in the excel sheet and find out the average marks

9) CO assessment for external = Average of Marks/Total Marks, We call this as “Average based attainment”

10) Calculate Number of students scoring more than 50% marks. Calculate “Threshold based attainment” by dividing Number of students scoring more than 50% marks/ Total number of students attempted the exam

11) Both percentages of CIE and SEE. Take 50% weightage for both and calculate average for each CO

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

As part of the academic quality assurance process, course outcome (CO) attainment levels for each course are set at the beginning of the academic semester consider the course outcome and the curriculum mapping. These levels are established based on the expected outcomes from the students after deliver of the course by the concerned faculty. The attainment of COs is measured through both Continuous Internal Examinations (CIE) and the Semester End Examination (SEE). CIE includes various assessment components such as mid-term exams, assignments, quizzes, lab work, and project-based evaluations, all carefully mapped to specific COs. The SEE evaluates students' comprehensive understanding of the course and is also aligned with COs. The entire process, including mapping, evaluation metrics, attainment calculations, and action plans for non-attainment, is documented and maintained in the course file for academic reviews.

Course Attainments (2020-24)

Code/Course Outcome	CO1	CO2	CO3	CO4
MA101BS/M-I	0.67	0	1.5	1.5
AP102BS/AP	0.5	0.75	1.5	1.5
CS103ES/PPS	1.5	0.75	1	1
AP105BS/AP LAB	3	3	3	3
CS106ES/PPS LAB	2.5	2.5	2.5	2.5
MA201BS/M-II	0.5	0.67	1	0.67
EE203ES/BEE	0.6	0.6	0.5	0.6
EN205HS/ENG	3	3	3	3
CH206BS/EC LAB	2.5	2.5	2.5	2.5
EN207HS/ELCS LAB	3	3	3	3
EE208ES/BEE LAB	3	3	3	3
ME205HS/EW	3	3	3	3
EC304PC/SS	1.5	1.5	1.38	1.13
EC301PC/EDC	1.5	1.5	1.5	1.5
EC305ES/PTSP	3	2.7	2.63	3
EC306PC/EDC LAB	3	3	3	3
EC307PC/DSD LAB	3	3	3	3
EC308ES/BS LAB	3	3	3	3
EC303PC/DSD	0.75	0	1.2	1
EC403PC/ADC	1.5	1.5	1.5	1.5
EC404PC/LICA	3	3	3	3
EC405PC/ECA	1.5	1.25	1.38	1.5
EC406PC/ADC LAB	3	3	3	3

EC407PC/ICA LAB	3	3	3	3
EC408PC/ECA LAB	3	3	3	3
EC4032PC/EMF	0.9	1	1.5	1
EC501PC/MPMC	1.5	1.5	1.5	1.5
EC503PC/CS	3	3	3	3
EC502PC/DCN	0.5	0.5	0.5	0.5
SM504MS/BEFA	0.75	0.75	1	1.5
EC511PE/COOS	1.5	1.5	1.5	1.5
EC505PC/MPMC LAB	3	3	3	3
EC506PC/DCN LAB	3	3	3	3
EN508HS/ACS LAB	3	3	3	3
EC602PC/DSP	3	2.63	3	3
EC613PE/ESD	2	2	2	1.7
EC605PC/ECAD LAB	3	3	3	3
EC603PC/VLSID	1.5	1.5	1.5	1.5
EC604PC/DSP LAB	3	3	3	3
CS600OE/ENTREPRE	2	2	2	1.5
EC601PC/AWP	1.2	0.6	1.2	1.2
EC606PC/SL LAB	3	3	3	3
EC701PC/MOC	3	3	2.5	3
EC703PC/MOC LAB	3	3	3	3
EC704PC/MINI PROJECT	3	3	3	3
EC705PC/SEMINAR	3	3	3	3
MM700OE/EM	3	3	3	3
EC706PC/PS-I	3	3	3	3
EC713PE/SL	3	3	3	3
EC722PE/DBMS	2	2	2	2
SM702MS/PPLE	3	3	3	3
EC813PE/WSN	1.5	1.5	1.5	1.5
EC821PE/SOCA	1.5	1.5	1.5	1.5
ME800OE/NCSE	3	3	3	3
EC801PC/MAJOR PROJECT	3	3	3	3

3.8 Attainment of Program Outcomes and Program Specific Outcomes (25) — **Total Marks 25.00**

Institute Marks : 25.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
MA101BS/M·	0.92				0.37							
AP102BS/AP	1.06											
CS103ES/PP	0.85	0.51										
AP105BS/AP	3											
CS106ES/PP	1.5	2.5	2.5	2.5	1							
MA201BS/M·	0.71											
EE203ES/BE	0.52	0.34			0.3							
EN205HS/EN									1.2	1.5		
CH206BS/EC	2.5	1										
EN207HS/EL									2.4	3		
EE208ES/BE	2.4	1.8		3								
ME205HS/EV	3		1.2					3				1.8
EC304PC/SS	1.28	0.86	0.45		0.95	0.53				0.6		
EC301PC/ED	0.75	0.6	0.6	0.6	0.6		0.75	0.6	0.6			
EC305ES/PT	2.56	1.93	1.29		1.89							
EC306PC/ED	1.8	1.8	3	1.5	3							
EC307PC/DS	3	1.8	2.2		2.4			3		1.8		
EC308ES/BS	1.6	1.8	2.6	3	1.2	1.4						
EC303PC/DS	0.74	1.2	1.2									
EC403PC/AD	1.5				0.9				1.05	0.9	1.05	
EC404PC/LIC	3	3	3									
EC405PC/EC	0.84	1.26	0.56									
EC406PC/AD	3	3	1.2						1.8	3		

EC407PC/IC/	[illegible]	1.35	3	1.92	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC408PC/EC	1.8	1.8	1.8	1.8	2.4	[illegible]	1.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC4032PC/E	1.1	0.85	0.8	0.62	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC501PC/MF	1.5	[illegible]	0.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC503PC/CS	1.8	2.25	[illegible]	2.2	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC502PC/DC	0.28	0.28	0.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.3	[illegible]	[illegible]
SM504MS/BI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.1	[illegible]
EC511PE/CC	1.5	0.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC505PC/MF	2.7	2.4	1.5	1.8	1.8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC506PC/DC	1.6	1.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.8	[illegible]	[illegible]
EN508HS/AC	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.8	3	[illegible]	[illegible]
EC602PC/DS	2.91	2.08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC613PE/ES	0.77	0.94	0.8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC605PC/EC	2.1	1.6	[illegible]	[illegible]	2.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC603PC/VL	1.35	[illegible]	0.75	0.9	0.9	[illegible]	[illegible]	[illegible]	0.8	[illegible]	[illegible]	[illegible]
EC604PC/DS	2.4	2.4	3	[illegible]	2.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
CS600OE/EN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.75	2	2	[illegible]
EC601PC/AV	1.05	0.6	0.52	[illegible]	[illegible]	[illegible]	0.6	0.36	[illegible]	[illegible]	[illegible]	[illegible]
EC606PC/SL	2.25	1.5	1.2	[illegible]	[illegible]	[illegible]	[illegible]	3	[illegible]	2.4	1.5	[illegible]
EC701PC/MC	2.88	1.97	1.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.75	[illegible]	[illegible]	[illegible]
EC703PC/MC	3	1.8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC704PC/MI	1.8	1.35	1.8	[illegible]	1.8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC705PC/SE	1.8	1.65	[illegible]	1.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3	[illegible]	[illegible]
MM700OE/EI	3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.2	1.2	[illegible]	[illegible]
EC706PC/PS	3	3	1.5	1.8	3	3	1.8	1.8	3	2.7	1.65	3
EC713PE/SL	1.5	1.5	0.75	0.75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC722PE/DB	2	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SM702MS/PI	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.25	[illegible]	2.6	[illegible]	1.8	[illegible]	[illegible]
EC813PE/WS	0.6	0.68	0.68	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
EC821PE/SO	0.92	[illegible]	0.6	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ME800OE/NC	3	1.8										3
EC801PC/MA	3	3	1.5	1.8	3	3	1.8	1.8	3	2.7	1.65	3

PO Attainment Indirect

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Programme E	2.7	2.9	2.9	2.6	2.7	2.8	2.7	2.82	2.8	2.7	2.5	2.7

PO Attainment Level

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

Define the Weightage for Indirect Attainment: 20.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	1.84	1.61	1.41	1.69	1.78	2.04	1.29	2.02	1.78	1.98	1.66	2.7
InDirect Attainment	2.7	2.9	2.9	2.6	2.7	2.8	2.7	2.82	2.8	2.7	2.5	2.7
Overall Attainment	2.01	1.87	1.71	1.87	1.96	2.19	1.57	2.18	1.98	2.12	1.83	2.7

PSO Attainment

Course	PSO1	PSO2
EC304PCSS		0.84
EC301PCEDC	0.9	
EC305ESPTSP		1.7
EC306PCEDCLAB	2	2
EC307PCDSDLAB	1.8	
EC308ESBSLAB		1.8
EC302PCNATL		0.77
EC303PCDSD	0.44	
EC403PCADC		0.9
EC404PCLICA	1.8	1.8
EC405PCECA	0.84	0.84
EC406PCADCLAB		1.8
EC407PCICALAB	1.8	1.8
EC408PCECALAB	1.8	1.8

EC402PCEMF		0.66
EC501PCMPMC	0.9	
EC503PCCS		1.2
EC502PCDCN		0.2
EC505PCMPMCLAB	1.8	
EC506PCDCNLAB		1.2
EC602PCDSP		2.91
EC613PEESD	1.92	
EC605PCECADLAB	1.8	
EC603PCVLSID	1.5	
EC604PCDSPLAB		1.8
EC601PCAWP		1.05
EC701PCMOC		2.88
EC703PCMOCLAB		3
EC704PCMINIPROJEC	3	3
EC705PCSEMINAR	3	3
EC706PCPSI	3	3
EC813PEWSN		1.5
EC801PCMAJORPRO.	3	3

PSO Attainment Indirect

Survey	PSO1	PSO2
Programme Exit Survey	2.8	2.7

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	1.84	1.78
InDirect Attainment	2.8	2.7
Overall Attainment	2.03	1.96

4 STUDENTS' PERFORMANCE (120) Total Marks 90.50

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

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (CAYm4)	2019-20 (CAYm5)	2018-19 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	60	120	120
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	60	60	60	60	53	84	100
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	7	7	13	21	31	32
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the							

1st year via all supernumerary quotas	4	4	2	3	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	64	71	69	76	74	115	132

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

	Item (No. of students admitted/exited through multiple entry and exit points) in the respective batch	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (LYG)	2019-20 (LYGm1)	2018-19 (LYGm2)
N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N5=N52+N53+N54	N5=N52+N53+N54	0	0	0	0	0	0	0
N61=No. of students exits after 1st year via multiple entry and exit points in same batch	N61=No. of students exits after 1st year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N62=No. of students exit after 2nd year via multiple entry and exit points	N62=No. of students exit after 2nd year via multiple entry and exit points	0	0	0	0	0	0	0
N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N6=N61+N62+N63	N6=N61+N62+N63	0	0	0	0	0	0	0

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

	Total no. of students	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog +

Year of entry	(N1 + N2 + N3+ N4 + N5 - N6 as defined above)	without Backlog]			
		I year	II year	III year	IV year
2024-25 (CAY)	64				
2023-24 (CAYm1)	71	59			
2022-23 (CAYm2)	69	59	64		
2021-22 (CAYm3)	76	62	65	65	
2020-21 (LYG)	74	51	61	61	46
2019-20 (LYGm1)	115	82	101	101	86
2018-19 (LYGm2)	132	91	122	119	113

4.1 Enrolment Ratio (20) — **Total Marks 20.00**

Institute Marks : 20.00

Get Details from Table 4.1

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

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2024-25 (CAY)	60	60	4	106.67
2023-24 (CAYm1)	60	60	4	106.67
2022-23 (CAYm2)	60	60	2	103.33

Average [(ER1 + ER2 + ER3) / 3] = 105.56 ≡ 100

Assessment : 20.00

4.2 Success Rate of the Students in the Stipulated Period of the Program (15) — **Total Marks 9.40**

Institute Marks : 9.40

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

Item	(2020-21) LYG	(2019-20) LYGm1	(2018-19) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	81.00	151.00	152.00
B=No. of students who graduated from the program in the stipulated course duration	46.00	86.00	113.00
Success Rate (SR)= (B/A) * 100	56.79	56.95	74.34

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 62.69

SR Points : 9.40

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

4.3 Academic Performance of the First-Year Students of the Program (10) **Total Marks 6.30**

Institute Marks : 6.30

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

Academic Performance	CAYm1(2023-24)	CAYm2(2022-23)	CAYm3 (2021-22)
Mean of CGPA or mean percentage of all successful students(X)	6.03	6.11	6.75
Y=Total no. of successful students	59.00	59.00	62.00
Z=Total no. of students appeared in the examination	60.00	60.00	60.00
API [X*(Y/Z)]	5.93	6.01	6.97

Average API[(AP1+AP2+AP3)/3] : 6.30

Assessment = Average API : 6.30

4.4 Academic Performance of the Second Year Students of the Program (10) **Total Marks 5.64**

Institute Marks : 5.64

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

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	6.69	6.84	5.30
Y=Total no. of successful students	64.00	65.00	61.00
Z=Total no. of students appeared in the examination	66.00	75.00	72.00
API [X * (Y/Z)]	6.49	5.93	4.49

Average API [(AP1 + AP2 + AP3)/3] : 5.64

Assessment [AverageAPI] : 5.64

4.5 Academic Performance of the Third Year Students of the Program (10) **Total Marks 6.65**

Institute Marks : 6.65

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

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)

X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.33	6.32	6.29
Y=Total no. of successful students	65.00	61.00	101.00
Z=Total no. of students appeared in the examination	65.00	61.00	101.00
API [X*(Y/Z)]:	7.33	6.32	6.29

Average API [(AP1 + AP2 + AP3)/3] : 6.65

Assessment [1.5 * AverageAPI] : 6.65

4.6 Placement, Higher Studies and Entrepreneurship (30) **Total Marks 17.51**

Institute Marks : 17.51

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

Item	LYG (2020-21)	LYGm1(2019-20)	LYGm2(2018-19)
FS*=Total no. of final year students	81.00	151.00	152.00
X=No. of students placed	39.00	73.00	98.00
Y=No. of students admitted to higher studies	5.00	6.00	6.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	54.32	52.32	68.42

Average Placement Index = (P_1 + P_2 + P_3)/3: 58.35

Placement Index Points: 17.51

4.7 Professional Activities (25) **Total Marks 25.00**

4.7.1 Professional Societies/ Bodies, Chapters, Clubs, and Professional Engineering Events Organized (5) Institute Marks : 5.00

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

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs
1	Institution of Electronics and Telecommunication Engineers (IETE) Student Chapter
2	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter
3	IEEE- Women in Engineering Affinity group
4	IEEE- Communications society
5	Indo Universal Collaboration for Engineering Education- Engineers without borders (IUCEE- EWB)
6	Indian Green Building Council

7	Grand Challenges Scholars Program
8	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter HSB Sensor council

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

(CAYm1) 2023-24

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Institution of Electronics and Telecommunication Engineers (IETE) Student Chapter	Technical talk on Quantum Computing	National	25/11/2023
2	Institution of Electronics and Telecommunication Engineers (IETE) Student Chapter	Talk on Recent trend on AI in Electronics	National	18/10/2023
3	Institution of Electronics and Telecommunication Engineers (IETE) Student Chapter	Industrial visit(Singur Power Plant)	National	27/03/2024
4	Institution of Electronics and Telecommunication Engineers (IETE) Student Chapter	Industrial visit(Smrithi Industries)3030	National	30/03/2024
5	Institution of Electronics and Telecommunication Engineers (IETE) Student Chapter	Industrial visit(NRSC)	National	04/04/2024
6	Institution of Electronics and Telecommunication Engineers (IETE) Student Chapter	Industrial visit(Power Tech Transformer)	National	04/04/2024
7	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter	Work shop(Internet Of Things)	National	10/01/2024
8	Indian Green Building Council	A Workshop on Waste Management Awareness"	National	20/03/2024
9	Indian Green Building Council	Students Visit to IGBC Centre"	National	15/06/2024
10	Grand Challenges Scholars Program	Graduation Day 2024	National	06/07/2024
11	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter HSB Sensor council	Session on Energy Conservation	National	14/12/2023

(CAYm2) 2022-23

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Institution of Electronics and Telecommunication Engineers (IETE) Student Chapter	Webinar On Micro Electronic Devices	National	12/02/2022
2	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter	Inauguration of IEEE Robotics and Automation Society chapter and IEEE sensors council	National	02/08/2022
3	Institute of Electrical and Electronics Engineers (IEEE) Student ChapterI	Two Days workshop (Real Time Applications of Sensors with IOT)	National	31/03/2023
4	Indo Universal Collaboration for Engineering Education-Engineers without borders (IUCEE- EWB)	Field/Exposure Visit to Pre-incubation units such as Ideas Lab, Fab lab, Makers Space, Design Centres ICRISAT	National	28/10/2022
5	Indo Universal Collaboration for Engineering Education-Engineers without borders (IUCEE- EWB)	Quantun Energy industry visit	National	25/11/2022

6	IEEE- Women in Engineering Affinity group	Workshop on “Entrepreneurship and Innovation as Career Opportunity” in WE – HB	National	23/09/2022
7	Grand Challenges Scholars Program	Graduation Day 2023	National	09/06/2023
8	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter HSB Sensor council	Session on Energy Conservation	National	14/12/2022

(CAYm3) 2021-22

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter	Women's day	National	08/03/2022
2	Indo Universal Collaboration for Engineering Education- Engineers without borders (IUCEE- EWB)	NSIC Industry visit	National	29/09/2021
3	Indo Universal Collaboration for Engineering Education- Engineers without borders (IUCEE- EWB)	National Education Day	National	11/11/2021
4	IEEE- Women in Engineering Affinity group	Workshop on Design Thinking, Critical thinking and Innovation Design	National	20/02/2022
5	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter	Exposure Visit to Makers Space, Design Centres	National	17/11/2021
6	Grand Challenges Scholars Program	Multidisplinary Problem solving certification program	National	26/03/2022
7	Institute of Electrical and Electronics Engineers (IEEE) Student Chapter HSB Sensor council	Session on Energy Conservation	National	14/12/2021

4.7.2 Student’s Participations in Professional Events (10)

Institute Marks : 10.00

Table No. 4.7.2.1: List of students participated in professional events.

(CAYm1) 2023-24

S.No	Name of the Student	Name of the Event	State /State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	G. Pradeep Reddy	Novathon	National	23/06/2024	2 nd Prize
2	P.Sailesh	IUCEEAvishkar Manthan event (Ideathon)	National	01/03/2024	2 nd Prize
3	A.Aishwarya	Woman Hackathon	National	07/03/2024	1 st Prize
4	P.Richitha	Woman Hackathon	National	07/03/2024	1 st Prize
5	G.Manasa Goud	Novathon	National	23/06/2024	2 nd Prize
6	M Chaitanya Manikanta	Electroverse 2024	National	03/05/2024	Participation
7	Ch.Vidayadatta	Electroverse 2024	National	03/05/2024	Participation
8	J.Akshaya	Electroverse 2024	National	03/05/2024	Participation
9	B.Shravani	Electroverse 2024	National	03/05/2024	Participation
10	Ch.Rishabh	Electroverse 2024	National	03/05/2024	Participation
11	M.Manoj	Electroverse 2024	National	03/05/2024	Participation

12	G.Premkumar	Electroverse 2024	National	03/05/2024	Participation
13	M.Deepak	Electroverse 2024	National	03/05/2024	Participation
14	S. Vaishnavi	Electroverse 2024	National	03/05/2024	Participation
15	R. Harini	Electroverse 2024	National	03/05/2024	Participation
16	G.Meghana	Epicthon	National	18/12/2023	Participation
17	R.Sanjana	Epicthon	National	18/12/2023	Participation
18	V.Rithika Patel	Epicthon	National	18/12/2023	Participation
19	A. Srikanth	Epicthon	National	18/12/2023	Participation
20	CH. Sai Snikith Reddy	Epicthon	National	18/12/2023	Participation
21	N. Akash	Epicthon	National	18/12/2023	Participation

(CAYm2) 2022-23

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Ch.Manikanta	National level TechFest VALOROUS2 K23	National	14/03/2023	Participation
2	G.Pradeep reddy	MAHOTSAV &EXPO “UNNATI”	National	18/03/2023	Participation
3	Ruchitha	Hack your path 4.0	National	19/12/2022	Participation
4	Snikith Reddy	Hack your path 4.0	National	19/12/2022	Participation
5	Aishwarya	Hack your path 4.0	National	19/12/2022	Participation
6	D.Harsha Vardhini	Project Expo	National	07/04/2023	Participation
7	A.Sai Lahari	Project Expo	National	07/04/2023	Participation
8	K.Alekhya	Project Expo	National	07/04/2023	Participation
9	K.Sai Chandu	Project Expo	National	07/04/2023	Participation
10	D.Greeshma	Project Expo	National	07/04/2023	Participation
11	K.Sathvika	Project Expo	National	07/04/2023	Participation
12	A.Varun Teja	Project Expo	National	07/04/2023	Participation
13	K.Manoj	Project Expo	National	07/04/2023	Participation

(CAYm3) 2021-22

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Deepthi Maddela, Depala Kirthi	Technophilla- 22	National	30/03/2022	Participation
2	Kaushik Vijayakumar, V Varsha	Technophilla- 22	National	30/03/2022	Participation
3	Ch Pranathi	Axenothon 2022	National	20/03/2022	Participation
4	D Vijay Kumar	Model Expo Avishkarana- 2K22	National	14/02/2022	Participation

5	V Sateesh	Project Expo- RUEDO-2022	National	26/03/2022	Participation
6	Nagesh	Hackthon	National	11/03/2022	Participation
7	Sharath bhargav	Hackthon	National	11/03/2022	Participation

4.7.3 Publication of Journals, Magazines, Newsletters, etc. in the Department (5) Institute Marks : 5.00

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

(CAYm1) 2023-24

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	Department Of ECE News Letter	Dr.J Rajeshwar Goud	1.Shailesh, 2. Richitha,3.Aishwarya,5. V.Ravi Kiran ,6.Nithya, 7.Tisha,8.Tejasri,9. Asrutha	5	4	Both
2	Department Of ECE News Letter	Dr.J Rajeshwar Goud	1.Peddinti Heramba Sai Ganesh 2.Gangi Reddy Shayanidhi Reddy 3. R Sai Srujan 4.V.Sai Krishna 5.Ravi	4	5	Both
3	Magazines	Akshitha takur	sharath bhargav	7	2	both

(CAYm2) 2022-23

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	Department of ECE News Letter	Dr.S V Devika	1.Akshitha Reddy and 2.Yeshopavan	4	3	Both
2	Department of ECE News Letter	Dr.S V Devika	sharath bhargav,Akshitha takur , anjil reddy , Tharun , NAGESH	5	4	Both
3	Magazines	Aasrithsatya	Dibyakumari	7	2	Both

(CAYm3) 2021-22

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	Department of ECE News Letter	Dr.Vivek rahul Purohit	sharath bhargav,Akshitha takur , anjil reddy , Tharun	4	1	Both
2	Department of ECE News Letter	Dr.Vivek rahul Purohit	ashirith,mounika ,ramya	5	2	Both
3	Magazines	RAHIL HUSSAIN	Shivani	7	2	Both

4.7.4 Student Publications (5) Institute Marks : 5.00

Table No. 4.7.4.1: List of student publications.

(CAYm1) 2023-24

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Bhanu Prakash,P. Murali Krishna, M. Rajesh, T. Abhinav	7	Shabd Books	Mukt Shabd Journal	12	12	Published
2	Harika,PoojaKum ari,M.Pooja,V. Sateesh	7	Shabd Books	Mukt Shabd Journal	12	12	Published

3	Depala Kirthi Deekshita Thota Priya Purushottam Undekar Keerthana	7	Shabd Books	Mukt Shabd Journal	12	12	Published
4	Ch.Tharun M.Deepthi K.Sakshi Sruthi V.S Yamini	7	Shabd Books	Mukt Shabd Journal	12	12	Published
5	P Bhargavi, Dr. Ch Tharun, B Nagesh	7	IJMTST Publication	International Journal for Modern Trends in Science and Technology	10	3	Published
6	akshitha ,sharath bhargav	7	IJMTST Publication	International Journal for Modern Trends in Science and Technology	10	3	Published
7	Akshitha Thakur, E Sharath Bhargav, E Sai Kiran, Vijay Kumar	7	IJMTST Publication	International Journal for Modern Trends in Science and Technology	10	3	Published
8	Banda Shiva Rakshitha, Bandaru Sai Uday Kiran, P. Akshay, Shrenik Balaji Sirimilla	7	IJMTST Publication	International Journal for Modern Trends in Science and Technology	10	3	Published
9	Ch Tharun1 , Bukya Nagesh	7	IJMTST Publication	International Journal for Modern Trends in Science and Technology	10	3	Published

(CAYm2) 2022-23

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Ch Sai Nithin, B Rohit	7	Shabd Books	Mukt Shabd Journal	11	7	Published
2	S Madhavi, P Janak	7	IndoSpace Publications Ltd	IJSREM	10	8	Published
3	B. Poojitha, B.Sandhya	7	The Society for Experimental Mechanics.	The International journal of analytical and experimental modal analysis	15	6	Published
4	M.VasaviRamya, M.Chandana	7	The Society for Experimental Mechanics.	The International journal of analytical and experimental modal analysis	15	6	Published
5	V. Sai Kiran, N. ShabiReddy, M. Keerthi, V. Srujana	7	International journal for research trends and innovation	International Journal for Research Trends and Innovation	8	6	Published
6	Rikitha, Suresh ,Shirisha,varsha	7	Revista Publication.	International Journal of Innovative Research in Technology	10	1	Published

(CAYm3) 2021-22

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	T.Aarthi sri , V.Divya R.Monalisha	7	Shabd Books	Mukt Shabd Journal	10	6	Published
2	Anant Deshmukh V. Ganesh A.Hemanth	7	Shabd Books	Mukt Shabd Journal	11	6	Published
3	Sravani Dokula, Nandini Dasari, Sashi Priya Gadhe, Shravanti Bashaveni	7	Shabd Books	Mukt Shabd Journal	11	7	Published
4	Kesanakurthy Raviteja, Achanta Sai Lavanya, Bamanagari Swathi, Katta Aparna,	7	Shabd Books	Mukt Shabd Journal	11	7	Published

5	Ch Sai Nithin, B Rohit, G Anirudh, G Sai Nikhil Reddy	7	Shabd Books	Mukt Shabd Journal	11	7	Published
6	R Sai Kumar, M Sairam, R Sai Shiva, S Srujankumar	7	Shabd Books	Mukt Shabd Journal	11	7	Published
7	Kasani Abhishek, Nivas Kota, Borukani Kalyan, Gaddam Sagar	7	Shabd Books	Mukt Shabd Journal	11	7	Published
8	Nitya Sree, Anusha Goulla, Kodicherla Swarna Kumari, Goparapu Kethan	7	Shabd Books	Mukt Shabd Journal	11	7	Published
9	Sahithi,Durga , Dheeraj Reddy	7	Shabd Books	Mukt Shabd Journal	11	7	Published
10	Varun Teja, Mokshith, Santhosh Kumar,Abhishek Gupta	7	Shabd Books	Mukt Shabd Journal	11	7	Published
11	Sai Teja, Pavan, Vishwanath,Gnan eshwar	7	IJARESM Publication	International Journal of All Research Education and Scientific Methods	10	6	Published
12	R Pravalika, R Krishnaveni P Sripal Reddy,R Mahesh	7	Swets & Zeitlinger	Journal Of Interdesciplinery Cycle Research	14	6	Published
13	Rahil Hussain, Veldore Jayanth, Nishanth Kumar, Sai Sankeerth	7	The Society for Experimental Mechanics	The International journal of analytical and experimental modal analysis	14	11	Published
14	Megha Dangi, Pushadapu Navya Sri, Arthika Patil, Sandeep Munnuru	7	International Journal Of Engineering Technology Research And Management	International Journal Of Engineering Technology Research And Management	5	12	Published
15	Megha Dangi, Pushadapu Navya Sri, Arthika Patil, Sandeep Munnuru	7	International Journal Of All Research Education & Scientific Methods	International Journal Of All Research Education & Scientific Methods	10	1	Published
16	T. Aarthi Sri, Shanthi, V. Divya, R. Monalisa	7	International Journal Of Engineering Technology Research And Management	International Journal Of Engineering Technology Research And Management	5	12	Published

5 FACULTY INFORMATION (100)

Total Marks 96.76

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Sr.No	Name of the Faculty	PAN No.	APAAR faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr. Bhogadi Lokeswara Rao	AENPB2701E	NA	Ph.D	Andhra University	Microwave and Radar	30/08/2022	2.7	Professor	Professor		Regular	Yes		No
2	Dr. Suggubodi Venkateswarlu Devika	BNYPS5882A	NA	Ph.D	KL University	Communication Engineering	15/07/2008	16.8	Assistant Professor	Professor	21/01/2019	Regular	Yes		No

3	Dr. Kasarla Satish Reddy	BSQPK8892K	NA	Ph.D	Visvesvaraya Technological University	VLSI	01/08/2022	2.8	Associate Professor	Associate Professor		Regular	Yes		No
4	Dr. Rajeshwar Goud Jangampally	AOXPJ0206Q	NA	Ph.D	JNTU Kakinada	Communication Engineering	27/07/2020	4.8	Assistant Professor	Associate Professor	08/10/2022	Regular	Yes		Yes
5	Dr. Kalasapati Bindu Madhavi	AOLPK1631G	NA	Ph.D	Lovely Profesional University	VLSI	04/08/2008	16.8	Assistant Professor	Associate Professor	02/07/2012	Regular	Yes		No
6	Dr. Gottam Omprakash	BUYPG7662P	NA	Ph.D	IIT Kanpur	Signal Processing	11/07/2022	2.8	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Pokala Santhosh	BEXPP8033A	NA	M.E/M.Tech	JNTU Hyderabad	Electronics and Communications	25/06/2018	6.9	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Punati Kondala Rao	BPXPP2309R	NA	M.E/M.Tech	KL University	Embedded Systems	25/06/2018	6.9	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Velicharla Moshe Rani	APXPV2177F	NA	M.E/M.Tech	JNTU Hyderabad	VLSI	04/12/2014	10.4	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Chatragadda Shanthi Priya	AWPPC1726L	NA	M.E/M.Tech	JNTU Kakinada	Embedded and VLSI	25/06/2018	6.9	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Vallabhapurapu Tejaswi	ATCPV8722B	NA	M.E/M.Tech	JNTU Hyderabad	Embedded and VLSI	03/01/2022	3.3	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Pengerla Naga Venkata Naveen Kumar	CXBPP1104Q	NA	M.E/M.Tech	JNTU Kakinada	Embedded and VLSI	01/08/2023	1.8	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Tunga Venkanna Babu	ARFPT4569B	NA	M.E/M.Tech	JNTU Hyderabad	VLSI and Embedded	25/07/2022	2.8	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Dr. Panakala Rajesh Kumar	AHHPP9435A	NA	Ph.D	IIT Madras	VLSI and Embedded	30/08/2021	2.3	Professor	Professor		Regular	No	05/12/2023	No
15	Rachapudi Jagadeesh Chandra Prasad	BETPR7627Q	NA	M.E/M.Tech	JNTU Kakinada	Communication Systems	27/02/2020	4.4	Assistant Professor	Assistant Professor		Regular	No	15/07/2024	No
16	Donthagani Prashanth Varma	BFTPD0400C	NA	M.E/M.Tech	JNTU Kakinada	Signal Processing	07/07/2021	2	Assistant Professor	Assistant Professor		Regular	No	27/07/2024	No
17	Dr. Purohit Vivek Rahul	ARLPP1416B	NA	Ph.D	Jamia Millia Islamia University	Microwave Engineering	17/04/2017	6	Professor	Professor		Regular	No	28/04/2023	No
18	Dr. Andhe Satyanarayana	ARFPA3104P	NA	Ph.D	GITAM University	Signal Processing	12/07/2021	1.9	Professor	Professor		Regular	No	11/05/2023	No

	Murthy														
19	Dr. Julaiba Tahsima Mazumder	CRXPM7068J	NA	Ph.D	NIT Silchar	Communication Systems	01/07/2021	1.10	Assistant Professor	Assistant Professor		Regular	No	23/05/2023	No

5.1 Student-Faculty Ratio (SFR) (30) **Total Marks 30.00**

Institute Marks : 30

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

UG

No. of UG(Engineering) programs in Department including allied departments/clusters(UGn): 1

Electronics & Communication Engineering						
Year of Study	**CAY**		**CAYm1**		**CAYm2**	
	(2024-25)		**(2023-24)**		**(2022-23)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**
2nd Year	60	6	60	6	60	6
3rd Year	60	6	60	6	60	6
4th Year	60	6	60	6	120	12
Sub-Total	**180**	**18**	**180**	**18**	**240**	**24**
Total	**198**		**198**		**264**	

Grand Total	198	198	264

PG

No. of PG Programs in the Department 0

Grand Total			

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 0

Electronics & Communication Engineering

Description	**CAY(2024-25)**	**CAYm1 (2023-24)**	**CAYm2 (2022-23)**
UG1.B	66	66	66
UG1.C	66	66	66
UG1.D	66	66	132
UG1: Electronics & Communication Engineering	**198**	**198**	**264**
DS=Total no. of students in all UG and PG programs in the Department	198	198	264
AS=Total no. of students of all UG and PG programs in allied departments	0	0	0
S=Total no. of students in the Department (DS) and allied departments (AS)	**S1=** 198	**S2=** 198	**S3=** 264
DF=Total no. of faculty members in the Department	13	15	17
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	**F1=** 13	**F2=** 15	**F3=** 17
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 15.23**	**SFR2= 13.20**	**SFR3= 15.53**
Average SFR for 3 years	**SFR= 14.65**		

Average SFR for three assessment years : 14.65

Assessment SFR : 30

5.2 Faculty Qualification (25) **Total Marks 22.76**

Institute Marks : 22.76

Year	**X**	**Y**	**RF**	**FQ = 2.5 x [(10X + 4Y) / RF)]**

2024-25(CAY)	6	7	9.00	24.44
2023-24(CAYm1)	5	10	9.00	25.00
2022-23(CAYm2)	5	12	13.00	18.85

Average Assessment : 22.76

5.3 Faculty Cadre Proportion (25) **Total Marks 25.00**

Institute Marks : 25.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2024-25)	1.00	2.00	2.00	3.00	6.00	8.00
CAYm1(2023-24)	1.00	2.00	2.00	2.00	6.00	11.00
CAYm2(2022-23)	1.00	4.00	2.00	0.00	8.00	13.00
Average Numbers	1.00	2.67	2.00	1.67	6.67	10.67

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

5.4 Visiting/Adjunct/Emeritus Faculty etc. (10) **Total Marks 10.00**

Institute Marks : 10.00

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

(CAYm1) 2023-24

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. Arvind Varier	Engineer	ACE Academy	Control systems ,Probability Theory and Stochastic Processes	57.00
2	Mr. Mohammad Aymon	Assistant Professor	NALSAR University	Constitution of India	50.00
3	Prof.K.Jayaraman	Professor	United Electronics	Internet of Things, Communications	60.00

(CAYm2) 2022-23

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Prof.K.Jayaraman	Professor	United Electronics	Communications systems	50.00
2	Vinodkumar Ahuja	sr. Manager	smartronics	Embedded systems	52.00

(CAYm3) 2021-22

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

1	Mr. Hussian	Assistant Professor	Assistant Professor	Signals and Systems ,Probability Theory and Stochastic Processes	53.00

5.5 Faculty Retention (10) **Total Marks 9.00**

Institute Marks : 9.00

Description	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section 5.1 of SAR; (RF=S/20).	9	13	17
AF=The no. of available faculty members in the Department including allied Departments	15	17	23
A= The no. of faculty members at the current institute with less than 1 year of experience (A in AF)	0	0	7
B= The no. of faculty members at the current institute with more than 1 year and less than 2 years of experience (B in AF)	2	3	3
C= The no. of faculty members at the current institute with more than 2 years and less than 3 years of experience (C in AF)	4	5	1
D= The no. of faculty members at the current institute with more than 3 years and less than 4 years of experience (D in AF)	1	1	0
E= The no. of faculty members at the current institute with more than 4 years of experience (E in AF)	8	8	12
FR=(((A*0) +(B*1)+(C*2)+(D*3)+(E*4))/RF) *2.50 (points limited to 10)	10	9	8

Average : 9.00

Assessment Marks : 9.00

6 FACULTY CONTRIBUTIONS (120) Total Marks 89.00

6.1 Professional Development Activities (60) **Total Marks 54.00**

6.1.1 Memberships in Profession Societies at National/International Levels (5) Institute Marks : 5.00

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

S.No	Name of the Faculty	Name of the Professional Society /Body at National and International Level	Name of the Grade/ Level/Position
1	Dr. B. Lokeshwar rao	Fellow of the Institution of Electronics and Telecommunication Engineers (FIETE)-F135723	Fellow Member
2	Dr. B. Lokeshwar rao	Fellow of Institute of Engineering (FIE)-F-117070-4	Fellow Member
3	Dr. B. Lokeshwar rao	Member of International Association of Engineers (MIAE)- M-191998	Member
4	Dr. B. Lokeshwar rao	Senior Member of International Economics Development and Research Center (SMIEDR)-M30080615	Member
5	Dr. SV Devika	Institute of Electrical and Electronics Engineers (IEEE)- 92442466	Member
6	Dr. K Bindu Madhavi	Indian Society for Technical Education (ISTE)- LM 124283	Life Member

7	Dr. K Bindu Madhavi	Institute of Electrical and Electronics Engineers (IEEE)- 92809816	Member
8	Dr. K Bindu Madhavi	Institution of Electronics and Telecommunication Engineers (IETE)- F-501711	Fellow Member
9	Dr. J Rajeshwar Goud	Institution of Electronics and Telecommunication Engineers (IETE)-AM 237740	Associate Member
10	Dr. J Rajeshwar Goud	Indian Society for Technical Education (ISTE)- LM112075	Life Member
11	Dr. J Rajeshwar Goud	Member of International Association of Engineers (MIAE)-M- 520524	Life Member
12	Dr. K Satish Reddy	Indian Society for Technical Education (ISTE)- LM84524	Life member
13	Mrs. V Mosherani	Indian Society for Technical Education (ISTE)- LM 124266	Life Member
14	Mrs. V Mosherani	Institution of Electronics and Telecommunication Engineers (IETE)-M -501699	Life Member
15	Mrs. V Mosherani	Member of International Association of Engineers (MIAE)- M-516570	Life Member
16	Mr. P Kondala Rao	Institution of Electronics and Telecommunication Engineers (IETE)-M-501617	Life Member
17	Mr. P Santhosh	Institution of Electronics and Telecommunication Engineers (IETE)-M501704	Life Member
18	Mr. T. Venkanna Babu	Member of International Association of Engineers (MIAE)- M- 520411	Life Member
19	Mrs. V Mosherani	Institute for Educational Research and Publication (IFERP)-PROF-2564617	Member
20	Mr. T. Venkanna Babu	Institute for Educational Research and Publication (IFERP)-PROF-69972008	Member
21	Mrs. V Tejasvi	Institute for Educational Research and Publication (IFERP)-PROF-11713998	Member
22	Mrs. Ch. Shanthipriya	Institute for Educational Research and Publication (IFERP)- INS-28325797	Member

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

Institute Marks : 3.00

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

Table No. 6.1.2.1: List of faculty members as resource person in STTP/FDP events.

