

NRI Institute of Technology Guntur  
Electronics & Communication Engineering

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## Part A : Institutional Information

**1 Name and Address of the Institution**

NRI Institute of Technology Guntur,  
Visadala X Road, Medikonduru(M), Guntur (Dist), Andhra Pradesh 522438

**2 Name and Address of Affiliating University**

JNTUK Kakinada

**3 Year of establishment of the Institution:**

2008

**4 Type of the Institution:**

<input type="checkbox"/> University	<input checked="" type="checkbox"/> Autonomous
<input type="checkbox"/> Deemed University	<input type="checkbox"/> Affiliated
<input type="checkbox"/> Government Aided	

**5 Ownership Status:**

<input type="checkbox"/> Central Government	<input type="checkbox"/> Trust
<input type="checkbox"/> State Government	<input checked="" type="checkbox"/> Society
<input type="checkbox"/> Government Aided	<input type="checkbox"/> Section 25 Company
<input checked="" type="checkbox"/> Self financing	<input type="checkbox"/> Any Other(Please Specify)

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

Name of Institutions	Year of Establishment	Programs of Study	Location

**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	2008	2008	60	Yes	180	Not accredited (specify visit dates, year)	09/08/2019	11/08/2019	Yes	4

**Sanctioned Intake for Last Five Years for the Electronics & Communication Engineering**

Academic Year	Sanctioned Intake
2024-25	180
2023-24	120
2022-23	120
2021-22	180
2020-21	180
2019-20	180
2018-19	180

Digital Electronics & Communication Systems	PG	2012	2012	18	No	18	Eligible but not applied	--	--	No	2
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Computer Science and Engineering	UG	2008	2008	60	Yes	360	Not accredited (specify visit dates, year)	09/08/2019	11/08/2019	No	4
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**Sanctioned Intake for Last Five Years for the Computer Science and Engineering**

Academic Year	Sanctioned Intake
2024-25	360
2023-24	150
2022-23	150
2021-22	120
2020-21	120
2019-20	120

Civil Engineering	UG	2009	2009	60	Yes	30	Not accredited (specify visit dates, year)	09/08/2019	11/08/2019	0	4
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Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
<b>Sanctioned Intake for Last Five Years for the Civil Engineering</b>											
<b>Academic Year</b>						<b>Sanctioned Intake</b>					
2024-25						30					
2023-24						30					
2022-23						30					
2021-22						60					
2020-21						120					
2019-20						120					
Computer Science and Engineering (Data Science)	UG	2020	2020	60	Yes	180	Applying first time	--	--	0	4
<b>Sanctioned Intake for Last Five Years for the Computer Science and Engineering (Data Science)</b>											
<b>Academic Year</b>						<b>Sanctioned Intake</b>					
2024-25						180					
2023-24						180					
2022-23						180					
2021-22						120					
2020-21						60					
2019-20						0					
Information Technology	UG	2008	2008	60	Yes	120	Applying first time	--	--	0	4
<b>Sanctioned Intake for Last Five Years for the Information Technology</b>											
<b>Academic Year</b>						<b>Sanctioned Intake</b>					
2024-25						120					
2023-24						60					
2022-23						60					
2021-22						60					
2020-21						60					
2019-20						0					
Artificial Intelligence and Machine Learning	UG	2021	2021	60	Yes	120	Not eligible for accreditation	--	--	0	4

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
<b>Sanctioned Intake for Last Five Years for the Artificial Intelligence and Machine Learning</b>											
<b>Academic Year</b>						<b>Sanctioned Intake</b>					
2024-25						120					
2023-24						60					
2022-23						60					
2021-22						60					
2020-21						0					
2019-20						0					
Electronics VLSI Technology	UG	2023	2023	60	No	60	Not eligible for accreditation	--	--	0	4
Computer Science and Engineering	PG	2013	2013	18	Yes	36	Eligible but not applied	--	--	0	2
<b>Sanctioned Intake for Last Five Years for the Computer Science and Engineering</b>											
<b>Academic Year</b>						<b>Sanctioned Intake</b>					
2024-25						36					
2023-24						36					
2022-23						18					
2021-22						18					
2020-21						18					
2019-20						18					
Civil Engineering(Structural Engineering)	PG	2013	2013	18	No	18	Eligible but not applied	--	--	0	2
Master of Business Administration	PG	2010	2010	60	Yes	120	Eligible but not applied	--	--	0	2
<b>Sanctioned Intake for Last Five Years for the Master of Business Administration</b>											
<b>Academic Year</b>						<b>Sanctioned Intake</b>					
2024-25						120					
2023-24						60					
2022-23						120					
2021-22						120					
2020-21						120					
2019-20						120					

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
Master of Computer Applications	PG	2023	2023	120	Yes	180	Not eligible for accreditation	--	--	No	2

**Sanctioned Intake for Last Five Years for the Master of Computer Applications**

Academic Year	Sanctioned Intake
2024-25	180
2023-24	120
2022-23	0
2021-22	0
2020-21	0
2019-20	0

**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	Electronics & Communication Engineering
3	Under Graduate	Engineering & Technology	Information Technology
4	Under Graduate	Engineering & Technology	Computer Science and Engineering (Data Science)

**9 Total number of employees in the institution:**

**A. Regular\* Employees (Faculty and Staff):**

Items	2024-25		2023-24		2022-23	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	81	81	88	88	80	80
Faculty in Engineering (Female)	90	90	77	77	89	89
Faculty in Maths, Science & Humanities (Male)	24	24	11	11	12	12
Faculty in Maths, Science & Humanities (FeMale)	30	30	19	19	18	18
Non-teaching staff (Male)	40	40	38	38	37	37
Non-teaching staff (FeMale)	29	29	28	28	29	29

**B. Contractual\* Employees (Faculty and Staff):**

Items	2024-25		2023-24		2022-23	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0

**10 Total number of Engineering Students:**

<input checked="" type="checkbox"/> Engineering and Technology- UG	<input checked="" type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
<input checked="" type="checkbox"/> Engineering and Technology- PG	<input checked="" type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
<input type="checkbox"/> Engineering and Technology- Polytechnic	<input type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
<input checked="" type="checkbox"/> MBA	<input checked="" type="checkbox"/> Shift1	<input type="checkbox"/> Shift2
<input checked="" type="checkbox"/> MCA	<input checked="" type="checkbox"/> Shift1	<input type="checkbox"/> Shift2

#### Engineering and Technology- UG Shift-1

Items	2024-25	2023-24	2022-23
Total no. of Boys	1802	1496	1163
Total no. of Girls	995	779	663
<b>Total</b>	<b>2797</b>	<b>2275</b>	<b>1826</b>

#### Engineering and Technology- PG Shift-1

Items	2024-25	2023-24	2022-23
Total no. of Boys	41	17	5
Total no. of Girls	33	16	11
<b>Total</b>	<b>74</b>	<b>33</b>	<b>16</b>

#### Engineering and Technology- MBA Shift-1

Items	2024-25	2023-24	2022-23
Total no. of Boys	106	72	48
Total no. of Girls	46	43	58
<b>Total</b>	<b>152</b>	<b>115</b>	<b>106</b>

#### Engineering and Technology- MCA Shift-1

Items	2024-25	2023-24	2022-23
Total no. of Boys	114	71	0
Total no. of Girls	98	61	0
<b>Total</b>	<b>212</b>	<b>132</b>	<b>0</b>

**11 Vision of the Institution:**

To become reputed institution of Engineering & Management programs, Producing competitive, ethical & socially responsible professionals.

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**12 Mission of the Institution:**

IM1: Provide quality education through best teaching and learning practices of committed staff.

IM2: Establish a continuous interaction, participation and collaboration with industry to provide solutions.

IM3: Provide the facilities that motivate/encourage faculty and students in research and development activities.

IM4: Develop human values, professional ethics and interpersonal skills amongst the individuals.

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

<b>Head of the Institution</b>	
Name	Dr Dola Sanjay S
Designation	Professor and Principal
Mobile No.	9701037149
Email ID	nriit.guntur@gmail.com

 **NBA Coordinator, If Designated**

Name	Dr K Srihari Rao
Designation	Vice Principal
Mobile No.	9246400540
Email ID	hr.nriit@gmail.com

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## PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	60.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	120.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	120.00
4	STUDENTS' PERFORMANCE	150	111.95
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	194.84
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	50	50.00
8	FIRST YEAR ACADEMICS	50	44.97
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
		<b>Total</b>	<b>1000</b>
			<b>952</b>

## Part B

### 1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60)

Total Marks 60.00

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

Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	To become reputed institution of Engineering & Management programs, Producing competitive, ethical & socially responsible professionals.												
Mission of the institute	<p>IM1: Provide quality education through best teaching and learning practices of committed staff.</p> <p>IM2: Establish a continuous interaction, participation and collaboration with industry to provide solutions.</p> <p>IM3: Provide the facilities that motivate/encourage faculty and students in research and development activities.</p> <p>IM4: Develop human values, professional ethics and interpersonal skills amongst the individuals.</p>												
Vision of the Department	To become a center of excellence by bringing out the professional competence in the core areas of electronics and communication engineering.												
Mission of the Department	<table border="1"> <thead> <tr> <th>Mission No.</th><th>Mission Statements</th></tr> </thead> <tbody> <tr> <td>M1</td><td>To provide conducive environment that impart electronics and communication knowledge through quality teaching &amp; self-learning.</td></tr> <tr> <td>M2</td><td>To serve the needs of electronics, telecommunication and allied industries through industry interaction.</td></tr> <tr> <td>M3</td><td>To encourage innovative thinking, continuous learning among the stakeholders and create new techniques in IOT, VLSI.</td></tr> <tr> <td>M4</td><td>To groom students in communication and interpersonal skills.</td></tr> <tr> <td>M5</td><td>To inculcate human values and ethics to make learners sensitive towards social issues.</td></tr> </tbody> </table>	Mission No.	Mission Statements	M1	To provide conducive environment that impart electronics and communication knowledge through quality teaching & self-learning.	M2	To serve the needs of electronics, telecommunication and allied industries through industry interaction.	M3	To encourage innovative thinking, continuous learning among the stakeholders and create new techniques in IOT, VLSI.	M4	To groom students in communication and interpersonal skills.	M5	To inculcate human values and ethics to make learners sensitive towards social issues.
Mission No.	Mission Statements												
M1	To provide conducive environment that impart electronics and communication knowledge through quality teaching & self-learning.												
M2	To serve the needs of electronics, telecommunication and allied industries through industry interaction.												
M3	To encourage innovative thinking, continuous learning among the stakeholders and create new techniques in IOT, VLSI.												
M4	To groom students in communication and interpersonal skills.												
M5	To inculcate human values and ethics to make learners sensitive towards social issues.												

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Graduates with competencies in the area of electronics and communications engineering.
PEO2	Graduates with continuous learning ability in hardware and software's systems.
PEO3	Graduates with successful career in industry, research with technical and interpersonal skills.
PEO4	Graduates with professional and ethical values
PEO5	Graduates shall contribute to organization goals with individual and team work

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

Total Marks 10.00

Institute Marks : 10.00

### Adequacy in respect of publication & dissemination

The Vision, Mission & Program Education Objectives (PEOs) are framed so as to empower the outcome based education. To inculcate and indulge the faculty, students and stake holders into outcome based education, Vision, Mission & PEOs are disseminated and displayed in various forums as mentioned below.

#### The Vision and Mission Statements along with PEO's are published at

Publish/Display/Dissemination items	Vision/Mission	PEO's
A. College website- <a href="https://www.nriit.ac.in/">https://www.nriit.ac.in/</a>	Y	
B. Department page - <a href="https://www.nriit.ac.in/ece/about">https://www.nriit.ac.in/ece/about</a>	Y	Y
C. HOD Chamber	Y	Y
D. Staff Rooms	Y	Y
E. Notice Boards of the Department	Y	Y
F. Department Library	Y	Y
G. Department Laboratories	Y	Y
H. Department Corridor	Y	Y
I. Department Classrooms	Y	Y
J. Institute Brochure	Y	
K. Institute News letters	Y	
L. Lab Manuals	Y	Y
M.Course Files	Y	Y

#### Process of Dissemination among stakeholders

Stakeholder	Dissemination Mechanism
Students	Direct Interaction in the college and conduction of induction programs
Alumni	Alumni meeting, During Alumni visit to institute, Through contact with mobile.
Faculty Members	Conduction of Induction programs through external resource persons, various meetings
Parents	Parents of pursuing students with mobiles and Parents meeting
Employers	Presentations at Employee premises while inviting for campus recruitment

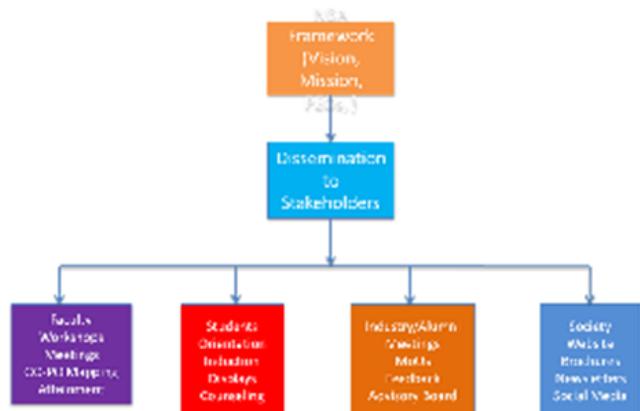
#### Extent of awareness of Vision, Mission & PEOs among the stakeholder

##### Internal Stakeholders

- Students
- Faculty

##### External Stakeholders

- Alumni
- Employers
- Parents



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

Total Marks 25.00

Institute Marks : 25.00

### Description of process involved in defining the Vision and Mission of the department

The process for defining Vision and Mission of the department was discussed in the department level and it was established through a consultative process involving the stakeholders of the department, the future scope of the department and the societal requirements as shown below.

**Step 1:** The Vision and Mission of the Institute is taken as the basis for defining the Vision and Mission of the Department.

**Step 2:** The coordinator of Department Assessment & Quality Improvement Committee (DA&QIC) collects the views from various stake holders like Faculty, Students, Parents and Employers, Alumni and Academician.

**Step 3:** The Vision and Mission statements of the department are summarized and formulated by the Department Assessment & Quality Improvement Committee (DA&QIC).

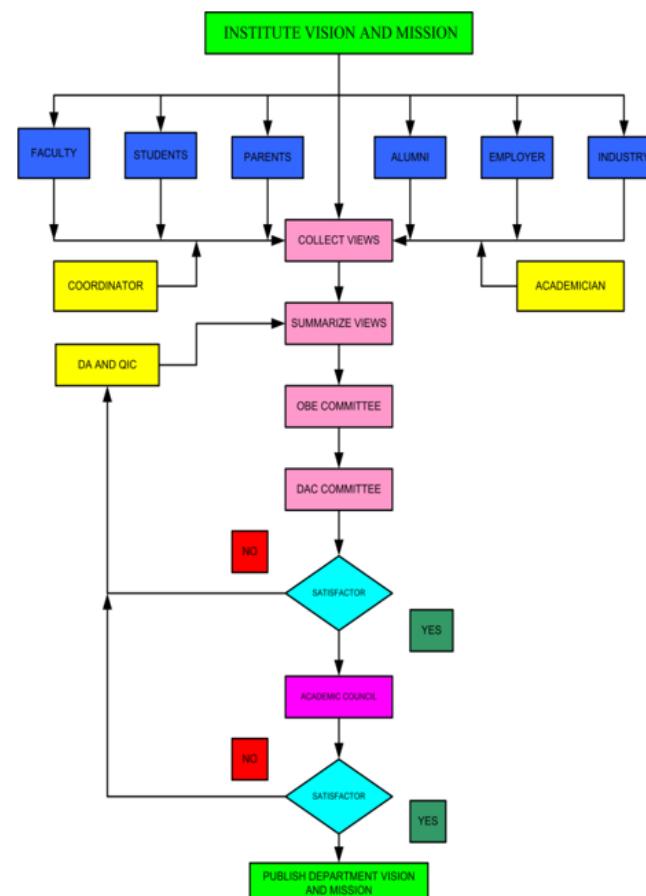
**Step4:** The vision and mission statements are analyzed and reviewed to check the consistency with the vision and mission of the department at the college level by the OBE (Outcome Based Education) Committee then sent to DAC (Department Advisory Committee)

**Step5:** If DAC feels that the statements are not consistent then it sent to Department Assessment & Quality Improvement Committee (DA&QIC) to refine the Vision and Mission statements.

**Step6:** After approval from the DAC the Vision and Mission of the Department statements are send to Academic council for approvals.

**Step7:** In case of Academic council not satisfied send to Department Assessment & Quality Improvement Committee (DA&QIC).

**Step8:** After approval from the Academic council the Vision and Mission of the Department statements are published.



## Flow Chart for Department Vision &amp; Mission.

**Description of process involved in defining the PEOs of the Program**

The process for defining PEOs of the department was discussed in the department level and it was established through a consultative process involving the stakeholders of the department, the future scope of the department and the societal requirements as shown below.

**Step1:** The bases for defining the PEO's of the department are the Vision & Mission of the Institute, Vision & Mission of the Department

**Step2:** The coordinator of Department Assessment & Quality Improvement Committee (DA&QIC) collects the views from the stake holders -Parents, Students, Faculty, Employers, Alumni and Academician.

**Step3:** Then Department Assessment & Quality Improvement Committee (DA&QIC) summarizes and formulates the PEO statements.

**Step4:** The PEOs are then sent to the Outcome Based Education Committee (OBE) for review.

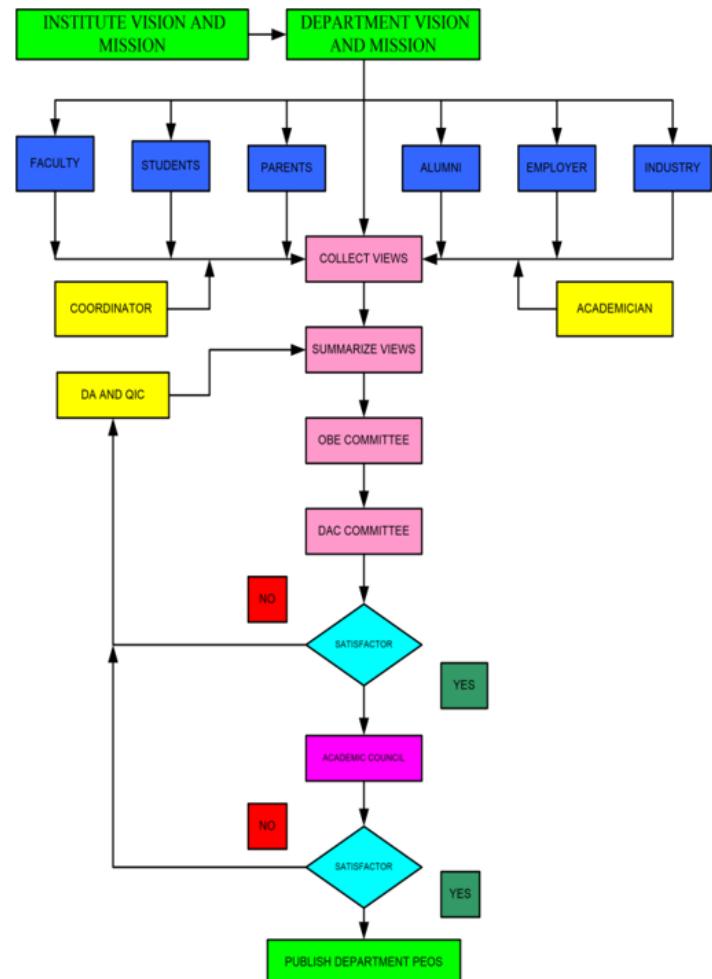
**Step5:** After passing through the OBE committee the PEOs are sent to DAC

**Step6:** The DAC doesn't satisfy the PEOs then it sent to Department Assessment & Quality Improvement Committee (DA&QIC) for refinement of PEOs statements.

**Step7:** After approval from the DAC the PEOs of the Department statements are send to Academic council for approvals.

**Step8:** In case of Academic council not satisfied send to Department Assessment & Quality Improvement Committee (DA&QIC).

**Step9:** After approval from the Academic council the PEOs of the Department statements are published



Flow chart for department PEOs

**1.5 Establish consistency of PEOs with Mission of the Department (15)**

Total Marks 15.00

Institute Marks : 15.00

### **Preparation of Matrix of PEOs and Elements of Mission Statements**

#### **DEPARTMENT MISSION:**

NRI Institute of Technology has a broad based Mission as suggested in its Mission statement and the Department of the Electronics and Communication Engineering supports the Mission of the Institute.

DM1	To provide conductive environment that impart electronics and communication knowledge through quality teaching & self-learning.
DM2	To serve the needs of electronics, telecommunication and allied industries through industry interaction.
DM3	To encourage innovative thinking, continuous learning among the stake holders and create new techniques in IOT, VLSI.
DM4	To groom students in communication and interpersonal skills.
DM5	To inculcate human values and ethics to make learners sensitive towards social issues

#### **PEOs of the Department:**

<b>PEO1</b>	Graduates with competencies in the area of electronics and communications engineering.
<b>PEO2.</b>	Graduates with continuous learning ability in hardware and software's systems.
<b>PEO3</b>	Graduates with successful career in industry, research with technical and interpersonal skills.
<b>PEO4</b>	Graduates with professional and ethical values
<b>PEO5</b>	Graduates shall contribute to organization goals with individual and team work

#### **Consistency or Justification of Co-relation parameters of the above matrix**

	<b>Justification for PEOs with Mission of the ECE Department</b>
<b>PEO-1</b>	<p><b>DM1:</b> Strongly correlated, as PEO1 ensures core technical competencies that align directly with the department's mission of imparting strong foundational knowledge.</p> <p><b>DM2:</b> Moderately correlated, reflecting the application of engineering concepts to professional practice.</p> <p><b>DM3:</b> Moderately correlated, as PEO1 supports research orientation and analytical problem-solving.</p>
<b>PEO-2</b>	<p><b>DM1:</b> Strongly correlated, as continuous learning fosters adaptability to new technologies in line with DM1.</p> <p><b>DM2:</b> Moderately correlated, reflecting enhancement of professional skills through lifelong learning.</p> <p><b>DM3:</b> Strongly correlated, supporting research aptitude and innovation in hardware/software systems.</p>

<b>PEO-3</b>	<b>DM1:</b> Moderately correlated, preparing graduates with sufficient technical base to sustain careers.  <b>DM2:</b> Strongly correlated, as it emphasizes professional and interpersonal skills aligned with DM2.  <b>DM3:</b> Moderately correlated, supporting applied research and innovation.  <b>DM4:</b> Strongly correlated, contributing significantly to teamwork and leadership in career paths.
<b>PEO-4</b>	<b>DM2:</b> Moderately correlated, reflecting only minimal relation to professional expertise.  <b>DM4:</b> Moderately correlated, as PEO4 supports teamwork and responsibility.  <b>DM5:</b> Strongly correlated, directly aligned with ethical values and societal contributions.
<b>PEO-5</b>	<b>DM4:</b> Strongly correlated, directly supporting teamwork and leadership in organizations.  <b>DM5:</b> Moderately correlated, contributing towards collective organizational success.

<b>PEO Statements</b>	<b>M1</b>	<b>M2</b>	<b>M3</b>	<b>M4</b>	<b>M5</b>
Graduates with competencies in the area of electronics and communications engineering.	3	2	2	-	-
Graduates with continuous learning ability in hardware and software's systems.	3	2	3	-	-
Graduates with successful career in industry, research with technical and interpersonal skills.	2	3	2	3	-
Graduates with professional and ethical values	-	2	-	2	3
Graduates shall contribute to organization goals with individual and team work	-	-	-	3	2

**2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120)**

Total Marks 120.00

**2.1 Program Curriculum (20)**

Total Marks 20.00

**2.1.1 State the process used to identify extent of compliance of the University curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in AnnexureI. Also mention the identified curricular gaps, if any (10)**

Institute Marks : 10.00

#### **Process for Designing the Program Curriculum:**

NRI Institute of Technology -NRIIT, is affiliated to Jawaharlal Nehru Technological University, Kakinada. The university has framed the curriculum in a methodical way in compliance with AICTE to enrich the learning of the students and make them ready for industry requirements on completion of their degree. JNTUK revises the syllabus once in every three years by taking into consideration of the recommendations from various affiliated institutions and in consultation with industry experts, academic experts and all the stake holders.

#### **The JNTUK designs the curriculum by following below steps:**

**Step 1:** The University collects feedback from the stake holders such as students, affiliated institutions, industrial experts and academicians from reputed institutions.

**Step 2:** Once in every three years the university calls for brain storming session and collects the inputs (feedback, suggestions) from stake holders and as per AICTE/UGC guidelines draft the curriculum to meet the requirements of the stake holders.

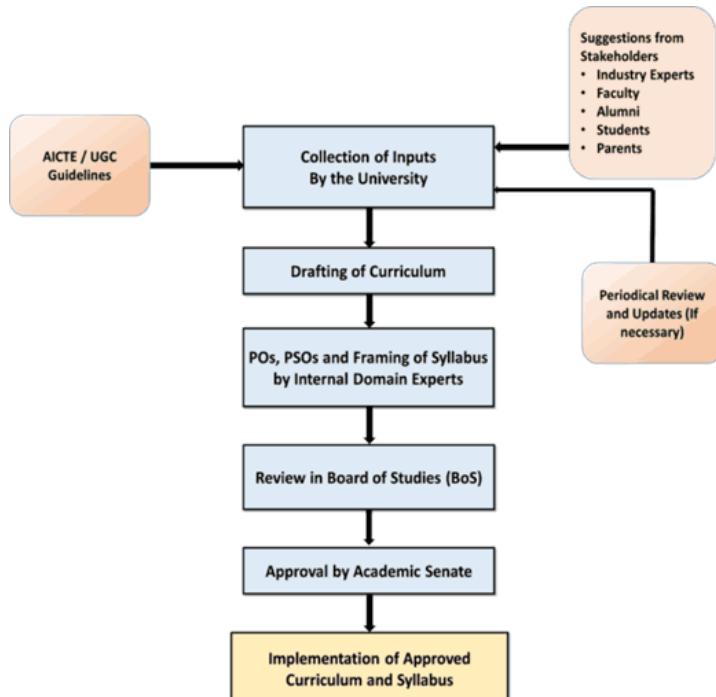
**Step 3:** The domain experts frames the syllabus and COs.

**Step 4:** Following the valuable suggestions of the experts from diverse fields, the final draft is forwarded for Board of Studies (BoS) for approval.

**Step 5:** The BoS consists of experts from both academia and industry for approval of the curriculum periodically.

**Step 6:** Finally, the university Circulates final draft to its affiliated institutes and can be implemented.

The following figure illustrates the entire process of designing and developing the university curriculum, which is tailored to meet the needs of the industry. The syllabus is structured in alignment with the following Program Outcomes (POs) and Program-Specific Outcomes (PSOs).



**Figure 2.1.1.a: Design and Development of University curriculum**

R20 regulation for 2022, 2021 & 2020 admitted batches, R19 regulation for 2019 admitted batch and R16 regulation for 2018,2017,2016 batches. The following Table 2.1.1.a shows the regulation followed for the three academic years to the students in their respective year of study.

This institute has become autonomous during the academic year 2023-24. At present students are in V semester ,under this autonomous mode curriculum has been given for first VI semesters.

**Table 2.1.1.a: Regulation followed for respective year of study**

Year	I	II	III	IV
2024-2025	R23	R23	R20	R20
2023-2024	R23	R20	R20	R20
2022-2023	R20	R20	R20	R19

The curriculum given by the university is a composition of subjects related to social sciences & humanities, basic sciences, engineering sciences, program core courses, program electives, open elective courses, project & seminar that make the students apply the learnt engineering knowledge to analyze and design solutions to complex problems with social consciousness and ethics. The course modules include credit and non-credit courses and their percentage. Contribution to the Electronics & Communication Engineering program is given in Table 2.1.1.b.

**Table 2.1.1.b: Contribution of course modules to the program curriculum**

Sl. No	Course Modules	R20 Regulation		R19 Regulation		R16 Regulation	
		Courses	Percentage	Courses	Percentage	Courses	Percentage
		Contribution		Contribution		Contribution	
1	Humanities Sciences and social including Management (HS)	03	04.61	05	07.69	07	10.44
2	Basic Sciences (BS)	07	10.76	07	10.76	07	10.44
3	Engineering Sciences (ES)	05	07.70	09	13.84	12	17.91
4	Program Core (PC)	29	44.61	29	44.61	33	49.25
5	Program Electives (PE)	05	07.70	05	07.69	03	04.47
6	Open Electives (OE)	04	06.15	02	03.07	01	01.49
7	Project / Seminar	01	01.53	04	06.15	02	02.98
8	Mandatory Courses (MC)	04	06.15	04	06.15	02	02.98
9	Skilled Courses (SC)	05	07.70	--	--	--	--
10	Industrial/Research Internship	02	03.07				
<b>Total No. of courses</b>		<b>65</b>	<b>100</b>	<b>65</b>	<b>100</b>	<b>67</b>	<b>100%</b>

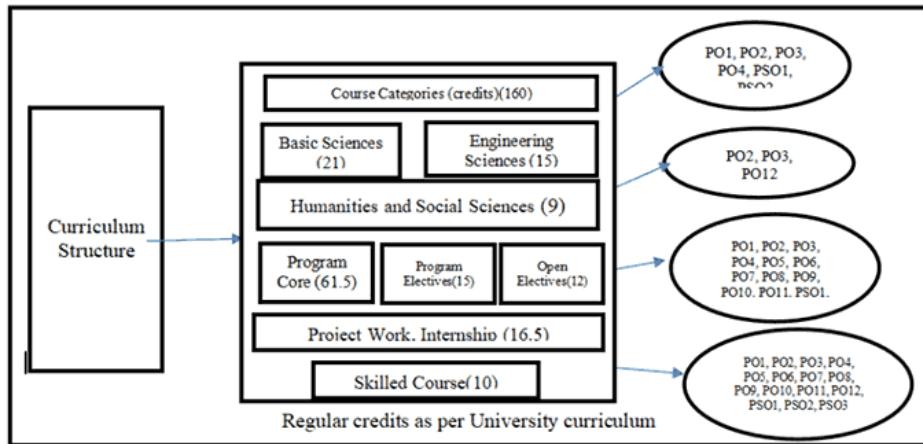
The curriculum is designed by the university with total credits of 160 for a student to be eligible to get an undergraduate degree in Electronics & Communication Engineering as recommended by the AICTE shown in Table 2.2.1.c.

**Table 2.1.1.c: Curriculum compliance with AICTE**

Course Modules	Credits recommended by AICTE	Credits as per University R20 Curriculum	Credits as per University R19 Curriculum	Credits as per University R16 Curriculum
Humanities Sciences and social including Management (HS)	12	9	11.5	19
Basic Sciences (BS)	25	21	18	16
Engineering Sciences (ES)	24	15	21.5	33
Program Core (PC)	48	61.5	73.5	88
Program Electives (PE)	18	15	15	09

Open Electives (OE)	18	12	6	03
Project / Seminar	15	12	14.5	12
Skilled Course (SC)		10	--	--
Industrial/Research Internship		4.5		
<b>Total</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>180</b>

R20 Regulation Credits as per University Curriculum is depicted in Fig. 2.1.1.2.



The detailed Structure of the R20 regulation for B. Tech ECE program formulated by JNTUK and its distribution of 160 credits for different courses are shown in Table 2.1.1.d.

**Table 2.1.1.d: Structure of the R20 Regulation**

S.No	Code	Courses	L	T	P	Credits
1	C101	Communicative English	3	0	0	3
2	C102	Mathematics -I( Calculus)	3	0	0	3
3	C103	Applied Chemistry	3	0	0	3
4	C104	Programming for Problem Solving Using C	3	0	0	3
5	C105	Engineering Drawing	2	0	2	3
6	C106	English Communication Skills Laboratory	0	0	3	1.5
7	C107	Applied Chemistry Lab	0	0	3	1.5
8	C108	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	C111	Mathematics -II (Linear Algebra and Numerical Methods)	3	0	0	3
10	C112	Applied Physics	3	0	0	3
11	C113	Object Oriented Programming through Java	2	0	2	3
12	C114	Network Analysis	3	0	0	3
13	C115	Basic Electrical Engineering	3	0	0	3

14	C116	Electronic workshop Lab	0	0	3	1.5
15	C117	Basic Electrical Engineering Lab	0	0	3	1.5
16	C118	Applied Physics Lab	0	0	3	1.5
17	C119	Environmental Science	3	0	0	0.0
18	C201	Electronic Devices and Circuits	3	1	0	3
19	C202	Switching Theory and Logic Design	3	1	0	3
20	C203	Signals and Systems	3	1	0	3
21	C204	Mathematics-III (Transforms &Vector Calculus)	3	1	0	3
22	C205	Random Variables and Stochastic Processes	3	1	0	3
23	C206	OOPS through Java Lab	0	0	2	1.5
24	C207	Electronic Devices and Circuits -Lab	0	0	2	1.5
25	C208	Switching Theory and Logic Design-Lab	0	0	2	1.5
26	C209	Python Programming	0	0	4	2
27	C211	Electronic Circuit Analysis	3	1	0	3
28	C212	Digital IC Design	3	1	0	3
29	C213	Analog Communications	3	0	0	3
30	C214	Linear control Systems	3	1	0	3
31	C215	Management and Organizational Behavior	3	0	0	3
32	C216	Electronic Circuit Analysis Lab	0	0	3	1.5
33	C217	Analog Communications Lab	0	0	3	1.5
34	C218	Digital IC Design Lab	0	0	3	1.5
35	C219	Soft Skills	0	0	4	2
36	C210	Constitution of India	3	0	0	0
37	C301	Analog ICs and Applications	3	0	0	3
38	C302	Electromagnetic Waves and Transmission Lines	3	0	0	3
39	C303	Digital Communications	3	0	0	3
40	C304	Operating Systems (OE1) Computer Organization and Architecture (OE1)	3	0	0	3
41	C305	Electronic Measurements and Instrumentation (PE1) Antenna and Wave Propagation (PE1)	3	0	0	3
42	C306	Analog ICs and Applications LAB	0	0	3	1.5
43	C307	Digital Communications Lab	0	0	3	1.5
44	C308	Data Structures using Java Lab	0	0	4	2

45	C309	Summer Internship (Done during 2-2 & evaluated during 3-1)	0	0	0	1.5
46	C310	Indian Traditional Knowledge	2	0	0	0
47	C311	Microprocessor and Microcontrollers	3	1	0	3
48	C312	VLSI Design	3	0	0	3
49	C313	Digital Signal Processing	3	0	0	3
50	C314	Mobile & Cellular Communication (PE2)	3	0	0	3
51	C315	Computers Network (OE2)	2	0	2	3
52	C316	Microprocessor and Microcontrollers - Lab	0	0	3	1.5
53	C317	VLSI Design Lab	0	0	3	1.5
54	C318	Digital Signal Processing Lab	0	0	3	1.5
55	C319	ARM based/ Aurdino based Programming	1	0	2	2
56	C320	Research Methodology	2	0	0	0
57	C401	Optical Communication (PE3)	3	0	0	3
58	C402	Satellite Communication (PE4)	3	0	0	3
59	C403	Internet Of Things (PE5)	3	0	0	3
60	C404	Image Processing (OE3)	2	0	2	3
61	C405	Cryptography and Network Security (OE4)	2	0	2	3
62	C406	Humanities and Social Science Elective	3	0	0	3
63	C407	Designer tools (HFSS, Microwave Studio CST, Cadence Virtuoso. Synopsys, Mentor Graphics, Xilinx)	1	0	2	2
64	C408	Industrial / Research Internship (Done during 3-2 & evaluated during 4-1)	0	0	0	3
65	C411	Project work, seminar and internship industry	0	0	0	12
<b>Total No of Credits</b>			<b>160</b>			

**A. Process used to identify the extent of compliance with university curriculum for attaining POs and PSOs (6)**

Curriculum gap filling is a vital process in ensuring that an educational program covers all necessary competencies and skills required for students learning outcomes. Approach used to identify and address the curriculum gaps involves the following steps:

**Process Description:**

Step-1: Get a curriculum from university with course outcomes for all the program courses.

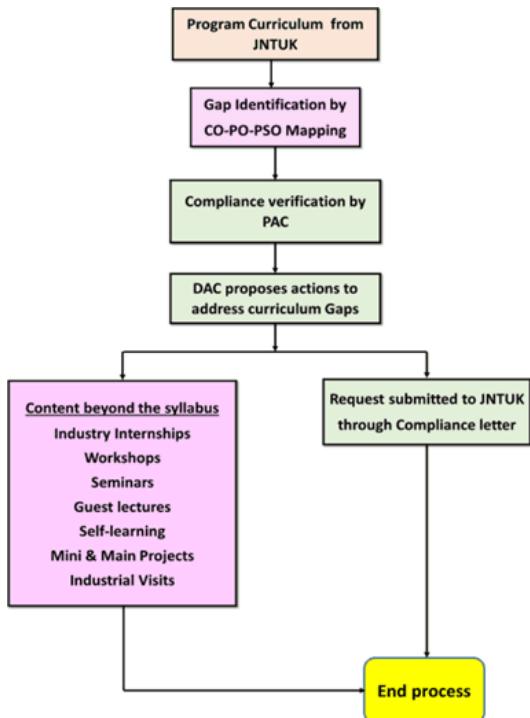
Step-2: Department invites the Course Instructor (CI) to redefine course outcomes if necessary and to Perform CO-PO mapping and CO-PSO mapping.

Step-3: If the calculated level of CO-PO and CO-PSO mapping is greater than or equal to the target level then follows the university curriculum for the delivery. If not consider those POs and PSOs as gaps.

Step-4: The identified gaps are submitted to the PAC for verification.

Step-5: The DAC proposes various activities to fill the Identified Gaps.

Step-6: A request for curriculum modifications is communicated to JNTUK through a compliance letter, which concludes the process.



**Figure 2.1.1.b: Process to identify the extent of compliance of University curriculum**

#### CO-PO-PSO mapping:

- The CO-PO-PSO mapping is a crucial process in academic programs as it ensures that the specific learning outcomes of each course (COs) align with the broader goals of the program (POs) and the discipline-specific competencies (PSOs).
- This alignment guarantees that students are not only acquiring knowledge and skills at the course level but are also developing the essential competencies required for their overall professional and personal growth.
- By mapping COs to POs and PSOs, institutions can systematically monitor whether the curriculum is effectively contributing to the desired outcomes.
- Ultimately, this mapping process enhances the quality of education, ensures accountability, and produces graduates who are well-prepared to meet industry demands and societal needs.

The mapping of the curriculum courses to Program Outcomes (POs) and Program Specific Outcomes (PSOs) for the R20 Regulation is illustrated below:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C111 (Eng physics)	3	1	2	2	-	1	-	-	-	-	-	-	3	3	3
C112 (LAC)	3	2	2	2	2	-	-	-	-	-	-	-	-	-	-
C113 (BEEE)	3	3	2	2	3	3	2	2	2	2	2	3	-	-	-
C114 (EG)	3	2	1	1	1	1		2	2	1.2	1	2.2	-	-	-
C115 (Introduction to programming)	1	2	2	3	2	1	1	1	1	1	3	1	-	-	-
C116 (IT workshop)	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-

C117 (EP LAB)	2	1	2	3	-	-	-	-	1	-	-	1	-	-	-	-
C118 (EEE workshop)	3	2	2	2	3	2	2	-	2	2	3	3	3	3	3	3
C119 (CP LAB)	2	3	2	3	2	1	1	1	1	1	3	1	-	-	-	-
C121 (Com Eng)	-	-	-	-	-	-	-	-	2	3	-	2	-	-	-	-
C122 (Chemistry)	3	2	2	2	2	-	1	-	-	-	-	1	-	-	-	-
C123 (DE&VC)	3	2	2	-	-	-	-	-	-	-	-	1	-	-	-	-
C124 (BC &ME)	3	2	2	3	2	2	2	-	-	1	1	1	-	-	-	-
C125 (NA)	3	3	1	2	2	2	1	1	3	3	2	3	3	2	3	
C126 (Com English Lab)	-	-	-	-	-	-	-	-	2	3	-	2	-	-	-	-
C127 (Chemistry lab)	3	2	1	2	-	2	-	-	1	-	1	-	-	-	-	-
C128 (Eng Workshop)	3	2	1	1	-	-	-	-	-	-	-	2	-	-	-	-
C129 (NA &S LAB)	3	2	1	2	2	1	3	-	-	-	-	-	3	3	2	
C211 (EDC)	3	3	2	2	2	-	-	-	-	-	-	2	3	2	1	
C212 (STLD)	3	2	3	2	2	1	1	1	1	1	1	2	3	2	1	
C213 (SS)	3	2	3	2	2	-	-	-	-	-	-	2	3	2	2	
C214 (M-III)	3	2	2	2	2	-	-	-	-	-	-	2	3	3	2	
C215 (RVSP)	2	2	2	2	-	-	-	-	-	-	-	-	2	2	2	
C216 (OOPS through JAVA lab)	3	3	3	2	2	-	-	-	-	2	-	2	3	3	2	
C217 (EDC Lab)	3	2	2	2	2	-	-	-	-	-	-	-	3	1	2	
C218 (STLD Lab)	3	2	3	2	2	-	-	-	1	1	1	2	3	2	1	
C219 (Python Lab)	2	2	-	-	-	-	-	2	-	3	-	-	1	2	2	
C221 (ECA)	3	3	2	2	2	-	-	-	-	-	-	2	3	3	1	
C222 (DICD)	3	3	2	3	3	1	2	2	2	2	1	2	2	3	2	
C223 (AC)	3	2	1	2	2	1	1	1	1	1	1	1	3	2	3	
C224 (LCS)	3	3	2	3	3	1	2	2	2	2	1	2	2	3	2	
C225 (MOB)	2	2	2	1	1	2	2	2	3	2	3	3	3	3		

C226 (ECA LAB)	3	2	2	2	2	-	-	-	-	-	-	-	2	3	3	2
C227 (AC LAB)	3	2	1	2	1	-	-	-	-	-	-	-	-			
C228 (DICD LAB)	3	3	3	3	2	-	-	-	1	1	-	2	3	2	2	
C229 (SOFT SKILLS)	-	-	-	-	-	-	-	-	2	3	-	3	-	-	-	
C421(Project)	3	3	2	1	2	2	1	3	2	2	2	2	2	3	3	
Avg	2.59	2.21	1.84	1.90	1.72	0.66	0.66	0.69	0.98	0.97	0.75	1.48	1.80	1.75	1.30	
<b>Avg. Percentage</b>	<b>86.33</b>	<b>73.66</b>	<b>61.33</b>	<b>63.33</b>	<b>57.33</b>	<b>22</b>	<b>22</b>	<b>23</b>	<b>32.66</b>	<b>32.33</b>	<b>0.25</b>	<b>49.33</b>	<b>60</b>	<b>58.33</b>	<b>43.33</b>	

**Table 2.1.1.e: Mapping of Courses to POs & PSOs for R20 Regulation**

For R-20 regulation, the target value for average CO-PO and CO-PSO mapping is set at 2.4, which corresponds to 80%. In the analysis, a blue color histogram is used to represent the Program Outcomes (POs) and Program Specific Outcomes (PSOs) whose average percentage mapping exceeds this 70% threshold, while red color histogram indicates the POs and PSOs that fall below the target value.

For the POs below the target, the department plans to enhance curriculum delivery with practical exercises, organize workshops and seminars, and implement continuous monitoring and feedback. These steps aim to align with the desired POs and improve the overall learning experience.

S.NO	Low level mapped POs identified as Gaps	PO's Description
1	PO6	The Engineer & Society
2	PO7	Environment and Sustainability
3	PO8	Ethics
4	PO9	Individual & Team Work
5	PO10	Communication
6	PO11	Project Management & Finance
7	PO12	Life Long Learning

**Table 2.1.1.f: List of the POs with average CO-PO mapping is below target value for R20 regulation**

#### B. List the curricular gaps for the attainment of defined POs and PSOs (4)

Identifying and addressing gaps in compliance with Program Outcomes (POs) and Program Specific Outcomes (PSOs) is crucial for enhancing educational quality and effectiveness. The following gaps have been identified through CO-PO-PSO mapping.

- **Gaps identified through CO-PO-PSO Mapping for R16, R19, and R20 Regulation**

Regulation	Low level mapped POs identified as Gaps	PO's Description
	PO6	The Engineer & Society
	PO7	Environment and Sustainability

<b>R16</b>	PO8	Ethics
	PO9	Individual and Team Work
	PO12	Life Long Learning
<b>R19</b>	PO6	The Engineer & Society
	PO7	Environment and Sustainability
	PO12	Life Long Learning
<b>R20</b>	PO6	The Engineer & Society
	PO7	Environment and Sustainability
	PO8	Ethics
	PO9	Individual & Team Work
	PO10	Communication
	PO11	Project Management & Finance

- **Table 2.1.1.g: List of Gaps identified through CO-PO-PSO Mapping for R16, R19, and R20 Regulation**

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

Institute Marks : 10.00

**A. Steps taken to fill the gaps identified in the curriculum (2)**

- The identified gaps are communicated to the University for consideration during the revision of curriculum.
- Beyond this, the department takes necessary measures to fill the gaps by imparting knowledge to the concepts through content beyond syllabus.
- Incorporated hands-on industry experience through practical workshops with modern tools exposure.
- Added elements to develop communication, teamwork, and other soft skills.
- Included modules on continuous education and career adaptability.
- Ensured the curriculum addressed ethical values and societal challenges.
- Seminars are arranged by experts frequently.
- Guest lectures are arranged by industry experts to overcome the gap between industry and academia.
- Students are sent for industrial visits to various industries.
- Students are encouraged to undertake in-plant training in the industries during their semester holidays.
- Add-on Lab experiments
- Pre-placement Training
- Assignments
- Training on Soft-skills
- Value added Courses
- Innovative Projects
- Coding Classes



To

The Registrar,  
Jawaharlal Nehru Technological University Kakinada (JNTUK),  
Kakinada, Andhra Pradesh-522438.

**Subject:** Identification Research Gaps in the Curriculum-Reg.  
Regarding respected Sir/Madam,

It is to bring to your kind notice that in the department of Electronics and Communication Engineering, we have identified some gaps within the current curriculum offered by JNTUK. After thorough engagement with the course content and feedback from shareholders, we believe addressing these gaps in coming semesters and regulations will enhance the Academic and Research capabilities of both students and faculty.

**Identified Research Gaps:**

**1. Scarcity of Courses on Ethical and Social Implications of Technology:**

The curriculum should incorporate more content on the ethical and social implications of emerging technologies. This will prepare students to critically evaluate the broader social impact of their work and promote responsible engineering practices.

**2. Insufficient focus on sustainability:**

With growing global emphasis on environmental sustainability, there is a need to integrate sustainability principles into the curriculum, especially through courses or projects focused on sustainable technologies and eco-friendly engineering solutions.

**3. Lack of Emphasis on Lifelong Learning:**

The current curriculum needs to encourage continuous self-learning and adaptability. Focusing on fostering a culture of lifelong learning, particularly in rapidly evolving technological fields. This will better prepare students for the dynamic demands of the industry and academia.

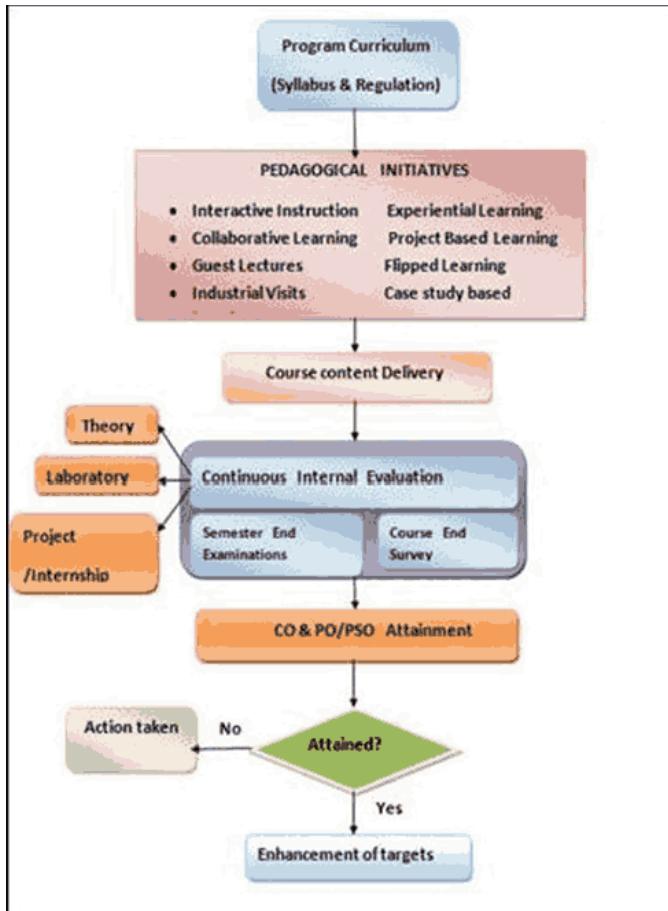
We respectfully request the academic council to consider these gaps while reviewing or updating the curriculum.

I would be glad to discuss these points further if needed and provide additional insights from our research. Thank you for considering these suggestions, and I look forward to your positive response

Yours sincerely,

  
PRINCIPAL  
NRI Institute of Technology  
VISADALA (P.O), Guntur-522 438

**Figure 2.1.2.1. Compliance Letter to the JNTUK**



**Fig 2.1.2.2:** process to address Curriculum gaps and Delivery details of content beyond syllabus

#### B. Delivery details of content beyond the syllabus (5)

To address curriculum gaps, the program utilizes various methods such as seminars, workshops, add-on courses, and technical and social events. The tables below represent the events conducted by the department to bridge these gaps and ensure that students are well-prepared for real-world challenges and future career demands.

**Table B.2.1.2.a: Content discussed beyond the syllabus to fill the curriculum gap Activities conducted**

2023-2024 (CAY)						
S.No.	Gap	Action Taken	Date-Month-Year	Resource Person with designation	% of students	Relevance to POs, PSOs

1	Lack of modern tool usage	A Three-day workshop on Robotics	24-07-2023 to 26-07-2023	Mr. Mahan RK, Founder & CVO of HackBoats	80%	PO1,PO2,PO5, PO9,PO12,PSO2,PSO3
2	Enhanced Problem-Solving Skills	A three day work shop on PCB	19-8-2023 to 21-8-2023	Mr.Rajesh MRK Technologies	62%	PO1,PO2,PO5,PO9,PO12,PSO2,PSO3
3	Provide additional training to enhance soft skills.	Campus recruitment training	12-08-2023 to 21-08-2023	Magic Bus Foundation		
4	The capacity to work independently and collaboratively within a team	NATIONAL SPORTS DAY	29-08-2023		100%	PO1,PO2,PO5,PO9,PO12,PSO2,PSO3
5	Enhance employability skills	Guest lecture on "Skills for Success: Enhancing Your Employability in a Competitive Job Market"	11-11-2023	Dr.K. Giri Babu. Dean of Academics , VVIT	90%	PO9, PO10, PO11
6	Promote environmental sustainability	NSS activity	24-01-2024		90%	PO7,PO8
7	Technical Skills in line with the requirements of the industry	Workshop on IOT,AI	26/2/2024 to 27/2/2024	Mr. Mahan RK, Founder & CVO of HackBoats	74%	PO1,PO5,PO12,PSO2,PSO3
8	Enhance employability skills	Campus recruitment training	04-03-2024 to 07-03-2024	Magic Bus Foundation	90%	PO9, PO10, PO11,PO12

9	Use of modern tools &technologies	3 days workshop on Embedded System Design for IoT Applications using Arduino boards	13/3/2024 to 15/3/2024	Mr. Likhith , Robotics Engineer at HackBoats	64%	PO1,PO2,PO5,PO9,PO12,PSO2,PSO3
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Table2.1.d:Activities conducted in 2023-2024

2022-2023 (CAYm1)						
S.No.	Gap	Action Taken	Date-Month-Year	Resource Person with designation	% of students	Relevance to POs, PSOs
1	Advanced technology courses in the curriculum	A one day Workshop on "Introduction to IoT and Its Applications	25-07-2022	Dr. N. Adinarayana, Professor ECE Dept., KITS College	85%	PO5,PO12
2	Facilitate regular industry-academia collaboration	Workshop on Advanced Microcontroller and their applications	07-09-2022 to 13-09-2022	Dr. P. Ammi Reddy, Professor ECE Dept. VVIT	74%	PO4, PO5, PO6,PO12
3	Enhance employability skills	Campus recruitment training	26-10-2022 to 28-10-2022	Magic Bus Foundation	86%	PO9, PO10, PO12
4	Lack of awareness on Environment and sustainability	Guest lecture on "Low Power VLSI design"	16-02-2023	Mr.Rajesh MRK Technologies	90%	PO5,PO7,PO12
5	Lack of modern tool usage	A Guest Lecture on 5G antenna technology	24-04-2023	Dr. K. Ramanjaneyulu Professor ECE Dept, PVP Siddhradha Inst. Of Technology	76%	PO4, PO5, PO12

Table2.1.e:Activities conducted in 2022-2023

2021-2022 (CAYm2)						
S.No.	Gap	Action Taken	Date-Month-Year	Resource Person with designation	% of students	Relevance to POs, PSOs
1	Insufficient research-based knowledge in core concepts.	Guest lecture on Digital signal processing. ( on-line)	27-10-2021	Dr. Mallikarjuna Reddy, Professor & Principal ECE Dept, VVIT	90%	PO5,PO12
2	Awareness on Latest Technology	Guest lecture on Allocation of resource in 5G Networks (on-line)	23-12-2021	Dr. G. Lakshmi Kanth Researcher & Developer – Ericsson	95%	PO5,PO12
3	Enhance employability skills.	Campus recruitment training	08-02-2022 to 11-02-2022	Magic Bus Foundation	90%	PO9,PO10,PO12
4	Motivation towards societal responsibility	Guest Lecture on "Personality Development through stress management & positive thinking"	30-03-2022	Mr. G. Nageswara Rao , Founder of Impact Foundation	90%	PO7
5	Lack of awareness on Environment and sustainability	A guest lecture on "Environmental Impact Assessment in Engineering Projects"	23-04-2022	Prof. Trimurthy, Ex. President, CSI	90%	PO7,PO10
6	Modern Tool Usage	Python Programming	24-04-2022	Mr.ParthSharma ,Alumni,AIT(Start-up Knight Inc)	70%	PO5, PSO1, PSO3
7	Industry Readiness	A two day work shop on PCB	02-05-2022 to 03-05-2022	Mr.Rajesh MRK Technologies	100%	PO4, PO5, PO12

Table2.1.e:Activities conducted in2021-2022

## C. Mapping of content beyond syllabus with the POs and PSOs (3)

The mapping of the delivered content beyond syllabus with POs and PSOs is consolidated and is presented in Table 2.1.2.d below.

Contents/ POs & PSOs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2

<b>Workshops on Advanced Technologies</b>		√							√	√	√
<b>Industry Expert Lectures</b>					√				√	√	√
<b>Soft Skills and Communication Training</b>						√		√		√	√
<b>Sustainability and Environmental Awareness Seminars</b>					√	√				√	√
<b>Campus Recruitment Training</b>							√	√		√	√
<b>Hands-on Training on Modern Tools</b>		√		√						√	√
<b>Multidisciplinary Projects</b>		√			√				√	√	√
<b>Ethics and Professional Responsibility Modules</b>					√		√			√	√
<b>Entrepreneurship and Innovation Programs</b>									√	√	√
<b>Collaborative Industry-Academia Projects</b>		√		√					√	√	√

**Table 2.1.2.d: Mapping of content beyond syllabus with POs & PSOs****Impact Analysis:**

A total of 21 events were conducted, with nearly 75 above students benefiting from each.

- Focusing on modern tool usage and lifelong learning, 6 events were conducted to enhance the technical skills of students, fostering continuous professional growth.
- 3 events emphasized research-based knowledge, fostering analytical thinking.
- Soft skills were developed through 4 events, while 2 events raised awareness of emerging technologies.
- 4 events aimed at improving employability skills, and 2 events encouraged societal responsibility.
- 3 events promoted teamwork and collaboration, 1 event exposed students to new technologies, and another event encouraged lifelong learning, fostering continuous professional growth.

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2023-24

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Lack of modern tool usage	A Five-day workshop on Robotics	24/07/2023	Mr. Mahan RK, Founder & CVO of HackBoats	80	PO1,PO2,PO5, PO9,PO12,PSO2, PSO3
2	Enhanced Problem-Solving Skills	A three day work shop on PCB	16/08/2023	Mr.Rajesh MRK Technologies	82	PO1,PO2,PO5,PO9,PO12,PSO2,PSO3
3	Provide additional training to enhance soft skills.	Campus recruitment training	21/08/2023	Mr. Rajesh Softomatic	92	PO9, PO10, PO11,PO12
4	The capacity to work independently and collaboratively within a team	NATIONAL SPORTS DAY	29/08/2023	Dr. Kota Srinivasu	100	PO1,PO2,PO5,PO9,PO12,PSO2, PSO3
5	Enhance employability skills	Guest lecture on "Skills for Success: Enhancing Your Employability in a Competitive Job Market"	11/11/2023	Dr.K. Giri Babu. Dean of Academics , VVIT	90	PO9, PO10, PO11
6	Promote environmental sustainability	Promote environmental sustainability NSS activity	24/01/2024	Mr. P. Ravi Kumar	90	PO7,PO8
7	Technical Skills in line with the requirements of the industry	Two days Workshop on IOT,AI	26/02/2024	Mr. Mahan RK, Founder & CVO of HackBoats	74	PO1,PO5,PO12,PSO2,PSO3
8	Enhance employability skills	Campus recruitment training	04/03/2024	Magic Bus Foundation	90	PO9, PO10, PO11,PO12
9	Use of modern tools &technologies	3 days workshop on Embedded System Design for IoT Applications using Arduino boards	13/03/2024	Mr. Likhith , Robotics Engineer at HackBoats	64	PO1,PO2,PO5,PO9,PO12,PSO2,PSO3

2022-23

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Advanced technology courses in the curriculum	A one day Workshop on "Introduction to IoT and Its Applications	25/07/2022	Dr. N. Adinarayana, Professor ECE Dept., KITS College	85	PO5,PO12
2	Facilitate regular industry-academia collaboration	3-days Workshop on Advanced Microcontroller and their applications	07/09/2022	Dr. P. Ammi Reddy, Professor ECE Dept. VVIT	74	PO4, PO5, PO6,PO12
3	Enhance employability skills	Campus recruitment training	26/10/2022	Magic Bus Foundation	86	PO9, PO10, PO12
4	Lack of awareness on Environment and sustainability	Guest lecture on "Low Power VLSI design"	16/02/2023	Mr. Uma Manikanta & N. Pitcheswara Rao Trainers from Anitha Technologies & Services	90	PO5,PO7,PO12
5	Lack of modern tool usage	A Guest Lecture on 5G antenna technology	24/04/2023	Mr. B. Subbarao Sr. SDE, Digital Transmission Centre, BSNL, Guntur	76	PO4, PO5, PO12

2021-22

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Insufficient research-based knowledge in core concepts	Guest lecture on Digital signal processing. ( on-line)	27/10/2021	Dr. Mallikarjuna Reddy, Professor & Principal ECE Dept, VVIT	90	PO5,PO12
2	Awareness on Latest Technology	Guest lecture on Allocation of resource in 5G Networks (on-line)	23/12/2021	Mr. B. Subbarao Sr. SDE, Digital Transmission Centre, BSNL, Guntur	95	PO5,PO12
3	Enhance employability skills.	Campus recruitment training	08/02/2022	Magic Bus Foundation	90	PO9,PO10,PO12
4	Motivation	Guest Lecture on "Personality Development through stress management & positive thinking"	30/03/2022	Mr. G. Nageswara Rao , Founder of Impact Foundation	90	PO7
5	Lack of awareness on Environment and sustainability	A guest lecture on "Environmental Impact Assessment in Engineering Projects"	23/04/2022	Dr. Kota Srinivasu, Principal, NRIIT	90	PO7,PO10
6	Modern Tool Usage	Python Programming	25/04/2022	Dr.K. Giri Babu. Dean of Academics , VVIT	70	PO5, PSO1, PSO3
7	Industry Readiness	A two day work shop on PCB	02/05/2022	Mr.Rajesh MRK Technologies	100	PO4, PO5, PO12

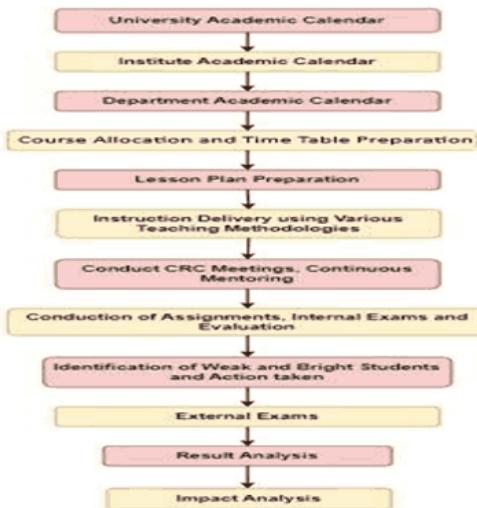
2.2 Teaching - Learning Processes (100)

Total Marks 100.00

**2.2.1 Describe processes followed to improve quality of Teaching & Learning (25)**

Institute Marks : 25.00

The process to improve teaching-learning quality ensures students receive a comprehensive education. Adhering to the academic calendar provides structure, while enhanced instructional methods, like real-world examples and collaborative learning, promote deeper understanding. Quality lab experiences bridge theory and practice, giving students hands-on skills. Supporting both strong and struggling students creates an inclusive environment. Continuous feedback drives ongoing improvements in teaching and curriculum relevance. Overall, this approach enhances student performance, employability, and adaptability for future challenges.