(CAYm1) 2023-24

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Mr. P. Santhosh	Menter-Mentee Scheme under IIC Cell	03/07/2024	Hyderabad	Siva Shivani Institute of Management
2	Dr. SV Devika	Inculcating Entrepreneurial values for students	07/03/2024	Hyderabad	KG Reddy College of Engineering & Technology an Autonomous Institution
3	Dr SV Devika	Inculcating Entrepreneurial values for students with special focus on Innovation and Start-up eco	20/03/2024	Hyderabad	KG Reddy College of Engineering & Technology an Autonomous Institution
4	Dr. J Rajeshwar Goud	6 th International Conference on Smart Moder	17/12/2024	Hyderabad	St. Martin’s Engineering College
5	Mrs. V Mosherani	STTP’s on Power Bi	24/04/2024	Hyderabad	Vardhaman College of Engineering

(CAYm2) 2022-23

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. K Bindumadhavi	FDP on Accreditation awareness	22/03/2023	Kalaburgi	Shetty Institute of Technology

2	Dr.K Satish Reddy	FDP on Application of Sensors and Devices	11/05/2023	Basavakalyan	Basavakalyan Engineering College

(CAYm3) 2021-22

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. Rahul Vivek Purohit	Social Emotional Learning	30/06/2022	Hyderabad	Indo Universal Collaboration for Engineering Education
2	Dr. Rahul Vivek Purohit	Insights on antenna: Radar and satellite communication	10/06/2022	Hyderabad	K.S. Institute of Technology
3	Dr.SV Devika	Fdp on Outcome based Education	12/02/2022	Kalaburgi	Shetty Institute of Technology
4	Dr.J Rajeshwar goud	FDP On Non- convolution Non-Convolutional Approaches in Signal and Image Processing	10/08/2021	Basavakalyan	Basavakalyan Engineering College

6.1.2.2 Faculty Members' Participation in STTPs/FDPs (5) Institute Marks : 5.00

Name of the faculty	Max 5 Per Faculty		
	2023-24(CAYm1)	2022-23(CAYm2)	2021-22(CAYm3)
Dr.B. Lokeswara Rao	5.00	5.00	0.00
Dr. Devika SV	5.00	5.00	5.00
Dr. K Satish Reddy	5.00	5.00	0.00
Dr. J Rajeshwar goud	5.00	5.00	5.00
Dr. Bindu Madhavi K	5.00	5.00	5.00
Dr. Omprakash G	5.00	5.00	0.00
Mr. P Santhosh	5.00	5.00	5.00
Mr.P Kondala rao	5.00	5.00	5.00
Mrs.V Mosherani	5.00	5.00	5.00
Mrs.Ch.Shanthi priya	5.00	5.00	5.00
Mrs.V Tejasvi	5.00	5.00	5.00
Mr.PNV Naveen	5.00	5.00	0.00
Mr.T Venkanna babu	5.00	5.00	0.00

Mr. R Jagadeesh Chandra Prasad	5.00	5.00	5.00
Dr.P Rajesh kumar	0.00	5.00	5.00
Dr.Rahul vivek Purohit	0.00	5.00	5.00
Dr. A Satyanarayana murty	0.00	5.00	5.00
Mr.D.Prashanth varma	5.00	5.00	5.00
Ms.Julaiba Tahsina Mazumder	0.00	5.00	5.00
Mrs. M Pallavi	0.00	0.00	5.00
Mrs. K Usha	0.00	0.00	5.00
Ms.K Spandana	0.00	0.00	5.00
Mr.Vinodkumar ahuja	0.00	0.00	5.00
Mr.S Hanmandlu	0.00	0.00	5.00
Mr.B Yakub	0.00	0.00	5.00
Mr.Arvind Varier	0.00	0.00	5.00
Sum	75.00	95.00	105.00
RDF = Number of faculty required to comply with the 20:1 student - faculty ratio in the Department alone, as per section 5.1 of SAR(RDF= DS / 20).	9.90	9.90	13.20
Assessment Points (AP)= (Sum/(0.5* RDF)) (Points limited to 5 for each assessment year)	5.00	5.00	5.00

Average assessment over 3 years: 5.00

6.1.3 Faculty Contribution in Development of SWAYAM MOOCs and other E-Content (5) Institute Marks : 3.00

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

S.No	Name of the Faculty	Name of the Course Developed and available online on Swayam platform by your Department faculty
1	Dr. J Rajeshwar Goud	Subject Name: Electromagnetic field , E -resource: https://www.youtube.com/@ElectronicsforECE, https://youtu.be/wU6AsyjIIKs
2	Dr. SV Devika	Subject Name: Analog and Digital Communication, E -resource: https://youtu.be/AziYIlw9oJs

3	Mr. P. Santhosh	Subject Name: Digital Logic Design, E -resource: https://www.youtube.com/watch?v=QDe-dBRfLRU
4	Mr. P. Kondala rao	Subject Name: Signals and Systems , E -resource: https://youtu.be/rRjmK-sj6e0 https://youtu.be/wM7mbPHxAco
5	Mrs. V. Tejasvi	Subject Name: Embedded systems, E -resource: https://youtu.be/AI8XL8NrsGw
6	Mr. T Venkanna babu	Subject Name: Digital System Design, E -resource: https://youtu.be/HjOAAE-LGNg
7	Mr. PNV Naveen	Subject Name: Digital Electronics E -resource: https://youtu.be/Qrj97jJSCl4
8	Dr. K Bindumadhavi	Subject Name: Digital Signal Processor ,E -resource: https://youtu.be/G3gxyxgWfoQ

6.1.4 Faculty Certification of MOOCs through SWAYAM, etc. (10) — Institute Marks : 10.00

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

S.No	Name of the Faculty	Name of Course Passed	Course Offered by (agency)	Grade obtained if any
1	Dr.SV Devika	AI for Everyone	Coursera	Completed
2	Dr.SV Devika	Foundation of Teaching for Learning Curriculum.	Coursera	Completed
3	Dr.SV Devika	Introduction to Bash shell scripting	Coursera	Completed
4	Dr.SV Devika	Overview of data Visualization	Coursera	Completed
5	Dr.J Rajeshwar Goud	Electromagnetic Theory	NPTEL	56%
6	Dr.J Rajeshwar Goud	Microwave Intergraded circuits	NPTEL	47%
7	Dr.J Rajeshwar Goud	Antennas	NPTEL	77%
8	Dr.J Rajeshwar Goud	Microwave Engineering	NPTEL	61%
9	Dr.J Rajeshwar Goud	RF Transceiver Design	NPTEL	45%
10	Dr.J Rajeshwar Goud	Analysis and Design Principles of Microwave Antennas	NPTEL	60%
11	Mr.P Santhosh	Cloud Computing	NPTEL	76%
12	Mr.P Santhosh	Cyber Security and Privacy	NPTEL	53%
13	Mr.P Santhosh	Cryptograph and network security	NPTEL	69%
14	Mr.P Santhosh	IOT wireless and cloud computing Emerging Technologies	Coursera	Completed
15	Mr.P Santhosh	Overview of data Visualization	Coursera	Completed
16	Mrs. V.Tejasvi	Introduction to Industry 4.0 and Industrial Internet of Things	NPTEL	65%
17	Mrs. V.Tejasvi	Embedded systems with ARM	NPTEL	62%
18	Mrs. V.Tejasvi	Introduction of Internet of things and Embedded systems	Coursera	Completed
19	T Venkanna babu	Digital Circuits	NPTEL	51%
20	T Venkanna babu	Microprocessor and Microcontroller	NPTEL	54%
21	Mrs.V. Mosherani	Microprocessor and Interfacing	NPTEL	60%
22	Mrs.V. Mosherani	Cloud Computing	NPTEL	58%

23	Mrs.V. Mosherani	VLSI CAD Part I: Logic	Coursera	Completed
24	Mrs.V. Mosherani	VLSI CAD Part II: Layout	Coursera	Completed
25	Mrs.V. Mosherani	Understanding Research methods	Coursera	Completed
26	Mrs.V. Mosherani	Research Methodologies	Coursera	Completed
27	Mrs.V. Mosherani	data collection: online, Telephone and face to face	Coursera	Completed
28	Mrs.V. Mosherani	Introduction to statical analysis hypothesis testing	Coursera	Completed
29	Mrs.V. Mosherani	FPGA computing systems: A Bird's Eye View	Coursera	Completed
30	Mrs.V. Mosherani	FPGA computing systems: Background knowledge and introductory materials	Coursera	Completed
31	Mrs.V. Mosherani	BySisan statistics: from concept to data analysis	Coursera	Completed
32	Mrs.V. Mosherani	Basic Information Literacy	Coursera	Completed
33	Mrs.V. Mosherani	Academic Information Seeking	Coursera	Completed
34	Mrs.V. Mosherani	how to write and submit a scientific paper	Coursera	Completed
35	Mrs.V. Mosherani	Framework for data collection and Analysis	Coursera	Completed
36	Mr.D Prashanth Varma	Principals of modern CDMA/OFDM wireless communication	NPTEL	68%
37	Mr.D Prashanth Varma	Introduction to internet of things	NPTEL	60%
38	Mr.D Prashanth Varma	Programming with Cloud IOT plot from	Coursera	Completed
39	Mr.D Prashanth Varma	Programming for Everybody	Coursera	Completed
40	Mr.Jagadeesh chnadra prasad	IOT wireless and cloud computing Emerging Technologies	Coursera	Completed
41	Mr.Ch.Nagababu	Principals of Signals and systems	NPTEL	57%
42	Mr.P Kondalarao	Introduction to Program in C	NPTEL	53%
43	Mr.P Kondalarao	Industrial IOT Marketing and security	Coursera	Completed
44	Mr.P Kondalarao	Academic Information Seeking	Coursera	Completed
45	Mr.P Kondalarao	Introduction of Embedded machine learning	Coursera	Completed
46	Mr.P Kondalarao	Basic Information Literacy	Coursera	Completed
47	Mr.P Kondalarao	IOT Communications	Coursera	Completed
48	Mr.P Kondalarao	understanding Research methods	Coursera	Completed
49	Mr.P Kondalarao	IOT Devices	Coursera	Completed
50	Mr.P Kondalarao	Framework for data collection and Analysis	Coursera	Completed
51	Mr.P Kondalarao	data collection: online, Telephone and face to face	Coursera	Completed
52	Mr.P Kondalarao	Introduction to statical analysis hypothesis testing	Coursera	Completed
53	Mr.P Kondalarao	Bysisan statistics: from concept to data analysis	Coursera	Completed
54	Mr.P Kondalarao	Modelling and debugging Embedded systems. Project planning and Machine Learning	Coursera	Completed

55	Mr.P Kondalarao	Real time embedded systems concept and practices	Coursera	Completed
56	Mr.P Kondalarao	Research Methodologies	Coursera	Completed
57	Dr.Rahul Purohit	Introduction and Programming With IOT Boards	Coursera	Completed
58	Dr. Julaiba	Integrated Circuits, Mosfets, OP-Amps and their Applications	NPTEL	58%
59	Dr. Julaiba	Programming for Everybody (Getting Started with Python)	Coursera	Completed
60	Dr. Julaiba	Foundations of Project Management	Coursera	Completed
61	Mrs.M Pallavi	Introduction and Programming with IOT boards	Coursera	Completed
62	Mr.S.Hanamndlu	Introduction and Programming with IOT boards	Coursera	Completed
63	Mr.Vinod kumar Ahuja	Introduction to Internet of Things and Embedded Systems	Coursera	Completed
64	Mr.Vinod kumar Ahuja	Introduction and Programming with IOT boards	Coursera	Completed
65	Mr.Vinod kumar Ahuja	AI for Every one	Coursera	Completed
66	Mr.Vinod kumar Ahuja	Arduino Plat form and C Programming	Coursera	Completed
67	Mrs.Ch.Shanthipriya	Computer network and Internet Protocol	NPTEL	55%
68	Mrs.Ch.Shanthipriya	Cloud computing	NPTEL	62%

6.1.5 FDP/STTP Organized by the Department (10) Institute Marks : 10.00

Table No. 6.1.5.1: List of FDPs/STPs organized by Department for the past 3 years.

(CAYm1) 2023-24

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Recent trends in AIML	21/11/2023	5 days	Mrs. Uma Maheshwar Desu	65
2	FDP on MSP430	12/12/2023	5 days	Mr. Samarth Kulkarni & Embedded system Engineer, EdGate Technologies, Bangalore	30

(CAYm2) 2022-23

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Machine Learning and Deep Learning for Communication Systems Design using MATLAB & Simulink	18/10/2022	5 days	Experts from MathWorks ,Authors of Wireless ,Communication Text Books (Wiley Publisher	70
2	New frontiers of IOT and ML for smart World	30/01/2023	10 days	Dr. Prakash Kodali, Assistant professor & NIT Warangal	60

(CAYm3) 2021-22

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	FDP on ARM Processor	17/10/2021	5 days	Mr. Samarth Kulkarni & Embedded system Engineer, EdGate Technologies, Bangalore	80

2	5 Days FDP on Applied IOT	21/07/2021	5 days	Mr. Shanker Rao, Research and Development , Elegant Embedded	184

6.1.6 Faculty Support in Student Innovative Projects (10) Institute Marks : 10.00

Table No. 6.1.6.1: List of faculty members involved in student innovative projects.

(CAYm1) 2023-24

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr.J Rajeshwar Goud	IUCEE-Avishkar Manathan event (Ideathon)	25/08/2024	Malnad college of Engineering, Karnataka	not available
2	Dr.K Sathish Reddy	Woman hackathon	07/03/2024	National Institute for Micro, Small and Medium Enterprises	not available
3	Mrs.V Tejasvi	Woman hackathon	07/03/2024	National Institute for Micro, Small and Medium Enterprises	not available
4	Dr. K Bindu Madhavi	IEEE -IAYPC	2/08/2023	IEEE Indian council	not available
5	Mr.P Santhosh	Electroverse 2024 A National Level Technical Symposium	03/05/2024	Vardhman college of Engineering ,Hyderabad	not available
6	Mrs.V Mosherani	Electroverse 2024 A National Level Technical Symposium	03/05/2024	Vardhman college of Engineering ,Hyderabad	not available
7	Mr.P Kondala rao	Electroverse 2024 A National Level Technical Symposium	03/05/2024	Vardhman college of Engineering ,Hyderabad	not available
8	Dr.SV Devika	Electroverse 2024 A National Level Technical Symposium	03/05/2024	Vardhman college of Engineering ,Hyderabad	not available
9	Dr. J Rajeshwar Goud	Electroverse 2024 A National Level Technical Symposium	03/05/2024	Vardhman college of Engineering ,Hyderabad	not available
10	Dr.K Bindu Madhavi	Electroverse 2024 A National Level Technical Symposium	03/05/2024	Vardhman college of Engineering ,Hyderabad	not available
11	Dr. K Bindu Madhavi	Electricity generation through walking	31/01/2024	Institution’s Innovation Council Moe’s Innovation Cell,HITAM	https://iic.mic.gov.in/login
12	Dr.G. Omprakash	A Scalable Wireless Power Monitoring and Management System using ESP32, Blynk, and Modular Sensor Ne	31/01/2024	Institution’s Innovation Council Moe’s Innovation Cell,HITAM	https://iic.mic.gov.in/login
13	Mrs.V Mosherani	Detection of blood cells and cancer cells in human body samples using microscopic images	31/01/2024	Institution’s Innovation Council Moe’s Innovation Cell,HITAM	https://iic.mic.gov.in/login
14	Dr.K Satish reddy	VLSI Architecture for high performance wallace tree encoder	31/01/2024	Institution’s Innovation Council Moe’s Innovation Cell,HITAM	https://iic.mic.gov.in/login
15	Mrs.V Mosherani	Data Transmission Model For Underwater Communication Using Li-Fi Technology	31/01/2024	Institution’s Innovation Council Moe’s Innovation Cell,HITAM	https://iic.mic.gov.in/login

16	Dr.J Rajeshwar goud	Dual-Band MIMO Antenna Beamforming Optimization using Machine Learning for Dynamic Environments	31/01/2024	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
17	Dr.K Bindumadhavi	Touch screen based remote control robotic vechile for store management	31/01/2024	Institution's Innovation Council Moe's Innovation Cell, HITAM	https://iic.mic.gov.in/login
18	Dr.K Satishreddy	Implementation of a Simple FIR Filter in Verilog for FPGA based Digital Signal Processing	31/01/2024	Institution's Innovation Council Moe's Innovation Cell, HITAM	https://iic.mic.gov.in/login
19	Mr.P Santhosh	monkey repellent using high intensity led lights	31/01/2024	Institution's Innovation Council Moe's Innovation Cell, HITAM	https://iic.mic.gov.in/login
20	Mr.PNV Naveen	Smart iot based energy meter monitoring system	31/01/2024	Institution's Innovation Council Moe's Innovation Cell, HITAM	https://iic.mic.gov.in/login
21	Dr.K Bindumadhavi	SKY-SMART MIRROR	31/01/2024	Institution's Innovation Council Moe's Innovation Cell, HITAM	https://iic.mic.gov.in/login
22	Ch.Shanthipriya	Bidirectional visitor counter as motion activated classroom light using PIC microcontroller	31/01/2024	Institution's Innovation Council Moe's Innovation Cell, HITAM	https://iic.mic.gov.in/login

(CAYm2) 2022-23

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Mrs.V Tejasvi	Water Management	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
2	Ch.Shanthipriya	Soldier Health Monitoring And Tracking System	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
3	Dr.SV Devika	Dual Band Slot Antenna For Wlan Applications	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
4	Dr.J Rajeshwar goud	An Iot Based Archery Scoring Automation System	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
5	Mrs.V Mosherani	Vehicle 2 vehicle communication	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
6	Dr.B Lokeshwar rao	Dual band DGS antenna for WLAN applications	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
7	Dr.J Rajeshwar Goud	Design of fractal antenna for wireless communication	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
8	Dr.G Omprakash	Implementation Of Convolution Neural Network for Color Classification and Real - Time Color Predicti	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
9	Dr.K Satishreddy	Automobile Blackbox System for Accident Analysis	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
10	Mr.P Kondala rao	Weather monitoring system using IOT	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
11	Dr.J Rajeshwar goud	Mutual Coupling Reduction Of A Circularly Polarized MIMO Antenna Using Parasitic Elements And DGS Fo	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login

12	Dr.SV Devika	Design of circular microstrip patch antenna array for wireless applications	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
13	Mr.D Prasanth varma	Soil properties analysis using thingspeak	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
14	Mrs.V Mosherani	FSM based vending machine using Verilog HDL	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
15	Mrs.Ch.Shanthipriya	Anesthesia control system using multiple sensors and IoT	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
16	Dr.P Rajesh kuamr	IOT based coal mined safety system and monitoring system by using Thingspek	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
17	Dr.Satishreddy	An Efficient Tracking System for Air and Sound Pollution Using Iot	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
18	Mr.R Jagadeesh	Automatic Flood Detection From Satellite Images Using Deep Learning	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
19	Mrs.Ch.Shanthipriya	GSM Based Smart Aquarium Monitoring System	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
20	Dr.Omprakash G	AQMS - Air Quality Monitoring System	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
21	Dr.K Bindumadhavi	IOT Based College Bus Tracking and Monitoring System	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
22	Mr.P Kondala rao	IoT Based Control of Water Heater	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
23	Mr.T Venkanna babu	IoT Based Air Quality Monitoring System	30/05/2023	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login

(CAYm3) 2021-22

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr.J Rajeshwar goud	Design And Fabrication of Microstrip Patch Antenna for WLAN Applications	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
2	Mr.Vinodkumar Ahuja	IOT Based Theft Alert System Using Pir Sensor	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
3	Mrs.M Pallavi	Alcohol detecter using Audino	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
4	Mrs.K Bindumadhavi	Smart Sensor Parking	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
5	Mrs.V Mosherani	Motion Detecting Sensor	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login

6	Dr.SV Devika	Alcohol Detector Using Audino	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
7	Mr.R Jagadeesh	Arduino Home Automation	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
8	Dr.P Rajeshkumar	Anti Drone System	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
9	Mr. S S Hanmandlu	Smart Wrist Band For Women Security Using Gps	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
10	Mr.B Yakub	Smart Shopping Cart Using RFID	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login
11	Mr.D Prashanth	Smart Hand Wash Dispenser Using IOT and Dashboard	30/04/2022	Institution's Innovation Council Moe's Innovation Cell,HITAM	https://iic.mic.gov.in/login

6.1.7 Faculty Internship/Training/Collaboration with Industry (10) Institute Marks : 8.00

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

S.No	Name of the Faculty	Name of the Internship/ Training/ Collaboration	Name of the Company & Place	Duration	Outcomes of Internship/ Training/ Collaboration
1	Mr.PNV Naveen kumar	VLSI & Embedded	CITD, Balanagar	14 days	Published one UGC paper on Embedded systems
2	Dr.SV Devika	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	Two papers published in RSSPBL
3	Dr.K Sathish reddy	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	One paper published in UGC Peer reviewed journals
4	Dr.J Rajeshwar Goud	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	One paper published in UGC Peer reviewed journals
5	Dr.K Bindumahdavi	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	One paper published in RRSPBL
6	Dr.G Omprakash	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	Implementing multi disciplinary projects and paper publications in peer reviewed journals
7	Mrs.V Moshe Rani	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	One paper published in RRSPBL
8	Mr.P Kondala rao	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	One paper published in RRSPBL
9	Mr.P Santhosh	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	One paper published in UGC Peer reviewed journals
10	Mrs.V Tejaswi	Problem Based Learning (PBL) Training	Aalborg University, Denmark	12 months	One paper published in UGC Peer reviewed journals
11	Mr.PNV Navven Kumar	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room

12	Dr.J Rajeshwar Goud	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room
13	Mrs.Ch. Shanthi Priya	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room
14	Mrs.V Tejaswi	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room
15	Mr.R Jagadeesh Chandra Prasad	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room
16	Dr.G. Omprakash	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room
17	Mr.P Santhosh	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room
18	Mr.P Kondala Rao	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room
19	Dr.Julaiba Tahsina Mazumder	International Engineering Educator Certification Program(IIEECP)	Indo Universal Collaboration for Engineering Education(IUCEE)	6 Months	Implementing difference types of pedagogies in the class room

6.2 Research and Development Activities (60) — **Total Marks 35.00**

6.2.1 Academic Research (10) — Institute Marks : 7.00

Table No. 6.2.1.1: Faculty publication details.

S.No.	Item	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
1	No. of peer reviewed journal papers published	9	21	23
2	No. of peer reviewed conference papers published	24	4	2
3	No. of books/book chapters published	4	11	1

6.2.2 Ph.D. Student Details (5) — Institute Marks : 0.00

Table No. 6.2.2.1: Ph.D. details.

S.No.	Item	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
1	No. of students enrolled for Ph.D. in the Department	0	0	0

2	No. of Ph.D. students graduated in the Department	0	0	0

6.2.3 Development Activities (10) Institute Marks : 9.00

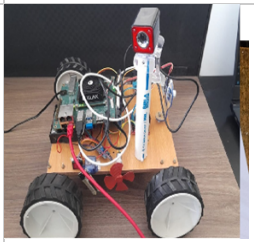
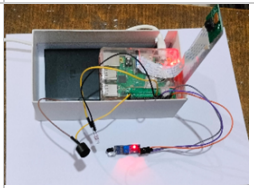
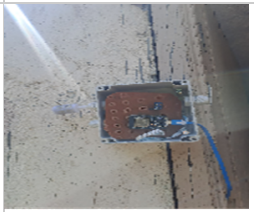
S.N.	Name of the Faculty	Department	Name of the patent Tittle	Date of publication	National/ International	Application No
			CAYm1 **2024-25** Patents Granted/Published			
1	1. Dr. K Bindu Madhavi 2. Dr. J Rajeshwar Goud 3. Dr. S V Devika 4. Dr. B Lokeshwara Rao 5. Kondala Rao Punati 6. Tejaswi V 7. P N V Naveen Kumar 8. T Venkanna Babu	ECE	VLSI Implementation of Pulse Width Modulation Unit for High-Fidelity Audio Signal Processing	21/03/2025	National	202541019019 A
2	P Santhosh	ECE	Enhancing Automated Exam Paper Assessment In Higher Education With Machine Learning And Statistical Methods	07/03/2025	National	202541016077 A
3	P Santhosh T Venkanna	ECE	Intelligent Path Travel Cost Estimation In Large-Scale Networks Using Advanced Machine Learning	30/08/2024	National	202441064131 A
			AI based device for			

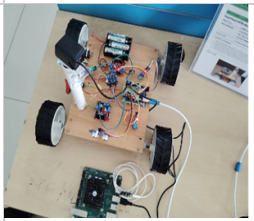
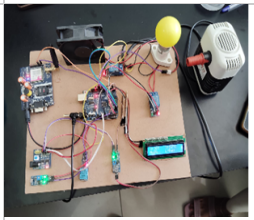
4	Mrs.V Mosherani	ECE	Evaluating Academic Performance	26-11-24	National	6405107
5	Mrs.V Mosherani	ECE	AI-Driven Student Outcome Tracking Device	26-11-24	National	6405106
6	Dr.B.Lokeswara Rao	ECE	Design and High-Performance Broadband Microstrip Patch Antennas for 5G Communication	16-08-2024	National	202441060422
7	Mr.P Santhosh	ECE	Mapping Device to Analyze Psychology of the Consumer	23/12/2024	National	6410082
S.N.	**Name of the Faculty**	**Department**	**Name of the patent Tittle**	**Date of publication**	**National/ International**	**Application No**
			CAYm1 2023-24 Patents Granted/Published			
1	Dr.J Rajeshwar Goud	ECE	Radiation Shielding Chamber	06/10/2023	National	396933-001
2	Mr.P Santhosh Mrs.V Mosherani	ECE	Machine Learning and Learning Analytics based Approaches for Evaluating Teachers Performances in classroom	29/03/2024	National	202441019798
3	Dr.B Lokeshwar Rao	ECE	Integrating IOT,AI,Cloud Computing and Wireless sensor Networks in drone Technology	28/05/2024	National	202441042706
	Dr.SV Devika Dr.J Rajeshwar goud Dr.K Bindu madhavi					

4	Mr.P Santhosh Mr.P Kondala rao Mrs.V Mosherani Mrs.V Tejaswi	ECE	Optimizing Multi - spectral Satellite Image clarity: A Deblurring and Deconvolution Approach using ACS-Wiener Fusion	01/03/2024	National	202441007172A
5	Mr.T Venkanna babu	ECE	Deep Learning based Algorithm for Energy Management in IOT - Enabled hybrid Electrical Vehicles	26/04/2024	National	202441031115A
6	Dr.SV Devika	ECE	Enhancing English instruction in higher education with mobile technology and Artificial Intelligence	23/06/2024	National	202431048131

S.N.	**Name of the Faculty**	**Department**	**Name of the patent Tittle**	**Date of publication**	**National/ International**	**Application No**
CAYm1 **2022-23** Patents Granted/Published						
1	Dr K Satish Reddy	ECE	Internet of Things Based on Intelligent Archery Scoring Automation systems	23-06-2023	National	202341032839
2	Mrs.Ch. Shanthi Priya Mrs. Tejaswi	ECE	IOT Based On Meteorological Conditions Monitoring and Prediction System with Ann	05-05-2023	National	202341026938
3	Dr K Satish Kumar Mr. Santhosh Mrs.V.Mosherani	ECE	Biosensor Based Device for Breast Cancer Detection	19-05-2023	National	2024410197978 A

4	Dr.SV Devika	ECE	Very High-Speed Optical Satellite Communication	20/04/2023	National	202341028650

S.NO	Name of the Faculty	Tille of the Prototype & Working Model	Prototype
1	Mrs. V.Tejasvi	Garden Monitoring Robotic AI Systems	
2	Mrs.Ch. Shanti Priya	Smart Shopping Trolley	
3	Dr.K Satish Reddy	Road Guard Ai Powered Road Damage Detection and Reporting System.	
4	Mr.PNV Navven Kumar	Air Quality Monitoring Systems	
		Voice to Touch: Time Speech to Braille Conversion	

5	Mrs.V Tejasvi		
6	Mr.P Kondala Rao	Garden Monitoring Robotic AI Systems	
7	Mrs.P Santhosh	Smart Irrigation Systems	
8	Mrs.V Mosherani	Design and implementation of Dual axis solar tracking system	

6.2.4 Sponsored Research Project (15) | Institute Marks : 1.00

2023-24 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.K Sathish reddy		Electronics and Communication Engineering	AICTE Ministry of Education	AICTE	2 Years	3.08
						Amount received (Rs.):3.08

2022-23 (CAYm2)

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

2021-22 (CAYm3)

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

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

Note*:

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

6.2.5 Consultancy Work (15) Institute Marks : 15

2023-24 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.K Bindumadhavi		Electronics and Communication Engineering	Plant Monitoring Systems and Classification of Palnt Health Using ML	Collaborate Solutions Private Limited	2 years	4.00
Dr.J Rajeshwar goud	Ms. Madhavi	Electronics and Communication Engineering	Growth of Algae: Novel Methodology Improve Traditional Aqua -Farming Using Emerging Technologies	Tech numen Systems Private Limited	2 years	5.00
Dr.SV Devika	Dr. M.Chiranjivi , Mr Santhosh Naik	Electronics and Communication Engineering	Design & Development of Aqua skimmer to clean up Garbage in water bodies	Collaborate Solutions Private Limited	2 years	10.00
						Amount received (Rs.):19.00

2022-23 (CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.Omprakash		Electronics and communication Engineering Department	AI based portable electronic system for real time industrial application	Krishnam Technologies Pvt. Ltd	6 months	1.30
Dr. Satish Reddy K		Electronics and communication Engineering Department	Signal Processing in Delta Time of Flight Measurement	Inventuriz Pvt. Ltd. Bangalore	6 months	1.88
Mr.P.Kondala rao		Electronics and communication Engineering Department 2) Electrical & Electronics Engineering	A data collection software for the admin operations	Technumen Systems Private Limited	6 months	4.15

						Amount received (Rs.):7.33

2021-22 (CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.SV Devika		Electronics and Communication Engineering	MATLAB &Training for the industrial Projects	Modulus Infotech	14 months	1.40
						Amount received (Rs.):1.40

Total amount (Lacs) received for the past 3 years: 27.73

Note*:

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

6.2.6 Institution Seed Money or Internal Research Grant to its Faculty for Research Work(5)
6.2.6 A Amount received (3)

Institute Marks : 1.00

2023-24 (CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Mr.P.Kondala rao	Enhancing Energy Convervation in Sustainable cities through IOT and Wireless Sensor Networks	6 months	0.10	0.10	Enhancing Energy Convervation in Sustainable cities through IOT and Wireless Sensor Networks
Dr.K Bindumadhavi	Plant Monitoring Systems and Classification of Palnt Health Using ML	2 years	0.20	0.20	Advanced signal processing techniques were implemented to enhance the precision of Delta Time of Flight measurements in various applications.
Dr.SV Devika	Design & Development of Aqua skimmer to clean up Garbage in water bodies	2 years	0.40	0.40	Enhanced the team's skills in software development, database design, and real-world application deployment.
Dr.J Rajeshwar goud	Growth of Algae: Novel Methodology Improve Traditional Aqua -Farming Using Emerging Technologies	2 years	0.20	0.20	Designed with an intuitive interface for easy data entry, updating, and retrieval by non-technical administrative users.
			Amount received (Rs.): 0.90		

2022-23 (CAYm2)

				Amount

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. K Bindu Madhavi	Design And Optimization of Low Power High Performance Triple Gate Finfet for Sub 22nm Technology	1 Year	1.00	1.00	Design And Optimization of Low Power High Performance Triple Gate Finfet for Sub 22nm Technology
Dr.Omprakash	AI based portable electronic system for real time industrial application	6 months	0.10	0.10	The system enabled real-time data acquisition and intelligent decision-making in industrial environments.
Dr. Satish Reddy K	Signal Processing in Delta Time of Flight Measurement	6 months	0.15	0.15	Advanced signal processing techniques were implemented to enhance the precision of Delta Time of Flight measurements in various applications.
Mr.P Kondala rao	A data collection software for the admin operations	6 Months	0.20	0.20	The development of data collection software for administrative operations resulted in improved efficiency.
			Amount received (Rs.): 1.45		

2021-22 (CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Mrs. K Bindu Madhavi	Design And Optimization of Low Power High Performance Triple Gate Finfet for Sub 22nm Technology.	1 year	0.10	0.10	Design And Optimization of Low Power High Performance Triple Gate Finfet for Sub 22nm Technology
Dr.J Rajeshwar Goud	Design of Uplink and Downlink Triple Band π: Slot Antennas for Simultaneous Communication	1 year	0.10	0.10	The π-slot design optimizes impedance matching and enhances bandwidth performance.
Dr.SV Devika	MATLAB &Training for the industrial Projects	14 months	0.20	0.20	The project aimed to equip students and faculty with practical skills in MATLAB for solving real-time industrial problems
			Amount received (Rs.): 0.40		

Total amount (Lacs) received for the past 3 years : 2.75

6.2.6 B Amount utilized (2) Institute Marks : 2.00

S. No	Year	Amount Utilised	Purpose of Utilisation
1	2023-24	Rs. 10000	Research
2	2022-23	Rs. 1,00,000	Research

3	2021-22	Rs. 20,000	Research

S.No	Year	Project Tittle	Seed Money	Purpose of seed money
1	2023-24	• Plant Monitoring Systems and Classification of Plant Health Using ML • Design & Development of Aqua skimmer to clean up Garbage in water bodies • Growth of Algae: Novel Methodology Improve Traditional Aqua -Farming Using Emerging Technologies	• 20000 • 40000 • 20000	• AMD Processor • RAM (DDR4 based on motherboard support) • Microcontroller or Processor • Temperature & Humidity Sensor
2	2022-23	• AI based portable electronic system for real time industrial application • Signal Processing in Delta Time of Flight Measurement • A data collection software for the admin operations	• 10000/- • 15000/- • 20000/-	• Growth Chambers or Racks • Nutrient Solution Tanks • Climate Control Units (Humidity, temperature) • system setup and maintenance
3	2021-22	• MATLAB &Training for the industrial Projects.	• 20000/-	• Processor: Intel i5 or higher • Licensed MATLAB software

		Total Amount	1,45,000/-	

7 FACILITIES AND TECHNICAL SUPPORT (100)

Total Marks 100.00

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

Total Marks 40.00

Institute Marks : 40.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Communicatio	4	Cathode Ray C	18 hours	Mrs.D.Abzeena	Lab Instructor	B. Tech
2	Analog and Dig	4	Cathode Ray C	24 Hours	Mr. Akhil	Lab Instructor	B. Tech
3	Embedded Sys	1	MASM softwar	18 hours	Ms.Ch.Pranath	Lab Instructor	B. Tech
4	Doing Enginee	1	Arduino Boards	22 hours	Ms.P Vishupriy	Lab Instructor	B. Tech
5	Signal Process	1	Octave 9.3 ,Sy	20 hours	Mr.K.Sunil	Lab Instructor	B. Tech

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

Total Marks 20.00

Institute Marks : 20.00

Sr. No	Name of the Facility	Details	Purpose for creating facility	Utilization	Relevance to POs/PSOs
1	Computing Labs (Communication Systems & Signal Processing)	Computers-4 GB RAM https://www.vlab.co.in/broad-area-electronics-and-communications	Enable students to perform simulated experiments by skills	4 hours	PO2,PO5,PSO2
2	AMD Kits (Embedded Systems & IOT)	AMD Kits	To provide students with real-time, hands-on training.	4 hours	PO3,PO5,PSO1
3	LT Spice simulation (Analog Electronics & Microelectronics and Circuits)	LT Spice simulation 24.1.9	To provide a Platform for students to simulate the circuits	4 hours	PO3,PO4,PO5,PSO1

4	Spectrum Analyzer Kit (Communication Systems)	Spectrum Analyzer Transmitter and Receiver kit	To provide students with practical experience in RF transmission, reception, and spectrum analysis	4 hours	PO3,PO5,PSO2
5	PCB Prototyping (Analog Electronics)	PCB Kits	Students will Use for Circuits Designing.	4 hours	PO3,PO5,PSO1
6	PCB Prototyping (Analog Electronics)	PCB Kits	Students will Use for Circuits Designing.	4 hours	PO3,PO5,PSO1

7.3 Maintenance of laboratories and overall ambiance (10)	**Total Marks 10.00**
	Institute Marks : 10.00

7.3. Maintenance of Laboratories and Overall Ambiance (10)

Commencement of every semester the audit committee will inspect the department laboratories and submit a report to the department. The Head of the Department (HOD) will then forward the lab requirements to the principal. Upon receiving approval from the principal, the department will proceed with the purchase of the required components.

Maintenance of Laboratory Equipment:

- All the laboratories are well equipped and maintained to conduct laboratory courses as per the norms of AICTE and JNTUH
- Service and maintenance of equipment is carried out end of the Semester.
- Breakdown registers are maintained in the laboratories.
- Dead stock registers are maintained in laboratories.
- Minor repairs are carried out by the technical staff of the department based on available resources and expertise.
- Major repairs are outsourced by following the procedure of the institute.
- Student's login is maintained in all laboratories.
- First aid kits are available in all laboratories.
- Fire extinguishers are available on all floors
- All equipment, consumables and spare parts are recorded in a log
- Damaged or outdated equipment is replaced in a timely
- Daily cleaning of the laboratory will be ensured

- **Overall Ambiance:**

- Department has sufficient number of laboratories which is used throughout the year on a periodic time line basis to meet the curriculum requirements and based on requirements of the students.
- Laboratory manuals contain information on vision, mission, PEO, PO, PSO, safety precautions, equipment handling instructions along with the details of the experiments are distributed to students well in advance.
- UPS facility is available in all the laboratories.
- Laboratories are equipped with sufficient equipment to conduct the experiments.
- All the laboratories are equipped with white/chalk board, computer, Internet, and other such teaching learning aids.
- Every laboratory has a dedicated technical staff resource. It is ensured that the deputed technical staff has sufficient skills for handling the equipment and software

pertaining to that particular laboratory.

- All the lab are surround to greenery.
- All air circulation, big windows.
- Lab Rooms are wide setting capacity large.

7.4 Safety measures in laboratories (10) **Total Marks 10.00**

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Communication and Microwave Lab	•Specific Safety rules for Students displayed. •First aid box •fire extinguisher are kept in the laboratory. •Periodical servicing of the lab computers. •Maintain a clean & organized laboratory. •Avoid the use of cell phones. •Displayed Dos and Don’s
2	Analog and Digital Electronics Lab	•Specific Safety rules for Students displayed. •First aid box •fire extinguisher are kept in the laboratory. •Periodical servicing of the lab computers. •Maintain a clean & organized laboratory. •Avoid the use of cell phones. •Displayed Dos and Don’s
3	Embedded Systems lab	•Specific Safety rules for Students displayed. •First aid box •fire extinguisher are kept in the laboratory. •Periodical servicing of the lab computers. •Maintain a clean & organized laboratory. •Avoid the use of cell phones. •Displayed Dos and Don’s
4	Doing Engineering-Lab	•Specific Safety rules for Students displayed. •First aid box •fire extinguisher are kept in the laboratory. •Periodical servicing of the lab computers. •Maintain a clean & organized laboratory. •Avoid the use of cell phones. •Displayed Dos and Don’s
5	Signal Processing Lab	•Specific Safety rules for Students displayed. •First aid box •fire extinguisher are kept in the laboratory. •Periodical servicing of the lab computers. •Maintain a clean & organized laboratory. •Avoid the use of cell phones. •Displayed Dos and Don’s
6	Center of Excellence in IOT	•Specific Safety rules for Students displayed. •First aid box •fire extinguisher are kept in the laboratory. •Periodical servicing of the lab computers. •Maintain a clean & organized laboratory. •Avoid the use of cell phones. •Displayed Dos and Don’s

7.5 Project laboratory/research laboratory /centre of excellence (20) **Total Marks 20.00**

Institute Marks : 20.00

The Department of Electronics and Communication Engineering (ECE) provides dedicated laboratories to support projects, research, and innovation. These specialized facilities encourage

students and faculty to work on cutting-edge technologies, foster innovation, and facilitate collaboration with industry.

Table No. 7.5.1: List of project laboratory/research laboratory /Centre of Excellence

S.No	Name of the Laboratory
1	Project Lab
2	Center of Excellence

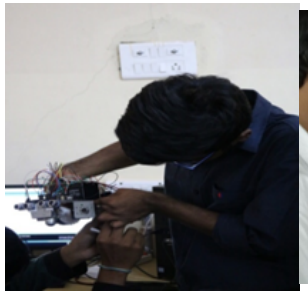
7.5.1.1. Research and Project lab:

The Project Laboratory is a dedicated, innovation-driven space that empowers students to translate theoretical concepts into practical applications. Designed to support both undergraduate and postgraduate students, the lab facilitates the execution of mini and major academic projects across diverse domains, including power electronics, embedded systems, renewable energy, and smart systems.

This dynamic environment fosters creativity, teamwork, and interdisciplinary collaboration, encouraging students to explore emerging technologies and develop industry-relevant solutions. Faculty members and technical staff provide continuous support and guidance, helping students effectively utilize equipment and tools. The Project Laboratory serves as a vital hub for applied learning, innovation, and industry-oriented development.

Objectives of the Project Laboratory:

- To provide a fully equipped, dedicated space for undergraduate and postgraduate students to design, develop, and implement innovative projects aligned with their academic curriculum.
- To enable students to apply theoretical knowledge to real-world problems, enhancing their technical proficiency and problem-solving capabilities.
- To promote research-driven projects that lead to academic publications and participation in technical competitions.
- To foster a creative and innovative mindset, encouraging the development of prototypes and proof-of-concept models in emerging technology areas.
- To support multidisciplinary collaboration, enabling students from various fields to work together and develop novel, integrated solutions.
- To nurture innovation by providing a platform for students to realize their ideas through hands-on prototype development.
- To enhance practical problem-solving skills through exposure to real-time challenges and cross-functional teamwork.
- To prepare students for industry roles by familiarizing them with modern tools, equipment, and hardware platforms used in current engineering practice**.**




S.No	Name of the Activity	Tittle
1	Student Paper Publications	No of Publication: 25
2	Industry Innovation Cell	No of Projects Uploaded:40
3	Project Expo	No of awards received: 2

7.5.1.2. Center of Excellence in IOT:

The Department of Electronics and Communication Engineering established a Center of Excellence in IoT in 2017. This center provides opportunities for students interested in the embedded domain to carry out their projects each year.

Our institute has signed a Memorandum of Understanding (MoU) with IIIT Hyderabad, which offers internship opportunities for our students. Over the past three years, Electronics and Communication Engineering students have participated in internships ranging from 3 to 6 months at IIIT Hyderabad.

Last year, 28 of our students participated in the AMD Competition, submitted their projects, and received certificates of recognition

Objectives: 1.To impart the students the necessary skills to fulfil the industrial needs

2.Provide hands-on training and skill-building programs for students, faculty, and industry professionals in IoT tools, hardware platforms

Expected outcomes:

- To develop prototypes out of the ideas
- To win the National/International Wide competitions
- To make the students work in teams
- To guide the students in writing the research Papers
- To publish patents
- To organize certification programs for students
- To conduct Workshops and make the students understand various advanced technologies in IOT.
- To make students ready for Industrial career

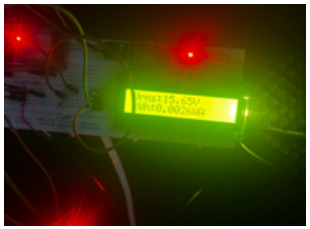

7 Teams Recieved AMD Global Hacksteir: It is a global level Hackathon conducted by AMD in collaboration with NGO, 7 Teams from HITAM won the competition and was awarded with AMD Processor, the students are currently working on this processor to develop projects.

Name of the Student	Team Leader Roll Number	Team Members With Hall Ticket numbers	Title	Guide
Anumula Nymisha Nandini Reddy	20E51A6605	Rupesh-20E51A6640;Thanmayee-20E51A0453	1.Virtuza: Your Personalized Companion	Mrs. V. Tejaswi
Mandapalli chatya manikanta	22E55A0404	heramba(22E55A0436),Richitha(21E51A0440), P. Yesho Pavan(21E51A0442)	2. Deep dive (underwater robot) using kria KR260 robotics starter kit	Dr. Siva Prasad
R. Akshita Reddy	21E51A0451	Pradeep(21E51A0417), Sanjana(21E51A0450)	6. AI Based Traffic Control System	Mrs. CH. Shanthi
P Charan Kumar	21E55A0326	D Pavani-20E51A6618,Neha-20E51A6639	3. OCTACLEANER: An Underwater Drone	Dr. Siva Prasad
Nallavelli Harshavardhan	21E51A0435	INDRASENA REDDY_2151A0447), SHAILESH(21E51A0441), AKBAR ZAINOOL(21E51A6934)	4. GARDENING MONITORING ROBOTIC AI SYSTEM USING THE AMD PROCESSOR	Mr. P. N. V Naveen Kumar
Pravalika	21E51A6913	PULI VINAY(21E51A0448), Yadagiri(22E55A6902), SAI KRISHNA RAJU(21E51A0452)	5. Road Guard: AI-Powered Road Damage Detection and Reporting System	Mr. P. N. V Naveen Kumar

Vishal Chowdary	21E51A6227	BIGIMALLA NIRMALA(21E51A6205), RESHMITHA(21E51A6911)	5. AYUV - Transforming Healthcare, One Byte at a Time.	Mrs. V. Tejaswi

- **Home Automation using IOT:**

The current and voltage values are checked and accordingly whenever there is excess usage of power then the power is cut



Smart Shopping Cart: The billing of the items taken in the shopping mall will be scanned and added directly in the cart and the customer can do the payment using the QR generated in the cart display

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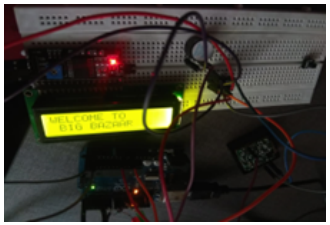
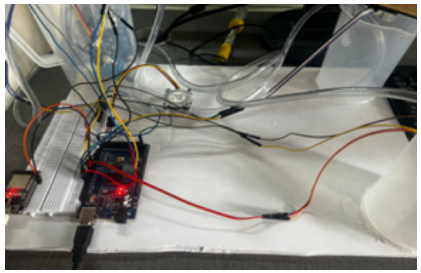


Water Monitoring System: This project monitors the quality of water based on Ph Meter, Conductivity, it also checks the level of water

in tank and accordingly it will release the water supply from main tank to sub tanks only if the water quality is good



8 CONTINUOUS IMPROVEMENT (80)

Total Marks 72.00

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

Total Marks 36.00

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

Institute Marks : 18.00

S. No	Course Code/ Course Name	CO	CAYm2 (2019-23)		Reasons towards Attainment / Non Attainment	Actionable Items	CAYm1(2020-24)		Reasons towards Attainment / Non Attainment	Remarks
			Target	Achieved			Target	Achieved		
1	MA101BS/Mathe - I	CO 1	1.5	2	No major gap. Sustaining understanding of variable coefficient differential equations is important.	Used structured worksheets and problem-based learning with real-life applications.	1.5	0.67	Drop due to difficulty in handling variable coefficient and second-order linear differential equations.	Introduced step-by-step tutorials, flowcharts for method selection, and added bridge support for calculus review.
		CO 2	1.5	2	Laplace application concepts need continued reinforcement for future consistency.	Integrated Laplace-based simulations and step-by-step examples for convolution and inverse Laplace.	1.5	0	Complete drop; students struggled with inverse Laplace and convolution due to conceptual overload.	Conducted remedial sessions, visual demonstrations, and simplified examples to build base concepts progressively.
		CO 3	1.5	2	Interpretation of triple integrals and volume applications needs regular practice.	Sustained through graphical tutorials and weekly problem-solving sessions on geometric shapes.	1.5	1.5	Target Attained	Sustained via continued use of diagrams, group problem-solving, and practice-based learning.
		CO 4	1.5	2	Vector calculus theorems like Gauss/Stokes need conceptual reinforcement to retain interest.	Used animations, flow field demos, and physical analogies in tutorials.	1.5	1.5	Target Attained	Continue existing strategy with additional reinforcement of Green's and Gauss theorems through simulations.
2	AP102BS/Applie Physics	CO1	1.5	0.94	Limited conceptual clarity in quantum concepts like wave-particle duality and uncertainty principle.	Integrated experiments with real-world applications and simplified conceptual analogies.	1.5	0.5	Understanding quantum concepts remained difficult due to abstract nature and limited prior exposure.	Added visualizations, simplified notes, and frequent short concept checks to reinforce learning.
		CO2	1.5	0.88	Difficulty grasping semiconductor physics and optoelectronic properties due to abstract theory.	Introduced real-world use cases and semiconductor videos in labs.	1.5	0.75	Improvement seen, but application of semiconductor behavior in devices needs deeper reinforcement.	Strengthened through demo kits, problem-based tasks, and simplified comparative analysis in tutorials.
		CO3	1.5	1.25	Required to apply laser and optical fiber concepts practically.	Used real-time industry examples and introduced laser simulation tools.	1.5	1.5	Target Attained	Continue with simulation tools and real-life case studies to maintain performance.
		CO4	1.5	1.5	Target attained. Concepts of nanomaterials and dielectric	Reinforced through application-oriented discussions and group activities.	1.5	1.5	Target Attained	Sustain interest using case-based learning and collaborative lab activities.

					behavior were well received.					
3	CS103ES/Progr for Problem Solving	CO1	1.5	1.5	Target attained. Students understood basic programming structure and input/output operations.	Continued structured lab sessions and beginner-level practice problems.	1.5	1.5	Target Attained	Maintain consistency through early debugging tasks and entry-level code walkthroughs.
		CO2	1.5	0.5	Students struggled with control structures and function implementation due to limited hands-on coding.	Conducted extra practice sessions and live coding demonstrations.	1.5	0.75	Minor improvement, but challenges persisted in applying logic within conditional and loop structures.	Introduced visual coding tools and interactive challenges to reinforce syntax and logic flow.
		CO3	1.5	1.6	Target attained. Concepts of searching and sorting algorithms were well understood.	Reinforced using dry-run exercises and coding practice on online platforms.	1.5	1	Drop in performance due to reduced hands-on practice with algorithm implementation.	Regular lab assessments and peer code reviews reintroduced to rebuild coding confidence.
		CO4	1.5	1.8	Target attained. Students demonstrated good grasp of file handling and arrays.	Used mini-projects and real-time file input/output problems.	1.5	1	Drop observed as students faced difficulty applying file operations practically.	Integrated simplified file-handling tasks and structured worksheets in labs for practice.
4	MA201BS/ Mathematics - II	CO1	1.5	1.13	Difficulty in solving linear differential equations with variable coefficients.	Implemented structured tutorials and problem-solving strategies.	1.5	0.5	Lack of retention of calculus fundamentals and limited revision before application.	Added bridge topics, weekly revision tasks, and guided problem-solving steps.
		CO2	1.5	0.25	Students found Laplace transforms, especially piecewise and inverse types, challenging.	Introduced guided worksheets and Laplace table practice.	1.5	0.67	Conceptual gaps persisted in applying Laplace to engineering problems.	Reinforced with MATLAB-based demos and repeated problem-solving sessions.
		CO3	1.5	1.44	Minor difficulty in setting limits in triple integrals using polar/spherical coordinates.	Used 3D visual aids and hands-on graph-based practice.	1.5	1	Drop due to abstract visualization of volumes and surface areas.	Visual tools, geometry-based questions, and spatial problem-solving integrated into sessions.
		CO4	1.5	1.42	Challenges in understanding vector calculus concepts like Green's and Gauss theorems.	Used simulations and real-world vector field analogies.	1.5	0.67	Conceptual understanding of line/surface integrals remained limited.	Continued with vector field animations, scaffolded derivations, and application-based examples.
5	Engineering Workshop	CO1	1.5	3	Target Attained, Students have good drawing skills for creating 3D images of workshop experiments.	In prior to the experiments, orientation on drawing concept isolation is conducted.	1.5	3	Clear understanding of workshop processes is necessary to meet industry needs	Attainment of CO was attained for two consecutive years by the continous implementation of orientation sessions
		CO2	1.5	3	Short pre-class videos, tool handling guides, and animated process walkthroughs (e.g., carpentry joints, welding techniques) were shared with students via LMS or Google Classroom.	Students arrived better prepared, reducing demonstration time and increasing hands-on practice.	1.5	3	Innovative moulding methods have helped in attaining CO	Students came well-prepared, maximising practical exposure time.
		CO3	1.5	3	After mastering a task, students mentored peers under faculty supervision (buddy system).	Reinforced learning through teaching and enhanced teamwork and leadership.	1.5	3	Adapted the usage of tools through videos.	Reinforced understanding and team work theorugh mentoring helped in attaining the CO
		CO4	1.5	3	Students have focused on creating		1.5	3	Strengthend practical learning	Showed independent task handling capacity
		CO1	1.5	1.5	Target attained. Fundamental circuit laws were delivered effectively.	Standard lecture and lab components maintained.	1.5	0.6	Students struggled with applying Ohm's law, KVL, and KCL due to limited problem-solving exposure.	Introduced circuit-solving practice sheets and short concept recaps before labs.
					Target attained. Students					

6	EE203ES/Basic Electrical Engineering	CO2	1.5	1.5	grasped basic circuit behavior through hands-on sessions.	Regular lab-based demonstrations and reinforcement activities.	1.5	0.6	Understanding of series-parallel combinations and current direction was unclear.	Reinforced circuit simulations and guided lab observations to improve visualization.
		CO3	1.5	1.5	Target attained. Students performed well in learning electrical machine basics.	Included simplified theoretical content and demo videos.	1.5	0.5	Difficulty in grasping operating principles of DC/AC machines due to lack of demonstrations.	Added video-based machine operations and peer-explained concept mapping.
		CO4	1.5	1.5	Target attained. Basic component-level understanding was satisfactory.	Maintained standard practical exposure.	1.5	0.6	Limited understanding of protective devices and low voltage systems due to inadequate real-world context.	Introduced component kits for demo and real-time application videos in tutorials.
7	EC303PC/Digita System Design	CO1	1.5	1.5	Target achieved; number systems and Boolean laws were reinforced through tutorials.	Regular practice on conversions and simplification using K-map.	1.5	0.75	More focus was needed on Boolean expression simplification and logic gate implementation.	Conducted additional K-map exercises and logic gate building sessions.
		CO2	1.5	1.5	Target achieved; combinational circuits were well taught through examples.	Lab activities and truth table design practice.	1.5	0	Design of combinational circuits like multiplexers and decoders required more guided steps.	Added step-by-step circuit design sessions and simplified simulation demos.
		CO3	1.5	1.5	Target achieved; sequential circuit concepts like flip-flops were delivered effectively.	Used clock timing diagrams and flip-flop operation tables.	1.5	3	Excellent improvement in understanding sequence logic through simulation.	Encouraged design-based learning and introduced mini-projects using FSMs.
		CO4	1.5	1	Memory concepts and PLDs needed additional exposure.	Introduced architecture diagrams and comparison charts.	1.5	1	Retained same level; additional clarity on PLD applications is needed.	Visual learning and hands-on demos with memory ICs and PLD simulators planned.
8	EC304PC/Signa and Systems	CO1	1.5	1.38	Concepts like classification of signals and system properties needed deeper interpretation.	Included MATLAB-based visual signal classification and conceptual quizzes.	1.5	1.5	Target Attained	Improved through continued practice and interactive visualization activities.
		CO2	1.5	1.13	Fourier series and transforms required more time for practice and step-by-step derivation.	Conducted focused problem-solving sessions with real-time signal examples.	1.5	1.5	Target Attained	Conceptual clarity improved with additional tutorials and problem decomposition methods.
		CO3	1.5	1.25	Partial difficulty in applying convolution and differential equations in LTI system analysis.	Introduced case-based problems and guided convolution practice.	1.5	1.38	Slight scope to strengthen system behavior analysis in edge cases.	Continued guided problem-solving and real-life examples to sustain improvement.
		CO4	1.5	1.3	Applying Laplace and Z-transforms in mixed domain problems needed reinforcement.	Comparative analysis of transform domains with practice sets was provided.	1.5	1.3	Application in system-specific problems still requires support.	Maintain comparative learning strategy with added examples from practical signal flow.
9	EC301PC/Electr Devices and Circuits	CO1	1.5	1.42	Slight difficulty in applying diode characteristics in real-time rectifier circuits.	Introduced simulation tools and hands-on circuit analysis labs.	1.5	1.5	Target Attained	Target sustained through circuit demos and waveform-based discussions.
		CO2	1.5	1.5	Target achieved; transistor operation across configurations was clearly understood.	Used comparative analysis of BJT and FET with circuit examples.	1.5	1.5	Target Attained	Target sustained with consistent problem-solving and lab exercises.
		CO3	1.5	1.42	Minor gaps in selecting biasing resistors to fix the operating point.	Provided biasing templates and graphical interpretation of load lines.	1.5	1.5	Target Attained	Achieved through continued graphical and design-based reinforcement.
		CO4	1.5	1.5	Target achieved; frequency response of amplifiers was well covered.	Used Bode plots and capacitive effect visualizations.	1.5	1.5	Target Attained	Maintained through regular lab-based experimentation and analysis activities.
		CO1	1.5	0.5	Application of network theorems needed reinforcement	Used simplified problems and circuit	1.5	2	Target Attained	Major improvement observed through structured problem-solving and visual circuit

					with guided examples.	analysis simulations for practice.				demos.
10	EC302PC/Netwo Analysis and Transmission Lines	CO2	1.5	0.5	Transient response analysis using differential equations required more structured explanation.	Introduced time-domain simulations and waveform interpretation labs.	1.5	2	Target Attained	Effective use of waveform analysis tools led to significant performance gain.
		CO3	1.5	1	Interpretation of two-port parameters like Z, Y, and h was partially unclear.	Practice problems were provided with circuit configurations and parameter visualization.	1.5	1.75	Minor gap in applying two-port models to real-time circuit scenarios.	Reinforced learning with additional examples and two-port circuit lab validations.
		CO4	1.5	1.25	Limited clarity in using transmission line equations and reflection coefficient.	Added focused assignments on lossless line assumptions and Smith chart basics.	1.5	2	Target Attained	Attainment improved through practical problem-solving and tool-based visualization.
11	EC403PC/Analo and Digital Communications	CO1	1.5	1.5	Target Attained: While students showed good interest and followed the class, future batches may not engage similarly without consistent teaching quality or contextual examples.	Continue using real-life examples and interactive sessions to maintain student curiosity.	1.5	1.5	Target Attained	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO2	1.5	1.5	Target Attained: Concepts like Transmitters and receivers can become abstract if not supported with practical demonstrations or system-level views. Future learners may lose interest without applied understanding.	Sustain attainment through simulation-based demonstrations (e.g., block diagrams in software), live circuit examples, and case studies on actual communication systems.	1.5	1.5	Target Attained	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO3	1.5	1.13	Target Attained: Students may find mathematical parts in DPSK, QPSK difficult if not revised regularly; some might memorize instead of understanding.	Reinforce concepts using practic sessions, peer discussions, and real-time visualization of modulation techniques (e.g., MATLAB)	1.5	1.5	Target Attained	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO4	1.5	1.13	Target Attained: As this is an advanced topic, students may face difficulty linking theory to practical applications like CDMA, if not reinforced.	Use simple simulations, case studies on military or mobile communication, and integrate PBL mini-projects to sustain interest and understanding.	1.5	1.5	Target Attained	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
12	EC404PC/Linea Integrated Circuit Analysis	CO1	1.5	1.5	Target attained; understanding of op-amp parameters was satisfactory.	Used datasheet-based analysis and practical op-amp demos.	1.5	3	Target Attained	Significant improvement due to hands-on circuit validation and lab worksheets.
		CO2	1.5	1.5	Target attained; linear op-amp applications were well practiced.	Included case-based design problems (e.g., amplifier circuits).	1.5	3	Target Attained	Design-oriented activities and real-time simulations enhanced application clarity.
		CO3	1.5	1.5	Target attained; non-linear circuits like comparators and waveform generators were introduced effectively.	Conducted focused lab experiments with waveform tracing.	1.5	3	Target Attained	Mini-projects and iterative simulations helped achieve deep conceptual clarity.
		CO4	1.5	1.5	Target attained; timer circuits and A/D-D/A conversion were	Used simulation tools for timing	1.5	3	Target Attained	Improved attainment due to engaging lab

					introduced with sufficient clarity.	diagrams and PLL operation.				exercises and block-wise concept delivery.
13	EC405PC/ Electronic Circuit Analysis	CO1	1.5	1.42	Slight drop in attainment observed due to limited clarity in understanding Miller's theorem and high-frequency equivalent models.	Reinforce key concepts through simulation (e.g., Multisim/LTSpice), include visual explanation of frequency response, and conduct focused tutorials on Miller's theorem.	1.5	1.5	Target Attained	Target Attained. Existing strategies like simulation support and topic-focused tutorials helped sustain performance.
		CO2	1.5	1.5	No major gap, but students often needed more exposure to practical implications of feedback in amplifier circuits.	Sustain attainment by integrating lab-based demonstrations, design exercises using real-time feedback configurations, and interactive worksheets linking theory to design.	1.5	1.25	Feedback circuit analysis and stability concepts in simulation were moderately challenging due to gaps in applying syntax and simulation logic.	Slight dip observed. Reinforcement through hands-on simulation workshops and guided debugging sessions will be planned.
		CO3	1.5	1.38	Concepts like Class B crossover distortion and tuned circuit resonance required deeper engagement, affecting understanding slightly.	Use waveform analysis from labs, simulation of amplifier classes, and include in-class comparison of efficiency and distortion trade-offs to reinforce learning.	1.5	1.38	Difficulty in comparing amplifier classes and tuning methods, especially in selecting circuit parameters for applications.	Continued with moderate attainment. Further focus will be on application-based lab sessions and amplifier efficiency analysis.
		CO4	1.5	1.5	No significant gap, but advanced topics like Barkhausen criterion and RC phase shift oscillator analysis needed extra attention for consistency.	Maintain attainment through problem-solving worksheets, virtual experiments for oscillator circuits, and integration of real-world application case studies.	1.5	1.5	Target Attained	Target Attained. CO was sustained through structured derivation practice, case-based learning, and visual tools for oscillator analysis.
14	EC402PC/ Electromagnetic Fields and Waves	CO1	1.5	1.5	Target achieved; vector field basics and electrostatic equations were covered.	Used graphical illustrations and problem-based learning.	1.5	0.9	Application of theoretical field concepts to engineering scenarios needed better connection.	Included physical interpretations and visual simulations for electrostatic field behavior.
		CO2	1.5	1.38	Maxwell's equations were introduced with limited real-time visualization.	Conducted derivation workshops and linked concepts to wave propagation.	1.5	1	Application to time-varying systems still needed deeper reinforcement.	Introduced step-by-step guided simulations and use-case examples for practical linkage.
		CO3	1.5	1.31	UPW concepts and wave behavior in different media were moderately understood.	Provided derivations with examples in lossless and lossy media.	1.5	1.5	Target Attained	Improved through comparative examples and simplified mathematical interpretation.
		CO4	1.5	1.13	Concepts like waveguide modes and cutoff frequencies needed reinforcement.	Used mode diagrams and practical examples for waveguide behavior.	1.5	1.5	Target Attained	Target attained through continuous practice, case-based learning, and lab analogies.
15	EC501PC/ Microprocessors & Microcontrollers	CO1	1.5	1.5	Difficulty in visualizing how different addressing modes affect memory access and instruction cycles.	Use animations and emulator-based walkthroughs for each addressing mode.	1.5	1.5	Target Attained	CO attainment is consistant, we have incorporated new pedagogical methods to improve further
		CO2	1.5	1.5	program flow was less related without visual debugging.	Incorporate step-by-step debugging using Keil and MASM for real-time observation.	1.5	1.5	Target Attained	Keil tool was introduced for the students to further improve the coding skills in 8051 microcontroller.
		CO3	1.5	1.38	Since there was no experimental analysis. on CISC based processor students did not perform well.	We are conducting workshops on CORTEX, and providing training through skill development centres.	1.5	2	Target Attained	CO attainment is improved beacause of effective utilisation of workshops and skill developemnt centres
		CO4	1.5	1.42	Hands-on implementation was limited due to constrained access to trainer boards, and students had difficulty	Organized structured lab sessions in smaller batches to ensure board access; incorporated Proteus and Keil µVision simulations to reinforce	1.5	2	Target Attained	CO attainment is improved by implementing the animated videos on serial communication

					configuring serial communication protocols practically.	practical interfacing concepts. Animated videos are used to demonstrate the flow of data.				protocols like I2C, SPI.
16	EC503PC/Contr Systems	CO1	1.5	1.06	Difficulty in deriving transfer functions and block diagram models due to weak mathematical modeling skills.	Conducted sessions with real-time case studies for block diagram simplification.	1.5	3	Target Attained	Target attained. Improvement due to practical modeling exercises and application-based examples.
		CO2	1.5	1.25	Struggled with control design methods, especially applying PID/lead-lag techniques without enough simulation practice.	Introduced MATLAB/Simulink labs for design techniques.	1.5	3	Target Attained	Target attained. Hands-on simulation boosted understanding and design accuracy.
		CO3	1.5	1.05	Poor grasp of transient and steady-state analysis due to lack of problem-solving and visualization support.	Additional tutorials and visual system response analysis introduced.	1.5	3	Target Attained	Target attained. Improved via step-by-step guided practice and system response plotting.
		CO4	1.5	1.13	Abstract understanding of root locus and frequency response made analysis difficult.	Conducted workshops with interactive frequency response plotting in MATLAB.	1.5	3	Target Attained	Target attained. Conceptual clarity improved using tool-based visualizations and structured problem sets.
17	EC502PC/Data Communications and Networks	CO1	1.5	1.5	Limited clarity between OSI and TCP/IP models	Used real-world network architecture case studies to reinforce theoretical learning	1.5	0.5	Demonstrated minimal understanding of I/O systems and lacked exposure to modern storage technologies.	Limited practical exposure to network layers and communication protocols resulted in lower conceptual retention.
		CO2	1.5	1.5	Differentiation between CRC, Hamming Code, and Checksum	Implemented lab-based CRC, parity code, and checksum exercises with step-by-step analysis	1.5	3	Implemented lab-based CRC, parity code, and checksum exercises with step-by-step analysis	helped them to reinforce error control.
		CO3	1.5	1.5	Limited understanding of Dijkstra's and Distance Vector algorithms	Included visual routing simulations (e.g., Dijkstra's algorithm)	1.5	0.5	Difficulty in understanding layered architecture and protocol functionalities affected performance.	Limited practical exposure to network layers and communication protocols resulted in lower conceptual retention.
		CO4	1.5	1.5	Visualizing the behavior of flow control and congestion in a live data transmission scenario posed difficulty.	Conceptual demos using animations and network simulators	1.5	1.5	Conceptual demos using animations and network simulators	Helped in real-time visualization
18	EC603PC/VLSI Design	CO1	1.5	1.06	Nature of semiconductor process steps made it difficult to visualize and understand real-world fabrication stages.	Incorporated animated videos and virtual lab simulations of CMOS fabrication steps.	1.5	1.5	Animated videos helped, integration of process parameters	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO2	1.5	1.25	Difficulty in applying theoretical equations to timing and power metrics of CMOS gates.	Introduced numerical problem sets on delay and power analysis; provided guided tutorials using DSCH software for logic gate modelling.	1.5	1.5	solved basic problems, but real-world scenario-based analysis	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO3	1.5	1.05	Limited exposure to layout design tools and difficulty visualizing design rule enforcement.	Scheduled additional lab hours using Micro wind; assigned practice exercises focused on layout vs. schematic (LVS) checking and stick diagram conversions.	1.5	1.5	Worked on standard layouts well but need more exposure to layout constraints in complex gates	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO4	1.5	1.13	difficulty in integrating logic design with programmable devices due to limited hands-on practice with HDL tools and lack of practical testing	Conducted Verilog-based design workshops using Xilinx ISE/Vivado; provided FPGA-based mini projects for logic synthesis, implementation, and	1.5	1.5	Integrating testbenches and waveform debugging can be further refined.	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.