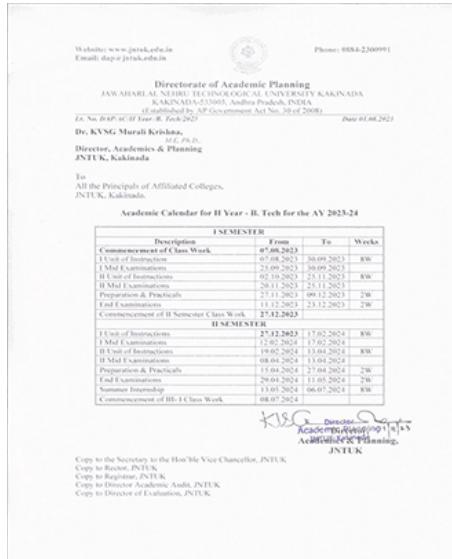


**Fig. 2.2.1.1. Teaching-Learning Process**

#### A. Adherence to Academic Calendar(3)

In adherence with the University Calendar, we consistently release Institute Academic Calendar and Department Activity Calendar at the start of each semester. Department Activity Calendar includes the proposed co-curricular and extra-curricular activities in line with the university calendar to strengthen the attainment of COs, POs and PSOs. The department activity calendar is circulated among the faculty and students well in advance before the commencement of the semester and ensures strict adherence.

A sample copy of university academic calendar for the Academic Year 2023-2024 (Semester- I & Semester-II) is given below:



**Figure 2.2.1.2: University Calendar for 2023-2024 Academic Year**

In addition to the Institute academic calendar the department also prepares the event wise calendar, gives the schedules of the program, like FDPs, workshops, Guest lectures and seminars etc. to be conducted in the department.

The Head of the department plays a crucial role in organizing the departments work flow. They convene departmental meetings to discuss and finalize the work distribution among the faculty. During these meetings, the Head of the department is responsible for allocating subjects to each faculty member and ensuring that the timetable is finalized, balancing the needs of the department and the preferences or strengths of the faculty members. This process is essential for smooth academic operations and effective course delivery.

#### Course Delivery Plan:

- In our institution, it is standard practice for individual faculty members to prepare a Course Delivery Plan/ Lesson Plan before the start of class work, with guidance from the course coordinator.
- This plan is aligned with the Institutes academic calendar and includes the entire course outline, learning objectives for each unit, course outcomes, and CO-PO mapping.
- Faculty members employ ICT tools to enhance the effectiveness of content delivery, making learning more attractive for students.
- The course delivery plan includes the textbooks to be used and various URLs which supports the enhanced learning.
- At the end of each unit, the Course Outcome is defined, and a CO-PO Mapping table is prepared. This helps gauge the students understanding of the objectives and outcomes for each unit.

#### Department of ECE

#### COURSE DELIVERY PLAN-THEORY

<b>Course Name: Satellite Communication(SC)</b>	<b>Course Code: C412</b>
<b>Regulation: R20</b>	<b>Academic Year: 2023-2024</b>
<b>Course Coordinator: Dr. B. Saidaiah</b>	<b>Year &amp; Section: IV B. Tech I Sem</b>

#### COURSE OUTCOMES:

After completing the course student will be able to

C412.1	Understand the concepts, applications of Satellite communications and concept of look angles, launches and launch vehicles and orbital effects in satellite communications.
C412.2	Understand the concepts of subsystems of Satellite communications

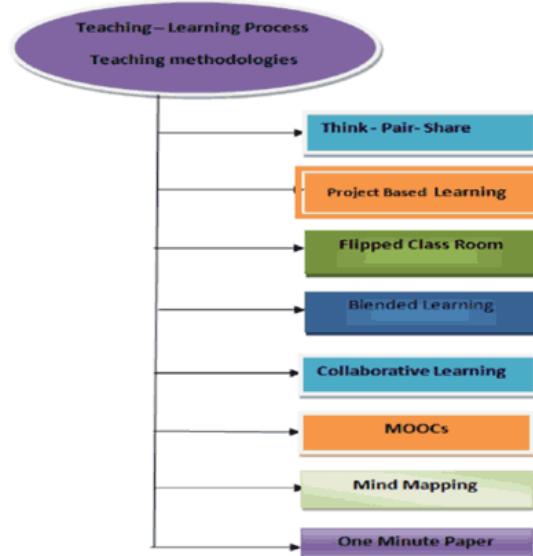
C412.3	Derive the expression for G/T ratio and to solve some analytical problems on satellite link design.
C412.4	Understand the various types of multiple access techniques, architecture of earth station design and Earth station Transmitters & Receivers
C412.5	Understand the concepts of Low Earth orbit and GEO stationary Satellite subsystems, Concepts of GPS and its architecture.

**Mapping Cos and POs:**

Outcomes	PO 1	PO 2	PO3	PO4	PO5	PO 6	PO 7	PO 8	PO9	PO 10	PO 11	PO 12	PSO 1	PSO2	PSO3
Objectives															
C412.1	3	2	1										3	2	2
C412.2	2	3	1						2				3	2	3
C412.3	2	2	1						3				2	2	2
C412.4	1	2	3						2				2	3	3
C412.5	1	2	2						3				2	2	3

**Figure 2.2.1.4: Sample Lesson plan**
**B. Use of Various Instructional Methods and Pedagogical Initiatives (3)**

To make the teaching and learning process more effective and interactive the subject teacher uses the appropriate instructional method and make the students understand better. Figure.2.2.1. d. presents various teaching methodologies employed in the department to enhance the effectiveness and interactivity of the teaching and learning process:


**Fig.2.2.1.5: Teaching Methodologies**

Innovative Method	Description	Outcomes	Images / Screenshot of the practice
Think Pair Share	This method involves three steps: Think, Pair, and Share. Initially students think individually about the assigned topic, then joins with other student to discuss, finally share their insights with the whole class. This method improves the student understanding and participation in the activities.	Encourages active participation, reflection, and collaboration of students.	 <p>Activity on Think for Individual Reflection</p>  <p>Activity on Pair for Collaborative Discussion</p>  <p>Activity on Share for Class Wide Sharing</p>

Apart from the listed methods, the students are initiated and motivated to learn from group activities such as group discussion, in-house internships, workshops conducted in the dept. The students are encouraged and supported with learning through MOOC, NPTEL courses. The students are taken to international tech. exhibition in relevant domains for an update of modern tools and technologies. The course material, laboratory manual, question bank, power point presentation prepared by the course co ordinator/instructor is shared with the students as and when necessary.

#### **Continuous Learning Assessment:**

Assessment of students learning is made on a regular basis through internal assessments, assignments, quizzes for theory courses and for practical courses assessment is made on a weekly basis (after the completion of every experiment). Learning difficulties of the students are discussed with the Class Teacher/Proctor/HOD or in the faculty meeting and are addressed by improving TLP. Projects and Seminars are assessed based on the rubrics developed and notified to the students in advance.

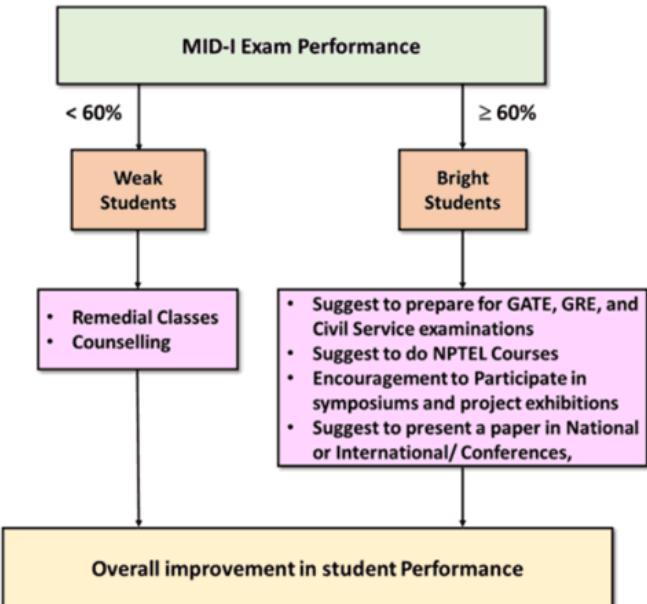
#### **C. Methodologies to support weak students and encourage bright students (4)**

**Bright Students:** Bright Students are the students who can engage in the learning process faster than the rest of learners in classrooms, leading to better grades and greater success in the long run. They are better capable of understanding, retaining, remembering, critical thinking, creativity, and contextualization.

**Weak Students:** Weak Students are the students who struggle with academic performance, has difficulty in understanding concepts, lacks effective study skills, or faces external challenges that impact learning.

The department has well defined process to identify different learning capabilities of students and support the students for the overall growth in the academics. We have an efficient counselling system to continuously monitor the progress of a students and help them in 360 degrees.

The process used to identify and support weak students and encourage bright students is as follows.



**Fig.2.2.1.7: Process to identify and support weak students and encourage bright students.**

#### D. Quality of Class room Teaching (3)

- JNTUK usually defines CO's in the curriculum. The Departmental Academic Committee (DAC) adds the CO's given by the university in case required. In case the CO's are not specifically mentioned by the university, then the subject experts in consultation with the faculty handling the course define the CO's.
- The entire faculty prepare course files with details of the Course Objectives, Course Outcomes, modules, reference material, teaching plan and credits at the beginning of the academic year.
- The classes are conducted as per the prescribed timetable by department program time table with the help of various instructional methods and pedagogical initiatives.
- The faculty is asked to prepare the lecture notes for the allotted course. The suggestions are given to the concerned faculty in order to improve their teaching skills.
- The department of electronics and communication Engineering ensures comfortable class room ambience with spacious seating arrangements, lighting and ventilation.
- The quality of classroom teaching is well monitored and assessed by the Head of the Department (HoD) from time to time.
- Regular interactions of the mentors with their students, HoD meetings with all the class incharges, performance of the students in internal tests and assignments will be monitored and assessed by the HoD.
- The faculty adopts various innovative practices to create and improve instruction methods using pedagogical initiatives such as real examples, collaborative learning for students. These methodologies include traditional chalk & talk methods and various ICT Tools.
- Each classroom is equipped with Board, Notice boards, Boards disseminating POs, PEOs and PSOs.
- The class room ambience ensures the students get more involved in the topic.

#### E. Conduct of Experiments (3)

Practical knowledge is as important as theoretical knowledge in undergraduate programs. Applying theory through hands-on activities enhances students technical skills and prepares them for real-world challenges.

- The departments labs are well-equipped for smooth experiment conduction. Lab technicians ensure the equipment is in proper condition, while Faculty members conduct the experiments well in advance before the semester begins.
- The university-prescribed list of experiments is displayed in the labs, keeping students informed of the lab syllabus structure.
- Faculty responsible for lab sessions prepare lab manuals detailing the experiment objectives, model graphs, circuits, waveforms, and expected results.
- Students are grouped into batches of three for lab sessions.
- Faculty demonstrate the experiments before hand and explain the expected outcomes.
- Lab technicians ensure proper handling of equipment by students and assist them in completing tasks.

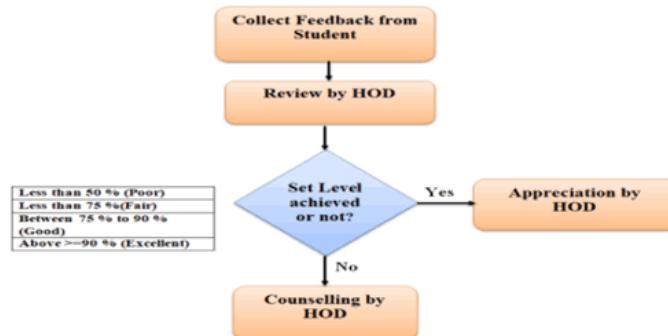
- Students are assessed based on designed rubrics, including day-to-day performance, completion of records, and teamwork attitude and behaviour, which aid in student counselling.
- An annual audit is conducted to assess the working status of lab equipment, with recommendations for servicing or purchasing forwarded by the lab in-charge through the HoD to management. Stock registers are updated after equipment procurement.
- CO-PO mapping for lab courses is also conducted by the faculty.

#### **F. Continuous Assessment in the laboratory (3)**

- Continuous assessment in the laboratory involves weekly experiments where students are evaluated on equipment handling, adherence to procedures, and understanding of theory.
- Marks are awarded based on observations, day-to-day work, and for records.
- The process includes regular monitoring, rubrics-based evaluation, and an annual lab audit to ensure equipment readiness.
- This approach ensures consistent student performance tracking and timely feedback.

#### **G. Student Feedback on teaching learning process and actions taken (6)**

Student feedback is an integral part of the Teaching Learning Process. The department collects feedback from students for effective functioning of the teaching and learning process.



**Fig. 2.2.1.8. Flow Chart for Feedback Process**

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**2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20)**

Institute Marks : 20.00

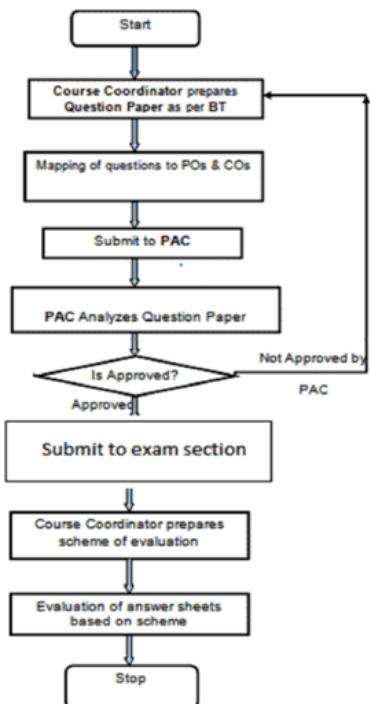
The department maintains the quality in preparation of internal question papers assignments and their evaluation. The question papers are prepared to assess the course outcomes and the cognitive levels of the students. The department conducts the internal examinations as per the university schedule. The department never shows any discrimination in evaluation process irrespective of the caste, creed, and community of the student.

#### A. Process for internal semester question paper setting, effective process implementation, and evaluation (5)

- The institution strictly follows the University's academic calendar for conducting Continuous Internal Evaluation (CIE).
- The internal examination timetable is displayed well in advance. If unforeseen circumstances lead to last-minute changes by the University, the institution promptly adopts the revised schedule.
- The question paper is designed according to the guidelines provided by the university curriculum, ensuring equal weightage is given to all units in the course.
- For every midterm examination, faculty members prepare two sets of question papers. These papers include questions from the syllabus that align with Course Outcomes (COs) and are set according to the difficulty levels outlined in the revised Bloom's Taxonomy. The corresponding faculty also prepares a scheme of evaluation.
- The quality of the question papers is reviewed by the Program Assessment Committee(PAC) members, who then provide a report to the program coordinator for any necessary improvements.
- On the day of the exam, one of the two prepared sets is selected by the Principal, one hour before the examination.
- Answer scripts are evaluated by the course coordinator according to the prescribed evaluation scheme, and the scripts are shown to students to maintain transparency.
- Students are given the opportunity to raise any concerns or questions regarding the evaluation processor the marks allotted. These doubts are addressed by the course coordinator, and any necessary reassessment is conducted.
- Marks are displayed on the notice boards for students. Academically weaker students are identified, and remedial classes are organized to enhance their learning ability through additional tests, assignments, and other supportive activities.

The process for internal semester question paper setting for Mid-I is shown in the following Fig.2.2.2.1.

The same process repeated for Mid-II. The process of Mid evaluation is depicted in the following Fig.2.2.2.2.



**Fig. 2.2.2.1:** Process for internal semester question paper setting

#### I. Question Papers:

- a) While setting the question paper all previous university exam papers are taken into consideration.
- b) According to level of toughness the questions are prepared (viz., analyzing the problems, implementation of modern tools, formulating the problems etc), which is termed as Bloom's Taxonomy.

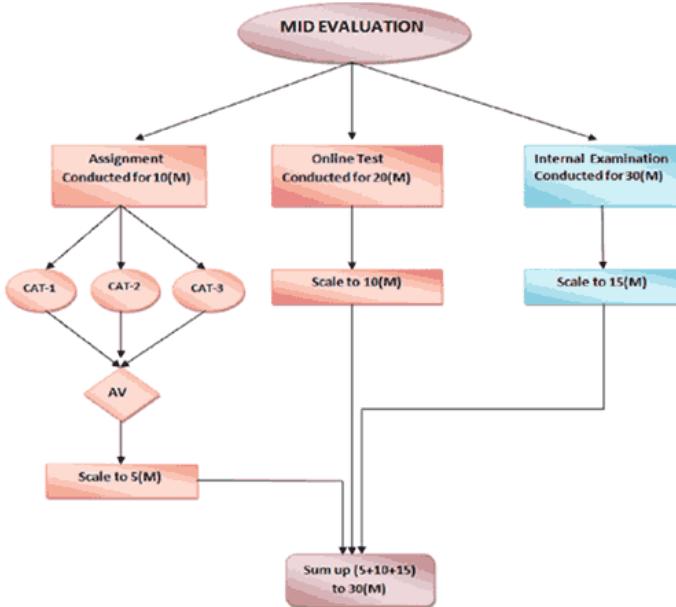
## **II. Assignments:**

One assignment test will be conducted for every unit. Up to first mid examination three Assignments tests will be conducted, remaining three will be conducted in the 2<sup>nd</sup> half duration. Average of three assignments is considered as final assignment marks for mid-1. Average of the remaining three is considered for mid-2. The course coordinator will frame three questions on completed unit to give an assignment. It is evaluated for 5 marks.

## **III. Quiz Examination:**

Two online quiz examinations are conducted each semester by JNTUK. Each quiz consists of twenty multiple-choice questions, carrying a total of 10 marks, with a duration of twenty minutes. These online examinations are scheduled to coincide with the midterm examinations.

## **B. Process to ensure questions from outcomes/learning levels perspective(5)**



**Fig. 2.2.2.2: Process of Mid Examination Evaluation**

- Question paper for internal examination (Mid exam) is set in the standard format by the course coordinator for approximately 50% of the total syllabus for each mid exam.
- Under JNTUK regulations, the pattern of mid exam question paper consists of 3 Questions and the Student has to answer all the 3-Questions. Each question carries 5marks.This descriptive exam is conducted for 15 marks.
- The department ensures that the course coordinator completes the syllabus required to conduct Exam by taking the course completion survey report twice in a semester.
- Two sets of question paper will be prepared by the course coordinators.
- The question paper contains questions from the syllabus with Cos coverage and the level of difficulty as per the revised Bloom's Taxonomy action verbs. Scheme of evaluation will be prepared by the corresponding course coordinator.
- The quality of the question papers are evaluated by the PAC and verifies whether the question.

Paper is designed as per the Bloom's Tax on my and covering the COs and there port is submitted to Principal for further action or for improvement if required.

- One set will be selected by the Principal one hour before on the day of exam.
- The course coordinators prepares scheme of valuation for the mid exam question paper and evaluates the answer scripts as per the scheme.

- The scheme of valuation and the valued answer scripts are shared with the students to maintain transparency and affix their signature on the answer script after scrutiny.
- The students are given a chance to ask doubts regarding the evaluation procedure or marks allotted. The doubts are clarified by the course coordinator and the assessment is done.
- Mid marks will be displayed in the notice boards for students.
- Weak students will be identified and remedial classes are conducted to improve their learning ability through tests, assignments etc.
- The Sample Question paper under R20 Regulations for Optical Communication of Mid-I is shown below:

 <b>NRI INSTITUTE OF TECHNOLOGY</b> Approved by AICTE - New Delhi Guntakalam (V), Visakha (P), Medchal-Malkajgiri (M) Affiliated to JNTUK Kakinada Guntur District - 522436 UGC Recognised, Accredited by NAAC with A+ Grade and ISO 9001:2015 Certified Institution <b>Branch: ECE</b> <b>Time: 1.50 Hrs</b>				
<b>IV B.Tech I Semester- IMID</b>				
<b>Subject: Optical Communication (R232204)</b>		<b>Date:</b>	<b>Max. Marks: 15</b>	
Answer All Questions				
<b>Q.No</b>	<b>Question</b>	<b>CO</b>	<b>Level</b>	<b>Marks</b>
1	a) Explain about step index and graded index fibers. Differentiate step index and graded index fibers.  b) A silica OF has a core refractive index of 1.45 and a cladding refractive index of 1.42. Determine (i) Critical angle at the core-cladding interface (ii) Numerical Aperture of the fiber.	1	K2	2.5
2	a) Discuss about absorption in detail.  b) When the mean optical power launched into an 8 km length of fiber is $100\mu\text{W}$ , the mean optical power at the fiber output is $4\mu\text{W}$ . Determine (i) Overall signal attenuation (ii) Signal attenuation/km	2	K3	2.5
3	a) Explain about Butt-joint connector technique.  b) Explain about Expanded beam connectors.	3	K2	2.5

**Fig2.2.2.3: Sample Question paper**

The scheme of evaluation to the above question paper for the course Optical Communication of Mid-I is given below:

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<b>OPTICAL COMMUNICATION (R232204)</b>		<b>2024-25</b>	<b>Year:</b>
		<b>IV</b>	<b>Sem:</b>

#### Scheme of Evaluation

##### **MID- I**

1. (a) Explain about step index and graded index fibers. Differentiate step index and graded index fibers.	2 ½ Marks
Explanation-	1M
Differences-	1 ½ M
(b) A silica OF has a core refractive index of 1.45 and a cladding refractive index of 1.42. Determine (i) Critical angle at the core-cladding interface (ii) Numerical Aperture of the fiber.	-2 ½ Marks
Given Data	-½ M
Formula-	1M
Solution-	1M
2. (a) Discuss about absorption in detail..	2 ½ Marks
Explanation about 3 types of absorption-	1 ½ M
Diagrams-	1M
(b) When the mean optical power launched into an 8 km length of fiber is $100\mu\text{W}$ , the mean optical power at the fiber output is $4\mu\text{W}$ . Determine (i) Overall signal attenuation (ii) Signal attenuation/km	2 ½ Marks
Given Data-	½ M
Formula-	1M
Solution-	1M
3. (a) Explain about Butt-joint connector technique..	2 ½ Marks
Diagrams-	1M
Explanation-	1 ½ M
(b) Explain about Expanded beam connectors.	2 ½ Marks
Diagrams-	1M
Explanation-	1 ½ M

**Fig. 2.2.2.4: Scheme of Evaluation**

#### C. Evidence of COs coverage in class test/mid-term tests (5)

- The department ensures that the course coordinators strictly follow the learning levels while preparing the question paper for internal examination.
- The course coordinator defines the Course Outcomes for the allotted course and maps the Cos to PO's.
- The Cos are written considering the contents in the syllabus and the ability of the student to learn after successful completion of the course.
- The ever bused to describe the CO specifies the Blooms Tax on my level of understanding.
- The course coordinator while preparing the questions for internal examination ensures that the questions framed are also mapped to the same level as defined by Cos and is clearly indicated in the question paper.



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UGC Recognised, Accredited by NAAC with A+ Grade and ISO 9001:2015 Certified Institution  
Affiliated to JNTUK Kakinada  
Guntur District - 522438  
**Time: 1.30 Hrs**

**IV B.Tech I Semester- IMID**

---

Subject: Optical Communication (R232204)		Date:	Max. Marks: 15	
Answer All Questions				
Q.No	Question	CO	Level	Marks
1	a) Explain about step index and graded index fibers. Differentiate step index and graded index fibers  b) A silica OF has a core refractive index of 1.45 and a cladding refractive index of 1.42. Determine (i) Critical angle at the core-cladding interface (ii) Numerical Aperture of the fiber.	1	K2	2.5
2	a) Discuss about absorption in detail.  b) When the mean optical power launched into an 8 km length of fiber is $100\mu\text{W}$ , the mean optical power at the fiber output is $4\mu\text{W}$ . Determine (i) Overall signal attenuation (ii) Signal attenuation/km	2	K3	2.5
3	a) Explain about Butt-joint connector technique  b) Explain about Expanded beam connectors.	3	K2	2.5
3	b) Explain about Expanded beam connectors.	3	K2	2.5

Fig. 2.2.2.5: Sample Question paper to assess the Learning le

#### D. Quality of Assignment and its relevance to CO (5)

- To continuously improve students learning capabilities and writing skills, faculty members will give 3 questions at the end of each unit. These assignments aim to deepen students understanding of the concepts covered and enhance their ability to articulate their knowledge effectively.
- The assignments are evaluated internally by the course coordinator handling the course.
- The questions are prepared to improve the problem solving skills of the student.
- In a semester, the assignment is given after the completion of every unit covering the syllabus of that particular unit and in line with the defined COs.

The sample assignment questions framed after covering the unit and their relevance to CO is shown below:



**NRI INSTITUTE OF TECHNOLOGY:: GUNTUR**  
**II B.Tech II Semester- I ASSGNMENT**

**Branch: ECE**      **Regulation: R20**  
**Subject: EDC**

---

Q.No	Question	CO	Level	Marks
1	Explain in detail about Hall Effect?	1	K2	2.5
2	Derive continuity equation and state its special cases	1	K3	2.5
3	Prove that fermi level lies in the center of forbidden band for intrinsic semiconductor.	1	K1	2.5

Fig.2.2.2.6: Sample Assignment paper to assess the Learning levels

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**2.2.3 Quality of student projects (25)****Institute Marks : 25.00**

The Project Work aims to provide students with practical experience by applying theoretical knowledge to real-world problems. It fosters hands-on skills with tools, promotes innovation, teamwork, and problem-solving, and develops project management abilities. The project prepares students for industry or higher studies while enhancing their documentation and presentation skills, bridging the gap between academia and industry needs.

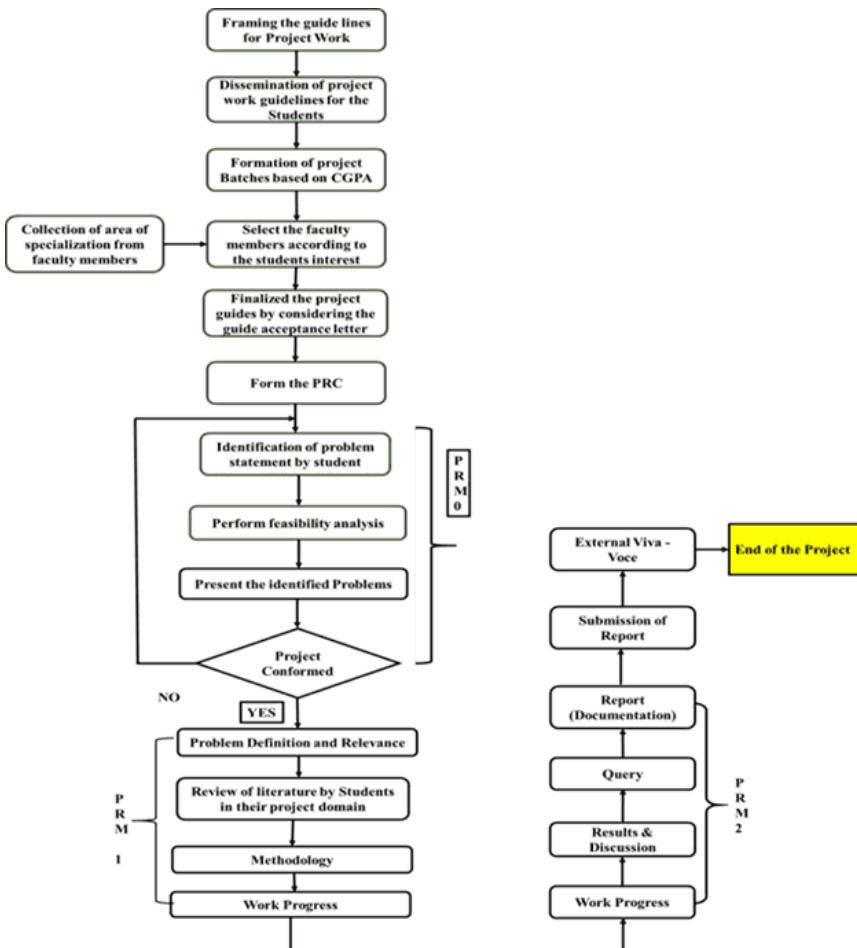
**To excel in their Project Work students are advised to:**

- Collaborate with industry for real-world problems.
- Attend workshops on emerging technologies.
- Explore inter disciplinary ideas.
- Utilize research labs for advanced tools.
- Join hackathons and competitions.
- Consider turning your project into a start-up.
- Focus on sustainability in your project.
- Contribute to open-source projects.
- Get regular feedback from faculty and peers.
- Publish project work in reputed journals/conferences.

These steps will help enhance the quality and impact of the project.

To ensure high quality in student projects within the department, a set of procedural steps is implemented, including planning, scheduling, and execution phases. The process, as outlined in Figure2.2.3.a, details the comprehensive approach taken for successful project completion. The project coordinator plays a crucial role in overseeing these steps, ensuring that each phase is properly executed and that the project meets its objectives effectively. In collaboration with the program coordinator, a project schedule is prepared, and project batches are framed. Students choose their areas of interest, and guides are assigned accordingly. An abstracter view is conducted to evaluate the selected fields and provide necessary feedback. According to the schedule, two internal reviews are held to assess individual and team performance. A final review is conducted on the date scheduled by the university. Project assessment is based solely on predefined rubrics.

Students work on their projects using the resources provided by the department and institute. The project lab is equipped with essential software tools such as Mentor Graphics, Xilinx, and MATLAB along with hardware boards and sensors to support project implementation. Additionally, students have access to e-journals, e-books, and around 45 national and international journals in the digital library for their literature review. High-speed internet and NPTEL videos are also available to aid in learning the concepts necessary for their project work.

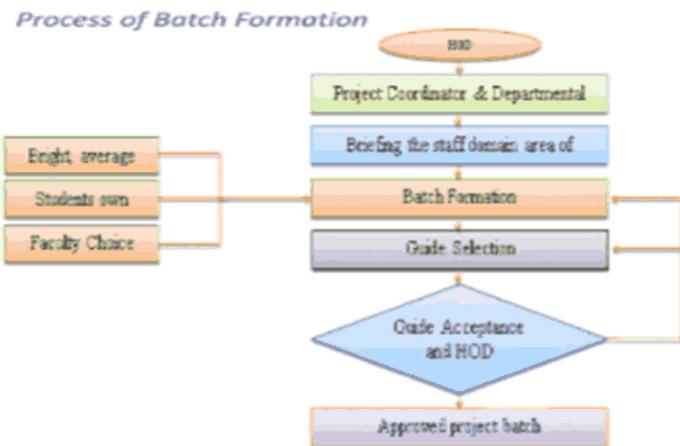


**Figure 2.2.3.a: Process for Student Project Evaluation**

#### A. Identification of projects and allocation methodology to faculty members (3)

In the final year batches are formed to undertake major projects in various fields of ECE, such as VLSI, Embedded Systems, Signal & Image Processing, Antenna Design, Machine Learning, and IoT. A senior faculty member is appointed as the project coordinator, who collaborates with the Head of the Department to prepare a project schedule aligned with the university calendar. The projects reflect both individual and collective contributions within each team, and the department ensures careful batch formation and guide allocation.

##### Batch Formation:



**Fig. 2.2.3.b: Process of Project Batch Formation**

Students are grouped into batches, with a maximum of four members, based on their CGPA up to the date of batch formation. The batch lists are displayed on the department notice boards for student verification and any necessary corrections. High-performing students are assigned as batch leaders, with teams balanced according to academic performance. The process is transparent, ensuring fairness and effective team collaboration.

#### **Guide Allocation:**

Process for student projects follows a structured approach to ensure alignment between student interests and faculty expertise:

1. After forming project teams, students are provided with a list of potential guides, including their areas of specialization.
2. Students are encouraged to choose their project field based on their interests, expertise in software/hardware tools, and the resources available within the department.
3. Each team selects appropriate faculty guide and get the acceptance letter.
4. Project coordinator ensures that no faculty member is overloaded with too many teams.
5. Team submit a one-page abstract detailing their project proposal to the project coordinator.
6. The Head of the Department, in consultation with the project coordinator, finalizes the allocation of guides. The final list is displayed on the department notice board for students reference.

This process ensures a fair and efficient guide allocation, with appropriate guidance and support for the successful implementation of student projects.

GUIDE ACCEPTANCE LETTER

To,  
Dr. B. Saidaiyah,  
Professor,  
Dept. of ECE,  
NRIIT,  
Guntur.  
From  
Batch-A14  
IV ECE-A,  
Dept. of ECE,  
NRIIT,  
Guntur.  
Sub:- Request for guidance and mentorship for main project.

Respected Sir,

We are batch-A14 from ECE Dept. We are formally requesting your guidance and mentorship for our main project titled "Green house monitoring & control system" as part of my course at our institution.

Thanking You Sir,

Your's faithfully

A Venkatesh (19KP1A0404)  
Ch. Lakshmi Bhonsali (19KP1A0419)  
G. Hareesh (19KP1A0432)  
Palhan Farook Khan (19KP1A0465)

*B. Saidaiyah*  
Signature of the Guide  
28/10/22

Figure. 2.2.3.b: Sample of Guide Acceptance Letter

## Major Projects for CAY (2023-2024):

## IV ECE -A

S.No.	Batch No.	Roll No.	Name of the student	Title of the Project	Name of the Guide
Sign to Speech conversion					
1	A1	20KP1A0401	ADIGOPPALA KAVYA	using android phone for dumb people	Mr.Ch.Rambabu
2		20KP1A0460	MADALA. ANUSHA		
3		20KP1A0456	KORABANDI MAHESH		
4		20KP1A0446	KANCHARLA SIVA GOPI		
5		20KP1A0403	ALLA AJAY KUMAR		
Arduino based Fire detection and control system					
6	A2	20KP1A0420	CHENNAKESAVULA DEEPIKA		Dr.C.kalaiselvan

7	20KP1A0421CHILAKA ARUN KUMAR		
8	21KP5A0403GUDURI BHANU SURYA SAI		
9	20KP1A0423DADI SANDIP		
10	20KP1A0428DODDAKA SUMANTH		
11	A3 20KP1A0447KANCHERLA MURALI KRISHNA	Stroke prediction using Deeplearning	<b>Dr.M.Ravi</b>
12	20KP1A0473MONIKA GUMMADI		
13	20KP1A0436GOPAVARAPU KARTHIK		
14	20KP1A0475NADENDLA YASWANTH		
15	A4 20KP1A0417BURAGADDA RENUKA DEVI	Biometric Identification Used In Bank Sector	<b>Miss.Jyosthna</b>
16	20KP1A0435GODDUMARRI VENKATESH		
17	20KP1A0455KOPPARTHI RAMALAKSHMI		
18	20KP1A0466MANDURI AKASH		
19	A5 20KP1A0451KICHAMSETTI ASHOK	Motion based Door opener with Metal Detector	<b>Dr.B.Saidaiah</b>
20	20KP1A0429DORSILA SRINIVASA BHAVANI		
21	20KP1A0468MEDARAMETLA NEERAJA		
22	20KP1A0457KOTARU LAKSHMANA VAMSI		
23	A6 20KP1A0448KANNA VIJAY SHANKAR	ALZHEIMERS Disease Predection using Deeplearning	<b>Miss.M.Bindu Sri</b>
24	20KP1A0454KONJETI SANDEEP		
25	20KP1A0414BILLIPATI MANASA		
26	20KP1A0440GOWTHUKATLA AKSHANTHA RAO		

#### B. Types & Relevance of Projects and their Contributions towards Attainment of POs and PSOs (5)

The student projects are designed to address contemporary issues and challenges in engineering, particularly in areas like VLSI, Image & Signal Processing, Communication, and Embedded Systems. These projects contribute directly to the attainment of Program Outcomes (POs) and Program-Specific Outcomes (PSOs) by engaging students in real-world problem-solving and ethical considerations.

##### Key Contributions towards POs and PSOs:

- Real-World Problem Solving:** Projects often focus on designing, synthesizing, and analyzing solutions to real-time societal issues, directly addressing PO2 (Problem Analysis) and PO3 (Design/Development of Solutions).
- Application of Modern Tools:** Students use modern tools for simulation and testing, contributing to PO5 (ModernToolUsage) and PSOs related to emerging technologies such as VLSI and Embedded Systems.
- Environmental, Ethical, and Safety Considerations:** Projects often include factors like environment, safety, and ethics, contributing to PO6 (Engineer and Society), PO7 (Environment and Sustainability), and PO8 (Ethics).
- Teamwork and Critical Thinking:** By working in teams, students enhance their critical thinking and collaborative skills, which map to PO9 (Individual and Teamwork) and PO10 (Communication).
- Publication and Knowledge Sharing:** Students are encouraged to publish their work in reputed journals or conferences, supporting PO12 (Life-long Learning) and contributing to a broader knowledge base.

**6. Documentation:** Preparing comprehensive documentation of the project with results and future directions contributes to PO10 (Communication Skills).

#### Alignment with Vision, Mission, and Program Outcomes

Each project is aligned with the departments **Vision** and **Mission**, ensuring relevance to societal needs and technological advancements. CO-PO mapping ensures that the project outcomes are closely linked to the desired Program Outcomes and Program-Specific Outcomes, guiding students toward successful academic and professional achievements. This approach ensures that the projects are not only academically enriching but also contribute meaningfully to solving contemporary challenges.

After the successful completion of student projects, the Project Coordinator, in consultation with the Program Coordinator, assesses the attainment of Program Outcomes (POs) and Program-Specific Outcomes (PSOs). This process involves evaluating how well the students have achieved the defined outcomes through their project work.

#### Course Outcomes (COs) for Project:

**CO1:** Identify and analyze engineering problems in Electronics, Communication, Signal Processing, or Embedded Systems, and develop a well-defined problem statement.

**CO2:** Design and develop a solution or system using modern engineering tools and techniques, applying knowledge of electronics, communication, and embedded systems.

**CO3:** Implement the designed solution using appropriate hardware and software tools and conduct thorough testing to ensure it meets the specified requirements.

**CO4:** Prepare technical documentation and deliver effective oral presentations to communicate project objectives, methodologies, and results.

**CO5:** Collaborate effectively within a team, managing resources and timelines while adhering to ethical standards and considering the social impact of the engineering solution.

#### Mapping COs with POs and PSOs:

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO1 1	PO1 2	PSO1	PSO2	PSO 3
CO1	3	3		3								3	3		2
CO2	3		3		3							3	3		
CO3					3				2	2			3	2	3
CO4											3	3		3	2
CO5						3		3	3		3			3	3

Table 2.2.3.b: CO-PO-PSO Mapping of Project Course

For the Academic year 2024-2025 the following projects are mapping with POs and PSOs

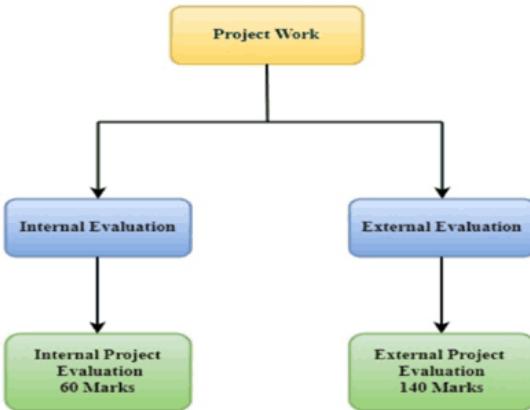
S.No	Name of the Project	Mapped POs
1	Hand Gesture to text conversion using Rasberry Pi Pico	PO1,PO2,PO3,PO4,PO5,PO9, PO10,PO11,PO12,PSO1,PSO2
2	Prediction of Prostate Cancer using Image segmentation with Deep LEARNING	PO1,PO2,PO3,PO4,PO5,PO9, PO10,PO11,PO12,PSO1,PSO2

3	Smart Aquarium: Enhancing Anabas Testudinees welfare with IOT Technology	PO1,PO2,PO3,PO4,PO5,PO9, PO10,PO11,PO12,PSO1,PSO2
4	Effective VLSI architecture of AES using LFSR	PO1,PO2,PO3,PO4,PO5,PO9, PO10,PO11,PO12,PSO1,PSO2
5	MAT Lab based Fingerprint matching system	PO1,PO2,PO3,PO4,PO5,PO9, PO10,PO11,PO12,PSO1,PSO2
6	Automotive Vehicle number recognition system using MAT Lab	PO1,PO2,PO3,PO4,PO5,PO9, PO10,PO11,PO12,PSO1,PSO2

## (C). Process for monitoring and evaluation (5)

- To ensure proper conduction of each project, progress of each project is monitored on continuous basis first by the project guide and then by the project review committee (PRC).
- In the process of monitoring and evaluation during the project period three presentations by each team of the students is made mandatory to monitor and evaluate the progress of the work.
- The first presentation will be purely synopsis presentation and students are required to show a brief power point presentation describing the main Aim/Objective of the project, the methodology to be used, the time chart, expected results.
- This presentation shall be made before the respective project guide first and on his approval it should be made before the project review committee.
- The project is considered to be approved only if presentation fulfills the requirements.
- If the presentation is not up to the mark either the Committee will ask the students along with their project guide to modify the project and present again or change the project.
- The second presentation of this semester will be planned by the PRC in the eighth week.
- The Third presentation of this semester will be planned by the PRC in the Ninth week.
- This presentation will review the progress of the students. Each group will first show their progress to their respective project guide get the brief project report signed from them and present the same before the PRC.
- The groups are also required to make a power point presentation and present before the PRC.
- In this presentation the PRC is supposed to mark each student/ group based on their project content, presentation made, project progress, queries answered and attendance out of 40 marks. The PRC shall finalize the marks just after the presentation and the record of the same should be circulated to all the concerned project guides.
- 14<sup>th</sup> week PRC plan for the final presentation (i.e. Final Demonstration) It shall be made on the same way as the previous presentations were conducted and the groups should be evaluated in the presentation will be taken by PRC, all project guide should also be present in this presentation.
- The Committee will review the progress of the students. Each group is required to make a project report showing the complete of the project.
- This report should be brief and should mainly contain the detailed methodology/ algorithms adopted/ studied during the entire semester.
- This report should be signed by the project guide and should be submitted before the final presentation.
- The groups are also required to make a power point presentation and present before the final Committee. In this presentation the PRC is supposed to mark each student/ group project content, presentation made, project progress, in 16<sup>th</sup> week internal marks will be allotted for the students based on the evaluations made by the concern project guide and PRC.
- Final External Presentation will be conducted as per the date scheduled by the university. Along with the external examiner Project coordinator will be present in the presentations and the concerned project guide can be invited at the time his/ her group is making the presentation. The external examiner will evaluate the projects of the students along with the project coordinator in awarding the final marks to each candidate based on his/her performance.

**Evaluation phase of projects are carried in two phases for 200 marks**

**Fig.2.2.3.c. Project Evaluation****Phase I:**

Internal evaluation for **60** marks carried out in three stages.

- Problem identification and Literature survey are of central focus in stage I evaluation and is done for 20M and recorded by PRC and project guide.
- Analysis, design, suitable tools sections are of high priority in the evaluation of stage II, evaluation is done for 20M and recorded by PRC and project guide
- Implementation & documentation are having centric scope in the evaluation of stage III, evaluation is done for 20M and recorded by PRC and project guide.

**Phase II:**

The End Semester Examination (Viva – Voce) shall be conducted by the committee. The committee consists of an external examiner, Head of the Department and project coordinator. The evaluation of project work shall be conducted at the end of the IV year.

External evaluation is carried out for **140** marks and recorded in rubrics sheet evaluated by university assigned external examiner and to be confidentially maintained by head of the department.

S.NO	Review I	Review II	Final Review
	Attribute	Attribute	Attribute
1	Understanding background and topic(2M)	Abstract(2M)	Architecture/System Design (3M)
2	Literature survey(3M)	Technical design(3M)	Contribution of candidate (2M)
3	Specify project goals(3M)	Summarizes algorithms and highlights their project features(3M)	summarizes the ultimate findings of project (3M)
4	Project planning(3M)	Specifies the testing platforms and Tools selection(3M)	Results obtained and performance evaluation (3M)
5	Selection of Project(3M)	60 % Implementation (3M)	Pre final draft of entire project(3M)

6	Presentation skills(3M)	Presentation skills(3M)	100 % implementation (3M)
7	Question and answers(3M)	Question and answers(3M)	Presentation Skills (3M)

Table 2.2.3c. Internal Project Review Process

## (D). Process to assess individual and team performance (5)

- Project progress seminars are scheduled and conducted by the team of their respective guide and PRC.
- The project seminar should be given by all the project team members according to their schedule.
- Each student in the project team is assessed by skill set, concept, understanding and way of presentation.
- Each individual and team performance is based on the observations of the project guide, involvement of the student in carrying out the project work, project seminar presentation and the viva voice.
- Day by Day interaction with the project team members for progress of their project work and observe the individual member performance in their project.
- Giving suggestions to the project team members to improve their knowledge in their selected domain and giving assignments related to project and to improve their hands on experience.

## E. Quality of completed projects/working prototypes (5):

The projects cover emerging areas such as IoT, VLSI, Embedded Systems, Machine Learning, Signal and Image Processing, and Antenna Design. Students work on projects that address societal needs or involve product-based solutions for real-time applications. Some projects are research-oriented, utilizing modern tools, and their results can be extended to fabrication for communication, radar, and various industrial applications. Innovative projects are often developed into papers for publication in reputable journals and conferences. Projects which secured highest marks are considered as quality projects.

Process for assessing the quality of Projects:

A committee consisting of Head of the Department, Professors, Project Coordinators and project guides are responsible to identify the merits and hence decide the best project for the respective years

The Project evaluation committee will analyze the nature of the project and make sure that the work is environment friendly, ensures safety, ethics and cost-effective.

The type of the project selected could be an application, product, a review or a Research work.

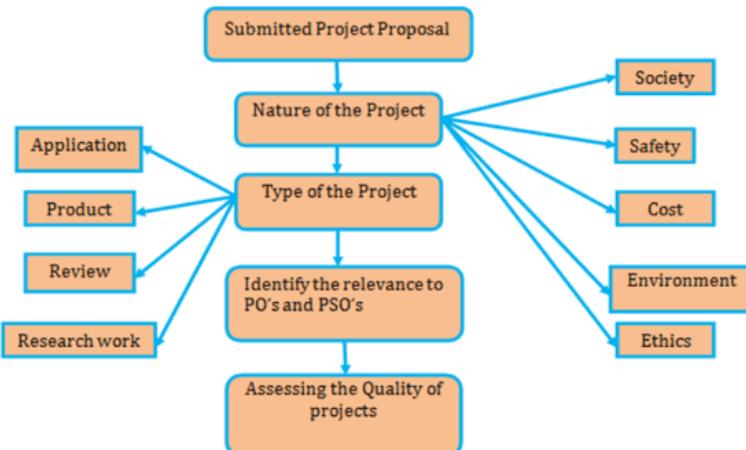


Fig 2.2.3.c: Process for observing best projects

A list of high-quality projects aimed at solving contemporary issues from the past three academic years is provided in Table 2.2.3. g.

**Academic Year: 2024-25**

BATCH Regd. No

STUDENT NAMES

PROJECT GUIDE NAME PROJECT TITLE

MAPPED POs, PSOs

<b>TEAM-1</b> 21KP1A0423CH VENKATA LAVANYA	K.Sujatha	Prediction of Prostate Cancer using Image segmentation with Deep Learning"	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8, PO9,PO10,PO11,PO12,PSO1,PSO2
21KP1A0432DONTHIREDDY PRABHAVATHI			
21KP1A0415BOLLIMUNTA ANKAMMA RAO			
21KP1A0424 CH. SAI DURGA PRASAD			
21KP1A0440G. NANDAN			
<b>TEAM-2</b> 21KP1A0449KANDIMALLA THRIVENI	Ch. Rambabu	Home automation with ESP32 using Google Assistance &Sinric pro	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
22KP5A0410KAVITI VISHNUVARDHAN			
21KP1A0447KAMASANI RAKESH			
22KP5A0403CH N V GANGADHAR			
<b>TEAM-3</b> 21KP1A0460KOPPALA UDAYA REKHA	Dr.K.SriHari Rao	Advanced IOT sensor driven smart parking system	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
21KP1A0411BIJINEPALLI SUJITHA			
21KP1A0408BATTULA GANGASEKHAR			
21KP1A0468MADDIRALA NAGA SAIDULU			
<b>TEAM-4</b> 21KP1A0472MARATHU SRIDEVI	Dr.C.KalaiSelvan	"Drowsiness Detection System For Drivers using Arduino"	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
21KP1A04A5RISHITHA ARAMBAKA			
21KP1A0486P KOMALA SAI PARVATHI			
21KP1A0478N MURALI PRASANNA			
<b>TEAM-5</b> 21KP1A0474MEDARAMETLA SRIVIDYA	Dr.B.Saidaiah	IoT Based Floods Monitoing And Alerting With GSM	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PO12,PSO1,PSO2
21KP1A04A4RAVIPATI MAMATHA			
22KP5A0415PUVVADI KARTHIK			

21KP1A0491PANIDEPU PUSHPANJALI

**BEST PROJECTS:**

A **best project** typically stands out due to its innovation, real-world applicability, technological advancement, and alignment with key educational outcomes such as problem-solving, design, and ethical considerations.

**Best Projects (2024-2025)**

Sl. No	Title of the project	Students	Area of the Project	Project Guide
1	Face Recognition based on student Attendance using Deep learning	21KP1A0421	IP	Mr.G. Vijay Kumar
		21KP1A0467		
		21KP1A0420		
		21KP1A0418		
2	Automatic Vehicle number recognition system using MATLAB Lab	21KP1A0451	ES	Dr. C. Kalai Selvan
		21KP1A0422		
		21KP1A0456		
		22KP5A0405		
3	Advanced IOT sensor driven smart parking system	21KP1A0469	IOT	Dr. K. Sri Hari Rao
		21KP1A0405		
		21KP1A0433		
		21KP1A0409		

**F.Evidences of papers published/ Awards received by projects, etc.(2)**

Projects have been recognized through publications in reputed journals and presentations at top conferences, showcasing innovations in areas like robotics, AI, and healthcare.

Academic Year : 2023-24								
2024	Design and Development of Arduino Based Fire Detection and Control System With IOT Application	The International Journal of Analytical and Experimental Modal Analysis, Volume XVI, Issue IV, April/2024, Pp.194-198.	Dr.C.Kalaiselvan, Dr.K.Srihari Rao, Ch.Deepika,Etal.,	UGC9367	ISSN No: 0886-9367	April	6.3	
2024	Earth Quake Prediction Using Machine Learning	Journal Of Interdisciplinary Cycle Research Volume:16;Issue:4.	Dr. M. Ravi, Dr. K.Srihari Rao, K Murali Krishna, G Karthik,G Monika, N Yaswanth	UGC	ISSN No: 0022-1945	April	3.2	

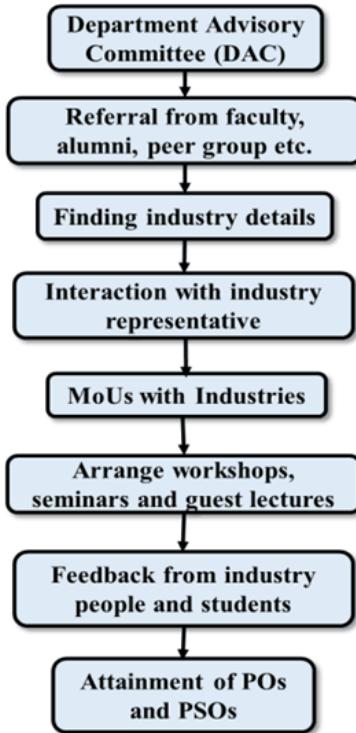
2024	Design And Fabrication of Power Generation Using Piezo Electric Sensors	The International Journal of Analytical and Experimental Modal Analysis, Volume XVI, Issue IV, April/2024, PP.194-198.	Dr. K.Sri Hari Rao, K.Joshna,M.V. Gopinath .etl	UGC	ISSN No: 0886-9367	April	1.5
2024	IOT Based Air Pollution Detection Monitoring Systemwitharduino	International Research Journal of Engineering And Technology (IRJET);Volume:10,Issue:3,P-ISSN: 2395-0072	Dr. K.Srihari Rao, Dr. B.Saidaiah, V.Divya, P.Lakshmi Lavanya, T.Poojitha,Y.Vishnuvardhan, UG Students	UGC	e-ISSN: 2395-0056	April	8.266
2024	Exam Control Room Smart Security System Using Arduino	Journal of Interdisciplinary Cycle Research,Volute 16;Issue:3.	Mrs.E.V.Santhi,Dr. K.Srihari Rao, Jeldi Pavan Kumar, Kotturi Venkatesh, Bandlamudi Manochandra, Gangireddy Narendra Reddy	UGC	ISSN No: 0022-1945	March	2.1

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**2.2.4 Initiative related to industry interaction (15)**

Institute Marks : 15.00

To ensure engineering students are technically proficient and globally competitive, equipping them to seize opportunities and meet industry demands, it is essential to provide them with industry exposure and a platform to adapt to evolving technologies. The department regularly implements measures to achieve these objectives.



**Figure2.2.4.a: Procedure for Industry Interaction**

#### A. Industry Supported Laboratories (5)

With globalization and the liberalization of the Indian economy, industries are now facing intense competition. To overcome their engineering challenges, they are increasingly seeking assistance from engineering institutions. Likewise, there is a growing need to equip engineering students for careers in multinational companies by providing them with exposure to advanced technologies and modern engineering methodologies.

Achieving these goals requires closing the gap between industry and academia. Stronger collaboration between technical institutions and industries is essential, as it will positively influence the engineering curriculum, provide students with real-world industrial experience, and enhance the placement prospects of graduating engineers in companies nationwide. The details department research laboratory is given below:

#### Research Lab

Department Research lab provides the hardware and software's related to IoT, VLSI, and Signal/Image processing. Students gain hands-on experience with the equipment provided by the research lab. Students enhance their knowledge in developing IoT, VLSI, and Signal/Image processing applications by gaining expertise in these domains on campus, helping them stay ahead of their peers.

Sl. No	Software/ Hardware	Utilization	Outcomes
1	Desktop Computers	For students and faculty	To simulate the circuits and systems.

2	MATLAB	IV-year students and faculty	To carryout project works and research Works in the area of Image processing, communication systems
3	Xilinx	III & IV-year students and faculty	To carryout project works and research works in the area of VLSI (front end)
4	Arduino for IoT	III&IV-year students and faculty	To carryout IoT projects and research works
5	Multisim &CST Studio	III- & IV-year Students and faculty	To carryout projects and research Works in the area of embedded systems

**Table . 2.2.4.a: Facilities available in research laboratory and utilization objectives of the Lab**

- The lab is used to design and develop real-time projects that support research activities.
- Develop projects that are both cost-effective and socially relevant.
- Students and faculty can utilize the lab to gain hands-on exposure.
- To develop trained manpower through student projects in the field of IoT, VLSI, and Signal/Image processing -based application development.

**Outcomes of the Research Laboratory:**

By utilizing the research laboratory resource, the final year students completed projects during the assessment period.

**Projects developed by students in Research Lab****Table2.2.4.b: Projects developed by students in Research Lab**

S No.	Student details	Project Title	Relevance to Pos & PSOs
1.	Students of IV B-Tech II Sem (2024-25) developed this project as a part of Project Expo.  BODDUPILLI VASU (21KP1A0413) D VENKATESWARA REDDY (21KP1A0431) LANKA PRABHAKAR (21KP1A0466) KUNDURU ABHISHEKAR REDDY (21KP1A0462)	Smart notice board using ESP32	PO1 to PO12, PSO1, PSO2, PSO3
2.	Students of IV B. Tech II Sem (2023-24) developed this project as a part of Project Expo.  N.VAMSI KRISHNA 20KP1A0481 S.SRINU 20KP1A04B4 T.GOWTHAM 20KP1A04D7 S V. SAI NADH REDDY 20KP1A04C6	VLSI implementation of error detection and correction codes for space engineering	PO1 to PO12, PS01, PSO2, PSO3

3.	Students of IV B-Tech II Sem (2022-23) developed this project as apart of Main Project  CH.VIJAYALAKSHMI 19KP1A0418 M.SRIJA 19KP1A0456 CH.RAJYA LAKSHMI 19KP1A0416 S.BALA PRIYANKA 19KP1A0473	An IOT Based Patient Health Monitoring System	PO1 to P012 PSO1, PSO2, PSO3
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**Effectiveness of Research lab:**

- The research lab offered students practical experience to tackle real-world applications.
- Although the suggested projects are relatively basic, completing them builds the confidence needed to tackle more challenging ones.
- Students develop a strong interest in exploring various inter disciplinary courses due to their involvement with diverse technologies.
- Students learning as a team improved with enhanced interpersonal communication skills.
- Professional ethics and the opportunity for modern tool usage were enhanced as students utilized open-source software and resources.

**• B. Industry involvement in the program design and partial delivery of any regular courses to students (5)**

The Department Advisory Committee (DAC) consults industry experts and professors from prestigious universities to continually enhance students development in all aspects. Additionally, senior engineers from the industry are consulted to help students stay updated with the latest technologies.

Workshops, seminars, and guest lectures are organized to enhance students skills. Involving industry experts in the partial delivery of regular courses for students. Memorandums of Understanding (MoUs) with industries provide both students and faculty with opportunities to better understand concepts. These MoUs were established to emphasize:

- Internships
- Project work for students
- Industrial visits
- Student-specific training
- Faculty development programs

The tables below provide details on skill development programs conducted by industry experts, soft skill training programs led by specialists from multinational companies, and talks given by industry professionals.

**The List of Technical talks by Industry Experts is:**

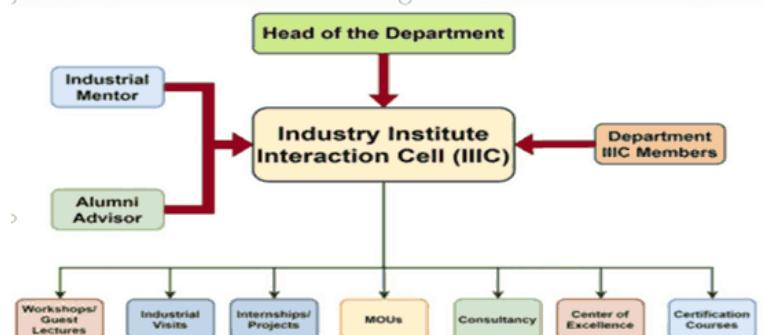
S. No.	Topic of Seminar/ Guest Lecture/ Workshop	Date(s)	Resource Person with Designation	% of Students	Relevance to POs and PSOs
1	A Three-day workshop on Robotics	24-07-2023 To 26-07-2023	Mr. Mahan RK, Founder & CVO of HackBoats	80%	PO1,PO2,PO5, PO9,PO12,PSO2,PSO3
2	A three day workshop on PCB	19-8-2023 To 21-8-2023	Mr.Rajesh MRK Technologies	62%	PO1,PO2,PO5,PO9,PO12,PSO2,PSO3
3	A Two days Workshop on IOT,AI	26/2/2024 TO 27/2/2024	Mr. Mahan RK, Founder & CVO of HackBoats	74%	PO1,PO5,PO12,PSO2,PSO3

4	3 days workshop on Embedded System Design for IoT Applications using Arduino boards	13/3/2024 to 15/3/2024	Mr. Likhith , Robotics Engineer at HackBoats	64%	PO1,PO2,PO5,PO9,PO12,PSO2,PSO3
5	Guest lecture on "Low Power VLSI design"	16-02-2023	Mr.Rajesh MRK Technologies	90%	PO5,PO7,PO12
6	A Guest Lecture on 5G antenna technology	24-04-2023	Dr. K. Ramanjaneyulu Professor ECE Dept, PVP Siddhradha Inst. Of Technology	76%	PO4, PO5, PO12

#### C. Impact analysis of industry institute interaction and actions taken thereoff (5)

Industry-Institute Interaction is crucial for the long-term preparation of students, shaping them into world-class professionals in science and technology by fostering the various skills demanded by the industry. This, in turn, contributes to broader economic and social development.