					environments.	testing.				
19	EC602PC/Dgital Signal Processing	CO1	1.5	1.5	Interpreting LTI properties and convolution outputs required stronger visual and interactive support.	Introduced visual signal demos using MATLAB and Desmos. Embedded video-based tutorials on LTI systems and convolution.	1.5	3	Target Attained	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO2	1.5	1.8	Distinguishing between transform types and interpreting frequency-domain outputs.	Used MATLAB to demonstrate DTFT and DFT frequency spectra.	1.5	2.63	Target Attained	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO3	1.5	1.6	More hands-on practice in translating specs into filter coefficients.	Provided guided templates for FIR/IIR filter design.	1.5	3	Target Attained	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
		CO4	1.5	1.5	Multi-stage FFT structures and butterfly operations required better sequential clarity.	Animated FFT flow diagrams for each stage. Conducted FFT computation demos with step tracking.	1.5	3	Target Attained	CO attainment has shown improvement in the current cycle, reflecting the effectiveness enhanced instructional strategies.
20	EC601PC/Anten and Propagation	CO1	1.5	0.9	Basic parameters like gain, directivity, and efficiency required clearer interpretation.	Used simulations and measurement kit demonstrations for parameter visualization.	1.5	1.2	Slight improvement; further clarity needed in visualizing antenna characteristics.	Continued use of simulation tools and added concept-mapping sessions for antenna parameters.
		CO2	1.5	1.2	Antenna arrays and beam formation principles needed more practice examples.	Conducted focused derivation sessions and explained array factor using simulations.	1.5	0.6	Concepts like array patterns and phase difference effects required deeper reinforcement.	Enhanced learning with beam pattern visualizations and real-time array structure examples.
		CO3	1.5	0.7	Practical antenna structures like dipole, loop, and Yagi were not fully explored since there is no lab.	Introduced simplified fabrication tasks and virtual antenna design tools.	1.5	1.2	Improved understanding observed; continued focus on simulation and hands-on exploration.	Retained practical exposure through basic design mini-projects and result interpretation.
		CO4	1.5	1.2	Propagation models were moderately understood using theoretical discussions.	Added real-world propagation scenarios and visual representation of ionospheric layers.	1.5	1.2	Target maintained; models like ground wave and sky wave require periodic revision.	Sustained learning through animated videos and model comparison activities.
21	EC701PC/Micro and Optical Communication	CO1	1.5	3	Demonstrated strong grasp of theory but can benefit from physical visualization of wave propagation inside waveguides	Regular revision and hands-on component demos sustained understanding.	1.5	3	Target Attained	High attainment sustained through consistent engagement and lab integration.
		CO2	1.5	3	component functions are well understood, deeper insights into S-parameter measurements and practical setup	Visual explanations of microwave tubes and simulation tools supported learning.	1.5	3	Target Attained	Achieved through practical exposure to waveguide setups and simulation.
		CO3	1.5	3	Linking optical fiber parameters to real communication system performance	Fiber optic communication principles taught using models and real-time kits.	1.5	3	Target Attained	Learning sustained by continued use of visual kits and performance tracking.
		CO4	1.5	3	Placed on device characteristics under varying conditions	Signal loss and dispersion taught through practical use-cases and design activities.	1.5	3	Target Attained	High performance maintained via simulation-based design and analysis tasks.
22	SM702MS/Profe Practice, Law and Ethics	CO1	1.5	3	No observable gap; foundational ethics well received.	Continued integration of industry-relevant case studies.	1.5	3	Potential to deepen contextual application.	Plan to include guest talks and real ethical dilemma analysis for stronger linkage.
		CO2	1.5	3	Ethics application consistent.	Case-based discussions used to sustain engagement.	1.5	3	Need to introduce dynamic case laws.	Sustained via interactive legal-ethical decision-making scenarios.

		CO3	1.5	3	Legal topics covered broadly.	Group assignments on IP laws and engineering contracts.	1.5	3	Slight gap in linking to current legal reforms.	Plan to bring in legal expert talk or online modules on evolving engineering laws.
		CO4	1.5	3	Global issues introduced with sustainability focus.	Global case comparisons and sustainability mapping used.	1.5	3	Possible enhancement via UN SDGs context.	Will include reflection tasks linking engineering ethics with global sustainability.

8.1.2 Actions Taken Based on the Results of Evaluation of the POs/PSOs Attainment (20) Institute Marks : 18.00

Based on the evaluation of PO/PSO attainment, areas of relative weakness were identified in PO3 (Design/Development of Solutions) and PO7 (Environment and Sustainability). To address this, curriculum interventions such as the introduction of mini-projects and PBL projects mapped to sustainable technologies were implemented. Pedagogical initiatives included Problem-Based Learning (PBL), tool-based learning (MATLAB, Keil, Xilinx), and integration of simulation tools across key subjects.

Table 8.1.2.1: 2019-2023 Batch

PO/PSO	Target	Attained	Observation	Actionable Items
PO1 – Engineering Knowledge	1.7	1.98	Target exceeded; strong fundamentals built through subjects like Mathematics-I, Electronic Devices and Circuits, and Network Analysis.	Sustain via core application-based projects and interdisciplinary integration.
PO2 – Problem Analysis	1.7	1.76	Close to target; analytical thinking developed through Signals and Systems and Control Systems.	Use MATLAB, guided tutorials, and structured logic reinforcement.
PO3 – Design/Development of Solutions	1.7	1.7	Slightly below target; subjects like Electronic Circuit Analysis and Control Systems introduced design concepts but need deeper engagement.	Introduce more mini-projects and lab activities with real-world constraints.
PO4 – Investigation of Complex Problems	1.7	1.86	Target nearly met; Signals and Systems and Digital Signal Processing supported investigative learning and system behavior analysis.	Integrate course projects and PBL strategies into core subjects to enhance analytical depth.
PO5 – Modern Tool Usage	1.7	1.93	Target nearly attained; subjects like VLSI Design, Control Systems, and Analog Circuits used modern tools extensively.	Enhance tool-based learning with certifications and simulation-focused assessments.
PO6 – Engineer and Society	1.7	2.18	Exceeded target; community relevance addressed through Professional Practice, Law and Ethics and socially oriented projects.	Continue community-linked projects and encourage societal problem-solving tasks.
PO7 – Environment and Sustainability	1.7	1.56	Below target; limited integration of sustainability observed in subjects like Antennas and VLSI Design.	Introduce environment-focused case studies and value-added courses on green electronics.
PO8 – Ethics	1.7	2.16	Surpassed target; strong ethical grounding from Professional Practice, Law and Ethics.	Use real-life dilemmas, interactive sessions, and ethical analysis workshops.
PO9 – Individual and Teamwork	1.7	1.95	Target attained; teamwork developed through lab collaboration, project work, and peer mentoring in subjects like Machine Drawing and Analog Circuits.	Sustain via group projects, collaborative learning, and mentor-mentee models.
PO10 – Communication	1.7	1.97	Surpassed target; improved through technical presentations, report writing, and viva practices in labs.	Continue oral/poster presentations, peer reviews, and guided documentation tasks.
PO11 – Project Management and Finance	1.7	1.77	Slightly reached target; exposure through mini-projects and event planning present but informal.	Integrate project management modules in capstone projects and host budget-based tech challenges.
PO12 – Lifelong Learning	1.7	2.53	Significantly exceeded; MOOCs, NPTEL courses, and interdisciplinary learning fostered self-learning culture.	Encourage continual online certifications, participation in open learning platforms, and faculty-mentored research.

PSO1	1.7	1.88	Target attained; subjects like Antennas, VLSI Design, and Digital Signal Processing supported domain mastery.	Maintain via practical labs, simulation-based assignments, and industry-oriented learning.
PSO2	1.7	1.89	Target attained; innovative thinking nurtured in Control Systems, Digital Signal Processing, and Analog Circuits.	Promote open-ended projects, tech innovation challenges, and industry-internship projects.

Table 8.1.2.2: 2020-2024 Batch

PO / PSO	Target	Attained	Observation	Action Plan
PO1 – Engineering Knowledge	1.8	1.98	Target exceeded; strong foundational concepts developed through subjects like Mathematics, Electronic Devices, and Network Analysis.	Sustain through project-based applications, continuous reinforcement across courses, and interdisciplinary problem-solving activities.
PO2 – Problem Analysis	1.8	1.87	Target nearly attained; analytical capabilities enhanced by Control Systems, Signals and Systems, and Digital Signal Processing.	Reinforce structured problem-solving through MATLAB/SciLab, scenario-based assignments, and real-time analytical tasks.
PO3 – Design/Development of Solutions	1.8	1.71	Slightly below target; exposure from subjects like Analog Circuits and VLSI Design helped but lacked complex design experience.	Integrate mini-projects and simulation-based design tasks with real-life constraints and evaluation rubrics.
PO4 – Investigations of Complex Problems	1.8	1.87	Target nearly achieved; improved through investigative activities in Signals and Systems and Control Systems.	Strengthen open-ended lab experiments and introduce more case studies with investigative focus using PBL strategies.
PO5 – Modern Tool Usage	1.8	1.97	Target almost met; strong exposure from VLSI Design, Control Systems, and Microcontrollers using tools like MATLAB, Keil, and Xilinx.	Maintain through tool certification workshops and curriculum-aligned lab activities using current industry tools.
PO6 – Engineer and Society	1.8	2.19	Surpassed target; highly influenced by Professional Practice and community-based learning in real-world contexts.	Continue integrating socially relevant problems into course projects and involve students in outreach programs.
PO7 – Environment and Sustainability	1.8	1.57	Below target; limited emphasis on sustainability concepts in core electronics subjects.	Add value-added courses on green electronics, introduce SDG-linked project themes, and embed sustainability in design subjects.
PO8 – Ethics	1.8	2.18	Target surpassed; strengthened through Professional Practice, Law & Ethics with consistent emphasis on real-life ethical dilemmas.	Sustain using role-play activities, ethical simulations, and seminars on professional responsibility.
PO9 – Individual and Teamwork	1.8	1.98	Target attained; enhanced via teamwork in lab sessions, design projects, and mini-projects.	Maintain performance through collaborative assignments, peer review tasks, and interdisciplinary team competitions.
PO10 – Communication	1.8	2.08	Target exceeded; presentations, technical writing, and lab documentation helped improve communication skills.	Continue structured presentations, technical report assignments, and oral reviews as part of course assessments.
PO11 – Project Management and Finance	1.8	1.83	Target nearly met; informal exposure via project planning in capstone and tech fests.	Introduce formal modules on project planning and budgeting; include finance components in project rubrics.
PO12 – Lifelong Learning	1.8	2.7	Significantly exceeded; driven by self-paced learning through MOOCs, NPTEL, and independent research.	Encourage cross-domain certifications, research participation, and continuous improvement plans with faculty mentoring.
PSO1	1.8	2.03	Target attained; concepts reinforced through practical labs in subjects like DSP, VLSI, and Microcontrollers.	Sustain via advanced lab practices, industry-based projects, and domain-specific certifications.

PSO2	1.8	1.96	Target achieved; hands-on integration of subsystems in projects like control systems, communication labs, and microcontroller interfacing.	Continue system-level projects, introduce integration challenges, and promote real-time testing using simulators.

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

Total Marks 15.00

Institute Marks : 15.00

In order to ensure effective teaching learning process and timely redressal of actions, identified so as to ensure that continuous improvement in terms of implementing and attaining Outcome Based Education. As part of that, regularly we have academic audits through internal and external agencies.

External Audit: As part of external agency, the affiliated university JNTUH conducts Academic Audit every year in the form of Fact Finding Committee (FFC) which helps us to identify the deviations if any in terms of Academic Infrastructure and Faculty which helps us to ensure proper standards above the minimal requirements are maintained. At the national level AICTE will also conduct audit through online or offline to ensure the other ends of guidelines are maintained.

Internal Audit: At the Institute level, we maintain internal Academic audit team comprised of

Table 8.2.1: Department Audit Committee

S. No	Faculty details	Designation
1	Dr. Rajeshwar Goud	HOD & Professor
2	Dr. SV Devika	Professor & Dean Accreditation
3	Dr. K. Sathish Reddy	Professor & Asst. Dean IIIC
4	Dr. K. Bindu Madhavi	Associate Professor
5	Ms. Richitha	Student
6	Mr. Pradeep	Student

Academic audit reviews the academic and activity calendar prepared before commencement of each Academic year. This teak monitors the curriculum delivery by the faculty, implementation of OBE and students support for continuous improvements in the learning. The committee also evaluates the course delivery, syllabus coverage, OBE implementation of course level projects or PBL and the readiness and availability of equipment in the Laboratories.

The above audits will always help the department to identify the issues and challenges in the curriculum delivery, infrastructure support. So as to act and timely address to ensure the quality of teaching and learning.

Sample Audit report:

Date of Meeting: 18th July 2023

Time: 10:00 AM – 12:30 PM

Venue: HOD Office, ECE Department

Department: Electronics and Communication Engineering (ECE)

Meeting Objective: Review of academic performance, faculty allotment, curriculum planning, and syllabus progress

Observations by the team:

·Reviewed subject allotment for upcoming semester; minor interchanges requested by faculty based on expertise.

·Discussed integration of emerging topics (AI, IoT, ML) into curriculum via open electives and projects.

·Noted syllabus backlog in subjects like Signals & Systems, Control Systems due to initial timetable issues.

·Mixed student feedback received—suggestion to increase interactive teaching and provide recorded sessions.

·Labs (VLSI, Embedded Systems) require equipment/software updates; proposal preparation initiated.

·Internal exam calendar aligned with university guidelines.

Table No. 8.2.2: Plan of Action

S. No	Area	Action Plan	Responsible Faculty
1	Subject Allotment	Finalize inter-departmental subject swaps and confirm updated allocations	HOD + DAC Coordinator
2	Curriculum	Propose open electives in AI, ML, IoT for BoS consideration	Curriculum Committee
3	Syllabus Coverage	Schedule extra classes for SS, CS, EMF, and DSD to complete coverage	Subject Instructors
4	Lab Readiness	Prepare lab requirement proposal and initiate procurement for new kits	Lab In-charge
5	Student Feedback	Implement interactive quizzes and upload lecture videos for slow learners	All Faculty
6	CO-PO Mapping	Submit updated CO-PO attainment sheets to NBA coordinator	Course Coordinators
7	NBA Compliance	Ensure subject files, lesson plans, and SAR documentation are updated	All Faculty + HOD

Outcome: Our department has consistently received "No Deficiency" remarks in all audits conducted by both JNTUH and AICTE till date, which is a testament to our sustained academic quality and administrative compliance.

8.3 Improvement in Faculty Qualification/Contribution (15) — **Total Marks 12.00**

Institute Marks : 12.00

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
No. of faculty members with Ph.D. degree	7.00	9.00	5.00
No. of publications in peer reviewed journals	9.00	21.00	23.00
No. of publications in conferences	24.00	4.00	2.00

8.4 Improvement in Academic Performance (10) — **Total Marks 9.00**

Institute Marks : 9.00

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
Academic Performance Index (API) of the First-Year Students in the Program (Refer to section 4.3)	5.93	6.01	6.97
Academic Performance Index (API) of the Second-Year Students in the Program (Refer to section 4.4)	6.49	5.93	4.49
Academic Performance Index (API) of the Third-Year Students in the Program (Refer to section 4.5)	7.33	6.32	6.29

9 STUDENT SUPPORT AND GOVERNANCE (120) — Total Marks 117.00

9.1 First Year Student-Faculty Ratio (FYSFR) (5) — **Total Marks 2.00**

Institute Marks : 2.00

Please provide First year faculty information considering load

Name of the faculty member	PAN No.	Qualification	From Engineering Courses	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
Dr. Lavanya Na	AGIPG7816Q	Ph.D	No	27/12/2023	Chemistry	Associate Professor	06/02/2017	Yes	Regular	
Dr. Shradha Bi	AYXPB9009K	Ph.D	No	16/08/2015	Chemistry	Associate Professor	16/04/2021	Yes	Regular	
Mr.N.Venkata F	AMZPN3712D	M.Sc	No	10/12/2010	Chemistry	Assistant Professor	23/12/2021	Yes	Regular	
Mrs.Vijaya Lak	BYPPM4268N	M.Sc	No	28/04/2013	Chemistry	Assistant Professor	10/07/2024	Yes	Regular	

Mrs.Y. Aruna	BMKPA2918Q	M.Sc	No	01/06/2012	Chemistry	Assistant Professor	02/12/2013	No	Regular	06/06/2025
Dr. Ashalatha	AFZPD7535B	Ph.D	No	27/01/2007	English	Professor	04/01/2023	Yes	Regular	
Mr. Bivash Mar	EMCPM7005M	MA	No	20/09/2020	English	Assistant Professor	14/07/2022	Yes	Regular	
Mr. Dipti Ranja	ABXPL6183D	MA	No	18/12/2001	English	Assistant Professor	04/07/2022	Yes	Regular	
Dr. Rajya Laksh	ASMPB3994N	Ph.D	No	17/08/2021	English	Associate Professor	01/10/2021	No	Regular	31/01/2024
Ms. Roshni Ku	EHKPK5536A	MA	No	22/02/2019	English	Assistant Professor	18/07/2024	Yes	Regular	
Mr. Meghnath (	BTNPC2043L	MA	No	20/09/2021	English	Assistant Professor	20/02/2024	Yes	Regular	
Ms. Kiranmai S	JMAPK6603L	MA	No	01/05/2020	English	Assistant Professor	15/04/2024	Yes	Regular	
Mrs. Sreta Patr	BBXPP6496C	MA	No	29/06/2007	English	Assistant Professor	12/12/2022	Yes	Regular	
Mrs. G. Vanaja	AMZPG9185F	MA	No	05/04/2004	English	Associate Professor	08/10/2014	Yes	Regular	
Mrs. A. Sreesh	BEWPA3692D	MBA	No	12/03/2016	Management	Assistant Professor	10/02/2020	Yes	Regular	
Mr.S.M. Hussa	DFFPS3684H	MBA	No	01/04/2009	Management	Assistant Professor	12/04/2019	Yes	Regular	
Mrs.M. Sujatha	AZWPK6548G	MBA	No	01/09/2004	Management	Assistant Professor	07/06/2021	No	Regular	26/07/2024
Col.P V R Subr	APMPS0054B	MBA	No	18/04/2021	Management	Assistant Professor	01/08/2024	Yes	Regular	
Dr. Sheela Sing	AOEPT7860B	Ph.D	No	07/06/2024	Management	Associate Professor	01/08/2024	Yes	Regular	
Dr.K. Sandeep	BFVPK4902A	Ph.D	No	07/08/2019	Mathematics	Associate Professor	10/02/2020	Yes	Regular	
Dr.M. Naga Pa	CMZPM4902L	Ph.D	No	25/11/2024	Mathematics	Assistant Professor	05/03/2018	Yes	Regular	
Mr.B. Uppalaia	AEVPU4615E	M.Sc	No	25/05/2005	Mathematics	Associate Professor	25/09/2014	Yes	Regular	
Dr.P. Jaikanth \	BFJPY7274R	Ph.D	No	02/09/2020	Mathematics	Associate Professor	10/08/2023	No	Regular	25/09/2024
Mr.S. Shiva Ku	IPDPK3796B	M.Sc	No	10/12/2022	Mathematics	Assistant Professor	01/08/2024	Yes	Regular	

Dr. Uma Mahes	AAUPU0920F	Ph.D	No	09/02/2025	Mathematics	Associate Professor	22/07/2024	Yes	Regular	
Ms. Sakhina Kl	CHQPK3296P	M.Sc	No	16/08/2016	Mathematics	Assistant Professor	31/08/2024	Yes	Regular	
Mrs.A. Srilatha	ARFPA0009B	M.Sc	No	01/05/2018	Mathematics	Assistant Professor	18/07/2016	No	Regular	09/06/2025
Dr.R. Uma Mah	AKVPR1258C	Ph.D	No	18/02/2024	Physics	Associate Professor	08/01/2011	Yes	Regular	
Dr.T. Rambabu	AQZPT5974F	Ph.D	No	30/08/2024	Physics	Associate Professor	06/08/2012	Yes	Regular	
Dr.A. Srinivasa	ATEPA3351R	Ph.D	No	01/11/2011	Physics	Professor	17/09/2019	No	Regular	31/05/2023
Dr. Bivash Dola	BRIPD5397P	Ph.D	No	15/12/2020	Physics	Assistant Professor	01/06/2023	No	Regular	30/09/2024
Dr.G. Jagga Ra	BURPG3774R	Ph.D	No	09/08/2015	Physics	Associate Professor	08/07/2024	Yes	Regular	
Dr.M. Prasad	ATSPM1948C	Ph.D	No	27/10/2022	Physics	Associate Professor	05/08/2024	Yes	Regular	
Mr.M. Pradeep	DFJPM2924A	M.Sc	No	01/06/2014	Physics	Assistant Professor	21/04/2022	No	Regular	31/05/2025
Dr.S. Arvind	AQHPS8867L	Ph.D	Yes	21/09/2013	AdhocNetworks	Professor	06/06/2019	Yes	Regular	
Mr.K. David raj	AUOPK9274C	M.Tech	Yes	28/04/2011	CSE	Associate Professor	11/11/2022	Yes	Regular	
Mr. Dharmendr	ASIPR2143M	M.Tech	Yes	31/08/2010	CSE	Associate Professor	31/03/2022	Yes	Regular	
Mrs.S. Mamath	DKYPS6843A	M.Tech	Yes	29/11/2014	CSE	Assistant Professor	24/07/2024	Yes	Regular	
Mr.P. Santosh	BEXPP8033A	M.Tech	Yes	24/05/2012	Electronics andCommunications	Assistant Professor	25/06/2018	Yes	Regular	
Mr.P. Kondalra	BPXPP2309R	M.Tech	Yes	05/04/2012	EmbeddedSystems	Assistant Professor	25/06/2018	Yes	Regular	
Mr.S.N.S. Sant	CFCPS1269C	M.Tech	Yes	05/05/2018	Engineering Design	Assistant Professor	16/10/2017	Yes	Regular	
Mr. Santhosh M	ALZPN5003A	M.Tech	Yes	04/08/2016	Machine Design and Dynamics	Assistant Professor	29/08/2020	Yes	Regular	
Dr. Motilal Laka	ADDPL3342C	Ph.D	Yes	10/10/2023	Material Science	Associate Professor	12/08/2024	Yes	Regular	
Mr.M. Siddarth	FKWPS7706C	M.Tech	Yes	21/04/2017	Power Electronics	Assistant Professor	10/07/2017	Yes	Regular	

Mrs.T. Sirisha	BBHPT7039P	M.Tech	Yes	31/05/2017	Power Electronics	Assistant Professor	18/06/2018	Yes	Regular	
Dr. Padmaja Pu	AVWPP7442G	Ph.D	Yes	26/11/2016	SoftwareEngineering	Professor	01/03/2022	Yes	Regular	
Mr.PVN Sai Ch	AKOPC4412E	M.Tech	Yes	10/03/2012	Thermal Engineering	Assistant Professor	24/08/2015	Yes	Regular	
Mrs.D.Udaya	BLLPD1502K	MA	No	29/06/2007	Management	Assistant Professor	27/06/2007	Yes	Regular	

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage=((NS1*0.8) + (NS2*0.2))/RF
2022-23(CAYm2)	540	27	20	10	67
2023-24(CAYm1)	600	30	22	11	66
2024-25(CAY)	720	36	30	13	74
				Average Percentage	68.85

9.2 Mentoring system (5)

Total Marks 5.00

Institute Marks : 5.00

Mentoring System at HITAM: Implementation and Practice

At HITAM, mentoring is a structured and campus-wide initiative designed to holistically support students through their academic journey, personal development, and career planning. Recognizing that every student is unique, our mentoring program helps in meaningful one-on-one interactions between faculty and students to build trust, guide academic progress, and nurture essential life skills.

To ensure the effectiveness of this initiative, HITAM offers a **Mentor Training Program** grounded in emotional intelligence and self-awareness. One such tool used in our training involves a self-assessment of traits like empathy, emotional regulation, time management, and social skills. Through this reflective process, mentors gain insights into their behavioural tendencies and communication styles, allowing them to better connect with and support their mentees.

Mentoring towards:

- Professional guidance & Career oriented
- Coursework-specific
- Emotional & Psychological
- All-round development

Each faculty mentor is assigned approximately 20 students, enabling close and continuous guidance throughout the academic year. To ensure consistency and meaningful interaction, mentoring sessions are conducted weekly during the designated Mentoring Hour. These sessions are scheduled as part of the academic timetable, encouraging in-person engagement that fosters stronger mentor-mentee relationships. This structured approach ensures that students receive timely academic, personal and career-related support in a proactive and supportive environment.

Each mentor takes care of the following activities towards their mentees:

- Academic performance and attendance tracking
- IDP (Individual Development Plan) creation and regular review
- Exposure to opportunities like clubs, certifications, entrepreneurship, and internships
- Exposure to opportunities like State / Central Government / AICTE / UGC Schemes, Scholarship provisions by various bodies
- Career goal-setting and employability readiness

Peer Mentoring: A Peer mentoring model is in place, where seniors including the Student Self Governance (SSG) team provides support in transitioning them to adopt the college life and towards academics and personal development.

Roles and Responsibilities: The role of student mentor is both rewarding and responsible. It takes empathy, patience, and a dedication to your mentees success and well-being. Furthermore, the specific roles may vary based on the goals and objectives of the mentoring programme.

- Help mentees understand course content and concepts, develop good study skills, time management abilities and academic goals
- Set a good example of a role model by exhibiting good behaviour, grooming, accountability, strong work ethic and demonstrate a commitment to academic and personal development.
- Maintain consistent communication with mentees in order to monitor their progress and well-being by being friendly and available to answer inquiries as well as address issues.
- Have the ability to suspend judgement, not to have prejudices and be willing to make time for any of the mentee's requirements.
- Assist mentees in determining their short-term and long-term academic / personal goals and develop action plans to attain their objectives and help the mentee in making annual action plan i.e. IDP: Individual Development Plan).
- Inform mentees about extracurricular activities, clubs, competitions and organizations that may be of interest to them, aligning with Career aspiration /IDP.
- Provide advice on career exploration, internships, and job search strategies to help mentees in developing their networking and professional communication abilities.
- Take part in mentor training programmes and workshops to improve mentoring skills to stay informed on campus policies, resources, and updates.
- Track mentee development, keep records of mentoring sessions, goals, and progress.
- Educate the mentees about higher studies opportunities in India and abroad eligibility criterion and its process.
- Respect mentee's worth and human dignity with reference to cultural, individual and role differences based on age, gender, ethnicity, culture, national origin, religion, disability, language and socioeconomic status.

The formal mentoring process culminates at the conclusion of the final year of study at the institution. It is anticipated that there would be comprehensive development of the mentee and the demonstration of significant effectiveness of the mentor. The formal mentoring process is closed through a feedback mechanism assessing the participant's experience with the mentoring programme. Informal mentorship is not restricted and hence may continue in accordance with the preferences and understanding of the mentor and the mentee.

Mentoring Process:

The mentoring system at HITAM follows a structured and systematic process to ensure continuous student support and development:

1. **Assignment of Mentees to Mentors**
   At the beginning of each academic year (during the first week), students are assigned to faculty mentors to initiate personalized mentoring.
2. **Maintenance of IDP and SPF Data**
   During the first four weeks, mentors collect and record data related to each students Individual Development Plan (IDP) and Student Profile Form (SPF) to understand their academic and personal background.
3. **Formal Mentor-Mentee Interactions**
   Scheduled weekly mentoring sessions are conducted during designated hours to promote consistent communication and engagement between mentors and mentees.
4. **Identification of Improvement Areas**
   Mentors identify key areas where students require improvement and take note of necessary interventions. Weekly updates are shared with the respective Heads of Department (HODs).
5. **Referrals for Additional Support**
   If required, students are referred to counsellor for further support. Updates regarding these referrals are sent bi-weekly to the Program Office.

6. **Documentation and ERP Updates**
   Mentee information is documented and regularly updated in the ERP system on a weekly basis to ensure transparency and tracking.
7. **Parent Interaction and Feedback**
   Mentors interact with parents twice per semester to discuss the progress and well-being of the students, collecting valuable feedback.
8. **Monthly Mentoring Reports**
   A comprehensive mentoring report summarizing the progress, interventions, and outcomes is submitted to the Program Office every month.

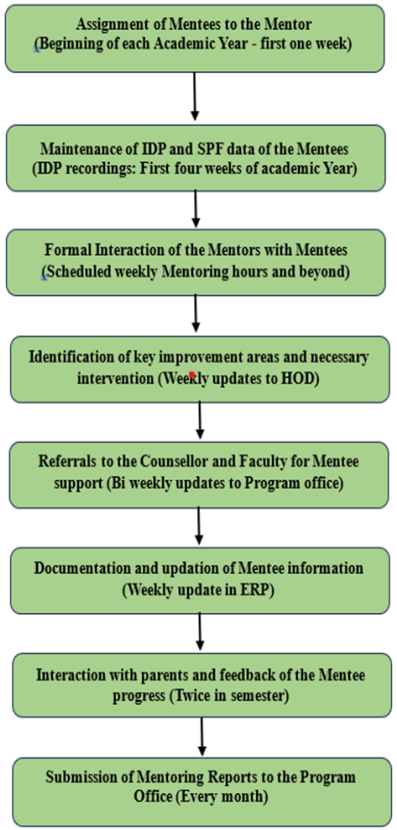


Figure 9.2.1: Flow chart of Mentoring process

HITAM Counsellor:

Dr. Ashalatha, Counsellor at HITAM is an accomplished educationist with 26 years of expertise in English Language and Literature, Guidance, Counselling, Educational Technology, and Handling in Student Psychological issues. With double Doctorates in English and Education, shes guided numerous research projects, contributed to various institutions as Principal, HoD, Coordinator, Resource Person, Research Supervisor and University Nominee. Active in academic and technical administration, shes published and presented 92 papers and promotes comprehensive learning practices, yoga, wellness initiatives as well as environmental conservation.

Figure 9.2.2: Dr. Ashalatha, Student Counsellor at HITAM

Mentoring Aptitude Tests Analysis

The mentoring aptitude tests are given to

- Evaluate the ability to communicate, listen and express appropriate communication channels.
- Analyze intrapersonal and interpersonal skills necessary for guiding the Mentees.
- Assess the personality type and stress type to ensure the Mentor's ability to adapt to any situation and support the Mentees.
- Measure emotional intelligence for understanding and responding to the needs of the Mentees.

Outcomes

- Identify faculty members with strong mentoring potential, support continuous development through FDPs / Mentor certifications and foster a dynamic academic environment.
- Analyze and orient the Mentors to transfer knowledge effectively, provide constructive feedback and monitor the learning of the Mentees.
- Ensure confidentiality in mentoring and handle the information sensitively.
- Assess the areas where improvement is needed for helping the Mentors to get suitably trained.

Score Card

Table 9.2.1: Personality Type Assessment

Score	Type	Indicators
100-150	**A**	High Stress Type - ambitious, aggressive, competitive, intolerant, determined, unfriendly, multitasking, impatient, energetic, motivated, dominant, stubborn, hasty, impatient, goal-oriented, stressed, pessimistic, workaholic, risk-taking, anxious, hostile, rigid, proactive, confident, passionate
76-99	**AB**	Medium Stress Type - Intelligent, aloof, unpredictable, quiet, sensitive, meticulous, outgoing, independent, self-centered, gentle, empathetic, caring, understanding, dependable, sociable, adaptable, rational, composed, adaptable, indecisive, accurate, logical, skeptical, organized, detached
30-75	**B**	Low Stress Type - peaceful, relaxed, stress free, procrastinating, flexible, stable, even-tempered, less competitive, adaptable, laid back, collaborative patient, calm, enthusiastic, spontaneous, inspiring, optimistic, balanced, strong, philosophical, expressive, good at listening, assertive, confident, creative

Table 9.2.2: Mentoring Readiness

Score	Mentoring Readiness

70 -75	V. Good
60 -70	Good
50 - 60	Satisfactory
26 - 49	Average
1 - 25	Not Satisfactory

Table 9.2.3: Emotional Quotient

A=1 Mark B=2 Marks

Score	**EQ**
25-40	EQ Dominant
1-25	IQ Dominant

Rubrics for the test:

The following test is designed to give an idea to assess the behaviour type. Read each statement carefully and then circle the number corresponding to the category of behaviour that best fits you.

1 = never, 2 = seldom, 3 = sometimes, 4 = usually, 5 = always

When you finish, add up all the circled numbers.

Table 9.2.4: Rubrics for the test

1.	I become angry or irritated whenever I have to stand in line for more than 15 minutes.	1 2 3 4 5
2.	I handle more than one problem at a time.	1 2 3 4 5
3.	It's hard finding time to relax and let myself go during the day.	1 2 3 4 5
4.	I become irritated or annoyed when someone is speaking too slowly.	1 2 3 4 5
5.	I try hard to win at sports and games.	1 2 3 4 5
6.	When I lose at sports or games, I get angry at myself or others.	1 2 3 4 5
7.	I have trouble doing special things for myself.	1 2 3 4 5
8.	I work much better under pressure or when meeting deadlines.	1 2 3 4 5
9.	I find myself looking at my watch whenever I am sitting around or not doing something active.	1 2 3 4 5
10.	I bring work home with me.	1 2 3 4 5
11.	I feel energized and exhilarated after being in a pressure situation.	1 2 3 4 5
12.	I feel like I need to take charge of a group in order to get things moving.	1 2 3 4 5

13.	I find myself eating rapidly in order to get back to work.	1 2 3 4 5
14.	I do things quickly regardless of whether I have time or not.	1 2 3 4 5
15.	I interrupt what people are saying when I think they are wrong.	1 2 3 4 5
16.	I'm flexible and rigid when it comes to changes at work or at home.	1 2 3 4 5
17.	I become jittery and need to move whenever I'm trying to relax.	1 2 3 4 5
18.	I find myself eating faster than the people I'm eating with.	1 2 3 4 5
19.	At work, I need to perform more than one task at a time in order to feel productive.	1 2 3 4 5
20.	I find myself being very picky and looking at small details.	1 2 3 4 5
21.	I take less vacation time than I'm entitled to.	1 2 3 4 5
22.	I become annoyed at people who don't work as hard as I do.	1 2 3 4 5
23.	I find that there aren't enough things to do during the day.	1 2 3 4 5
24.	I spend a good deal of my time thinking about my work.	1 2 3 4 5
25.	I get bored very easily.	1 2 3 4 5
26.	I'm active on weekends either working or doing projects.	1 2 3 4 5
27.	I get into arguments with people who don't think my way.	1 2 3 4 5
28.	I have trouble rolling with the punches whenever problems arise.	1 2 3 4 5
29.	I interrupt someone's conversation in order to speed things up.	1 2 3 4 5
30.	I take everything I do seriously.	1 2 3 4 5

Total =

Table 9.2.5: Sample Faculty score card:

S. No.	Name of the Employee	Designation	Personality Type	Stress Type	Mentoring Aptitude	IQ Dominant / EQ Dominant
1	Mr. K. Suresh	Associate Professor	B	Low	Satisfactory	Moderately EQ Dominant
2	Mr. S. V. Satyanarayana	Asst. Professor	AB	Medium	Good	Highly EQ Dominant
3	Ms. P. Madhavi	Asst. Professor	B	Low	Good	Highly EQ Dominant
4	Mr. M. Siddhartha	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
5	Dr. M Chiranjivi	Asso. Professor	AB	Medium	Good	Highly EQ Dominant
6	Mrs T Sirisha	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
7	Mrs M Rani	Asst. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
8	Mrs. U Divya	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
9	Mr.P.Praveen	Teaching Assistant	A	High	V. Good	Moderately EQ Dominant
10	Mr.S.Siva Raj	Teaching Assistant	A	High	V. Good	Moderately EQ Dominant
11	Mr.P.Anjaiah	Teaching Assistant	A	High	V. Good	Average EQ Dominant / Moderately IQ Dominant
12	Mr.G.Singaiah	Asso. Professor	A	High	Good	Moderately EQ Dominant
13	Mr.P.V.N.Sai Chandu	Asso. Professor	B	Low	Good	Moderately EQ Dominant
14	Mr. Santhosh Madeva Naik	Asso. Professor	B	Low	V. Good	Highly EQ Dominant
15	Mr.P.Praveen	Asst. Professor	B	Low	Good	Highly EQ Dominant
16	Mrs.N Krishnaveni	Asst. Professor	AB	Medium	Good	Highly EQ Dominant
17	Mr.Chetla Venu Gopal	Asst. Professor	B	Low	Good	Moderately EQ Dominant

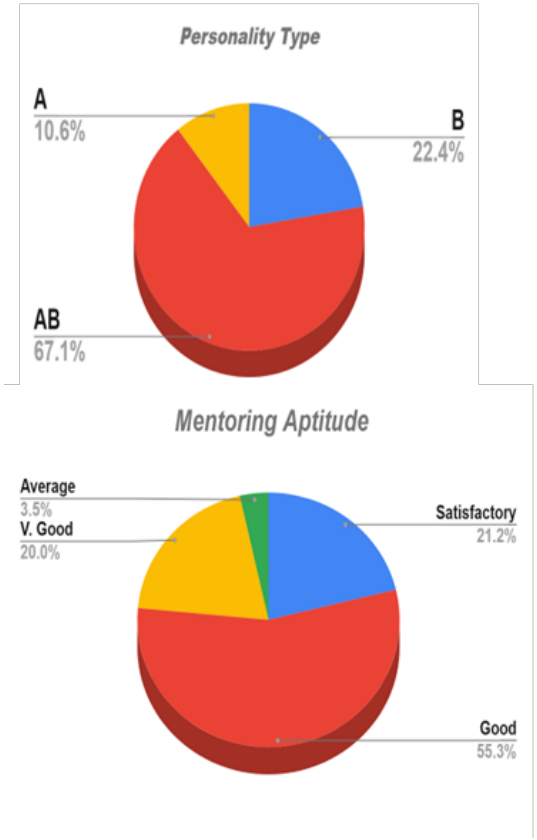
18	MVA Ramakrishna	Asso. Professor	AB	Medium	V. Good	Highly EQ Dominant
19	Dr..S.V.Devika	Professor	A	High	Good	Moderately EQ Dominant
20	Mrs.K.Bindhu madhavi	Asso. Professor	AB	Medium	Good	Highly EQ Dominant
21	Mr.P.Kondalrao	Asst. Professor	AB	Medium	Good	Highly EQ Dominant
22	Mr.P.Santosh	Asst. Professor	AB	Medium	Good	Highly EQ Dominant
23	Dr. J.Rajeshwar Goud	Asso. Professor	A	High	Good	Highly EQ Dominant
24	Mr. Jagadeesh Chandra Prasad	Asso. Professor	AB	Medium	Good	Moderately EQ Dominant
25	Ms.Tejaswi V	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
26	Mrs M Rani	Asst. Professor	AB	Medium	Good	Highly EQ Dominant
27	Mr K Akhil	Lab.Asst.	AB	Medium	Good	Moderately EQ Dominant
28	Dr K Satish Kumar	Professor	AB	Medium	Good	Moderately EQ Dominant
29	Dr Omprakash	Asst. Professor	B	Low	Good	Highly EQ Dominant
30	Mr. T Naveen Kumar	Teaching Assistant	B	Low	V. Good	Average EQ Dominant / Moderately IQ Dominant
31	Mr G Venkatesh	Teaching Assistant	AB	Medium	Good	Moderately EQ Dominant
32	Mr. Vednidhi Tiwari	Teaching Assistant	AB	Medium	Satisfactory	Moderately EQ Dominant
33	Mr. T Venkanna Babu	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
34	Dr T Satish Kumar	Professor	AB	Medium	Good	Moderately EQ Dominant
35	Dr.Padmaja Pulicherla	Professor	B	Low	Good	Highly EQ Dominant
36	Mr.B.Surendra Reddy	Asso. Professor	AB	Medium	Good	Highly EQ Dominant

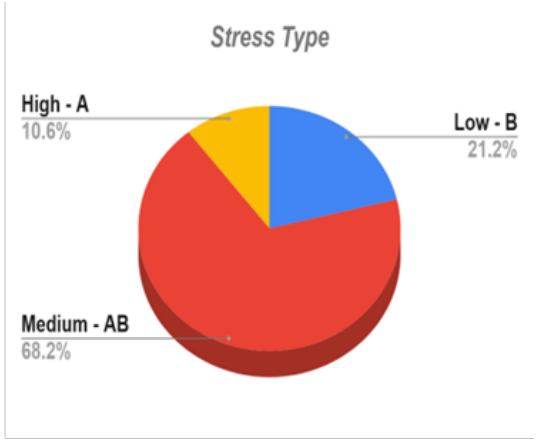
37	Mr.T.Raghavendra Gupta	Asso. Professor	AB	Medium	Good	Highly EQ Dominant
38	Mrs.K.Veena	Asst. Professor	AB	Medium	Good	Highly EQ Dominant
39	Mrs. M Devi	Lab.Asst.	AB	Medium	Satisfactory	Moderately EQ Dominant
40	Mrs. Zeenath jaha Begum	Asst. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
41	Mrs P Bhargavi	Asst. Professor	B	Low	Satisfactory	Moderately EQ Dominant
42	Mr Jeevan Babu	Asst. Professor	B	Low	Average	Average EQ Dominant / Moderately IQ Dominant
43	Mrs. K Sunitha	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
44	Dr.M.Rajeshwar	Asso. Professor	AB	Medium	Average	Moderately EQ Dominant
45	Mrs. P Swathy	Asso. Professor	AB	Medium	V. Good	Highly EQ Dominant
46	Mr.Vadla Navakishore	Asso. Professor	B	Low	Satisfactory	Average EQ Dominant / Moderately IQ Dominant
47	Ms.Chatragadda Shanthi priya	Asst. Professor	A	High	Good	Moderately EQ Dominant
48	Mr.Bhaskar Das	Asso. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
49	Ms.Chintolla Surekha	Asst. Professor	B	Low	Good	Moderately EQ Dominant
50	Mrs P Ila Chandana	Asso. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
51	Dr. M V A Naidu	Asso. Professor	AB	Medium	Good	Moderately EQ Dominant
52	Mr.Sahik. Meer Subhani Ali	Asst. Professor	B	Low	Satisfactory	Moderately EQ Dominant
53	Mr.Thambi Joseph	Asst. Professor	B	Low	Good	Highly EQ Dominant
54	Mr David Raju	Asst. Professor	AB	Medium	V. Good	Highly EQ Dominant

55	Mrs. G Aparna	Asso. Professor	AB	Medium	V. Good	Highly EQ Dominant
56	Mr. N Shiva Kumar	Asst. Professor	AB	Medium	V. Good	Highly EQ Dominant
57	Mrs P Ramana	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
58	Mr. P Tharun	Teaching Assistant	AB	Medium	Satisfactory	Moderately EQ Dominant
59	Mrs. B Aruna Kumari	Asst. Professor	AB	Medium	V. Good	Moderately EQ Dominant
60	Mrs. Rohini Jadhav	Asst. Professor	AB	Medium	V. Good	Highly EQ Dominant
61	Mr. D Manikanta	Asst. Professor	AB	Medium	V. Good	Highly EQ Dominant
62	Dr. Srinivas Mekala	Asst. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
63	Mr. Periaswamy	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
64	Ms. Richa Tiwari	Asst. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
65	Mr. S N Murthy	Asst. Professor	B	Low	V. Good	Highly EQ Dominant
66	Ms. Ch Meghana	Asst. Professor	AB	Medium	V. Good	Highly EQ Dominant
67	Dr.K.Sandeep Kumar	Asso. Professor	AB	Medium	V. Good	Highly EQ Dominant
68	Mr.R.Uma Maheshwar Singh	Asso. Professor	B	Low	Good	Highly EQ Dominant
69	Mr.T.Rambabu	Asso. Professor	AB	Medium	Good	Highly EQ Dominant
70	Mr.B.Uppalaiah	Asso. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
71	Mrs.A.Srilatha	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant
72	Mrs. Lavanya Nagamalla	Asso. Professor	AB	Medium	Good	Moderately EQ Dominant
73	Dr.Shradha Binani	Asso. Professor	A	High	Satisfactory	Moderately EQ Dominant
74			AB	Medium		

	Mrs.K.Mallesh Sujatha	Asst. Professor			Satisfactory	Moderately EQ Dominant
75	Dr.B.K.Rajya lakshmi	Asst. Professor	A	High	Good	Highly EQ Dominant
76	Mr.N.Venkata Rajendra kumar	Asso. Professor	B	Medium	V. Good	Highly EQ Dominant
77	Mrs.A.Usha	Lab Asst	AB	Medium	Good	Moderately EQ Dominant
78	Mr. M Pradeep Kumar	Asso. Professor	B	Low	Good	Highly EQ Dominant
79	Mr. Bivash Mandal	Asst. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
80	Mrs G Vanaja	Asso. Professor	AB	Medium	Average	Average EQ Dominant / Moderately IQ Dominant
81	Dr. Bivash Dolai	Asst. Professor	AB	Medium	Good	Highly EQ Dominant
82	Dr Jaikanth Yadav	Asst. Professor	AB	Medium	Satisfactory	Moderately EQ Dominant
83	Ms A Srunjana	Asst. Professor	AB	Medium	Good	Moderately EQ Dominant

Faculty Mentoring Test Result Analysis for above table:





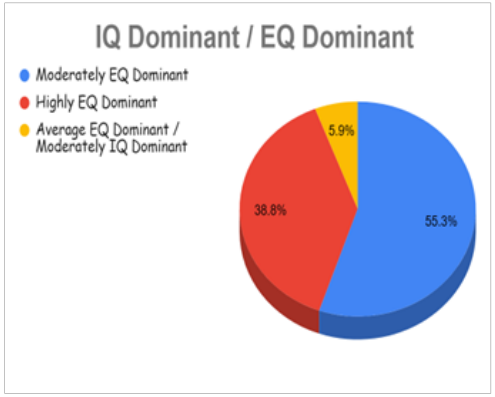


Figure 9.2.3: Faculty Mentoring test result analysis

Outcome: HITAM has significantly contributed to the overall well-being and success of students. Through regular one-on-one interactions and timely interventions, many students have received valuable academic guidance, emotional support, and career counseling. The dedicated mentoring hour has become a safe space for students to express concerns and seek advice.

9.3 Feedback Analysis (10)	**Total Marks 10.00**
9.3.1 Feedback on Teaching and Learning Process and Corrective Measures Taken, if any (5)	Institute Marks : 5.00

At HITAM, a robust multi-layered feedback mechanism is in place to ensure continuous improvement in teaching quality and student satisfaction.

Frequency of Feedback: Twice in a semester

1.ERP-Based Student Feedback

Student feedback is collected online via the ERP system once every semester. This feedback covers a detailed evaluation of each faculty member based on clearly defined teaching and mentoring parameters. After the feedback window closes:

- A summary report is generated and shared with the respective Heads of Departments.
- The Principal and HODs jointly review the data and recommend corrective or enhancement measures wherever necessary.
- Action plans are discussed with faculty to ensure accountability and progress.

2.CRC (Class Representative Council) Feedback

The principal personally conducts fortnightly feedback sessions with CRC members representing all academic programs and years.

- This platform enables students to raise academic and administrative concerns in real time.
- Based on the feedback received, prompt actions are initiated, and progress is tracked by the academic office.

Sample reports with Rubrics:

Faculty Performance Evaluation Format:

Feedback is collected through a structured form twice a year for each semester, evaluating faculty across multiple teaching dimensions.

Rubrics for Faculty Feedback evaluation:

1: Has the faculty covered entire Syllabus as per lesson Plan?

2: Has the faculty covered relevant topics beyond syllabus?

3: Rate Effectiveness of faculty in terms of technical content/course content

4: Rate Effectiveness of faculty in terms of Communication skills

5: Rate Effectiveness of faculty in terms of Use of teaching aids

6: Were you comfortable with the Pace on which contents were covered

7: Was the faculty able to Motivation and inspiration for students to learn

8: Did the faculty Support for the development of Student skill (Practical demonstration, Hands on training)

9: Clarity of expectations of students

10: Does the faculty provide Feedback provided on Students progress

11: Is the faculty Willing to offer help and advice to students beyond class hours

Table 2.3.1: Sample Faculty Feedback Evaluation Summary

S.No	Name of the Faculty	Subject Taught	1	2	3	4	5	6	7	8	9	10	11	Overall Percentage	Result
1	Dr. K. Sandeep	"Statistical And Mathematical Foundations"	93	89	91	91	90	91	88	88	90	88	88	90	Excellent
2	Dr. M Rajeshwar	"Object Oriented Programming Using Java"	86	83	87	87	85	84	85	84	84	83	84	85	Very Good
3	Mr. Jagadeesh Chandra	Microwave And Optical Communicatio	89	88	84	89	88	89	89	86	86	86	86	87	Very Good

	prasad R	ns Lab													
4	Ms. CH. Meghana	Introduction To Artificial Intelligence	69	68	67	70	72	71	70	69	67	71	72	70	Average
5	Mr. CH. Nagababu	Digital Signal Processing	70	60	55	60	55	48	30	35	55	35	55	50	Poor
6	Mr. Bhaskar Das	Data Structures And Algorithms*	97	95	95	93	92	92	94	91	90	88	90	92	Excellent
7	Mr. S. Shiva Kumar	Statistical And Mathematical Foundations	89	84	87	85	86	86	87	85	86	85	84	86	Very Good
8	Ms. Krishna Jyothi	Database Management Systems	87	86	86	85	84	84	85	85	83	82	85	85	Very Good
9	Mr. M Joseph	Database Management Systems	88	87	87	86	86	86	84	87	84	84	85	86	Very Good
10	Mr. Rohini Jadav	Software Engineering	76	75	74	74	73	75	75	75	75	75	74	75	Good
11	Ms. Sure Mamatha	Data Mining And Data Analytics	70	71	72	74	68	73	70	71	70	71	70	71	Good

- **Performance Ratings:**
- **Excellent**: ≥ 90%
- **Very Good**: 80% – 89%
- **Good**: 70% – 79%
- **Average**: 60% – 69%
- **Poor**: < 60%

Sample Action Taken Report:

Based on the comprehensive student feedback collected across 11 parameters, HITAM has taken the following actions to ensure continuous enhancement in teaching quality and student satisfaction:

1. **Poor Feedback:**
    - **Faculty Identified:** Mr. CH. Nagababu (Digital Signal Processing)
    - **Action Taken:** The faculty member was initially counselled and provided support to improve. Despite multiple efforts, there was no visible progress. As a result, the course was reassigned to another competent faculty member to ensure better delivery and learning outcomes.
2. **Average Feedback:**
    - **Faculty Identified:** Ms. CH. Meghana (Introduction to Artificial Intelligence)

- **Action Taken:** To strengthen course delivery, an adjunct faculty was assigned to support teaching. The primary faculty was guided to enhance classroom engagement and subject clarity through structured mentorship.

3. **Good Feedback:**
   - **Faculty Identified:** Mr. Rohini Jadav and Ms. Sure Mamatha
   - **Action Taken:** These faculty members were advised to pursue continuous improvement through Faculty Development Programs (FDPs), NPTEL courses, and internal pedagogical workshops to elevate their teaching effectiveness.
4. **Very Good Feedback:**
   - Faculty in this category were appreciated for their consistent performance and were encouraged to continue their development through advanced training and by mentoring peers.
5. **Excellent Feedback:**
   - **Faculty Identified:** Dr. K. Sandeep and Mr. Bhaskar Das
   - **Action Taken:** These faculty members were recognized in the faculty meetings to motivate others to follow the best practices and the initiations carried out by them.

9.3.2 Feedback on Academic Facilities (5) | Institute Marks : 5.00

At HITAM, feedback on campus facilities is collected systematically through the ERP system and through CRC meetings every semester to ensure continuous improvement in infrastructure, amenities, and student services. The feedback process allows students to share their experiences regarding classrooms, laboratories, library resources, hostel facilities, transportation, and other campus utilities. This structured approach helps in identifying key areas that need enhancement, ensuring that the institution provides an optimal learning environment.

Table 9.3.2: ERP Feedback

S. No	Activity	2024-25	2023-24	2022-23	Grade
1	Library	66%	63%	62%	Good
2	Canteen	72%	71%	73%	Good
3	Hostel	72%	71%	73%	Good
4	Transport	79%	75%	72%	Very Good
5	Dispensary	78%	81%	79%	Very Good
6	Laboratories	73%	71%	75%	Very Good
7	Conduct of Examinations	79%	78%	77%	Very Good
8	Discipline	82%	79%	78%	Very Good
9	Office	73%	71%	72%	Good

Table 9.3.3: CRC Feedback

S. No	Activity	2024-25	2023-24	2022-23	Grade

1	Sports	75%	74%	75%	Very Good
2	Classrooms	77%	77%	76%	Very Good
3	Common Rooms	81%	80%	79%	Very Good
4	Internet and Wi-fi	85%	75%	76%	Very Good
5	Drinking water facility	74%	71%	74%	Good

Action Taken Report:

Once the feedback is collected, it is summarized and analyzed to identify recurring concerns and suggestions. Students also play an active role in various committees, where they provide real-time observations and recommendations based on their experiences. These committees serve as a crucial link between students and administration, ensuring that concerns are addressed proactively. The summarized feedback is then reviewed by the relevant authorities, and an action plan is formulated to resolve identified issues.

1. Library (Good – Avg. 64%)

Action Taken: Library operating hours were extended from 5:00 PM to 6:00 PM to provide students with more access for study and research.

2. Canteen (Good – Avg. 72%)

Action Taken: The canteen vendor was replaced based on quality and hygiene feedback. A revised and diversified menu was introduced. New food options such as a Chinese stall and a bakery corner were added to enhance variety and student satisfaction.

3. Hostel Facilities (Good – Avg. 72%)

Action Taken: Regular monitoring and inspection schedules were implemented to maintain cleanliness and ensure timely maintenance. Hostel wardens were made more accountable with routine reporting.

4. Transport (Very Good – Avg. 75%)

Action Taken: Two additional transport routes were added to cater to more students. Bus timings were restructured based on student needs and punctuality was monitored.

5. Dispensary (Very Good – Avg. 79%)

Action Taken: No immediate changes required. The facility continues to function efficiently with regular supply checks and availability of medical staff.

6. Laboratories (Very Good – Avg. 73%)

Action Taken: A modernization drive was initiated in multiple labs, where outdated equipment was replaced or upgraded with industry-relevant tools and instruments.

7. Conduct of Examinations (Very Good – Avg. 78%)

Action Taken: Midterm examinations were transitioned to online evaluation. Script view access was provided to students post-assessment to enhance transparency and self-review.

8. Discipline (Very Good – Avg. 80%)

Action Taken: Sniffer dogs were deployed occasionally to detect drugs or harmful items on campus. A dress code policy was enforced. Lady gatekeepers were stationed at entry. Senior faculty members were assigned regular discipline rounds to ensure order and compliance.

9. Office Services (Good – Avg. 72%)

Action Taken: Additional administrative staff were recruited under the Program Office. The office is now more responsive to student attendance tracking and parent communication.

Corrective actions are implemented based on the severity and feasibility of the suggestions. Common actions taken include upgrading lab equipment, improving internet connectivity, enhancing hostel facilities, addressing maintenance concerns, and optimizing classroom infrastructure. The progress of these corrective measures is monitored during the assessment period, and necessary follow-ups are conducted to ensure their effectiveness.

9.4 Training and Placement Support (10)	Total Marks 10.00
	Institute Marks : 10.00

The Career Development Centre (CDC) at the Hyderabad Institute of Technology and Management (HITAM) supports the students in shaping and managing their careers by building key ingredients required for a student to be a complete professional. The Centre will focus on building life skills or employability skills through various training programs and an extensive industry connect program ensuring an all-round development. These skills not only improve the chances of placements for students but also help in developing professional attributes for continuing and growing in the job. These are the skills, attitudes and actions that enable professionals to get along with their fellow workers, reporting managers/ supervisors and to take informed decisions at crucial times.

CDC-MAJOR FUNCTIONS:

The major functions of the Career Development Centre involve:

- Planning and organizing campus as well as off-campus selection activities.
- Inviting specialists to address students on self-enhancement, confidence building, etc.
- Conducting Individual Development Programme on regular basis to the students of first year to final year course of all branches. This deals with soft skill development, Personality Development, etc.
- Organizing Aptitude Tests to students
- Conducting GDs, Mock Interviews, etc., to prepare the students to face interviews.
- Coordinating for Industrial Visits and vacation In-plant Training in industries for students from 2nd year onwards

Campus placements:

The training and placement division of CDC critically reviews the training programs and update based on the market strategy. The training cell initiates, evaluates and processes different training programs in the Institute. Some successful initiatives of the training cell are Industry Linkage - periodic visits to relevant industries. Every training program is effectively designed to prepare the students to face the different categories of industries while appearing for the placement drives.

Career Assurance Program (CAP):

HITAM offers CAP a unique education that caters not only to outgoing batches but to the entire student community from first year as well. Training need analysis is done to categorize the individual requirements of each student. The students are then trained for exponential growth by overcoming their mistakes and through practical application of the knowledge they have gained.

Online Assessments:

The CDC will conduct online assessments for all students on regular basis. These assessments will be measuring students‟ abilities on numerical ability, logical reasoning, data interpretation and problem solving on one hand and on the other side it measures Academic knowledge thereby helping organizations reach the right candidates and helping students identify development areas much in advance.

Profile Discussion and Personalized Counseling:

Each student at the campus goes through a personalized profile discussion, assessment and counseling session with the expert counselors. This enables the student to assess his strengths, weaknesses and improvement areas well in time before he begins his journey as a professional.

Career Development Plan:

The CDC counselor and student will jointly work towards creating an action plan focused on improvement of his identified areas of development. The same plan will be having clear milestones against specific actions the student needs to take. The actions could be self-driven, activities which the CDC has planned as a part of the calendar or could also be training programs he undertakes online.

HR Conclave:

CDC organizes regular Annual meet with HR's from various industries to bring awareness to the students about the current Market scenario, trends, technologies and required skill sets. It also serves as a networking forum for all prominent industry connections.

CDC Team: HITAM has separate Department towards conduction of Training and Placement activities. The team consists of: Dean Careers supported by Assistant Dean Careers, Head CDC and office assistants.

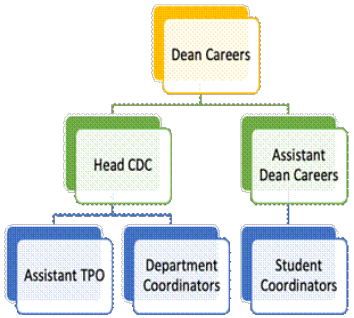


Figure 9.4.1: CDC Team

Table 9.4.1: CSD Team details:

S. No	Designation	Name of the staff
1	Dean Careers	Col. Pavan
2	Head CDC	Mr. Harsha
3	Assistant Dean Careers	Mr. Deepti
4	Assistant Training and Placement Officer (TPO)	Mr. Hari
5	Department Coordinators	ECE: Mr. Venkanna Babu
		EEE: Mr. Siddhartha
		Mech: Ms. Shyamala
		CSE: Dr. T. Satish
		CSD: Mr. Bobby
		CSM: Mr. Manikanta
6	Student Coordinator	Mr. Karthik, Student of AIML Student Dean CDC, SSG.

Responsibilities of Dean Careers:

1. Strategic Planning: Develop and implement long-term strategies for student career development aligned with institutional goals.
2. Student Development Programs: Coordinate soft skills training, resume writing, interview preparation, and personality development workshops.
3. Industry Collaboration: Build and maintain partnerships with industries, corporates, startups, and government organizations.

4. Internships & Placements: Oversee summer internships, industrial training, and final placements for students.
5. Corporate Relations: Host corporate talks, guest lectures, industry panels, and career fairs.
6. Skill Gap Analysis: Assess skill deficiencies and arrange bridging programs or workshops.
7. Tracking Alumni Success: Monitor alumni career trajectories to improve institutional offerings and engagement.
8. Placement Analytics: Maintain and analyze placement data, student profiles, recruiter feedback, and market trends.

Responsibilities of HEAD CDC:

The Head of the Career Development Centre plays a crucial role in ensuring students are career-ready and aligned with industry expectations. The responsibilities span four major domains, each essential to creating a robust and inclusive placement ecosystem.

1. Educate Students Accordingly

- **Recent Job Trends**: Continuously monitor industry trends, emerging job roles, and skills in demand to ensure students are prepared for the future workforce.
- **Career Awareness**: Conduct sessions, workshops, and one-on-one guidance to educate students on diverse career paths and industry expectations.
- **Skill Mapping**: Help students align their academic and technical skills with market needs through relevant certifications and training.

2. Execute Hiring Events

- **Network with Employers**: Build and sustain relationships with recruiters, industry leaders, and HR professionals to facilitate hiring opportunities.
- **Organize Placement Drives**: Plan and manage campus recruitment events, job fairs, and virtual hiring sessions.
- **Coordinate Industry Engagements**: Facilitate guest lectures, panel discussions, and mentorship programs to enhance industry exposure.

3. Promote High CTC Placements

- **Screen Potential Students**: Identify and groom high-performing students suitable for high-package placements.
- **Exclusive Training Programs**: Organize specialized training for students aiming at product-based companies or premium recruiters.
- **Pre-Placement Support**: Provide mock interviews, aptitude tests, and resume-building support tailored to top-tier companies.

4. Ensure Equal Opportunity

- **Placement Policy**: Design, implement, and enforce a transparent placement policy that ensures fairness and accountability.
- **Inclusive Opportunities**: Create a level playing field for all students, regardless of academic background, by identifying suitable roles and companies.
- **Support & Guidance**: Extend support to underperforming or non-placed students through re-skilling and internship opportunities.

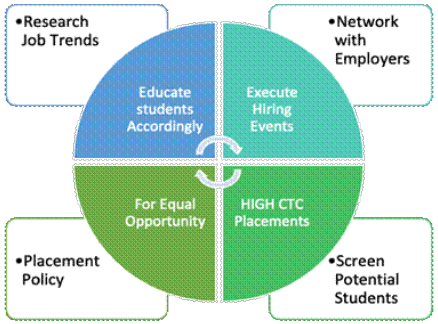


Figure 9.4.2: Responsibilities of CDC

Responsibilities of Assistant TPO

Assistant Training and Placement Officer

1. Assist in conducting CDC training and assessment programs
    1. Prepare the training and assessment time table
    2. Venue confirmation and preparedness
    3. Coordinate with CDC coordinators for students' participation and attendance

    4. Collect feedback from students

2. Assist in placement
    1. Coordinate campus recruitment activities
    2. Researching companies
    3. Create posters on drive information
    4. Making arrangements for pre-placement talks, tests, and interviews
3. Students connect
    1. Regular interactions on training, assessments, career opportunities, resume building, professional development, and placements
4. Alumni connect
    1. Build and maintain relationships with alumni for industry interactions, internships, mock interviews, placements, and job referrals.
5. Record keeping
    1. Maintain records of all CDC activities
6. Collect Offer Letters, Acceptance Letters and On-boarding Proof
7. Maintain a departmental level placement calendar and keep the students informed.
8. Review the Shortlisted Students
9. Creating awareness among the students about the training calendar and curriculum.

Responsibilities of Department Coordinators:

1. Inform the students about placement drives from time to time.
2. Ensure Students Registration and participation for Placement Drives
3. Following up with Shortlisted Students and ensuring their presence on the day of the drive
4. To present on the Day of Placement Drives for their department.
5. Support in designing the Training Calendar & Curriculum by providing the required information to CDC
6. Coordinate in conducting the training by making arrangements for the required classrooms and labs
7. Ensuring all students access to training materials (physical or online)
8. Inform the students on the Assessment Schedule.
9. Collect proof of Internship Completion Certificate and submit to CDC
10. Maintain Departmental Level Training, Internship, Project, and Placement Records

Table 9.4.2: Capacity building and Skills Enhancement Initiatives taken by the CDC (Batch 2019-23)

S. No	**Name of the capability Enhancement Program**	**Number of students Enrolled**
1	Aptitude and Reasoning	1800
2	Python Programming Training	1393
3	Programming in C	485
4	Java Programming	55
5	Seminar on Self Confidence & Attitude for Future Entrepreneurs	180
6	Awareness session on District Industrial Centre for New Beginners in Business	220
7	Seminar on Business Opportunities & Marketing Strategies	80

8	A session on Human Values, Anti-raging, Womens Safety, and Cyber-crimes	380
9	IELTS Training for III-II students of 2020-24 Batch	33

Table 9.4.3: Capacity building and Skills Enhancement Initiatives taken by the Institution (Batch 2020-24)

S. No	**Name of the capability Enhancement Program**	**Number of students Enrolled**
1	Aptitude and Reasoning Training	1800
2	TCS NQT Training	313
3	Full Stack Development using Python, DSA, OOPS Technical Training	528
4	Problem Solving on Hacker Rank/Leet Code, DSA Training	528
5	Problem Solving with Python and p5.js Training	587
6	Mock Interviews	34

Table 9.4.4: Capacity building and Skills Enhancement Initiatives taken by the Institution (Batch 2021-25)

S. No	**Name of the capability Enhancement Program**	**Number of students Enrolled**
1	Career Awareness Session and Collecting Career Aspirations for II-I 2023-27 Batch	626
2	AON Co Cubes Y-1 Assessment for 2021-25 Batch	448
3	Company Specific Trainings for IV-I (2021-25 Batch)	502
4	Mock GDs and Mock Interviews for IV-I of 2021-25 Batch	35
5	Career Enablement Programme for III-I 2022-26 Batch	585

Table 9.4.5: Impact Analysis: IV year

Year	Total No of Students	Placements	Higher Studies
2022-23	332	211	20
2023-24	472	284	23
2024-25	504	110 and ongoing	-

9.5 Start-up and Entrepreneurship Activities (5)	Total Marks 5.00
	Institute Marks : 5.00

HITAM has established an incubation center to promote entrepreneurship among its students and faculty. This center serves as a platform to nurture innovative ideas and transform them into successful startups. It provides aspiring entrepreneurs with essential resources, guidance, and mentorship to develop their business ventures from ideation to execution.