**Industry-Institute interaction is achieved through:**



**Fig.2.2.4.b. Organisation and function of Industry Institute Interaction cell**

- Participation of industry experts in the Institute Governing Body
- Involvement of industry professionals in the Department Advisory Committee
- Guest lectures delivered by industry experts
- Industrial visits organized for students
- Student project work supported by industry professionals
- Workshops, seminars, and guest lectures help students gain knowledge of the latest technologies, tools, and practices
- Industry-established labs with modern methodologies provide a practical environment for students to implement creativity in their project work.

#### Impact analysis:

- Gaining real life experiences through Industry.
- Application of theoretical knowledge and Practical Knowledge.
- Enhancement of or hand written skills.

- Decision making on career choice.
- Earn while learn (Internship ) that develops individuality.
- Gaining access to sophisticated Technology.
- Understanding the work culture of industries.

The list of MOUs with various companies is listed below

S. No.	Company Name	Date
1	L4G SOLUTIONS PRIVATE LIMITED	07-04-2020
2	INNOVATIVE TECHNOLOGIES	15-11-2022
3	ELITE TECHNOLOGIES	09-03-2020
4	CORETEK TEST SOLUTIONS	03-01-2022
5	CERTYBOX SKILLS FOR TOMORROW	17-03-2020
6	ELEATION	09-09-2021
7	GAGAN APPS	19-08-2019
8	TEAM LEASE EDTECH LTD	09-09-2021
9	PANTECH SOLUTIONS PVT LTD	23-09-2021
10	IVIS	21-07-2022
11	SUPRIJA TECHINOLOGIES	05-05-2025
12	UNIVERCITY OF SILICON	30-11-2021
13	SRM	07-09-2023
14	EDIFY EDUCATIONAL SERVICES	10-12-2021

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**2.2.5 Initiative related to industry internship/summer training (15)**

Institute Marks : 15.00

Industry internships and summer training programs are vital for connecting academic learning with real-world experience. They provide students with hands-on practice, enhancing their theoretical knowledge and practical skills. The key components are

- Students apply classroom concepts to real projects, reinforcing their learning and gaining industry insight.
- Focuses on technical skills like programming and project management, with training on industry-standard tools.
- Helps students understand corporate culture, work ethics, and communication within the workplace.
- Provides opportunities to connect with industry professionals and peers, aiding future career prospects.
- Involves working on relevant projects and presenting them to professionals, improving communication skills.
- Offers resume building, interview preparation, and career path insights.
- Includes evaluations and feedback to refine skills and address development areas.
- Analyzes feedback to enhance the effectiveness of industry interactions.

These programs significantly enhance students' readiness for the industry, equipping them with essential skills and professional connections.

#### A. Industrial Training/Tours for students (3)

Industrial visits are an essential component of the curriculum, offering students invaluable real-world exposure that complements their theoretical studies. These visits bridge the gap between classroom concepts and practical applications by allowing students to observe and engage with current technologies and industry practices. They enhance learning by providing hands-on experience, aid in career exploration by showcasing various roles within the field, and facilitate networking with industry professionals. Additionally, these visits provide practical insights into the latest tools and methodologies, motivating students to apply their knowledge more effectively and prepare for their future careers in electronics and communication.

The following are various industries visited by our students.

S. No	Academic Year	Students Visited	Company
1	2023-24	IV ECE	ISRO
2	2023-24	II ECE	Prasara Bharathi
3	2023-24	III ECE	Vizag Steel Plant
4	2022-23	IV ECE	Radar Station

Table 2.2.5.1: Industrial Visit for students



#### B. Industrial/ internship/ summer training of more than two weeks and post training Assessment (4)

The institute supports this initiative by granting permission for industry internships to gain practical experience. Following the completion of their internship, students are required to submit a report detailing their training, either as individuals or in teams. This training fosters innovative thinking and helps students develop solutions to real-world problems, often resulting in working models, as outlined below.

##### Student Internships for CAY (2024-2025):

SINo	Student Name	Name of the Internship	Company	Duration	
1	B.Sujitha	Data Science	Excelr	6. Weeks	

2	B.Hemanth	REACT JS	Excelr	6 Weeks	
3	C.Bharath Kumar	Data Science	Excelr	6 Weeks	
4	G.Manohar	Internet Of Things	Excelr	6 Weeks	
5	J.Anjali	Python Full Stack	Excelr	6 Weeks	
6	K.Narasimha Rao	Mean Stack Development	Excelr	6 Weeks	
7	M.Siddardha	Deep Learning/NLP/Artificial Intelligence	Excelr	6 Weeks	
8	V. Lakshmi Prasanna	Full Stack JAVA	Excelr	6 Weeks	
9	L.Prabhakar	Student Result Portal	Excelr	6 Weeks	
10	Sk.Jan Saida	Full Stack JAVA	Excelr	6 Weeks	

**Student Internships for CAYm1 (2023-2024):**

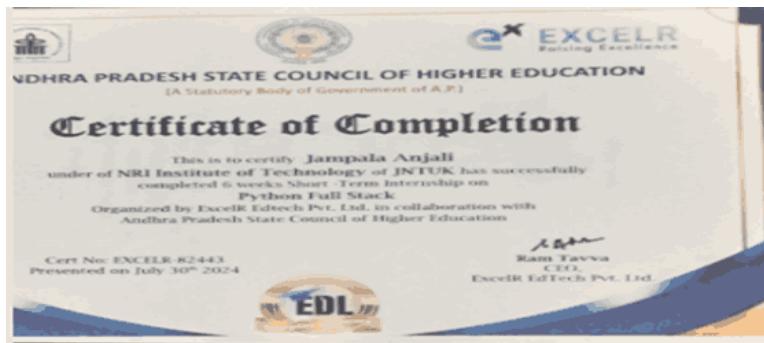
SINo	StudentName	Company	Duration
1	BUSI AKHILA	Sri Srinivasa Engineering & Technologies	4 Weeks
2	C LOKESH SAINADHA REDDY	Extreme Creators	4 Weeks
3	CHENNAKESAVULA DEEPIKA	KodNest	4 Weeks
4	CHILAKA ARUN KUMAR	KodNest	4 Weeks
5	CHINNI GOPI KRISHNA SAI	Sri Srinivasa Engineering & Technologies	4 Weeks
6	DADI SANDIP	Edvedha	4 Weeks
7	DVENKATA HARI SRINIVAS	Edvedha	4 Weeks
8	DASARI NARASIMHA RAO	Edvedha	4 Weeks
9	DEVIREDDY KAVITHA	Sri Srinivasa Engineering & Technologies	4 Weeks
10	DIVVELA SUJATHA LAKSHMI	Extreme Creators	4 Weeks
11	P.Chandra Sekhar Reddy	Web Technology	8 weeks

**Table2.2.5.a: Student Internships for CAYm1 (2023-2024)**
**Internships for CAYm2 (2022-2023):**

SINo	StudentName	Company	Duration
1	JAMMULA PRAVEEN	Sri Srinivasa Engineering & Technologies	4 Weeks
2	JAMPANI ARAVIND SAI	Edvedha	4 Weeks
3	KANTU SIVA KRISHNA	FOX	4 Weeks

4	KETARAJU YASHWANTH KUMAR	Edvedha	4 Weeks
5	NARALA VAMSI KRISHNA	Edvedha	4 Weeks
6	NEMALIPURI RAJKAMAL	Edvedha	4 Weeks
7	N. PAVAN KALYAN	Edvedha	4 Weeks
8	P MALLIKARJUNA REDDY	Bharat Intern	4 Weeks
9	PANGA GANGADHAR	KodNest	4 Weeks
10	JAMMULA PRAVEEN	Sri Srinivasa Engineering & Technologies	4 Weeks

Table 2.2.5.b: Student Internships for CAYm2 (2022-2023) Student



#### C. Impact Analysis of Industrial Training (4)

Ø The Department of ECE at NRIIT organized industrial visits where 100 fourth-year students visited SDSC SHAR, 85 second-year students explored Prasar Bharati, another 95 fourth-year students attended the Radar Station in Machilipatnam, and 95 third-year students toured Vizag Steel Plant, all accompanied by faculty members.

Ø Students took internships at EXCELR, MSME Ltd., and Software Solutions, with a total of 168 students undertaking internships through APSCHE during the summer break for the academic year 2023-2024.

#### D. Student Feedback on Initiative (4)

The feedback collected from students after completing their industrial internship/training is carefully analyzed to guide improvements in future activities. The analysis reveals that students are able to:

- Learn about the broadcasting process, including TV and radio transmission.
- Explore how satellite technology is used for media distribution and public communication.
- Understand how content is processed, scheduled, and transmitted through various channels.
- Learn about rocket science, satellite launching procedures, and space research initiatives.
- Understand the intricacies of satellite design, assembly, integration, and pre-launch testing.
- Gain insights into how space missions are controlled and monitored.
- Learn about the design, manufacturing, and assembly of aircraft and helicopters.
- Study the electronic systems used in aircraft, such as navigation, communication, and flight control systems.
- Learn how power is transmitted from generating stations to consumers through high-voltage lines and can explore how power grids are managed and maintained for continuous power supply.
- Understand the working of substations and transformers in electrical distribution.
- Understand the entire production cycle, from raw material to finished products like wire rods and structural steel.
- Learn programming languages, web development, and mobile app development.
- Gain exposure to management, HR, and marketing functions, enhancing their professional competence.

These visits allow students to enhance their knowledge by directly observing industry processes, technologies, and workflows, which helps bridge the gap between theoretical learning and practical applications.

A sample feedback form for Industry visits, internships, and summer training are shown below



**Department of ECE**  
**INDUSTRIAL VISIT FEEDBACK FORM**

Name of the Student:

Course and Branch:

Roll No.:

Name and Address of Industrial Visit Organization:

1. State two important experiences that had been gain from the industrial visit:

2. Main problem encountered during the industrial visit:

3. How do you evaluate your overall training visit?

Excellent     Satisfactory     Not satisfactory

4. Types of Exposure given:

Area Interest	Please Specify
Design	
Analysis	
Outdoor work	
Supervision	
Administration	
Daily work	
Others	

Date:

Signature of the student

**Figure 2.2.5.e: Feedback form for Industrial Visit**



**Department of ECE**  
**INTERNSHIP FEEDBACK FORM**

Name:

Roll Number:

Name of the Internship organization:

Location:

S.No	Parameter	Excellent	Very good	Good	Fair	Not satisfactory
1	Support received from institute on internship identification					
2	Opportunity to learn from the internship work in the Company					
3	Learning benefits from the internship work					
4	Placement opportunities					
5	Recommend the Company for future students					

(Put ✓ mark this form is submitted to Academic coordinator along with internship report)

**Figure 2.2.5.f: Feedback form for Internship**

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**3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)****Total Marks 120.00****Define the Program specific outcomes****3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20)****Total Marks 20.00**

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<b>PSO1</b>	Professional Knowledge: Apply the concepts of Electronics and Communications to arrive cost effective and appropriate solutions.
<b>PSO2</b>	Problem-solving skills: Apply the principles of analog, digital and Signal processing systems for Consumer electronics, medical and radar systems.
<b>PSO3</b>	Software Usage: Use VHDL, MATLAB, MULTISIM and MENTOR GRAPHICS to design integrated circuits and analyze signals.

**3.1.1 Course Outcomes(COs)(SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (5)**

Institute Marks : 5.00

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

<b>Course Name :</b>	<b>C2 15</b>	<b>Course Year :</b>	<b>2023-2024</b>
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<b>Course Name</b>	<b>Statements</b>
C2 15.1	Understand basic probability concepts, sample space, and events, and apply them to engineering problems.
C2 15.2	Apply the concepts of random variables (discrete and continuous) and compute probability distribution functions and density functions
C2 15.3	Calculate statistical measures like mean, variance, and higher-order moments for random variables.
C2 15.4	Analyze multiple random variables using joint, marginal, and conditional distributions and expectations
C2 15.5	Understand the concepts of stochastic processes and analyze their statistical properties like stationarity, autocorrelation, and power spectral density

<b>Course Name :</b>	<b>C2 23</b>	<b>Course Year :</b>	<b>2023-2024</b>
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<b>Course Name</b>	<b>Statements</b>
C2 23.1	Explain the basic concepts of amplitude modulation and demodulation techniques.
C2 23.2	Analyze different angle modulation techniques such as frequency and phase modulation
C2 23.3	Evaluate the performance of analog modulation systems in the presence of noise.
C2 23.4	Apply mathematical tools to determine the bandwidth and power requirements of AM and FM systems.
C2 23.5	Compare the efficiency and applications of various analog communication techniques.

<b>Course Name :</b>	<b>C3 11</b>	<b>Course Year :</b>	<b>2023-2024</b>
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<b>Course Name</b>	<b>Statements</b>
C3 11.1	Understand the characteristics and internal architecture of operational amplifiers (Op-Amps).
C3 11.2	Apply Op-Amp circuits for linear applications such as summing, integrator, differentiator, and voltage follower.
C3 11.3	Design and analyze non-linear applications of Op-Amps such as comparators, waveform generators, and precision rectifiers
C3 11.4	Analyze and design active filters using Op-Amps (low pass, high pass, band pass, and band stop filters).
C3 11.5	Understand the functional aspects and applications of specialized ICs such as 555 Timer and Phase Locked Loop (PLL).

<b>Course Name :</b>	<b>C3 21</b>	<b>Course Year :</b>	<b>2023-2024</b>
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<b>Course Name</b>	<b>Statements</b>
C3 21.1	Understand the architecture and operation of 8086 microprocessor and 8051 microcontroller
C3 21.2	Apply assembly language programming concepts to develop programs for 8086 microprocessor.
C3 21.3	Analyze the interfacing of memory and peripheral devices with microprocessors and microcontrollers

C3 21.4	Design and implement applications using 8051 microcontroller in embedded systems
C3 21.5	Compare the features of microprocessors and microcontrollers and their applications in real-time systems

Course Name :	C4 11	Course Year :	2023-2024
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Course Name	Statements
C4 11.1	Understand the fundamentals of optical fiber communication systems including fiber characteristics and light propagation principles
C4 11.2	Analyze the different types of optical fibers, losses, and dispersion effects in optical communication systems
C4 11.3	Apply knowledge of optical sources and detectors to design optical transmitters and receivers
C4 11.4	Evaluate the performance of optical communication systems based on system parameters and noise considerations
C4 11.5	Understand the components and design aspects of optical networks including WDM and optical amplifiers

Course Name :	C4 12	Course Year :	2023-2024
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Course Name	Statements
C4 12.1	Understand the basic concepts of satellite orbits, orbital mechanics, and satellite subsystems
C4 12.2	Analyze the link budget and design parameters for satellite communication systems
C4 12.3	Apply modulation and multiple access techniques used in satellite communication
C4 12.4	Evaluate satellite system performance considering propagation impairments and noise
C4 12.5	Understand the various satellite communication applications and recent advancements

3.1.2 CO-PO matrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 3rd to 8th semester) (5)

Institute Marks : 5.00

## 1 . course name : C215

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C215.1	3	✓	2	✓	2	✓	1	✓	-	✓	-	✓
C215.2	2	✓	2	✓	3	✓	-	✓	-	✓	-	✓
C215.3	3	✓	2	✓	2	✓	-	✓	-	✓	-	✓
C215.4	2	✓	3	✓	2	✓	3	✓	-	✓	-	✓
C215.5	2	✓	2	✓	3	✓	-	✓	-	✓	-	✓
<b>Average</b>	<b>2.40</b>		<b>2.20</b>		<b>2.40</b>		<b>2.20</b>		<b>0.00</b>		<b>0.00</b>	

## 2 . course name : C223

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C223.1	3	✓	2	✓	1	✓	1	✓	1	✓	1	✓
C223.2	3	✓	3	✓	1	✓	2	✓	2	✓	1	✓
C223.3	3	✓	2	✓	1	✓	2	✓	1	✓	1	✓
C223.4	3	✓	2	✓	1	✓	-	✓	-	✓	1	✓
C223.5	3	✓	3	✓	1	✓	2	✓	-	✓	1	✓
<b>Average</b>	<b>3.00</b>		<b>2.40</b>		<b>1.00</b>		<b>1.40</b>		<b>0.80</b>		<b>1.00</b>	

## 3 . course name : C311

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311.1	3	✓	2	✓	-	✓	-	✓	-	✓	-	✓
C311.2	3	✓	3	✓	2	✓	-	✓	-	✓	-	✓
C311.3	3	✓	3	✓	3	✓	2	✓	1	✓	-	✓
C311.4	3	✓	3	✓	3	✓	2	✓	-	✓	-	✓
C311.5	3	✓	2	✓	2	✓	-	✓	-	✓	-	✓
<b>Average</b>	<b>3.00</b>		<b>2.60</b>		<b>2.00</b>		<b>0.80</b>		<b>0.60</b>		<b>0.00</b>	

## 4 . course name : C321

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C321.1	2	✓	2	✓	1	✓	2	✓	2	✓	-	✓

C321.2	2	✓	2	✓	1	✓	2	✓	2	✓	-	✓	1	✓	1	✓	3	✓	3	✓	3	✓
C321.3	2	✓	2	✓	1	✓	2	✓	2	✓	-	✓	1	✓	1	✓	3	✓	3	✓	3	✓
C321.4	2	✓	1	✓	1	✓	2	✓	2	✓	-	✓	1	✓	1	✓	3	✓	3	✓	3	✓
C321.5	2	✓	1	✓	1	✓	2	✓	2	✓	-	✓	1	✓	1	✓	3	✓	3	✓	3	✓
<b>Average</b>	<b>2.00</b>		<b>1.60</b>		<b>1.00</b>		<b>2.00</b>		<b>2.00</b>		<b>0.00</b>		<b>1.00</b>		<b>1.00</b>		<b>3.00</b>		<b>3.00</b>		<b>3.00</b>	

**5 . course name : C411**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12											
C411.1	3	✓	3	✓	2	✓	3	✓	3	✓	1	✓	2	✓	2	✓	2	✓	2	✓	2	✓	
C411.2	3	✓	3	✓	2	✓	3	✓	3	✓	1	✓	2	✓	2	✓	2	✓	2	✓	2	✓	
C411.3	3	✓	3	✓	2	✓	3	✓	3	✓	1	✓	2	✓	2	✓	2	✓	2	✓	2	✓	
C411.4	3	✓	3	✓	2	✓	3	✓	3	✓	1	✓	2	✓	2	✓	2	✓	2	✓	1	✓	
C411.5	3	✓	3	✓	2	✓	3	✓	3	✓	1	✓	2	✓	2	✓	2	✓	2	✓	1	✓	
<b>Average</b>	<b>3.00</b>		<b>3.00</b>		<b>2.00</b>		<b>3.00</b>		<b>3.00</b>		<b>1.00</b>		<b>2.00</b>		<b>2.00</b>		<b>2.00</b>		<b>2.00</b>		<b>1.00</b>		<b>2.00</b>

**6 . course name : C412**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12										
C412.1	3	✓	2	✓	1	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓
C412.2	2	✓	3	✓	1	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓
C412.3	2	✓	2	✓	1	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓
C412.4	1	✓	2	✓	3	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓
C412.5	1	✓	2	✓	2	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓	-	✓
<b>Average</b>	<b>1.80</b>		<b>2.20</b>		<b>1.60</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	

**1 . Course Name : C215**

Course	PSO1	PSO2	PSO3
C215.1	3 ✓	2 ✓	2 ✓
C215.2	2 ✓	3 ✓	2 ✓
C215.3	2 ✓	2 ✓	2 ✓
C215.4	3 ✓	2 ✓	2 ✓
C215.5	2 ✓	2 ✓	2 ✓
<b>Average</b>	<b>2.40</b>	<b>2.20</b>	<b>2.00</b>

**2 . Course Name : C223**

Course	PSO1	PSO2	PSO3
C223.1	3 ✓	2 ✓	3 ✓
C223.2	3 ✓	2 ✓	3 ✓
C223.3	3 ✓	2 ✓	3 ✓
C223.4	3 ✓	2 ✓	3 ✓
C223.5	3 ✓	2 ✓	3 ✓
<b>Average</b>	<b>3.00</b>	<b>2.00</b>	<b>3.00</b>

**3 . Course Name : C311**

Course	PSO1	PSO2	PSO3
C311.1	3 ✓	1 ✓	- ✓
C311.2	3 ✓	3 ✓	2 ✓
C311.3	3 ✓	3 ✓	2 ✓
C311.4	3 ✓	3 ✓	2 ✓
C311.5	2 ✓	3 ✓	1 ✓
<b>Average</b>	<b>2.80</b>	<b>2.60</b>	<b>1.40</b>

**4 . Course Name : C321**

Course	PSO1	PSO2	PSO3
C321.1	3 ✓	- ✓	2 ✓
C321.2	3 ✓	- ✓	2 ✓

C321.3	3	▼	-	▼	2	▼
C321.4	3	▼	-	▼	2	▼
C321.5	2	▼	-	▼	2	▼
<b>Average</b>	<b>2.80</b>		<b>0.00</b>		<b>2.00</b>	

**5 . Course Name : C411**

Course	PSO1	PSO2	PSO3			
C411.1	2	▼	3	▼	2	▼
C411.2	2	▼	3	▼	2	▼
C411.3	2	▼	3	▼	2	▼
C411.4	2	▼	3	▼	2	▼
C411.5	2	▼	3	▼	2	▼
<b>Average</b>	<b>2.00</b>		<b>3.00</b>		<b>2.00</b>	

**6 . Course Name : C412**

Course	PSO1	PSO2	PSO3			
C412.1	3	▼	2	▼	-	▼
C412.2	3	▼	2	▼	-	▼
C412.3	2	▼	2	▼	-	▼
C412.4	2	▼	3	▼	-	▼
C412.5	2	▼	2	▼	-	▼
<b>Average</b>	<b>2.40</b>		<b>2.20</b>		<b>0.00</b>	

**3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10)**

Institute Marks : 10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	
C111	3		1	2	2	PO5	1	PO7	PO8	PO9	PO10	PO11	PO12
C112	3		2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12	
C113	3		3	2	2	3	3	2	2	2	2	3	
C114	3		2	1	1	1	1	PO7	2	2	1	1	2
C115	1		2	2	3	2	1	1	1	1	3	1	
C116	2		2	2	2	2	2	2	2	2	PO11	PO12	

C117	2	1	2	3	PO5	PO6	PO7	PO8	1	PO10	PO11	1
C118	3	2	2	2	3	2	2	PO8	2	2	3	3
C119	2	3	2	3	2	1	1	1	1	1	3	1
C121	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2	3	PO11	2
C122	3	2	2	2	2	PO6	1	PO8	PO9	PO10	PO11	1
C123	3	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
C124	3	2	2	3	2	2	2	PO8	PO9	1	1	1
C125	3	3	1	2	2	2	1	1	3	3	2	3
C126	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2	3	PO11	2
C127	3	2	1	2	PO5	2	PO7	PO8	1	PO10	1	PO12
C128	3	2	1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
C129	3	2	1	2	2	1	3	PO8	PO9	PO10	PO11	PO12
C211	3	3	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C212	3	2	3	2	2	1	1	1	1	1	1	2
C213	3	2	3	2	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C214	3	2	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C215	2	2	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216	3	3	3	2	2	PO6	PO7	PO8	PO9	2	PO11	2
C217	3	2	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C218	3	2	3	2	2	PO6	PO7	PO8	1	1	1	2
C219	2	2	PO3	PO4	PO5	PO6	PO7	2	PO9	3	PO11	PO12
C221	3	3	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C222	3	3	2	3	3	1	2	2	2	2	1	2
C223	3	2	1	2	2	1	1	1	1	1	1	1
C224	3	3	2	3	3	1	2	2	2	2	1	2
C225	2	2	2	1	1	2	2	2	3	2	3	3
C226	3	2	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C227	3	2	1	2	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C228	3	3	3	3	2	PO6	PO7	PO8	1	1	PO11	2
C229	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2	3	PO11	3
C311	3	3	3	2	1	1	PO7	PO8	PO9	PO10	PO11	PO12
C312	3	3	2	3	3	1	2	2	2	2	1	2

C313	3	3	PO3	3	3	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314	3	2	2	1	2	1	1	1	1	1	1	2
C315	2	2	2	2	2	1	2	1	1	2	2	1
C316	3	3	3	2	2	PO6	PO7	PO8	1	1	PO11	1
C317	3	2	2	2	3	2	PO7	PO8	PO9	PO10	1	3
C318	3	3	2	2	3	PO6	PO7	2	2	2	2	2
C319	3	3	3	2	2	2	2	3	3	2	-	3
C321	2	2	1	2	2	-	1	1	3	3	3	3
C322	3	2	3	2	2	2	2	2	3	2	2	2
C323	3	3	3	3	3	1	1	1	1	1	1	2
C324	3	2	2	1	1	-	-	-	-	-	-	-
C325	3	3	2	3	2	2	1	2	1	1	1	2
C326	1	2	3	2	3	-	-	2	2	-	-	-
C327	3	3	3	3	2	-	-	1	1	-	-	2
C328	3	3	2	3	-	-	-	-	3	-	-	-
C329	3	2	2	2	3	-	-	-	-	-	1	3
C411	3	3	2	3	3	1	2	2	2	2	1	2
C412	2	2	2	-	-	-	-	-	-	-	-	-
C413	2	2	1	1	2	-	-	-	-	-	1	2
C414	3	3	2	3	3	1	2	2	2	2	1	2
C415	3	2	1	1	2	1	1	1	1	1	1	2
C416	3	1	-	-	-	-	1	-	-	-	-	-
C417	3	3	3	3	3	-	-	-	-	-	1	3
C421	3	3	2	1	2	2	1	3	2	2	2	2

### 3.1.3 - B Program level Course-PSO matrix of all courses INCLUDING first year courses

Course	PSO1	PSO2	PSO3
C111	3	3	3
C112	0	0	0
C113	0	0	0
C114	0	0	0
C115	0	0	0

C116	0	0	0
C117	0	0	0
C118	3	3	3
C119	0	0	0
C121	0	0	0
C122	0	0	0
C123	0	0	0
C124	0	0	0
C125	3	2	3
C126	0	0	0
C127	0	0	0
C128	0	0	0
C129	3	3	2
C211	3	2	1
C212	3	2	1
C213	3	2	2
C214	3	3	2
C215	2	2	2
C216	3	3	2
C217	3	1	2
C218	3	2	1
C219	1	2	2
C221	3	3	1
C222	2	3	2
C223	3	2	3
C224	2	3	2
C225	3	3	0
C226	3	3	2
C227	3	2	2
C228	3	2	2
C229	0	0	0
C311	3	3	1

C312	2	3	2
C313	2	3	2
C314	3	2	2
C315	3	2	1
C316	0	0	0
C317	3	3	2
C318	2	2	3
C319	3	2	0
C321	2	0	2
C322	2	2	3
C323	3	3	3
C324	2	3	0
C325	3	2	2
C326	2	3	0
C327	3	2	1
C328	2	3	2
C329	3	3	3
C411	2	3	2
C412	2	3	0
C413	2	3	2
C414	2	3	2
C415	2	1	1
C416	0	0	0
C417	3	3	2
C421	2	3	3

**3.2 Attainment of Course Outcomes (50)**

Total Marks 50.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10)

Institute Marks : 10.00

Each course was assessed and evaluated with respective course outcomes by using predetermined direct and indirect assessment tools. Direct assessment is carried out by Internal and external assessment and indirect assessment is carried out by the course end survey. Schedule of direct assessments is prepared by the course coordinator according to the academic calendar prescribed by the JNTUK, Kakinada.

### 3.2.1. A List of assessment processes

#### Direct Assessment:

Direct assessment of theory courses is carried out by Internal and External assessment of each defined outcome of a course. Internal assessment is done by Assignments, MID Examinations, Quiz Examinations and External Assessment by End Examination conducted by the JNTUK. Statements indicating what a student can do after the successful completion of a course. Every Course leads to some Course Outcomes. The CO statements are defined by considering the course content covered in each module of a course. For every course there may be 5 or 6 COs. The keywords used to define COs are based on Bloom's Taxonomy.

The assessment process for course outcomes are done in the following ways.

S. No.	Assessment Method	Description
	<b>Mid Examinations (Internal Test)</b>	<p>Two mid examinations are conducted during a semester.</p> <ul style="list-style-type: none"> <li>• Each mid consists of Descriptive exam for 15 marks, Quiz for 10 Marks and Assignment for 5 Marks.</li> <li>• Final marks for internal assessment was carried out as follows:</li> </ul> <p>Final Internal Marks = (Best Mid Marks X 0.8 + other Mid marks X 0.2)</p>
	<b>Lab Assessment</b>	<p>Internal marks and external marks for practical subjects are 15 and 35 respectively.</p> <ul style="list-style-type: none"> <li>• Internal marks are awarded as: Day-to-Day work – 5M, Record – 5M and Internal Laboratory Test – 5M. Internal examination marks are evaluated by course coordinator.</li> <li>• External examination for practical subject is conducted for 35 marks at end of the semester by external examiner, appointed by the University.</li> </ul>
	<b>End Semester Examinations (Theory)</b>	<p>End semester examinations are conducted by University.</p> <p>The external exam is for 70 marks, consists of 10 questions, two questions is from one unit and may contain sub questions also.</p> <p>Students can chose any question from each unit</p>

<b>Direct Assessment</b>	<b>Project Work</b>	<p>Project work is carried out for 200 marks out of which 60 marks for internal assessment and 140 marks for external assessment.</p> <ul style="list-style-type: none"> <li>• Internal assessment is carried out by conducting THREE reviews by Project Review Committee (PRC).</li> <li>• External evaluation is done by the assessment of project report, presentation of project and Viva-voce conducted by the external examiner appointed by JNTUK along with Head of the Department and guide.</li> </ul>
	<b>Seminar</b>	<p>50 marks are awarded for seminar by conducting a presentation in department level. The seminar presentation is an opportunity to improve communication skills of a student. The student makes a seminar presentation on a topic of his/her choice. Seminar is evaluated based on the presentation by the students before seminar evaluation committee consisting of Head of the Department and two faculty members. Evaluation is taken up from internal assessment only. Assessment is taken up from direct and indirect assessments.</p>
	<b>Indirect Assessment</b>	<b>Course Exit Survey</b>

#### **Indirect Assessment:**

Indirect assessment of course is carried out by conducting survey on course outcomes from the students at the end of the semester.

#### **3.2.1. B The quality/relevance of assessment process & tools used**

### **Process involved in CO-PO Mapping:**

The role of CO-PO mapping will be assigned to the faculty as per hierarchy followed in below figure. After the course (subject) allotment from the department, the course in-charge of the course has to write appropriate COs for their corresponding course. It should be narrower and measurable statements. By using the action verbs of learning levels, CO's will be designed. CO statements should describe what the students are expected to know and able to do at the end of each course, which are related to the skills, knowledge and behaviour that students will acquire through the course.

After writing the CO statements, CO will be mapped with PO of the department. If the department is having more than one section in a year or the same course is available for more than one program of the same institute in a semester, the subject expert will be nominated as course coordinator of the corresponding course. The role of the course coordinator is to review the CO statements and the CO-PO mapping which has been done by course in-charge. The year wise coordinator has to consolidate the CO's of the respective year and maintain the documentation of the CO attainment level of the respective year courses as well as documentation of the individual students extra-curricular and co-curricular activities. These details will hand over to the program coordinator in order to evaluate PO attainment of the individual student as well as individual course at the end of the eighth semester. The Program coordinator has to evaluate the PO attainment of individual student through direct and indirect method after the student completing their program. All these works have to be done under the guidance of Department Advisory Committee (DAC).

The CO-PO mapping has been done with correlation levels of 3, 2, 1 and '‐'. The notation of 3, 2 and 1 denotes substantially (high), moderately (medium) and slightly (low). The meaning of '‐' is no correlation between CO and PO.

#### **Assessment tools:**

Rubrics: The rubrics for various assessment processes are as follows;

#### **Assessment for Theory subjects:**

##### **Internal Test:**

Two mid examinations are conducted during a semester.

- Each mid consists of Descriptive exam for 15 marks, Quiz for 10 Marks and Assignment for 5 Marks.
- Final marks for internal assessment was carried out as follows:

Final Internal Marks = (Best Mid Marks X 0.8 +other Mid marks X 0.2)

The questions in the internal examinations are mapped against COs of respective course. The questions for two internal examinations are framed in such a way to cover all course outcomes.

Two assignments are given for each course for continuous assessment. Average marks are considered.

#### **End Semester Examinations (Theory):**

End semester examinations are conducted by University.

The external exam is for 70 marks, consists of 10 questions, two questions are from one unit and may contain sub questions also. Students can chose any question from each unit.

#### **Assessment for Practical subjects:**

- The internal marks for practical subjects are 15 marks. Out of which 5 marks are for day-to-day work, 5 marks for record work and 5 marks for internal test.

Continuous evaluation is done by the faculty in every lab session for 5 marks and average of all lab session marks are considered as day-to-work and record marks.

#### **Rubrics for continuous evaluation in every Lab Session**

Parameter	Allocated Marks	Min Marks	Average Marks	Max Marks
Procedure Writeup & Execution	2 Marks	Procedure written but not executed	Procedure written and Partially Executed / Incorrect output	Procedure written and Successfully Executed
		0-1 Marks	1 Mark	2 Marks
Viva – Voce	1 Mark	Not Answered	Some of the questions are answered correctly.	All the questions are answered correctly.
		0 Marks	1 Mark	2 Marks
Record	2 Marks	Record not submitted in the lab session.	Record submitted after due time / incomplete record.	Record submitted with in time.
		0 Marks	0-1 Marks	2 Marks

The internal exam is carried out for 15 marks at end of the semester as per the following rubrics.

#### **Rubrics for continuous evaluation at end of semester (Internal Lab)**

Parameter	Allocated Marks	Min Marks	Average Marks	Max Marks

Procedure Writeup	5 Marks	Not able to write the procedure.	Procedure written but incomplete.	Procedure written completely.
		0 Marks	1-2 Marks	4-5 Marks
Execution	5 Marks	Not able to execute	Partially Executed / Incorrect output	Successfully Executed
		0 Marks	1-3 Marks	4-5 Marks
Viva – Voce	5 Marks	Not Answered any questions	Some of the questions are answered correctly.	All the questions are answered correctly.
		0 Marks	2 Mark	5 Marks

**End Semester Examinations (Practical):**

End semester examinations are conducted by University. The external marks for practical subjects are 35 marks and External Examiner appointed by University

**Assessment for Seminar:**

Each student has to be evaluated based on the presentation of any latest topic with report of 10-15 pages and a ppt of min 10 slides. The seminar report shall be evaluated for 50M by the Departmental Committee consisting of Head of the Department, seminar supervisor and a senior faculty member of the department. The rubrics for the seminar is as follows.

**Rubrics for Seminar**

Parameter	Allocated Marks	Min Marks	Average Marks	Max Marks
Topic Selection	10 Marks	Too general / irrelevant topic	Moderate Topic	Advanced Topic
		0-2 Marks	3-6 Marks	7-10 Marks
Presentation	15 Marks	Quality of PPT is low/improper communication	Some important slides or missing / slides are not presented properly	Satisfactory technical content and good communication.
		0-4 Marks	5-10 Marks	11-15 Marks
Level of Understanding	15 Marks	Not aware of selected topic.	Slightly moderate understanding of the selected topic.	Proper understanding of the selected topic was observed.
		0-3 Marks	4-10 Mark	11-15 Marks

Report Writing	10 Marks	Improper format	Few of the pages in report as not aligned perfectly.	Follows the format strictly.
		0-3 Marks	4-8 Marks	9-10 Marks

#### Assessment for Project Work:

Project work is carried out for 200 marks out of which, 60 marks for internal evaluation and 140 marks end semester examination (Viva-Voce).

Internal evaluation of the project work shall be evaluated by an internal committee at the end of the IV year II Semester based on the two seminars given by each student on the topic of his/her project.

#### Rubrics for Project Internal Evaluation

Parameter	Allocated Marks	Min Marks	Average Marks	Max Marks
Problem Identification	10 Marks	Explanation of need of the project is minimum.	Moderate explanation about need of the project.	Detailed explanation about need of the project.
		2-4 Marks	5-7 Marks	8-10 Marks
Literature Review	10 Marks	Minimum.	Average	Detailed
		2-3 Marks	4-7 Marks	8-10 Marks
Methodology of the Project	10 Marks	Methodology of the project and objectives defined are incomplete/not satisfied.	Methodology of the project and objectives are need to be defined clear.	Methodology to solve the problem and objectives are defined clearly.
		2-3 Marks	4-7 Marks	8-10 Marks
Feasibility of the Project	10 Marks	Explanation needs to be improved extensively.	Average study of the existing system and feasibility study.	Detailed explanation of existing system and proposed system.
		0-2 Marks	3-7 Marks	8-10 Marks
Planning of Project Work	10 Marks	Time framework not properly Specified.	Time framework properly specified but not being followed.	Time framework properly specified and being followed.
		0-2 Marks	3-6 Marks	7-10 Marks

Presentation	10 Marks	Contents of Presentations are not appropriate and not well delivered. Poor delivery of presentation.	Contents of Presentations are appropriate but not well delivered. Eye contact with a few people and unclear voice.	Contents of Presentations are appropriate and well delivered. Proper eye contact with audience and clear voice with good language.
		0-2 Marks	3-6 Marks	7-10 Marks

**Project External assessment:**

The external marks for Project is 140, which will be conducted by the committee consists of an external examiner, Head of the Department and Supervisor of the Project.

**Course exit survey:**

Each course is carried out by conducting survey on course outcomes from the students at the end of the semester.

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**3.2.2 Record the attainment of Course Outcome of all courses with respect to set attainment levels (40)**

Institute Marks : 40.00

### 3.2.2. A. Verify the attainment levels as per the benchmark set for all courses

- Target level for attainment of Cos will be set based on average marks of the previous academic year.
- Departmental Advisory Committee will finalize course outcomes for each course after the series of discussions with all the teachers of the department. A common format of programmed excel sheet will be used for finding the average attainment of Cos

#### 2023-24 CO Attainment:

##### Theory:

###### Set Attainment levels for theory courses:

S. No	Assessment		Attainment Level
	Internal	External	
1	<50 % number of students scoring more than the set target marks in internal assessment tools.	<50% number of students scoring more than the set target marks in External assessment tools.	1
2	50-70 % number of students scoring more than the set target marks in internal assessment tools.	50-70% number of students scoring more than the set target marks in External assessment tools.	2
3	More than 70% number of students scoring more than the set target marks in internal assessment tools	More than 70% number of students scoring more than the set target marks in External assessment tools.	3

Table.3.2.2 (a) Set attainment levels for theory courses

###### Set Attainment levels for practical, seminar and project work courses

S. No	Assessment		Attainment Level
	Internal	External	
1	<50 % number of students scoring more than the set target marks in internal assessment tools.	<50% number of students scoring more than the set target marks in External assessment tools.	1
2	50-70 % number of students scoring more than the set target marks in internal assessment tools.	50-70% number of students scoring more than the set target marks in External assessment tools.	2
3	More than 70% number of students scoring more than the set target marks in internal assessment tools	More than 70% number of students scoring more than the set target marks in External assessment tools.	3

Table.3.2.2 (b) Set attainment levels for practical, seminar and project work

###### Attainment Level Calculation for each CO:

S. No	Assessment Method	Assessment	Contribution
1	Direct	Assessment from courses	80%

2	Indirect	Course exit survey	20%
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**Sample of Co Attainment of C311****Class: III Sem -II Course Name: MPMC A.Y-2023-24****Course Assessment-Based on Mid Examinations****Class: III Sem -II Course Name: MPMC A.Y-2023-24****Course Assessment-Based on University grades (External)**

SL.No	REG.NO	UNIVERSITY GRADES
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1	21KP1A0401	F
2	21KP1A0402	C
3	21KP1A0403	D
4	21KP1A0404	B
5	21KP1A0405	C
6	21KP1A0407	C
7	21KP1A0408	E
8	21KP1A0409	E
9	21KP1A0410	F
10	21KP1A0411	B
11	21KP1A0412	E
12	21KP1A0413	C
13	21KP1A0415	C
14	21KP1A0417	A
15	21KP1A0418	D
16	21KP1A0419	E
17	21KP1A0420	E
18	21KP1A0421	B
19	21KP1A0422	D
20	21KP1A0423	B
21	21KP1A0424	F
22	21KP1A0425	C
23	21KP1A0426	F
24	21KP1A0427	A
25	21KP1A0428	B
26	21KP1A0429	F
27	21KP1A0430	F
28	21KP1A0431	D
29	21KP1A0432	B
30	21KP1A0433	F
31	21KP1A0434	E
32	21KP1A0435	E

33	21KP1A0436	C
34	21KP1A0437	D
35	21KP1A0438	C
36	21KP1A0439	D
37	21KP1A0440	D
38	21KP1A0442	E
39	21KP1A0444	B
40	21KP1A0445	B
41	21KP1A0446	F
42	21KP1A0447	E
43	21KP1A0448	D
44	21KP1A0449	C
45	21KP1A0450	D
46	21KP1A0451	D
47	21KP1A0453	D
48	21KP1A0454	D
49	21KP1A0455	D
50	21KP1A0456	E
51	21KP1A0457	B
52	21KP1A0459	F
53	21KP1A0460	D
54	21KP1A0461	D
55	21KP1A0462	C
56	21KP1A0463	C
57	21KP1A0465	C
58	21KP1A0466	D
59	21KP1A0467	D
60	21KP1A0468	C
61	21KP1A0469	A
62	21KP1A0470	C
63	21KP1A0471	D
64	21KP1A0472	B
65	21KP1A0473	B
66	21KP1A0474	C

67	21KP1A0476	D
68	21KP1A0477	E
69	21KP1A0478	F
70	21KP1A0479	F
71	21KP1A0480	B
72	21KP1A0482	C
73	21KP1A0484	F
74	21KP1A0485	D
75	21KP1A0486	D
76	21KP1A0487	B
77	21KP1A0488	C
78	21KP1A0489	F
79	21KP1A0490	C
80	21KP1A0491	D
81	21KP1A0492	C
82	21KP1A0493	F
83	21KP1A0495	F
84	21KP1A0496	E
85	21KP1A0497	B
86	21KP1A0498	C
87	21KP1A0499	D
88	21KP1A04A0	E
89	21KP1A04A1	F
90	21KP1A04A2	E
91	21KP1A04A3	F
92	21KP1A04A4	C
93	21KP1A04A5	D
94	21KP1A04A6	F
95	21KP1A04A7	E
96	21KP1A04A8	E
97	21KP1A04A9	C
98	21KP1A04B1	C
99	21KP1A04B3	D
100	21KP1A04B4	C

101	21KP1A04B5	E
102	21KP1A04B6	F
103	21KP1A04B9	E
104	21KP1A04C0	D
105	21KP1A04C1	E
106	21KP1A04C2	AB
107	21KP1A04C3	D
108	21KP1A04C4	E
109	21KP1A04C5	C
110	21KP1A04C6	F
111	21KP1A04C7	F
112	21KP1A04C8	B
113	21KP1A04C9	C
114	21KP1A04D1	E
115	21KP1A04D3	F
116	21KP1A04D4	F
117	21KP1A04D5	C
118	21KP1A04D6	B
119	21KP1A04D7	D
120	21KP1A04D8	C
121	21KP1A04D9	E
122	21KP1A04E0	B
123	21KP1A04E1	C
124	22KP5A0401	E
125	22KP5A0402	C
126	22KP5A0403	E
127	22KP5A0405	D
128	22KP5A0406	D
129	22KP5A0407	B
130	22KP5A0408	B
131	22KP5A0410	D
132	22KP5A0411	B
133	22KP5A0412	D
134	22KP5A0413	C

135	22KP5A0414	B
136	22KP5A0415	D
137	22KP5A0416	D
138	22KP5A0417	C
139	22KP5A0419	D
<b>No: of students absentees</b>	1	
<b>No: of students attended</b>	139	

**Target Grade : C or above**

<b>Students scored above target :</b>	91
<b>Percentage students scored more than target :</b>	65%
<b>CO Attainment Level :</b>	2
<50%	Level 1
50-70%	Level 2
>70%	Level 3

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### 3.3 Attainment of Program Outcomes and Program Specific Outcomes (50)

Total Marks 50.00

3.3.1 Describe the assessment tools and processes used for measuring the attainment of each of the Program Outcomes and Program Specific Outcomes (10)

Institute Marks : 10.00

## Procedure for Attainment of Program Outcomes:

At the end of the each programme, the PO/PSO assessment is done from the CO attainment of all curriculum components. As per NBA guidelines, program can appropriately define the attainment level. The attainment level may be set by the particular program or commonly by the institution. The attainment can be made as best the choice by the institution or the program by analyzing the students knowledge. This can be achieved by using different supporting activities. This attainment is mainly for the purpose of making an esteemed engineer with good analytical, practical and theoretical knowledge about the program by attaining the PSO's of the program and the institution. For the evaluation and assessment of CO's and PO's, rubrics are used.

### 3.3.1. A. List of assessment tools & processes:

#### Direct Assessment tools used for evaluation of PO and PSO attainment

S.No	Course	Assessment type		Frequency	Evaluation Done by	
Direct	Theory	Internal Assessment	MID-I	Descriptive	Twice for course	Course coordinator
			MID-II			
			Quiz-I	Objective	Twice for course	Course coordinator
			Quiz-II			
			Assign-I	Left to Course coordinator	Twice for course	Course coordinator
			Assign-II			
			External Assessment	University Exams	Descriptive	At the end of Semester
	Practical	Internal Assessment	Day to Day Work Record	For every Experiment	Course coordinator	
			Internal Test	After completion of all experiments	Course coordinator	
		External Assessment	University Exam	Once in a semester at the end	External Examiner appointed by University	
	Seminar	Internal Assessment	Report and Presentation	In 8th semester	Seminar Evaluation Committee	
	Project	Internal Assessment	I Review	In 8th semester	Project Evaluation Committee	
			II Review			
		External Assessment	Viva-Voce	In 8th semester	External Examiner appointed by University	

#### Indirect Assessment tools used for evaluation of PO and PSO attainment

Assessment	Assessment type	Frequency
Indirect	Exit Survey	Once in an Academic Year
	Employer Survey	
	Alumni Survey	

#### Attainment Level Calculation for PO&PSO:

S. No	Assessment Method	Assessment	Contribution
1	Direct	Assessment from courses	80%
2	Indirect	Additional Activities & surveys	20%

#### 3.3.1. B. The quality/relevance of assessment tools/processes used

##### Direct Assessment:

Direct assessment of theory courses is carried out by Internal and External assessment of each defined outcome of a course. Internal assessment is done by Assignments, MID Examinations, Quiz Examinations and External Assessment by End Examination conducted by the JNTUK. The each PO attainment of corresponding to a particular course is determined from the attainment values obtained for each course outcome related to that PO and the CO-PO mapping values. Similarly, the values of PSO attainment are also determined.

##### Assessment for Theory subjects:

###### Internal Test:

Two mid examinations are conducted during a semester.

- Each mid consists of Descriptive exam for 15 marks, Quiz for 10 Marks and Assignment for 5 Marks.
- Final marks for internal assessment was carried out as follows:

Final Internal Marks = (Best Mid Marks X 0.8 +Least Mid marks X 0.2)

###### End Semester Examinations (Theory):

End semester examinations are conducted by University.

The external exam is for 70 marks, consists of 10 questions, two questions from each unit and may contain sub questions also. Students can choose any question from each unit.

##### Assessment for Practical subjects:

- The internal marks for practical subjects are 15 marks. Out of which 5 marks are for day-to-day work, 5 marks for record work and 10 marks for internal test.
- Continuous evaluation is done by the faculty in every lab session for 5 marks and average of all lab session marks are considered as day-to-work and record marks.

#### Rubrics for continuous evaluation in every Lab Session

Parameter	Allocated Marks	Min Marks	Average Marks	Max Marks
Procedure Writeup & Execution	2 Marks	Procedure written but not executed	Procedure written and Partially Executed / Incorrect output	Procedure written and Successfully Executed

		0-1 Marks	1 Mark	2 Marks
Viva – Voce	1 Mark	Not Answered	Some of the questions are answered correctly.	All the questions are answered correctly.
		0 Marks	0-1 Mark	1 Mark
Record	2 Marks	Record not submitted in the lab session.	Record submitted after due time / incomplete record.	Record submitted with in time.
		0 Marks	0-1 Marks	2 Marks

The internal exam is carried out for 15 marks at end of the semester as per the following rubrics.

#### Rubrics for continuous evaluation at end of semester (Internal Lab)

Parameter	Allocated Marks	Min Marks	Average Marks	Max Marks
Procedure Writeup	5 Marks	Not able to write the procedure.	Procedure written but incomplete.	Procedure written completely.
		0 Marks	1-3 Marks	5 Marks
Execution	5 Marks	Not able to execute	Partially Executed / Incorrect output	Successfully Executed
		0 Marks	1-3 Marks	4-5 Marks
Viva – Voce	5 Marks	Not Answered any questions	Some of the questions are answered correctly.	All the questions are answered correctly.
		0 Marks	3 Marks	5 Marks

#### End Semester Examinations (Practical):

End semester examinations are conducted by University. The external marks for practical subjects are 35 marks and External Examiner appointed by University

#### Assessment for Seminar:

Each student has to be evaluated based on the presentation of any latest topic with report of 10-15 pages and a ppt of min 10 slides. The seminar report shall be evaluated for 50M by the Departmental Committee consisting of Head of the Department, seminar supervisor and a senior faculty member of the department. The rubrics for the seminar is as follows.

#### Rubrics for Seminar

Parameter	Allocated Marks	Min Marks	Average Marks	Max Marks

Topic Selection	10 Marks	Too general / irrelevant topic	Moderate Topic	Advanced Topic
		0-2 Marks	3-6 Marks	7-10 Marks
Presentation	15 Marks	Quality of PPT is low/improper communication	Some important slides or missing / slides are not presented properly	Satisfactory technical content and good communication.
		0-4 Marks	5-10 Marks	11-15 Marks
Level of Understanding	15 Marks	Not aware of selected topic.	Slightly moderate understanding of the selected topic.	Proper understanding of the selected topic was observed.
		0-3 Marks	4-10 Mark	11-15 Marks
Report Writing	10 Marks	Improper format	Few of the pages in report as not aligned perfectly.	Follows the format strictly.
		0-3 Marks	4-8 Marks	9-10 Marks

#### Assessment for Project Work:

Project work is carried out for 200 marks out of which, 60 marks for internal evaluation and 140 marks end semester examination (Viva-Voce).

Internal evaluation of the project work shall be evaluated by an internal committee at the end of the IV year II Semester based on the two seminars given by each student on the topic of his/her project.

#### Rubrics for Project Internal Evaluation

Parameter	Allocated Marks	Min Marks	Average Marks	Max Marks
Problem Identification	10 Marks	Explanation of need of the project is minimum.	Moderate explanation about need of the project.	Detailed explanation about need of the project.
		2-4 Marks	5-7 Marks	8-10 Marks
Literature Review	10 Marks	Minimum.	Average	Detailed
		2-3 Marks	4-7 Marks	8-10 Marks
Methodology of the Project	10 Marks	Methodology of the project and objectives defined are incomplete/not satisfied.	Methodology of the project and objectives are need to be defined clear.	Methodology to solve the problem and objectives are defined clearly.

		2-3 Marks	4-7 Marks	8-10 Marks
Feasibility of the Project	10 Marks	Explanation needs to be improved extensively.	Average study of the existing system and feasibility study.	Detailed explanation of existing system and proposed system.
		0-2 Marks	3-7 Marks	8-10 Marks
Planning of Project Work	10 Marks	Time framework not properly Specified.	Time framework properly specified but not being followed.	Time framework properly specified and being followed.
		0-2 Marks	3-6 Marks	7-10 Marks
Presentation	10 Marks	Contents of Presentations are not appropriate and not well delivered. Poor delivery of presentation.	Contents of Presentations are appropriate but not well delivered. Eye contact with a few people and Unclear voice.	Contents of Presentations are appropriate and well delivered. Proper eye contact with audience and clear voice with good language.
		0-2 Marks	3-6 Marks	7-10 Marks

**Project External assessment:**

The external marks for Project is 140, which will be conducted by the committee consists of an external examiner, Head of the Department and Supervisor of the Project.

Course code	CO1	CO2	CO3	CO4	CO5
C111	1.58	1.54	1.66	1.71	1.60
C112	2.03	2.01	2.30	2.33	2.19
C113	2.16	2.13	2.17	2.84	2.29
C114	2.11	2.15	2.09	2.10	2.10
C115	2.12	2.08	2.30	2.26	2.19
C116	2.97	2.97	2.95	2.96	2.96
C117	2.95	2.96	2.98	2.96	2.98
C118	2.83	2.84	2.86	2.84	2.84
C119	2.96	2.95	2.95	2.96	0
C121	2.70	2.71	2.76	2.78	2.76
C122	2.21	2.22	2.06	2.02	2.00
C123	2.22	2.20	2.27	2.25	2.22

<b>C124</b>	2.14	2.15	2.15	2.12	2.11
<b>C125</b>	2.22	2.25	2.21	2.22	2.39
<b>C126</b>	2.95	2.96	2.97	2.97	2.96
<b>C127</b>	2.95	2.96	2.96	2.96	2.95
<b>C128</b>	2.95	2.95	2.96	2.95	0
<b>C129</b>	2.87	2.86	2.97	2.86	2.86
<b>C211</b>	1.15	1.23	1.23	1.30	1.30
<b>C212</b>	1.53	1.53	1.56	1.60	1.60
<b>C213</b>	1.45	1.45	1.38	1.38	1.38
<b>C214</b>	1.30	1.30	1.23	1.23	1.15
<b>C215</b>	1.38	1.30	1.35	1.30	1.30
<b>C216</b>	2.28	2.28	2.28	2.28	2.28
<b>C217</b>	2.16	2.16	2.16	2.16	2.16
<b>C218</b>	2.28	2.28	2.28	2.28	2.28
<b>C219</b>	2.30	2.29	2.28	2.32	2.30
<b>C221</b>	1.15	1.15	1.26	1.38	1.38
<b>C222</b>	1.6	1.6	1.6	1.6	1.6
<b>C223</b>	1.23	1.23	1.26	1.38	1.68
<b>C224</b>	1.38	1.38	0.75	1.15	1.15
<b>C225</b>	2.15	2.15	2.15	2.15	2.15
<b>C226</b>	2.28	2.28	2.28	2.28	2.28
<b>C227</b>	1.56	1.56	1.56	1.56	1.56
<b>C228</b>	2.4	2.4	2.4	2.4	2.4
<b>C229</b>	3	3	3	3	3
<b>C311</b>	1.20	1.30	1.25	1.30	1.30
<b>C312</b>	1.15	1.15	1.19	1.23	1.23
<b>C313</b>	1.23	1.23	1.30	1.38	1.30
<b>C314</b>	2.40	2.40	1.70	1.70	2.70
<b>C315</b>	1.38	1.38	1.41	1.45	1.45
<b>C316</b>	1.52	1.52	1.52	1.52	1.52
<b>C317</b>	1.8	1.8	1.8	1.8	1.8
<b>C318</b>	2	2	2	2	2
<b>C319</b>	3	3	3	3	3
<b>C321</b>	2.00	2.00	2.10	2.10	2.10

C322	1.38	1.38	1.38	1.38	1.30
C323	1.45	1.30	1.45	1.60	1.53
C324	2.15	2.15	2.23	2.30	2.30
C325	2.23	2.23	2.26	2.30	2.30
C326	1.68	2.24	2.25	2.24	1.05
C327	2.4	2.4	2.4	2.4	2.4
C328	2.05	2.16	2.16	2.10	2.15
C329	3	3	3	3	3
C411	1.23	1.23	1.41	1.60	1.60
C412	1.38	1.38	1.45	1.53	1.53
C413	1.38	1.30	1.38	1.30	1.30
C414	1.93	2.00	1.96	2.00	1.93
C415	1.45	1.38	1.53	1.30	1.30
C416	3.00	3.00	3.00	3.00	3.00
C417	2.28	2.28	2.28	2.28	2.28
C421	3	3	3	3	3

#### Indirect Assessment:

Indirect assessment is done through program exit survey, alumni survey and employer survey.

**Calculation of Indirect assessment** = Average of program exit survey, alumni survey, employer survey.

#### Program exit survey:

A program exit survey is conducted for students who have graduated out of the department for that year. Relevant questionnaire in program exit survey form to evaluate attainment of POs and PSOs with questionnaire is given below

#### 1. Questionnaire Format

Kindly rate the following criteria on a scale of 1-5. Your genuine response will be helpful for the continuous quality improvement of our UG programme in ECE.

5. Excellent    4. Very Good    3. Good    2. Average    1. Poor

#### Department of Electronics and Communication Engineering

#### Program exit survey

Student Name:

Roll No:

Year of passing:

Contact Number:

Branch:

Email id:

1. Based on your work experiences since obtaining your undergraduate degree in ECE, what is your impression of the overall quality of your educational experiences that you received at the ECE program?

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

2. Ability to apply knowledge of differential and integral calculus, matrices, transforms, techniques and numerical techniques

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

3. Ability to design system like controller circuits, component or process to meet desired needs.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

4. Ability to function as a team and to coordinate the activities.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

5. Ability to apply ethical principles and commit to professional ethics and responsibilities.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

6. Ability to communicate effectively.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

7. Ability to apply knowledge access societal, health, safety, legal and cultural issues relevant to the professional engineering practice.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

8. Ability to engage in department and lifelong learning in the context of the technical change.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

9. Ability to demonstrate the knowledge of professional engineering solutions in societal and environmental context for sustainable development.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

10. Ability to demonstrate the knowledge of professional engineering and management principles to your own work / as a member or leader in a team to manage projects.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

11. Ability to identify formulate and solve problems of electronics and communication engineering.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

12. Ability to design and conduct experiments on electronics and communication circuits, analog and digital signals.

1. Poor    2. Average    3. Good    4. Very Good    5. Excellent

## 2.Relation of POs and PSOs with questionnaire

PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	
Questions	Q3	Q3, Q5	Q3	Q5	Q5	Q5,Q10	Q8, Q10	Q10	Q8	Q6	Q5,Q6,Q8	Q7
PSOs												
Questions												

PSOs	PSO1	PSO2
Questions	Q3	Q5,Q6,Q8
<b>3. Evaluation Process</b>		
The questionnaire consists of 12 questions which is relevant for assessing each PO and PSO. Each question is having 5 options namely Excellent, Very Good, Good, Average and Poor, which is given marks 5, 4,3,2,1 respectively. These survey results are tabulated and the average values corresponding to each PO and PSO are determined.		