Innovation at HITAM: Nurturing Future-Ready Engineers

At Hyderabad Institute of Technology and Management (HITAM), innovation is not an add-on—it is embedded in the very fabric of the institution. HITAM believes in "Doing Engineering rather than just Studying Engineering", fostering a culture where students are encouraged to ideate, experiment, and create from the very beginning of their academic journey.

1. Foundation Through Design Thinking (First-Year Initiation):

The innovation journey at HITAM begins from the first year with a mandatory course on Design Thinking. This course enables students to:

- Understand problem-solving in a human-centric manner.
- Work on real-world community-based or industry-driven problems.
- Develop empathy, ideation, prototyping, and testing skills early on.

2. Structured Innovation Ecosystem – From 'Xplore' to 'Innovations':

HITAM has a well-structured progression of innovation-focused programs:

- **Xplore:** A platform where First year students start exploring emerging technologies and develop POC (Proof of Concept) models.
- **Innovations:** Second and Third-year students work in multidisciplinary teams to develop impactful projects, often aligned with SDGs and industry relevance. It is not limited to years, anyone interested are welcome to implement their innovations.
- Students participate in national-level competitions, hackathons, and innovation challenges, gaining recognition and real-world exposure.

3. Multidisciplinary Innovation and Incubation Support:

- The Incubation Center at HITAM acts as a launchpad for entrepreneurial ideas and supports multidisciplinary student projects.
- Students from various departments collaborate and receive mentorship, prototyping support, and access to funding opportunities.
- Partnerships with industries and research organizations strengthen the pipeline from idea to market-ready product.

4. Ministry of Education's Innovation Cell (MIC):

- HITAM has an active MIC Cell, aligned with the Ministry of Educations Innovation Cell.
- Regular activities like IPR workshops, entrepreneurship boot camps, and ideation contests are conducted under this initiative.
- HITAM received a prestigious 4-Star Rating from MIC, one of the highest in the state of Telangana, for its excellence in:
    - Innovation ecosystem creation
    - Promotion of IPR (Intellectual Property Rights)

- Entrepreneurial education and student startups

Table 9.5.1: List of Activities

S. No	Activity	Year
1	Workshop on “Entrepreneurship and Innovation” as Career Opportunity	2024
2	Problem Solving and Ideation Workshop	2024
3	Poster Presentation of Ideas/PoC & linkage with Innovation Ambassadors/Experts for Mentorship Support.	2024
4	Session on Entrepreneurship	2024
5	Workshop on Design Thinking, Critical thinking and Innovation Design	2024
6	Innovation & Entrepreneurship Outreach Program in Schools/Community Workshop on Entrepreneurship Skill, Attitude and Behavior Development	2024
7	Session on Achieving Problem-Solution Fit and Product-Market Fit	2024
8	Exposure Visit to Pre-incubation units such as Ideas Lab, Fab lab, Makers Space, Design Centers, City MSME clusters, workshops etc.	2024
9	Inter/Intra Institutional Innovation Competition/Challenge/Hackathon and Reward Best Innovations.	2024
10	Workshop on Prototype/Process Design and Development.	2024
11	Session/ Workshop on Business Model Canvas (BMC)	2024
12	Field/Exposure Visit to Incubation Unit/Patent Facilitation Centre/Technology Transfer Centre such as Atal Incubation Centre etc.	2024
13	Session on “How to plan for Start-up and legal & Ethical Steps”	2024
14	Workshop on Intellectual Property Rights (IPRs) and IP management for start up	2024
15	Mentoring Event: Demo Day/Exhibition/Poster Presentation of Business Plans & linkage with Innovation Ambassadors/Experts for Mentorship	2024

	Support.	
16	Entrepreneurship	2024
17	Session on Innovation/Prototype Validation – Converting Innovation into a Start-up or Session on Achieving "Value Proposition Fit" & "Business Fit"	2024
18	Session on Accelerators/Incubation - Opportunities for Students & Faculties - Early-Stage Entrepreneurs	2024
19	Innovation & Entrepreneurship Outreach Program in Schools/Community	2024
20	Organize an Inter/Intra Institutional Start-up Competition and Reward Best Start-ups.	2024
21	Mentoring Event: Demo Day/Exhibition/Poster Presentation of Start-Ups & Linkage with Innovation Ambassadors/Experts for Mentorship Support.	2024
22	Entrepreneurship session-1	2024
23	Entrepreneurship session-2	2024
24	Innovation & Entrepreneurship Activity - St. Anthonys High School, Sanga Reddy	2024
25	Innovation & Entrepreneurship Activity - St. Peters School, Sanga Reddy	2024
26	Innovation & Entrepreneurship Activity - Zilla Parishad High School, Miyapur	2024
27	YUKTI Innovation-Idea Prototype details submission	2024
28	YUKTI Innovation - Startup	2024

5. Holistic Development through Innovation:

Innovation at HITAM is not limited to labs or competitions. It permeates through:

- Curriculum design with project-based learning (PBL) components.
- Community-based innovation through Unnat Bharat Abhiyan.
- Encouraging students to take ownership of their learning and contribute to sustainable development.

Outcomes:

6 Startup has been established by the students till now.

Table 9.5.2: List of Startups in our college

S. No	Name of Venture/Startup	DPIIT/Start up India Registration No.	Year of recognition by DPIIT/startup India
1	Eunoia Innovations Private Limited	DIPP93755	2022
2	Kephi Innovations Private Limited	DIPP95484	2022
3	Hicet Sustainable Solutions Private Limited	DIPP114672	2022
4	One Gear Technologies Private Limited	DIPP95527	2022
5	Veenero Sustainable Solutions Private Limited	DIPP140637	2023
6	Asthra Technologies	DIPP145563	2023

1. **Eunoia Innovations Private Limited:** Aqua Skimmer is an unmanned boat powered by artificial intelligence that cleans and collects floating trash on board. To float, the device is made up of two split hulls called catamaran. The inlet is equipped with a mechanical arm that collects the captured trash. The devices camera assists in detecting trash and capturing it in the collecting waste basket attached to the catamarans. It is powered by solar energy, which provides a renewable source of energy while also extending the device.
2. **Kephi Innovations Private Limited:** The Startup is working on the Eco-Friendly and Nature based Water treatment Solutions and Carbon Emission Neutralizers. This startup provides solutions that are used to treat the water naturally with Eco-friendly byproducts and helps to reduce global carbon emissions using carbon neutralizers. Their products serve businesses ranging from farmers to power plant corporations.
3. **HICET Sustainable Solutions Private Limited:** They have done digitization of Archery Scores. In Archery, for distance calculation from center it will do and according to that it will automatically calculate the score.
4. **One Gear Technologies Private Limited:** HOPPER is an electric vehicle created byOne Gear Technologies Private Limited. It is customer centric and is budget friendly. It will be placed at a correct price so that everyone can afford it.
5. **Veenero Sustainable Solutions Private Limited**
   Focuses on water conservation, renewable energy, and sustainable agriculture technologies. Develops scalable solutions for rural and urban ecological challenges. Promotes student-driven research aligned with the UN SDGs.
6. **ASTHRA TECHNOLOGIES**
   Works on AI, robotics, and embedded systems to create next-gen tech products. Encourages a research-oriented mindset among students in cutting-edge domains. Aims to position HITAM as a hub for deep-tech innovation.

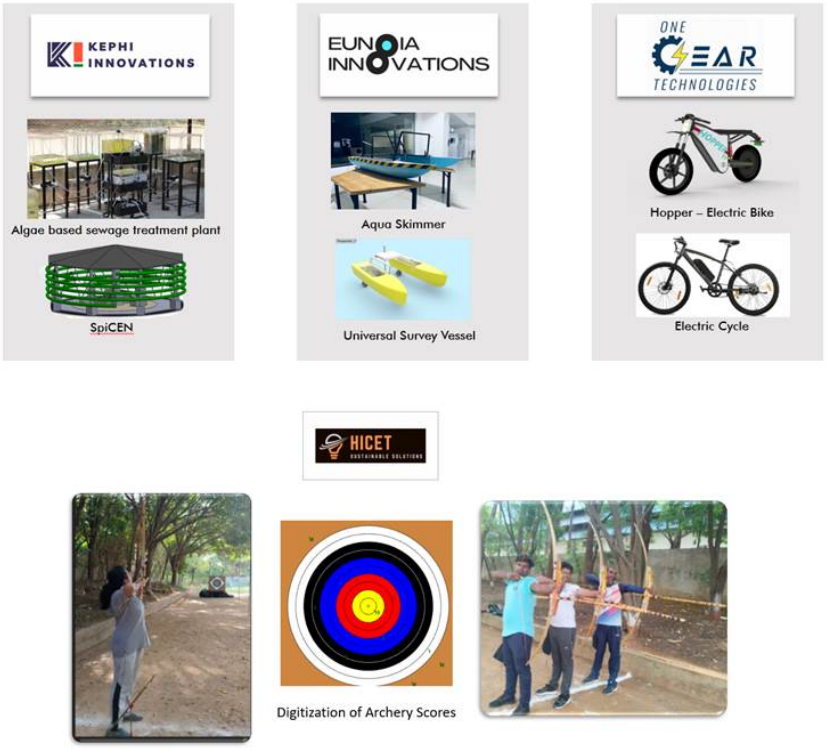


Figure 9.5.1: Startups

Recognitions to Startups:

Eunoia Innovations Private Limited

1. Received VC funding of ₹25,00,000 under the NIDHI-SSS scheme (ISB D-Labs) in December 2023, marking a significant milestone in its entrepreneurial journey.
2. AICTE Ministry of Education funded Rs. 6,00,000 Grant-in-Aid under the scheme of Grant Support to Innovations, MIC for the year 2023-24
3. Ministry of Housing and Urban Affairs under Amrut 2.0, this startup received Rs. 20,00,000 funding in the year 2022
4. Ministry of Housing and Urban Affairs under Amrut 4.0, this startup received Rs. 20,00,000 funding in the year 2022

9.6 Governance and Transparency (25)	**Total Marks 25.00**
9.6.1 Availability of the Institutional Strategic Plan and its Effective Implementation and Monitoring (10)	Institute Marks : 10.00

Institute Vision:

To be a role model technological university of national repute that imparts research-based multi-disciplinary competencies in students to enable their career aspirations and contribute to the society.

Institute Mission:

1. Build students' competencies through HITAM's 'Doing Engineering' approach with relevant curriculum, pedagogy and assessment.
2. Collaborate with industry and institutions for capacity building in research, innovation and real time knowledge.
3. Develop employability skills for emerging trends and societal needs
4. Excel by adopting NEP 2020 and improving Accreditations & national rankings.

Strategic Plan

Table 9.6.1: SWOT Analysis of Hyderabad Institute of Technology and Management HITAM

STRENGTHS	WEAKNESSES
• Visionary leadership • Value-driven organizational culture • One of the first US LEED Silver-rated Green buildings in India • Committed and loyal teaching and non-teaching workforce • Innovative Teaching methods • Experimentative and quick to adapt to Change • Proactive global-best learning practices (Doing Engineering, PBL, EPICS etc.) • Excellent Campus ambience, digital resources and learning spaces	• Limited brand visibility and market presence • Lack of strong operational level leadership • Limited surrounding land blocking campus expansion • Limited Industry / Corporate Connect • Research center
OPPORTUNITIES	**THREATS**
• Conducive Regulatory environment • Partnership opportunities for international collaborations • Open horizons to attract students across India • High demographic dividend	• Volatility in Higher Education landscape creating tougher competition • Disruptive and ever evolving technologies • Top colleges may attract greater number of students due to Enhanced GER

• Scope for scaling to Deemed-to-be University • Strategic partnership with Industries and corporates • Scope to attract best talent and students • Engage with Industry-relevant Hybrid courses • Evolve a Unique global HEI model	(Graduate Enrolment Ratio) thus affecting quality and quantity of admissions in HITAM as per NEP guidelines • Non-availability of quality faculty in the market • Job market disruptions affecting student Employability

Strategic Objectives Identified:

The purpose of this strategic plan is to outline a roadmap for HITAM to become a role model technological university. To achieve our objective of becoming a technological university, we will focus on the following key goals:

Table 9.6.2: Strategic Objectives

Objectives	**Description**	**Key Performance Indicators (KPI)**
Enhancing Academic Quality	HITAM will introduce new and innovative pedagogical methods, emphasizing hands-on learning and project-based learning, to enhance the academic quality of its programs. HITAM will also invest in faculty development and recruitment to attract the best talent and expertise to the institution.	● Number of faculty with PhD degrees or other relevant qualifications ● Student-faculty ratio ● Number of academic publications and citations ● Feedback from students and faculty on teaching effectiveness ● Number of patents filed and granted
Strengthening Research and Innovation	HITAM will promote a culture of research and innovation, focusing on cutting-edge technologies and interdisciplinary collaboration. It will create an ecosystem that supports research and innovation, and encourages students and faculty to pursue new ideas and projects.	● Amount of research funding obtained from external sources ● Number of research projects undertaken ● Number of industry partnerships for research collaborations ● Number of patents filed and granted ● Number of publications and citations

Building Industry Partnerships	HITAM will establish strategic partnerships with leading industries in India and abroad to provide its students with opportunities to work on industry-led projects and internships. These partnerships will also provide access to the latest technologies and industry insights.	● Number of industry partnerships established ● Amount of funding obtained from industry partners ● Number of industry-led projects undertaken by students ● Number of students placed in industry through these partnerships
Partnerships with International Universities	HITAM will establish collaborations and partnerships with leading international universities to offer exchange programs, joint research projects, and faculty exchange programs. These partnerships will provide students and faculty with exposure to global best practices and diverse perspectives.	● Number of international collaborations and partnerships established ● Number of students and faculty participating in exchange programs / immersions ● Number of joint research projects undertaken with international partners
Strengthening of Infrastructure	HITAM will invest in state-of-the-art infrastructure, including labs, workshops, and research facilities, to support hands-on learning and research activities. HITAM will also upgrade our campus facilities, to provide students with a world-class learning environment.	● Number of new buildings constructed or renovated ● Amount of funds invested in infrastructure improvements ● Availability and adequacy of classrooms, labs, libraries, and other facilities ● Feedback from students and faculty on the quality of infrastructure ● Reduction in maintenance and repair backlog
Focus on Student Placements	HITAM will develop strong ties with industry partners to ensure high-quality placements for our students. HITAM will offer career development services, including mentorship and training programs, to prepare students for successful careers in the technology industry. We will work closely with leading companies and organizations to provide internship opportunities,	● Number of students placed in leading companies and organizations

	conduct placement drives, and offer career guidance and counseling. Through these efforts, we will ensure that our students are well-prepared to meet the needs of the industry and contribute to the growth and development of the country.	● Starting salaries of graduates ● Feedback from employers on the quality of our graduates ● Alumni engagement and support for placement activities
Quality of Admissions	HITAM will focus on recruiting the most talented and motivated students, with a commitment to diversity and inclusion. HITAM will also offer scholarships and financial aid to deserving students to ensure equal access to education.	● Average score and cut-off rank of admitted students in entrance exams ● Diversity of the student body in terms of gender, socio-economic background, and geographic location ● Retention and graduation rates of admitted students ● Feedback from students and faculty on the quality of admitted students
Accreditations and Rankings	HITAM will work towards achieving NAAC A++ in the next cycle, and increase the departmental scores in the next NBA renewal. HITAM will enter into the rankings of ARIIA and NIRF.	● Accreditation status obtained for different programs ● Rank obtained in national and international rankings ● Feedback from stakeholders on the quality and reputation of our institution

The strategic plan was reviewed and refined in the year 2024 to be inline with the situation.

To measure our progress towards achieving these goals, we will continuously track performance metrics, and progress towards becoming a technological university.

9.6.2 Governing Body, Administrative Setup, Functions of Various Bodies, Service Rules, Recruitment procedures and Promotion Policies (10) — Institute Marks : 10.00

We have a structured organization framework to cater to the needs as per the requirements of Statutory and Non-Statutory administrative committees.

Various bodies like the Governing Body, Academic Council, Academic Committee, Advisory Committee, and IQAC exist in the institution to formulate guidelines and monitor the functioning of the institution from time to time.

The Governing body in general meets once in a semester to review and take decisions on the policy matters of the institute. This body takes decisions related to the financial, administrative and quality measures to be taken up and takes measures to ensure the effective functioning of the institution. mission of the institute.

To support effective Governance, the college has set up various Statutory and Non-Statutory committees like: Academic Council. Grievance committee, IQAC, Anti Ragging, Disciplinary, Women empowerment cell, Internal complaints, Admin Committee, Board of Studies (BoS), Finance Committee.

HODs are responsible for the functioning of the Department as per the laid down policies of the college. To provide policy framework and direction for the functioning of the institution, various committees play a vital role. These committees help the administration to evaluate, monitor and recommend in respect of various matters leading to progress of the institution as per its quality policy.

Service rules, procedures, recruitment, promotional policies have been formulated as per the guidelines of competent authorities like affiliating university, AICTE and UGC and are approved by the governing body. These rules are disseminated to all the faculty members of HITAM at the time of joining and they can refer to the same from HR. The service rules are linked to the additional information.

Recruitment and Promotion Policies: The recruitment of teaching and administrative staff is done through publication in both online and offline. All the applicants are interviewed by the Selection Committee. The faculty undergo a demo to assess their teaching proficiency.

The Selection Committee makes recommendations based on the requirement of the faculty specialized in certain courses and technologies so that the Institution has a balanced and efficient teaching body. The promotions are performance based.

All HODs initiate Performance Reports once in an academic year under the Performance Management System, which are processed through the Director and Principal to the management for award of increments, incentives and promotions based on their merit and demonstrated performance.

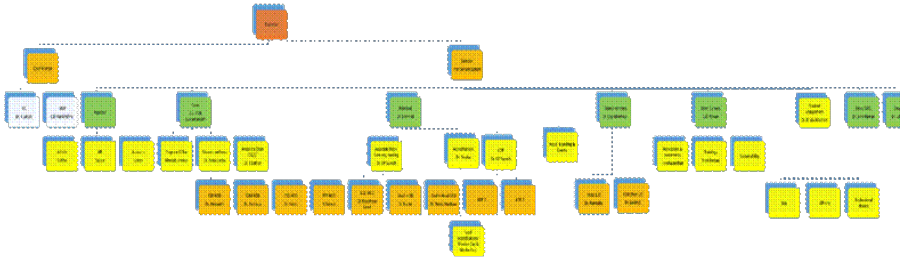


Figure 9.6.1: Organogram

Organogram: https://hitam.org/wp-content/uploads/2025/03/Oronogram.pdf (https://hitam.org/wp-content/uploads/2025/03/Oronogram.pdf)

Governing Body:

The following are the Governing Body members of the College:

Table 9.6.3: Governing Body members

S. No	Position	Name	Affiliation	Constituted by
1	Chairman	Prof. Sanjay Dhande	Former Director IIT Kanpur	Nominated by Society
2	Member	Prof. Satyanshu Kumar Upadhyay	Professor of Statistics, Banaras Hindu University	Nominated by UGC
3	Member	Dr. Ravinder Reddy	Professor of Maths, JNTUH	Nominated by JNTUH
4	Member	Dr. Ashok Shettar	Vice Chancellor, KLETECH	Educationist

5	Member	Dr. Gopalkrishna Joshi	Vice Chancellor, MIT Vishwa Prayag	Educationist
6	Member	Dr. Mallikarjuna Babu	Vice Chancellor, Galgotia University	Educationist
7	Member	Brig. P. Ganesham	President, Pallesrujana	Nominee by Society
8	Member	Nirmala Sambamoorthy	Director, Ascent Leadership & Mgmt. Consultants Pvt. Ltd.	Nominee by Society
9	Member	Mr. Tirupathi Reddy	Hon. Chairman, HITAM	Nominated by Society (Society Member)
10	Member	Dr. V. Surender Rao	Secretary, Royal Education Society	Nominated by Society (Society Member)
11	Member	Sri. Prashanth Arutla	Founder Chairman, HITAM	Nominated by Society (Society Member)
12	Member	Mrs. Susheela Devi	Founder Arutla Foundation	Nominated by Society (Society Member)
13	Member	Mr. Sameer Nagpal	Co-founder, One bac Technologies	Industrialist Nominated by Principal
14	Member	Nominee of AICTE	AICTE	Nominee of AICTE
15	Member	Smt. Sujatha K	Principal, SDDGWTTI	Nominee of State Government
16	Member	Dr. Rajeshwar	Associate Professor, HITAM	Assoc. Prof. Nominee by Principal
17	Member	Mr. Surendra Bandi	Associate Professor, HITAM	Assoc. Prof. Nominee by Principal
18	Member	Mr. Vinay Singh	Manager, Cocubes	Alumni Nominated by Principal
19	Member	Ms. Krupali	Tech Manager, TCS	Alumni Nominated by Principal
20	Member Secretary	Dr. S. Arvind	Professor	Principal (Ex-Officio)

Functions:

1. Lay down service conditions, emoluments, traveling allowances for the teaching and non-teaching staff.
2. Lay down procedure for selection/ recruitment of teaching or nonteaching staff and to appoint the same.
3. Regulate and enforce discipline among members of teaching and non-teaching staff in accordance with the rules/ procedures laid down in this regard.
4. Invest any money belonging to the college in stocks, funds, shares or securities as it shall from time to time, think fit or in the purchase hire/rental of immovable property.
5. Transfer of any movable or immovable property

6. Fix the fee structure and other charges payable by the students based on the recommendation of academic council, subject to the approval of the finance committee.
7. Entertain, adjudicate upon and if thought fit constitute a committee for advice to redress the grievances of the members of staff and the students
8. Delegate administrative and financial powers to the principal and other functionaries for smooth functioning.
9. Accept endowments for specific purpose.
10. Approve new Programmes of study leading to degrees and / or diplomas.
11. Approve annual report of the college.
12. Approve the foreign trips/tours/assignments/ research paper readings of the employees.
13. Perform such other function and create committees as may be necessary and deemed fit for the proper development and fulfillment of the objectives for which the college was established and for national concern.

Academic Council:

Table 9.6.4: Academic Council Members

S. No	Name	Designation	Category
1	Dr. S. Arvind	Principal, HITAM	Chairman
2	Dr. T. Satish Kumar	HoD CSE	Member
3	Dr. J. Rajeshwar Goud	HoD ECE	Member
4	Dr. Ruchir Srivastava	HoD Mech	Member
5	Dr. O.P. Suresh	HoD EEE	Member
6	Dr. P. Padmaja	HoD CSE-AI & ML	Member
7	Dr. M.V.A. Naidu	HoD CSE-DS	Member
8	Dr. K. Sandeep	HoD Maths	Member
9	Dr. Lavanya	HoD Chemistry	Member
10	Dr. Ashalatha	HoD English	Member
11	Dr. Rambabu T	HoD Physics	Member
12	Col. P.V.R. Subramaniam	HoD MBA	Member
13	Dr. Devika SV	Professor of ECE	Member
14	Mr. Surendra Bandi	Assoc. Professor of CSE	Member
15	Dr. B. Lokeswara Rao	Professor of ECE	Member
16	Mr. K. Suresh	Assoc. Professor of EEE	Member
17	Dr. Gopalkrishna Joshi	Vice Chancellor, SVKP University	Academic Expert
18	Dr. Mallikarjuna Babu	Vice Chancellor, Galgotia University	Academic Expert

19	Dr. Pratap Reddy	Professor of ECE, JNTUH Hyderabad	Academic Expert
20	Dr. Vijaya Sekhar Reddy	Professor and Dean School of CSE, UPES Dehradun	Academic Expert
21	Dr. P. Ravi Reddy	Director Technical Dept, MEIL, Hyd.	Industry Expert
22	Dr. C. D. Naidu	Principal VNRVJIET, Hyderabad	Academic Expert
23	Dr. A. Jayashree	Professor of Chemistry, JNTUH	University Nominee
24	Dr. M. T. Naik	Professor of MECH, JNTUH	University Nominee
25	Dr. G. V. Narsimha Reddy	Professor of CIV & Principal JNTUH	University Nominee
26	Dr. O.P.Suresh	Professor of EEE & CoE	Member Secretary

The Academic Council is the principal academic body of the Institute and shall, in addition to all other powers and duties vested in it, has to perform duties without prejudice to the generality of functions mentioned. The following are the powers of the Academic Council:

1. Scrutinize and approve the proposals with or without modification of the Board of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto etc., provided that where the Academic Council differs on any proposal, it will have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so.
2. Make regulations for admission of students to different programmes of study.
3. Make regulations for sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels.
4. Recommend to the Governing Body proposals for new programmes of study.
5. Recommend to the Governing Body about scholarships, studentships, fellowships, prizes and medals, and to frame regulations for the award of the same.
6. Advise the Governing Body on suggestions pertaining to academic affairs.
7. Perform such other functions as may be assigned by the Governing Body.
8. Suggest measures for departmental co-ordination.
9. Take periodical review of the activities of the Departments and make recommendations if any for improving the standards of instruction.
10. Recommend required teaching posts to the Governing Body.

BOARD OF STUDIES: STRUCTURE AND FUNCTIONS

The College will strictly adhere to the guidelines prescribed by all the statutory bodies such as UGC, AICTE, JNTUH and TSCHE for developing and restructuring the curricula. The Board of Studies are responsible to frame scheme of instruction, course structure and syllabi. It is proposed to revise the syllabi once in every three years or as and when required. The syllabi will be implemented by the Departments concerned and add-on courses will be conducted to meet the needs of the industry. Details of the syllabi shall be made available with the Departments, Central Library, College website, and to the students.

The Board of Studies shall be primarily responsible for the following:

- Prepare syllabi and various courses, keeping in view, the objectives of the college, interest of the Stakeholders and national requirement for consideration and approval of the Academic Council.
- Suggest methodologies for innovative teaching/learning and evaluation techniques.

- Suggest panel of names to the Academic Council for appointment of examiners.
- Coordinate research, teaching, extension and other academic activities.

Table 9.6.5: Board of Studies Structure

S.No	BoS – Member	Designation	Affiliation
1	Dr.Rajeshwar Goud	Chairman	HoD ECE
Senior faculty members with different specialization			
2	Dr.S V Devika	Member	Professor of ECE
3	Dr.B Lokeswara Rao	Member	Professor and Dean Freshman
4	Dr.K Satish Reddy	Member	Professor of ECE
5	Mrs.K Bindhu Madhavi	Member	Assoc Prof
6	Mr. Kondala rao	Member	Assistant Prof.
7	Dr Chandrashekar	Member (nominated by the Academic Council)	Professor, Department of ECE, OUCE
8	Dr Prakash Kodali	Member (nominated by the Academic Council)	Asst Professor Department of ECE NIT, Warangal
9	Dr. SP Singh	Subject Expert Nominated by AC	Professor, MGIT, Hyderabad
10	Dr.P.Anitha Sheels	JNTUH Nominee	Sr. Professor of ECE, JNTUH UCESTH
11	Mr.Vinay Singh	Industry Expert	Manager ,AoN
12	Rahil Hussain	Alumni	Manger, Silicon Labs, Hyderabad

Finance Committee:

Table 9.6.6: Finance Committee members

S.No.	Committee Members	Designation
1	Dr. S. Arvind	Principal
2	Col. A.V. Subramaniam	Registrar
3	Mr. U. Ravi Kiran	Chartered Accountant

4	Mr.P. Veerabadra Rao	External Member
5	Mr.M. Rajesh	External Member
6	Mr.A. Srinivas	Financial Consultant
7	Mr.G. Ravi	Administrative Officer
8	Mrs.D. Udaya	Sr.Accountant

The Finance Committee shall have the following responsibilities:

i. The annual accounts and financial estimates of the Institute shall be placed before the Finance Committee for consideration and thereafter submitted to the Governing Body together with the comments of the Finance Committee for approval.

ii. The Finance Committee shall fix limits of the total recurring expenditure and the total non-recurring expenditure of the year based on the income and resources of the Institute. No expenditure shall be incurred by the Institute in excess to the limits so fixed.

iii. No expenditure other than that provided for in the budget shall be incurred by the Institute without the approval of the Finance Committee.

iv. Recommend to the Governing Body the creation of all types of posts.

v. Provide the financial estimates with respect to the building and other infrastructural facilities that have been planned on the basis of the recommendations of Academic Council.

Internal Quality Assurance Center (IQAC)

The following members constitute the Internal Quality Assurance Center (IQAC) of the College.

Table 9.6.7: Internal Quality Assurance Center (IQAC) Members

S.No	**Name**	**Designation**
1	Mr.Prashanth Arutla	Management
2	Dr. S. Arvind	Principal
3	Dr.C.Sunil Kumar	Dean IQAC
4	Dr.B.Lokeswara Rao	Dean R&D
5	Dr.A.Chandramouli	Dean Freshman Engg.
6	Dr. S.V.Devika	Faculty
7	Dr.M V A Naidu	Faculty
8	Dr.T.Satish kumar	Faculty
9	Dr. M.Rajeshwar	Faculty
10	Dr. O.P Suresh	Faculty
11	Dr. J. Rajeshwar Goud	Faculty
12	Dr. R.Umamaheswara Singh	Faculty
13	Dr. K.Bindu Madhavi	Faculty
14	Dr.Ruchir Shrivastav	Faculty

15	Dr.P.Padmaja	Faculty
16	Dr.T.Rambabu	Faculty
17	Dr.N.Lavanya	Faculty
18	Mr. Surendra Bandi	IQAC Coordinator

Functions:

- Development and application of quality benchmarks / parameters for various academic and administrative activities of the College.
- Facilitate a learner-centric environment conducive for quality education and faculty maturation and adopt the required mechanism for participatory teaching and learning process.
- Arrangement for feedback responses from students, parents and other stakeholders on quality-related processes.
- Dissemination of information on various quality parameters of higher education.
- Organization of inter and intra-institutional workshops, seminars on quality related themes and their promotion.
- Documentation of various programmes / activities of the College, leading to quality improvement.
- Acting as a nodal agency of the college for coordinating quality-related activities, including adoption and dissemination of good practices.
- Development and maintenance of institutional database through MIS/ERP for the purpose of maintaining / enhancing the institutional quality.
- Development of the Annual Quality Assurance Report (AQAR) of the College based on the quality parameters/assessment criteria.

Academic Committee

Table 9.6.8: the Academic Committee members

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Dr. R. Uma Maheswara Singh (Committee Convenor)	Asst Dean Academics
3	Col. A.V. Subramaniam	Registrar
4	Dr. B. Lokeswara Rao	Dean Freshman Engg.
5	Dr. O. P. Suresh	Controller of Exams & HOD - EEE
6	Dr. Ruchir Srivastava	HOD - MECH
7	Dr. G. Rajeshwar Goud	HOD- ECE
8	Dr. T. Satish Kumar	HOD -CSE
9	Dr. Padmaja	HOD -CSM
10	Dr. M. V. A. Naidu	HOD - DS
11	Dr. Lavanya	HOD- H&S-1
12	Dr. Rambabu	HOD- H&S-2

13	Dr. Sandeep	BoS Chairman
14	Dr. S. V. Devika	BoS Chairman
15	Based on agenda concerned leadership member will be invited.	

Functions:

- Recommend and review curriculum structures for all programs in line with statutory bodies (AICTE/UGC/University norms).
- Ensure inclusion of industry-relevant and employability-enhancing subjects.
- Prepare and monitor the academic calendar including schedules for internal assessments, co-curricular activities, and final exams.
- Analyze student performance data (e.g., results, attendance, backlogs) and recommend remedial measures.
- Propose strategies for improving academic outcomes and learning levels.
- Suggest faculty training needs and recommend FDPs, workshops, and higher education opportunities.
- Encourage research and publication activities among faculty.
- Recommend policies and practices for academic quality improvement.
- Assist in preparing documentation for NAAC, NBA, and other accreditations.
- Promote the use of ICT tools, blended learning, and outcome-based education methodologies.
- Encourage project-based learning and student research work.
- Plan and execute internal academic audits of departments.
- Ensure compliance with institutional academic standards.
- Suggest improvements in assessment methods, question paper patterns, and evaluation systems.
- Recommend policies for student mentoring, academic counselling, and bridge courses for slow learners.
- Collect and analyze feedback from students and stakeholders for curriculum and teaching improvements.

Admin Committee

Table 9.6.9: Admin Committee members

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Mrs. Meezab Unnisa (Committee Coordinator)	Head Operations
3	Col. A.V. Subramaniam	Registrar
4	Dr. B. Lokeswara Rao	Dean Freshman Engg.
5	Mr. B. Surendra	Assoc.Dean Institutional Affairs
6	Dr. M. Rajeshwar	Asst.Dean
7	Dr. S.V. Devika	Assoc.Dean Accreditation
8	Dr. Ashalatha	Student counsellor

Anti-Ragging & Disciplinary Committee

Table 9.6.10: Anti-Ragging Committee composition

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Col. A.V. Subramaniam (Committee Convenor)	Registrar
3	Dr. B. Lokeswara Rao	Dean Freshman
4	Dr. O. P. Suresh	HOD- EEE & Controller of Examinations
5	Dr. G. Rajeshwar Goud	HOD- ECE
6	Dr. P. Padmaja	HOD -CSM
7	Dr. M. V. A. Naidu	HOD - DS
8	Dr. T. Satish Kumar	HOD -CSE
9	Mr. Ravi Gurram	Admin Officer
10	Mr. A. Rajkumar	Physical Director
11	Om Kumar Gupta	Student Nominee
12	Palak Guleria	Student Nominee
13	Bipul Kumar Yadav	Student Nominee
14	Paluru Naga Babu	Student Nominee
15	Hari Kishan Singh Prasad	Student Nominee

Table 9.6.11: Disciplinary Committee composition

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Col. P. V. Subramanyam (Committee Convenor)	Dean
3	Col. A.V. Subramaniam	Registrar
4	Dr. Rajeshwar M	Asst. Dean
5	Mr. Ravi Gurram (Invitee)	Admin Officer
6	Mrs. Meezab Unnisa	Head Operations
7	Dr. Ashalatha	Wellness counsellor
8	Respective HOD & mentor	Invitees

9	Ishita	Student Nominee
10	Heramba Sai	Student Nominee
11	Sai Bhargav	Student Nominee

Functions:

The Initiatives of the college to curb the menace of ragging are as follows:

- Preparing, distributing and publicizing about anti-ragging through materials such as posters, brochures, circulars etc.
- Displaying posters and putting up notices at all the designated places in the college.
- Obtaining affidavits, undertaking forms from all the students and their parents.
- Sensitizing all the stake holders with the help of media.
- Organizing ‘Anti – Ragging awareness campaigns’.
- Initiating measures for girls’ security such as appointing women faculty as counselors.
- Ensuring‘Alcohol and Smoking Free Zone’ in the campus.
- Making ‘Orientation Programmes’ mandatory for every department.
- Establishing ‘Mentoring and Counseling Cells’ at institutional level.
- Seeking a pledge by all the students to make the campus a ‘Ragging Free Zone’.