## EMPLOYER FEEDBACK FORM

**Academic year:****Date:****Name & Designation:****Organization:**

Assess our student's performance on the following attributes as per the given criteria:

S.No	Question	Rating		
1	Application of basic knowledge in solving complex engineering problems	3.good	2.Average	1.Poor
2	Implementation of problem analysis for validated conclusions using mathematics, natural sciences and engineering sciences	3.good	2.Average	1.Poor
3	Design & development of solutions for engineering systems with health &safety, cultural, societal and environmental considerations	3.good	2.Average	1.Poor
4	Applying their research exposure for design, analysis, interpretation and synthesis to get valid conclusions	3.good	2.Average	1.Poor
5	Understanding & demonstrating the impact of knowledge on the societal & environmental sustainability	3.good	2.Average	1.Poor
6	Applying ethical principles and professional commitment in engineering practices	3.good	2.Average	1.Poor
7	Effective communication skills to comprehend write & give presentations	3.good	2.Average	1.Poor
8	Recognizing the context of technological changes in engaging & preparation for the continual learning	3.good	2.Average	1.Poor
9	Applying principles and practices of electronics and communication engineering to design computational solutions	3.good	2.Average	1.Poor
10	Developing solutions in the area of communication and chip designing	3.good	2.Average	1.Poor
11	Effective functioning as an individual / member/ leader in diverse teams	3.good	2.Average	1.Poor
12	Applying engineering & management principles for project development in multidisciplinary environments	3.good	2.Average	1.Poor
13	Utilization of modern engineering tools for complex engineering activities	3.good	2.Average	1.Poor
14	Application of the contextual knowledge in assessing social issues and professional engineering practices	3.good	2.Average	1.Poor

**ALUMNI FEEDBACK FORM****Academic year:**

Name:

Roll No:

Organization:

Assess your performance on the following attributes as per the given criteria:

**Questionnaire**

Sl.No	Question	Rating		
1	Application of basic knowledge in solving complex engineering problems	1.Poor	2. Average	3. Good
2	Implementation of problem analysis for validated conclusions using mathematics, natural sciences and engineering sciences	1.Poor	2. Average	3. Good
3	Design & development of solutions for engineering systems with health & safety, cultural, societal and environmental considerations	1.Poor	2. Average	3. Good
4	Applying their research exposure for design, analysis, interpretation and synthesis to get valid conclusions	1.Poor	2. Average	3. Good
5	Utilization of modern engineering and IT tools for complex engineering activities	1.Poor	2. Average	3. Good
6	Application of the contextual knowledge in assessing social issues and professional engineering practices	1.Poor	2. Average	3. Good
7	Understanding & demonstrating the impact of knowledge on the societal & environment sustainability	1.Poor	2. Average	3. Good
8	Applying ethical principles and professional commitment in engineering practices	1.Poor	2. Average	3. Good
9	Effective functioning as an individual / member/ leader in diverse teams	1.Poor	2. Average	3. Good
10	Applying engineering & management principles for project development in multidisciplinary environments	1.Poor	2. Average	3. Good

**3.3.2 Provide results of evaluation of PO&PSO (40)**

Institute Marks : 40.00

**PO Attainment**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111	1.62	0.54	1.08	1.08	-	0.54	-	-	-	-	-	-
C112	2.17	1.45	1.45	1.45	1.45	-	-	-	-	-	-	-

C113	2.23	2.04	1.78	1.49	2.23	1.86	1.49	1.49	1.49	1.49	1.49	1.49	2.23
C114	2.11	1.55	1.27	0.98	1.27	0.70	0.70	1.41	1.41	0.84	0.70	1.55	
C115	1.17	1.90	1.46	2.19	1.75	0.73	0.73	0.88	0.88	0.73	2.19	0.73	
C116	2.37	2.47	1.97	1.97	2.47	1.73	-	1.97	2.47	1.48	1.97	-	
C117	1.98	0.99	1.98	2.97	-	-	-	-	0.99	-	-	0.99	
C118	2.65	2.37	2.21	1.89	2.46	2.37	1.89	-	1.89	2.13	1.89	2.84	
C119	1.73	2.71	1.97	2.96	2.22	0.99	0.99	1.23	0.99	0.99	2.96	0.99	
C121	-	-	-	-	-	-	-	-	1.83	2.74	-	1.83	
C122	1.96	1.58	1.63	1.63	1.75	-	0.70	-	-	-	-	0.70	
C123	2.23	1.78	1.49	-	-	-	-	-	-	-	-	0.74	
C124	2.01	1.24	1.42	2.13	1.78	1.66	1.42	-	-	0.71	0.71	0.83	
C125	2.11	2.26	1.05	1.51	1.51	1.51	0.75	0.75	1.96	1.96	1.36	1.36	
C126	-	-	-	-	-	-	-	-	1.58	2.96	-	1.97	
C127	2.95	1.97	0.98	1.97	-	1.97	-	-	-	-	0.98	-	
C128	2.95	1.97	0.98	0.98	-	-	-	-	-	-	-	1.97	
C129	2.86	1.91	0.95	1.91	0.95	1.91	0.95	1.72	0.95	1.33	0.95	1.91	
C211	1.33	1.34	1.05	1.08	0.84	-	-	-	-	-	-	0.96	
C212	1.71	1.25	1.48	1.03	1.25	0.57	0.57	0.57	0.57	0.68	0.57	1.14	
C213	1.36	1.26	1.47	1.26	1.05	-	-	-	-	-	-	1.05	
C214	1.46	1.17	0.39	1.17	0.78	-	-	-	-	-	-	0.29	
C215	1.22	1.12	1.22	1.12	-	-	-	-	-	-	-	-	
C216	2.84	2.46	2.65	1.90	1.90	-	-	-	-	-	1.90	-	1.90
C217	2.73	2.00	1.64	2.18	1.82	-	-	-	-	-	-	-	
C218	2.84	2.09	2.46	1.71	2.09	-	-	-	0.95	1.26	0.95	1.9	
C219	2.58	2.77	1.98	1.78	-	-	-	-	-	1.39	-	1.59	
C221	1.71	1.71	1.34	1.38	1.07	-	-	-	-	-	-	1.22	
C222	1.73	1.73	1.15	1.73	1.73	0.58	1.15	1.15	1.15	1.15	0.58	1.15	
C223	1.46	0.98	0.49	0.98	0.98	0.49	0.49	0.49	0.49	0.49	0.49	0.49	
C224	1.44	1.44	0.96	1.44	1.44	0.48	0.96	0.96	0.96	0.96	0.48	0.96	
C225	1.34	1.74	1.87	1.07	0.8	1.61	1.21	1.87	2.14	1.61	2.27	2.14	
C226	2.65	1.9	2.28	2.09	1.71	-	-	-	-	-	-	1.71	
C227	2.13	1.13	0.28	1.28	0.85	-	-	-	-	-	-	-	
C228	2.29	2.57	2.96	2.57	2.17	-	-	-	1.38	1.18	-	1.58	
C229	-	-	-	-	-	-	-	-	1.89	2.84	-	2.84	

C311	1.45	1.45	0.97	0.48	0.48	-	-	-	-	-	-	-	-
C312	1.43	1.43	0.95	1.43	1.43	0.48	0.95	0.95	0.95	0.95	0.48	0.95	
C313	1.47	1.47	-	1.47	1.47	-	-	-	-	-	-	-	-
C314	1.55	1.03	1.03	0.52	1.03	0.52	0.52	0.52	0.52	0.52	0.52	0.52	1.03
C315	1.15	1.16	1.26	1.05	0.95	0.53	0.95	0.74	0.53	0.95	1.05	0.74	
C316	2.08	1.94	1.8	1.25	1.25	-	-	-	0.69	0.69	-	0.69	
C317	2.35	1.88	1.88	1.88	2.35	1.57	-	-	-	-	0.78	2.04	
C318	1.64	1.53	1.29	1.17	1.53	-	-	1.17	1.03	1.47	1.17	1.47	
C319	2.35	2.35	2.35	1.57	1.57	1.57	1.57	2.35	2.35	1.57	-	2.35	
C321	1.42	1.13	0.71	1.42	1.42	-	0.71	0.71	2.12	2.12	2.12	2.12	
C322	1.41	1.28	1.41	1.28	1.16	1.03	1.03	1.03	1.54	1.28	1.2	1.41	
C323	1.59	1.59	1.6	1.6	1.6	0.53	0.53	0.53	0.53	0.53	0.53	0.53	1.06
C324	2.23	1.49	1.49	0.74	0.75	-	-	-	-	-	-	-	
C325	2.25	2.25	1.50	2.25	1.50	1.50	0.75	1.20	0.75	0.75	0.75	0.75	1.50
C326	2.27	1.89	-	-	-	-	-	-	-	-	-	-	
C327	2.94	2.55	2.94	2.55	2.15	-	-	1.37	1.18	-	-	-	1.57
C328	2.87	2.87	1.91	2.87	-	-	-	-	2.87	-	-	-	
C329	2.96	2.37	2.37	2.37	2.96	-	-	-	-	-	-	1.18	2.56
C411	1.61	1.61	1.07	1.61	1.61	0.54	1.07	1.07	1.07	1.07	0.54	1.07	
C412	0.98	1.2	0.87	-	-	-	-	-	-	-	-	-	
C413	1.32	1.32	0.51	0.61	1.12	-	-	-	-	-	-	0.51	1.02
C414	2.01	2.01	1.34	2.01	2.01	0.67	1.34	1.34	1.34	1.34	0.67	1.34	
C415	2.06	1.37	0.69	0.69	1.37	0.69	0.69	0.69	0.69	0.69	0.69	0.69	1.37
C416	2.10	2.26	2.43	2.26	2.26	2.1	2.43	2.1	2.1	2.26	2.26	2.75	
C417	2.84	2.65	2.65	2.65	2.84	-	-	-	-	-	1.14	2.84	
C421	1.66	2.00	2.33	1.33	2.33	2.33	1.00	3.00	2.33	2.25	2.00	2.00	
PO Attainment	1.99	1.80	1.62	1.69	1.66	1.33	1.22	1.38	1.48	1.50	1.33	1.59	

**PO Attainment Level**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	1.99	1.75	1.52	1.61	1.58	1.16	1.02	1.23	1.35	1.37	1.16	1.49
InDirect Attainment	2.5	2.5	2.5	2.4	2.5	2.5	2.4	2.5	2.5	2.5	2.5	2.4

**PSO Attainment**

Course	PSO1	PSO2	PSO3
C111	0	0	0
C112	0	0	0
C113	2.23	2.23	2.23
C114	0	0	0
C115	0	0	0
C116	0	0	0
C117	0	0	0
C118	2.65	2.52	2.84
C119	0	0	0
C121	0	0	0
C122	0	0	0
C123	0	0	0
C124	0	0	0
C125	1.96	1.66	2.26
C126	0	0	0
C127	0	0	0
C128	0	0	0
C129	2.86	2.67	1.91
C211	1.43	1.24	0.71
C212	1.18	1.02	0.68
C213	1.58	1.05	1.05
C214	1.46	1.27	0.19
C215	1.22	1.12	1.01
C216	2.84	2.65	1.9
C217	2.00	2.55	1.09
C218	2.46	1.71	1.13
C219	1.78	2.97	1.78
C221	1.84	1.59	0.91
C222	1.15	1.73	1.15
C223	1.47	0.98	1.46
C224	0.96	1.44	0.96
C225	2.27	2.14	2.14
C226	2.65	2.46	1.71

C227	2.13	1.28	1.70
C228	2.96	2.37	1.97
C229	0	0	0
C311	1.45	1.45	0.48
C312	0.95	1.43	0.95
C313	0.98	1.47	0.98
C314	1.55	1.03	1.03
C315	1.37	1.05	0.63
C316	0	0	0
C317	2.20	2.20	1.57
C318	1.29	1.41	1.76
C319	2.35	1.57	0
C321	1.42	0	1.42
C322	1.23	1.28	1.33
C323	1.6	1.6	1.59
C324	1.49	2.24	0
C325	2.25	1.50	1.50
C326	0	0	0
C327	2.94	2.35	1.37
C328	1.91	2.87	1.91
C329	2.76	2.76	2.56
C411	1.07	1.61	1.07
C412	1.09	1.64	0
C413	1.02	1.53	1.02
C414	1.34	2.01	1.34
C415	1.37	0.69	0.69
C416	2.27	2.43	2.43
C417	2.84	2.84	2.28
C421	2.25	2.5	2.5
PSO Attainment	1.96	1.98	1.67

**PSO Attainment Level**

Course	PSO1	PSO2	PSO3
Direct Attainment	1.82	1.82	1.46

InDirect Attainment	2.5	2.6	2.5
4 STUDENTS' PERFORMANCE (150)			Total Marks 111.95

Table 4.1

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)
Sanctioned intake of the program(N)	180	120	120	180	180	180	180
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	159	120	102	141	156	88	124
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	12	17	21	15	3	6	7
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	171	137	123	156	159	94	131

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2024-25 (CAY)	171	0	0	0	0
2023-24 (CAYm1)	137	40	0	0	0
2022-23 (CAYm2)	123	44	42	0	0
2021-22 (CAYm3)	156	41	36	35	0
2020-21 (LYG)	159	61	52	50	46
2019-20 (LYGm1)	94	35	35	33	29
2018-19 (LYGm2)	131	46	43	40	36

Table 4.3

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2024-25 (CAY)	171	0	0	0	0
2023-24 (CAYm1)	137	120	0	0	0
2022-23 (CAYm2)	123	92	102	0	0
2021-22 (CAYm3)	156	135	142	131	0
2020-21 (LYG)	159	150	151	139	107
2019-20 (LYGm1)	94	83	77	75	75
2018-19 (LYGm2)	131	121	120	115	102

**4.1 Enrolment Ratio (20)**

Total Marks 20.00

Institute Marks : 20.00

	<b>N (From Table 4.1)</b>	<b>N1 (From Table 4.1)</b>	<b>Enrollment Ratio [(N1/N)*100]</b>
2024-25 (CAY)	180	159	88.33
2023-24 (CAYm1)	120	120	100.00
2022-23 (CAYm2)	120	102	85.00

Average [ (ER1 + ER2 + ER3) / 3 ] : 91.11

Assessment : 20.00

**4.2 Success Rate in the stipulated period of the program (40)**

Total Marks 18.50

**4.2.1 Success rate without backlogs in any semester / year of study (25)**

Institute Marks : 7.25

<b>Item</b>	<b>Latest Year of Graduation, LYG (2020-21)</b>	<b>Latest Year of Graduation minus 1, LYGM1 (2019-20)</b>	<b>Latest Year of Graduation minus 2 LYGM2 (2018-19)</b>
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	159.00	94.00	131.00
Y Number of students who have graduated without backlogs in the stipulated period	46.00	29.00	36.00
Success Index [ SI = Y / X ]	0.29	0.31	0.27

Average SI [ (SI1 + SI2 + SI3) / 3 ] : 0.29

Assessment [25 \* Average SI] : 7.25

**4.2.2 Success rate in stipulated period (15)**

Institute Marks : 11.25

<b>Item</b>	<b>Latest Year of Graduation, LYG (2020-21)</b>	<b>Latest Year of Graduation minus 1, LYGM1 (2019-20)</b>	<b>Latest Year of Graduation minus 2 LYGM2 (2018-19)</b>
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	159.00	94.00	131.00
Y Number of students who have graduated in the stipulated period	107.00	75.00	102.00
Success Index [ SI = Y / X ]	0.67	0.80	0.78

Average SI[ ( SI1 + SI2 + SI3 ) / 3 ]: 0.75

Assessment [15 \* Average SI] : 11.25

**Note :** If 100% students clear without any backlog then also total marks scored will be 40 as both 4.2.1 & 4.2.2 will be applicable simultaneously.

**4.3 Academic Performance in Third Year (15)**

Total Marks 10.48

Institute Marks : 10.48

Academic Performance	CAYm3 (2021-22)	LYG (2020-21)	LYGm1 (2019-20)
Mean of CGPA or mean percentage of all successful students(X)	7.50	7.15	7.65
Total number of successful students(Y)	131.00	139.00	75.00
Total number of students appeared in the examination(Z)	142.00	151.00	77.00
API [ X*(Y/Z) ]:	6.92	6.58	7.45

Average API [ (AP1 + AP2 + AP3)/3 ] : 6.98

Assessment [1.5 \* AverageAPI] : 10.48

**4.4 Academic Performance in Second Year (15)**

Total Marks 10.17

Institute Marks : 10.17

Academic Performance	CAYm2 (2022-23)	CAYm3 (2021-22)	LYG (2020-21)
Mean of CGPA or mean percentage of all successful students(X)	7.29	6.74	7.48
Total number of successful students (Y)	102.00	142.00	151.00
Total number of students appeared in the examination (Z)	113.00	150.00	153.00
API [ X * (Y/Z) ]	6.58	6.38	7.38

Average API [ (AP1 + AP2 + AP3)/3 ] : 6.78

Assessment [ 1.5 \* AverageAPI ] : 10.17

**4.5 Placement, Higher Studies and Entrepreneurship (40)**

Total Marks 32.80

Institute Marks : 32.80

Item	LYG (2020-21)	LYGm1 (2019-20)	LYGm2 (2018-19)
Total No of Final Year Students(N)	139.00	75.00	115.00
No of students placed in the companies or government sector(X)	118.00	60.00	79.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	6.00	4.00	4.00
No of students turned entrepreneur in engineering/technology (Z)	0.00	0.00	0.00
x + y + z =	124.00	64.00	83.00
Placement Index [ (X+Y+Z)/N ] :	0.89	0.85	0.72

Average Placement [ (P1 + P2 + P3)/3 ] : 0.82

Assessment [ 40 \* Average Placement] : 32.80

**Program Name :**

**Assessment Year Name : CAYm1**

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	ADIGOPPALA KAVYA	20KP1A0401	KODNEST TECHNOLOGIES	2024
2	ALLA AJAY KUMAR	20KP1A0403	KODNEST TECHNOLOGIES	2024
3	ALLU LAKSHMITRIVENI	20KP1A0404	VALUE MOMENTUM	2024
4	AMMISSETTI BHAVANI	20KP1A0405	BIGBUL	2024
5	BANDI VENKATA RAJESH	20KP1A0408	KODNEST TECHNOLOGIES	2024
6	BANDLAMUDI MANO CHANDRA	20KP1A0409	BIGBUL	2024
7	BATTULA POOJA	20KP1A0411	BIGBUL	2024
8	BHAVANAM ESWARI SAI	20KP1A0412	VALUE MOMENTUM	2024
9	BHIMAVARAPU JAYANTH REDDY	20KP1A0413	BIGBUL	2024
10	BILLIPATI MANASA	20KP1A0414	ILM	2024
11	BOLLIMUNTHA ANUSHA	20KP1A0416	ILM	2024
12	BURAGADDA RENUKA DEVI	20KP1A0417	BIGBUL	2024
13	BOLLA NIKITHA SAI	20KP1A0415	BIGBUL	2024
14	AVANCHA KARTHIK BHAT	20KP1A0406	BIGBUL	2024
15	BUSI AKHILA	20KP1A0418	ILM	2024
16	CHEEDIPUDI LOKESH SAINADHA REDDY	20KP1A0419	VALUE MOMENTUM	2024
17	CHENNAKESAVULA DEEPIKA	20KP1A0420	ILM	2024
18	CHILAKA ARUN KUMAR	20KP1A0421	BIGBUL	2024
19	CHINNI GOPI KRISHNA SAI	20KP1A0422	BIGBUL	2024
20	DADI SANDIP	20KP1A0423	SMARTBRAINS	2024
21	DAGGUPATI VENKATA HARI SRINIVAS	20KP1A0424	BIGBUL	2024
22	DASARI NARASIMHA RAO	20KP1A0425	VALUE MOMENTUM	2024
23	DEVIREDDY KAVITHA	20KP1A0426	BIGBUL	2024
24	DIVVELA SUJATHA LAKSHMI	20KP1A0427	SMARTBRAINS	2024
25	DODDAA SUMANTH	20KP1A0428	SMARTBRAINS	2024
26	DORSILA SRINIVASA BHAVANI	20KP1A0429	SMARTBRAINS	2024
27	DUGGEMPUDI SUSHMA	20KP1A0430	KODNEST TECHNOLOGIES	2024
28	DURISALA CHAMUNDESWARI	20KP1A0431	KODNEST TECHNOLOGIES	2024
29	GALLA INDRANAG	20KP1A0432	CODEGNAN IT SOLUTIONS	2024
30	GANGAVARAPU SIVASANKAR	20KP1A0433	CODEGNAN IT SOLUTIONS	2024
31	GANGI REDDY NARENDRA REDDY	20KP1A0434	VALUE MOMENTUM	2024
32	GOPAVARAPU KARTHIK	20KP1A0436	VALUE MOMENTUM	2024
33	GORRE MOUNIKA	20KP1A0437	SAVANTIS	2024

34	GORREPATI NAGA VAMSI	20KP1A0438	VALUE MOMENTUM	2024
35	GUNDAVARAPU SIRISHA	20KP1A0441	BIGBUL	2024
36	JANGAM RAVI SAGAR	20KP1A0443	VALUE MOMENTUM	2024
37	KANCHARLA SIVA GOPI	20KP1A0446	ILM	2024
38	KANNA VIJAY SHANKAR	20KP1A0448	SAVANTIS	2024
39	KAPALAVAI MANIKANTA	20KP1A0449	CODEGNAN IT SOLUTIONS	2024
40	KARASALA JANAKI ABHINAYA	20KP1A0450	ILM	2024
41	KICHAMSETTI ASHOK	20KP1A0451	CODEGNAN IT SOLUTIONS	2024
42	KOLIKINENI TEJASWINI	20KP1A0452	CODEGNAN IT SOLUTIONS	2024
43	KONJETI SANDEEP	20KP1A0454	CODEGNAN IT SOLUTIONS	2024
44	KOPPARTHI RAMALAKSHMI	20KP1A0455	BIGBUL	2024
45	KOTARU LAKSHMANA VAMSI	20KP1A0457	SAVANTIS	2024
46	KOTHA SRAVYA	20KP1A0458	VALUE MOMENTUM	2024
47	KOTTURI VENKATESH	20KP1A0459	SAVANTIS	2024
48	MADALA ANUSHA	20KP1A0460	ILM	2024
49	MADALA RAVI TEJA	20KP1A0461	BIGBUL	2024
50	MAGULURI VEDA VATHI	20KP1A0462	VALUE MOMENTUM	2024
51	MANDHADAPU PAVANI	20KP1A0465	SAVANTIS	2024
52	MANNEM SAKETH	20KP1A0467	VALUE MOMENTUM	2024
53	MEDARAMETLA NEERAJA	20KP1A0468	SMARTBRAINS	2024
54	MEENUGA SAI TEJA	20KP1A0469	SMARTBRAINS	2024
55	METIKALA SHIVA SAI TEJA	20KP1A0470	SMARTBRAINS	2024
56	MOGULURI LAKSHMI REVANTH KUMAR	20KP1A0471	BIGBUL	2024
57	MOHAMMED BASHEER	20KP1A0472	ILM	2024
58	MONIKA GUMMADI	20KP1A0473	SMARTBRAINS	2024
59	MUTUKURU SUMANTH	20KP1A0474	BIGBUL	2024
60	NADENDLA YASWANTH	20KP1A0475	VALUE MOMENTUM	2024
61	NALAJARLA SOMASEKHAR BABU	20KP1A0476	ILM	2024
62	MEENUGA SAI TEJA	20KP1A0479	VALUE MOMENTUM	2024
63	NANDA MANIKYA RAO	20KP1A0480	BIGBUL	2024
64	NARALA VAMSI KRISHNA	20KP1A0481	VALUE MOMENTUM	2024
65	NELAPATI MAHENDRA	20KP1A0483	ILM	2024
66	ODELA NAVEEN	20KP1A0486	VALUE MOMENTUM	2024
67	PAGADALA MALLIKARJUNA REDDY	20KP1A0487	BIGBUL	2024

68	PARIMI KALYANI	20KP1A0491	VALUE MOMENTUM	2024
69	PATAN RAHEEM	20KP1A0493	BIGBUL	2024
70	PATHAN AHMED ALI KHAN	20KP1A0495	SAVANTIS	2024
71	PATHAPATI ANURADHA	20KP1A0498	ILM	2024
72	PATHAPATI LAKSHMI PRASANNA	20KP1A0499	BIGBUL	2024
73	PENUGONDA SIVA PARVATHI	20KP1A04A2	BIGBUL	2024
74	PINNAMANENI ADITHYA	20KP1A04A3	SAVANTIS	2024
75	POOJALA SAMBASIVARAO	20KP1A04A4	ILM	2024
76	GADDE GOPI	21KP5A0402	VALUE MOMENTUM	2024
77	JAMMULA PRAVEEN	21KP5A0404	BIGBUL	2024
78	JAMPANI ARAVIND SAI	21KP5A0405	BIGBUL	2024
79	KANTU SIVA KRISHNA	21KP5A0406	SAVANTIS	2024
80	KETARAJU YASHWANTH KUMAR	21KP5A0407	BIGBUL	2024
81	KOPPULA HEMANTH	21KP5A0408	ILM	2024
82	KSHATRI RISHWANTH SINGH	21KP5A0409	BIGBUL	2024
83	KURAPATI KARUNAKAR REDDY	21KP5A0410	BIGBUL	2024
84	ALA SRINIVAS	20KP1A0402	CODEGNAN IT SOLUTIONS	2024
85	GODDUMARRI VENKATESH	20KP1A0435	CODEGNAN IT SOLUTIONS	2024
86	NEMALIPURI RAJKAMAL	20KP1A0484	KODNEST TECHNOLOGIES	2024
87	NEMALITHOKA PAVAN KALYAN	20KP1A0485	KODNEST TECHNOLOGIES	2024
88	PANALA SURESH	20KP1A0488	SMARTBRAINS	2024
89	PANGA GANGADHAR	20KP1A0489	SMARTBRAINS	2024
90	PAPIREDDY CHANDRA SEKHAR REDDY	20KP1A0490	CODEGNAN IT SOLUTIONS	2024
91	PASUPULETI LAKSHMI LAVANYA	20KP1A0492	CODEGNAN IT SOLUTIONS	2024
92	PATHAN SHOYAB KHAN	20KP1A0497	SAVANTIS	2024
93	PATIBANDLA MONA	20KP1A04A0	KODNEST TECHNOLOGIES	2024
94	POOLA SAI KUMAR	20KP1A04A6	VALUE MOMENTUM	2024
95	POPURI SRI LAKSHMI PRASANNA	20KP1A04A7	EXCELR	2024
96	SUDA NAGA MASTAN SRIHARSHA	20KP1A04C4	VALUE MOMENTUM	2024
97	SIVAJI MARUTHI VENKATA GOPINADH	20KP1A04C3	EFFTRONICS	2024
98	SUREDDY VENKATA SAI NADH REDDY	20KP1A04C6	EXCELR	2024
99	SYED MASIUDDIN	20KP1A04C7	QSPIDERS	2024
100	TADISSETTY SAI PARDHIV	20KP1A04C8	EXCELR	2024
101	TALLURI JAYADWEEP	20KP1A04C9	ILM	2024

102	TAMMA SRAVYA	20KP1A04D0	QSPIDERS	2024
103	VARIKALLA VENKATA GOWTHAM	20KP1A04E5	EXCELR	2024
104	VASANTHU HARIHARA	20KP1A04E6	ILM	2024
105	VASANTHU HARIKA	20KP1A04E7	EFFTRONICS	2024
106	VELIVALA SIVA VENKATESWARA RAO	20KP1A04E8	QSPIDERS	2024
107	VELURI VENKATA JYOSHNAVI	20KP1A04E9	EXCELR	2024
108	VEMULA ANUSHA	20KP1A04F0	ILM	2024
109	VIKKURTHI NAGA ANUSHA	20KP1A04F1	QSPIDERS	2024
110	YAKKANTI MAHESWARA REDDY	20KP1A04F2	EXCELR	2024
111	YALLAMANDALA BALAJI	20KP1A04F3	QSPIDERS	2024
112	YALLAPRGADA NAGA SAI PADMA SRI	20KP1A04F4	QSPIDERS	2024
113	YAPARLA VISHNUvardhana REDDY	20KP1A04F5	EXCELR	2024
114	LINGALA ANUPA	21KP5A0411	QSPIDERS	2024
115	MINDALA MOUNIKA	21KP5A0412	EXCELR	2024
116	T ANVITHA	21KP5A0413	SAVANTIS	2024
117	TALATHOTI RAJESH	21KP5A0414	QSPIDERS	2024
118	VALLEPU SHALEMURAJU	21KP5A0415	SAVANTIS	2024

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	ALEKHYA TADIKONDA	19KP1A0475	SAVANTIS	2023
2	ALLAMSETTY KARTHIKEYA	19KP1A0403	BYJUS	2023
3	ALLUMALLU VENKATESH	19KP1A0404	BYJUS	2023
4	B.JAYA NAGA VENKATA SURYA	19KP1A0412	EFFTRONICS	2023
5	B.MANOHAR	19KP1A0414	Q SPIDERS	2023
6	BADVEETI EDUKONDALU	19KP1A0407	BYJUS	2023
7	BHEEMAVARAPU ANITHA	20KP1A0403	SMART BRAINS	2023
8	CH ANNAPURNA SWETHA SRI	19KP1A0422	SMART BRAINS	2023
9	CH.SUKANYA	19KP1A0421	CLICK IN SOFT	2023
10	CHANDU ASHOK	19KP1A0415	BYJUS	2023
11	CHENNUPATI VIJAYA LAKSHMI	19KP1A0418	SAVANTIS, Q SPIDERS	2023
12	CHERUKURI LAKSHMI BHARGAVI	19KP1A0419	SAVANTIS	2023
13	D. HRUTHIK	19KP1A0423	ILM	2023
14	DASARI RAMYA	19KP1A0424	BYJUS	2023
15	DONEPUDI LAVANYA	19KP1A0427	SMART BRAINS	2023
16	G RAMA RAO	19KP1A0429	SMART BRAINS	2023
17	G. NAGARAJU	19KP1A0433	SURYA TECH SOLUTIONS	2023
18	G.HAREESH	19KP1A0432	ILM	2023
19	G.JEEVAN GOPI	19KP1A0431	Q SPIDERS	2023
20	HRUSHITHA KANCHARLA	19KP1A0443	BYJUS	2023
21	K.AKASH	19KP1A0446	BYJUS	2023
22	KAMISETTY SRINIVASA RAO	19KP1A0441	SMART BRAINS	2023
23	KESARI.CHAITANYA	19KP1A0444	SAVANTIS	2023
24	KOKKU SAI LAKSHMI	19KP1A0448	BYJUS	2023
25	KONDAPALLI VARA LAKSHMI	19KP1A0447	SMART BRAINS	2023
26	KOTHA MEGHANA	19KP1A0449	SAVANTIS	2023
27	LAKSHMI YAMINI	19KP1A0430	BYJUS, SMART BRAINS	2023
28	M.UDAYA SREE	19KP1A0453	ILM	2023
29	MALLAVARAPU ABHINAV	19KP1A0454	SMART BRAINS	2023
30	MANNEM PAVAN KUMAR	19KP1A0455	BYJUS	2023
31	MEKA NANDINI	17KP1A0467	SAVANTIS	2023
32	P.FAROOK KHAN	19KP1A0465	SURYA TECH SOLUTIONS	2023
33	P.NIKHILA ANGEL	19KP1A0467	SAVANTIS, EFFTRONICS	2023

34	POTHULA RAVI TEJA	19KP1A0468	SAVANTIS	2023
35	PRASANNA AMMINEDI	19KP1A0405	CLICK IN SOFT	2023
36	RAJA RAJESWARI BATHULA	19KP1A0409	CLICK IN SOFT	2023
37	S.BALA PRIYANKA	19KP1A0473	CLICK IN SOFT	2023
38	S.HAREESH	19KP1A0470	SURYA TECH SOLUTIONS	2023
39	SAI PALLAVI CHERUKURI	19KP1A0420	SAVANTIS	2023
40	SD.RASOOL	19KP1A0474	BYJUS	2023
41	SHAIK SHEHANA AZ	19KP1A0472	BYJUS	2023
42	SIREESHA THOKALA	19KP1A0477	SAVANTIS	2023
43	SK.PARVEZ	19KP1A0471	BYJUS	2023
44	T.YADAGIRI	19KP1A0478	ILM	2023
45	U.YASWANTH KUMAR	19KP1A0480	SURYA TECH SOLUTIONS	2023
46	VATTEM TULASI	19KP1A0481	SMART BRAINS	2023
47	YUGANDHAR REDDY	19KP1A0402	Q SPIDERS	2023
48	DASARI SANKEERTHANA	19KP1A0425	EFFTRONICS	2023
49	GOPICHAND MUTUKURU	19KP1A0434	ILM	2023
50	KAMMELA DINESH	19KP1A0442	EFFTRONICS	2023
51	KAIPU ADHI SIVASANKARA REDDY	19KP1A0440	QSPIDERS	2023
52	IDAMAKANTI KALYAN KUMAR REDDY	19KP1A0438	QSPIDERS	2023
53	KUKATI MADHAVA RAO	19KP1A0450	QSPIDERS	2023
54	MEKA SRIJA	19KP1A0456	ILM	2023
55	NALAKA BHARGHAVI	19KP1A0459	EFFTRONICS	2023
56	PESALA AJAY	19KP1A0466	ILM	2023
57	VELLALA TARUN	19KP1A0483	SMART BRAINS	2023
58	GADDAM RAVIKUMAR	19KP1A0485	SAVANTIS	2023
59	GUTHIKONDA NAVYASREE	19KP1A0437	SAVANTIS	2023
60	JONNADULA ESWARI ALEKHYA	19KP1A0488	SAVANTIS	2023

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	A.JYOTHI SAI LAKSHMI	18KP1A0401	SMART BRAINS	2022
2	ADDANKI CHAKRADHAR	18KP1A0402	BIG BULL	2022
3	ANNAVARAPU TEJASWI	18KP1A0405	BIG BULL	2022
4	RAVANDRA MANI SURABHI	18KP1A0406	SMART BRAINS	2022
5	A.HARSHINI	18KP1A0407	SMART BRAINS	2022
6	B.ADITYA	18KP1A0408	SPR HUMAN CAPITAL SOLUTIONS	2022
7	B..MADHURI	18KP1A0410	SMART BRAINS	2022
8	BEZAWADA NAGA VYSHNAVI	18KP1A0411	WIPRO	2022
9	BODDAPATI SIREESHA	18KP1A0412	WIPRO	2022
10	BOLLIMUNTHA ANKAMARAO	18KP1A0414	WIPRO	2022
11	CH.PRIYANKA	18KP1A0418	SMART BRAINS	2022
12	DARSI BARGAV	18KP1A0424	SUTHER LAND	2022
13	DODDA SRAVANI	18KP1A0427	EXCELR	2022
14	G.TESWANI	18KP1A0428	SMART BRAINS	2022
15	GIRIDHAR GOPI KRISHNA DRONAMRAJU	18KP1A0429	SUTHER LAND	2022
16	G.LAKSHMI KHANTH REDDY	18KP1A0433	SPR HUMAN CAPITAL SOLUTIONS	2022
17	I.HEMASRI	18KP1A0434	SMART BRAINS, BIG BULL	2022
18	NAGA SATYADEEP JANDHYAM	18KP1A0435	EXCELR	2022
19	J.PRAKASHCHANDRA	18KP1A0436	SMART BRAINS	2022
20	K.NIKHILA	18KP1A0438	SMART BRAINS	2022
21	KALAPALA RAJARAJESWARI	18KP1A0439	WIPRO, SMART BRAINS, BIG BULL	2022
22	KARLAPUDI KRISHNA VAMSI	18KP1A0442	WIPRO	2022
23	KONDAMEEDA VENKATA GANESH	18KP1A0446	BIG BULL	2022
24	KUKATLA KIRANMAI	18KP1A0450	EXCELR	2022
25	L.LEELAVATHI	18KP1A0454	SMART BRAINS	2022
26	MAMIDALA PAVAN KALYAN	18KP1A0457	BIG BULL	2022
27	MARRI SARVAN	18KP1A0459	WIPRO	2022
28	NARRA LAKSHMI NAGA MANIKANTA	18KP1A0465	WIPRO, EXCELR	2022
29	N.KEERTHI	18KP1A0467	WIPRO	2022
30	NUSUMU RAMYA	18KP1A0468	BIG BULL	2022
31	P.TRIVENI	18KP1A0471	SMART BRAINS	2022
32	P.SIRDIVYA	18KP1A0472	SMART BRAINS	2022
33	P.NAGA ANILKUMAR	18KP1A0476	SPR HUMAN CAPITAL SOLUTIONS	2022

34	PATHA SUNIL BABU	18KP1A0477	BIG BULL	2022
35	P.FIROZ KHAN	18KP1A0478	SMART BRAINS	2022
36	P.LEE KRISHNA	18KP1A0481	SPR HUMAN CAPITAL SOLUTIONS	2022
37	P.RAMAKRISHNA	18KP1A0482	SPR HUMAN CAPITAL SOLUTIONS	2022
38	PUTTA SUVARCHALA	18KP1A0485	BIG BULL	2022
39	R.VIJAY KUMAR	18KP1A0487	SPR HUMAN CAPITAL SOLUTIONS	2022
40	R.SRILALITHA	18KP1A0489	SMART BRAINS	2022
41	SAJJA NAGA SUPRIYA	18KP1A0491	EXCEL R	2022
42	S.SAI KIRAN VITHAL	18KP1A0492	SPR HUMAN CAPITAL SOLUTIONS	2022
43	SHAIK BAJI	18KP1A0494	BIG BULL	2022
44	SK.BAJIVALI	18KP1A0495	SPR HUMAN CAPITAL SOLUTIONS	2022
45	SK.MAHABUNI	18KP1A0496	SMART BRAINS	2022
46	S.LEELAPRASAD	18KP1A0499	SPR HUMAN CAPITAL SOLUTIONS	2022
47	S.DHARANI	18KP1A04A1	SMART BRAINS	2022
48	S.PAVAN KRISHNA	18KP1A04A3	SPR HUMAN CAPITAL SOLUTIONS	2022
49	SUNDU SRI RAMANJANA DEVI	18KP1A04A4	SMART BRAINS	2022
50	SYED ISHRATH	18KP1A04A6	EXCEL R	2022
51	VADLAMUDI NAGADEEPIKA	18KP1A04B2	BIG BULL	2022
52	V.SESHA MANIKANTA	18KP1A04B6	SPR HUMAN CAPITAL SOLUTIONS	2022
53	V.NIKHIL	18KP1A04B9	SPR HUMAN CAPITAL SOLUTIONS	2022
54	YADAVARAPU VINAY KUMAR	18KP1A04C0	BIG BULL	2022
55	Y.Y.V.N SIVA SAI	18KP1A04C3	SPR HUMAN CAPITAL SOLUTIONS	2022
56	V.VENKATA SIVA NAGARAJU	18KP1A04D5	SPR HUMAN CAPITAL SOLUTIONS	2022
57	DASARI RAMYA	19KP5A0204	BIG BULL	2022
58	N.BHANU PRAKASH	19KP5A0403	SPR HUMAN CAPITAL SOLUTIONS	2022
59	P.VIJAY ANANDH	19KP5A0404	SPR HUMAN CAPITAL SOLUTIONS	2022
60	POKURI ROOPASRI	19KP5A0405	WIPRO	2022
61	YEMINEDI SIVA NAGARAJU	17KP1A04C9	SUTHER LAND	2022
62	ADUSUMALLI DILIP	18KP1A0403	BIGBUL	2022
63	ALLA SILPA	18KP1A0404	BIGBUL	2022
64	BODDU MANIKANTA	18KP1A0413	EXCEL R	2022
65	BOLLIMUNTHA VENKATA SIVA RAO	18KP1A0415	BIGBUL	2022
66	CHIMATA ASHOK KUMAR	18KP1A0421	BIGBUL	2022
67	KORNEPATI BALA SHANKAR	18KP1A0447	EXCEL R	2022

68	KOTAPATI SAIDUBABU	18KP1A0448	EXCELR	2022
69	KROSURI HARI PRIYA	18KP1A0449	EXCELR	2022
70	MADALA SRINIVAS	18KP1A0455	SMART BRAINS	2022
71	MAKARLA TARUN KUMAR	18KP1A0456	SMART BRAINS	2022
72	MARELLA SAHAJA	18KP1A0458	SMART BRAINS	2022
73	NANNEPOGU SURENDRA	18KP1A0464	SMART BRAINS	2022
74	SOMEPELLI MANI DEEP	18KP1A04A0	SUTHER LAND	2022
75	SUDHA TEJASWINI	18KP1A04A2	SUTHER LAND	2022
76	SWARNA VINAY KUMAR	18KP1A04A5	SUTHER LAND	2022
77	TADIKONDA LAVANYA	18KP1A04A7	SAVANTIS	2022
78	THEERDHALA NARENDRA	18KP1A04A8	SAVANTIS	2022
79	THOTA KISHORE BABU	18KP1A04A9	SAVANTIS	2022

**4.6 Professional Activities (20)**

Total Marks 20.00

**4.6.1 Professional societies/ chapters and organizing engineering events (5)**

Institute Marks : 5.00

**A. Availability & activities of professional societies/chapters**

1.IETE Chapter

2.ISTE Chapter

3.CSI Chapter

**B. Number, quality of engineering events (organized at institute)**

Activities/Workshops 2023-24				
S.No.	Activities/workshops	Date-Month-Year	Resource Person with designation	No. of students
1	A Five-day workshop on Robotics	24-07-2023 To 28-07-2023	Mr. Mahan RK, Founder & CVO of HackBoats	80%
2	A three day work shop on PCB	19-8-2023 To 21-8-2023	Mr.Rajesh MRK Technologies	82%
3	Campus recruitment training	12-08-2023 To 21-08-2023	Mr. Rajesh Softomatic	92%
4	NATIONAL SPORTS DAY	29-08-2023		100%
5	Guest lecture on "Skills for Success: Enhancing Your Employability in a Competitive Job Market"	11-11-2023	Dr.K. Giri Babu. Dean of Academics , VVIT	90%
6	NSS activity	24-01-2024		90%
7	Two days Workshop on IOT,AI	26/2/2024 to 27/2/2024	Mr. Mahan RK, Founder & CVO of HackBoats	74%
8	Campus recruitment training	04-03-2024 to 07-03-2024	Magic Bus Foundation	90%
9	3 days workshop on Embedded System Design for IoT Applications using Arduino boards	13/3/2024 to 15/3/2024	Mr. Likhith , Robotics Engineer at HackBoats	64%

Activities/WORKSHOPS 2022-23				
S.No.	Activities/workshops	Date-Month-Year	Resource Person with designation	% of students
1	A one day Workshop on "Introduction to IoT and Its Applications	25-07-2022	Dr. N. Adinarayana, Professor ECE Dept., KITS College	85%
2	3-days Workshop on Advanced Microcontroller and their applications	07-09-2022 to 09-09-2022	Dr. P. Ammi Reddy, Professor ECE Dept. VVIT	74%
3	Campus recruitment training	26-10-2022 to 28-10-2022	Magic Bus Foundation	86%
4	Guest lecture on "Low Power VLSI design"	16-02-2023	Mr. Uma Manikanta & N. Pitcheswara Rao Trainers from Anitha Technologies & Services	90%
5	A Guest Lecture on 5G antenna technology	24-04-2023	Dr. K. Ramanjaneyulu Professor ECE Dept, PVP Siddhradha Inst. Of Technology	76%

Activities/workshops 2021-22				
S.No.	Activities/workshops	Date-Month-Year	Resource Person with designation	% of students
1	Guest lecture on Digital signal processing. ( on-line)	27-10-2021	Dr. Mallikarjuna Reddy, Professor & Principal ECE Dept, VVIT	90%
2	Guest lecture on Allocation of resource in 5G Networks (on-line)	23-12-2021	Mr. B. Subbarao Sr. SDE, Digital Transmission Centre, BSNL, Guntur	95%
3	Campus recruitment training	08-02-2022 to 11-02-2022	Magic Bus Foundation	90%

4	Guest Lecture on "Personality Development through stress management & positive thinking"	30-03-2022	Mr. G. Nageswara Rao , Founder of Impact Foundation	90%
5	A guest lecture on "Environmental Impact Assessment in Engineering Projects"	23-04-2022	Dr. Kota Srinivasu, Principal, NRIIT	90%
6	Python Programming	24-04-2022	Dr.K. Giri Babu. Dean of Academics , VVIT	70%
7	A two day work shop on PCB	02-05-2022 to 03-05-2022	Mr.Rajesh MRK Technologies	100%

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**4.6.2 Publication of technical magazines, newsletters, etc. (5)**

Institute Marks : 5.00

The primary goal of the newsletter and magazine is to inform stakeholders of the departments critical information by providing them with as much up-to-date news and updates as possible. With the correct resources and well-planned timing, publishing a newsletter might be a straightforward method to elevate the communication strategy as a whole.

#### A.Quality & Relevance of the contents and Print Material

Publications	Academic year	Issue	Editors	Chief -Editor
e-KREST ECE Department Magazine	2024-25	2	1.Dr. CHETTY KALAI SELVAN 2.V.PAVANI 3.C.AMALA	Dr.K.Srihari Rao
	2023-24	2	1.Dr. SAIDAIH BANDI 2.K.KIRANKUMAR 3.M.LAKSHMINARAYANA	
	2022-23	2	1.Dr. V. NAGA MALLESWARI 2.C.SATYANARAYANA MURTHY 3.N.SANTHI	
	2021-22	2	1. M.M.JUNITHA 2.M.SUMANTH 3.M.TRIVENI LAKSHMI	
TRANCE –ECE Department Newsletter	2024-25	2	1.Dr.V.NAGA JYOTHI 2.P.SRILAKSHMI 3.B.INDU LATHA	Dr.K.Srihari Rao
	2023-24	2	1.Dr.M.RAVI 2.A.VIJAY KUMAR 3.N.VEERANDRANATH	
	2022-23	2	1.Ch.RAM BABU 2.U.ANJANEYULU 3.VANI VEERA	
	2021-22	2	1.K.SUJATA 2.S.SUNITHA 3.K.MURALI BABU	

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#### 4.6.3 Participationininter-institute events by students of the program of study (10)

Institute Marks : 10.00

The engineering departments Electronics and Communication students were given the chance to take part and improve their knowledge of the newest technological developments. They performed exceptionally well on a variety of venues, including internships at prestigious MNCs and paper articles in journals (UGC).

#### STUDENT PUBLISHED PAPER

S.No.	YEAR	STUDENT ROLL NAUMBER	STUDENT NAME	TITLE OF THE PUBLISHED PAPER	
1	2023-24	20KP1A04A9	Ramisetty Sri Nikhitha		
		20KP1A04A0	Patibandla Mona	IOT based leaf detection and identification using Raspberry Pi	
		20KP1A04B0	Ravuri Gopi		
		20KP1A04E6	Vasantha Harihara		
		20KP1A0498	Pathapati Anuradha		
		20KP1A04F2	Yakkanti Maheswara		
2		20KP1A0485	Reddy		
		20KP1A04E1	Nemalithoka Pavan Kalyan	Implementation of System For Leakage Protection of Answer Script Using Finger Print	
			U.Sarthi Venkata Siva		
		20KP1A04F1	Vikkurthi Naga Anusha		
		21KP5A0414	Talathoti Rajesh	Auto power supply control using four different sources	
3		20KP1A04E7	Vasantha Harika		
		20KP1A04B8	Shaik Fayaz		
		21KP5A0413	T Anvitha		
		20KP1A04F0	Vemula Anusha		
4		20KP1A0484	Nemalipuri Rajkamal	Facial attendance system	
		20KP1A04C9	Talluri Jayadweep		
5		20KP1A04D6	Thota Hema Latha		
		20KP1A04E0	Upputholla Ramu		
		20KP1A04C8	Tadisetty Sai Pardhiv	Vehicle moment based IOT street light monitoring	
		20KP1A0483	Nelapati Mahendra		
		20KP1A0491	Parimi Kalyani		
6		20KP1A0499	P Lakshmi Prasanna		
		20KP1A04E8	V Siva Venkateswara Rao	Google assitant based home automation	
		20KP1A04D3	Tellamekala Ankammarao		

7		20KP1A04E3 20KP1A04A2 21KP5A0410 20KP1A0487	Vanja Anvitha Chandrika Penugonda Siva Parvathi Kurapati Karunakar Reddy P Mallikarjuna Reddy	Detecting Sea Water Environment Using IOT Sensors
1	<b>2021-22</b>	18KP1A0496 18KP1A04B0 18KP1A04B6 18KP1A04B8	Sk.Mahabooni, T.Dinesh Sai V.Sesha Manikanta V.Venkata Sai Priya	Intelligent Arduino Method To Avoid Train Accident
2		18KP1A0434 18KP1A0449 18KP1A0440 18KP1A0445	I.Hemasri K. Haripriya, K. Chandu K. Kishore	Analysis And Design Of Security System Using Temperature And Humidity Sensors
3		18KP1A0428 18KP1A0432 18KP1A0435 18KP1A0455	G.Tejaswi, G.Lakshmi Prasanna J.Naga Satyadeep M.Srinivas	Gsm Based Automatic Security System
4		18KP1A04 18KP1A0458 18KP1A0422	Ch. Teja M. Sahaja Ch. Karthik Sri Ram	RFID Based Vehicle Speed Control System
5		18KP1A0405 18KP1A0415 18KP1A0446 18KP1A0419	A.Tejaswi, B.Venkata Siva Rao K.Venkata Ganesh CH.Niveditha	Development Of Advanced Leakage Detection System Using IOT
6		18KP1A0463 18KP1A0451 18KP1A0441 18KP1A0448	N.HemaSri, K.Naga Tarun Kumar K.Anusha, K.Saidhu Babu	Development Of Environmental Monitoring System For Real Time Applications
7		18KP1A0467 18KP1A04A7 18KP1A0475 18KP1A04B4	N.Keerthi, T.Lavanya, P.Sindhu Priya V.Trivikram	Design & Development Of Electronic Notice Board

8	18KP1A0471 18KP1A04B2 18KP1A04B9 18KP1A04C3	P. Triveni V. Naga Deepika V. Kali Krishna Nikhil Y.Venkata Naga siva sai	Design And Simulation Of Ultra Wide And Narrow Band Antenna For C-Band And X-Band Applications
9	18KP1A0484 19KP5A0404 18KP1A04A5 18KP1A0483	S.Subba reddy P.Vijayanand S.Vinay kumar P.Naveen babu	Development Of Vehicle Theft Location And Intimation By Using IOT
10	19KP5A0406 18KP1A0490 18KP1A0476	S.Ravindra Mani Surabhi, S.Dinesh, P.Naga Anil Kumar	Foot-Step Power Generation System
11	18KP1A0460 18KP1A0401 18KP1A0421 18KP1A0423	M.DHARANI A.Jyothi Sailakshmi CH.Ashok Kumar, CH.Sandeep Kumar	Implementation Of Smart Shopping Cart
12	18KP1A0450 18KP1A0404 18KP1A0406 18KP1A0447	K.KIRANMAI A.SILPA A.SRIVALLI K.BALA SHANKAR	Designing An Automatic Engine Locking System Through Alcohol Detection Using Arduino
13	18KP1A0492 18KP1A0489 18KP1A0499 18KP1A0495	S.Sai Kiran Vithal, R.Sri Lalitha S.Leela Prasad, Sk.Bajivali	Forest Fire Detection Based On GPS Tracking To Prevent Extension Of Wild Life
14	18KP1A0410 18KP1A0402 18KP1A0416 18KP1A0456	B. Madhuri A. Chakradhar Ch. Lahari, M. Tarun Kumar	Fingerprint Based Exam Hall Authentication System
15	18KP1A0469 18KP1A04A6 18KP1A04B5 18KP1A0474	P.Yojana Sd.Ishrath V.V SivaNagaraju P.Mohan Govind Tagore	Design And Implementation Of Smart electricity Meter

## NPTEL CERTIFICATIONS

S.No.	YEAR	STUDENT ROLL NUMBER	STUDENT NAME	COURSE
1	2023-24	21KP1A04B4	SHAIK IMRANA	DIGITAL CIRCUITS
2		21KP5A0404	JAMMULA PRAVEEN	INTRODUCTION TO INTERNET OF THINGS
3		20KP1A0416	BOLLIMUNTHA ANUSHA	INTRODUCTION TO INTERNET OF THINGS
4		20KP1A04B5	SAVARALA GOPAIAH	VLSI DESIGNFLOW:RTL TO GDS
4		21KP1A04D5	THATIPARTHI SIVA	INTRODUCTION TO INTERNET OF THINGS
1	2022-23	20KP1A0401	ADIGOPPALA KAVYA	THE JOY OF COMPUTING USING PYTHON
2		20KP1A0486	NAVEEN ODELA	OPTICAL WIRELESS COMMUNICATION FOR BEYOND 5G NETWORKS AND IOT
3		21KP1A0480	NALLAPATI NAGALAKSHMI	DIGITAL CIRCUITS
1	2021-22	18KP1A0492	SANDU SAI KIRAN VITHAL	CLOUD COMPUTTING

**A. Events within the state (2)**

Academic year	Name of the student	date	Name of the event	Name of the sports participated	Prizes won (if any)
2023-24	CH.VENKATA KALYAN	03-4-2024	UNIVERSITY COLLEGE OF ENGINEERING`-NRT	VOLLEYBALL	SECOND
	I.RAMA KRISHNA				
	Y.RAJESH				
	G.MANOHAR	03-02-2024	VIGNAN:S UNIVERSITY	VOLLEYBALL	FOURTH
	G.MANOHAR	16-02-2024	R.V.R.&J.C.COLLEGE ENGINEERING	VOLLEY BALL	THIRD
	SK. SUBHANI	16-02-2024	R.V.R.&J.C.COLLEGE ENGINEERING	VOLLEY BALL	THIRD
	Y.KOTESWARA RAO	16-02-2024	R.V.R.&J.C.COLLEGE ENGINEERING	VOLLEY BALL	THIRD

A.NARESH	19-02-2024	KL EF	HIGH JUMP	FIRST	
B.MANMADHA NAIK	UDGHOSH A2K24	CHALAPATHI INSTITUTE OF TECHNOLOGY	VOLLEY BALL	FIRST	
G.MANOHAR					
Y.RAJESH					
B.YUVA TEJA					
Y.KOTESWARA RAO	7-02-2024	QIS FEST	SPORTS	PATICIPATION	
SIVAIAH	7-02-2024	QIS FEST	SPORTS	PATICIPATION	
2022-23	G.MANOHAR	29-03-2023	A.M REDDY EDUCATIONAL INSTITUTIONS	VOLLEY BALL	SECOND
	V.SHALEMU RAJU				
	B.GURULINGAM	18-11-2023	GUDLAVALLERU ENGINEERING COLLEGE	KABADI	SECOND
	K.SHANMUKHA	18-11-2023	GUDLAVALLERU ENGINEERING COLLEGE	KABADI	SECOND
	V.CHENA KESAVA MUTHESWARA RAO	18-11-2023	GUDLAVALLERU ENGINEERING COLLEGE	KABADI	SECOND
	D.GOWRI SANKAR REDDY	18-11-2023	GUDLAVALLERU ENGINEERING COLLEGE	400MTS RUN	THIRD
	D.GOWRI SANKAR REDDY	18-11-2023	GUDLAVALLERU ENGINEERING COLLEGE	LONG JUMP	SECOND

**B. Events outside the state (3)**

Academic year	Name of the student	Date	Name of the event	Name of the sports participated	Prizes won (if any)
2023-24	B.GURULINGAM	26-05-2024	RV college of Engimeering	CRICKET	PARTICIPATION
	G.MANOHAR	24-11-2023	VNR VJIET	VOLLEY BALL	PARTICIPATION
	Y.RAJESH				
2022-23	A.NARESH	30-11-2022	RV college of Engimeering	HIGH JUMP	PARTICIPATION
	K.SHANMUKHA	01-12-2022		KABADDI	PARTICIPATION
	B.GURULINGAM				

2021-22	G.MANOHAR	22-03-2022	'Shruthi'-22 CBIT	VOLLEY BALL	PARTICIPATION	
	V.SHALEMU RAJU				PARTICIPATION	
	D.GOWRI SANKAR REDDY	23-03-2022		KABADDI	RUNNER	
	B.GURULINGAM				RUNNER	

**C. Prizes/awards received in such events (5)**

Academic year	Name of the student	date	Name of the event	Name of the sports participated	Prizes won (if any)
2023-24	CH.VENKATA KALYAN	03-4-2024	UNIVERSITY COLLEGE OF ENGINEERING'-NRT	VOLLEYBALL	SECOND
	I.RAMA KRISHNA				
	Y.RAJESH				
	G.MANOHAR	03-02-2024		VOLLEYBALL	FOURTH
	G.MANOHAR	16-02-2024		VOLLEY BALL	THIRD
	SK. SUBHANI	16-02-2024	R.V.R.&J.C.COLLEGE ENGINEERING	VOLLEY BALL	THIRD
	Y.KOTESWARA RAO	16-02-2024		VOLLEY BALL	THIRD
	A.NARESH	19-02-2024		HIGH JUMP	FIRST
	B.MANMADHA NAIK	UDGHOSH A2K24	CHALAPATHI INSTITUTE OF TECHNOLOGY	VOLLEY BALL	FIRST
2022-23	G.MANOHAR				
	V.SHALEMU RAJU	29-03-2023			
	B.GURULINGAM	18-11-2023		KABADI	SECOND
	K.SHANMUKHA	18-11-2023		KABADI	SECOND

V.CHENA KESAVA MUTHESWARA RAO	18-11-2023	GUDLAVALLERU ENGINEERING COLLEGE	KABADI	SECOND
D.GOWRI SANKAR REDDY	18-11-2023	GUDLAVALLERU ENGINEERING COLLEGE	400MTS RUN	THIRD
D.GOWRI SANKAR REDDY	18-11-2023	GUDLAVALLERU ENGINEERING COLLEGE	LONG JUMP	SECOND

## 5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Total Marks 194.84

Institute Marks :

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/ Assoc. Prof.).	Initial Date of Joining	Association Type	At present working with the Institution(Yes/ No)	In case of NO, Date of Leaving	IS HOD?
Dr. SRIHARI RAO KOMATINENI	AHHPK9247R	Ph.D	01/02/2013	ECE	62	0	0	Professor	06/01/2012	06/01/2012	Regular	Yes		Yes
CHEKURI VENUGOPALA CHOWDARY	AXFPV1084P	M.Tech	01/08/2017	ECE	0	0	0	Assistant Professor		01/06/2023	Regular	Yes		No
SESHAGIRI RAO SUGGUNA	DEOPS4571H	M.Tech	14/03/2016	ECE	0	0	0	Assistant Professor		02/06/2020	Regular	Yes		No
LAKSHMI DARSI	BUSPD1865K	M.Tech	29/12/2014	ECE	2	0	0	Assistant Professor		14/02/2017	Regular	No	06/05/2025	No
SUJATA KANDUKURI	ASKPK4364K	M.Tech	01/05/2004	ECE	6	0	0	Assistant Professor		26/06/2015	Regular	Yes		No
MANASA MANUKONDA	CAGPM8971A	M.Tech	02/03/2017	ECE	0	0	0	Assistant Professor		28/04/2017	Regular	Yes		No
NAGA JYOTHI VALETI	ATRPV1800B	M.Tech	02/03/2017	ECE	8	0	0	Assistant Professor		03/09/2019	Regular	Yes		No
PRAMEELA PODILI	BTRPP5257M	M.Tech	29/05/2020	ECE	0	0	0	Assistant Professor		12/02/2019	Regular	Yes		No
SRILAKSHMI PAMARTHI	FOIPP2075D	M.Tech	05/04/2019	ECE	0	0	0	Assistant Professor		01/01/2020	Regular	No	08/05/2025	No
SAI KUMAR GOPU	CFBPG9923C	M.Tech	04/06/2021	ECE	0	0	0	Assistant Professor		13/03/2023	Regular	Yes		No
SARIPUDI SUNEETHA	QPHPS2639M	M.Tech	29/10/2024	ECE	0	0	0	Assistant Professor		24/08/2022	Regular	No	08/05/2025	No
BINDU SRI MOKAMATAM	DXPPM3850M	M.Tech	21/05/2020	ECE	4	0	0	Assistant Professor		31/08/2021	Regular	Yes		No
YARRU SREEJA	MURPS2833L	M.Tech	24/07/2018	ECE	0	0	0	Assistant Professor		09/05/2022	Regular	Yes		No
SHAHANAJ SHAIK	GTAPS5001N	M.Tech	24/02/2017	ECE	0	0	0	Assistant Professor		09/01/2021	Regular	Yes		No
KANVITHA PENUMUTCHU	DCOPP4624Q	M.Tech	14/07/2017	ECE	0	0	0	Assistant Professor		09/01/2021	Regular	Yes		No
HANEEF SHAIK	FQDPS3325A	M.Tech	08/07/2022	ECE	0	0	0	Assistant Professor		09/05/2022	Regular	Yes		No
PAVANI VELAGA	ASLPV6028N	M.Tech	02/07/2013	ECE	0	0	0	Assistant Professor		26/12/2022	Regular	Yes		No

KIRAN KUMAR KOMARAPURI	CUHPK9709F	M.Tech	21/11/2014	ECE	0	0	0	Assistant Professor		28/12/2022	Regular	No	10/05/2025	No
TAMILVANAM M	BDXPT1598R	M.Tech	22/11/2016	ECE	0	0	0	Assistant Professor		09/06/2023	Regular	No	06/05/2025	No
BHEEMANA INDU LATHA	CHOPB4463R	M.Tech	01/06/2023	ECE	4	0	0	Assistant Professor		05/06/2023	Regular	Yes		No
VIJAY KUMAR ANKIPALLI	CYUPA3019H	M.Tech	20/02/2023	ECE	0	0	0	Assistant Professor		06/12/2023	Regular	Yes		No
CHODAVARAPU SATYANARAYANA MURTHY	APIPC7075C	M.Tech	28/01/2013	ECE	4	0	0	Assistant Professor		14/02/2022	Regular	No	08/05/2025	No
Dr. CHETTY KALAI SELVAN	BBZPK0581M	Ph.D	23/08/2018	ECE	8	0	0	Professor	29/08/2018	29/08/2018	Regular	Yes		No
GIRIDHAR BABU AMIRISETTY	BGQPA7840D	M.Tech	17/10/2011	ECE	0	0	0	Assistant Professor		23/02/2018	Regular	No	06/05/2025	No
MANOHAR PATRA	BNXPP9154K	M.Tech	15/03/2011	ECE	0	0	0	Assistant Professor		18/08/2022	Regular	Yes		No
AMALA PAYALA	BKOPP3138F	M.Tech	07/07/2008	ECE	2	0	0	Assistant Professor		09/01/2021	Regular	Yes		No
Dr. RAVI MANCHARLA	CDZPM3649D	Ph.D	04/09/2023	ECE	9	0	0	Associate Professor	05/06/2023	05/06/2023	Regular	Yes		No
SRAVYA DOPPALAPUDI	EGKPD8991P	M.Tech	02/08/2018	ECE	0	0	0	Assistant Professor		06/06/2018	Regular	Yes		No
LAKSHMINARAYANA MOGILI	ARJPX9955E	M.Tech	23/11/2015	ECE	0	0	0	Assistant Professor		28/12/2022	Regular	No	08/05/2025	No
MEENAKSHI BOLLU	AVAPB1718M	M.Tech	06/11/2014	ECE	0	0	0	Assistant Professor		29/08/2018	Regular	Yes		No
Dr. SAIDAIAH BANDI	AHLPB1060B	Ph.D	14/09/2017	ECE	10	0	0	Professor	19/01/2022	19/01/2022	Regular	Yes		No
MOPARTHY MARY JUNITHA	ASEPM5158P	M.Tech	19/11/2009	ECE	6	0	0	Assistant Professor		22/06/2009	Regular	Yes		No
Dr. JAMPANI KRISHNA KISHORE	AEWPJ3828H	Ph.D	04/10/2024	ECE	1	0	0	Professor	20/07/2023	20/07/2023	Regular	Yes		No
Dr. V. NAGA MALLESWARI	AGFPV0118D	Ph.D	01/11/2019	ECE	2	0	0	Professor	09/11/2020	09/11/2020	Regular	Yes		No
Dr. SANJAY DOLA	AIJPD0508K	Ph.D	15/05/2015	ECE	37	8	3	Professor	01/11/2021	01/11/2021	Regular	Yes		No
BABA FARIDDIN SHAIK	DRJPS6283L	M.Tech	06/04/2021	ECE	0	0	0	Assistant Professor		09/05/2022	Regular	No	08/05/2025	No
POTHULA TEJA	CDJPT2228K	M.Tech	24/03/2022	ECE	0	0	0	Assistant Professor		01/06/2023	Regular	No	07/05/2025	No
UJJIT BURADAGUNTA	DRJPS6283L	M.Tech	03/04/2023	ECE	0	0	0	Assistant Professor		01/07/2024	Regular	No	06/05/2025	No

VEERENDRANATH NUNE	AYGPN4082P	M.Tech	21/04/2022	ECE	0	0	0	Assistant Professor		16/06/2023	Regular	No	06/05/2025	No
SAI BANAVATHU	DWQPB6348H	M.Tech	11/03/2021	ECE	0	0	0	Assistant Professor		01/06/2023	Regular	No	10/05/2025	No
FAIROZE SHAIK	FEUPS3646D	M.Tech	06/04/2023	ECE	0	0	0	Assistant Professor		01/01/2024	Regular	No	10/05/2025	No
PRASANNA KUMAR THURUMELA	BUSPD1865K	M.Tech	12/07/2023	ECE	0	0	0	Assistant Professor		01/07/2024	Regular	No	08/05/2025	No
ANJANEYULU UMMANENI	AFDPU1254J	M.Tech	28/05/2014	ECE	0	0	0	Assistant Professor		09/05/2022	Regular	Yes		No
LALITHA GOGINENI	CKSPG9700M	M.Tech	15/06/2017	ECE	0	0	0	Assistant Professor		09/02/2021	Regular	Yes		No
AKHILA BOGGAVARAPU	DRQPB6379P	M.Tech	12/03/2021	ECE	1	0	0	Assistant Professor		09/02/2021	Regular	No	03/05/2024	No
TRIVENI LAKSHMI MARELLA	EPHPM2533E	M.Tech	09/04/2020	ECE	0	0	0	Assistant Professor		11/09/2020	Regular	No	08/05/2025	No
K MURALI BABU	BEGPK5272R	M.Tech	10/11/2005	ECE	0	0	0	Assistant Professor		09/01/2021	Regular	No	03/05/2024	No
B BHASKAR	DRJPS6283L	M.Tech	18/03/2021	ECE	0	0	0	Assistant Professor		28/12/2022	Regular	No	03/05/2024	No
RAMBABU CHEMAKURTHI	AWKPC1868N	M.Tech	04/05/2012	ECE	6	0	0	Assistant Professor		12/04/2017	Regular	Yes		No
V GAJENDRA KUMAR	AAMPG2168H	M.Tech	12/09/2002	ECE	0	0	0	Assistant Professor		09/01/2021	Regular	No	03/05/2024	No
VALLURI YAMINI DEVI	GBBPS2948B	M.Tech	17/03/2017	ECE	0	0	0	Assistant Professor		01/09/2018	Regular	No	03/05/2023	No
SATYANARAYANA DIVVELA	APQPD3328D	M.Tech	06/03/2012	ECE	2	0	0	Assistant Professor		06/01/2012	Regular	No	03/05/2023	No
CHAITANYA VUNNAVA	BADPV4745F	M.Tech	08/02/2019	ECE	2	0	0	Assistant Professor		20/08/2020	Regular	Yes		No
BALANARSIMHA NEERUDI	BUSPD1865K	M.Tech	23/06/2017	ECE	0	0	0	Assistant Professor		29/08/2018	Regular	No	04/05/2023	No
VANI VEERA	AQIPV5993B	M.Tech	13/07/2020	ECE	0	0	0	Assistant Professor		10/05/2021	Regular	No	03/05/2023	No
NEELIMA SARIPALLI	DRQPB6379P	M.Tech	20/04/2017	ECE	0	0	0	Assistant Professor		14/02/2018	Regular	No	03/05/2023	No
N. SHANTHI	BUSPD1865K	M.Tech	09/04/2020	ECE	0	0	0	Assistant Professor		09/01/2021	Regular	No	03/05/2023	No
D.VASANTHI	DRQPB6379P	M.Tech	18/06/2021	ECE	0	0	0	Assistant Professor		31/08/2021	Regular	No	04/05/2023	No

MALLADI SUMANTH	DRJPS6283L	M.Tech	10/04/2020	ECE	0	0	0	Assistant Professor		22/03/2021	Regular	No	03/05/2023	No
C.V. JAI KUMAR	CJLPB5181R	M.Tech	12/04/2019	ECE	0	0	0	Assistant Professor		31/08/2021	Regular	No	03/05/2023	No
V. ANJI KUMAR	AYHPP3809M	M.Tech	06/03/2020	ECE	0	0	0	Assistant Professor		22/03/2021	Regular	No	04/05/2023	No
VIJAYA DURGA	CSSPS1158M	M.Tech	23/08/2019	ECE	0	0	0	Assistant Professor		31/08/2021	Regular	No	03/05/2023	No
M. FRANCIES	AWVPM2459C	M.Tech	05/05/2011	ECE	0	0	0	Assistant Professor		22/03/2021	Regular	No	02/05/2023	No
BABU RAJAK SHAIK	LALPS0336R	M.Tech	17/09/2018	ECE	0	0	0	Assistant Professor		02/01/2023	Regular	No	02/05/2024	No
LAKSHMI DEVARAKONDA	CVQPD1454E	M.Tech	05/03/2020	ECE	0	0	0	Assistant Professor		09/03/2022	Regular	No	10/05/2025	No
VENKETESWARARAO VENTURUMILLI	ANBPV2526Q	M.Tech	12/04/2022	ECE	0	0	0	Assistant Professor		06/09/2023	Regular	Yes		No

5.1 Student-Faculty Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

## UG

No. of UG Programs in the Department 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	120	11	120	12	180	18
3rd Year	120	12	180	18	180	15
4th Year	180	18	180	15	180	4
<b>Sub-Total</b>	<b>420</b>	<b>41</b>	<b>480</b>	<b>45</b>	<b>540</b>	<b>37</b>
<b>Total</b>	<b>461</b>		<b>525</b>		<b>577</b>	
Grand Total	461		525		577	

## PG

No. of PG Programs in the Department 1

Digital Electronics & Communication Systems			
Year of Study	CAY(2024-25)		CAYm1(2023-24)
	Sanction Intake		Sanction Intake
1st Year	18		18
2nd Year	18		18
<b>Total</b>	<b>36</b>		<b>36</b>
Grand Total	36		36

## SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 1

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
Total No. of Students in the Department(S)	497 students	561 students	613 students
No. of Faculty in the Department(F)	48 <b>F1</b>	48 <b>F2</b>	46 <b>F3</b>
Student Faculty Ratio(SFR)	10.35 <b>SFR1=S1/F1</b>	11.69 <b>SFR2=S2/F2</b>	13.33 <b>SFR3=S3/F3</b>
Average SFR	11.79 <b>SFR=(SFR1+SFR2+SFR3)/3</b>		
<b>F=Total Number of Faculty Members in the Department (excluding first year faculty)</b>			

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

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

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

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2024-25)	48	0
CAYm1(2023-24)	48	0
CAYm2(2022-23)	46	0

Average SFR for three assessment years : 11.79

Assessment SFR : 20

#### 5.2 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)	2.00	5.00	5.00	1.00	16.00	42.00
CAYm1(2023-24)	3.00	5.00	6.00	0.00	18.00	43.00
CAYm2(2022-23)	3.00	5.00	6.00	0.00	20.00	41.00
Average Numbers	2.67	5.00	5.67	0.33	18.00	42.00

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

### 5.3 Faculty Qualification (25)

Total Marks 20.84

Institute Marks : 20.84

	X	Y	F	$FQ = 2.5 \times [(10X + 4Y) / F]$
2024-25(CAY)	6	43	24.00	24.17
2023-24(CAYm1)	5	44	28.00	20.18
2022-23(CAYm2)	5	42	30.00	18.17

Average Assessment : 20.84

### 5.4 Faculty Retention (25)

Total Marks 25.00

Institute Marks : 25.00

Description	2023-24	2024-25
No of Faculty Retained	34	31
Total No of Faculty	30	30
% of Faculty Retained	113	103

Average : 108.00

Assessment Marks : 25.00

### 5.5 Innovations by the Faculty in Teaching and Learning (20)

Total Marks 20.00

Institute Marks : 20.00

Faculty members of the ECE department adopt innovative teaching-learning practices in addition to conventional methods (chalk & board, sharing of materials, and questioning). These methods are designed to enhance student engagement, improve comprehension, and bridge the gap between theory and practice.

#### **A.The work must be made available on Institute Website**

Details of the teaching-learning methodologies followed by the department, along with academic resources, lesson plans, laboratory manuals, and innovative practices, are made available on the institute website <https://www.nriit.ac.in/>. This ensures transparency, accessibility, and continuous engagement for students, faculty, and stakeholders.

#### **B.The work must be available for peer review and critique**

The Department of ECE encourages a feedback culture wherein both students and faculty peers are invited to share their constructive feedback on the teaching-learning methodologies adopted by the department. This feedback mechanism helps in evaluating the effectiveness of classroom delivery, identifying areas for improvement, and integrating innovative practices. By considering suggestions from students and faculty peers, the department continuously enhances the quality of teaching, ensures better learning outcomes, and aligns its practices with the requirements of outcome-based education.

#### **C. The work must be reproducible and developed further by other scholars**

The academic work of the Department of ECE, including course materials, lesson plans, laboratory manuals, and student projects, is systematically documented and preserved. These academic resources are made available to enable other students and faculty members to reproduce the work, validate the learning outcomes, and build upon them for further academic development. Successive batches of students are encouraged to extend earlier projects and assignments, thereby enhancing subject understanding and promoting continuity in learning. This practice ensures that academic contributions are not only reproducible but also serve as a foundation for advanced learning and knowledge enhancement.

#### **D. Statement of clear goals, use of appropriate methods, significance of results, effective presentation and reflective critique**

The department follows a systematic academic framework with clearly defined goals aligned to Program Outcomes (POs) and Course Outcomes (COs). Faculty members set measurable objectives at the beginning of each course, ensuring that appropriate teaching-learning methodologies are adopted.

A mix of traditional (chalk & board, guided assignments) and innovative (Flipped classrooms, Project-based learning) methods are employed to achieve learning outcomes. The significance of these approaches is reflected in enhanced student performance, problem-solving ability, and participation in academic projects and competitions.

#### **Innovative Practices**

- Project-Based Learning: Students undertake mini and major projects in Antenna Design, IoT, VLSI, Signal/Image Processing.
- Integration of NPTEL Courses: NPTEL Courses (DSP, VLSI, Optical Fiber Communication, Embedded Systems) aligned with curriculum.
- In-house Workshops for Skill Development: Workshops were conducted in VLSI, Embedded Systems, and related domains.
- Interactive Learning Tools: Use of Google Classrooms, Google Forms for quizzes, and online discussions.
- Open Book Tests to improve critical and analytical skills.
- Seminars & Presentations: Students present curriculum/advanced topics to build confidence and communication skills.
- Industrial Visits to provide practical exposure and bridge industry-academia gap.
- Simulation-Based Learning: Adoption of software tools for visualizing theoretical concepts.
- Content Beyond Syllabus: Faculty deliver advanced topics to prepare students for higher studies and competitive exams.
- Cultivate Soft Skills: Students are exposed to develop skills that go beyond textbooks.
- Use of LCD projectors, NPTEL videos for interactive teaching.

#### **Framework for Implementation of Innovative Practices**

1. Selection of Method - Program Assessment Committee (PAC) identifies suitable innovative methods aligned with COs/POs.
2. Implementation - Faculty integrate chosen methods in classrooms/labs.
3. Feedback Collection - Students and peer faculty provide feedback.
4. Performance Evaluation - Monitoring student performance, participation, and learning outcomes.
5. Documentation & Reporting - Recording results for continuous improvement.
6. Diffusion of Best Practices - Sharing with other departments/institutions.

#### **Innovative Teaching Methods and Outcomes**

Table 5.5.1 Innovations done by faculty in Teaching and Learning

Innovative Method	Description	Outcomes Achieved
Think-Pair-Share	Students think individually, discuss with peers, and share with the class.	Encourages active participation, reflection, and collaboration.
Project-Based Learning	Long-term projects on real-world problems.	Enhances critical thinking, teamwork, and application of knowledge.
Mind Maps	Visual diagrams for concepts and connections.	Simplifies complex concepts, enhances retention.
Flipped Classroom	Students learn theory at home; class time used for problem-solving activities.	Improves understanding, problem-solving, and critical thinking.
Five-Minute Paper	Students write key takeaways at the end of class.	Provides feedback to faculty, improves reflection.
Collaborative Learning	Group-based problem solving and discussions.	Improves communication, teamwork, and deeper learning.

#### Strategies for Enhancing Student Learning and Engagement

- Revision Practice Tests (RPTs): Regular reinforcement of concepts.
- Peer Learning: Group-based discussions, problem-solving, and joint projects.
- Student Seminars: Presentations on curriculum/advanced topics for improved communication skills.

#### Monitoring of Effectiveness

- Continuous monitoring of student performance through assignments, mid-term exams, and lab work.
- Slow learners identified and supported through remedial classes.
- Comprehensive Student Monitoring System (CSMS) with attendance, internal assessment, and parental updates via calls.
- Counselors track academic progress and provide mentoring support.

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#### 5.6 Faculty as participants in Faculty development/training activities/STTPs (15)

Total Marks 15.00

Institute Marks : 15.00

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Name of the faculty	Max 5 Per Faculty		
	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
Dr. SANJAY DOLA S	5.00	5.00	5.00
Dr. SRIHARI RAO KOMATINENI	5.00	5.00	5.00
Dr. CHETTY KALAI SELVAN	5.00	5.00	5.00
Dr. B. Saidaiyah	5.00	5.00	5.00
Dr. JAMPANI KRISHNA KISHORE	5.00	0.00	0.00
Dr. V. NAGA MALLESWARI	5.00	5.00	5.00
Dr. RAVI MANCHARLA	5.00	0.00	0.00
SUJATA KANDUKURI	5.00	5.00	5.00
NAGA JYOTHI VALETI	5.00	5.00	5.00
MANOHAR PATRA	5.00	5.00	0.00
AMALA PAYALA	2.00	2.00	1.00
SRAVYA DOPPALAPUDI	2.00	1.00	2.00
MOPARTHY MARY JUNITHA	5.00	5.00	5.00
RAMBABU CHEMAKURTHI	3.00	3.00	3.00
CHAITANYA VUNNAVA	2.00	2.00	2.00
CHEKURI VENUGOPALA CHOWDARY	2.00	0.00	0.00
SESHAGIRI RAO SUGGUNA	3.00	2.00	2.00
PRAMEELA PODILI	3.00	3.00	3.00
BINDU SRI MOKAMATAM	5.00	5.00	5.00
BHEEMANA INDU LATHA	5.00	5.00	5.00
MANASA MANUKONDA	3.00	3.00	3.00
SAI KUMAR GOPU	4.00	0.00	0.00
YARRU SREEJA	2.00	2.00	0.00

SHAHANAJ SHAIK	3.00	2.00	2.00
PAVANI VELAGA	2.00	3.00	0.00
VIJAY KUMAR ANKIPALLI	3.00	0.00	0.00
LALITHA GOGINENI	3.00	3.00	3.00
MEENAKSHI BOLLU	3.00	3.00	3.00
ANJANEYULU UMMANENI	3.00	3.00	0.00
KANVITHA PENUMUTCHU	3.00	3.00	3.00
HANEEF SHAIK	3.00	3.00	0.00
Sum	114.00	93.00	77.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	24.85	28.05	30.65
Assessment [3*(Sum / 0.5RF)]	27.53	19.89	15.07

Average assessment over 3 years: 20.83

**5.7 Research and Development (30)**

Total Marks 29.00

**5.7.1 Academic Research (10)**

Institute Marks : 10.00

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

**A. Number of quality publications in referred/SCI Journals, citations, Books/Book Chapters etc.**

**Table 5.7.1 Publication Details Journals-Conferences**

Year	Journals	Conferences
2022-2023	62	06
2023-2024	79	00
2024-2025	37	01

**Table 5.7.2 Last 3 Years Publication Details**

Year: 2022-2023						
Faculty Name	Title of Research Paper	Journal ( Name, Volume, Issue & Page Nos)	Authors & Co Author	IJ/NJ	ISSN / ISBN & Country	Month&Year
Dr. Dola Sanjay S	GSM based automatic security system	Anveshana's International Journal of Research in Engineering and Applied Sciences, [AIJREAS], volume 7, issue 6 (2022, june)	Saidaiah Bandi, Dola Sanjay.S, G.Tejaswi, G.Lakshmi Prasanna, J.Naga Satyadeep, M.Srinivas	IJ	ISSN-2455-6300	June-2022
	Foot-step power generator system	Anveshana's International Journal of Research in Engineering and Applied Sciences, [AIJREAS], volume 7, issue 6 (2022, june)	B.Saidaiah, Dola Sanjay S, S.Ravindra Mani, Surabhi, S.Dinesh, P.Naga Anil Kumar	IJ	ISSN-2455-6300	June-2022
	Design and simulation of ultra wide and narrow band antenna for c-band and x-band applications	Anveshana's International Journal of Research in Engineering and Applied Sciences, [AIJREAS], volume 7, issue 6 (2022, june)	B.Saidaiah, Dola Sanjay.S, P. Triveni, V. Naga Deepika, V. Kali Krishna Nikhil, Venkata Naga siva sai	IJ	(ISSN-2455-6300)ONLINE	June-2022

**Table 5.7.3 Last 3 Years Conference Details**

Advanced library management system using smartr card	Anveshana's International Journal of Research in Engineering and Applied Sciences, volume 7, issue 5 (2022, may)	K. Sri Hari Rao. S. Dola Sanjay, L.Leelavathi, IJ(ISSN-2455-6300)		May-2022
Greenhouse Monitoring And Controlling System	Anveshana's International Journal of Research in Engineering and Applied Sciences, Volume 7, Issue V, May 2022	C. Kalai Selvan, Dola Sanjay S, D.Siva kumara, S.Dharani, P.Sunil babu, V.Akhil Kumar,	IJISSN:2455-6300	May-2022
Analysis And Design Of Security System Using Temperature And Humidity Sensors	Anveshana's International Journal of Research in Engineering and Applied Sciences, ISSN:2455-6300, Volume 7, Issue V, May 2022.	Dola Sanjay S, I. Hemasri, K. Haripriya, K. Chandu, K. Kishore	IJISSN:2455-6300	May -2022
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Development Of Environmental Monitoring System For Real Time Applications	AIJREAS, ONLINE Anveshana's International Journal of Research in Engineering and Applied Sciences, Volume 7, Issue V, May 2022.	K Sri Hari Rao, Dola Sanjay S, N.HemaSri, K.Naga Tarun Kumar, K.Anusha, K.Saidhu Babu,	IJISSN:2455-6300	May-2022
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Implementation Of Smart Shopping Cart	AIJREAS, ONLINE Anveshana's International Journal of Research in Engineering and Applied Sciences, Volume 7, Issue V, May 2022	B.Akhila, Dola Sanjay S, M.Dharani, A.Jyothi Sailakshmi, CH.Ashok Kumar, CH.Sandeep Kumar,	IJISSN:2455-6300,	May-2022
Intelligent Arduino Method To Avoid Train Accident	AIJREAS, ONLINE Anveshana's International Journal of Research in Engineering and Applied Sciences, Volume 7, Issue V, May 2022.	Ch.V.S.N.Murthy, Sk.Mahabooni, T.Dinesh Sai, Dola Sanjay S, V.Venkata Sai Priya, V.Sesha Manikanta	IJISSN:2455-6300	May-2022

	IOT Based Smart Helmet With Saftey Applications	AIJREAS, ONLINE Anveshana's International Journal of Research in Engineering and Applied Sciences,Volume 7, Issue V, May 2022.	Ch. V.S.N. Murthy, Dola Sanjay S, B. Naga Vyshnavi, N. Lakshmi Naga Manikanta, J. Prakash Chandra, K. Pavan Kumar	IJ ISSN:2455-6300,	May-2022
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	Underground Drainage Monitoring System	Anveshana's International Journal of Research in Engineering and Applied Sciences, Volume 7, Issue V, May 2022	K Sri Hari Rao, Dola Sanjay S, Sk. BAJI, R. Vijay Kumar, V. Durga Bhavani, P. Roopasri	IJ ISSN:2455-6300	May-2022
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Exam control room smart security system using Arduino	IRJET ,Volume:11 Issue :03, march 2023	K.Srihari Rao	IJe-ISSN: 2395-0056	March -2023
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	<b>Fingerprint Based Attendance System By Using GSM</b> <b>Anveshana's International Journal of Research in Engineering and Applied Sciences, Volume 7, Issue V, May 2022</b>	C. Kalaiselvan, Dola Sanjay S, D. Giridhar, M. Sarvan, D. Sravani, B. Aditya,	IJ	ISSN:2455-6300	May-2022
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	<b>High Throughput and Energy Efficient Belief Propagation Polar Code Decoder,</b>  <b>International Journal of Innovative Research in Science, Engineering and Technology, Volume 12, Issue 13, April 2023, pp.530-537</b>	C.Ravichandran,M r.C.E.Mohankumar, S.A.Yuvaraj, Dr.C.Kalaiselvan	IJ	e-ISSN: 2319-8753	April-2023
Dr. Saidaiah Bandi	<b>GSM based automatic security system</b>  <b>Anveshana's International Journal of Research in Engineering and Applied Sciences, [AJREAS], volume 7, issue 6 (2022, june)</b>	Saidaiah Bandi, Dola Sanjay.S, G.Tejaswi, G.Lakshmi Prasanna, J.Naga Satyadeep, M.Srinivas	IJ(ISSN-2455-6300)		June-2022
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Dr. J. Krishna Kishore	A Design of a Reactive Power Management System	Mathematical Statistician and Engineering Applications, Page Number: 13366 – 13378 Publication Issue: Vol 71 No. 4 (2022)	J. Krishna Kishore, B.V. Sanker Ram	IJISSN:2094-0343 2326-9865	Dec-2022
Dr. M. Ravi	Optimal Resource Allocation and Data Communication in 5G and Beyond with a Cell-Free IoTs Systems	IEEE COMSOC MMTC Communications – Frontiers, Vol. 17, No. 6, November 2022	M. Ravi ,Tasher Ali Sheikh, Yaka Bulo	IJNot have an official ISSN or DOI	Nov-2022
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	Throughput and Error Probability Improvement in Downlink Communication Based on MIMO-NOMA Using Reconfigurable Intelligent Surface (RIS)	International journal of communication systems,volume 36,Issue 9,April 2023	M. Ravi ,Tasher Ali Sheikh, Yaka Bulo	IJDOI:10.1002/dac.5470	April-2023
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Ms. B.Akhila	Implementation Of Smart Shopping Cart	AIJREAS, ONLINE Anveshana's International Journal of Research in Engineering and Applied Sciences, Volume 7, Issue V, May 2022	B.Akhila, Dola Sanjay S, M.Dharani, A.Jyothi Sailakshmi, CH.Ashok Kumar, CH.Sandeep Kumar,	IJISSN:2455-6300,	May-2022
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Dr. Dola Sanjay S	A Proposed Method On Waste To Energy Conversion	Gradiva Review Journal, Volume 9, Issue 7, July 2023, PP:462-464.	Dola Sanjay S , Umarani TG , Sujata Eresimi , Praveen Kumar PR , Ullas KPM, Sabhji Mandi Se Roshnee	IJ ISSN NO : 0363-8057	July-2023
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	Modern deep learning algorithms for speech recognition algorithm reliability evaluation	ZKG International, Volume VIII Issue II Oct 2023, PP:228-239.	Garaga Srilakshmi , Alok Agarwal , Dola Sanjay S	IJ ISSN: 2366-1313	Oct-2023
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Fingerprint door lock system using arduino	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024	B. Indu Latha, K.Srihari Rao, Bhavanam.Eswari, Kotha Sravya, Ketaraju Yashwanth Kumar, Durisala Chamundeswari	IJ ISSN NO: 0022-1945	April-2024

Iot street light monitoring system for vehicle movement on highways	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/ 2024	K. Sri hari rao, B.Indulatha, T.Hemalatha, T. Sai Pardhiv, U. Ramu.	IJ ISSN NO: 0886-936735	April-2024
Green leaf disease detection and identification using Raspberry Pi	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/2024	E. V. Santhi., K.Srihari rao, Ramisetty Sri Nikhitha, Patibandla Mona,Ravuri Gopi, V. Hari Hara	IJ ISSN NO: 0886-9367, [DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907259 ( <a href="https://drive.google.com/file/d/11or1C21wbtCxX56zMWVWdKv9ILSOtiqY/view?usp=sharing">https://drive.google.com/file/d/11or1C21wbtCxX56zMWVWdKv9ILSOtiqY/view?usp=sharing</a> )]	April-2024
Earth quake prediction using machine learning	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024	M. Ravi, K.Srihari rao, K Murali Krishna, G Karthik, G Monika, N Yaswanth	IJ ISSN NO: 0022-1945 DOI:18.0002.JICR.2024.V16I4.008301.317123734530390 ( <a href="https://drive.google.com/file/d/13envVnnvCPqnYDyKKhMfZ2bewCT_U6B0/view?usp=sharing">https://drive.google.com/file/d/13envVnnvCPqnYDyKKhMfZ2bewCT_U6B0/view?usp=sharing</a> )	April-2024
Heart stroke identification by heart beat sensing using IOT	The international journal of analytical and experimental modal analysis, Volume XVI, IssueIV,April/ 2024	K. Srihari rao, Saidaiah bandi, R. Yoga sri, Y.N.S. Padma Sri, S. Masiuddin, V.V. Gowtham,	IJ ISSN NO:0886-9367	April -2024
Design and development Arduino based fire detection and control system with IOT application	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/2024.	K. Srihari rao, C. Kalaiselvan,Ch.Deepika,Ch Arun kumar, G.B. Surya sai, D Sandip.	IJ ISSN NO: 0886-936735,[ DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907198 ( <a href="https://drive.google.com/file/d/1mWaCpeCNtDbGIglowivOa9FAbVduTwX2/view?usp=sharing">https://drive.google.com/file/d/1mWaCpeCNtDbGIglowivOa9FAbVduTwX2/view?usp=sharing</a> )]	April-2024
Home automation for disabled person using BLYNK app	Journal of Interdisciplinary Cycle Research (JICR),Volume XVI, Issue III, March 2024	Saidaiah Bandi, K. Srihari Rao, Gadde Gopi, Jammula Praveen, Manchala Tejaswini, Muthukuru Sumanth	IJ ISSN NO; 0022-1945	April-2024
Circular microstrip patch antenna for WLAN applications	International Research Journal of Engineering and Technology (IRJET), Volume 11, Issue 03, March 2024.	Ch. V. S. Murthy K. Sri Hari Rao S. Kalyani P. Samba Siva Rao P. Adithya S. Siva Nagi Reddy	IJ e-ISSN / p-ISSN: 2395-0056 / 2395-0072	March-2024

Home automation system using google assistant	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/2024	M. M. Junitha, K.Srihari Rao, P Kalyani, P Lakshmi Prasanna, V Siva Venkateswara Rao, T Ankamma Rao	IJ	ISSN NO: 0886-9367 ,DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907260 ( <a href="https://drive.google.com/file/d/1Um21dxPpclbVMlmNN4dv79l3Sxo6ZW4X/view?usp=sharing">https://drive.google.com/file/d/1Um21dxPpclbVMlmNN4dv79l3Sxo6ZW4X/view?usp=sharing</a> )	April-2024
Auto power supply control from 4 different sources	The International Journal of Analytical and Experimental Modal Analysis (IJAEMA), Volume XVI, Issue III (March 2024)	K. Sujata, Dr. K. Srihari Rao, V. Naga Anusha, T. Rajesh, V. Harika, Sk. Fayaz;	IJ	ISSN NO: 0886-9367, DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790713	March-2024
Mamdani and Sugeno Fuzzy inference system based multi modal medical image fusion	International Research Journal of Engineering and Technology (IRJET), Volume 11, Issue 03 (March 2024)	K. Srihari Rao, Ch. Rambabu, P. Sri Lakshmi Prasanna, T. Siva, P. Sohayb Khan, Sk. Nagulu	IJ	e-ISSN: 2395-0056 p-ISSN: 2395-0072	March-2024
Industrial parameters monitoring and controlling system based on embedded web server	The international journal of analytical and experimental modal analysis, Volume XVI, Issue III (March 2024).	M. Ravi, K. Srihari Rao, Savarala Gopaiyah, T. Venkata Prudhvi Charan Teja	IJ	ISSN No.: 0886-9367[DOI 18.0002.IJAEMA.2024.V16I3.200001.015685971790710]	March-2024
IOT based garbage monitoring system	Journal of interdisciplinary cycle research, Volume XVI, Issue IV (April 2024)	M.M.Junitha, K. Srihari rao, Jaladi Sri Sai Rohith, Gorre Mounika, Gorrepatti Naga Vamsi, Divvela Sujatha Lakshmi	IJ	ISSN NO: 0022-1945, DOI:18.0002.JICR.2024.V16I4.008301.317123734530391 ( <a href="https://drive.google.com/file/d/11rvsDahCcJZs-9jbZfUYlvYOluj2G7nx/view?usp=sharing">https://drive.google.com/file/d/11rvsDahCcJZs-9jbZfUYlvYOluj2G7nx/view?usp=sharing</a> )	April-2024
Motion and RFID based door opener with metal detector	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/2024	B.Saidaiah, K. Srihari rao, Kichamsetti Ashok, Dorsila Srinivasa Bhavani, Medarametla Neeraja, Kotaru Lakshmana Vamsi	IJ	ISSN NO: 0886-9367, DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907257 ( <a href="https://drive.google.com/file/d/1DsF_kHPtMP0mX59P5LXAITD2g7IfLBnq/view?usp=sharing">https://drive.google.com/file/d/1DsF_kHPtMP0mX59P5LXAITD2g7IfLBnq/view?usp=sharing</a> )	April-2024
Design and implementation of solar panel PV for multiple devices	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue III (March 2024).	K. Sujata, K. Srihari Rao, Chinni Gopi Krishna Sai, Mandhadapu Pavani, Mannem Saketh	IJ	ISSN: 0022-1945, DOI: 18.0002.JICR.2024.V16I3.008301.3171237345303835	March-2024

Alzheimer's disease prediction using deep learning	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024.	M. Bindu sri, K. Sri harirao, K. Vijay Shankar, K. Sandeep, B. Manasa, G. Akshantha rao	IJ	ISSN NO: 0022-1945,DOI:18.0002.JICR.2024.V16I4.008301.317123734530410 ( <a href="https://drive.google.com/file/d/1Mis4ey-mNvKjSbBzf-nZx-oKBxrQ4OTH/view?usp=sharing">https://drive.google.com/file/d/1Mis4ey-mNvKjSbBzf-nZx-oKBxrQ4OTH/view?usp=sharing</a> )	April-2024
System design of turbo encoder module for in-vehicle	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/2024	K.Srihari Rao, P.Gangadhar, K.Hemanth, P.Venkata Karthik, P.Sai kumar	IJ	ISSN NO: 0886-9367,[ DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907221 ( <a href="https://drive.google.com/file/d/1XSeRZpWWcBh8krgctiN4ap6hwfLQ9A/view?usp=sharing">https://drive.google.com/file/d/1XSeRZpWWcBh8krgctiN4ap6hwfLQ9A/view?usp=sharing</a> )]	April-2024
Design and development of patient heart beat and health conditions monitoring system using IOT	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/2024	K.Srihari Rao,,C.Kalai Selvan, M.Mounika, T.Sravya, P.Ahmed Ali Khan ,Y.Balaji	IJ	ISSN NO: 0886-9367 DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907237 ( <a href="https://drive.google.com/file/d/1PnCCS7iPbDnMXtC_R2YcRMYc4fHUmgvz/view?usp=sharing">https://drive.google.com/file/d/1PnCCS7iPbDnMXtC_R2YcRMYc4fHUmgvz/view?usp=sharing</a> )	April-2024
VLSI implementation of error detection and correction codes for space engineering	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue III (March 2024)	Ch. Rambabu, K. Srihari Rao, Narala Vamsi Krishna, Sanikommu Srinu, Thullimilli Gowtham, S. Venkata Sai Nadh Reddy	IJ	ISSN: 0022-1945, DOI: 18.0002.JICR.2024.V16I3.008301.3171237345303838	March-2024
Design and fabrication of power generation using piezo electric sensors	The International Journal of Analytical and Experimental Modal Analysis, Volume XVI, Issue III (March 2024)	K. Srihari Rao, K. Jyothsna, S. M. V. Gopinadh, L. Anupa, P. Raheem, Sk. Asif	IJ	ISSN: 0886-9367 DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790705	March-2024
Underground cable fault detection using Arduino micro controller	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue III (March 2024)	E. V. Santhi, K. Srihari Rao, Jeldi Pavan Kumar, Kotturi Venkatesh, Bandlamudi Manochandra, Gangireddy Narendra Reddy	IJ	ISSN: 0022-1945, DOI: 18.0002.JICR.2024.V16I3.008301.3171237345303836	March-2024
RFID based student attendance management system	The International Journal of Analytical and Experimental Modal Analysis (IJAEMA), Volume XVI, Issue III (March 2024)	M. Ravi, K. Srihari Rao, B. Akhila, J. Aravind Sai; B. Venkata Rajesh; B. Pooja	IJ	ISSN: 0886-9367 DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790712	March-2024

Implementation of system for leakage protection of answer script using finger print	The International Journal of Analytical and Experimental Modal Analysis, Volume XVI, Issue III (March 2024)	K. Sujata; K. Srihari Rao; Pathapati Anuradha; Yakkanti Maheswara Reddy; Nemalithoka Pavan Kalyan; Usarthy Venkatasiva	IJ	ISSN: 0886-9367, DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790694	March-2024
A dual-band circularly polarized patch array antenna for phase-only beam shaping with element rotation	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue III (March 2024)	Ch. V. S. N. Murthy; K. Srihari Rao; D. Narasimha Rao; D. Kavitha; A. Sangeetha; G. Sirisha	IJ	ISSN: 0022-1945, DOI: 18.0002.JICR.2024.V16I3.008301.3171237345303834	March-2024
Advanced electronic voting system	Journal of information and computational science, Volume 14 Issue 04 – 2024.	K. Sri Hari Rao, B Anusha, CH Lokesh Sai Nadha ready, N Soma Sekhar, G Veera Babu	IJ	ISSN: 1548-7741, DOI:10.12733.JICS.2024.V14I04.535569.10001 ( <a href="https://drive.google.com/file/d/17PEvmyf7WQOiblPTFYwBLGZcO65SagJy/view?usp=sharing">https://drive.google.com/file/d/17PEvmyf7WQOiblPTFYwBLGZcO65SagJy/view?usp=sharing</a> )	April-2024
Intelligent shopping trolley using RFID based on IOT	he International Journal of Analytical and Experimental Modal Analysis, Volume XVI, Issue III (March 2024)	M. M. Junitha; K. Srihari Rao; Karasala Janaki Abhinaya; Mogulurilakshmi Revanth Kumar; Kolikineni Tejaswini; Gangavarapu Siva Sankar	IJ	ISSN: 0886-9367, DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790711	March-2024
Smart agriculture using iot and raspberry-pi	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/2024	K. Srihari rao, M.Vedavathi, B. Jayanth Reddy, Md. Basheer, M.Shiva Saiteja	IJ	ISSN NO: 0886-9367, DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907302 ( <a href="https://drive.google.com/file/d/1N8_x5FIE4uEd1oRdKc5iN5ZF4-J3sk-f/view?usp=sharing">https://drive.google.com/file/d/1N8_x5FIE4uEd1oRdKc5iN5ZF4-J3sk-f/view?usp=sharing</a> )	April-2024
Sign language to text converter	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024	Ch. Rambabu, K. Srihari Rao, Kshatri Rishwanth singh, Odela Naveen, P Chandra Sekhar reddy	IJ	ISSN NO: 0022-1945,	April-2024
Dr.C.Kalai Selvan	Design and development Arduino based fire detection and control system with IOT application	The International journal of analytical and experimental modal analysis, Volume XVI, Issue IV,April/2024.	IJ	ISSN NO: 0886-936735,[ DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907198 ( <a href="https://drive.google.com/file/d/1mWaCpeCNtDbGlGlowivOa9FAbVduTwX2/view?usp=sharing">https://drive.google.com/file/d/1mWaCpeCNtDbGlGlowivOa9FAbVduTwX2/view?usp=sharing</a> )]	April-2024

Dr. Saidaiah Bandi	Novel design and implementation of AES with LFSR key for improving data security	International Journal for Multidisciplinary Research (IJFMR); IJFMR: Vol 5, Issue 6 (Nov-Dec 2023); ResMilitaris: Vol 13, No. 4 (Spring 2023)	K. Srihari Rao; Saidaiah Bandi; M. Rakesh	IJ	DIO: 10.36948/ijfmr.2023.v05i06.10796, E-ISSN: 2582-2160 (IJFMR)	Dec-2023
	Exam Room Guide With attendance Management system	International Journal of Analytical and experimental modal Analysis, Volume XV, Issue VIII, August/2023	Kalisetty Sreeja, Saidaiah Bandi.	IJ	ISSN:0886-9367	August-2023
	IOT based automatic bus fare Collection system using GPS and RFID	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue III, March/2024	Kalisetty Sreeja, Saidaiah Bandi.	IJ	ISSN NO: 0022-1945	March-2024
Dr. V. Naga Malleswari	Analysis of a bi-directional power converter of electric vehicle	Journal of Systems Engineering and Electronics, Volume 33 ISSUE 10 2023	Vericherla N Malleswari , Jyothilal Nayak Bharothu , Madhu Kiran.B,Srinivasarao .M , Kishor Babu Gunti	IJ	(ISSN NO: 1671-1793)	Aug-2023
	Analysis of battery management system for electric vehicles	Mukt Shabd Journal, Volume XII, Issue VI, JUNE/2023	Vericherla N Malleswari , Kishor Babu Gunti.	IJ	ISSN NO : 2347-3150	June-2023
Dr.M. Ravi	NOMA-ARQ scheme: A Gate way for Efficient performance of the network	Springer link, Wireless Personal Communications journal,Volume:132,Issue: 1, Pages: 1-15,(2023)August 08	Macharla Ravi and Yaka Bulo	IJ	DOI:10.1007/s11277-023-10481-6 ( <a href="http://dx.doi.org/10.1007/s11277-023-10481-6">http://dx.doi.org/10.1007/s11277-023-10481-6</a> )	Aug-2023
	Earth quake prediction using machine learning	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024	M. Ravi, K.Srihari rao, Murali Krishna, Karthik, G Monika, N Yaswanth	IJ	ISSN NO: 0022-1945 DOI:18.0002.JICR.2024.V16I4.008301.317123734530390 ( <a href="https://drive.google.com/file/d/13envVnnvCPqnYDyKKhMfZ2bewCT_U6B0/view?usp=sharing">https://drive.google.com/file/d/13envVnnvCPqnYDyKKhMfZ2bewCT_U6B0/view?usp=sharing</a> )	April 2024
	Industrial parameters monitoring and controlling system based on embedded web server	The international journal of analytical and experimental modal analysis, Volume XVI, Issue III (March 2024).	M. Ravi; K. Srihari Rao; Savarala Gopaiyah; T. Venkata Prudhvi Charan Teja	IJ	ISSN No.: 0886-9367[DOI 18.0002.IJAEMA.2024.V16I3.200001.015685971790710]	March-2024

	RFID based student attendance management system	The International Journal of Analytical and Experimental Modal Analysis (IJAEMA), Volume XVI, Issue III (March 2024)	M. Ravi; K. Srihari Rao; B. Akhila; J. Aravind Sai; B. Venkata Rajesh; B. Pooja	IJ	ISSN: 0886-9367 DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790712	March-2024
Mrs.K. Sujata	Implementation of system for leakage protection of answer script using finger print	The International Journal of Analytical and Experimental Modal Analysis, Volume XVI, Issue III (March 2024)	K. Sujata; K. Srihari Rao; Pathapati Anuradha; Yakkanti Maheswara Reddy; Nemalithoka Pavan Kalyan; Usarthi Venkatasiva	IJ	ISSN: 0886-9367, DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790694	March-2024
	Design and implementation of solar panel PV for multiple devices	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue III (March 2024).	K. Sujata; K. Srihari Rao; Chinni Gopi Krishna Sai; Mandhadapu Pavani; Mannem Saketh	IJ	ISSN: 0022-1945, DOI: 18.0002.JICR.2024.V16I3.008301.3171237345303835	March-2024
	Auto power supply control from 4 different sources	The International Journal of Analytical and Experimental Modal Analysis (IJAEMA), Volume XVI, Issue III (March 2024)	K. Sujata, K. Srihari Rao, V. Naga Anusha, T. Rajesh, V. Harika, Sk. Fayaz;	IJ	ISSN NO: 0886-9367, DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790713	March-2024
	Airtificial intelligence based attendance system by using scanner	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024	K. Sujatha, K. Sri Hari Rao, Allu Lakshmi Triveni, G. Indranag, Bolla Nikitha Sai, Avancha Karthik Bhat	IJ	ISSN NO: 0022-1945	April-2024
Mrs. Naga Jyothi Valeti	Device simulation of $\text{CH}_3\text{NH}_3\text{PbI}_3-\text{xCl}_x$ based mixed halide perovskite thin film solar cells	Materials Today: Proceedings, 2214-7853	Naga Jyothi Valeti, Krishna Prakash, Monoj Kumar Singha	IJ	<a href="https://doi.org/10.1016/j.matpr.2023.07.057">https://doi.org/10.1016/j.matpr.2023.07.057</a> ( <a href="https://doi.org/10.1016/j.matpr.2023.07.057">https://doi.org/10.1016/j.matpr.2023.07.057</a> )	July-2024
	Numerical simulation and optimization of lead free $\text{CH}_3\text{NH}_3\text{SnI}_3$ perovskite solar cell with $\text{CuSbS}_2$ as HTL using SCAPS 1D	Results in Optics ( <a href="https://www.sciencedirect.com/journal/results-in-optics">https://www.sciencedirect.com/journal/results-in-optics</a> ) Volume 12 ( <a href="https://www.sciencedirect.com/journal/results-in-optics/vol/12/suppl/C">https://www.sciencedirect.com/journal/results-in-optics/vol/12/suppl/C</a> ), July 2023, 100440 ,2666-9501.	Naga Jyothi Valeti, Krishna Prakash, Monoj Kumar Singha	IJ	<a href="https://doi.org/10.1016/j.rio.2023.100440">https://doi.org/10.1016/j.rio.2023.100440</a> ( <a href="https://doi.org/10.1016/j.rio.2023.100440">https://doi.org/10.1016/j.rio.2023.100440</a> )	July-2023

	Numerical investigation of CuSbS <sub>2</sub> thin film solar cell using SCAPS 1D: enhancement of efficiency on experimental films by defect studies	Materials Research Express, Volume 11 ( <a href="https://iopscience.iop.org/volume/2053-1591/11">https://iopscience.iop.org/volume/2053-1591/11</a> ), Number 4 ( <a href="https://iopscience.iop.org/issue/2053-1591/11/4">https://iopscience.iop.org/issue/2053-1591/11/4</a> )	Naga Jyothi Valeti , Krishna Prakash, Monoj Kumar Singha , and ArvindKumar,	IJ	DOI 10.1088/2053-1591/ad371a	April-2024
	Modeling and optimization of numerical studies on CuSbS <sub>2</sub> thin film solar cell with ~ 15% efficiency	Optik ( <a href="https://www.sciencedirect.com/journal/optik">https://www.sciencedirect.com/journal/optik</a> ) Volume 300 ( <a href="https://www.sciencedirect.com/journal/optik/vol/300/suppl/C">https://www.sciencedirect.com/journal/optik/vol/300/suppl/C</a> ), April 2024, 171632	Krishna Prakash, , Naga Jyothi Valeti, Bodem Indraja, Monoj Kumar Singha	IJ	<a href="https://doi.org/10.1016/j.ijleo.2024.171632">https://doi.org/10.1016/j.ijleo.2024.171632</a>	Jan-2024
Ms.M. Bindu Sri	Facial Attendance System using Flask,	IRJET (International Research Journal of Engineering and Technology), Volume: 11 Issue: 04   Apr 2024	M.Bindu Sri, K.Srihari rao, T.Anvitha, V.Anusha, N.Raj Kamal, T.Jayadweep	IJ	e-ISSN: 2395-0056, p-ISSN: 2395-0072	April-2024
	Alzheimer's disease prediction using deep learning	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024.	M. Bindu Sri, K. Srihari rao, K. Vijay Shankar, K. Sandeep, B. Manasa, G. Akshantha rao	IJ	ISSN NO: 0022-1945,DOI:18.0002.JICR.2024.V16I4.008301.317123734530410 ( <a href="https://drive.google.com/file/d/1Mis4ey-mNvKjSbBzf-nZx-oKBxrQ4OTH/view?usp=sharing">https://drive.google.com/file/d/1Mis4ey-mNvKjSbBzf-nZx-oKBxrQ4OTH/view?usp=sharing</a> )	April-2024
Mrs.B.Indulatha	IOT street light monitoring system for vehicle movement on high ways	The international journal of analytical and experimental modal analysis,Volume XVI, Issue IV, April 2024	K.Srihari rao, B.Indulatha, T.Hemalatha, T.Sai Pardhiv,U.Ramu	IJ	ISSN NO: 0886-936735	April-2024
	Fingerprint door lock system using arduino	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024	B. Indu Latha, K.Srihari Rao, Bhavanam Eswari, Kotha Sravya, Ketaraju Yashwanth Kumar, Durisala Chamundeswari	IJ	ISSN NO: 0022-1945	April-2024

Mr .Ch. V. S. N. Murthy	A dual-band circularly polarized patch array antenna for phase-only beam shaping with element rotation	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue III (March 2024)	Ch. V. S. N. Murthy; K. Srihari Rao; D. Narasimha Rao; D. Kavitha; A. Sangeetha; G. Sirisha	IJ ISSN: 0022-1945, DOI: 18.0002.JICR.2024.V16I3.008301.3171237345303834	March-2024
	Circular microstrip patch antenna for WLAN applications	International Research Journal of Engineering and Technology (IRJET), Volume 11, Issue 03, March 2024.	Ch. V. S. Murthy K. Sri Hari Rao S. Kalyani P. Samba Siva Rao P. Adithya S. Siva Nagi Reddy	IJ e-ISSN / p-ISSN: 2395-0056 / 2395-0072	March-2024
Mr. Ch. Rambabu	Smart Glove for Sign Language Translation Using Arduino	Journal of interdisciplinary cycle research, Volume XVI, Issue IV (April 2024).	Ch.Rambabu, K. Srihari rao, A. Kavya, M. Anusha, K. Zahesh, K. Siva Gopi	IJ ISSN NO: 0022-1945	April-2024
	Mamdani and Sugeno Fuzzy inference system based multi modal medical image fusion	International Research Journal of Engineering and Technology (IRJET), Volume 11, Issue 03 (March 2024)	K. Srihari Rao; Ch. Rambabu; P.Sri Lakshmi Prasanna; T. Siva; P. Shoyab Khan; Sk. Nagulu	IJ e-ISSN: 2395-0056 p-ISSN: 2395-0072	March-2024
	VLSI implementation of error detection and correction codes for space engineering	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue III (March 2024)	Ch. Rambabu; K. Srihari Rao; Narala Vamsi Krishna; Sanikommu Srinu; Thullimilli Gowtham; S. Venkata Sai Nadh Reddy	IJ ISSN: 0022-1945, DOI: 18.0002.JICR.2024.V16I3.008301.3171237345303838	March-2024
	Sign language to text converter	Journal of Interdisciplinary Cycle Research, Volume XVI, Issue IV, APRIL/2024	Ch Rambabu, K. Srihari rao, Kshatri Rishwanth singh, Oela Naveen,P chandra sekhar reddy	IJ ISSN NO: 0022-1945,	April-2024

Mrs.M. M. Junitha	Home automation system using google assistant	M. M. Junitha, K.Srihari Rao, P Kalyani, P Lakshmi Prasanna, V Siva Venkateswara Rao, T Ankamma Rao	IJ	ISSN NO: 0886-9367 DOI:18.0002.IJAEMA.2024.V16I4.200001.0156859717907260 ( <a href="https://drive.google.com/file/d/1Um21dxPpcIbVMlmNN4dv79l3Sxo6ZW4X/view?usp=sharing">https://drive.google.com/file/d/1Um21dxPpcIbVMlmNN4dv79l3Sxo6ZW4X/view?usp=sharing</a> )	April-2024
	IOT based garbage monitoring system	M.M. Junitha, K. Srihari rao, Jaladi Sri Sai Rohith, Gorre Mounika, Gorrepatti Naga Vamsi, Divvela Sujatha Lakshmi	IJ	ISSN NO: 0022-1945, DOI:18.0002.JICR.2024.V16I4.008301.317123734530391 ( <a href="https://drive.google.com/file/d/11rvsDahCcJZs-9jbZfUYlvYOluj2G7nx/view?usp=sharing">https://drive.google.com/file/d/11rvsDahCcJZs-9jbZfUYlvYOluj2G7nx/view?usp=sharing</a> )	April-2024
	Intelligent shopping trolley using RFID based on IOT	M. M. Junitha, K. Srihari Rao; Karasala Janaki Abhinaya; Mogulurilakshmi Revanth Kumar; Kolikineni Tejaswini; Gangavarapu Siva Sankar <a href="http://ijaema.com">ijaema.com</a> ( <a href="http://ijaema.com/index.php/volume-xvi-issue-iiimarch-2024/?utm_source=chatgpt.com">https://ijaema.com/index.php/volume-xvi-issue-iiimarch-2024/?utm_source=chatgpt.com</a> )	IJ	ISSN: 0886-9367, DOI: 18.0002.IJAEMA.2024.V16I3.200001.015685971790711	March-2024

Year: 2024-2025

Faculty Name	Title of Research Paper	Journal ( Name, Volume, Issue & Page Nos)	Authors & Co Author	IJ/ NJ	ISSN / ISBN & Country	Month &Year
Dr. Dola Sanjay S	Predictive Modeling of Patient Outcomes Using Machine Learning Algorithms in Health Informatics"	The Bioscan,Volume 20 Issue 1, 20(1):516-522, Jan 2025.	Mage Usha U, A. M. Arun Mohan, Trupti Kaushiram Wable, Narayanan. P.S. Acharyulu, Dola Sanjay S	IJ	ISSN 0973-7049	Jan-2025
	Deep Learning Techniques for Early Detection of Chronic Diseases Using Electronic Health Records	The Bioscan, Volume 20 Issue 1, 20(1):192-198, Jan 2025	Nagesh Mantravadi, U P Kumar Chaturvedula, Sindhu S, Dola Sanjay S, S. Sudha	IJ	ISSN 0973-7049	Jan-2025

	Single Cycle MIPS Design using High Performance ALU	Nanotechnology Perceptions 20 No. S9 (2024) 428–437.	Hemanth, Dola Sanjay S	IJ	ISSN 1660-6795	Nov-2024
Dr. K. Srihari Rao	Automatic Vehicle Number Recognition System using Character Segmentation and Morphological Algorithm.	The International journal of analytical and experimental modal analysis, Volume 17, Issue 03, March 2025, page no.566-575.	C. Kalaiselvan, K. Srihari Rao, K. Narasimha Rao, et al.,	IJ	ISSN: 0886-9367	March-2025
	Drowsiness Detection System for Drivers Using Arduino,	Science, Technology and Development, Volume XIV Issue III MARCH 2025, page no. 97-102.	C. Kalaiselvan, K. Srihari Rao, M.Sridevi, et al.,	IJ	ISSN: 0950-0707	March-2025
	Smart Stick With automated Obstacle Detector for Blind People,	The International journal of analytical and experimental modal analysis, Volume 17, Issue 04, April 2025, page no.779-787	C. Kalaiselvan, K. Srihari Rao, Shaik Imrana, et al.,	IJ	ISSN: 0886-9367	April-2025
	IOT based floods monitoring and alerting with gsm,	Journal of Interdisciplinary Cycle Research, Volume XVII, Issue 03, March/2025	B. Saidaiah, K. Sri Hari Rao, M. Srividya, R. Mamatha, P. Karthik, P. Pushpanjali	IJ	ISSN NO: 0022-1945	March-2025
	Matlab based fingerprint matching system,	The International journal of analytical and experimental modal analysis, Volume 17, Issue 03, March/2025	B. Saidaiah Bandi, K..Srihari rao, K.Thanmayee, G. Veera Pothuraju, D. Nithin Chandra, K. Gopi	IJ	ISSN NO: 0886-9367	March-2025
	Designing of real time led display board by using iot	Journal of Interdisciplinary Cycle Research, Volume XVII, Issue 03, March/2025	B. Saidaiah Bandi, K. Srihari Rao, B.Vasu, L.Prabhakar, K. Abhishek Reddy, D.Venkateswara Reddy	IJ	ISSN NO: 0022-1945	March-2025

IOT based health monitoring system using node mcu-blynk	Science, Technology and Development, volume XIV issue III march 2025	B. Indhu Latha, K. Sri Hari Rao, P. Bhargavi, S. Koteswara Rao, P. Naga Ahalya, P. Srinu	IJ	ISSN: 0950-0707	March-2025
Implementation of multi-clocked pipelined processor based on risc-v using rv321	Journal of Interdisciplinary cycle Research, Volume XVII, Issue 03, March/2025	B.Indu latha A.sai Mahesh,D. Sravya ,K. Rajesh,K. Raviteja	IJ	ISSN: 0022-1945	March-2025
Smart home with google assistant and alexa using ESP32	The International journal of analytical and experimental modal analysis, volume 17, issue 04, april/2025	M. Ravi,K.Srihari Rao, Sk.Arif, Syed P. Kousar	IJ	ISSN NO:0886-9367	April-2025
Hand Gesture to text Conversion Using Raspberry pi PICO	The International journal of analytical and experimental modal analysis, volume 17, issue 04, april/2025	M. Ravi, K.Srihari Rao,B.hemanth, G.Lakshmi sowjanya,J.Usha sri, A.Venkata siva krishna, D.GowriSankar	IJ	ISSN NO:0886-9367	April-2025
Image processing based Detection & classification of blood group using color image	Science, Technology and Development, volume XIV ISSUE IV March 2025	M.Bindu sri,K.Srihari Rao, K. Vara Lakshmi, J . Mani kumar, B. Neelapareddy,G.Ananda Jyothi.	IJ	ISSN: 0950-0707	March-2025
Smart home Automations using ESP32 Micro Controller	Journal of Interdisciplinary cycle Research, Volume XVII, Issue 03, March/2025	Ch.Rambabu, K.Srihari Rao,K.Thriveni,C. Naga Venkata Gangadhar,K. Vishnu Vardhan, K.Rakesh.	IJ	ISSN: 0022-1945	March-2025
Room Security and Safety Management System	The International journal of analytical and experimental modal analysis, Volume 17, Issue 04, April/2025	Ch.Rambabu, K.Srihari Rao,M.Anandh, Y.Meghana,S.Ajai Babu, Sk..Yasin	IJ	ISSN NO: 0886-9367	April-2025

Efficient VLSI Architecture of AES Using LFSR	The International journal Fot Innovative Engineering And Management Research, volume13,issue09,pages:314-324	P.Yojitha, Dr.K.Sri hari Rao.	IJ	ISSN 2456-5083	Sep-2025
Prediction of prostate cancer using image segmentation with deep learning	The International journal of analytical and experimental modal analysis, Volume 17, Issue 04, April/2025	K. Sujata, K. Srihari rao, Ch. Venkata lavanya, B. Ankammarao, D. Prabhavathi, Ch. Durga Prasad,G. Vishnu nandhan	IJ	ISSN NO: 0886-9367	April-2025
Dr.C.Kalai selvan	Automatic Vehicle Number Recognition System using Character Segmentation and Morphological Algorithm.	The international journal of analytical and experimental modal analysis, Volume 17, Issue 03, March 2025, page no.566-575.	C.Kalaiselvan, K. Srihari Rao, K. Narasimha Rao, etal.,	IJ ISSN: 0886-9367	March-2025
	Drowsiness Detection System for Drivers Using Arduino,	Science, Technology and Development, Volume XIV Issue III MARCH 2025, page no. 97-102.	C.Kalaiselvan, K.Srihari Rao, M.Sridevi, etal.,	IJ ISSN: 0950-0707	March-2025
	Smart Stick With automated Obstacle Detector for Blind People,	The International journal of analytical and experimental modal analysis, Volume 17, Issue 04, April 2025, page no.779-787	C.Kalaiselvan, K.Srihari Rao, Shaik Imrana, etal.,	IJ ISSN: 0886-9367	April-2025
Dr. B. Saidaiah,	IOT based floods monitoring and alerting with gsm,	Journal of Interdisciplinary Cycle Research, Volume XVII, Issue 03, March/2025	B. Saidaiah, K. Sri Hari Rao, M. Srividya, R. Mamatha, P. Karthik, P. Pushpanjali	IJ ISSN NO: 0022-1945	March-2025

	Matlab based fingerprint matching system,	The International journal of analytical and experimental modal analysis, Volume 17, Issue 03, March/2025	B. Saidaiah bandi, K.Srihari rao,K. Thanmayee, G. Veera Pothuraju, D. Nithin chandra, K. gopi	IJ	ISSN NO: 0886-9367	March-2025
	Designing of real time led display board by using iot	Journal of Interdisciplinary Cycle Research, Volume XVII, Issue 03, March/2025	Saidaiah Bandi, K. Srihari Rao, B.Vasu, L.Prabhakar, K. Abhishek Reddy, D. Venkateswara Reddy	IJ	ISSN NO: 0022-1945	March-2025
Dr. M.Ravi	Smart home with google assistant and alexa using ESP32	The International journal of analytical and experimental modal analysis, volume 17, issue 04, april/2025	M. Ravi, K.Srihari Rao,SK.Arif,Syed P. Kousar	IJ	ISSN NO:0886-9367	April-2025
	Hand Gesture to text Conversion Using Raspberry pi PICO	The International journal of analytical and experimental modal analysis, volume 17, issue 04, april/2025	M. Ravi, K.Srihari Rao,B.hemanth, G.Lakshmi sowjanya,J.Usha sri, A.Venkata siva krishna, D. Gowri Sankar	IJ	ISSN NO:0886-9367	April-2025
Mrs. Naga Jyothi Valeti	Enhancing anabas testudineus welfare with iot technology,	The International journal of analytical and experimental modal analysis, Volume 17, Issue 04, April/2025	V.Naga Jyothi, K.Srihari Rao, D.Swathi, M.Keerthi, B.Kalyan, M.Sarandeep	IJ	ISSN NO: 0886-9367	April-2025
	Designing of Efficient and Low Power Adder and Multiplier using Reversible Logic Gates	Science, Technology and Development, Volume XIV Issue IV APRIL 2025	V. Naga Jyothi, K. Sri Hari Rao, P. Rupa Bhavani, Sk. M. Jan Saida, M. Usha Rani, V. Nagaiah	IJ	ISSN: 0950-0707	April-2025
	Single-Crystal Perovskite Halide: Crystal Growth to Devices Applications	Wiley Energy Technology,03 October 2024	Krishna Prakash , Naga Jyoti Valeti, Prince Jain, Chandra Shakher Pathak, Monoj Kumar Singha, Satyajit Gupta , Eran Edri, Sabyasachi Mukhopadhyay	IJ	<a href="https://doi.org/10.1002/ente.202400618">https://doi.org/10.1002/ente.202400618</a>	Oct-2024

	Stable RbCsFAPbI3 perovskite solar cell: numerical modelling and optimisation using SCAPS-1D	Phys.Scr.99(2024)105571, 27September2024	Naga Jyothi Valeti, ,Monoj Kumar Singha, and Sreenivasulu Tupakula	IJ <a href="https://doi.org/10.1088/1402-4896/ad79c3">https://doi.org/10.1088/1402-4896/ad79c3</a>	Sep-2024	
Mrs.M.Bindu sri	Image processing based Detection & classification of blood group using color image	Science, Technology and Development,volume XIV ISSUE IV March 2025	M.Bindu sri,K.Srihari Rao, k. vara Lakshmi,J . Mani kumar, B. Neelapareddy,G.Ananda Jyothi.	IJ ISSN: 0950-0707	March-2025	
Mrs. B. Indhu Latha	IOT based health monitoring system using node mcu-blynk	Science, Technology and Development,volume XIV ISSUE III MARCH 2025	B. Indhu Latha, .K. Sri Hari Rao, P. Bhargavi, S. Koteswara Rao, P. Naga Ahalya, P. Srinu	IJ ISSN: 0950-0707	March-2025	
	Implementation of multi-clocked pipelined processor based on risc-v using rv321	Journal of Interdisciplinary cycle Research,VolumeXVII,Issue 03,March/2025	B.Indu latha , A.sai Mahesh,D. Sravya ,K. Rajesh ,K. Raviteja	IJ ISSN: 0022-1945	March-2025	
Mr. Ch.Rambabu	Smart home Automations using ESP32 Micro Controller	Journal of Interdisciplinary cycle Research,VolumeXVII,Issue 03,March/2025	Ch.Rambabu, K.srihari Rao,K.Thiriveni,C. Naga Venkata Gangadhar,K. Vishnu Vardhan, K.Rakesh.	IJ ISSN: 0022-1945	March2025	
	Room Security and Safety Management System	The International journal of analytical and experimental modal analysis, Volume 17, Issue 04, April/2025	Ch.Rambabu, K.srihari Rao,M.Anandh, Y.Meghana,S.Ajai Babu, Sk..Yasin	IJ ISSN NO: 0886-9367	April-2025	
Mrs.M.M.Junitha	AI Enabled real Time Crime Detection and Alert System using IOT Cameras	International Journal For Modern Trends in Science and Technology , volume11,issue 07,pages72-79.	M.M.Junitha & Kambhampati Deepthi	IJ <a href="https://doi.org/10.5281/zenodo.15779023">https://doi.org/10.5281/zenodo.15779023</a>	June-2025	

Mrs.K. Sujata	Prediction of prostate cancer using image segmentation with deep learning	The International journal of analytical and experimental modal analysis, Volume 17, Issue 04, April/2025	K. Sujata, K. Srihari rao, Ch. Venkata Lavanya, B. Ankammarao, D. Prabhavathi, Ch. Durga Prasad, G. Vishnu Nandhan	IJ	ISSN NO: 0886-9367	April-2025
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Faculty Name	Paper Title	Details of Conference	IC/NC	Month	Year
Dr Dola Sanjay S	E-waste: e-kraft	12th Icon SWM-CE & IPLA Global Forum 2022" International Conference on Sustainable Waste Management & Circular Economy and IPLA Global Forum 2022	IC	Dec	2022-2023
Dr. C. Kalai Selvan	Reduction of Power and Gates in Universal Shift Register Using Reversible Gates	K.S. Institute of Technology Bengaluru-109, Participated in the National Conference on Recent Innovations in Engineering-2022.	NC	April	2022-2023
	Digital Image Enhanced Techniques for Purity Test of Various Seeds'	Participated in AICTE Sponsored National Conference on Innovations in Computation and Communication Technologies	NC	April	2022-2023
Mrs. Naga Jyothi Valeti	Device simulation of $\text{CH}_3\text{NH}_3\text{PbI}_{3-x}\text{Cl}_x$ based mixed halide perovskite thin film solar cells	School of Electronics engineering, Kalinga institute of Technology, KIIT, Bhubaneswar, Odisha ,India	IC	Dec	2022-2023

	Optimization and efficiency Improvement of $\text{CH}_3\text{NH}_3\text{SnI}_3$ Solar cell with $\text{CuSbS}_2$	International Conference on Electronic and Photonic Integrated Circuits(EPIC-2022), SRM University, AP	IC	Dec	2022-2023
	Efficiency Improvement of $\text{CuSbS}_2$ Experimental Thin film solar cell	International Conference on Electronic and Photonic Integrated Circuits(EPIC-2022), SRM University, AP	IC	Dec	2022-2023
Dr. V.N. Malleswari	Seven level shunt Active power filter for High-power Drive systems	The 4 <sup>th</sup> international conference on Recent trends in power systems and power electronics(NEC-ICPSPE-2K24)	IC	April	2024-2025

**B. PhD guided/PhD awarded during the assessment period while working in the institute**

**Table 5.7.4 PhD Guidance - Department of ECE**

S.No.	Research Guide	Name of Scholar	University & Year of Registration	Status
1	Dr. Dola Sanjay S Professor & Principal, ECE	Shaik Kasim, 19217047	JJTU	Awarded-2020
		Nikhat Firdosa Jahan, 22320022	JJTU	Awarded-2023
		B Kalyan Kumar, 22320021	JJTU	Awarded-2023
		Garaga Srilakshmi, 23619096	JJTU	Awarded-2024
		Hemanth J	VTU	Pursuing
		NDVP Murthy	JJTU	Pursuing
		Vinay Kumar	Jain University	Pursuing
		Ramesh Sripada, ACCS0005A/22	ARNI University	Awarded

**Table 5.7.5 Ph.D. awarded during the assessment period while working in the institute**

S.No	Name of faculty	Details of Faculty	University	Title of Research	Year of Completion

1	Mr. Ravi Macharala	Associate Professor, ECE, NRIIT, Guntur	NIT Arunachala Pradesha	Studies of optimum resource allocation Mechanisms in noma, mimo-noma networks Using different technologies and Algorithms for improving system Throughput and energy efficiency	2023
2	Mr. Jampani Krishna Kishore	Professor, ECE, NRIIT, Guntur	JNTU, Hyderabad	Power system security in a competitive Market and cost recovery in deregulated Power system	2024
3	Mrs. Naga Jyothi Valeti	Associate Professor, ECE, NRIIT, Guntur	SRM University, AP	Design and Numerical Simulation of Perovskite Solar Cells	2025

Table 5.7.6 - Ph.D. Registered during the assessment period

S.No	Name of faculty	Details of Faculty	University	Title of Research	Year of Registration
1	Mr. Manohar Patra	Assistant Professor, ECE, NRIIT, Guntur	Acharya Nagarjuna University	An advanced virus detection method for processors with high performance and low power consumption by using ZTCAM	2022
2	Mrs. K. Sujata	Assistant Professor, ECE, NRIIT, Guntur	JNTU Kakinada	Supervised deep learning model for prostate MRI segmentation	2019

## 5.7.2 Sponsored Research (5)

Institute Marks : 4.00

## 2023-24 (CAYm1)

Project Title	Duration	Funding Agency	Amount
A Smart Access Control for Restricted Buildings Using A Vehicle Number Plate Recognition System	9 Months	The Institution of Engineers (India), Technical Department, R&D Grant-in-aid Scheme	21000.00
PMKVY	6 Months	Government of India	708448.80
Training on C Programming	6 Months	NRI Educational Society	300000.00
			Total Amount(X): 1029448.80

## 2022-23 (CAYm2)

Project Title	Duration	Funding Agency	Amount
Training on C Programming	6 Months	NRI Educational Society	400000.00
			Total Amount(Y): 400000.00

## 2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount
Training on C Programming	6 Months	NRI Educational Society	400000.00
			Total Amount(Z): 400000.00

Cumulative Amount(X + Y + Z) = 1829448.80

## 5.7.3 Development Activities (10)

Institute Marks : 10.00

#### A. Product Development

The department motivates students to undertake innovative projects addressing real-time problems in the fields of IoT, Embedded Systems, VLSI Design, Communication Systems, and Healthcare Applications. Projects are executed during the final year, and selected works are encouraged for prototype development, publications, and participation in hackathons/competitions.