Hyderabad Institute of Technology and Management, in compliance with the regulations, directives and act, has decided to constitute an ‘Anti-Ragging Committee’ at the college level and ‘Anti Ragging Squads’ at the department level for overseeing the effective implementation of the provisions to curb ragging of any form in its campus with immediate effect.

Monitoring mechanism:

a) Anti-ragging Committee:

1. ‘Anti-Ragging Committee’ is headed by the Head of the Institution, and it consists of representatives of civil and police administration, local media, Non Government Organizations involved in youth activities, representatives of faculty members, parents, students belonging to the freshers’ category as well as senior students and non-teaching staff.
2. It shall be the duty of the ‘Anti-Ragging Committee’ to ensure compliance with the provisions of these regulations as well as the provisions of any law for the time being in force concerning ragging, and also to monitor and oversee the performance of the ‘Anti-Ragging Squad’ in preventing of ragging in the institution.

b) Anti-Ragging Squad:

1. ‘Anti-Ragging Squad’ is nominated by the Head of the Institution having representation of faculty and staff members for maintaining vigil, oversight and patrolling functions. It shall remain mobile, alert and active at all times.
2. It shall be the duty of the ‘Anti-Ragging Squad’ to be called upon to make surprise raids on hostels, and other places vulnerable to incidents and having the potential for ragging and shall be empowered to inspect such places.
3. It shall also be the duty of the ‘Anti-Ragging Squad’ to conduct an on-the-spot enquiry into any incidents of ragging referred to it by the Head of the Institution or any member of the faculty or any member of the staff or any student or any parent or guardian or any employee of a service provider or by any other person, as the case may be; and the enquiry report along with recommendations shall be submitted to the authority observing a fair and transparent procedure and the principles of natural justice and after giving adequate opportunity to the student or students accused of ragging and other witnesses to place before it the facts, documents and views concerning the incidents of ragging, and considerations such other relevant information as may be required.

c) Mentoring / Counseling Cell:

In order to promote the objectives of the regulations for curbing the menace of ragging and also to instill confidence in fresher's and students to ensure the practice of human values, rights, and dignity, the college has constituted a 'Mentoring / Counseling Cell'. It consists of faculty members as 'Mentors / Counselors'. Each mentor guides ten students to take care of academic as well as personal problems. Students have a one-period slot designated for this purpose in addition to meeting the mentor / counselor as and when needed for guidance.

d) Punishments:

Depending upon the nature and gravity of the offence as established, the possible punishments for those found guilty of ragging at the institution level shall be as per clause 9 of 'UGC Regulations' as indicated above.

Grievances & Redressal Cell

Grievances Redressal Cell' is formed in order to establish healthy working atmosphere and to uphold the dignity of the college by ensuring strife free atmosphere in the college and to promote cordial student to student relationship, Student to teacher relationship and staff to staff relations etc. This cell also helps staff, students and parents to record their complaints and solve their problems related to academics, resources and personal grievances.

Woman harassment complaints will be handled by WOMEN'S PROTECTION CELL as per the Government guide lines.

'Suggestion / complaint Boxes' have been installed at different places in the college campus in which the students/staff, who want to remain anonymous, put in writing their grievances and their suggestions for improving the academics/administration in the college. Students, parents and staff can lodge complaint of any kind including ragging complaint. The person concerned can personally approach and write / e-mail to any member of the Cell.

Table 9.6.12: Students Grievance Redressal Committee

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Dr. D. Ashalatha (Committee Convenor)	Wellness counsellor
3	Dr. S. V. Hemanth	CSE CooD
4	Dr. M. Rajeshwar	Asst.Dean
5	Mr. P. Kondala Rao	ECE- Dept. Cood
6	Mr. Surendra Bandi	Assoc. Dean- Education
7	Respective HOD & mentor	Invitees
8	Pravallika Sayyapparaju	Student Nominee
9	Saumya S	Student Nominee
10	Maanik Manohar	Student Nominee

Table 9.6.13: Staff Grievance Redressal Committee

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Dr. R. Uma Maheswara Singh (Committee Convenor)	Asst Dean Academics
3	Mr. Bhaskar Das	Lead accreditation
4	Mrs. Meezab Unnisa	Head Operations

5	Mr. B. Surendra Bandi	Assoc.Dean Institutional affairs
6	Mrs. Sailaja	HR Operations

Functions:

- A 'Grievance Redressal Committee' is formed to look into the complaints from the aggrieved.
- 'Suggestion/ Compliant Box' are provided at office of Principal for students and staff to lodge their complaints/ suggestions.
- Enquire into the complaints received from the aggrieved students/staff about any incident including ragging.
- Recommend to the Principal, the penalty to be imposed, action to be taken and corrective measures to be formulated.
- Forward the report of grievance committee to Principal for further action
- Take the corrective measures and record in the register.

Internal Complaint Committee / Women Empowerment Committee

In view of the increasing number of girl students in the campus, 'Women Grievance Redressal Cell' makes every effort to ensure that the girls feel at home. The cell resolves common problems of girl students and also takes up individual cases of sexual harassment, if any. Ragging in the hostels is totally disallowed, and any involvement in this respect is punishable. The following are the constituents' faculty members and students of the 'Women Empowerment Committee':

Table 9.6.14: Women Empowerment Committee Members List

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Mrs. Vanaja (Committee Convener)	H&S- Faculty
3	Mrs. Moshe Rani	ECE - Faculty
4	Mr. M. V. A. Ramakrishna	Mech-Faculty
5	Dr. Aparna	ET- Faculty
6	Dr. S. V. Hemanth	CSE CooD
7	Mrs. Sailaja	HR Operations
8	Dr. Devika	Assoc. Dean-Accreditations
9	Hrushita	Student Nominee
10	Architha Reddy	Student Nominee

Functions

- Ensure safety of the women staff and students.
- Provide counseling on interaction with opposite gender.
- Promote decent code of conduct among the staff and the students.
- Create awareness of socio-cultural, political and biological complexities of the issue.
- Enhance the understanding of the other gender.

- Enquire into complaints received from the aggrieved students including ragging or from staff of the college.
- Recommend to the Principal for necessary action like penalty to be imposed, suspension, rustication etc. The Principal upon receipt of the report from the committee shall, after giving an opportunity of being heard to the person complained against and with the recommendation of the 'Grievance Redressal Committee' takes necessary action.

Library Committee

The Library Committee monitors the Library activities of the College. The following are the members of the Committee:

Table 9.6.15: Members List of Library Committee

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Dr. T. Satish Kumar (Committee Convenor)	CSE HOD
3	Mr. P. Santosh	ECE - Faculty
4	Dr. Aparna	ET- Faculty
5	Mr. S. V. Satyanarayana	EEE-Faculty
6	Dr. N. Lavanaya	H&S- HOD
7	Dr. Ruchir Srivastav	Mech-Faculty
8	Mr. P. Narayana Rao	Librarian
9	Mr. E. Ramesh	Librarian
10	Neeharika	Student Nominee
11	Varsha	Student Nominee
12	Sriya	Student Nominee

Functions:

1. Guide the Librarian in formulating general library policies and regulations.
2. Provide for proper documentation services and updating the Library collection.
3. Work towards modernization and improvement of Library and documentation Services.
4. Formulate policies and procedures for efficient use of Library resources.
5. Review Library readership dept-wise and adopt measures to enhance readership.
6. Prepare budget and proposals for the development of the Library.
7. Recommend to the authorities the fees and other charges for Library.
8. Seek feedback on Library functions from readers.
9. Submit the annual report on the functioning of the library.
10. Take measures to increase the membership of the Library.

Transport Committee:

The 'Transport Committee' plans and recommends to the 'Transport Manager' the facilities required for organizing transport to faculty, staff and students. The Committee submits a report to the Principal every six months regarding the adequacy and quality of maintenance of the facility being provided.

Table 9.6.16: Members List of Transport Committee

S.No.	Committee Members	Designation
1	1. Col. Subramaniam (Committee Chairman)	Registrar
2	2. Ravi Gurram (Committee Convenor)	Admin Officer
3	3. Mr. Raj Kumar	Physical Director
4	4. Mrs. Moshe Rani	ECE-Faculty
5	5. Mrs. Vanaja	H&S Faculty
6	6. Mr. U. Murlidhar	Mech - Lab Asst
7	7. Mr. Siddhartha	EEE-Faculty
8	8. Mr. Chiranjeevi	COOD - EEE
9	9. Mrs. Sailaja	HR
10	10. Mr. S. Durga Rao	Mech - Lab Asst
11	11. Mr. Pradeep (Physics)	Physics-Faculty
12	12. Mr. S. Srikanth	H&S Lab asst.
13	K Vinay	Student Nominee
14	Om Kumar Gupta	Student Nominee
15	Satvika Reddy	Student Nominee

Functions:

- Maintain all the buses, mini transport and other vehicles of the college.
- Manage all the transport staff and schedule of operations of all the buses and other vehicles with the approval of Principal.
- Handle all the statutory bodies, obtaining/renewal of licenses, special permissions and other related matters with the approval of Principal.
- Handle all student complaints and indiscipline in the college buses.
- Conduct meeting monthly or as and when required and submit report to the Principal.

Hostel Committee

The 'Hostel Committee' plans the infrastructure facilities required for providing hostel facility for girls and boys separately. The hostels are effectively managed through Warden and Staff.

Table 9.6.17: Members List of Hostel Committee

S.No.	Committee Members	Designation
1	Col. Subramaniam (Committee Chairman)	Registrar
2	Mr. Ravi Gurram (Committee Convenor)	Admin Officer

3	Mrs. Meezab Unnisa	Head Operations
4	Mr. G Shyam Sundar	PO
5	Mr. Abhinesh	EA & HR
6	Mr. Meghnath	H&S-Faculty
7	Mr. D. Manikanta	CSE-Faculty
8	Mrs. Roshni	H&S - Faculty
9	Ms. Meghana	ET -Faculty
10	K. Vinay	Student Nominee
11	V Sai Krishna	Student Nominee
12	D. Sneha	Student Nominee
13	V. Roopa Sai Reddy	Student Nominee

Functions:

- The 'Hostel Committee' shall discuss and make recommendations regarding:
    a. Admissions;
    b. Discipline of resident students;
    c. Maintenance and development of the hostel; and
    d. Any other matter pertaining to the ambience of the hostel.
- Receive complaints from students regarding facilities and amenities from time to time and forward it to Principal.
- Submit a monthly report to the Principal on matters relating to the adequacy and quality of maintenance of the following facilities: Protected drinking water, kitchen, dining halls, newspapers, telephones, restrooms, fans, lights and power.

Canteen Committee

Table 9.6.18: Members List of Canteen Committee

S.No.	Committee Members	Designation
1	1. Dr. S. Arvind (Committee Chairman)	Principal
2	2. Dr. Hemanth (Committee Convenor)	CSE- Cood
3	3. Mr. Navakishore	ET- Faculty
4	4. Mr. Ravi Gurram	Admin.Officer
5	5. Mr. S. V. Satyanarayana	EEE-Faculty
6	6. Mr. Ashok	System Admin
7	7.Mrs. Roshni	H&S - Faculty
8	8. Mr. Bobby Simon	ET-Faculty
9	9. Dr. T. Sathish	HOD -CSE

10	K. Vinay	Student Nominee
11	Gourishetti HARSITH	Student Nominee
12	Vivekananda Sastry	Student Nominee

Functions:

- Supervise the day-to-day functioning of the college canteen to ensure smooth and hygienic operations.
- Conduct regular inspections to ensure cleanliness, quality of raw materials, and safe food handling practices are maintained.
- Collect feedback from students and staff regarding food quality, pricing, variety, and service, and recommend improvements.
- Suggest nutritious, affordable, and diverse menu options and periodically review food pricing in consultation with the vendor.
- Act as a bridge between the canteen vendor and the institution for any issues related to supply, performance, or grievances.
- Ensure proper waste disposal and promote eco-friendly practices like avoiding single-use plastics and using biodegradable packaging.
- Assess and recommend improvements in canteen infrastructure such as seating, ventilation, lighting, water supply, and sanitation.
- Ensure that the canteen complies with FSSAI guidelines and other applicable food safety and health regulations.
- Maintain records of inspections, vendor agreements, complaints, resolutions, and submit periodic reports to the Principal.

Sports Committee

The Purpose of organizing physical education, sports and games activities is to create an environment that stimulates selected movement and experiences resulting in desirable responses that contribute to the optimal development of the individuals potentialities in all the phases of life.

Table 9.6.19: Sports and Games Committee of the College.

S.No.	**Committee Members**	**Designation**
1	Dr. K. Satish Reddy (Committee Chairman)	Asst. dean IIIC
2	Mr. SNS Santosh (Committee Convenor)	Mech-Faculty
3	Dr. T. Rambabu	HOD H&S (ET)
4	Meezab Unnisa	Head Operations
5	Mr. Siddhartha	EEE-Faculty
6	Dr. Lavanya	HOD -H&S (non ET)
7	Mr. G. Shyam Sundar	Protocol officer
8	Mr.P.Santosh	ECE-Faculty
9	Mr. Khaleemuddin	Mech - Lab Asst
10	Mr. A. Rajkumar (Cood)	Physical Director
11	K. Lazar	Student Nominee
12	Thangalapelly Mukesh	Student Nominee
13	K. Rakshitha	Student Nominee

Functions:

- Prepare sports calendar and an action plan to implement the same.
- Suggest methods which encourage students and faculty to utilize sports and games facilities available in the college.
- Take up the responsibility of preparing the budget estimate, requirement of infrastructure and equipment, maintaining the equipment and play fields.
- Selection of teams to represent the college in inter-collegiate tournaments and also the intra-mural tournaments.
- Prepare the details of attendance exemption to be given to the students representing college in various sports and games.
- Increase the cordial relations between students and faculty by organizing exhibition games between the teams of students and faculty wherever possible.
- Ensure the availability of all sports equipment at all times and if needed the new items to be procured.
- Maintain every record of the purchase i.e. quotation, purchase order, bills and stock register.
- Be in touch with the captains for any kind of developmental activities.
- Any issue deemed fit to be brought to the notice of the Principal.
- The convener may also co-opt one student member from each UG & PG Courses and one girl student.

Student Welfare Committee

Table 9.6.20: Members List of Student Welfare Committee

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Mrs. Meezab Unnisa (Committee convenor)	Head Operations
3	Dr. T. Sathish Kumar	CSE-HOD
4	Dr. Satish K	Asst. Dean IIIC
5	Dr. K. Bindu Madhavi	Lead SE
6	Mr. K. Suresh	Asst.Controller of Examinations
7	Dr. D. Ashalatha	Student counsellor
8	Ms Akhila	Overseas education Counsellor
9	Ishita	Student Nominee
10	Mohammad Amaan	Student Nominee
11	G. Shayanidhi Reddy	Student Nominee

Functions:

- Suggest various extracurricular activities to be organized during the academic year.
- Suggest various improvements for the existing student chapters such as ISTE, IETE, IEEE, CSI, SAEINDIA and ASSE and Art of Living.
- Prepare proposals for conducting State and National Level events in extracurricular activities.
- Coordinate all the events and festivals of the college as per schedule and procedures.

- Prepare a data base of highly talented students in different activities and motivate them to participate in the events within and outside the college.
- Organize the cultural events under the supervision of cultural coordinator who in turn can identify in-charge staff members as cultural and technical event in- charges.
- Mobilize the resources like audio-visual equipment, stage management material, costumes, presentation materials, stage decoration items etc.
- Maintain the photo album, video and audio recording of all the events organized at the college.
- Maintain all the files, bills, reports, records and documents pertaining to every event organized in the college and submit to the Principal.
- The Cultural Coordinator, if he so desires, may form subcommittees as mentioned below for the event management.
    - Stage In-charge - audio-visual equipment, stage management material, etc.
    - Finance in-charge – maintain all the files, bills, reports, records and documentation pertaining to every event organized in the college.
    - Audio & Video in-charge –maintain the photo album, video and audio recording of all the events organized in the college.
    - Hospitality in-charge for transportation, refreshments, reception, presentations and gifts.

Staff Welfare Committee

Table 9.6.21: Members List of Staff Welfare Committee

S.No.	Committee Members	Designation
1	Dr. S. Arvind (Committee Chairman)	Principal
2	Mrs. Meezab Unnisa (Committee convenor)	Head Operations
3	Dr. T. Sathish Kumar	CSE-HOD
4	Dr Devika	Assoc.Dean Accreditation
5	Mr. Harsha Vardhan	Head CDC
6	Dr. UM Singh	Asst. Dean- academics
7	Dr. Lokeswara Rao	Dean Freshman Engg.
8	Dr. M. Rajeshwar	Asst.Dean
9	Mr. S. N. S. Santosh	Mech-Faculty

Functions:

- Assess and recommend initiatives related to health, well-being, and professional satisfaction of teaching and non-teaching staff.
- Suggest and coordinate programs such as yoga sessions, health check-ups, stress management workshops, and recreational activities.
- Propose schemes for professional growth including faculty development programs, training sessions, and orientation workshops.
- Recommend improvements in staff facilities such as staff rooms, cafeteria, transport, and medical aid.
- Organize appreciation events for long-serving or outstanding staff members (e.g., Teachers' Day, Retirement Functions, Awards, etc.)
- Collect and address staff grievances confidentially, and coordinate with the grievance redressal cell where necessary.

- Promote a positive, inclusive, and collaborative working environment through communication and feedback sessions.
- Help implement institutional welfare schemes like loans, insurance, and leave encashment benefits.
- Keep documentation of all welfare activities, feedback collected, budgets used, and submit regular reports to the Principal.

SC/ST Welfare Committee

Table 9.6.22: Members List of Staff Welfare Committee

S.No.	Committee Members	Designation
1	1. Dr. S. Arvind (Committee Chairman)	Principal
2	2. Mrs. Moshe Rani (Committee Convenor)	ECE - Faculty
3	3.Mrs. C. Surekha	ET-Faculty
4	4. Ms. Pranathi Aryan	CSE- Faculty
5	5. Mr. M. Siddhartha	EEE - Faculty
6	6. Mr. Pradeep Kumar	H&S - Faculty
7	7. Mr. T. Joseph	ET- FAculty
8	Rathla Rahul	Student Nominee
9	Gudepu Chandu	Student Nominee
10	Koninti Likith	Student Nominee
11	B.William Carry Sunny	Student Nominee

Functions:

- Plan and promote activities for the academic, social, and financial upliftment of SC/ST students and staff.
- Ensure proper implementation of reservation policies in admissions, recruitment, and promotions as per government guidelines.
- Organize seminars, workshops, and awareness programs on rights, opportunities, and schemes available for SC/ST communities.
- Identify and support SC/ST students needing academic, financial, or emotional assistance. Facilitate scholarship applications and follow-up.
- Provide a platform for SC/ST students and staff to address complaints related to caste-based discrimination or harassment.
- Liaise with national/state-level social welfare departments for implementing relevant welfare schemes and grants.
- Motivate SC/ST students to actively participate in curricular and extracurricular activities.
- Keep proper records of SC/ST students and staff, their participation in welfare programs, grievances, and resolutions.
- Prepare and submit reports to the Principal and higher authorities regarding committee activities, outcomes, and compliance with statutory requirements.

Sustainability & Eco-Wellness Committee

Table 9.6.23: Members List of Sustainability & Eco-Wellness Committee

S.No.	Committee Members	Designation

1	1. Col. Subramaniam(Committee Chairman)	Registrar
2	2. Mr. Ravi Gurram (Committee Convenor)	Admin officer
3	3. Dr. Chiranjeevi	COOD - EEE
4	4. Mr. P Praveen	MECH Faculty
5	5. Mr. P Kondala Rao	COOD - ECE
6	6. Mr. T. Raghavendra Gupta	CSE- Faculty
7	Gnanitha	Student Nominee
8	Hari Kishan Singh	Student Nominee
9	Shraddha Koti	Student Nominee

Functions:

1. Policy & Planning

- Formulate and implement eco-friendly policies for sustainable campus operations.
- Promote a culture of environmental responsibility among students and staff.

2. Sanitation & Hygiene

- Ensure cleanliness and hygiene standards are maintained across the campus including classrooms, hostels, toilets, and common areas.
- Conduct awareness programs on personal hygiene, waste segregation, and cleanliness.
- Periodically audit sanitation practices and report to the management.

3. Energy Management

- Monitor energy consumption and promote the use of energy-efficient appliances and practices.
- Recommend and support installation of renewable energy systems like solar panels.
- Conduct energy audits and implement conservation strategies.

4. Greenery & Plantation

- Plan and maintain green cover on campus by planting trees, maintaining lawns, and nurturing gardens.
- Conduct plantation drives involving students and staff.
- Collaborate with horticulturists to ensure scientific maintenance of green areas.

5. Waste Management

- Implement solid and liquid waste segregation, recycling, and disposal systems.
- Promote use of reusable, recyclable, and biodegradable materials.
- Ensure proper handling of e-waste and hazardous waste (if any).

6. Water Conservation & Management

- Monitor water usage and promote conservation techniques such as rainwater harvesting and drip irrigation.
- Ensure proper maintenance of water supply systems and water quality testing.

- Prevent water wastage and promote reuse and recycling of water where applicable.

7. Awareness & Engagement

- Organize workshops, awareness campaigns, exhibitions, and competitions on sustainability topics.
- Encourage student clubs and NSS/NCC units to participate in green initiatives.

8. Monitoring & Reporting

- Maintain records of all sustainability initiatives, audits, and improvements.
- Submit annual reports to the Principal/Management with recommendations and outcomes.
- Coordinate with external bodies (like Pollution Control Boards, Municipalities, NGOs) for expert support and collaboration.

9. Infrastructure Recommendations

- Suggest eco-friendly infrastructure developments (e.g., green buildings, eco-toilets, LED lighting).
- Ensure campus infrastructure projects comply with environmental regulations and green building norms.

9.6.3 Transparency (5)

Institute Marks : 5.00

Hyderabad Institute of Technology and Management (HITAM) is committed to fostering transparency, accessibility, and effective communication with all its stakeholders. To ensure that all policies, rules, processes, and governance documents are easily accessible, we have adopted a comprehensive dissemination strategy through website and ERP.

Availability of Policies, Rules, and Processes

At HITAM, all key institutional policies, academic regulations, administrative rules, processes, and guidelines related to faculty, students, and financial powers are uploaded and made available on the official institutional website. These include: Academics and Non-Academics include only functioning policies

- Academic and Examination Regulations
- Administrative and Service Rules for Faculty and Staff
- Student Code of Conduct and Discipline Guidelines
- Research, Consultancy, and Innovation Policies
- Financial Delegation and Approval Processes
- Grievance Redressal and Anti-Ragging Policies

Table 9.6.24: List of policies

S.No	List of Policies	Link
1	Regulations	https://hitam.org/wp-content/uploads/2025/04/HR21-Regulations.pdf (https://hitam.org/wp-content/uploads/2025/04/HR21-Regulations.pdf)
2	Syllabus	https://hitam.org/electronics-and-communication-engineering/ (https://hitam.org/electronics-and-communication-engineering/)

3	Academic Calendars	https://hitam.org/wp-content/uploads/2025/03/Academic-Calendar-24-25.pdf (https://hitam.org/wp-content/uploads/2025/03/Academic-Calendar-24-25.pdf)
4	Internship Policy	https://drive.google.com/file/d/1M2knIwJbaLleUDupuD5EAjx7pPh-4Iji/view?usp=sharing (https://drive.google.com/file/d/1M2knIwJbaLleUDupuD5EAjx7pPh-4Iji/view?usp=sharing)
5	Attendance Policy	https://drive.google.com/file/d/1XEw2b989exjCkmEJUNUoTrz__-40Bubk/view?usp=sharing (https://drive.google.com/file/d/1XEw2b989exjCkmEJUNUoTrz__-40Bubk/view?usp=sharing)
6	Timetable policy	https://drive.google.com/file/d/1-iX7twDXo7RsXlgK7_XgHML79XhXkFDM/view?usp=sharing (https://drive.google.com/file/d/1-iX7twDXo7RsXlgK7_XgHML79XhXkFDM/view?usp=sharing)
7	Examination Regulations (Calendar, Evaluation Guide, Do's and Don'ts)	https://drive.google.com/file/d/1UwJT_nCTDJGl4uyO6hn9oG6gAbKsqu8L/view?usp=sharing (https://drive.google.com/file/d/1UwJT_nCTDJGl4uyO6hn9oG6gAbKsqu8L/view?usp=sharing)
8	Code of conduct	https://hitam.org/accreditations/ (https://hitam.org/accreditations/)
9	R&D Policy	https://drive.google.com/file/d/1EKAL2lhq8I4wOtXwx2R6A9jYU_NhpEzq/view?usp=sharing (https://drive.google.com/file/d/1EKAL2lhq8I4wOtXwx2R6A9jYU_NhpEzq/view?usp=sharing)
10	Service rules	https://drive.google.com/file/d/1BpyyS6BBC9cce_ItEqTIUj58rUxEQVah/view?usp=sharing (https://drive.google.com/file/d/1BpyyS6BBC9cce_ItEqTIUj58rUxEQVah/view?usp=sharing)
11	Financial policy	https://drive.google.com/file/d/1BpyyS6BBC9cce_ItEqTIUj58rUxEQVah/view?usp=sharing (https://drive.google.com/file/d/1BpyyS6BBC9cce_ItEqTIUj58rUxEQVah/view?usp=sharing)

Stakeholder Awareness and Dissemination Mechanisms

HITAM has established multiple channels to ensure that all stakeholders are well-informed about institutional policies, governance processes, and operational guidelines. These include:

- Regular Notifications and Circulars sent through official emails, WhatsApp groups, and displayed on campus notice boards.

- Faculty Orientation Programs to familiarize new and existing faculty with institutional policies and processes.
- Student Induction Programs at the beginning of every academic year, where students are informed about academic regulations, examination policies, grievance redressal mechanisms, and campus conduct expectations.
- Faculty Access via ERP, allowing seamless retrieval of institutional documents directly from the ERP platform.
- Periodic HR Sessions to update all stakeholders about policy changes, new processes, or governance reforms.

9.7 Budget Allocation, Utilization, and Public Accounting at Institute Level (12) **Total Marks 12.00**

:

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY : (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2024-2025

Total Income 317251798				Actual expenditure(till…):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
308819907	551470	6850598	1029823	334000199	2521	132487.19

Table 2 - CFYm1 2023-2024

Total Income 267820665				Actual expenditure(till…):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
260117525	307559	6195866	1199715	260161308	2278	114206.02

Table 3 - CFYm2 2022-2023

Total Income 234849842				Actual expenditure(till…):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
229119234	138730	5027923	563955	228459889	1895	120559.31

Table 4 - CFYm3 2021-2022

Total Income 185490234				Actual expenditure(till…):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
183498018	256831	1296000	439385	180202222	1739	103624.05

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	1300000	1366287	3800000	4076998	2000000	2205450	4500000	4734225
Library	700000	452723	1200000	1365752	1000000	1136130	1000000	959710
Laboratory equipment	2800000	3086525	8000000	8749441	4500000	4929643	5500000	5576837
Teaching and non-teaching sta	1550000	1563128	1500000	1462478	1130000	1122953	7500000	7484982
Outreach Programs	500000	477434	1000000	1175039	300000	298885	500000	335748
R&D	800000	504700	1500000	1341214	500000	502582	1550000	1644500
Training, Placement and Indust	4500000	4889355	3500000	3450861	2500000	2395655	3000000	3834576
SDGs	2200000	2117622	2000000	2363732	500000	613062	1500000	1530944
Entrepreneurship	500000	488816	500000	500000	1000000	1256784	1000000	705555
Others, specify	0	0	0	0	0	0	0	0
Total	**297000000**	**304958797**	**205700000**	**205963888**	**125300000**	**125633577**	**134050000**	**136779947**

9.8 Program Specific Budget Allocation, Utilization (8) **Total Marks 8.00**

:

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY: (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2024-2025

Total Budget 1860000	Actual expenditure (till…): 1634814	Total No. Of Students 209

Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
2000000	1860000	1634814	87.89	7822.08

Table 2 :: CFYm1 2023-2024

Total Budget 2810000		Actual expenditure (till…): 2463078		Total No. Of Students 205
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
3000000	2810000	2463078	87.65	12015.01

Table 3 :: CFYm2 2022-2023

Total Budget 2200000		Actual expenditure (till…): 1862976		Total No. Of Students 241
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
2500000	2200000	1862976	84.68	7730.19

Table 4 :: CFYm3 2021-2022

Total Budget 2055000		Actual expenditure (till…): 1925179		Total No. Of Students 302
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
2000000	2055000	1925179	93.68	6374.76

Items	**Budgeted in 2024-2025**	**Actual Expenses in 2024-2025 till**	**Budgeted in 2023-2024**	**Actual Expenses in 2023-2024 till**	**Budgeted in 2022-2023**	**Actual Expenses in 2022-2023 till**	**Budgeted in 2021-2022**	**Actual Expenses in 2021-2022 till**
Laboratory equipment	250000	195433	1000000	984353	500000	480380	500000	496957
Software	200000	174950	100000	65580	150000	111177	200000	172263
SDGs	300000	254115	300000	283648	75000	73568	200000	183713
Support for faculty developmer	400000	363029	600000	554448	1000000	850062	450000	414756
R & D	100000	60564	300000	160946	70000	60310	200000	197340
Industrial Training, Industry exp	600000	586723	500000	414103	400000	287479	500000	460150
Miscellaneous Expenses	10000	0	10000	0	5000	0	5000	0
Total	**1860000**	**1634814**	**2810000**	**2463078**	**2200000**	**1862976**	**2055000**	**1925179**

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

Total Marks 5.00

Institute Marks : 5.00

The library at HITAM consists of state-of-art facilities to cater to the needs of the students and faculties such as reading space, seating capacity spread over a built up area of 4000 sft. The Library is supported by 40, 865 physical volumes towards 4987 titles, 10,664 e-books, 36 print journals, nearly more than 900 e journals and 500 rare books. Self-improvement books have been provided to faculty and Leadership that supports the professional development of staff.

A dedicated staff helps the students find the necessary titles. The books are indexed, categorized according to programs and subjects and arranged alphabetically. The software contains details about the author's name, title and publishing house. Upon an inquiry, the librarian searches in the software and helps the students locate the book. The library follows the book bank scheme. With this, the students are able to borrow books for the entire length of a semester so as to help them study. All books are bar coded and a reference ID is given. The issues and returns are also digitized. The college library follows set norms of the competent authorities. First Library in Telangana having NDLI (National Digital Library of India) Club in association with IIT Kharagpur. HITAM has been awarded as best performer in Telangana state from NDLI and in top 10 NDLI clubs securing 2nd position in the country.

List of resources in the Library:

Library Management System (LMS):

HITAMs Library Management System is a digital platform used to manage library operations efficiently. It handles the cataloging, circulation (issue/return), member management, and inventory control of books and other resources. This system allows both students and staff to search for and reserve books, track due dates, and manage their library usage online.

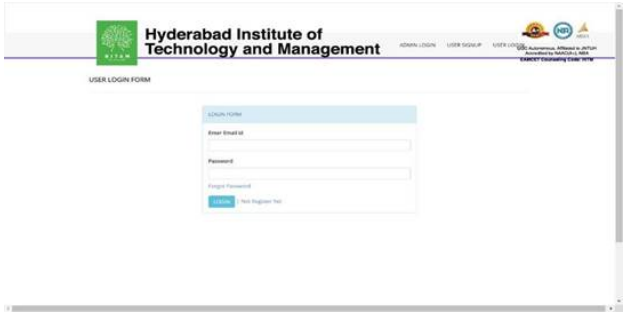


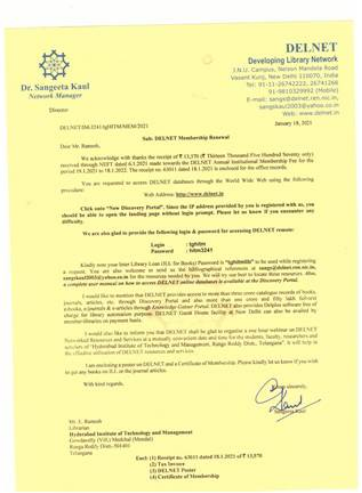
Figure 9.9.1: HITAM LMS

Online Public Access Catalog (OPAC):

Online Public Access Catalog (OPAC) is a digital catalog that allows users to search the entire library collection at HITAM. Through OPAC, students and faculty can check the availability of books, journals, and other materials by using keywords such as title, author, or subject. It enhances transparency and ease of access to library resources.

Developing Library Network (DelNet):

DelNet is a resource-sharing platform that provides access to a vast network of libraries across India and abroad. HITAM users can access millions of books, articles, and research papers not physically available in the library through interlibrary loan and document delivery services. It is particularly helpful for academic and research-related purposes.



Dr. Sangeeta Kaul
Network Manager

DELNET
Developing Library Network

Figure 9.9.2: DelNet Membership

National Digital Library of India (NDLI):

HITAM is **the first library in Telangana** to establish an **NDLI Club** in association with **IIT Kharagpur**. The club promotes the use of the National Digital Library, which hosts a repository of academic content including books, articles, videos, and simulations from multiple disciplines. Through the club, HITAM conducts reading activities, quizzes, and awareness programs to enhance digital learning.