Consolidated Student Projects:

- 2024-2025: 33 projects completed
- 2023-2024: 38 projects completed
- 2022-2023: 19 projects completed

Total Projects Executed (3 Years): 90

#### Best Project Outcomes of Research Lab set up in Department

S.NO	Project Title
1.	IOT based Weather and air pollution Monitoring System Using Raspberry Pi PICO
2.	IOT based health monitoring system using node MCU-Blynk
3.	Room security and safety management system
4.	Industrial safety monitoring system using IOT
5.	IOT based floods monitoring and alerting with GSM

#### B. Research laboratories

The Department of ECE is equipped with a dedicated Project Laboratory that offers advanced resources, tools, and technical support for both faculty and students. This facility promotes innovation, hands-on learning, and research activities by enabling the design, development, and testing of projects.

S. No	Name of the Laboratory	Name of the Equipment/ Software
1	Center for Electronics Research and Development (CERD)	Lab Equipped with 1. Desktop PCs 2. Matlab software 3. Mentor Graphics Tool 4. Xilinx software 5. Proteus software 6. HFSS Software 7. NS2 Tool 8. Sci lab 9. Active HDL 10. Keil 11. Xcircuit 12. Cadence pSpice ngspice

#### C. Instructional materials

The institute provides a variety of instructional materials to facilitate effective teaching-learning and to enhance student understanding. The following resources are made available to students:

1. **Course Files with Handouts:** Comprehensive course files containing lecture notes, tutorial sheets, question banks, and other relevant study materials.
2. **Laboratory Manuals:** Well-prepared manuals for each laboratory course, enabling students to perform experiments systematically.

3. **Assignments:** Regularly designed assignments to improve problem-solving, analytical, and application-oriented learning.
4. **PowerPoint Presentations (PPTs):** Faculty-developed digital content for better visualization and conceptual clarity.
5. **Textbooks and Reference Books (from Library):** A well-stocked library with prescribed textbooks, reference books, journals, and e-resources to support academic requirements.

#### D. Working models/charts/monograms etc.

The department provides students with a range of working models, charts, and monograms that complement classroom and laboratory learning. These include:

1. **Laboratory Description Charts:** Display charts highlighting laboratory layout, safety guidelines, equipment specifications, and experimental procedures to help students gain a clear understanding before performing practicals.
2. **Laboratory Manuals:** Detailed manuals containing experiment objectives, step-by-step procedures, circuit diagrams, observations, and result analysis, enabling students to carry out experiments systematically.
3. **Working Models:** Innovative project prototypes and working models developed by undergraduate students, showcasing practical application of theoretical knowledge, creativity, and problem-solving skills.
4. **Monograms and Block Diagrams:** Monograms, circuit schematics, and block diagrams of electronic systems are displayed in laboratories. They serve as quick visual references to simplify complex concepts and aid in better retention.

#### 5.7.4 Consultancy(from Industry) (5)

Institute Marks : 5.00

##### 2023-24 (CAYm1)

Project Title	Duration	Funding Agency	Amount
Group - I	1 Year	APPSC Group - I	25300.00
Group - II	1 Year	APPSC Group - II	46500.00
AP EAPCET	1 Year	AP EAPCET	126150.00
ICET	1 Year	AP ICET	23142.00
PSCDEO	1 Year	AP PSCDEO	18650.00
LAWCET	1 Year	AP LAWCET	18650.00
TS EAPCET	1 Year	TS EAPCET	64750.00
			Total Amount(X): 323142.00

##### 2022-23 (CAYm2)

Project Title	Duration	Funding Agency	Amount
AP TET	1 Year	AP TET	72538.00
ICAI	1 Year	ICAI	205200.00
Intelligent IoT Robotics for Image-Guided Cotton Crop Disease Prediction	1 Year	Jay kisan logistics pvt Ltd. Guntur	400000.00
			Total Amount(Y): 677738.00

2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount
PSEAE	1 Year	AP PSEAE	9000.00
Evaluation of IOT Applications for precision farming	1 Year	Jay kisan logistics pvt Ltd. Guntur	410000.00
			Total Amount(Z): 419000.00

Cumulative Amount(X + Y + Z) = 1419880.00

**5.8 Faculty Performance Appraisal and Development System (FPADS) (30)**

Total Marks 30.00

Institute Marks : 30.00

#### A. Well-defined Performance Appraisal and Development System

The institution has established a comprehensive and structured Faculty Performance Appraisal and Development System (FPADS) applicable to all faculty members for every academic year. The appraisal process is based on a transparent 100-point evaluation system, which assesses multiple dimensions of faculty performance including teaching–learning effectiveness, research output and publications, student mentoring and guidance, administrative and extracurricular responsibilities, and contributions to overall institutional development. The FPADS not only evaluates past performance but also identifies areas for professional growth, thereby promoting continuous improvement. A copy of the performance appraisal form is attached for reference.

#### PERFORMANCE APPRAISAL FORM (FACULTY)

Academic Year:

##### I. Personal Details:

Name:	
Designation:	
Department:	
Date of appointment:	
Pay Band:	
Mobile Number:	
E-mail:	

##### II. Summary of Activities during the academic Year:

<b>Teaching - 40 Points</b>				
S. No	Description	Self Appraisal	Evaluation by HOD	Evaluation by Principal
1	Student Feedback (10)			
2	Average Result of Students (5)			
3	Teaching Load and Lab Load (15)			
4	Innovations to enhance learning (5)			
5	Activities that contribute to student success in the form of improved and measurable learning outcomes (5)			
<b>Research - 30 Points</b>				
S. No	Description	Self Appraisal	Evaluation by HOD	Evaluation by Principal
1	Publications (10)			
2	Research Projects (funded projects) (5)			
3	Discovery/Innovation/Working Models (Patents, Creative works of arts, etc.) (5)			
4	Ph.D./ M. Tech/ B. Tech student work supervision (5)			
5	Invited Talks Delivered (5)			
<b>Involvement in Institutional Development- 30 Points</b>				

S. No	Description	Self Appraisal	Evaluation by HOD	Evaluation by Principal
1	Research Related Service (Reviewing for journals, serving in editorial roles, organizing research seminars, conferences, etc.) (10)			
2	Mentoring/proctor effectiveness (5)			
3	Activities that support accreditation activities (5)			
4	Administrative support to the Dept/ College (5)			
5	Co/ Extracurricular activities (e.g. entrepreneurial activities) (5)			
<b>Total Points (Maximum 100 Points)</b>				

Date:

Applicant's Signature

**HOD Comments:****IQAC Comments:****Principal Comments:****B. Its implementation and effectiveness**

Step	Activity / Input	Responsible Authority	Output / Action
1	Faculty fills in the appraisal form for the previous academic year with supporting documents	Faculty Member	Completed appraisal form submitted
2	Submission of appraisal form	Head of the Department (HOD)	Form received for evaluation
3	Evaluation of faculty performance on defined parameters	HOD	Marks awarded for departmental aspects
4	Forwarding of evaluated form	HOD → Head of the Institution	Form submitted for institutional review

5	Review and marking under institutional parameters	Head of the Institution	Additional marks awarded
6	Consolidation of marks	Institution Academic Committee / Office	Final performance score prepared
7	Follow-up actions based on overall score	Head of Institution / Management	Recognition, incentives, mentoring, or corrective measures

**Follow up action taken by the Head of the Institution:**

S.no	Marks	Follow Up Action Taken
1	>80	Certificate of Merit and cash Award
2	60-80	Certificate of Merit
3	<60	Counselling, advised by the HOD and principal to attend the following. 1. Advised to stay in touch with the senior faculty and get their suggestions on how to improve the performance. 2. Advised to attend FDPs and brain storming Classes.

The performance appraisal system is designed to evaluate faculty performance, identify strengths and areas for improvement, and provide constructive feedback. It helps in ensuring continuous professional development, aligning faculty roles with institutional goals, and recognizing outstanding contributions. Faculty performance is assessed annually through a structured appraisal form, which is reviewed by the Head of the Institution, and feedback is provided accordingly. Wherever improvement is required, faculty members are counselled through one-to-one interactions and encouraged to attend Faculty Development Programs (FDPs), workshops, and other training sessions to enhance their technical knowledge, teaching methodologies, and professional skills. General issues and suggestions related to faculty performance are also discussed in departmental meetings, and collective action plans are framed for improvement.

Based on the outcome of the appraisal, increments are awarded at the end of the academic year, training needs are identified, and corrective measures are taken to address any gaps in the system or policies. The appraisal results are further used to ensure the right person is assigned to the right role, and necessary training programs are implemented where required. Faculty members are repositioned in their roles based on performance, while good performers are appreciated and encouraged to excel further, and outstanding performers are recognized with rewards and awards. The appraisal system is reviewed annually by the Head of the Institution, and feedback from faculty is incorporated to strengthen the process, ensuring fairness, transparency, and alignment with the objectives of the institution.

Activity/Decision	2024-25	2023-24	2022-23
<b>Corrective Measures taken</b>			
No. of faculty sent for Training	1	2	2
No. of faculty sent for FDP's	2	2	2
<b>Award/Reward</b>			
No. of faculty received Certificate of Merit and cash Award	3	4	3
No. of faculty received Certificate of Merit	5	4	4

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**5.9 Visiting/Adjunct/Emeritus Faculty etc. (10)**

Total Marks 10.00

Institute Marks : 10.00

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

Provision of inviting/ having visiting/ adjunct/ emeritus faculty (1)

Minimum 50 hours per year interaction with adjunct faculty from industry/ retired professors etc. (Minimum 50 hours per year interaction in a year will result in 3 marks for that year; 3 marks \* 3 years= 9 marks).

**Table 5.9.1. List of visiting/adjunct/emeritus faculty members for the year 2024-25**

S. No	Name of the Expert	Company Name & Designation	Course	No. of hours handled
1	Sri Paturi Rama Krishna	TCS, Chennai, Principal Consultant	Signals & Systems	54 hrs
2	A. Appa Rao	Apple, Senior Technical Architect	VLSI Design	56 hrs
3	Dr. Alapati Ravindra	Chairman, NRI Institute of Technology	Teaching & Learning Pedagogy	52 hrs
<b>Total</b>				<b>162 hrs</b>

**Table 5.9.2. List of visiting/adjunct/emeritus faculty members for the year 2023-24**

S. No	Name of the Expert	Company Name & Designation	Course	No. of hours handled
1	Sri Pamulapati Rama Krishna	ETech IT Solutions LLP Vice President & Country Head	Internet of Things	55 hrs
2	Mukkamala Venu Prasad	WIPRO, Director Quality Assurance	Microprocessor and Microcontrollers	52 hrs
3	Dr. Alapati Ravindra	Chairman, NRI Institute of Technology	Teaching & Learning Pedagogy	53 hrs
<b>Total</b>				<b>160 hrs</b>

**Table 5.9.3. List of visiting/adjunct/emeritus faculty members for the year 2022-23**

S. No	Name of the Expert	Company Name & Designation	Course	No. of hours handled
1	Mukkamala Venu Prasad	WIPRO, Director Quality Assurance	Embedded Systems	56 hrs
2	Sri Pamulapati Rama Krishna	ETech IT Solutions LLP Vice President & Country Head	Internet of Things	54 hrs

3	Dr. Alapati Ravindra	Chairman, NRI Institute of Technology	Teaching & Learning Pedagogy	55 hrs
<b>Total</b>			<b>165 hrs</b>	

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**6 FACILITIES AND TECHNICAL SUPPORT (80)****Total Marks 80.00****6.1 Adequate and well equipped laboratories, and technical manpower (30)****Total Marks 30.00**Institute Marks : 30.00

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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	EDC Lab (EDC Lab/ECA Lab) B- Block: 214	3	Bread boards, CRO, Function Generator, RPS, PN Junction Diode, Transistors RO, Function Generator, RPS, PN Junction Diode, Transistors	Semester- I 37.5% Semester- II 56%	T.Sireesha	Technician	B.Tech
2	IC & PDC Lab (AICA Lab/ ADICA Lab) B- Block: 315	3	IC 741 Trainer kits, IC 555 Trainer kits CRO, Function generator, RPS Kits, IC 555 Trainer kits CRO, Function generator, RPS	I 37.5% Semester- II --	Y.N.S.Padma Sri	Technician	B.Tech
3	COMMUNICATION Lab (ADC Lab/ STLD Lab/AC Lab) B- Block: 316	3	Modulation, De- modulation Trainer Kits, CRO, Function Generator, RPS- modulation Trainer Kits, CRO, Function Generator, RPS	Semester- I 75% Semester- II 25%	SK.Mobeenaa	Technician	B.Tech
4	ECAD Lab (DSP Lab/IOT Lab/ AC Lab/ OOPS Thru JAVA Lab/ Python Lab/DS Through JAVA Lab) B- Block: 212	1	Pentium Dual core with XILINX Software, MAT Lab software, Aurdino IDE with XILINX Software, MAT Lab software, Aurdino IDE	Semester- I 75% Semester- II 62.5%	A.Vardhana Rao	Technician	Diploma
5	MICRO WAVE LAB ( MP & MC Lab) B- Block: 213	3	Dual Trace Cathode Ray Oscilloscopes, 8086 Micro Processors, 8051 Micro Controllers, Microwave Test benches, Klystron/Gunn Power Supplies, Klystron Tube with mount VSWR Meters, Optical Communications Kits, Servo Stabilizer	Semester- I -- Semester- II 25%	T.Sireesha	Technician	B.Tech
6	VLSI LAB (DICD Lab/ VLSI LAB/ IOT LAB/ ARM Program LAB/ PYTHON Lab/Designer Tools Lab) B- Block: 211	1	Lenovo Desktop VT/M/PD G2120, 4GB HDD, 500 GB HDD, 18.5 TFT Monitors (Lenova) Mentor Graphics, Aurdino IDE, Aurdino Uno board, Verilog HDL	Semester- I 75% Semester- II 56.25%	Y.N.S.Padma Sri	Technician	B.Tech
7	M.Tech LAB B-Block:309	1	Lenovo Desktop VT/M/PD G2120, 4GB HDD, 500 GB HDD, 18.5 TFT Monitors Verilog HDL, Optical Communications Kits, MAT Lab software	Semester- I 16.6% Semester- II 16.6%	T.Sireesha	Technician	B.Tech
8	PROJECT LAB (Mini/ Major) projects B- Block:317	3	Hardware: Systems, ARM7 boards, Servomotors, Arduino UNO boards, Raspberry pi boards OS: Windows 7 Software: Keil µ Vision ,Arduino	Semester-I 25% Semester - II 75%	Mr.K.Rajesh	Technician	B.Tech

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

Total Marks 25.00

Institute Marks : 25.00



Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	Spectrum Analyzer(9KHz to 2.1GHz)	Frequency Band: 0.15MHz-500MHz	To observe the signals in frequency domain	12Hours per week(Even sem)	Communication Engineering	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO9, PO12,PSO1, PSO2
2	DSO's	Digital storage oscilloscopes with 50MHz Bandwidth and 500MSa/s sampling rate	To store and observe the signals in better way	Complete Semester	Communication, Circuits, Microwave, Digital electronics	PO1,PO2,PO5,PO9,PO12,PSO1,PSO2
3	Horn Antenna	10/16/20dB gain	To Perform Impedance Measurement & Impedance Matching in Microwave Engineering	Third And Final Year Students	Microwave Engineering ,Antennas And Wave Propagation	PO1,PO3, PO4,PO12,PSO1
4	Digital IC Tester	1.16x2 bit Alphanumeric LCD 2.Digital ICs 14,16,20,24,28 & 40pin DIP	To Test Various Digital ICs	All Students	Digital IC Applications	PO1,PO2, PO3,PO12, PSO1
5	Measurement of Data rate for digital link	Bit rate, as the name implies, describes the rate at which bits are transferred from one location to another	To enhance Teaching Learning	Additional experiment	Better understanding	PO5, PO10
6	Liner Block Encoder and decoder	In coding theory, a linear code is an error - correcting code for which any linear combination of code words is also a code word. Linear codes are traditionally partitioned into block codes and convolutional codes, although turbo codes can be seen as a hybrid of these two types	The students will understand the content of interfacing concepts in communication lab in advance	Additional experiment	Better understanding	PO5
7	Stepper motor interfacing with 8086 Micro controller	A stepper motor is a brushless, synchronous electric motor that converts digital pulses into mechanical shaft rotation. Every revolution of the stepper motor is divided into a discrete number of steps, and the motor must be sent a separate pulse for each step	The students will understand the content of interfacing concepts in MPMC lab in advance	Additional experiment	Better understanding	PO3, PO4, PO5
8	NS2 Tool	Network Simulator	To simulate and analyze dynamic nature of communication networks	Throughout semester	Communication Networks	PO1, PO2, PO3, PO5, PO9, PSO3
9	Sci lab	Open source software	Numerical Computation, Modeling and Simulation, Data Analysis and Statistics.	Throughout semester	Students can use study, modify and distribute it to support scientific work	PO1, PO2, PO5, PO8, PSO3
10	Active HDL	Open source software	Creating and simulating FPGA design offering an integrated design environment(IDE)	Throughout semester	FPGAs and ASICs	PO1, PO2, PO5, PO10,PSO3
11	Keil	Open source software	Integrated development environment (IDE) for editing, compiling, running and debugging programs for the 8051 microcontroller	Throughout semester	Embedded Systems for developing software for microcontroller	PO1, PO2, PO5, PO10,PSO3

12	Project lab	Mini, Major projects are guided by our faculty members in various fields of engineering	Real time application Innovative thinking to build the creative skills Motivate the students to come up with projects	Throughout semester	Prototype models are developed and it is help to publish quality of papers	PO1, PO12, PSO1
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**6.3 Laboratories: Maintenance and overall ambiance (10)**

Total Marks 10.00

Institute Marks : 10.00

**Maintenance:**

1. All the equipments are serviced regularly before the commencement of semester.
2. Equipment is regularly checked & maintained by the technicians in the respective labs.
3. Laboratories cleaning and maintenance is done by Housekeeping committee.
4. Electrical problems and repairs are done by electrical maintenance committee.
5. Computer and Networking problems rectified by Computer and Networking maintenance committee.
6. Servicing of equipment is done by External Technician if required.
7. The components / equipments are tested thoroughly by the technicians before and after conducting experiments by the students.
8. All the systems are installed with Licensed and open source Software's.

**Overall ambiance of laboratories:**

1. Department has adequate well equipped laboratories to meet the Curriculum requirements and beyond too.
2. All laboratories are well ventilated.
3. All the software labs are provided with air conditioners.
4. Each hardware lab is equipped with computer along with suitable software
5. List of Experiments as per the Curriculum is displayed.
6. DO's and Don'ts are displayed.
7. Laboratory manuals are prepared and are available in soft and hard copy.
8. Display Charts are displayed.

**Maintenance and overall ambiance:**

S.No	Name of lab	Area in sq.m	Maintenance	Ambiance
1.	ECAD Lab	98.2	Weekly	Ventilation, fans, natural light, Cup-boards, white/black board, Computer, Internet.
2.	EDC Lab	98.2	Weekly	Ventilation, fans, natural light, Cup-boards, white/black board, Computer, Internet.
3.	IC & PDC Lab	98.2	Weekly	Ventilation, fans, natural light, Cup-boards, white/black board, computer, Internet.
4.	COMMUNICATION Lab	98.2	Weekly	Ventilation, fans, natural light, Cup-boards, white/black board, Computer, Internet.
5.	MICROWAVE Lab	98.2	Weekly	Ventilation, fans, natural light, Cup-boards, white/black board, Computers, Internet.
6.	VLSI Lab	98.2	Weekly	Ventilation, fans, natural light, Cup-boards, white/black board Computers, Internet.
7.	M.Tech Lab	52.4	Weekly	Ventilation, fans, natural light, Cup-boards, white/black board Computers, Internet.

8.	PROJECT Lab	98.2	Weekly	Ventilation, fans, natural light, Cupboards, white/black board, Computers, Internet.
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**Lab Occupancy Chart Showing Maintenance****LAB TIME TABLE****Academic Year 2025 - 2026****Branch : ECE****Lab Name: ECAD LAB****WEF : 30-06-2025**

Hours	1	2	B R E A K	3	4	L U N C  H  B R E A K	5	6	B R E A K	7	8	
Day/ Timings	9:00-9:50	9:50-10:40		10:50-11:40	11:40-12:30		1:10-2:00	2:00-2:50		3:00-3:40	3:40-4:20	
Monday		β-----		LAB VIEW III-ECE-B---à				β-----		LAB VIEW III-EVT----à		
Tuesday								β-----		PCB LAB III-ECE-A--à		
Wednesday		β-----		LAB VIEW III-ECE-A--à				β-----		LAB VIEW III-ECE-B--à		
Thursday	β-PCB LAB	III-ECE-B		-----à				β-----		LAB VIEW III-EVT---à		
Friday		β-----		PCB LAB III-EVT---à				β-----		PCB LAB III-ECE-B--à		
Saturday		β-----		PCB LAB III-ECE-A----à				β-----		LAB VIEW III-ECE-A--à		

Lab Code	Lab Name	Faculty Name	Lab Code	Lab Name	Faculty Name
	LABVIEW (III-EVT)	Mr. K. Srinivas Rao			
	LAB VIEW (III-A,B)	Mr. P. Srinivas Rao			
	PCB Design (III-A,B)	Ms .M. Bindu Sri			
	PCB(III-EVT)	Mrs. E V Santhi			

**Coordinator****Convener****HOD****PRINCIPAL**

<b>EDCLAB</b>	<p><b>EDC/ECALABS:</b></p> <p>This laboratory enables the students of II year ECE to gain practical experience in connecting circuits with discrete components and testing the circuits.</p> <p><b>Major facilities/equipment:</b></p> <ul style="list-style-type: none"><li>◦ Dual Trace Cathode Ray Oscilloscopes</li><li>◦ Function Generators</li><li>◦ Regulated Power Supplies</li><li>◦ Multi-meters</li><li>◦ Bread Board</li><li>◦ Trainer Modules</li></ul>
<b>IC &amp; PDC LAB</b>	<p><b>ADICA/AICA LAB:</b></p> <p>This laboratory enables the students of III year ECE to gain practical experience in connecting circuits with discrete components and testing the circuits.</p> <p><b>Major facilities/equipment:</b></p> <ul style="list-style-type: none"><li>◦ Dual Trace Cathode Ray Oscilloscopes</li><li>◦ 10MHzFunctionGenerators</li><li>◦ Regulated DC Power Supplies</li><li>◦ General purpose IC Trainer</li><li>◦ OP-AMP Trainer kit</li><li>◦ Bread Board Trainer Modules</li><li>◦ Servo Stabilizer</li></ul>
<b>COMMUNICATION LAB</b>	<p><b>AC/DC/STLD/ADC LAB:</b></p> <p>This enables students of II and III-year ECE to understand analog and Digital communication circuits using training kits.</p> <p><b>Major facilities/equipment:</b></p> <ul style="list-style-type: none"><li>◦ Dual Trace Cathode Ray Oscilloscopes</li><li>◦ Digital Storage Oscilloscope</li><li>◦ 10MHzFunctionGenerators</li><li>◦ Regulated DC Power Supplies</li></ul>
<b>ECAD LAB</b>	<p><b>DSP/ AC /OOPS Thru JAVA/DS Through JAVA/IP/CNS LAB:</b></p> <p>This laboratory is equipped with Computers to educate the II&amp;III-year ECE students in simulation of signal processing systems functionality using MATLAB.</p> <p><b>Major facilities/equipment:</b></p> <ul style="list-style-type: none"><li>◦ DesktopDualcore3.22GBRAM, 320 GB HDD, Key boards, Mouses,18.5 TFT Monitors(Acer)</li><li>◦ MATLAB</li><li>◦ DSPStarterkitsDSPTMS320C6713, 512 k flash and 16 MBSDRAM code composer studio V3.1 IDE including the fast simulator and access to Analysis kit(Texas)</li></ul>

<b>VLSI LAB</b>  <b>DICD/VLSI/IOT/ARM Program/PYTHON/DESIGNER TOOLSLAB:</b> This laboratory enables the students of II, III & IV-year students to gain practical experience in designing and developing systems using IOT, Arduino and Raspberry pi boards, VHDL and other components  <b>Major facilities/equipment:</b> <ul style="list-style-type: none"><li>◦ PCs, Arduino open-source software development tool,</li><li>◦ ARM7boards,</li><li>◦ Arduino UNO boards,</li><li>◦ VHDL</li><li>◦ Raspberry pi boards</li><li>◦ Various other interfacing kits and necessary software packages</li></ul>
<b>MICRO PROCESSOR &amp; MICRO CONTROLLER LAB</b>  <b>MP&amp;MC LAB:</b> <ul style="list-style-type: none"><li>◦ This lab so provides various equipment for III&amp; IV year students to perform experiments in the area of Micro Processors &amp; Micro Controllers, microwave and optical Communications.</li></ul> <b>Major facilities/equipment:</b> <ul style="list-style-type: none"><li>◦ 8086 Micro Processors</li><li>◦ 8051 Micro Controllers</li><li>◦ Dual Trace Cathode Ray Oscilloscopes</li><li>◦ Microwave Test benches</li><li>◦ Klystron/Gunn Power Supplies</li><li>◦ Klystron Tube with mount</li><li>◦ VSWR Meters</li><li>◦ Optical Communications Kits</li><li>◦ Servo Stabilizer</li></ul>
<b>M.Tech LAB</b>  This laboratory enables the students of I, II year M.Tech. students to gain practical experience in designing and developing systems using Verilog, MAT Lab and other components  <b>Major facilities/equipment:</b> <ul style="list-style-type: none"><li>◦ PCs, software development tools,</li><li>◦ Verilog HDL</li><li>◦ MAT Lab Various other interfacing kits and necessary software packages</li></ul>

<b>PROJECT LAB</b>	<p>This laboratory is well equipped Computers and oscilloscope with other tools and equipment for major R&amp;D projects.</p> <p><b>Usage:</b></p> <p>Used by Faculty and students for the development of mini and major projects and R&amp;D Projects.</p> <p><b>Major facilities/equipment:</b></p> <ul style="list-style-type: none"><li>◦ IC Tester</li><li>◦ Cathode ray oscilloscope</li><li>◦ Regulated power supply</li><li>◦ Function Generator</li><li>◦ Digital storage oscilloscop</li></ul>
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**6.4 Project laboratories (5)**

Total Marks 5.00

Institute Marks : 5.00

### **Facilities & Utilization**

Students are required to do mini project and major projects during IV year I and II semesters respectively. They are allowed to do projects outside the campus to get industrial exposure and also are allowed to do In-house projects under the guidance of department faculty. The Project Laboratory offers the students, opportunity to gain valuable hands-on experience with the state- of-the-art environment where students become proficient in both the technical and creative skills needed in the field of Electronics and Communication Engineering. The Project Laboratory has a key role in promoting practical learning experience and is a place where they develop creative proposals and execute their final year projects.

#### **A. The following are the facilities which can be used for Project Laboratory:**

S.No.	Name of the Facility	Utilization
<b>Software(s)</b>		
1.	Mat lab licensed version software	UG students for their mini projects &major projects, Research Scholars and Faculty members utilize for research activities.
2.	VLSI-Cadence licensed software	UG students for their mini projects &major Projects, Research Scholars and Faculty members utilize for research activities.
3.	Keil micro vision licensed, Keil micro vision3 & 4 open-source software tool, TASM, MASM software tools.	UG students for their mini projects & major projects.
4.	ISE Xilinx Simulator9.21licensed version software for designing and Verifying codes of digital logic &Xilinx Vivado Edition 2014.4	UG students for their mini projects & major projects, Research Scholars and Faculty members utilize for research activities.
5.	Visual Spice licensed version Software for implementation of power circuits.	UG students for their mini projects &major Projects, Research Scholars and Faculty members utilize for research activities.
6.	Multi sim Open-source Version software	UG students for their mini projects & major projects.
7.	<b>Hardware:</b> ARM 7 Boards, FPGA boards, Arduino boards, Raspberry pi boards, Components required for designing circuits, Soldering kit, DSO, Function generator, Systems, DMM, varieties of Sensors, actuators	UG students for their mini projects & major projects, Research Scholars and Faculty members utilize for research activities.

#### **Academic year wise project details:**

S. No	Academic Year	Total Number of Projects	Best Projects
1	2024-2025	33	3
2	2024-2025	38	3
3	2024-2025	19	3

**Best Projects (2024-2025)**

Sl. No	Title of the project	Students	Area of the Project	Project Guide
1	Face Recognition based on student Attendance using Deep learning	21KP1A0421	IP	Mr.G. Vijay Kumar
		21KP1A0467		
		21KP1A0420		
		21KP1A0418		
2	Automatic Vehicle number recognition system using MAT Lab	21KP1A0451	ES	Dr. C. Kalai Selvan
		21KP1A0422		
		21KP1A0456		
		22KP5A0405		
3	Advanced IOT sensor driven smart parking system	21KP1A0469	IOT	Dr. K. Sri Hari Rao
		21KP1A0405		
		21KP1A0433		
		21KP1A0409		

**Best Projects (2023-2024)**

Sl. No	Title of the project	Students	Area of the Project	Project Guide
1	Home Automation for Disabled Persons using Voice tag	21KP5A0402	ES	Dr.B.Saidaiah
		21KP5A0404		
		20KP1A0474		
		20KP1A0464		
2	IOT based on garbage Monitoring system	20KP1A0442	IOT	Mrs. M. M. Junitha
		20KP1A0437		
		20KP1A0438		
		20KP1A0427		

3	Facial attendance system	21KP5A0413	IP	Miss. M.Bindu Sri
		20KP1A04F0		
		20KP1A0484		
		20KP1A04C9		

**Best Projects (2022-2023)**

Sl. No	Title of the project	Students	Area of the Project	Project Guide
1	Lung cancer prediction by using machine Learning	19KP1A0405	ML	Mrs.K.Sujatha
		19KP1A0427		
		19KP1A0454		
		19KP1A0467		
2	Automatic plant watering system	19KP1A0472	ES	Mr.Ch.Rambabu
		19KP1A0463		
		19KP1A0481		
		19KP1A0438		
3	IOT based air pollution monitoring system	19KP1A0442	IOT	Dr.C.Kalai Selvan
		19KP1A0407		
		19KP1A0448		
		19KP1A0452		

**6.5 Safety measures in laboratories (10)**

Total Marks 10.00

Institute Marks : 10.00



Sr. No	Laboratory Name	Safety Measures
1	EDC LAB	<p>1. Fixed Fire extinguisher and Sand Buckets are provided at the lab premises. 2. First Aid Box kept in Laboratory. 3. Stabilizer is provided in laboratory to restrict the over current flow into the lab which may damage the circuits. 4. Specific safety rules like Do's and Don'ts are displayed. 5. Laboratory is equipped with MCBs for the safety purpose. 6. Damaged equipment identified and serviced at the earliest. 7. At the beginning of the semester, the lab instructor conducts an awareness class regarding the safety measures and Instructions like 8. Shoes must be worn at all times. 9. Avoid contacting circuits with wet hands or wet materials. 10. Check circuits for proper grounding with respect to the power source.</p>
2	MICRO PROCESSOR & MICRO CONTROLLER LAB	<p>1. Fixed Fire extinguisher and Sand Buckets are provided at the lab premises. 2. First Aid Box kept in Laboratory. 3. Stabilizer is provided in laboratory to restrict the over current flow into the lab which may damage the circuits. 4. Specific safety rules like Do's and Don'ts are displayed. 5. Laboratory is equipped with MCBs for the safety purpose. 6. Damaged equipment identified and serviced at the earliest. 7. At the beginning of the semester, the lab instructor conducts an awareness class regarding the safety measures and Instructions like 8. Shoes must be worn at all times. 9. Avoid contacting circuits with wet hands or wet materials. 10. Check circuits for proper grounding with respect to the power source</p>
3	ECAD LAB	<p>1. Fixed Fire extinguisher is provided at the lab premises. 2. First Aid Box kept in Laboratory. 3. UPS facility is provided in case of power failure for backup of information in Desktops. 4. Specific safety rules like Do's and Don'ts are displayed. 5. Laboratory is equipped with MCBs for the safety purpose. 6. In case of using hardware/interface kits, ensure proper supply is given after making proper connections with the Desktop.</p>
4	VLSI LAB	<p>1. Fixed Fire extinguisher is provided at the lab premises. 2. First Aid Box kept in Laboratory. 3. UPS facility is provided in case of power failure for backup of information in Desktops. 4. Specific safety rules like Do's and Don'ts are displayed. 5. Laboratory is equipped with MCBs for the safety purpose. 6. In case of using hardware/interface kits, ensure proper supply is given after making proper connections with the Desktop.</p>

5	IC & PDC LAB	1. Fixed Fire extinguisher and Sand Buckets are provided at the lab premises. 2. First Aid Box kept in Laboratory. 3. Stabilizer is provided in laboratory to restrict the over current flow into the lab which may damage the circuits. 4. Specific safety rules like Do's and Don'ts are displayed. 5. Laboratory is equipped with MCBs for the safety purpose. 6. Damaged equipment identified and serviced at the earliest. 7. At the beginning of the semester, the lab instructor conducts an awareness class regarding the safety measures and Instructions like 8. Shoes must be worn at all times. 9. Avoid contacting circuits with wet hands or wet materials. 10. Check circuits for proper grounding with respect to the power source.
6	COMMUNICATION LAB	1. Fixed Fire extinguisher and Sand Buckets are provided at the lab premises. 2. First Aid Box kept in Laboratory. 3. Stabilizer is provided in laboratory to restrict the over current flow into the lab which may damage the circuits. 4. Specific safety rules like Do's and Don'ts are displayed. 5. Laboratory is equipped with MCBs for the safety purpose. 6. Damaged equipment identified and serviced at the earliest. 7. At the beginning of the semester, the lab instructor conducts an awareness class regarding the safety measures and Instructions like 8. Shoes must be worn at all times. 9. Avoid contacting circuits with wet hands or wet materials. 10. Check circuits for proper grounding with respect to the power source.
7	M.Tech Lab	1. Fixed Fire extinguisher is provided at the lab premises. 2. First Aid Box kept in Laboratory. 3. UPS facility is provided in case of power failure for backup of information in Desktops. 4. Specific safety rules like Do's and Don'ts are displayed. 5. Laboratory is equipped with MCBs for the safety purpose. 6. In case of using hardware/interface kits, ensure proper supply is given after making proper connections with the Desktop.
8	PROJECT LAB	1. Fixed Fire extinguisher is provided at the lab premises. 2. First Aid Box kept in Laboratory. 3. UPS facility is provided in case of power failure for backup of information in Desktops. 4. Specific safety rules like Do's and Don'ts are displayed. 5. Laboratory is equipped with MCBs for the safety purpose. 6. In case of using hardware/interface kits, ensure proper supply is given after making proper connections with the Desktop.

## 7 CONTINUOUS IMPROVEMENT (50)

Total Marks 50.00

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

Total Marks 20.00

Institute Marks : 20.00

**POs Attainment Levels and Actions for Improvement- (2023-24)**

POs	Target Level	Attainment Level	Observations
<b>PO 1 : Engineering Knowledge</b>			
PO 1	1.5	1.99	Target Attained However there is a scope for improvement in the following subjects C115(Introduction to C Programming), C215(Random variables and stochastic processes), C225(Management and Organizational Behavior), C315( Electronic Measurements and Instrumentation), C322 (VLSI Design), C412(Satellite Communication)
ACTION 1: Identified slow learners through internal marks and give focused mentoring (C115) ACTION 2: Increased tutorial/problem- solving assignments mapped to COs (C215) ACTION 3: Motivated students through interactive sessions instead of just lectures- based teaching (C225) ACTION 4: Conducted remedial sessions for tough topics ( MOSFET characteristics, stick diagrams, layout designs) (C322)			
<b>PO 2 : Problem Analysis</b>			
PO 2	1.5	1.75	Target Attained However there is a scope for improvement in the following subjects C111(Engineering Physics), C215(Random variables and stochastic processes), C314( Computer Organization and Architecture), C321(Microprocessors and micro controllers), C412(Satellite Communication)
ACTION 1: Conducted Extra classes or remedial sessions for weak students(C111) ACTION 2: Arranged More Practice sessions on Assembly coding with debugging (C321) ACTION 3: Conducted extra doubt-clearing sessions before exams (C412)			
<b>PO 3 : Design/development of Solutions</b>			
PO 3	1.5	1.52	Target Attained However there is a scope for improvement in the following subjects C125( Network Analysis), C214 (Mathematics-3), C223 (Analog Communication), C224 (Linear Control Systems), C413(Internet of Things)
ACTION 1: More Practice on Problem- Solving and Circuit Analysis (C125) ACTION 2: Included numerical problems in all internal exams to test calculation and application skills (C214) ACTION 3: Used waveform demonstrations and animations to explain block diagrams (C223) ACTION 4: Shared online resources (NPTEL courses, tutorials, forums) (C413)			
<b>PO 4 : Conduct Investigations of Complex Problems</b>			
PO 4	1.5	1.61	Target Attained However there is a scope for improvement in the following subjects C114 (Engineering Graphics), C212(Switching theory and Logic Design), C227 (Analog Communication Lab), C311(Analog IC Applications), C415(Cryptography and Network Security)
ACTION 1: Arranged special practice hours in drawing hall/lab beyond class time (C114) ACTION 2: Conducted More Sessions on combinational and sequential circuits design(C212) ACTION 3: Use peer mentoring where high-achievers assist in circuit setup (C227) ACTION 4: Conducted remedial classes for difficult topics like operational amplifiers, combinational & sequential logic ICs, timers, and ADC/DAC circuits (C311) ACTION 5: Provided more information on security models and cryptography techniques(C415)			
<b>PO 5 : Modern Tool Usage</b>			
PO 5	1.5	1.58	Target Attained However there is a scope for improvement in the following subjects C112( Linear Alzebra and Calculus), C211(Electronic Devices and Circuits), C315 (Electronic Measurements and Instrumentation), C411(Optical Communication)
ACTION 1: Included numerical problems in all internal exams to test calculation and application skills (C112) ACTION 2: Conducted more sessions on amplifier circuits, rectifier circuits, filters (C211) ACTION 3: Conducted more sessions on problem solving and different types of optical sources and optical detectors(C411)			
<b>PO 6 : The Engineer and Society</b>			
PO 6	1.5	1.16	Low attainment value is observed Due to the lower attainment in few courses such as C119(C Programming Lab), C222 (Digital IC and Design), C312 (Electromagnetic waves and transmission lines), C322(VLSI Design)
ACTION 1: Scheduled Extra classes or remedial sessions for weak students(C111) ACTION 2: Conducted remedial classes for difficult topics like combinational/sequential logic design, flip-flops, counters, and IC design(C222) ACTION 3: Conducted more practice sessions on derivations(C312) ACTION 4: Conducted remedial classes for difficult topics like CMOS design, combinational & sequential circuits, VLSI fabrication,timing analysis and conducted guest lectures (C322)			

<b>PO 7 : Environment and Sustainability</b>			
PO 7	1.5	1.02	Low attainment value is observed Due to the lower attainment in few courses such as C122(Chemistry), C215(Random Variables and stochastic processes), C323(Digital Signal Processing), C325(Computer Networks)
ACTION 1: Conducted more classes for difficult topics like chemical bonding, thermodynamics, electrochemistry, corrosion, and polymers (C122) ACTION 2: Increased tutorial/problem-solving assignments mapped to COs (C215) ACTION 3: Identified slow learners and provide mentoring or extra lab/tutorial sessions (C323) ACTION 4: Conducted more classes for difficult topics like OSI/TCP-IP models, routing & switching, network protocols, and network security (C325)			
<b>PO 8 : Ethics</b>			
PO 8	1.5	1.23	Low attainment value is observed Due to the lower attainment in few courses such as C113 (Basic Electrical and Electronics and Engineering), C318 (DS Using Java Lab), C414( Image Processing)
ACTION 1: Provided extra practice sessions and previous year paper discussions(C113) ACTION 2: Conducted more Practical tests on syntax correctness than problem-solving ability or data structure usage(C318) ACTION 3: Conducted more sessions on image enhancement and restoration techniques (C414)			
<b>PO 9 : Individual and Team Work</b>			
PO 9	1.5	1.35	Low attainment value is observed Due to the lower attainment in few courses such as C117(Engineering Physics Lab), C327 (VLSI Lab), C415(Cryptography and Network Security)
ACTION 1: Allocated multiple sessions per experiment for iteration and reflection(C117) ACTION 2: Conducted mini VLSI design contests to encourage design thinking and real-time logic implementation(C327) ACTION 3: Conducted more sessions on security algorithms (C415)			
<b>PO 10 : Communication</b>			
PO 10	1.5	1.37	Low attainment value is observed Due to the lower attainment in few courses such as C124(Basic Civil and mechanical engineering), C221 (Electronic Circuit Analysis), C411 (Optical Communication)
ACTION 1: Focused more on Foundations of civil and mechanical engineering concepts(C124) ACTION 2: Conducted more sessions on analysis part of amplifiers and oscillators(C221) ACTION 3: Conducted more sessions on problem-solving (C411)			
<b>PO 11 : Project Management and Finance</b>			
PO 11	1.5	1.16	Low attainment value is observed Due to the lower attainment in few courses such as C329 (ARM Lab), C417( Designer tools Lab)
ACTION 1: Conducted remedial lab sessions for difficult topics like ARM architecture, instruction set, GPIO programming, timers, and interfacing peripherals(C329) ACTION 2: Provided step-by-step demonstrations of digital circuit implementation using breadboards, kits, and simulation tools(C417)			
<b>PO 12 : Life-long Learning</b>			
PO 12	1.5	1.49	Slight variation in attainment value is observed Few of such courses are C123(Differential Equations and Vector Calculus), C224(Linear control systems)
ACTION 1: Conducted more sessions on problem-solving(C123) ACTION 2: Arranged more Practice sessions on Problem-Solving before exams (C224)			

**PSOs Attainment Levels and Actions for Improvement- (2023-24)**

PSOs	Target Level	Attainment Level	Observations
<b>PSO 1 : Professional Knowledge: Apply the concepts of Electronics and Communications to arrive cost effective and appropriate solutions.</b>			
PSO 1	1.5	1.82	Target Attained Low attainment observed in C213 (Signals & Systems), C412 (Satellite Communication)
ACTION1: Conducted remedial classes for low-attainment subjects (Signals & Systems, Satellite Communication). ACTION 2: Shared NPTEL videos and case studies for practical exposure.			
<b>PSO 2 : Problem-solving skills: Apply the principles of analog, digital and Signal processing systems for Consumer electronics, medical and radar systems.</b>			
PSO 2	1.5	1.80	Target Attained Low attainment observed in C215(Random Variables and Stochastic Processes), C223 (Analog Communication), C313(Digital Communications)
ACTION1: Basics of mathematical fundamentals revised via tutorial classes. ACTION 2:Emphasis given to conducting experiments and analysis in labs (Analog & Digital Communication).			
<b>PSO 3 : Software Usage: Use VHDL, MATLAB, MULTISIM and MENTOR GRAPHICS to design integrated circuits and analyze signals.</b>			
PSO 3	1.5	1.47	Target Not Attained Slight Variation in target in the following course C413(Internet of Things) things)
ACTION1:Organized guest lectures and workshops by industry experts to up-skill both faculty and students in the latest advancements in Electronics and Communication. ACTION2:Additional lab hours provided for practice on simulation tools. ACTION3:Faculty guided students in using Mentor Graphics for IC design projects.			

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

Total Marks 10.00

Institute Marks : 10.00

#### A. Assessment Shall be based on conduct and actions taken in relation to Continuous Improvement

(Academic Audit system/process and its implementation in relation to Continuous Improvement)

The academic audit in the department is conducted by both internal and external audit experts. The Academic Audit Committee (AAC), Program Assessment Committee (PAC), and Department Advisory Committee (DAC) carry out the internal academic audit. As per the proposed schedule, audits are conducted by these committees (AAC, PAC, and DAC), with members nominated by the Principal and the HoD before the commencement of each semester. The process of Academic audit is shown in the figure 7.2.1 below.

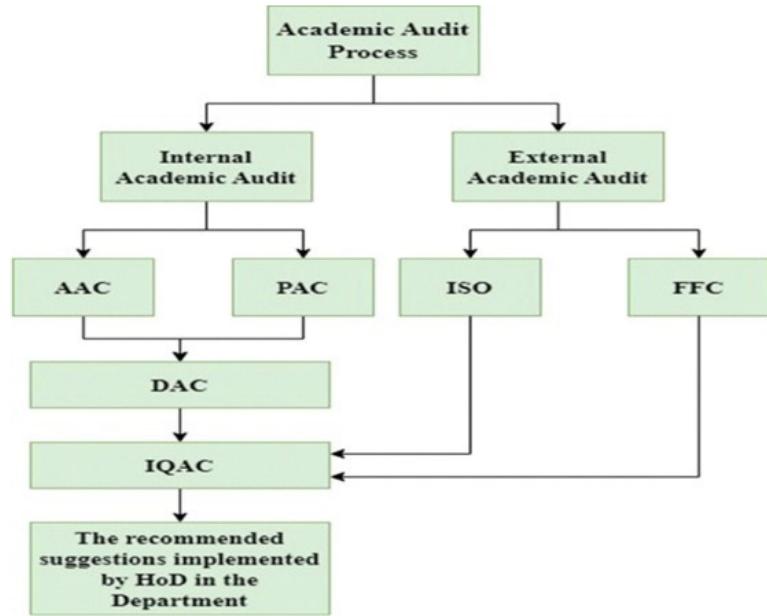


Figure 7.2.1: Process of Academic audit

The internal audits are conducted by the AAC in coordination with the PAC. The AAC is chaired by a Professor or Head from another department, with two senior faculty members from the CSE department. In DAC and PAC, Head of the Department acts as chairperson with other committee members supporting the audit process. The AAC, in collaboration with the PAC, monitors various academic parameters, prepares a report, and submits it to the DAC. The DAC reviews these reports, prepares an assessment report with significant findings and recommendations, and forwards it to the Internal Quality Assurance Cell (IQAC).

External audits are conducted by experts from outside organizations, such as ISO and the Fact Finding Committee (FFC) from JNTUK. These external audit reports are submitted to the Principal. The IQAC reviews both internal and external audit reports, prepares a report with recommended remedial measures, and forwards it to the department. The Head of the Department is responsible for implementing the actions recommended by the IQAC.

Internal audits are conducted twice a year, at the beginning of each semester, while External audits are conducted annually.

#### Key Objectives

To ensure that academic standards are being maintained.

To evaluate the effectiveness of curriculum delivery and student performance.

To identify strengths, weaknesses, and areas for improvement in academic processes. To promote continuous improvement in teaching, learning, and assessment methods.

To ensure alignment with Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs).

#### Focus areas of the Academic Audit Process

The academic audit typically focuses on the following key areas:

**Curriculum Review, POs, PSOs:** Analyzing whether the curriculum aligns with industry standards, student needs, and academic goals, Course files, evaluating if COs are well-defined, measurable, and align with the

Program Outcomes (POs) and PSOs.

**Faculty information and their contribution:** Assessing Student faculty ratio, professional development, research contributions, awards received, Events organized and certifications

**Teaching-Learning process and evaluation:** Assessing teaching methods, feedback on courses, faculty, and the overall academic environment to identify areas for improvement, result analysis, placements, higher studies and professional bodies

**Research, consultancy and Extension:** Assessing faculty research and publications, patents, MOUS with Industries.

**Infrastructure and Learning Resources:** Ensuring that laboratories, classrooms, libraries, and ICT tools are adequate and accessible.

**Student information, Support and Progression:** Assessing the support system for students in the form of internships, industrial visits, student centric and outreach activates,

The composition of various committees involved with their roles and responsibilities are shown in the below Table 7.2.1

Audit Committee	Roles &Responsibilities	Frequency
<b>DAC:</b> <ul style="list-style-type: none"> <li>• Head of the Department</li> <li>• Senior Faculty Members</li> <li>• Industry person</li> <li>• Alumni</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring the achievements of Program Outcomes (POs), Program Specific Outcomes (PSO), Program Educational Objectives (PEOs).</li> <li>• Evaluating program effectiveness and proposing necessary changes.</li> <li>• For quality improvement, monitoring the faculty and students towards attending FDPs, Workshops, Seminars, Development activities and Research activities.</li> <li>• Suggestions on Teaching pedagogy and OBE awareness.</li> </ul>	Once in a year
<b>PAC:</b> <ul style="list-style-type: none"> <li>• Head of the Department</li> <li>• Attendance Coordinator</li> <li>• Feedback coordinator</li> <li>• Examination Coordinator</li> <li>• Faculty activities and R&amp; D Coordinator</li> <li>• Project Coordinator</li> <li>• Student Mentoring Coordinator</li> <li>• Training and Placement Coordinator</li> <li>• IQAC Department Coordinator</li> <li>• Student activities Coordinator</li> </ul>	<ul style="list-style-type: none"> <li>• Adherence to academic calendar.</li> <li>• Course files verification.</li> <li>• Curriculum delivery process and Assessing Curriculum Gap identification.</li> <li>• Attainment of COs, POs&amp; PSOs.</li> <li>• Collection and Analysis of feedback and various Surveys Corrective measures.</li> <li>• Providing guidelines to participate and organize FDPs, Conferences, Seminars, Workshops, Events in student chapters, Inter- institute events etc.</li> <li>• Review on Quality &amp; Quantity of Research publications.</li> <li>• Verification of Lab manuals, Student lab records, Stock registers, Maintenance registers, Suggestion books, AMC, overall lab maintenance etc.</li> <li>• Laboratory work evaluation process.</li> <li>• Available and requirement of lab resources (Software, hardware, peripherals etc.), their working status and Utilization.</li> </ul>	Once in a semester
	<ul style="list-style-type: none"> <li>• Assessing students projects (Mini &amp; Major).</li> <li>• Review and Guidelines on Campus Recruitment training, On-campus and Off-campus placements, Measures for improvement of placements.</li> </ul>	

	<ul style="list-style-type: none"> <li>Verification- Quality of Mid exam question paper and scheme of evaluation as per COs followed by Blooms taxonomy.</li> <li>Evaluating the results and measures for improvement</li> <li>Process of identifying the advanced and slow learners and to give necessary suggestions.</li> </ul>	Twice in a semester
	<ul style="list-style-type: none"> <li>Attendance registers, monthly attendance reports, Communication of attendance.</li> <li>Periodic meetings with all Mentors for improvement.</li> <li>Monitoring the process and Suggestions/ corrective measures for mentoring outcome.</li> </ul>	Once in a month

**Table 7.2.1: Various assessment committees involved in Audit with their roles and responsibilities.**

The following table shows the major findings and suggestions given by the audit committee and the Actions on audit committee reports for Assessment years CAYm2(2022-23) , CAYml(2023-24) and CAY(2024- 25) are shown in the below.