This
CERTIFICATE OF APPRECIATION
is hereby granted to
HYDERABAD INSTITUTE OF TECHNOLOGY AND MANAGEMENT (HITAM)
Adjudged As Best Performing (NDLI Club In Telangana India)
This certifies that the NDLI Club has displayed outstanding performance and unwavering dedication in promoting knowledge and learning through the National Digital Library of India (NDLI).
Through their remarkable efforts, they have successfully utilized the resources offered by the NDLI platform to foster a culture of continuous learning and digital literacy. Their commitment to organizing informative events, workshops, and study sessions has greatly contributed to the intellectual growth of its members and the wider community.
Their exceptional performance serves as an inspiring example of how a passion for learning can make a significant impact. Their achievements will serve as an inspiration to others, demonstrating the transformative power of digital resources and a passion for learning.
In recognition of their outstanding achievements, we proudly present this certificate as a token of appreciation and encouragement.
Congratulations on their remarkable performance, dedication, and contributions to promoting knowledge and learning.
NDLI Club
Prof. K. P. Sinhamahapatra
Joint Principal Investigator
National Digital Library of India Project
Chairman
Central Library IIT Kharagpur
Professor
Aerospace Engineering, IIT Kharagpur
Dr. B. Sutradhar
Joint Principal Investigator
National Digital Library of India Project
Librarian
Central Library IIT Kharagpur

Figure 9.9.3: Certificate of Appreciation from NDLI

Information and Library Network (INFLIBNET):

INFLIBNET is a government-funded initiative that supports access to scholarly and research materials. HITAM faculty and students use INFLIBNET for research projects and academic work. It provides free access to open-source journals, theses, dissertations, e-books, and bibliographic databases, making it a vital tool for research and higher learning.

Digital Library:

HITAM's Digital Library is equipped with 20 computer systems, offering students access to a wide range of online journals, e-resources, and educational databases. It provides a quiet and technology-enabled environment where students can work on research, explore digital content, and watch academic lectures.

Figure 9.9.4: Digital Library

NPTEL Lectures:

HITAM is a recognized NPTEL Local Chapter, which means students have access to high-quality video lectures created by IITs and IISc under the National Programme on Technology Enhanced Learning (NPTEL). These lectures are available in the library and can be used by students to supplement their classroom learning and prepare for competitive exams.

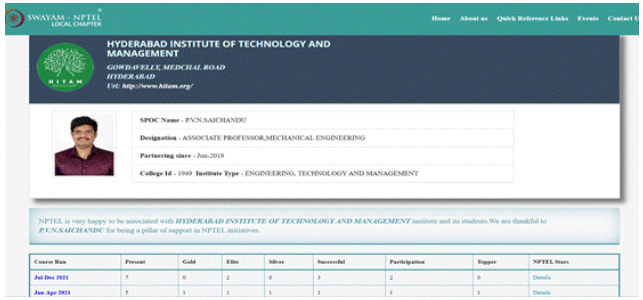


Figure 9.9.5: NPTEL Local chapter in the website

YouTube Channel – eLearn_HITAM:

HITAM runs an official YouTube channel called eLearn_HITAM, where faculty upload teaching videos, technical content, project demonstrations, and subject tutorials. This platform supports blended learning and helps students revise or learn at their own pace outside the classroom.

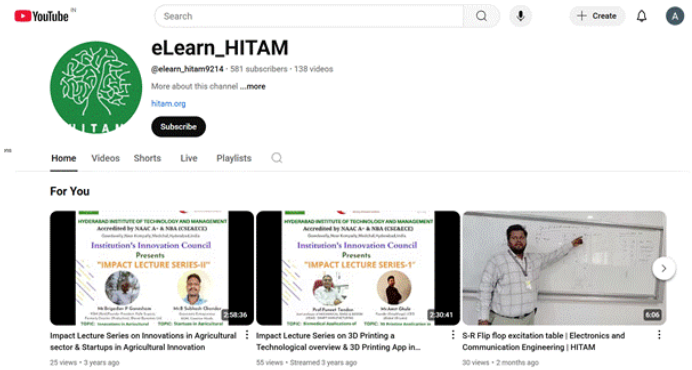


Figure 9.9.6: HITAM You Tube Channel

Table 9.9.1: List of resources available in the library

Library resources	**If yes, details of memberships/ subscriptions**	**Link to the relevant document**
Books	998	https://drive.google.com/file/d/1OQmCB3PiYB-3czFdADmOejDLADbOLDx2/view?usp=sharing (https://drive.google.com/file/d/1OQmCB3PiYB-3czFdADmOejDLADbOLDx2/view?usp=sharing)
Journals	50	https://drive.google.com/file/d/1xF0HVx62-ZUHoEXyAUwIyV4_zTAg-kyB/view?usp=sharing (https://drive.google.com/file/d/1xF0HVx62-ZUHoEXyAUwIyV4_zTAg-kyB/view?usp=sharing)
e – journals	DELNET	https://drive.google.com/file/d/1m1AUD3yROMVte8dTimKOMNjsijZ97bQP/view?usp=sharing (https://drive.google.com/file/d/1m1AUD3yROMVte8dTimKOMNjsijZ97bQP/view?usp=sharing)
e-books	10667 e-booksThrough DELNET	http://www.e-booksdirectory.com/
e-ShodhSindhu	Free membership	https://ndl.iitkgp.ac.in/
Shodhganga	Free membership	https://discovery1.delnet.in/
Databases	DELNET, NDLI, NPTEL Drill Bit	https://drive.google.com/drive/folders/1Z40afsJqBQLki_16Y277t0zRyxtQUOu3?usp=sharing (https://drive.google.com/drive/folders/1Z40afsJqBQLki_16Y277t0zRyxtQUOu3?usp=sharing)
Local and / or Remote access to e-resources (Specify)	DELNET (IP based) NDLI (Remote based)	https://drive.google.com/drive/folders/1Z40afsJqBQLki_16Y277t0zRyxtQUOu3?usp=sharing (https://drive.google.com/drive/folders/1Z40afsJqBQLki_16Y277t0zRyxtQUOu3?usp=sharing)
You Tube	eLearn_HITAM	https://www.youtube.com/@elearn_hitam9214

Campus-Wide Computing Resources:

HITAM is committed to maintaining cutting-edge IT facilities to enhance the learning experience for students. Our Wi-Fi infrastructure is regularly updated to ensure a seamless and high-speed internet connection, currently boasting an impressive speed of 550 Mbps. As part of our commitment to staying technologically current, we prioritize the annual update and purchase of computers. This ensures that students have access to the latest technology, creating an environment conducive to learning and innovation.

IT Policy Overview: The Institute has an IT policy covering major areas such as Wi-Fi, cyber security, and software upgrades, which are updated as per institutional needs. HITAM continuously upgrades IT facilities in compliance with regulatory norms and industry requirements. The institution provides 3 to 5% of the annual budget for IT upgrades, which are audited regularly to ensure transparency and accountability.

Wi-Fi and Network Infrastructure:

Bandwidth of internet connection in the Institution:

Hyderabad Institute of Technology and Management (HITAM) ensures uninterrupted internet connectivity through high-speed leased lines and bandwidth services. HITAM is offering total internet capacity of 550 Mbps, which includes:

- 100 Mbps Internet Leased Line from D-Atum Vilcom Private Limited.
- 50 Mbps Internet Leased Line from D-Atum Vilcom Private Limited.
- 200 Mbps Bandwidth from Neolog Online Services Private Limited, Hyderabad.
- 200 Mbps Bandwidth from KP Internet Services, Hyderabad from March 2024 to June 2024

Table 9.9.2: Contracted Services from July 2023 to June 2024, ensuring reliable and efficient internet access across the campus for academic and administrative needs.

S. No	Description	Name of the Company	Duration
1	100 Mbps Internet Leased line	D-Atum Vilcom Private Limited	July 2023 – March 2024
2	50 Mbps Internet Leased line	D-Atum Vilcom Private Limited	July 2023 – March 2024
3	200 MBPs Bandwidth	Neolog Online Services Private Limited, Hyderabad	July 2023 – March 2024
4	200 MBPs Bandwidth	KP Internet Services	April 2024 – June 2024
5	200 Mbps Internet Leased line	D-Atum Vilcom Private Limited	April 2024 – June 2024

9.10 E-Governance (5)

Total Marks 5.00

Institute Marks : 5.00

At HITAM, were committed to using technology to improve teaching and learning. Here are some ways weve done that over the past 5 years:

1. YouTube Channel (HITAM_eLearn): We have a YouTube channel where students can watch recorded lectures anytime. This makes it easy for them to review the material whenever they need to.
2. MOODLE LMS Portal: Our Learning Management System (LMS) gives students access to digital content like lecture slides and videos. They can stay updated with class materials even outside of the classroom.

3. Online Certifications: We encourage students and faculty to take online courses and get certified through platforms like SWAYAM and NPTEL. This helps them expand their knowledge and skills in specific areas.
4. Guest Lectures and Workshops: We organize guest lectures and workshops, both online and offline, where students can learn from experts and industry professionals. These events offer different learning experiences to suit everyones preferences.
5. Delnet and Online Library Resources: HITAM is affiliated with Delnet, providing students with access to a vast array of online library resources. This includes e-books, journals, and other academic materials, enriching their learning experience beyond traditional textbooks.
6. Online Journals Access: Our students have access to online journals through various databases, allowing them to stay updated with the latest research and developments in their fields of study.

E-governance Initiatives:

1. Administration: ERP Software

HITAM uses a centralized ERP (Enterprise Resource Planning) system to streamline administrative operations including faculty data management, attendance, schedules, circulars, leave management, and departmental coordination. It ensures transparency, efficiency, and quick decision-making across all administrative levels.

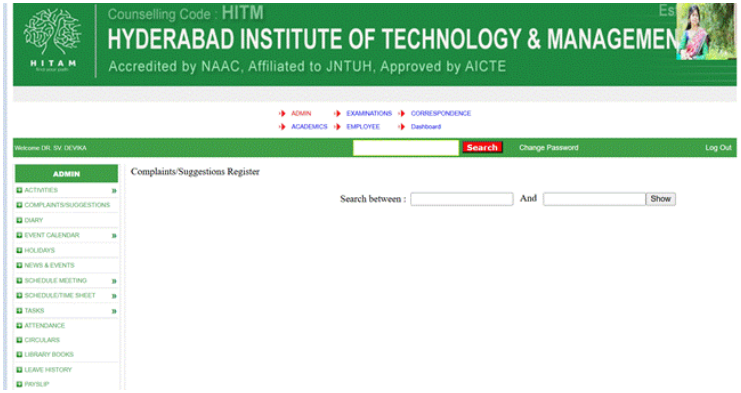


Figure 9.10.1: ERP software for administration

2. Finance: ERP and Tally

The **Finance Department** utilizes both **ERP** and **Tally** software:

- **ERP** manages fee collection, payroll processing, budgeting, and financial reporting.
- **Tally** is used for accounting purposes such as maintaining ledgers, balance sheets, and audit compliance, ensuring accurate and real-time financial tracking.

3. Examinations: The BEES (Board of Examination & Evaluation System) software is used for managing all academic assessments.

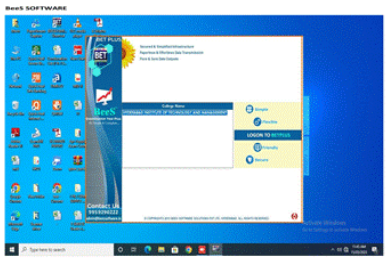


Figure 9.10.2: Bees software & ERP Software

4. Library: LMS, ERP, DelNet

- **LMS (Library Management System):** Manages book circulation, cataloging, and inventory.
- **ERP:** Integrates library data with student records for seamless access and usage tracking.
- **DelNet:** Provides access to inter-library services and a large repository of research materials.

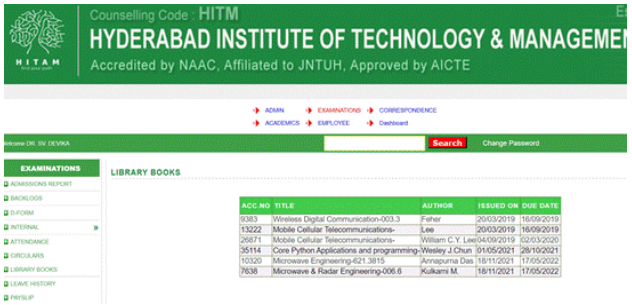


Figure 9.10.3: Library Management System

5. Alumni Portal:

The Alumni Portal connects HITAM with its graduates. It supports: Networking and mentorship opportunities, Alumni registration and profiles, Event updates and participation, Placement and internship support, Feedback and engagement with the institution for knowledge sharing and collaboration.

Figure 9.10.4: Alumni portal

6. Grievances cell:

HITAM maintains a transparent and accessible grievance redressal system. It allows students, faculty, and staff to submit complaints or suggestions online through a structured form. The grievance cell reviews and resolves issues related to academics, facilities, faculty behavior, or other concerns within a defined timeframe.

Table 9.10.1: Committee composition

S. No	Name of the Faculty	Designation
1	Dr. Arvind S (Committee Chairman)	Principal
2	Col. PVR Subramanyam (Committee Convenor)	Registrar
3	Mrs. Bindu Madhavi	Lead Student Engagement

4	Dr. M. Rajeshwar	Assistant Dean
5	Dr. D. Ashalatha	Student counsellor
6	Mr. Surendra Bandi	Assoc. Dean Education
7	Mr. Bhavith	Student Registrar

7. MOODLE:

HITAM (Hyderabad Institute of Technology and Management) uses Moodle, an open-source Learning Management System (LMS), as its official digital platform for teaching, learning, and assessment. Moodle serves as a virtual classroom that complements offline teaching, ensuring continuous academic engagement.

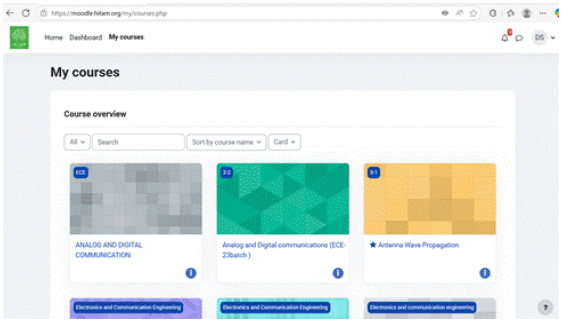


Figure 9.10.5: Moodle Software

8. Zoom:

Zoom at HITAM supports flexible, remote, and hybrid learning models, enhancing accessibility and real-time engagement across various stakeholders.

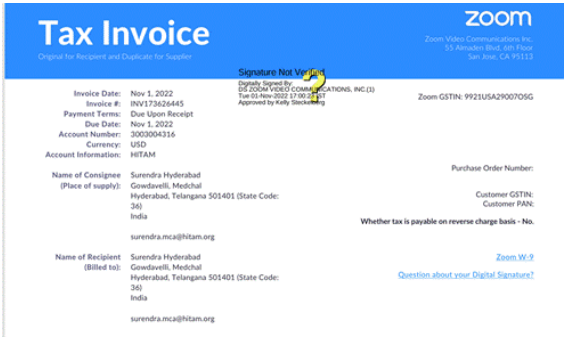


Figure 9.10.6: Zoom invoice

9. IONCUDOS:

Intelligent Outcome-based Course Design and Outcome-based System) is an advanced academic management platform implemented at HITAM to strengthen Outcome-Based Education (OBE) practices.

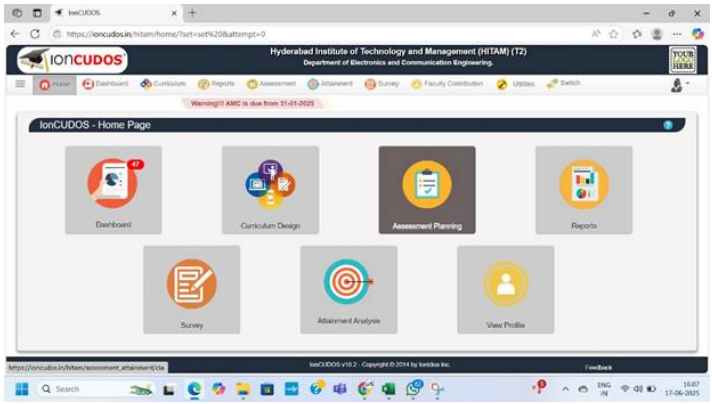


Figure 9.10.7: Ioncudos tool for outcome based education

9.11 Initiatives and Implementation of Sustainable Development Goals (SDGs) (10)	Total Marks 10.00
	Institute Marks : 10.00

Sustainable practices in academic and learning management:

HITAM is the first Educational Green Building Institution in the country awarded with '*Silver rating'* by the US Green Building Council. Being the Green Building Institute, always emphasizes on implementation of Sustainable Development Goals.

Table 9.11.1: How HITAM is contributing to SDG Goals

SDG	Goal Title	Contribution of HITAM
1	No Poverty	

		Helping Students to achieve scholarships, financial aid, For-a-cause Activities and NSS activities.
2	Zero Hunger	Promote Agri-tech projects and smart farming.
3	Good Health and Well-being	Run blood donation camps, and research in the medical informatics field.
4	Quality Education	Provide inclusive, quality technical education with updated curriculum aligned to industry needs.
5	Gender Equality	Ensure gender parity in admissions, support women in STEM, run women empowerment cells and awareness campaigns.
6	Clean Water and Sanitation	Innovate water purification, rainwater harvesting systems
7	Affordable and Clean Energy	Promote research in solar, wind, and bioenergy; install renewable energy sources on campus;
8	Decent Work and Economic Growth	Facilitate internships, placements, entrepreneurship cells, and skill-based training to improve employability.
9	Industry, Innovation, and Infrastructure	Run innovation labs, incubation centers, and work on community infrastructure development projects. Collaborate with MSMEs and startups.
10	Reduced Inequalities	Promote inclusive policies for differently-abled and economically weaker students;
11	Sustainable Cities and Communities	Projects on smart city solutions, traffic management systems, green buildings, and urban planning.
12	Responsible Consumption and Production	Conduct workshops on waste reduction, promote reuse/recycle practices on campus, and support eco-friendly startups.
13	Climate Action	Integrate Environmental Science in the curriculum, using minimum numbers of ACs.
14	Life Below Water	Research on water pollution control
15	Life on Land	Tree plantation drives and sustainability audits of the campus.
16	Peace, Justice, and Strong Institutions	Promote ethics in engineering, anti-ragging policies, student grievance redressal systems, and leadership programs.

17	Partnerships for the Goals	Collaborate with government bodies, NGOs, industries, and international universities to advance SDG-based initiatives.

The orientation and spacing of the buildings in the complex have been designed in a manner that minimizes interclass interference. Fly ash brick construction with cavity walls has been used for better thermal insulation. 85 % of the areas are day lit. This has been achieved by optimizing window sizes. Reused furniture is chosen for Classroom and other administrative areas. Passive Downdraft Evaporative Cooling (PDEC) system has been specially designed and adopted for space conditioning of the entire building. HITAM believes that nurturing nature is the best way to promote environmental sustainability with the adoption of eco-friendly methods.

Plastic items are strictly not allowed in the campus and signages are displayed at conspicuous places. Intranet and ERP systems are in use for all day-to-day activities of office, department including parent teacher interaction, assignments and performance appraisal. Thus, the usage of paper on campus is minimized. All communication to departments, resources and students is made through mails and other electronic media to spread awareness about the same.

Campus has around 450 species of plants including herbs, shrubs and big shady trees. This provides home to flora and creates a heaven for the nesting birds. HITAM campus is a noteworthy example of creating environmentally responsive passive habitants. The design of the project is woven around principles of climatic design which were practiced centuries back in regions which were hot and dry during summer and warm and humid during monsoon. Blended with passively ventilated comfortable indoors and well shaded outdoors, the institute has been celebrating nature to enhance the experience of technical learning. The institute is located on the outskirts of Hyderabad in the Gowdavelli village area which is about 20 km from the city. The summer months in this region are predominantly hot and dry while monsoons are warm and humid. This adverse climatic condition of the region was surely a challenge for the design team. The architecture of this building is a unique modern adaptation of traditional climatic design strategies that were prevalent in building designs of this region. Passive climate control measures like shading, optimum orientation, optimized day lighting, courtyard planning, cross and stack ventilation and evaporative cooling has been integrated intelligently in the design, thus enabling the project to achieve considerable thermal comfort even during peak summer afternoons.

During 2019, Indian Green Building Council (IGBC) has awarded “Best Practicing Green Building in India” to HITAM for practicing all facets of Green Building norms.

Figure 9.11.1: Battery operated vehicles designed by HITAM students under Skill Development Centre

Figure 9.11.2: No plastic boards in the Campus

Solid waste management:

Inspired by Swachh Bharat Mission, Twin-Bin system is being used in the Institute to segregate recyclable and biodegradable waste. The institution takes all measures required to ensure that the campus is free of plastic items and other wastes that harm the environment. Segregation of waste from the dustbins is done in other strategic locations, thus maintaining the Campus and keeping it clean and green. Professional contractors collect the recyclable waste and biodegradable waste. Chemical and hazardous waste from laboratories is disposed of as per MSDS. This waste is collected and disposed through a certified third party.

E-Waste Management:

All Electronic waste CPU's, Hard disks, Laboratory Equipment scrap is sent to the market either for repair or returned to the suppliers for disposal as per the manufacturer 's policy.

Liquid Waste Management:

At our campus, we treat wastewater through Sedimentation. The Sewage water from the entire campus is received through the underground pipelines. The treated water is used as natural organic compost for gardening.

Sewage Treatment Plant (STP) of 5000 L/day capacity is in use in the Institution campus. The treated water is used for flushing and gardening purpose.

Hyderabad Institute of Technology and Management (HITAM) is committed to comprehensive water conservation practices, ensuring a sustainable and responsible approach to water management within the institution. The following facilities and initiatives exemplify HITAMs dedication to water conservation:

1. **Rainwater Harvesting:** HITAM has implemented an efficient rainwater harvesting system that collects and stores rainwater for various purposes. This eco-friendly practice helps replenish groundwater and reduces the reliance on external water sources.

2. **Bore well/Open Well Recharge:** The institution has established borewell and open well recharge systems, enabling the replenishment of groundwater levels. This sustainable approach supports the conservation of water resources and ensures a consistent water supply for various needs within the campus.

3. **Construction of Tanks and Bunds:** HITAM has strategically constructed tanks and bunds to capture and store water. This infrastructure not only aids in preventing soil erosion but also serves as storage for rainwater, contributing to the overall water availability on campus.

4. **Wastewater Recycling:** The institution actively engages in wastewater recycling initiatives, treating and repurposing wastewater for non-potable purposes. This practice minimizes water wastage and promotes a circular and sustainable use of water resources within the campus.

5. **Maintenance of Water Bodies and Distribution System:** HITAM places significant emphasis on the maintenance of existing water bodies and the distribution system within the campus. Regular upkeep ensures the efficient flow and utilization of water, preventing leaks and optimizing water distribution for various needs.

Figure 9.11.3: a) Rain Water harvesting b) Borewells

Figure 9.11.4: Water tanks

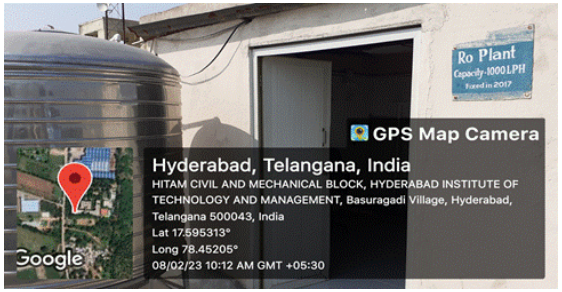


Figure 9.11.5: RO plant

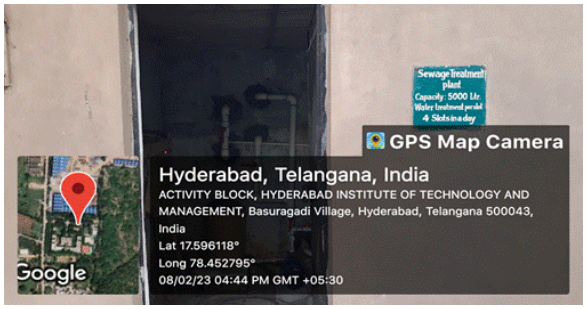


Figure 9.11.6: Sewage Treatment plant

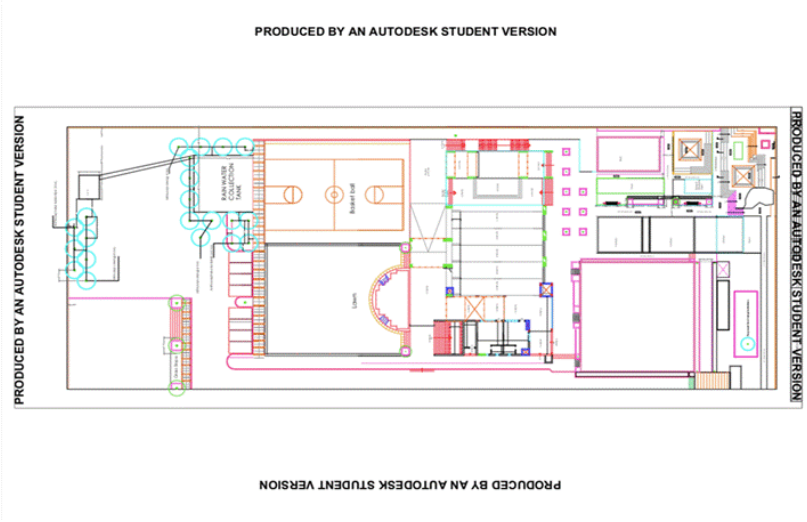


Figure 9.11.7: Water Distribution chart

9.12 Innovative Educational Initiatives and Implementation (5)	**Total Marks 5.00**
	Institute Marks : 5.00

1. Student Mobility and Academic Bank of Credits (ABC):

- HITAM is registered with the *Academic Bank of Credits* portal under UGC, enabling students to accumulate and redeem academic credits across institutions.
- Credit transfer for MOOCs offered through NPTEL, SWAYAM, and Coursera is actively facilitated.
- Students are encouraged to undertake internships, research projects, and entrepreneurship activities at national and international levels, supported through MoUs with industries and foreign universities.
- Flexible curriculum structure and the Choice-Based Credit System (CBCS) allow students to take interdisciplinary electives and fast-track their degrees.

2. Holistic Education and Human Values:

- Courses such as Universal Human Values (UHV), , and Environmental Science are integrated into the curriculum.
- Regular activities under NSS and Unnat Bharat Abhiyan promote community engagement, empathy, and ethical leadership.
- Yoga, meditation, and wellness sessions are held to promote mental well-being.

3. Multidisciplinary/Interdisciplinary Curriculum:

- The curriculum allows students to choose open electives across departments (CSE, ECE, EEE, Mech), supporting a multidisciplinary learning path.
- A *Multidisciplinary Makerspace* has been established where students from diverse backgrounds collaboratively build projects.
- Interdisciplinary hackathons and innovation challenges are conducted regularly to promote collaborative problem-solving.

4. Indian Knowledge System (IKS) and Indian Languages:

- Elements of Indian Knowledge System are introduced through orientation programs, workshops, and guest lectures.
- Programs such as *"Bharatiya Vijnana Parampara"* introduce students to ancient Indian scientific traditions.
- Efforts have been made to encourage teaching-learning in Indian languages by offering select tutorials and content in Telugu and Hindi, especially for rural-background students.

5. Inclusivity and Equity Policies:

- HITAM provides need-based scholarships and fee waivers for economically weaker students.
- A dedicated *Equal Opportunity Cell* ensures non-discrimination and equitable treatment of students from all backgrounds.
- The campus infrastructure is made accessible for physically challenged students (ramps, lifts, disabled-friendly restrooms).
- Support systems like peer mentoring, bridge courses, and special academic counseling are in place.

6. Support for Economically, Socially, and Physically Challenged Students:

- Reserved scholarships, mentorship support, and academic monitoring are provided.
- Tie-ups with NGOs and government agencies ensure extended support.
- Regular sensitization workshops are held to create an inclusive campus environment.

7. Action Plan for Slow Learners:

- Academic performance is tracked through continuous assessments.
- An Early Intervention Program identifies slow learners and assigns faculty mentors.
- Remedial and tutorial classes are scheduled outside regular hours.
- Personalized learning plans and regular parent communication are implemented.
- Usage of digital tools like Learning Management Systems (Moodle) and recorded lectures aid asynchronous learning.

9.13 Faculty Performance Appraisal and Development System (FPADS (10)	**Total Marks 10.00**
	Institute Marks : 10.00

Faculty performance evaluation sheet used at HITAM to assess faculty contributions in research, teaching, student engagement, and institutional development. It tracks research activities such as paper presentations, publications, patent filings, and project proposals while also evaluating teaching effectiveness through student attendance, pass percentage, and feedback. Faculty involvement in innovative teaching methods, student research guidance, mini/major projects, and workshops is also documented. Additionally, it records participation in institutional and departmental events, guest lectures, industry visits, administrative roles, and professional achievements, including awards and recognitions. This structured evaluation helps in faculty appraisals, promotions, and overall academic excellence. This process is done once a year based on the given parameters.

Table 9.13.1: Rubrics for Performance Metric system at HITAM

S. No	Parameters
1	Paper Presentations/year (Conference) Conference paper in Scopus index/ UGC
2	Paper Publications/year (Q1, Q2, Q3 category of Journals only)
3	Guest lecture delivered/ year in the other institutions
4	Avg Students Attendance
5	Pass % (Highest of last 3years) 70% or higher of the last 3 yrs. whichever is high
6	Innovative Teaching
7	PBL teaching
8	Student feedback (As per ERP) each subject individual scores to be considered
9	Student Paper/Poster Presentation (Applicable only to 1st year students)
10	Student paper publications (Applicable for 2nd, 3rd & 4th year students)
11	Guide Mini/major projects by all Departments except H&S. Micro/course projects by H&S Dept.
12	Conduct of Workshop /FDP/Seminars/ Conferences (Convenor & coordinator)
13	Industry Visit (Relevant industry)
14	Patent
15	publishing/editing of Articles/ Chapter in Books
16	Awards/Competitions won by faculty
17	Institutional/Dept Events/year (Event convenor/Coordinator/Committee in charges)
18	Administrative works/Role
19	Submission of project proposals to funding agencies

The performance varies from Professor, Associate Professor and Assistant Professor based on the experience.

PMS sample evaluation sheet of a faculty: https://drive.google.com/file/d/1izySB_qjvUQdJS2fNx1d9lnmOoYD8ssl/view?usp=sharing (https://drive.google.com/file/d/1izySB_qjvUQdJS2fNx1d9lnmOoYD8ssl/view?usp=sharing)

9.14 Outreach Activities (5)	**Total Marks 5.00**
	Institute Marks : 5.00

Hyderabad Institute of Technology and Management (HITAM) integrates social responsibility and civic engagement into its core educational practices. Through participation in national missions, NGO collaborations, student-led clubs, and structured social internships, HITAM nurtures a sense of service, leadership, and empathy among students.

1. Unnat Bharat Abhiyan (UBA): Rural Empowerment through Innovation

HITAM is an active participant in the Unnat Bharat Abhiyan (UBA), an initiative of the Ministry of Education, Government of India.

- The institute has adopted 4 villages:

1. Gowdavelli – Medchal District
2. Hakkimpet – Medak District
3. Kazhipet – Medak District
4. Kolanupaka - Yadari Bhuvanagiri District

- Through regular village visits, problem identification surveys, and solution implementation, HITAM focuses on:
    - Sanitation and waste management
    - Digital literacy and education
    - Sustainable agriculture practices
    - Solar energy and water conservation
    - Health and hygiene awareness programs

Students and faculty members work collaboratively with villagers to propose **technological and awareness-based solutions** aligned with sustainable development goals.

2. NGO Collaborations: Learning Through Community Engagement

HITAM encourages student involvement with external organizations to strengthen real-world social engagement. Key NGO collaborations include:

- **Sahaya**: Focuses on educational outreach for underprivileged children through volunteer teaching, donation drives, and book distributions.
- **For a Cause**: Involves students in urban social campaigns, health awareness events, and mental wellness initiatives.
- **Arutla Foundation**: Engages students in rural and community development efforts, including youth support, healthcare outreach, and women's empowerment programs.

3. NCC and NSS: Building Responsible Citizens

- **National Cadet Corps (NCC):** HITAM supports a dedicated NCC unit to develop qualities of discipline, leadership, and patriotism. Students participate in:
    - National integration camps
    - Road safety awareness
    - Clean India and Fit India campaigns

- **National Service Scheme (NSS)**: NSS volunteers at HITAM engage in:
    - Swachh Bharat drives
    - Voter awareness and blood donation camp
    - Literacy programs in nearby village
    - Tree plantation and environmental protection activities

4. XPLORE (Experiential Platform for Learning & Outreach in Real time Engineering)

Objectives of the Practice:

•To empower the students to apply engineering knowledge on the real time problems while meeting academic learning goals and contribute to society

•Apply domain knowledge to the design of community-based projects.

•Identify and acquire new knowledge as a part of the problem solving / design process.

•Design products on multidisciplinary concepts and an appreciation for the contributions from individuals from multiple disciplines.

•Build a role that their discipline can play in social contexts.

•Provide significant service to the community while learning; gain an understanding of the role that engineering (and their discipline) can play in society.

- **Engineering Projects in Community Service (EPICS)**

HITAM has been an EPICS Member College since 2016. HITAM has adapted the EPICS program from Purdue University, USA. Students from multiple disciplines have registered. Every semester students are identifying problems from the community and solving their problems by providing engineering solutions.

- **Unnat Bharat Abhiyan (UBA)**

HITAM is a Participating Institution of UBA from 2018. Under UBA HITAM Adopted Seven villages, conducted household surveys and took up technological interventions for improving life in rural areas. Got funding for 3 projects under Unnat Bharat Abhiyan (UBA) - Ministry of Education (MOE). Students will work on Technological intervention in the villages.

- **Engineers Without Borders Student Chapter (EWB)**

EWB-HITAM was established as a non-profitable chapter on 17th AUG 2019. HITAM believes in practical implementation is required for every engineer to solve community-oriented problems. The Design Process is followed for identifying of problems its consists of the following phases: Project Identification, Specification Development, Conceptual Design, Detailed Design.

Annexure I
(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

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

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

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

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

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

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

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

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

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

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

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

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

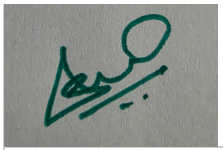
PSO1	Apply the Knowledge of Domain Skills in the Design and Development of Electronic Circuits, VLSI and Embedded Systems
PSO2	Demonstrate the Competency in Solving the Practical problems using Signal Processing and Communication systems that Contribute towards societal needs

Declaration

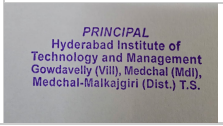
The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute
Name : Dr. S. ARVIND
Designation : PRINCIPAL
Signature :



Seal of The Institution :



Place : HYDERABAD

Date : 23-06-2025 14:40:55