S.No	Academic Audit Committee	Committee members	Major findings/ Suggestions	Corrective actions

1.	Department Advisory Committee (DAC)	<p>Dr.K.Srihari Rao <i>Head of the Department</i></p> <p>Dr.C. KalaiSelvan <i>Associate Professor</i></p> <p>Mrs. M. M. Junitha <i>Associate Professor</i></p> <p>Mr.K.Subramanyam, Proprietor, Kumar Pumps, <i>Industry Person</i></p> <p>Mr. Noor Basha Yasmidhasheehaan <i>Alumni</i></p>	<ul style="list-style-type: none"> <li>• Advised faculty to publish one Scopus Indexed paper forever semester.</li> <li>• Faculty FDPs and certification courses are to be increased.</li> <li>• Students participation in Inter-institute events to be encouraged</li> <li>• Students Should be encouraged to participate in online workshops to upskill</li> <li>• Students should be motivated towards higher studies</li> <li>• Curriculum gaps must be filled by conducting different activates in the recent technological trends</li> </ul> <p>• Management is encouraging faculty members to publish papers in reputed journals to improve their number of publications for the subsequent academic years.</p> <p>• Faculty are advised to take part in AICTE sponsored FDPs, STTPs organized by other premier institutes, and do NPTEL certifications.</p> <p>• Students are encouraged to participate in inter institute level events.</p> <p>• Students are made aware of the importance of upskilling and opportunities.</p> <p>• Faculty members are advised to motivate students to pursue higher education.</p> <p>• Planned to conduct Workshops, Guest lectures on recent trends in technology in this semester.</p>
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2.	<b>Program Assessment Committee (PAC)</b>	Dr.K. Sri Hari Rao <i>Head of the Department</i>  Mr.K.Sujatha <i>Attendance Coordinator</i>  Mr. Sai Kumar Gopu <i>Feedback coordinator</i>  Ms. M. Bindu Sri <i>Examination Coordinator</i>  Dr. M. Ravi <i>R&amp;D Coordinator</i>  Mrs. V. Naga Jyothi <i>Project Coordinator</i>  Mr. Ch. Rambabu <i>Student Mentoring Coordinator</i>  Mrs. P. Amala <i>T&amp;P Coordinator</i>  Dr. B. Saidaiah <i>IQAC Department Coordinator</i>  <b>K. TRIVENI LAKSHMI</b> <i>Student activities Coordinator</i>	<ul style="list-style-type: none"> <li>• Quality Improvement of question paper and scheme of valuation according to Blooms taxonomy</li> <li>• Faculty members instructed to strictly adhere to Blooms Taxonomy when preparing questions for assignments and Mid examinations</li> <li>• Faculty are advised to make use of smart boards &amp; glass boards while teaching online</li> <li>• Faculty are informed to prepare E content in their respective subjects</li> <li>• For core programming courses, extra lab hours and programs beyond the syllabus are explained.</li> <li>• Project guides are advised to encourage the students to build prototypes for some relevant projects</li> </ul>
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Table 7.2.2: Actions on audit committee reports for Assessment year CAYm2 (2022-23)

S.No	Academic Audit Committee	Committee members	Major findings/ Suggestions	Corrective actions
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1.	<p><b>Department Advisory Committee (DAC)</b></p> <p>Dr.K. Sri Hari Rao <i>Head of the Department</i></p> <p>Dr.C. KalaiSelvan <i>Associate Professor</i></p> <p>Mr. Ch. Rambabu <i>Associate Professor</i></p> <p>Mr.K.Subramanyam, Proprietor, Kumar Pumps, <i>Industry person</i></p> <p>Mr. Noor Basha Yasmidhasheehaan <i>Alumni</i></p>	<ul style="list-style-type: none"> <li>Teaching pedagogy methods learned during the FDP attended by a few faculty members have been implemented in the classroom.</li> <li>Suggested to implement Dynamic classroom teaching methods</li> <li>More number of events to be organized to fill the curriculum gap for attaining POs and PSOs</li> <li>Suggested the faculty to create awareness on OBE to students.</li> <li>Encouraging faculty and students to attend workshops, develop projects, and engage in research activities.</li> <li>Some of the computers found to have some issues with keyboards and need to be serviced</li> <li>FDP must be organized for the faculty to upskill them in the latest technology and trends</li> </ul> <ul style="list-style-type: none"> <li>Guest lectures and Workshops are conducted to fill the curriculum gaps</li> <li>Faculty are advised to create awareness on OBE among the students during some class hours</li> <li>Faculty and students are encouraged to attend workshops and conferences that are conducted in other colleges.</li> <li>Concerned Lab in charges are informed to get computers serviced immediately</li> <li>The Department of CSE is planning to conduct a One week FDP on Advancements in machine learning</li> </ul>
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2.	<b>Program Assessment Committee (PAC)</b>	Dr.K. Sri Hari Rao <i>Head of the Department</i>  Mr.K.Sujatha <i>Attendance Coordinator</i>  Mr. Sai Kumar Gopu <i>Feedback coordinator</i>  Ms. M. Bindu Sri <i>Examination Coordinator</i>  Dr. M. Ravi <i>R&amp;D Coordinator</i>  Mrs. V. Naga Jyothi <i>Project Coordinator</i>  Mr. Ch. Rambabu <i>Student Mentoring Coordinar</i>  Mrs. P. Amala <i>T&amp;P Coordinator</i>  Dr. B. Saidaiah <i>IQAC Department Coordinator</i>  <b>K.TRIVENI LAKSHMI</b> <i>Student activities Coordinator</i>	<ul style="list-style-type: none"> <li>• Some students have backlogs</li> <li>• Low student attendance has been identified in some classes.</li> <li>• Identified less feedback for few courses</li> <li>• Some of Software in the labs must be updated</li> <li>• Lack of participation in CRT training classes</li> <li>• More number of projects should be on the latest technologies like IoT etc.</li> </ul> <ul style="list-style-type: none"> <li>• Remedial classes should be conducted for Students with backlogs.</li> <li>• Faculty need to Counsel the students and their parents to make the student attend the classes regularly.</li> <li>• HOD counsels the faculty those who got less feedback by identifying their drawbacks while Teaching and conducting orientation classes as action taken there of by Principal.</li> <li>• Lab in charges are informed to update the software.</li> <li>• Faculty are advised to motivate the students to know the importance of training and placement classes</li> <li>• Project Guides and the students are advised to do projects adapting new technologies</li> </ul>
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		Mrs. P. Amala <i>T&amp;P Coordinator</i>  Dr. B. Saidaiyah <i>IQAC Department Coordinator</i>		
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Table 7.2.3: Actions on audit committee reports for Assessment year CAYml (2023-24)

S.No	Academic Audit Committee	Committee members	Major findings/ Suggestions	Corrective actions
1.	Department Advisory Committee (DAC)	Dr.K. Sri Hari Rao <i>Head of the Department</i>  Dr.C. KalaiSelvan <i>Associate Professor</i>  Mrs. M. M. Junitha <i>Associate Professor</i>  Mr.K.Subramanyam, Proprietor, Kumar Pumps, <i>Industry person</i>  Mr. G. Sri Vikas <i>Alumni</i>	<ul style="list-style-type: none"> <li>• Advised faculty to publish one Scopus Indexed paper for every Semester.</li> <li>• Feedback must be maintained for remedial classes as well</li> <li>• Faculty FDPs and certification courses are to be increased.</li> <li>• Students participating in Inter- institute events to be encouraged.</li> <li>• Faculty members are advised to take professional body memberships.</li> </ul>	<ul style="list-style-type: none"> <li>• Management is encouraging faculty members to publish papers in reputed journals. Improving the number of publications for the subsequent academic years.</li> <li>• Feedback from the students who attended remedial classes are considered</li> <li>• Faculty are advised to attend FDPs in reputed Institutes &amp; do NPTEL certification</li> <li>• Faculty and students are advised to take Professional body memberships</li> </ul>

2.	<p><b>Program Assessment Committee (PAC)</b></p> <p>Dr.K. Sri Hari Rao <i>Head of the Department</i></p> <p>Mr.K.Sujatha <i>Attendance Coordinator</i></p> <p>Mr. Sai Kumar Gopu <i>Feedback coordinator</i></p> <p>Ms. M. Bindu Sri <i>Examination Coordinator</i></p> <p>Dr. M. Ravi <i>R&amp;D Coordinator</i></p> <p>Mrs. V. Naga Jyothi <i>Project Coordinator</i></p> <p>Mr. Ch. Rambabu <i>Student Mentorring Coordinator</i></p> <p>Mrs. P. Amala <i>T&amp;P Coordinator</i></p> <p>Dr. B. Saidaiyah <i>IQAC Department Coordinator</i></p> <p><b>K.TRIVENI LAKSHMI</b></p>	<ul style="list-style-type: none"> <li>• Advised to conduct National Level technical events</li> <li>• Delay in producing the course files</li> <li>• Innovative-Teaching learning methods should be adopted in terms of OBE</li> <li>• Quality Improvement of question paper and scheme of valuation according to Blooms taxonomy</li> <li>• Lab manuals must be updated</li> <li>• License and open-source software should be more in the lab.</li> <li>• Additional experiments should be included beyond the syllabus</li> <li>• Frequent monitoring on the students with less attendance should be done</li> </ul> <ul style="list-style-type: none"> <li>• A national level Hackathon is planned to be conducted in this academic year</li> <li>• Suggested to submit course files on time</li> <li>• Faculty are advised to follow innovative Teaching-learning methods while teaching</li> <li>• Faculty are instructed to strictly adhere to Blooms taxonomy in the preparation of Question papers for Assignments and Mid examinations</li> <li>• Lab In charges are instructed to update Lab manuals as per new regulation and to encourage the usage of opensource software</li> <li>• Additional experiments are planned for Python and ML labs</li> <li>• Mentors are in contact with such students and their parents.</li> </ul>	

<i>Student activities Coordinator</i>		
Mrs. P. Amala		
<i>T&amp;P Coordinator</i>		
Dr. B. Saidaiah		
<i>IQAC Department Coordinator</i>		

**Table 7.2.4: Actions on audit committee reports for Assessment a year CAY(2024-25)**

Table 7.2.5 highlights the improvements made over three different assessment years, based on the suggestions of the audit committee and the corresponding actions taken

Year	Improvements
2024-25	<ul style="list-style-type: none"> <li>• Quality and Quantity of paper publications in reputed journals are increased.</li> <li>• Students placements and packages were increased</li> <li>• Campus recruitment training and campus-specific training is provided for campus drives.</li> <li>• Organizing and attending of FDPs, workshops, and seminars are increased</li> <li>• Student publication in international conferences are increased</li> <li>• The H-Index of the faculty members is improved</li> <li>• Innovative Teaching-Learning methodologies are incorporated in the curriculum and increased in terms of OBE.</li> <li>• Students activities are enhanced to increase their technical skills.</li> <li>• Workshops, Guest Lectures are organized to fill the curriculum gaps</li> </ul>
2023-24	<ul style="list-style-type: none"> <li>• Quality of question paper and standards where observed and all the faculty are following Blooms taxonomy.</li> <li>• Peer-to-peer and Collaborative learning activities are incorporated.</li> <li>• One Week FDP on Advancements in Machine Learning is organized to upskill the faculty.</li> <li>• Students projects were increased in terms of latest treads in era of computer science and engmeennng.</li> <li>• Guest Lectures are organized to fill the curriculum gaps</li> <li>• Remedial classes are provided to slow learners.</li> <li>• Student and faculty publications are increased</li> <li>• Student participation in coding challenges is improved</li> </ul>

2022-23	<ul style="list-style-type: none"><li>• Student placements are increased</li><li>• Student results are progressively increased for all semesters.</li><li>• Latest courses like Hadoop and Machine Learning are explained with more number of additional programs and extra practical sessions provided.</li><li>• Development of E content and new online teaching methods are adapted by the faculty</li><li>• Fast track material is provided for slow learners.</li><li>• Established NPTEL local chapter and faculties, students were encouraged to do online certification courses</li><li>• Faculty participation in AICTE sponsored FDPs, Coursera certifications are improved</li></ul>
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**Table 7.2.5: Audit committee actions- Continuous improvement**

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

Total Marks 10.00

Institute Marks : 10.00

**A. Improvement in Placement numbers, quality, core hiring industry and Pay packages****B. Improvement in Higher studies in Premier institutions****C. Improvement in number of Entrepreneurs**

<b>Batch</b>	<b>2024-2025 (CAY)</b>	<b>2023-2024 (CAYm1)</b>	<b>2022-23 (CAY)</b>
Total No. of Final Year Students (N)	140	139	75
No. of students placed in companies or Government Sector (X)	121	118	60
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (Y)	7	6	4
No. of students turned entrepreneur in engineering/technology (Z)	0	0	0
Placement index : ( X+Y+Z )	128	124	64
Placement index : ( X+Y+Z ) / N	0.91	0.89	0.8
Average placement in percentage =(( P1+P2+P3)/3)*100	88.3		

Table 7.3 Placement, Higher Studies and Entrepreneurship Details

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

Total Marks 10.00

Institute Marks : 10.00

Item		2024-25	2023-24	2022-23
National Level Entrance Examination	No of students admitted	0	0	0
	Opening Score/Rank	0	0	0
	Closing Score/Rank	0	0	0
State/ University/ Level Entrance Examination/ Others  EAPCET	No of students admitted	110	89	87
	Opening Score/Rank	46531	30232	59083
	Closing Score/Rank	121914	130114	140104
Name of the Entrance Examination for Lateral Entry or lateral entry details  ECET	No of students admitted	10	17	20
	Opening Score/Rank	1115	2292	1778
	Closing Score/Rank	8148	7105	6552
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		87	85	84

8 FIRST YEAR ACADEMICS (50)

Total Marks 44.97

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

Total Marks 5.00

Institute Marks : 5.00

Please provide First year faculty information considering load for the particular program

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Dr.K.Srinivasar	AUOPK1437F	M.SC. (Mathematics) and PhD	30/03/2017	MATHEMATICS	Associate Professor	15/12/2019	100	100	100	Yes	Regular	
Dr.G.Sreedevik	ATOPK4061A	M.SC. (Mathematics) and PhD	15/03/2013	APPLIED MATHEMATICS	Associate Professor	15/11/2021	100	100	100	Yes	Regular	
Dr.G.Krishnaku	ARJPG3461H	M.Sc. (Physics) and Ph.D.	09/03/2013	PHYSICS	Associate Professor	06/08/2008	100	100	100	Yes	Regular	
CH.DHANALAI	BSAPC8068F	M.Sc	11/04/2022	MATHEMATICS	Assistant Professor	01/06/2022	100	100	100	Yes	Regular	
T.P.KANAKADI	BXHPA9165P	M.Sc	17/11/2021	MATHEMATICS	Assistant Professor	01/05/2022	100	100	100	No	Regular	17/09/2025
Y.SUPRAJA	AHXPY3098A	M.Sc	28/04/2011	STATISTICS	Assistant Professor	01/07/2023	100	100	0	Yes	Regular	
D.VINODA	APGPD7086N	M.Phil	27/08/2014	MATHEMATICS	Assistant Professor	04/07/2019	100	100	100	Yes	Regular	
G.SURESH	AMAPG0946M	M.Sc	22/01/2005	MATHEMATICS	Assistant Professor	27/11/2021	100	100	100	Yes	Regular	
B.NAGAMANI	CHVPB8471N	M.Sc	07/10/2016	MATHEMATICS	Assistant Professor	30/06/2023	100	100	0	Yes	Regular	
M.KALYANI	GHZPM4947L	M.Sc	17/07/2015	MATHEMATICS	Assistant Professor	28/10/2022	100	100	0	Yes	Regular	
M.SRINIVASA#	APUPM9900J	M.Sc	29/08/2007	PHYSICS	Assistant Professor	16/08/2011	100	100	100	Yes	Regular	
G.SRINIVASA#	DXTPS1696R	M.Sc	10/09/2005	PHYSICS	Assistant Professor	01/07/2015	100	100	100	Yes	Regular	
G.NAGALAKSI	EAMPG0472E	M.Sc	17/04/2017	PHYSICS	Assistant Professor	10/07/2023	100	100	0	Yes	Regular	
P.BIKSHALU	DWNPP8224F	M.Sc	01/04/2022	CHEMISTRY	Assistant Professor	26/05/2022	100	100	100	Yes	Regular	
V.NAGARANI	ADJPO8651M	M.Sc	20/08/2021	CHEMISTRY	Assistant Professor	26/05/2022	0	100	100	No	Regular	03/08/2024
M.RADHADEV	ITFPK0012J	M.Sc	11/04/2011	CHEMISTRY	Assistant Professor	26/06/2023	100	100	0	Yes	Regular	
SK.PHARJAN#	IDZPS7287B	M.Sc	02/06/2017	CHEMISTRY	Assistant Professor	25/08/2021	100	100	100	Yes	Regular	

G.MAHESHBA	HJRPBM2637C	M.Sc	13/11/2012	CHEMISTRY	Assistant Professor	21/03/2022	100	100	100	No	Regular	28/05/2025
Y.RAJYALAKS	CAAPR6697C	M.Sc	18/04/2011	MATHEMATICS	Assistant Professor	04/06/2022	100	100	100	Yes	Regular	
J.BRAMARAM	AOZPJ1480L	M.Sc	31/07/2008	PHYSICS	Assistant Professor	08/11/2021	100	100	100	Yes	Regular	
CH.ANUSHA	AKKPC8107C	M.Sc	19/01/2011	CHEMISTRY	Assistant Professor	01/04/2015	100	100	100	Yes	Regular	
Dr.P.RAVICHLA	BEQPP2327L	M.A and Ph.D	30/11/2022	ENGLISH	Associate Professor	05/07/2023	0	100	0	No	Regular	06/06/2024
I.SURESHBAB	ADJPI0582P	M.Sc	02/05/2005	CHEMISTRY	Assistant Professor	24/05/2017	100	100	100	Yes	Regular	
V.GOVARDHA	APVPG7097P	MA	31/08/2007	ENGLISH	Assistant Professor	25/07/2023	100	100	0	Yes	Regular	
D.SUJATHA	AODPD3563N	MA	09/05/2011	ENGLISH	Assistant Professor	26/09/2022	100	100	0	No	Regular	28/05/2025
V.NAVEEN CH	AOGPV5742J	MA	04/10/2007	ENGLISH	Assistant Professor	27/01/2021	100	100	100	Yes	Regular	
K.SRI NAGAV/	CSVPV0592C	M.Sc	06/04/2018	MATHEMATICS	Assistant Professor	01/06/2024	100	0	0	Yes	Regular	
Y.SRINIVASAF	AEOPY7091M	MA	15/04/2013	ENGLISH	Assistant Professor	01/04/2022	100	100	100	Yes	Regular	
I.VIDYAREKH/	ABWPI8311B	MA	11/07/2009	ENGLISH	Assistant Professor	27/06/2019	100	100	100	Yes	Regular	
M.JOYCE	AOAPP5359P	MA	18/08/1998	ENGLISH	Assistant Professor	16/07/2009	100	100	100	Yes	Regular	
D.RAMESH	FKPPD1096H	MA	11/05/2020	ENGLISH	Assistant Professor	01/04/2022	0	0	100	No	Regular	23/06/2023
S.KAVITHA	FEYPS5774E	M.Sc	07/10/2005	CHEMISTRY	Assistant Professor	15/07/2022	100	100	100	Yes	Regular	
T.SIREESHA	AMTPT1158M	M.Tech	14/03/2017	ELECTRICAL AND ELECTRONICS ENGINEERING	Assistant Professor	11/12/2019	100	100	100	Yes	Regular	
J NANCYNAM/	ALHPJ5030D	M.Tech	26/07/2012	ELECTRICAL AND ELECTRONICS ENGINEERING	Assistant Professor	11/12/2019	100	100	100	No	Regular	16/06/2025
T.NAGABHAR/	ARHPT9458G	M.Tech	17/05/2021	ELECTRICAL AND ELECTRONICS ENGINEERING	Assistant Professor	13/06/2022	100	100	100	No	Regular	04/06/2025
G.KRISHNARE	BYZPG7403B	M.Tech	18/06/2013	ELECTRICAL AND ELECTRONICS ENGINEERING	Assistant Professor	22/06/2015	0	100	100	No	Regular	17/06/2024

TONY RHODE	EPLPK8768D	M.Tech	19/12/2016	MECHANICAL	Assistant Professor	21/01/2019	100	100	100	Yes	Regular	
Dr.U.GAYATHF	ACFPU2313R	M.Tech and Ph.D.	31/12/2022	MECHANICAL	Associate Professor	19/10/2019	100	100	100	Yes	Regular	
SUGUNPAUL I	DXSPK8574B	M.Tech	13/01/2020	MECHANICAL	Assistant Professor	09/11/2020	100	100	100	No	Regular	02/06/2025
B V R SAIKRIS	HBCPS9699F	M.Tech	17/08/2019	MECHANICAL	Assistant Professor	17/10/2019	100	100	100	Yes	Regular	
V SATISHBABU	AYHPB6786F	M.Tech	10/07/2017	COMPUTER SCIENCE	Assistant Professor	01/06/2024	100	0	0	Yes	Regular	
D.NAGABHUS	AFRPN9721R	M.Tech	28/01/2019	COMPUTER SCIENCE	Assistant Professor	01/06/2024	100	0	0	Yes	Regular	
JAYMUNNISA	GBKPS8605A	M.Sc	21/06/2009	COMPUTER SCIENCE	Assistant Professor	01/04/2022	100	100	100	Yes	Regular	
A.MEDASRIMI	CHBPA7366R	M.Tech	30/10/2018	CIVIL	Assistant Professor	11/04/2022	100	100	100	Yes	Regular	
A V RAMANA	BFTPS9200P	M.Tech	05/10/1987	CIVIL	Assistant Professor	16/11/2020	100	100	100	Yes	Regular	
A.SAKEETH	BHOPA8812Q	M.Tech	13/08/2018	Civil	Assistant Professor	16/11/2020	100	100	100	Yes	Regular	
M.SUBRAMAN	DDRPMP3350J	MCA	11/08/2021	COMPUTER SCIENCE	Assistant Professor	05/06/2024	100	0	0	Yes	Regular	
A.ADIYYA	AOVPA6437N	MCA	13/03/2015	COMPUTERSCIENCE	Assistant Professor	05/06/2024	100	0	0	Yes	Regular	
M.CHAITANYA	BSLPM7357N	MA	08/09/2011	ENGLISH	Assistant Professor	01/06/2019	0	100	100	No	Regular	01/06/2024
DR.P.RAJASEI	FJFPR4842Q	M.SC. (Mathematics) and PhD	22/11/2022	MATHEMATICS	Associate Professor	26/06/2024	100	0	0	Yes	Regular	
S.P.RANGANA	DAKPS1029A	M.Sc	29/11/2013	PHYSICS	Assistant Professor	04/05/2022	0	0	100	No	Regular	01/06/2023
T.RATNAKUM/	ASJPT8999E	M.Tech	11/06/2015	COMPUTERSCIENCE	Assistant Professor	27/11/2019	100	100	100	Yes	Regular	
G.ANJANEYUI	AWQPG6103N	M.Tech	15/03/2017	COMPUTER SCIENCE	Assistant Professor	08/06/2022	100	100	100	Yes	Regular	
A.TEJASWI	BZIPT5979H	M.Tech	17/10/2019	COMPUTER SCIENCE	Assistant Professor	24/06/2022	100	100	100	Yes	Regular	
T.CHAKRAVAF	ATAPC2949D	M.Tech	27/05/2014	COMPUTERSCIENCE	Assistant Professor	05/06/2017	100	100	100	Yes	Regular	
K.SRINIVASAF	EAMPK1222C	M.Sc	12/10/2007	PHYSICS	Assistant Professor	21/07/2024	100	0	0	Yes	Regular	

N.SARATH CH	AMGPN3421Q	MCA	29/09/2009	COMPUTERSCIENCE	Assistant Professor	27/06/2022	100   100   100	Yes	Regular	
K.SRILAKSHM	CEQPK5883R	M.Sc	30/04/2011	CHEMISTRY	Assistant Professor	22/07/2023	100   100   0	Yes	Regular	
SK.MADEENA	CFJPS1283M	M.Sc	10/05/2010	CHEMISTRY	Assistant Professor	21/06/2022	100   100   100	Yes	Regular	
T.HARISH	AYOPT2660H	M.Tech	27/07/2023	MECHANICAL	Assistant Professor	31/07/2023	100   100   0	Yes	Regular	
K.KARUNA KL	GDGPK4349F	M.P.Ed	20/06/2024	PD	Assistant Professor	01/06/2022	100   100   100	Yes	Regular	
K.SAMBAIAH	EAFPK2291N	M.Tech	17/04/2018	MECHANICAL	Assistant Professor	31/07/2024	100   0   0	Yes	Regular	
DR.G.RAMAS/	AUJPG7945D	Ph.D	05/09/2015	LIBRARIAN	Associate Professor	15/06/2008	100   100   100	Yes	Regular	
M.APPARAO	AXTPM5753C	M.Sc	17/04/2006	MATHEMATICS	Assistant Professor	01/06/2024	100   0   0	Yes	Regular	
D.VANI	BNOPD4835L	M.Sc	06/10/2000	MATHEMATICS	Assistant Professor	01/07/2024	100   0   0	Yes	Regular	
V.SANDYARA	CEUPV6510E	M.Sc	18/10/2016	MATHEMATICS	Assistant Professor	04/05/2024	100   0   0	Yes	Regular	
J.SUNILGOWT	BIZPJ4761M	M.Sc	10/08/2021	MATHEMATICS	Assistant Professor	01/04/2022	0   0   100	No	Regular	30/05/2023
G.RAMAKOTE	ASEPG3588M	MA	15/07/2009	ENGLISH	Assistant Professor	03/06/2013	0   0   100	No	Regular	15/06/2023
Dr.SK.MUNTA.	EFPPS9216L	M.Sc. (Physics) and Ph.D.	18/02/2020	PHYSICS	Associate Professor	01/06/2022	100   100   100	Yes	Regular	
CH.VISVANAT	BRVPC1435L	M.P.Ed	07/02/2022	PD	Assistant Professor	01/04/2022	0   100   100	No	Regular	01/06/2024
Dr.M.PANDU	CEBPM7354E	Ph.D	18/03/2016	LIBRARIAN	Associate Professor	20/07/2022	0   100   100	No	Regular	02/07/2024

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment=(5*20)/FYSFR(Limited to Max.5)
2022-23(CAYm2)	660	50	13	5
2023-24(CAYm1)	756	56	14	5
2024-25(CAY)	1050	61	17	5
<b>Average</b>	822	55	14	5

8.2 Qualification of Faculty Teaching First Year Common Courses (5)

Total Marks 4.33

Institute Marks : 4.33

Year	x (Number Of Regular Faculty with Ph.D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1)	Assessment Of Faculty Qualification [ (5x + 3y) / RF ]
2022-23	6	45	33	5.00
2023-24	8	50	37	5.00
2024-25	7	55	52	3.00

Average Assessment: 4.33

### 8.3 First Year Academic Performance (10)

Total Marks 5.64

Institute Marks : 5.64

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Academic Performance	2024-25	2023-24	2022-23
Mean of CGPA or mean percentage of all successful students(X)	6.33	5.56	5.83
Total Number of successful students(Y)	120.00	92.00	135.00
Total Number of students appeared in the examination(Z)	120.00	102.00	141.00
API [X*(Y/Z)]	6.33	5.01	5.58

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

Assessment [ 1.5 \* Average API] : 5.64

### 8.4 Attainment of Course Outcomes of first year courses (10)

Total Marks 10.00

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)

Institute Marks : 5.00

**A. List of Assessment Processes****(1)**

- v. Course outcomes are formulated for each subject by respective subject coordinator.
- v. Attainment of each course outcome is done with help of marks from the following assessments:
  - o Performance of the students in the CIE examinations.
  - o Performance of the students in the University examinations.

**Internal Tests/Exams & Assignment**

- v. Subject coordinator is responsible for setting quality question paper as per the guidelines of exam section.
- v. Subject coordinator conducts 2 mid-exams in a given semester and every 2 month mid exam will be conducted.
- v. Subject coordinator follows guidelines, which are set by Department to evaluate the answer sheets.
- v. Marks are allocated based on the assignments, tests conducted in each subject (sum of highest marks will be taken from 80% and lowest marks will be taken 20 %)

<b>Assessment tool</b>	<b>Maximum marks</b>
Assignment	5
Descriptive exam	25
End Semester exam	70

**Laboratory Exam Evaluation:**

- v. Laboratory course coordinator uses rubrics, which are set by the Department to access students towards evaluation of laboratory programs.
- v. The laboratory course coordinator will conduct two tests internal and external.

**Lab Course Evaluation:**

The distribution of marks for Lab courses is as given in table below.

**Table.** Lab course evaluation

<b>Assessment tool</b>	<b>Maximum marks</b>
Continuous evaluation	15
Internal Lab exam	15
End Semester lab exam	70

**Indirect Assessment process**

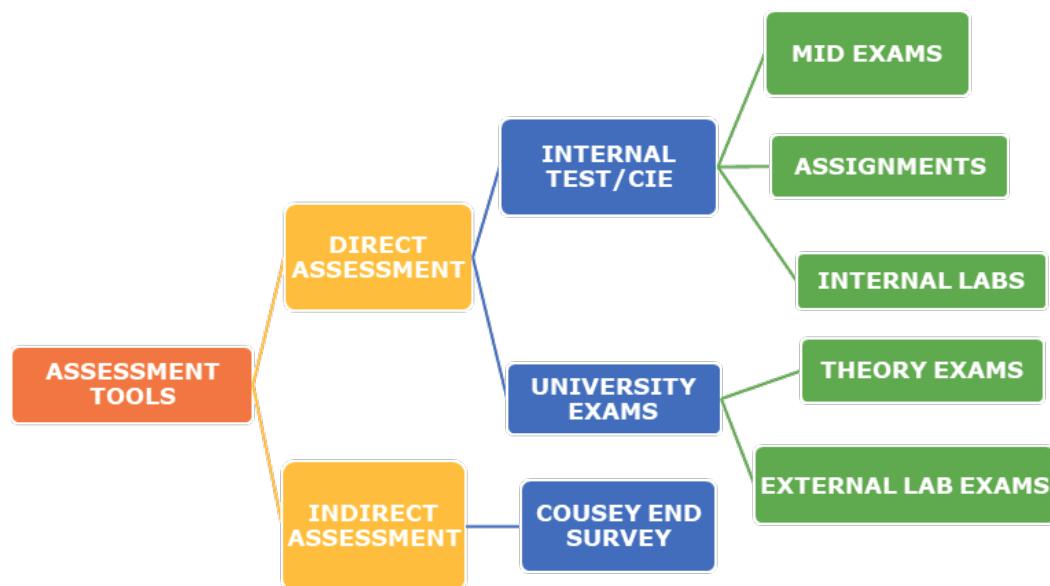
The student feedback questionnaire on the course outcomes is circulated to students at the end of the course and the feedback is assessed. Feedback results from students, are consolidated and the final CO attainment values are calculated through 3-point scale (High, Medium, Low)

#### B. The Relevance of Assessment Tools Used

(4)

v. To calculate CO attainment value, following tools are used as follows.

- Direct assessment tools
  - Internal tests/CIE
    - Mid-exam
    - Assignment
    - Labs.
  - Sem Exams/External Exams
    - Theory exams
    - Labs.
  - Indirect assessment tools
    - Course end survey.

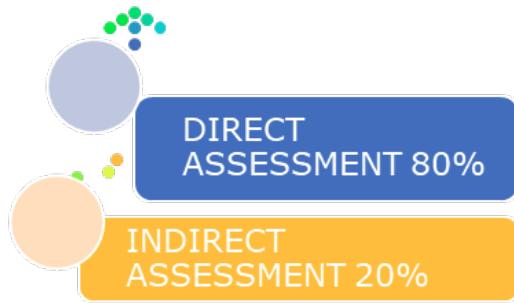


#### Course Attainment Calculations

v. Weightage given to direct attainment = 80%

v. Weightage given to Indirect attainment = 20%

v. Total CO Attainment =  $0.8 * \text{Direct attainment value} + 0.2 * \text{indirect attainment value}$  [respective course]



**Table 8.4.1.1.** List of assessment tools used for measure CO.

SN	Name of assessment tool	Weightage	Frequency of data collection
1	Direct assessment tools	CIE	End of semester
		University	
2	Indirect assessment tools	Course and survey	20%

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**8.4.2 Record the attainment of Course Outcomes of all first year courses (5)**

Institute Marks : 5.00

COURSE	CO1	CO2	CO3	CO4	CO5	CO6
CODE	AL	AL	AL	AL	AL	AL
C111	1.58	1.54	1.66	1.71	1.60	
C112	2.03	2.01	2.30	2.33	2.19	
C113	2.16	2.13	2.17	2.34	2.29	2.30
C114	2.11	2.15	2.09	2.10	2.10	
C115	2.12	2.08	2.30	2.26	2.19	
C116	2.97	2.97	2.95	2.96	2.96	
C117	2.95	2.96	2.98	2.96	2.98	
C118	2.83	2.84	2.86	2.84	2.84	
C119	2.96	2.95	2.95	2.96		
C121	2.70	2.71	2.76	2.78	2.76	
C122	2.21	2.22	2.06	2.02	2.00	
C123	2.22	2.20	2.27	2.25	2.22	
C124	2.14	2.15	2.15	2.12	2.11	2.10
C125	2.22	2.25	2.21	2.22	2.39	
C126	2.95	2.96	2.97	2.97	2.96	
C127	2.95	2.96	2.96	2.96	2.95	
C128	2.95	2.95	2.96	2.95		
C129	2.87	2.86	2.87	2.86	2.86	

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**8.5 Attainment of Program Outcomes from first year courses (20)**

Total Marks 20.00

**8.5.1 Indicate results of evaluation of each relevant PO and/ or PSO, if applicable (15)**

Institute Marks : 15.00

**POs Attainment:**

<b>Course</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
C111	1.62	0.54	1.08	1.08	0	0.54	0	0	0	0	0	0
C112	2.17	1.45	1.45	1.45	1.45	0	0	0	0	0	0	0
C113	2.23	2.04	1.78	1.49	2.23	1.86	1.49	1.49	1.49	1.86	1.49	2.23
C114	2.11	1.55	1.27	0.98	1.27	0.70	0.70	1.41	1.41	0.84	0.70	1.55
C115	1.17	1.90	1.46	2.19	1.75	0.73	0.73	0.88	0.88	0.73	2.19	0.73
C116	2.37	2.47	1.97	1.97	2.47	1.73	0	1.97	2.47	1.48	1.97	0
C117	1.98	0.99	1.98	2.97	0	0	0	0	0.99	0	0	0.99
C118	2.65	2.37	2.21	1.89	2.46	2.37	1.89	0	1.89	2.13	1.89	2.84
C119	1.73	2.71	1.97	2.96	2.22	0.99	0.99	1.23	0.99	0.99	2.96	0.99
C121	0	0	0	0	0	0	0	0	1.83	2.74	0	1.83
C122	1.96	1.58	1.63	1.63	1.75	0	0.70	0	0	0	0	0.70
C123	2.23	1.78	1.49	0	0	0	0	0	0	0	0	0.74
C124	2.01	1.24	1.42	2.13	1.78	1.66	1.42	0	0	0.71	0.71	0.83
C125	2.11	2.26	1.05	1.51	1.51	1.51	0.75	0.75	1.96	1.96	1.36	1.36
C126	0	0	0	0	0	0	0	0	1.58	2.96	0	1.97
C127	2.95	1.97	0.98	1.97	0	1.97	0	0	1.38	0	0.98	0
C128	2.95	1.97	0.98	0.98	0	0	0	0	0	0	0	1.97
C129	2.86	1.91	0.95	1.91	0.95	1.91	0.95	1.72	0.95	1.33	0.95	1.91

**PO Attainment Level**

<b>Course</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
Direct Attainment	2.19	1.80	1.48	1.81	1.80	1.45	1.07	1.35	1.48	1.61	1.52	1.47
CO Attainment	2.19	1.80	1.48	1.81	1.80	1.45	1.07	1.35	1.48	1.61	1.52	1.47

**PSOs Attainment:**

Course	PSO1	PSO2	PSO3
C113	2.23	2.23	2.23
C118	2.65	2.52	2.84
C125	1.96	1.66	2.26
C129	2.86	2.67	1.91
PSO Attainment	2.42	2.27	2.31

**PSO Attainment Level**

Course	PSO1	PSO2	PSO3
Direct Attainment	2.42	2.27	2.31

**8.5.2 Actions taken based on the results of evaluation of relevant POs (5)**

Institute Marks : 5.00

**POs Attainment Levels and Actions for Improvement- (2023-24)**

POs	Target Level	Attainment Level	Observations
<b>PO 1 : Engineering Knowledge</b>			
PO 1	1.50	2.19	Target attained. However, there is a scope for improvement in the following subjects- C115(Introduction to programming)
Action-1: Daily practice of coding problems. (C115) Action-2: Weekly coding tests in lab. (C115)			
<b>PO 2 : Problem Analysis</b>			
PO 2	1.50	1.79	Target attained. However, there is a scope for improvement in the following subjects- C111(Engineering physics)C124 (BCME)
Action-1: Use experiments to explain theory (optics, waves, electricity). (C111) Action-2: Demonstrate models and practical applications. (C124)			
<b>PO 3 : Design/development of Solutions</b>			
PO 3	1.50	1.48	Target not attained. Due to the lower attainment in few courses such as – C111(Engineering physics), C125(Network analysis) Observations: students encouraged to design and develop their own solutions to different problems given as assignments and compare them with existing solutions.
Action-1: To improve PO attainment value, Weekly assignments and problem-solving classes. (C111) Action-2: More explanation upon technical terms and concepts in the class. (C125)			
<b>PO 4 : Conduct Investigations of Complex Problems</b>			
PO 4	1.50	1.81	Target attained. However, there is a scope for improvement in the following subjects- C114(Engineering Graphics) C128(Engineering Workshop)
Action-1: Encourage students to practice 2Dand 3D drawing using CAD tools for better visualization skills (C114) Action-2: Weekly evaluation of work piece completion. (C128)			
<b>PO 5 : Modern Tool Usage</b>			
PO 5	1.50	1.80	Target attained. However, there is a scope for improvement in the following subjects- C114(Engineering Graphics) C129(NA lab)
Action 1: Faculty members encouraged students to make of modern tools in solving problems, Weekly drawing assignments. (C114) Action 2: Provide problem statements and algorithms before each lab.(C129)			
<b>PO 6 : The Engineer and Society</b>			
PO 6	1.50	1.45	Target not attained. Due to the lower attainment in few courses such as –C111 (Engineering physics) Observations: To improve PO attainment value, social service activities were conducted as part of NSS
Action 1: To improve PO attainment value, Lab demonstrations linked with syllabus. (C111)			
<b>PO 7 : Environment and Sustainability</b>			
PO 7	1.50	1.07	Target not attained. Due to the lower attainment in few courses such as –C114(Engineering Graphics) C115(C-Programming) Observations: To improve PO attainment value, social service activities like tree plantation program conducted as a part of NSS activities.
Action 1: Providing the fundamentals of the subjects to make easy to understand(C114) Action 2: In order to improve attainment value, Daily practice of coding problems. (C115)			
<b>PO 8 : Ethics</b>			
PO 8	1.50	1.35	Target not attained. Due to the lower attainment in few courses such as – C114(Engineering Graphics) C125((Network analysis) Observations: Faculty member took special classes on professional ethics
Action 1: To improve the attainment value, Slip test on projections and isometric drawings. (C114) Action 2: Number of problems are to be discussed in tutorial classes. (C125)			

**PO 9 : Individual and Team Work**

PO 9	1.50	1.48	Target not attained. Due to the lower attainment in few courses such as -C115(C-Programming) C129(NA lab)
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Action 1: In order to improve attainment value, more lab sessions will be given for program practice. (C115) Action 2: Relate lab experiments with corresponding theory topics. (C129)

**PO 10 : Communication**

PO 10	1.50	1.61	Target attained. However, there is a scope for improvement in the following subjects-C115(C-Programming), C124 (BCME)
-------	------	------	---

Action 1: Providing basic concepts and fundamentals in the class. (C115) Action 2: Weekly quiz on mechanical & civil fundamentals. (C124)

**PO 11 : Project Management and Finance**

PO 11	1.50	1.52	Target attained. However, there is a scope for improvement in the following subjects- C114(Engineering Graphics) C124(BCME)
-------	------	------	---

Action 1: Students encouraged to participate in various competitions, where they can learn to submit their working models for evaluation in time. (C114) Action 2: Classes to be conducted to revise the basics of civil and mechanical engineering. (C124)

**PO 12 : Life-long Learning**

PO 12	1.50	1.47	Target not attained. Due to the lower attainment in few courses such as -C115(C-Programming) C122(Chemistry)
-------	------	------	--

Action 1: To improve attainment value, students given assignments that involve self-study in the relevant subjects. (C115) Action 2: Motivate students to apply chemistry concepts in industrial and environmental applications through experiments. (C122)

**PSOs Attainment Levels and Actions for Improvement- (2023-24)**

PSOs	Target Level	Attainment Level	Observations
------	--------------	------------------	--------------

**PSO 1 : Professional Knowledge: Apply the concepts of Electronics and Communications to arrive cost effective and appropriate solutions.**

PSO 1	1.50	2.42	Target attained.
-------	------	------	------------------

• Action 1: Regularly update course content to reflect advancements in electronics and communication technologies.

**PSO 2 : Problem-solving skills: Apply the principles of analog, digital and Signal processing systems for Consumer electronics, medical and radar systems.**

PSO 2	1.50	2.27	Target attained.
-------	------	------	------------------

Action 1: Introduce mentorship programs pairing senior students with juniors to enhance troubleshooting and problem-solving approaches.

**PSO 3 : Software Usage: Use VHDL, MATLAB, MULTISIM and MENTOR GRAPHICS to design integrated circuits and analyze signals.**

PSO 3	1.50	2.31	Target attained.
-------	------	------	------------------

Action 1: Encourage students to create simulation models and design integrated circuits as part of coursework or independent projects.

**9 STUDENT SUPPORT SYSTEMS (50)**

Total Marks 50.00

**9.1 Mentoring system to help at individual level (5)**

Total Marks 5.00

Institute Marks : 5.00

## 9. Mentoring system to help at individual level (5)

### 1. Student Mentoring System

NRI Institute of Technology(NRIIT) Strongly believes that Student Mentoring system plays a vital role in empowering the student's at individual level. Unless a student is ready to learn, whatever may be the intelligence quotient of the student/efficiency of the teacher; learning cannot take place accurately. In this context, NRIIT has an efficient student mentoring system of allotting 30 students to every faculty to address not only the academic/curricular issues but also other issues like economic issues, teenage problems, emotional problems and psychological issues. Number of faculty mentors at NRIIT is 108 for the programs CSE (22), ECE (26), IT (12), BS&H (38) for the A.Y 2023-24.

### 1. Objectives of the Student Mentoring System

The objectives of the Mentoring System at NRIIT are:

- A. To monitor and enhance the student's regularity & discipline
- B. To monitor and enhance the student's academic/curricular performance.
- C. To counsel the students and provide confidence to improve their quality of life by addressing their issues such a
  - o Economic Issues
  - o Teenage Issues
  - o Health Issues
  - o Emotional Issues
  - o Psychological Issues
- D. To engage the parents in the continual improvement of their ward's performance.
- E. To encourage student's participation in co-curricular & extra-curricular activities with a balanced academic performance.
- F. To guide the students towards campus recruitment, higher education, research & entrepreneurship.

### G. Process of mentoring at NRIIT

Process of mentoring students at **NRIIT** was developed to **achieve** the **objectives** of the Student Mentoring system in the following attributes:

#### 1. Regularity & Discipline

- o Once in a week, every faculty/mentor will informally meet their allotted student's/mentee's for counselling and making a note of their status in the respective Student Mentoring Book.
- o During the counselling, if the student was observed to be performing good they will be appreciated. If the student was observed to be non-attentive/non- performer/irregular, the exact reasons/issues will be identified by the mentor and will be given with enough counselling/support in resolving/addressing the concerned issues.

#### 2. Academic/Curricular Performance

- o In the first stage at the beginning of every semester, the faculty/mentor will address the allotted students regarding the details of academics in the semester and evaluation procedure in line with the respective PO's, PEO's, Mission, Vision at program and institute level.
- o The detailed performance evaluation/results for every assessment will be noted down in the respective student mentoring book.
- o If the student/mentee performance is good then she will be recommended for Merit Scholarship else she will be guided and tutored to improve her performance.

#### 3. Other Issues to increase confidence of Student/Mentee to improve their quality of life

- o Economic Issues: During the counselling process, if any student/mentee was observed to be suffering financial crisis impacting their performance will be recommended for various opportunities such as MEAN Scholarships.
- o Teenage Issues: During the counselling process, if any student/mentee was observed to be having issues like adolescence, including social media, body image, substance use and sleep will be counselled accordingly in resolving issues at mentor level and even if the issues still persists the student/mentee will be directed to grievance and redressal cell for further counselling through Program Coordinator.

**Health Issues:** During the counselling process, if any student/mentee was observed to be having any health problem disturbing their performance will be inspected with Health Club with concerned parent consent. Where if the issue deserves a doctor's consultation, the primary consultation will be borne by the institution and further recommendations will be handed over to the parent.

**Emotional Issues:** During the counselling process, if any student/mentee was observed to be having emotional issues chronic discipline problems, is truant often, temper tantrums, lack of empathy/compassion, bullying others, causing damage to others properties, having conflicts with parents and authority figures will be counselled accordingly. Even if the issue continues to persist, student/mentee will be taken for further counselling with Program Coordinator.

**Psychological Issues:** During the counselling process, if any student/mentee was observed to be suffering from psychological issues like depression, stress, anxiety, eating disorders, self injury, bipolar disorder and psychotic will be counselled for the resolution. Even if the issues continue to persist the student/mentee will be recommended to a psychologist consultation through program coordinator and parents.

**4. Engaging Parents for continual improvement:** The attendance, performance report and the counselling remarks will be constantly shared with parents daily, monthly and whenever it is necessary. A daily SMS for regularity, monthly attendance report, performance and counselling whenever it is necessary will be shared with the parents.

**5. Co-curricular & Extra-curricular Activities:** During the counselling process, a student/mentee observed to be keen or excelling in any co-curricular or extra-curricular will be given proper guidance towards a balanced learning to maintain

better performance in academics and the concerned activity as well. Such student/mentee will be forwarded to the respective clubs for her participation and further guidance in national & international level.

- 6. Campus recruitment, higher education, research & entrepreneurship:** During the counselling process, the faculty/mentor will understand the goal of the students regarding her career and guide her towards achieving her goals by recommending her active participation towards Trainings, Seminars, Conferences, Workshops, Publications and Projects, etc., At every stage, the student/mentee will be monitored and report will be maintained cumulatively to motivate them for a better career opportunity.

#### Efficacy of the Mentoring system

Students will be able to:

- A. Improve their attendance percentage leading to low detention rates.
- B. Students who perform badly in initials tests can improve due to the assignments given, question paper solving and effective guidance.
- C. Register better academic performance.
- D. Lead a quality learning life with confidence.
- E. Succeed in Campus Placements and career building.

- **Regularity and Discipline:**

In the Student Mentoring System, academic and curricular performance is closely monitored through evaluation of both internal tests and semester-end examinations. Mentors track the results of Midterm (Mid-I, Mid-II) tests and semester-end exams for each student, noting performance improvements or concerns. This data is recorded and used to guide students, recommend tutoring or remedial sessions if needed, and encourage high achievers for scholarship and recognition. The mentoring process emphasizes continuous academic monitoring alongside attendance and behavioral checks to provide timely support for students' overall development and success.

- **Counseling Details:**

The Student Mentoring System includes comprehensive counseling that addresses the following key issues:

- 1. Economic Issues:

Counselors provide support to students facing financial difficulties, guiding them to scholarships, financial aid, and other resources to help them continue their education without undue financial stress.

- 2. Teenage Issues:

Mentors help students navigate common adolescent challenges such as social media pressures, body image concerns, peer relationships, and emotional changes through guidance and appropriate counseling.

- 3. Health Issues:

Students with health problems receive attention to ensure their well-being, including referrals to medical professionals if necessary, and accommodations to aid their academic progress.

- 4. Emotional Issues:

Counseling services address emotional challenges like chronic discipline problems, temper issues, conflicts with authority, bullying behavior, and lack of empathy, providing support to improve emotional regulation and interpersonal skills.

- 5. Psychological Issues:

For more serious concerns such as depression, anxiety, stress, and other mental health disorders, students are provided with appropriate counseling and, when needed, referred to psychologists or specialized mental health professionals for further help.

- **Co-curricular and Extra-curricular Activities:**

The project record maintained by mentors includes comprehensive details of both Mini Projects and External or Major Projects undertaken by students. Mini Projects help students develop practical skills on smaller, focused topics and are closely monitored to ensure learning objectives are met. External or Major Projects involve more extensive research and application, often incorporating real-world problems. Mentors guide students through planning, execution, and presentation of these projects, documenting progress and outcomes. This record serves as an important aspect of the mentoring process to track academic growth, enhance hands-on experience, and prepare students for future professional challenges.

- **Internships&Placement Records**

Regarding placement, mentors guide students through career preparation activities, including training sessions, seminars, and workshops, helping them enhance employability skills. They also track placement opportunities, student applications, and job offers received. This ongoing documentation and counseling help students align their academic progress with industry requirements and prepare effectively for campus recruitment and career advancement.

At the institute students are constantly monitored through regular interaction and mentoring process. In the event of any special issues arising out of economic, academic, health and psychological problems, the mentors will try to rectify the situation by providing relevant support. Few of special issues presented in Table 9.1.1.

**Table 9.1.1: Impact through counselling on special issues**

S. No	Name of student	Nature of Problem	Status of student (Issue)	Counseling or Support given	Efficacy
1	23KP1A0415 Chennakesava	Academic/ Curricular Performance	Backlogs problem	Remedial and tutorial classes are held to prepare the student for supplementary exams.	Cleared all the active backlogs
2	23KP1A0419 Aanuhya	Regularity & Discipline	Irregularity problem	Motivated to attend regularly by explaining the value of education.	Regularity Improved
3	23KP1A0441 Priya Darshini	Psychological Issues	Depression problem	Motivated the student by showing the motivational and spiritual videos.  Constantly monitored her progress.	Student participated and interacted actively.
4	22KP1A1418 Narasimha Reddy	Economic Issues	Financial problem	Motivated the student to study well in order to get Means and Merit scholarship provided by the institute.	Student received mean scholarship provided by the institute.
5	22KP1A1428 D.Thanuja	Teenage Issues	Love failure	Guided the student to choose the right path and made the student realize the importance of parents.	Student chose the correct path and focused on studies.
6	22KP1A1429 D.Venkata Swami	Academic/ Curricular Performance	Dropping the college due to unable to understand the concepts	Suggested easy ways to understand the concepts through online videos and also provided study materials to prepare for the exams.  Student gradually gathered confidence to continue the studies.	The student continued in the college and cleared all the subjects.
7	24KP1A05M0 P.Naresh	Health Issues	Irregularity problem due to health issues	Student was provided medical assistance and student recovered slowly from the illness.	Student started attending the classes regularly.

8	24KP1A0519 N.Sagar	Psychological Issues	Behaviour problem	Student was made to understand the importance of behaviour and ethics. Motivational videos were shown.	Student changed her attitude and interacted with classmates nicely.
9	24KP1A05G5 M.Prabhu Teja	Psychological Issues	Depression problem	As she is under constant stress and anxiety out of fear of the subjects she has been counselled by HoD. Mentor is asked to be in regular touch with her.  Motivate her suitably by asking one of the lady faculty members to clarify her doubts and about exam pattern.	Student slowly gained confidence over period of time and concentrated on studies.
10	24KP1A05H6 M.Rohit Bhanu Chandu	Psychological Issues	Depression problem	Mentor identified the reason behind student's depression and explained to her about the importance of studies and motivated her through inspiring and motivational videos	Student has overcome her depression; changed her attitude and concentrated on the studies and

				to overcome the depression.	secured good marks.
11	23KP1A0593 M.Srikanth	Health Issue	Health problem (Migraine)	Identified the problem and institution has provided medical assistance to the student.	Student recovered from her illness and concentrated on her studies and secured good result.
12	23KP1A05V2 P.Kula Shekar	Health Issue	Health Problem (Constant Fever)	Institute provided the medical assistance and advised the student to consult specialist doctor.	Student recovered from health problem and concentrated on studies

**1. Impact through counselling on academic performance**

The academic/curricular performance of the Student's/Mentee's was good up to their First academic year. Later in the second year their academic performance was fall down due to not able to clarify their doubts in time with inferiority complex. In order to improve their academic performance, proper mentoring and guidance was provided with the help of student mentoring system by respective mentor. So that, it was observed student's/mentee's performance was improved in the further academic years.

**Department of -----**

**Student counselling data sheet**

Affix Passport size Photograph

<b>Personal Data</b>	
Name of the student	
Roll Number	
Branch/semester	
Name of the father/mother/guardian	
Permanent address	
Mobile number	
Telephone number(residence)	
e-mail Id	
How many brothers and sisters?	
What are they doing?	
Name of the local guardian	
Address of the local guardian	
Telephone number of the local guardian	
e-mail id of the local guardian	

<u>Academic details</u>	
X standard percentage	
XII standard percentage	
What are thrust areas (interested and well knowledge subjects)	
What are the subjects you have scored less marks? What you feel is the reason?	
What is your ambition ? And goal ?	
What are your plans to achieve your goal?	
What are your drawbacks ?	
What are your achievements so far? Any awards?	Academic:  Cultural:  Sports:
Any district/state level participations ?	
Languages known?	Read:                          Write:
What are your hobbies?	
Who is your role model? And why?	
Are you a member of NCC or NSS	
Any other fields of interest?	
Describe briefly about yourself?	

Report of the Counseling

Counseling Date	
Information Gathered	
Identified problems, if any	
Corrective action	
Remarks	

Student Signature

Counseling Date	
Information Gathered	
Identified problems, if any	
Corrective action	
Remarks	

Student Signature

Counseling Date				
Information Gathered				
Your advice				
Follow up action				
Did you find any improvement				
I Mid marks:	Attendance	Held:	Attended:	%:

Student Signature

Counseling Date				
Information Gathered				
Your advice				
Follow up action				
Did you find any improvement				
II Mid marks:	Attendance	Held:	Attended:	%:

Student Signature

counsellor signature

**SAMPLE FORM -ATTENDANCE DETAILS****I B.Tech I Semester Date of commencement of Semester:**

S. No	As on	Conducted hours (Cumulative)	Attended hours (Cumulative)	Attendance (%)	Remarks
1					
2					
3					
4					
5					
6					
7					

**ACADEMIC PERFORMANCE**

S. No	Subject	Mid – 1	Mid – 2	Internal	End exam	Month/ year of passing
1						
2						

<b>3</b>					
<b>4</b>					
<b>5</b>					
<b>6</b>					
<b>7</b>					
<b>8</b>					
<b>9</b>					
<b>10</b>					
<b>CGPA</b>					
<b>No. of Backlogs in Current Semester:</b>					
<b>Total No. of Active Backlogs:</b>					

## **SAMPLE-FORM COUNSELLING / MENTORING REPORT**

Name of the Mentor:

Head of the Department

Principal

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**9.2 Feedback analysis and reward /corrective measures taken, if any (10)**

Total Marks 10.00

Institute Marks : 10.00

#### 9. Feedback analysis and reward /corrective measures taken (10)

In NRIIT , a systematic methodology is used for the feedback on teaching-learning process. The process of feedback collection, analysis and evaluation in our institute is presented in Table 9.2.1.

**Table 9.2.1: Feedback collection, analysis and evaluation process**

<b>Step-1</b>	Collection of feedback forms for all the subjects from the students based on parameters specified in the questionnaire.
<b>Step-2</b>	Estimation of average for all the parameters and calculation of cumulative otherwise called threshold.
<b>Step-3</b>	After the recommendations of Principal, the threshold value will be finalized. The normal value setup at present is 3.5
<b>Step-4</b>	If the threshold exceeds 3.5, it will be considered as good. If it is less, the faculty performance is considered as average or below average.
<b>Step-5</b>	If the faculty receives good performance, he will be rewarded with monetary benefits (additional increment). If he/she receives average or below-average performance, he/she gets counselling and allows them to get correct their performances.

#### **Faculty Performance Evaluation and Feedback Mechanism**

##### 1. Feedback Forms:

Standardized feedback forms are prepared to capture comprehensive evaluations of teaching and institutional parameters. These forms ensure uniformity in data collection and are designed to cover all relevant aspects that impact quality education and faculty performance.

##### 2. Principal's Approval:

The entire feedback process, including the content of feedback forms and schedules for their distribution and collection, is subject to the approval of the Principal. This oversight ensures that feedback mechanisms align with institutional goals and quality standards.

##### 3. Feedback Collection:

Feedback is collected through a dual-mode approach comprising both online and offline platforms. This method facilitates maximum participation from students and other stakeholders, providing flexibility and maintaining the confidentiality and integrity of the data collected.

##### 4. Faculty members receive standardized feedback evaluated on a 5-point scale.

5. If a faculty member's overall feedback score is greater than 4.5, their performance is documented as good, and they may be recommended for rewards or recognition.

6. If the score is between 3.5 and 4.5, the faculty member is required to undergo orientation classes to enhance teaching skills and address any weaknesses.

7. If the score is less than or equal to 3, the faculty member may be subject to reassignment or replacement. Additionally, a formal memo will be issued requesting an explanation of their performance.

#### **SAMPLE COPY**

#### **Student Feedback form on Faculty**

**Department:** \_\_\_\_\_  
**Semester/Year:** \_\_\_\_\_

Student Name (Optional): \_\_\_\_\_

**Instructions for Students:**

- Please provide feedback for all the subjects AND Labs you are enrolled in.
- Your feedback will remain confidential and used only for quality improvement.
- Use the scale: **5 – Excellent | 4 – Very Good | 3 – Good | 2 – Satisfactory | 1 – Needs Improvement**

SNO	PARAMETERS	SUBJECT NAME NAME		LAB								Principal
	FACULTY NAME----à											
1	Knowledge of the Subject											
2	Communication Skills											
3	Explanation of Concepts											
4	Student Interaction											
5	Use of Teaching Aids											
6	Punctuality & Regularity											
7	Coverage of Syllabus											
8	Fairness of Evaluation											
9	Fairness in Teaching methodology											
10	Overall Effectiveness											

**Figure 9.2.2 Illustration of student feedback form on Faculty**

**Calculation of overall Index:**

Step-1: Consider all 10 parameters.

Step-2: Collect all responses

Step-3: Calculate Average for Each Parameter:

For each parameter

Average Score per parameter = sum of all scores for that parameter / No. of students

Step-4: Convert into percentage index

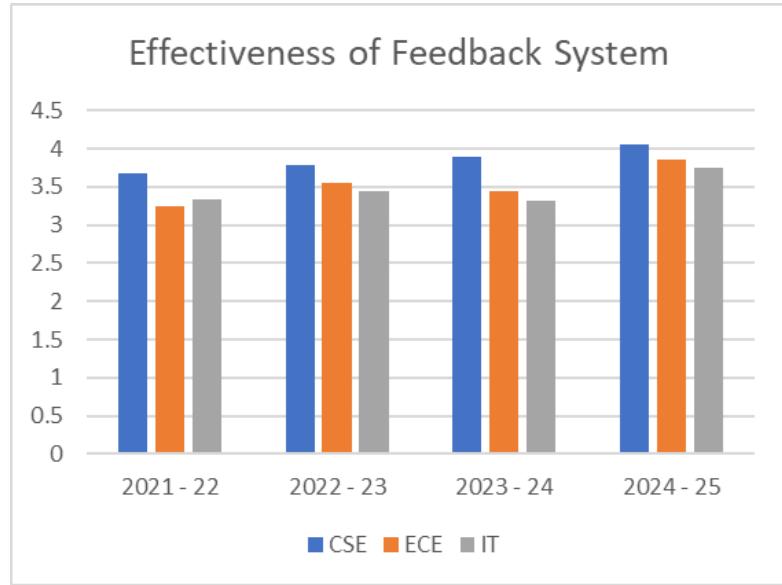
Index(%) = Average score / Maximum scale value \* 100

Step-5: Find overall Index = Sum of all parameter averages / No. of parameters.

**1. Effectiveness of Methodology being followed for analysis of feedback**

Effectiveness of the methodology being followed was illustrated based on feedback indicator. Feedback indicator is value of average feedbacks employed by the faculty in a department over a batch of students during their entire academics. This feedback indicator was evaluated for the CAY, CAYm1, CAYm2 and CAYm3 for all

the programs and illustrated in the Figure 9.2.3.



YEAR	CSE	ECE	IT
2021 - 22	3.68	3.25	3.33
2022 - 23	3.78	3.56	3.45
2023 - 24	3.89	3.45	3.32
2024 - 25	4.05	3.85	3.75

#### 9.2.3. Corrective actions taken and its efficacy of the Feedback analysis:

From the Figure 9.2.3, there is a gradual improvement in the teaching-learning process among all the programs for the last three academic years consistently with the methodology implemented for the analysis of feedback.

In the process of feedback analysis to improve the teacher learning process, a unique process was developed. After the evaluation of feedbacks, faculty who received below 7 will be listed out for further evaluation either through a orientation class or recommended to attend FDPs etc. A record of corrective actions taken was maintained cumulatively for all the three batches. Through principal's office a notification will be issued regarding the orientations to be delivered for the improvement of teaching learning process. A committee will be constituted including Principal along with two program specific internal faculty members. The recommendations of the committee will be constituted and will given to faculty undergoing orientation will be given a specific time to improve his skills for a better teaching learning process. After the specified time, the faculty will be analysed against the feedback during his delivery in the same class and will be assessed based on the feedback taken again. Further improvements or guidelines will be forwarded to principal office accordingly. List of corrective actions taken were detailed below in Table 9.2.3 for reference.

**Table 9.2.3. Record of corrective actions taken based on feedback**

Academic Year 2024-25							
S.No	Program	Date	Faculty Topic	Corrective actions/ Suggestions	Feedback(10)		Comments
					Before	After	

1	ECE	6.4.2025	P.Srinivasa Rao	Image Enhancement techniques	Maintain right pace with students understanding capabilities and give more examples	3.4(IV-I) DIP ECE-B	3.9	Very Good
2	IT	5.4.2025	G.Sravani Latha	DLCO	.	3.0 (II-I) SEM	3.9	Good
3	CSE	7.4.2023	CH.Bindu Madhavi	Java Scripts	Adopt innovative teaching practices and prepare lecture notes in advance.	3.1	4.1	Good

Academic Year 2023-24								
S. No	Program	Date	Faculty	Topic	Corrective Actions	Feedback(5)		Comments
						Before	After	
1	ECE	4.11.2019	Dr.Kalaiselvan	TCP/IP Protocol	Show them network configuration used in our campus and explain each and every hardware to establish the network.	3.2 (III-II) CN ECE-A	4.1	Very Good

2	CSE	4.03.2020	D.Thirupathamma	Polymorphism	Try to improve OOPs concepts by referring different text books. Focus more on LE students	3.3 (II-I) OOPS CSE-A	3.89	Good
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**Academic Year 2022-23**

S.No	Program	Date	Faculty	Topic	Corrective Actions	Feedback(10)		Comments
						Before	After	
1	ECE	09.10.2022	Murthy	VLSI Design	Prepare well and improve the fundamental concepts.  Prepare the lecture notes and get approved by the HoD.	3.2 (III- II)  ECE Sec-A	3.8	Good
2	CSE	16.10.2018	Y.Jessy Kumari	DLCO	Technical Knowledge is poor.  Prepared lecture notes well in advance. Be serious in the class.	3.3 (I-II CSE SEC-A)	3.9	Good

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**9.3 Feedback on facilities (5)**

Total Marks 5.00

Institute Marks : 5.00

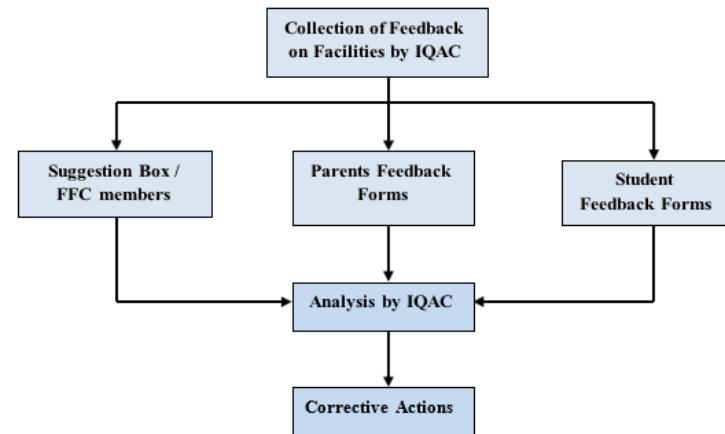
## Feedback on facilities

### 1. Feedback collection process

Feedback on facilities is collected every year through IQAC from the following means:

- Student Feedback Form
- Parent Feedback Form
- Suggestion box

Institute centrally takes the feedback on facilities once in every year through student feedback form and parents feedback form. A suggestion box is placed in the department to get the opinion on the functioning, maintenance of the facilities. The corrective actions were taken wherever necessary based on the above feedbacks and FFC members recommendations. The details of the approval letters and the summary of meetings/discussions are maintained.



**Figure 9.3.1: Illustration of implementation process of feedback on facilities**

### Analysis of feedback on facilities

Assessment is based on student feedback collection, analysis and corrective action taken. Overall rating on the facilities available in the department/institution in parameter wise given in Table 9.3.1 and 9.3.2. The feedback collected will be cumulatively taken on a scale of 5.

**Table 9.3.1. Student feedback rating on parameters**

S.No	Parameters	Rating (5 Point scale)			
		2024-2025	2023-24	2022-23	2021-22
1	Quality of Teaching in the Dept	4.5	4.5	4	3.8
2	Quality of Infrastructure and Labs in the Department	4.5	4.5	4.5	4.2
3	Training & Placements	4	4	4.5	4.1
4	Extra-Curricular Activities	4	5	4.5	4.3
5	Canteen Facility	3.8	4.5	3.7	3.8
6	Transport Facility	5	5	4.5	5

7	Hospital/First Aid Facility	4	3.9	4	3.8
8	Sports Facility	5	4.5	4.25	4.1
9	Library Facility	5	4.5	4.5	4.2
10	Internet Facility	5	4.5	4.4	4.25
11	Barrier Free Campus	4	4.5	4	4.5
12	Toilet Cleanliness	3.9	3.25	3.5	3.8
<b>Average</b>		<b>4.3</b>	<b>4.38</b>	<b>4.19</b>	<b>4.15</b>

**Table 9.3.2: Parent feedback rating on parameters:**

S.No	Parameter	Rating (5 Point scale)			
		2024-25	2023-24	2022-23	2021-22
1	Quality of Teaching & Learning Process	4.2	3.9	4.1	4
2	Counseling/Mentoring System	4.5	4.3	4.5	4.4
3	Campus Recruitment Training & Placements	4	3.8	3.5	3.6
4	Quality of Infrastructure in the Dept	4.2	4	3.8	3.6
5	Extra-Curricular Activities	4.3	4.1	4	3.8
6	Overall Personality development of your ward	4.3	3.9	4.1	3.8
7	Laboratory facilities	4.4	4.1	4.2	3.7
8	Library facility	4.2	4.6	4.2	3.8
9	Sports facilities	4.2	4.5	4.7	4.5
10	Transport facility	4.8	4.3	4.2	4.3
11	Toilet Cleanliness	3.6	3.4	3.8	3.7
12	Medical facilities	4	3.8	3.6	3.3
13	Overall rating of NRIIT	4.2	4.1	3.7	3.3
<b>Average</b>		<b>4.22</b>	<b>4.06</b>	<b>4.02</b>	<b>3.83</b>

**9.3.3 Corrective Actions Taken:**

As per the key identifications from the parameters in above tables, a recommendations list will be prepared and will be presented in the governing body meetings. As per the guidelines given from the minutes, corrective actions will be taken and for last four academic years were listed below in Table.9.3.3.

**Table 9.3.3: List of corrective actions taken against recommendations**

S.No	Recommendations	Corrective Actions Taken

		2021-22	2022-23	2023-24	2024-25
1	Hostel Facilities	Yes	Complied	Complied	Complied
2	Library Facilities	Yes	Upgraded	Upgraded	Upgraded
3	Medical Facilities	Yes	Upgraded	Upgraded	Upgraded
4	Transport Facilities	Yes	Upgraded	Upgraded	Upgraded
5	Fire & Safety	Yes	All exposed areas	Upgraded	Upgraded
6	Canteen Facilities like Xerox, stationary, etc arranged in a spacious canteen	Institute Level	Upgraded	Upgraded	Upgraded
7	LCD projectors and computer systems are fixed in every classroom	Limited to program wise	Limited to section wise	Limited to section wise	Upgraded in every classroom
8	Quality equipment and computing facilities increased in the department.	Yes	Upgraded	Upgraded	Upgraded
9	Increased the kits for the in-door and out-door games/sports.	Yes	Upgraded	Upgraded	Upgraded
10	Wifi & Internet Facilities	Yes	Upgraded	Upgraded	Upgraded

**Figure 9.3.2: Illustration of facilities**

Student and parent feedback forms on facilities are shown in Figure 9.3.3 and 9.3.4.

**Figure 9.3.3: Sample of student feedback form on facilities**

Students feedback on facilities		Date:
<b>Confidential Information:</b>		
<u>Name of the Student:</u>		Course: (B.Tech.)
<u>University Roll No:</u>		<u>Branch/Section:</u>
<u>Address/contact no:</u>		
1. Are you satisfied with the quality of teaching offered by the Department? Yes/No		
2. Do you find the curriculum appropriate as per the current corporate Scenario? Yes/No		
3. Are you satisfied with the quality of Infrastructure and labs in the Department and <u>College</u> ? Yes/No		
4. Is placement training is helpful to you? Yes/No		
5. Has the College contributed in <del>moulding</del> your character and personality? Yes/No		
6. Does The Institute provide the opportunity to take part in extra-curricular activities? Yes/No		
7. How do you rate the Institute on overall on a scale of 1-5: <input type="text"/>		
8. Feedback on facilities <u>(Excellent/Very Good/Good/Average)</u>		
-Canteen Facility	<input type="text"/>	
-Transport Facility	<input type="text"/>	
-Hospital/First Aid Facility	<input type="text"/>	

-Hospital/First Aid Facility	<input type="text"/>
-Mess Facility (Food/Stay)	<input type="text"/>
-Toilet Cleanliness	<input type="text"/>
-Barrier Free Campus	<input type="text"/>
-Common Room	<input type="text"/>
-Sports Facility	<input type="text"/>
<b>11. Any specific comments or suggestions</b>	<input type="text"/>
Date:	<u>(Signature of Parent/s with name)</u>

**Process of Collecting feedback on Facilities from Parents:**

The institution has established a formal policy for collecting and analyzing parent feedback to enhance the overall quality of education and facilities. Parents are invited to provide confidential feedback covering various aspects such as communication about their ward's performance, satisfaction with teaching quality, student discipline, curriculum relevance, infrastructure, placement support, and extracurricular opportunities.

All parent feedback is treated with confidentiality and used as a valuable resource to align institutional practices with stakeholder expectations, fostering a collaborative educational environment.

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**9.4 Self-Learning (5)**

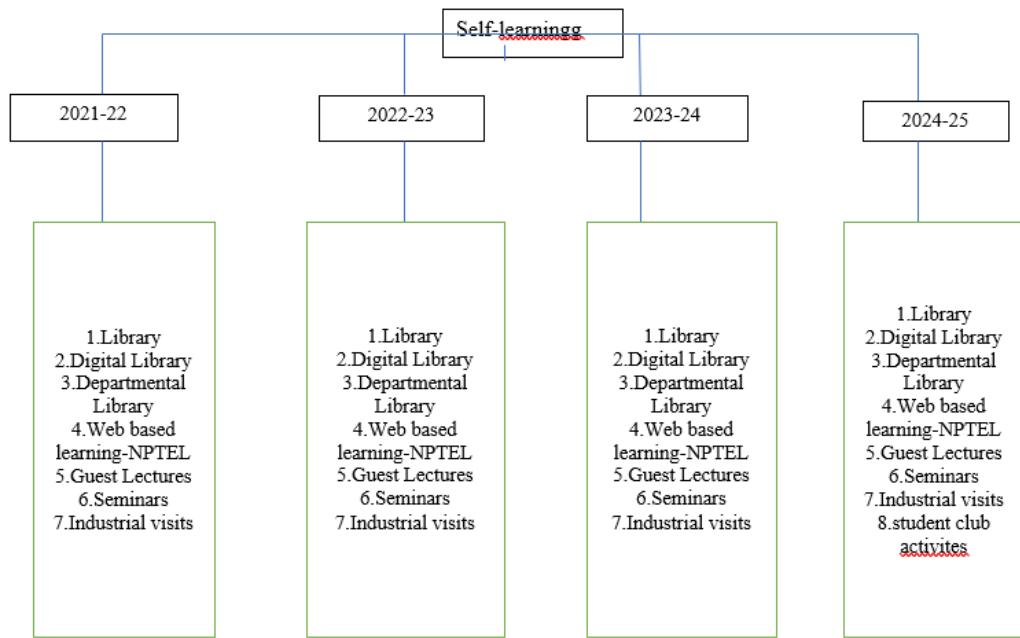
Total Marks 5.00

Institute Marks : 5.00

## Self-Learning

### 9.4.1 Scope for Self-Learning

Self-Learning at NRIIT was one of the unique ecosystems with diversified learning for students. The details of the self-learning facilities for the student's of our institution were illustrated in the Figure 9.4.1 for the last four academic years.



**Figure 9.4.1. Illustration of facilities for the scope of self learning**

Self-Learning method is an individualized method of learning collecting information, processing it, and retaining it without the need for another individual to teach it.

**Table 9.4.1: Details of Self Learning Processes**

S. No	Self – Learning process	Description
1	Library	Several books provided in central library in department wise.
2	Digital Library	<ul style="list-style-type: none"> <li>• Availability of NPTEL videos.</li> <li>• Sufficient systems with multimedia facilities.</li> <li>• Institutional membership, Internet facility and Access Provided to NPTEL Video Lecture Content, etc.</li> </ul>

3	Departmental Library	Availability of course materials and departmental library books.
4	Web-based learning	Provided video lectures through internet.
5	Professional bodies / other association and club activities	Departments have a Professional association memberships, Departmental associations and student clubs.
6.	Seminars & Workshops	Several departments have organized seminars and workshops
7	Internships	Institute provided an opportunity to do internships for the students.
8	Industrial visits	Several departments have organized Students Industrial visits.
9	Guest lectures	Several departments have organized Guest lectures.

#### 9.4. B.1. Detailed list of Self – Learning facilities:

Various self learning facilities available at NRIIT were listed below in detail:

##### a. Central Library

The NRIIT Library has a huge collection of 19,462 books with 3,632 titles on various subjects including technical, humanities, managerial and reference Books covering biographies, dictionaries, yearbooks etc. The library subscribes 94 national and international print journals and 1,014 e-journals, and holds over 1,776 project reports. The Learning materials, Previous Question Papers, Project Reports of all departments are made available.

- The Library is open for all users from 8:00 am to 6:00 pm. The library hours are extended on the basis of need during examinations.
- Regular class time tables of all branches allot one session contains one hour in a week for library study. Each student have a library card using which that she can lend 3 books for 15 days nearly 30 members utilizes same title of book per year.
- The use of library by students is generally more during examination period.
- During examination period students spends more time in library.
- Digital Library is also available to the students with free internet Access.

Table 9.4.2: Detailed list of NRIIT library

S. No	Course	Dept.	No. of Titles	No of Volumes	Effective Utilization			
					2024-25	2023-24	2022-23	2021-22
1	UG	S&H	361	1581	21251	27724	39805	
2		ECE	541	3078				
3		EVT	131	1015				
4		CIVIL	345	2006				
5		CSE	487	3378				
6		CSD	464	1080				
7		AIML	206	1061				
8		IT	240	1973				

9	EEE	126	1318						
10	MECH	234	508						
11	PG	MBA	666	2386					
12		MCA	31	78					
<b>TOTAL (Hard copies)</b>		3632	19462						
13	Journals / Periodicals	94	Effectively utilized 100% of the sources for developing projects or materials.						
14	E-journals	1014	Effectively utilized 100% of the sources for developing projects or materials.						
15	News Papers	8	<b>100%</b>						
Improvement of utilization was observed over a period of academic year wise.									

**Figure 9.4.2 NRIIT Library****a. Departmental Library:**

- The departmental library comprises books of all engineering subjects of various publications, GATE books, and competitive examination books that are accessible to all students.

**b. Seminars & workshops**

- Every department has organized seminars, workshops, technical events such as Tech Fest to enhance communication skills in students.
- Students give excellent seminars in front of all their classmates about their own interested topics to enhance their presenting and communication skills. These seminar classes help the students for their campus interviews to place them in better position.

**c. Internships**

- Institute provides an opportunity for the Students of all the departments acquire hands on experience to expose practical learning knowledge from various industries.

**Table 9.4.4: Consolidated Sheet of student Internships**

S.NO	Branch	Academic Year			
		2024-25	2023-24	2022-23	2021-22
1	CSE	100	40	40	40
2	ECE	130	150	83	140
3	IT	200	1	8	14

**d. Industrial visits**

- Departmental industrial visits have been organized such as Visaka Steel Plant,Visakhapatnam etc. to understand the practical implementation of the subject.

**Table 9.4.5: Effectiveness of Industrial Visit**

S no	Academic Year	Department	No of Industries Visited	Total No of students Attended
1	2024-2025	ECE	1	65
		CSE	1	60
		IT	1	45

2	2023-24	ECE	1	60
		CSE	1	70
		IT	2	42
3	2022-23	ECE	1	50
		CSE	1	65
		IT	1	51
		ECE	1	70
4	2021-22	CSE	1	60
		IT	0	0

#### WEB BASED LEARNING:

- Students of all departments were given the opportunity to participate in online classes , NPTEL etc.
- Department level faculties will encourage the students to undergo web based certification courses like NPTEL, UDEMAY, COURSERA, CISCO, etc.
- Students those who secured best ranking in various courses; they are awarded with prize money as a token of appreciation based on the R&D policy.

**Table 9.4.6: Effective Utilization of Web-Based Learning and Certification Courses**

Academic Year	S No	Department	Name of the Certification Course	No of students Completed	Total
2024-25	1	ECE	NPTEL	03	207
	2		CISCO	42	
	3		NPTEL	80	
	4		Udemy	28	
	5		Coursera	15	
	6	CSE	NPTEL	5	
	7		CISCO	34	
2023-24	1	ECE	NPTEL	06	192
	2		CISCO	52	
	3		NPTEL	28	
	4		CISCO	32	
	5	IT	Udemy	10	
	6		NPTEL	2	
	7		CISCO	62	

2022-23	1	ECE	NPTEL	04	169
	2		CISCO	68	
	3		NPTEL	04	
	4		CISCO	35	
2021-22	5	CSE	NPTEL	1	125
	6		CISCO	57	
	1		CISCO	42	
	2		NPTEL	03	
	3		NPTEL	02	
	4		CISCO	37	
	5	CSE	NPTEL	0	
	6		CISCO	41	

#### 9.4. B.2. Material for Learning Beyond syllabus

##### i. Digital Library

- The institution provides facilities like a digital library, which can access E-journals of J-Gate Science and Technology, N-Digital has E-Journals & E-Books,
- DELNET has E-Books & E-journals in Engineering & Technology, IEEE provides E-journals and magazines. We can provide 8 newspapers so students can utilize these sources during the leisure hours.
- The Digital Library has 25 computers and several E-Resources of e-journals, e-books; video lectures (like NPTEL) are made available in the Digital Library for effective teaching learning process.

**Table 9.4.8: Availability of Digital Library Contents**

Availability of Digital Library Contents: Yes Following digital contents are made available		
Content	Accessibility	
NPTEL Video Lecture	Access Provided to NPTEL Video Lecture Content	YES, through local Server
Availability over Intranet /Internet	YES	
No. of users per day:	25 - 35 Per Day	

**Table 9.4.9: Effective Utilization of Digital Library**

<b>Effective Utilization</b>			
<b>2024-25</b>	<b>2023-24</b>	<b>2022-23</b>	<b>2021-22</b>
6478	5540	3134	1837

**ii. Coaching's for competitive exams**

- Institution provides coaching for GATE, aptitude, reasoning and workable training were given which makes the students attain effectively for their carrier growth.
- Aptitude test and group discussions are conducted periodically to evaluate performance of the students.
- Worksheets have been design on each topic and circulated to the student's to improve their practice exercise.

**iii. Associations**

- Institution level fests are organised in the campus where so many events are conducted like paper presentations, poster presentations, rangoli, project expos events are conducted to evaluate their presentation and communication skills.
- In order to provide more exposure to the students towards recent trends emerging technologies and to facilitate better interaction all the departments formed an associations in every year. The main aim of associations is to make sure the students become highly competitive and to acknowledge the inherent talents of the students in both technical and cultural fields.
- **Student clubs**

NRIIT establishes so many student clubs in every year under those clubs many activities were performed in order to exhibit their skills like singing, dancing, mehandi etc. Every year blood donation camp was organised under health club.

**Institute Level Clubs**

Academic club and Sports clubs were formed under Institute level. Workshops, seminars, and guest lectures are organized under Academic club. Sports events are conducted under sports club. Details of events conducted under the Academic club and Sports club are listed below.

**Table 9.4.13: Consolidated Sheet of Events conducted under Academic Club**

<b>S.NO</b>	<b>Type of Event</b>	<b>Academic Year</b>			
		<b>2024-25</b>	<b>2023-24</b>	<b>2022-23</b>	<b>2021-22</b>
1	Workshops	10	27	25	21
2	Guest lectures	12	16	17	15
3	Seminars	10	9	8	15

**Figure 9.4.9: Sample of Events Conducted under Academic Club**

**Table 9.4.14: Consolidated Sheet of Events conducted under Sports Club**

<b>S.No.</b>	<b>Club Name</b>	<b>Academic Year</b>		
		<b>2024-25</b>	<b>2023-24</b>	<b>2022-23</b>
1	<b>Sports Club</b>	11	10	10

these clubs many events are conducted for the students to exhibit their technical, non-technical skills and extracurricular activities. The events conducted under these clubs are tabulated in Table 9.4.15 to 9.4.23.

**Table 9.4.15: Consolidated Sheet of Department level Clubs**

<b>S.NO</b>	<b>Club Name</b>	<b>Academic Year</b>			
		<b>2024-25</b>	<b>2023-24</b>	<b>2022-23</b>	<b>2021-22</b>
1	<b>Academic club</b>	2	2	1	1
2	<b>Technical club</b>	2	2	1	1
3	<b>Cultural club</b>	2	1	1	1

4	Creative club	1	2	1	-
5	Sports club	1	3	1	1

Table 9.4.16: Type of Events Conducted Under Academic Club

Academic Year	2024-25	2023-24	2022-23	2021-22
Event name	Science Quiz	Story Writing	Google It	Code Hunt
Student Committee	B. Harshavarshini	A.S.S.Subramanyaeswari	V. HarshiniChowdary	K.Poornima

9.5 Career Guidance, Training, Placement (10)

Total Marks 10.00

Institute Marks : 10.00

## 9. CAREER GUIDANCE, TRAINING & PLACEMENTS (10)

### 1. Career Guidance Facilities:

NRIIRT has an effective career guidance system with an effective committee and resources which helps students to decide correct and aspired career path. Career Guidance Cell (CGC) operates with the above stated committee in accordance with students at institute level and individual level.

- Institute Level:** Programs which helps students to decide and work towards their desire career will be organized.
- Individual Level:** Any individual students or the students recommended for career counselling will be directed to CGC and an expert counselling will be provided in choosing their desired career path and working towards it. Special cases directed by Principal, TPO and Program Coordinators will be guided accordingly by CGC whenever it is necessary.

**Table 9.5.1. Career Guidance Cell Committee**

S.No	Name of the Faculty	Position	Role
1	Dr Kota Srinivasu	Principal	Chairman
2	Mr. G. Durga Naresh	Training and Placement Officer (TPO)	Member
3	Ms. P. Jeevana	Assistant TPO	Member
4	Mr. T. Sk. Moulali	Assistant Professor	Member

The college regularly conducts Personality Development Programs to improve the communication skills of the students from rural background which reassures students of their skills and abilities to succeed. Guest speakers from various industries are invited to provide a broad exploration of various career options and industry knowledge to the students.

Various Career guidance programmes will be organized by the Career Guidance Cell at institute level which helps students to choose, work and achieve their desired career goals. These programs were categorized and will be commenced with the approval of principal and all the program coordinators. Such events were listed below in table 9.5.2.

**Table 9.5.2. Career Guidance Programs conducted**

SNO	DATE	Resource Person Name	No.of Students Attended	Name of the Topic
1	14-10-2024	Ms Kalyani	310	Higher Education
2	20-08-2025& 26-08-2025	Mr Santhosh	240	Data Security
3	15-09-2025	Shaik Nagur Babu	440	Higher Education
4	02-09-2025& 06-09-2025	Mr V.Pavan	500	Quantum Computing

### 1. Counselling For Higher Studies

Career Guidance Cell is also responsible for counselling the students for higher studies in the diversified fields of engineering or others in line with the interest and performance of the students. Various higher education awareness programs were conducted to give the detailed structure and instructions set for the students to enhance their knowledge to clear GATE/GRE, GMAT etc.

**Table 9.5.3. List of Programs to counsel the students towards higher studies**

S.No	Date	Topic	Resource Person
1	15.09.23	Awareness Program On Higher Education Given By Leo Global Overseas	Shaik Nagur babu, Business Development Manager
2	22.12.23	Opportunities In Abroad By Higher Studies	Mr. Manmohan, Director

3	24.01.24	Preparation For GATE, ESE & PSU By UNI GLOBAL	Mr. M Babuji, Business Development Manager
4	16.06.24	Importance Of GRE, GMAT, TOEFL By Masters Visa	Ms. Lakshmi Vasavi

Apart of these programs, students those who desires counselling for higher studies will be direct to CGC for further guidance. CGC was chosen to have all the senior level faculty with the department expertise who are well aware of all the possibilities and can counsel the students. Wherever necessary the CGC recommends such students who are keen about their higher studies will be allotted with a mentor specialised in the respective fields.

#### 1. Placement Training:

Placement training at NRIIT was developed to enhance the student's skills such as communication skills, soft skills, personality development skills and technical skills through outcome based education. Skill sets focused to be developed by placement training will be cumulated by the below Training & Placement Cell Committee from the employer feedbacks.

**Table 9.5.4. Training & Placement Cell Committee**

S. NO.	NAME	DESIGNATION	POSITION
1	Dr. D. Sanjay	Professor	Principal
2	Mr. G. Durga Naresh	Associate Professor	Training and Placement Officer
3	Ms. P. Jeeva Rathna	Associate Professor	Assistant Placement Officer
4	Mr. T.Sk. Moulali	Assistant Professor	Technical Trainer
5	Mr. D. Koteswarao	Associate Professor	T & P coordinator – CSE
6	Mr. B. Srinivas	Assistant Professor	T & P coordinator – DS
7	Ms. P. Yojitha	Assistant Professor	T & P coordinator – ECE
8	Mr. P. Srinivas	Assistant Professor	T & P coordinator – IT
9	Ms. Ch. Bindu Madhavi	Assistant Professor	T & P coordinator – AIML

The recommendations or the suggestions given by the employers and program coordinator will be taken in to the consideration while designing the Pre-Placement Training Calendar. The Pre- Placement Training from Training and Placement will be circulated among all the program for circulations.

#### Steps in designing Placement Training:

1. Acquiring feedback of employers and program coordinators.
2. Cumulative recommendations will be developed for the Principal Approval.
3. Preparation and circulation of Placement Training Calendar.
4. Instructing the students to finish pre-requisites through web-based learning.
5. Ensuring the conduct of Training programs as per the calendar.
6. Conduct of company specific trainings wherever a specific skill was required from the students through Job descriptions (JD).
7. Ensuring the students to be ready for placements before the campus interviews scheduling.

#### Implementation of Placement Training:

Post designing the Placement Training Calendar, a defined procedure will be implemented for executing the Pre-Placement Training:

1. From II B.Tech onwards two non credit courses were implemented such as:
  - a. Aptitude Training
  - b. Technical Training (Core & Programming Skills)

2. Before IV B.Tech, undertaking forms will be issued to all the students for their consent towards training.
3. Students reporting those who are not willing will be forwarded to CGC through TPO.
4. Students who accepted the undertaking, training will be processed through the following modules;
  - a. Campus Recruitment Training (Eligibility: above 60% aggregate in academics / special cases recommended by program coordinator through principal if any)
    - i. Product Development Training.
    - ii. Application Oriented Training.
  - b. Company Specific Training (as per the eligibility & JD)
  - c. Professional Internships.
  - d. Specialised Training (If any concerns from Principal/CGC/Program Coordinator)
5. Both the stated trainings will be carried out by the following organizations as stated where ever they were recommended by Principal and TPO.

**Table 9.5.5. List of MOU's made for Pre-Placement Training Programs**

S.No	MOU with companies	MOU with Institution	Date of MOU
1	L4G Solutions Pvt Ltd Hyderabad	NRIIT	07-04-2020
2	Innovative Technologies, Vijayawada	NRIIT	15-11-2022
3	Elite Technologies,Guntur	NRIIT	09-03-2020
4	CORTEK TEST Solutions,Hyderabad	NRIIT	03-01-2022
5	CERTYBOX Skills for Tomorrow, Vijayawada	NRIIT	17-03-2020
6	ELEATION	NRIIT	09-09-2021
7	GAGAN APPS	NRIIT	19-08-2019
8	TEAM LEASE EDUTECH LTD	NRIIT	09-09-2021
9	PANTECH SOLUTIONS PVT LTD	NRIIT	23-09-2021
10	IVIS TECHNOLOGIES	NRIIT	21-07-2022
11	SUPRAJA TECHNOLOGIES	NRIIT	05-05-2025
12	UNIVERSITY OF SILICON ANDHRA	NRIIT	30-11-2021
13	SRM UNIVERSITY	NRIIT	07-09-2023

**Table 9.5.6 Effectiveness & Impact of Training through Professional Internships:**

S.No	Hired On	Students Name	Company Name	Stipend
1	24-12-2023	Tavvagunta Shaik Moula	Codegnan IT Solutions	Free Training Without stipend
2	01-05-2024	M Bharath	Kodnest Technologies	Free Training Without stipend
3	24-12-2023	D Pavani	Codegnan IT Solutions	Free Training Without stipend
4	17-03-2024	V Dhyana Malika	Kodnest Technologies	Free Training Without stipend
5	24-12-2023	Sashipriya	Codegnan IT Solutions	Free Training Without stipend
6	01-05-2024	J Sivasai	Kodnest Technologies	Free Training Without stipend
7	09-03-2023	G Sivasai Kalyan	Suryatech Solutions	10,000
8	09-03-2023	G Ramarao	Suryatech Solutions	10,000
9	12-12-2022	P Raghavendra	Q spiders	Free Training Without stipend
10	12-12-2022	K Srinivasrao	Q spiders	Free Training and Placement Assistance

14	EDIFY EDUCATIONAL SERVICES	NRIIT	10-12-2021	11	12-12-2022	K Nimisha reddy	Q spiders	Free Training and Placement Assistance
15	ORACLE ACADEMY	NRIIT	17-10-2024					
				12	05-02-2024	G Naga Sampaorna	Excelr	Free Training and Placement Assistance
				13	05-02-2024	K Harini	Excelr	Free Training and Placement Assistance
				14	05-02-2024	K Manisha	Excelr	Free Training and Placement Assistance
				15	05-02-2024	C Padmasai	Excelr	Free Training and Placement Assistance

#### Effectiveness & Impact Analysis Placement Training:

Effectiveness and impact analysis of our pre-placement training was illustrated in below Figure

9.5.1 which shows the continuous improvement in the last three academic years among all the programs. Percentage of students got placed who received pre-placement training was given in detail in the Table 9.5.8.

**Table 9.5.7. Effectiveness of the Placement Training:**

S No	Batch	Branch	Total Strength	Students Registered	Students Placed	%
1	2022-23	CSE	112	100	70	62.5
		ECE	75	70	60	80
		CE	21	15	10	47.61
		ME	15	10	5	33.33
		EEE	2	2	0	0
2	2023-24	CSE	109	95	77	70.64
		ECE	139	125	118	84.89
		DS	52	45	34	65.38
		CE	18	14	8	44.44
		EEE	7	4	3	42.85
		ME	39	28	20	51.28
		IT	47	40	32	68.08
3	2024-25	CSE	111	100	85	76.57
		ECE	140	120	121	91.00
		IT	47	40	33	70.21

	CE	16	10	6	37.5
	DS	115	100	80	69.5
	AIML	53	45	30	56.60

#### 9.5.4. Placement Process & Support

Placement Process & Support at NRIIT was led by the Training & Placement Committee as stated in Table 9.5.5. In the beginning of the Placement Academic year, an invitation brochure with the prospects of our institution will be sent to different organizations meeting the standards of our students inviting to test, analyse and recruit our students. Placement support is inclusive of the TPC committee provided with dedicated seminar hall for pre-placement talks, board room for panel discussions, 3 interview panels with a provision for another 4 panels with restructuring for TR & HR interviews. Successive procedure of **Placement Process and Support** is as follows:

1. Inviting selective organizations/companies through institute prospects brochure.
2. Collecting the Job Descriptions of the organizations/companies to ensure the prerequisites of our students trained.
3. If any deficiencies or extra skills required will be asserted and forwarded to Principal through TPO for further approval of conduct.
4. Ensuring the students undergone pre-placement training meet the JD requirements.
5. Upon the campus hiring request received by the company, the same will be concerned the Principal and TP Cell Committee for further approval date of conduct of campus hiring with reference to step 4 & 5.
6. Schedule date/date's will informed to students through TP Cell for preparing themselves in prior for the campus hiring.
7. Ensuring the eligible students have all the documents verified by the respective member of TPC Committee at least 24 hours prior to the hiring process.
8. Conduct of the campus drive with all the amenities at our institution.
9. If the requirement of the company/organization is beyond the number of eligible students at our campus we are inviting in and around campuses students to participate in the campus hiring with social responsibility.
10. Feedback will be taken against the performance of our students for further improvement in the placement training process.
11. Post hiring process, the list of selected students will be sent to Program coordinators through principal for further filing of offer letters/confirmation as proof of placement.

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#### 9.6 Entrepreneurship Cell (5)

Total Marks 5.00

Institute Marks : 5.00

## 9.6 Entrepreneurship Development Cell:

The Entrepreneurship Development cell in NRIIT was established in the year 2021 under the supervision of the T&P Department. The head of the Entrepreneurship Development cell is Mrs. JEEVANA of T&P Dept and a team of faculty from various departments together form a strong team in encouraging entrepreneurship.

### Vision:

To produce successful entrepreneurs imbued with innovative skills and ethical business practices contributing to the development of the society and growth of the nation.

### Mission:

To promote the culture and spirit of entrepreneurship among students and motivate them to become entrepreneurs.

### Objectives of EDC area

- To create awareness on Entrepreneurship among the students through training programmes and camps.
- To enhance industry institute interaction through guest lectures and industrial visits.
- To help students acquire necessary managerial skills to run an enterprise effectively.
- To generate entrepreneurship skills among the students to cope up with the current trends in the market.
- To help students channelize their goals to become a versatile entrepreneur.

#### 9.6.1 Entrepreneurship Development Cell Committee

The members of the Entrepreneurship Development Cell Committee include Principal, Vice-Principal, ECE,CSE and Mechanical HOD's and senior Faculty from every Department. The details of the committee are listed in Table 9.6.1.

Table 9.6.1: Members of the Entrepreneurship Development Cell Committee

SNO	NAME	DESIGNATION	POSITION
1	Dr K.Srinivasu	Principal	Chairman
2	Dr K.Srihari Rao	Vice-Principal	Member
3	Dr Zia Ur Rahman	MBA-HOD	Member
4	Dr J.Chandra Sekhar	HOD-CSE	Member
5	P.Ravi Kumar	HOD-Mechanical	Member
6	Dr B.Saidaiah	Professor in ECE	Member
7	B.Rajasekhar	HOD-T & P Dept	Member
8	D.Koteswara Rao	Associate Professor	Member
9	B.Sowjanya	Associate Professor in IT	Member

#### 9.6.2 EDC Initiatives and Activities:

##### 1. Awareness & Motivation:

- Entrepreneurship Awareness Camps (EACs): Short-term programs to create awareness about starting a business.
- Guest Lectures & Talks: Inviting successful entrepreneurs, investors, and startup founders.
- Idea Generation Workshops: Activities to encourage creativity and problem-solving.

##### 2. Skill Development & Training:

- Workshops on Business Skills: Marketing, finance, leadership, pitching, and negotiation.
- Technology & Innovation Training: Exposure to latest tools (AI, IoT, Robotics, etc.).
- Soft Skills Development: Communication, teamwork, and decision-making training.

##### 3. Practical Exposure:

- Incubation Support: Providing space, resources, and technical facilities for startups.
- Mentorship Programs: Connecting students with industry experts and alumni entrepreneurs.

- Pre-Incubation Programs: Helping students refine ideas into viable business models.

#### 5. Funding & Networking:

- Seed Funding / Grants: Financial support to promising student startups.
- Startup Showcases / Pitch Fests: Platforms for students to pitch to investors.
- Networking Events: Linking students with venture capitalists, angel investors, and government bodies.

#### 6. Institutional & Government Support:

- Tie-ups with Government Schemes: (like MSME, DST, AICTE, Startup India, Atal Innovation Mission).
- MoUs with Industries & Incubators: Collaborations for resource and mentorship sharing.
- Patent & IPR Support: Guidance on filing patents and protecting innovations.

#### 7. Student-Centric Activities:

- EDC Clubs / Societies: Peer-to-peer idea sharing and competitions.
- Business Plan Competitions: Encouraging students to draft and present detailed plans.
- Entrepreneurship Fests: Exhibitions, panel discussions, and startup expos.

Table 9.6.2: Entrepreneurship Activities during the tenure 2021 to 2025

S.No	Date	Event	Resource Persons	Members Attended
1	02.08.2021 to 03.08.2021	2-Day Entrepreneurship Development Program in collaboration with CORTEK Soft Solutions,Hyd	Mr Pradeep Kanneganti CEO,CORTEK Soft Solutions,9 <sup>th</sup> Floor,Hitec City,Cyber Towers,Hyderabad	3 <sup>rd</sup> and Final Year Students of all Branches
2	26.11.2021	Entrepreneur Development Program-How to get an innovative thought to build a startup	Mr Dasaradha Rama Raju,Project Lead,TCS,Hyderabad	3 <sup>rd</sup> and Final Year Students of all Branches
3	21-08-2023	World Entrepreneurship Day	Mr I.Srikanth	Final year studens of all branches
4	10-10-2023	Entrepreneurship Awareness Session	Mr NagaRaju	Final year studens of all branches
5	21-08-2024	World Entrepreneurship day-role of entrepreneurs in a society	Mr. Goutam Sunandan	Final year studens of all branches

6	21-08-2025	World Entrepreneurship day	M.Swathi Senior Manager	Final year studens of all branches
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#### 9.6.3 Entrepreneurship Development Cell facilities:

The facilities of Entrepreneurship Development Cell are mentioned below in Table 9.6.3.

Table 9.6.3: Facilities for ED Cell

S.No	Description	Number
1	Computers	2
2	Printers	1
3	LCD Projectors	1
4	WhiteBoard	1

#### 9.6.4 Effectiveness of Entrepreneurship Development Cell:

Entrepreneurship Development Cell has conducted listed events to motivate, guide and develop students to create their own ventures. Such start-ups and outcomes of ED Cell were listed below in Table 9.6.4.

Table 9.6.4: List of Entrepreneurs in the tenure 2021-25

S.No	Name of the Student	Branch	Type of Business	Name of the Company and Place
1	Koushik	DS	Gold Shop	Natraj Jewellers
2	Y.Srinivas 22KP1A1260	IT	Vegetable Business	Established VEG MART-Collecting Veggies from farmers & Selling
3	P.Sandeep 22KP1A1241	IT	Fruit Business	Juice Point Established in Phoenix Mall,Guntur
4	K.Sai Koti	IT	Construction	Distributing Cement to House Construction Builders
5	Shaik Mohammed Ahmed	IT	Gold Business	Lalapet,Guntur

#### SAMPLE COPY OF Entrepreneurship Awareness Program

Organized by : Entrepreneurship Development Cell

Name of the Speaker : Mr. Goutam Sunandan

Designation : Manager

Topic : World Entrepreneurship day

Venue : Seminar hall B-Block

Date & Time : From: 21.08.2024 To: 10 to 11am

Conducted for :

Branch	Year	Semester	No of Students Attended
Civil	2 <sup>nd</sup> year	2-2	10
ECE	2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> year	2-2,3-2,4-2	200

CSE	2 <sup>nd</sup> , 3 <sup>rd</sup> & 4 <sup>th</sup> year	2-2,3-2,4-2	150
MBA/MCA	2 <sup>nd</sup> year	2-2	50
<b>Total No of Students Attended</b>			410

**Profile of the Speaker**

- Name: Goutam Sunandan
- Designation: Manager
- Organization: State Bank of India
- Location: Perecherla, Guntur

As a seasoned banking professional, Goutam Sunandan brings extensive experience in digital transformation and technology implementation in banking. With a strong background in project management, risk management, and customer relationship building, he has been instrumental in driving business growth and supporting the development of innovative banking solutions in the region.

**Report****1. Report in brief by Organizer / Coordinator / Convener:**

It was an engaging experience! Mr. Gautam Sunandans visit to our campus on World Entrepreneurs Day was insightful and motivating for the students. His passion for entrepreneurship and sharing real-life examples must have connected well with the students.

Its great to hear that he emphasized the importance of innovation in entrepreneurship and possibly discussed opportunities for young entrepreneurs in India. This kind of interaction can be a game-changer for aspiring entrepreneurs, especially engineering students looking to turn their ideas into reality.

Mr. Gautam Sunandans speech seems to have had a positive impact on the students, and its wonderful that he was able to share his knowledge and experience with them.



**2.Feedback from students:**

The workshop was extremely engaging and highly informative! It provided us with a lot of knowledge and insights into Entrepreneurship. Thank you, Gautam Sunandan, for sharing your expertise and motivating us!

**3.Remarks from Resource Person:**

"It was a fantastic experience interacting with the talented students at NRI Institute of Technology! I loved sharing my thoughts on innovation and witnessing the students passion. Thanks for having me as part of this session – it was super enriching!"

**Principal****9.7 Co-curricular and Extra-curricular Activities (10)**

Total Marks 10.00

Institute Marks : 10.00

## 9.7.Co-Curricular and Extra-Curricular Activities

As per our vision, institute constantly believes to produce not only the knowledgeable students but professionals of all round personality by providing various co-curricular and extracurricular activities. We believe that it helps not only getting placements but also helps them to grow their leadership qualities.

### 9.7. A. Availability of sports and cultural facilities (3):

Sports provide an invaluable opportunity for our students to interact, keep fit, pursue excellence and work in teams. Our sports facilities are extensive and well-equipped, catering to a wide range of sports. There are indoor game facilities as well as extensive space for outdoor sports.

**Table 9.7.1: List of indoor and outdoor game facilities available in the campus**

S. No	Name of the sport facility	Quantity	Place of availability
1.	Throw ball nets	03	PD ROOM
2.	Throw balls	06	
3.	Volley ball nets	04	
4.	Volley balls	09	
5.	Volley ball antenna	2 set	
6.	Ball badminton net	02	
7.	Ball badminton rockets	08	
8.	Shuttle nets	02	
9.	Shuttle rockets	70	
10.	Shuttle barrels	10	
11.	Tenni koit nets	02	
12.	Tenni koits	08	
13.	Carrom boards	11	
14.	Carrom board powder	5 tins	
15.	Carom board coins	09 sets	
16.	Chess boards	10	
17.	Chess board coins	10 sets	
18.	Cricket bats	08	
19.	Cricket stumps	04 pairs	
20.	Cricket balls	90	
21.	Kho-kho poles	01 pairs	
22.	Shot – put	04	
23.	Discuss throw	02	
24.	Javelin throw	01	

25	Skipping ropes	04	
26	Weighing machine	01	
27	Stop watch	01	
28	Air pump	01	
29	Measuring tape	02	
30	Marking ropes	03	
31	Table tennis board	02	
32	Table tennis balls	3 boxes	
33	Table tennis net	04	
34	Table tennis rockets	04 pairs	
35	Ground roller	01	

**Table 9.7.2: Available list of sports courts for outdoor games**

S.No	List of the courts	Dimensions	Quantity
1.	Throw ball	18.30m X 12.20m	02
2.	Volley ball	18mX9m	02
3.	KHO- KHO	27mX16m	01
4.	Shuttle	13.40mX6.10m	02
5.	Tenni-Koit	12.20m X5.50 m	01
6.	Kabaddi	12m X 8m	01
7.	Cricket pitch	20.12m X 3.05m	01
8.	Running Track	200m	01
9.	Long jump pit	10m X 2.75m	01

**Available Cultural Facilities:**

A vibrant learning experience is about more than just classroom sessions. Guest lectures, symposia, seminars and conferences expose students to key insights, new ideas and a chance to engage with peers and experts in discussion and debate. Our 300-seater seminar hall (**68.6” X 47.7”**) facilitates this free interplay of ideas. Air conditioned and equipped with modern equipment such as multimedia projectors and high quality sound systems, it has guest lobbies and verandahs, which are ideal venues for conferences and exhibitions. Many dignitaries have graced this imposing edifice.

**9.7. B. NSS and other Clubs (3):**

The self-funding of National Service Scheme (NSS) unit of **NRIIT** is very active in organizing awareness rallies and programs to create awareness among the public on environmental relevant issues. NSS unit of NRIIT identifies interested students to conduct social awareness programs in surrounding regions. It also encourages students to learn through service.

**9.7. B.1 : Details of NSS activities conducted in the campus:****Table: 9.7.3: Consolidated list of events conducted National Service Scheme (NSS)**

S. No.	Event	Academic Year			
		2024-25	2023-24	2022-23	2021-22
1	NSS	29	24	7	17

**Table 9.7.4: List of NSS activities conducted in CAY (2024-25)**

Sl. No	Date	Name of the event	No of the participants	Venue	Target Beneficiary
1	05/07/2024	SPELL BE COMPETITION	150	College campus	Students, staff
2	13/07/2024	MOTIVATION CLASS BY DIRECTOR	200	College campus	Students
3	31/07/2024	INDUCTION PROGRAM	200	College campus	Students, staff
4	13/08/2024	Awareness program for students on freedom fighters	650	College campus	Students
5	15/08/2024	Independence Day	610	College campus	Students
6	22/08/2024	Cyber security awareness	200	College campus	Students
7	24/08/2024	Awareness program Against Crimes on Women in society	400	College campus	Students
8	27/08/2024	HIV Awareness	400	College campus	Students, staff
9	30/08/2024	Awareness Camp on Soft skills	350	College campus	Students, staff
10	05/09/2024	Teacher's day	650	College campus	Students, staff
11	10/09/2024	Health Awareness camp on women health	350	College campus	Students
12	14/09/2024	Engineering's day	500	College campus	Students, staff
13	17/09/2024	DE warming	650	College campus	Students, staff
14	19/09/2024	Food and essential supplies donation camp- FLOODS	500	College campus	Students, staff
15	23/09/2024	Awareness camp on plastic	500	College campus	Students, staff
16	24/09/2024	plantation	400	College campus	Students, staff
17	01/10/2024	Gandhi Jayanthi	200	College campus	Students, staff
18	15/10/2024	Abdul kalam Jayanthi	650	College campus	Students, staff
19	30/10/2024	Blood donation	150	College campus	Students, staff

20	29/11/2024	Water awareness camp	400	College campus	Students, staff
21	04/12/2024	Dental camp	450	College campus	Students, staff
22	06/12/2024	Blood donation camp	300	College campus	Students, staff
23	18/12/2024	Awareness on cyber crime	500	College campus	Students, staff
24	20/12/2024	Mathematics day	500	College campus	Students, staff
25	23/12/2024	Awareness Camp on Quality Engineering	650	College campus	Students, staff
26	24/12/2024	Vajpayee (Good governance day)	400	College campus	Students, staff
27	27/12/2024	Birth Anniversary of Manmohan Singh	250	College campus	Students, staff
28	10/01/2025-13/01/2025	Sankranti Sambaralu	650	College campus	Students, staff
29	12/01/2025	National Youth Day	650	College campus	Students, staff

**Table 9.7.5: List of NSS activities conducted in CAY m1 (2023-24)**

Sl. No	Date	Name of the event	No of the participants	Venue	Target Beneficiary
1	05/07/2023	SPELL BE COMPETITION	140	College campus	Students, staff
2	13/07/2023	MOTIVATION CLASS BY DIRECTOR	150	College campus	Students
3	31/07/2023	INDUCTION PROGRAM	200	College campus	Students, staff
4	13/08/2023	Awareness program for students on freedom fighters	600	College campus	Students
5	15/08/2023	Independence Day	610	College campus	Students
6	22/08/2023	Cyber security awareness	180	College campus	Students
7	24/08/2023	Awareness program Against Crimes on Women in society	400	College campus	Students
8	27/08/2023	HIV Awareness	350	College campus	Students, staff
9	30/08/2023	Awareness Camp on Soft skills	350	College campus	Students, staff

10	05/09/2023	Teacher's day	600	College campus	Students, staff
11	10/09/2023	Health Awareness camp on women health	350	College campus	Students
12	14/09/2023	Engineering's day	500	College campus	Students, staff
13	17/09/2023	DE warming	650	College campus	Students, staff
14	19/09/2023	Food and essential supplies donation camp- FLOODS	500	College campus	Students, staff
15	23/09/2023	Awareness camp on plastic	450	College campus	Students, staff
16	24/09/2023	plantation	400	College campus	Students, staff
17	01/10/2023	Gandhi Jayanthi	200	College campus	Students, staff
18	15/10/2023	Abdul kalam Jayanthi	600	College campus	Students, staff
19	30/10/2023	Blood donation	150	College campus	Students, staff
20	29/11/2023	Water awareness camp	400	College campus	Students, staff
21	04/12/2023	Dental camp	450	College campus	Students, staff
22	06/12/2023	Blood donation camp	300	College campus	Students, staff
23	18/12/2023	Awareness on cyber crime	500	College campus	Students, staff
24	20/12/2023	Mathematics day	500	College campus	Students, staff
25	23/12/2023	Awareness Camp on Quality Engineering	600	College campus	Students, staff
26	24/12/2023	Vajpayee (Good governance day)	400	College campus	Students, staff
27	27/12/2023	Birth Anniversary of Manmohan Singh	220	College campus	Students, staff
28	10/01/2024-13/01/2024	Sankranti Sambaralu	650	College campus	Students, staff
29	12/01/2024	National Youth Day	650	College campus	Students, staff

Table 9.7.6: List of NSS Activities Conducted in CAY m2 (2022-23)

S.No	Date	Name of the event	No of the participants	Venue	Target Beneficiary
1	14/04/2022	Dr.B.R..AMBEDKAR JAYANTHI	100	College campus	Students, staff
2	21/06/2022	YOGA DAY	50	College campus	Students
3	19/07/2022	DENTEL CAMP	60	College campus	Students, staff
4	15/08/2022	Independence Day	120	College campus	Students
5	05/09/2022	Teachers' day	100	College campus	Students
6	01/10/2022	Gandhi jayanthi	100	College campus	Students
7	31/10/2022	National Unity Day	100	College campus	Students

Table 9.7.7: List of NSS Activities Conducted in CAY m3 (2021-22)

S.No	Date	Name of the event	No of the participants	Venue	Target Beneficiary
1	21/7/2021	Awareness program on covid-19 3rd wave	50	Inside/outside campus	Public
2	27/07/2021	Abdul Kalam Vardanthi	150	College campus	Students
3	14/08/2021	Plantation Program	200	College campus	Students
4	15/08/2021	Independence Day	2000	College campus	Students
5	28/08/2021	Yoga Classes	150	College campus	Students
6	05/09/2021	Teachers' day	200	College campus	Students
7	15/09/2021	Engineers' day	400	College campus	Students
8	29/09/2021	Awareness camp on Disha app	600	College campus	Students
9	02/11/2021	Mega quiz competition	155	College campus	Students
10	21/11/2021	Donation for college Bus Driver	10	College campus	Public
11	22/12/2021	Mathematics day	550	College campus	Students
12	06/01/2022	Covid vaccination	300	College campus	students
15	11/01/2022	Sankranthisambharalu	200	College campus	Students
13	25/01/2022	Blood donation camp	600	College campus	Students

14	26/01/2022	Republic day	2050	College campus	students
16	08/03/2022	International women day	400	College campus	Students
17	22/03/2022	World water day	200	College campus	Students

#### Students Clubs

For Smooth Conduction of various co-curricular and extra-curricular activities, different students clubs are formed at departmental and institution level as followed:

##### I.Co-Curricular Activities

Co-curricular activities are attempted alongside with academic studies. Most commonly, outside the normal classrooms co-curricular activities are performed and they augment academic curriculum and lend a hand for learning by doing. These activities help students to enhance their problem-solving, critical thinking, reasoning, creative thinking, communication, and collaborative abilities. Involvement in any co-curricular activities helps students in emotional development, social skill development, and overall personality development.

By providing the co-curricular activities with various clubs, the students immensely gained rapid advancement in their career.

Following are the names of clubs available in co-curricular activities

- A. Academic Club
- B. Technical club
- C. Cultural Club
- D. Sports Club
- E. Creative Club

##### A. ACADEMIC CLUB:

This club enhances the students' knowledge levels towards latest trending technologies through **workshops, seminars and guest lectures** which excel them in their academic projects and crack Technical Interviews.

**Table: 9.7.8: List of events conducted by the Department of Computer Science Engineering (CSE) under academic club**

S.No.	Event	Academic Year			
		2024-25	2023-24	2022-23	2021-22
1	Workshops	6	8	4	6
2	Guest lectures	8	6	6	5
3	Seminars	11	8	8	5

**Table: 9.7.9. List of events conducted by the Department of Electronic & Communication Engineering (ECE) under academic club**

S.No.	Event	Academic Year			
		2024-25	2023-24	2022-23	2021-22
1	Workshops	-	4	2	2
2	Guest lectures	-	3	2	4
3	Seminars	-	0	0	0

**Table:9.7.10.List of events conducted by the Department of Information Technology (IT) under academic club**

S.No.	Event	Academic Year

		2024-25	2023-24	2022-23	2021-22
1	Workshops	5	5	4	2
2	Guest lectures	4	4	3	2
3	Seminars	4	4	3	3

**B.TECHNICAL CLUB :**

This club emphasizes student's logical thinking, coding and communication skills beyond textual knowledge and to establish a relationship between theory and applications of the concept.

**Table: 9.7.11.List of events conducted by the Department of Computer Science Engineering (CSE) under Technical Club**

Academic Year			
2024-25	2023-24	2022-23	2021-22
7	5	6	5

**Table: 9.7.12.List of events conducted by the Department of Electronics & Communication Engineering (ECE)**

Academic Year			
2024-25	2023-24	2022-23	2021-22
2	2	2	1

**Table: 9.7.13.List of events conducted by the Department of Information Technology (IT) under Technical Club**

Academic Year			
2024-25	2023-24	2022-23	2021-22
5	4	4	4

**C. Cultural club :**

The objective of a cultural club in NRIIT is to provide a platform for students to showcase and develop their artistic and creative talents, foster cultural awareness and appreciation for diverse customs and traditions, enhance interpersonal and leadership skills through event organization, and offer a creative outlet to reduce academic stress

**Table: 9.7.14: List of events conducted by Department of Computer Science Engineering (CSE) under Activity Club**

Academic Year			
2024-25	2023-24	2022-23	2021-22
3	5	7	4

**Table: 9.7.15: List of events conducted by Department of Electronics and Communication Engineering (ECE) under Activity Club**

Academic Year			
2024-25	2023-24	2022-23	2021-22
7	5	7	4

**Table: 9.7.16: List of events conducted by Department of Information Technology (IT) under Activity Club**

Academic Year			
2024-25	2023-24	2022-23	2021-22

4	5	4	4
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**D.Sports Club:**

This club enriches student's sports skills which helps them to stay fit also improves their stamina and excel in various zonal, national sports events.

**Table 9.7.17: List of sport events conducted at Institute Level under Sports Club**

Academic Year			
2024-25	2023-24	2022-23	2021-22
10	10	10	10

## VOLLEYBALL (A):

S.NO	NAME	ROLL NO	BRANCH/YEAR
1	J. SAI KISHORE	23KP1E0025	MBA/II
2	SD. FARUKH	21KP1A44A7	DS/IV
3	CH. VENKAT KALYAN	21KP1A0420	ECE/IV
4	SK. SUBHANI	23KP1A0444	ECE/II
5	B. MAMADHA NAIK	23KP1A0416	ECE/II
6	SK. KHADARVALI	23KP1F00A9	MCA/II
7	N. RAJESH	23KP1E0039	MBA/II
8	J. RAMAKRISHNA	23KP1A0443	ECE/II
9	B. PAVANKUMAR	23KP5A0411	ECE/II
10	Y. KALESHWAR RAO	23KP1A0401	ECE/II
11	Y. RAJESH	23KP1A0540	CSE/II
12	P. VENKATESH	23KP1A0491	ECE/II

**CARROMS:**

SNO	NAME	BRANCH/YEAR	ROLL NO
1	M. MANIKANTA	MCA/I	23KPI0067
2	SK. KHADARA VALI	MCA/I	23KPI00A9

**E.Creative Club :**

The main objective of a creative club in an engineering college is to foster student creativity and innovation through workshops, projects, and events, encouraging imagination, artistic expression, and collaboration. The club serves as a platform for students to develop their individual and collective thinking, enhance their creative and management skills, build confidence, and cultivate teamwork.

**Table: 9.7.18. :List of events conducted by the Department of Computer Science Engineering (CSE) under Creative Club**

Academic Year			
2024-25	2023-24	2022-23	2021-22
5	4	3	3

Table: 9.7.19. :List of events conducted by the Department of Electrical communications of Engineering (ECE) under Creative Club

Academic Year			
2024-25	2023-24	2022-23	2021-22
2	-	-	-

Table: 9.7.20. :List of events conducted by the Department of Information Technology (IT) under Technical Club

Academic Year			
2024-25	2023-24	2022-23	2021-22
5	5	4	4

**9.7.C. Annual Students Activities(4)**

Apart from Academics, our students are encouraged frequently to be participated in annual activities like **Yuvatarang, Vista, Association days, Fresher's and Farewell parties**, in order to inculcate leadership skills, social responsibility, finance and project management skills.

**I. STUDENTS INTERNSHIPS**

An **internship** is an opportunity offered by an employer to potential employees, called **interns**, to work at a firm for a fixed period of time

**Table 9.7.21: Consolidated Sheet of Students Internships from the Institute**

S.No.	Branch	Academic Year			
		2021-22	2022-23	2023-24	2024-25
1	CSE	100	120	120	135
2	ECE	-	-	150	135
3	IT	60	100	150	200

**II. Participation of Students in Co-curricular Activities****a. DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING (ECE)****Table 9.7.22. Inter-Institution Student Technical Prizes from the**

S.No.	Academic Year	Events Participated	Award/Prize	Students Participated
1	2024-25	2	2	120

**Table9.7.23. Details of Student Technical Prizes for CAY (2024-25)****TEHCNICAL QUIZ****PLACE ROLL NUMBER NAME OF THE STUDENT**

I	23KP1A6602	B.SRILAKSHMI (III-EVT)
	23KP1A6603	B.RAJYA LAKSHMI (III-EVT)
	23KP1A04B0	SK.SUMIYA (III-ECE)

II	22KP1A0417	Ch.GAYATRI (IV-ECE)
	23KP1A6606	D.VENKAT (III-EVT)
	23KP1A6621	M.NAGA RAJESH (III-EVT)
	23KP1A6631	N.HEMAANTH NAG (III-EVT)
	22KP1A0468	P.PEDHAIAHNAIDU (IV-ECE)

#### PAPER PRESENTATION

PLACE	NAME OF THE STUDENT	
I	23KP1A0490	P.VEERA BRAHMAIAH (III-ECE-B)
	23KP1A0477	N.AVINASH (III-ECE-B)
II	23KP1A04C1	V.S.V.N SRIKAR (III-ECE-B)
	22KP1A0468	P.PEDDAIAH NAIDU (IV-ECE-B)

#### b. DEPARTMENT OF COMPUTER SCIENCE ENGINEERING (CSE)

Table 9.7.24: Inter-Institution Student Technical Prizes

S.No.	Academic Year	Students Awarded
1	2021-22	10
2	2022-23	11
3	2023-24	10
4	2024-25	11

Table 9.7.25: Details of Student Technical Prizes for CAY (2021-22)

S. No.	Name of the Student	Date(s)	Event Name	Institution Name	Awards
1.	A.Varalakshmi	03.01.2021 To 04.02.2021	Introduction of Computer Vision	KHIT	Merit certificate
2.	B.Trikanth	07.09.2021 to 08.10.2021	Workshop on Data Science	KHIT	Merit certificate
3.	K.Manjula	20.12.2021 to 21.01.2022	Workshop on Web development.	Andhra University	Merit certificate

4.	M. Karthik	23.12.2021	Hack AI on Health	VVIT	4 <sup>th</sup> Prize
5.	SK. Sameer	05.01.2021 to 06.02.2021	Technical Content Writer	KLU	Merit
6.	CH. Susmitha	19.01.2022	Cyber security Internship	Vignan Nirula	Certificate of Appreciation
7.	SK. Riyaz	29.02.2022	Google IT	VIIT	1 <sup>st</sup> Prize
8.	K.Chaturiya	29.02.2022	Google IT	VIIT	2 <sup>nd</sup> Prize
9.	B. Shashank	21.03.2022 to 23.04.2022	Idea Presentation	KITS	1 <sup>st</sup> Prize
10.	T. Harikrishna	21.09.2022 to 23.10.2022	Idea Presentation	KITS	2 <sup>nd</sup> Prize

Table 9.7.26: Details of Student Technical Prizes for CAY m2 (2022-23)

S. No.	Name of the Student	Date(s)	Event Name	Institution Name	Awards/ Rewards
1.	B. Venkata Sai	02.03.2022 to 03.04.2022	Workshop on IoT	Universal college of engineering	Merit Certificate
2.	B. Jahnavi	20.05.2022 to 20.06.2022	Internship On Cyber Security and Ethical Hacking	RVIT	Certificate of Appreciation
3.	CH. Surya Teja	17.09.2022 to 18.10.2022	Cyber Security and Malware Analysis	KITS	Merit Certificate
4.	P. Lohitha	26.08.2022	Pixel Run	SRM	2 <sup>nd</sup> Prize

5.	M. Sukanya	26.09.2022 to 27.10.2022	HACKTHON 2022	KLU	2 <sup>nd</sup> Prize
6.	M. Durga Venkata Jotirmy	06.12.2022 to 08.01.2023	Hackarena	KLU	1 <sup>st</sup> Prize
7.	R. Aravind Kumar	14.09.2022 to 15.10.2022	Poster Presentation	VIEW	2 <sup>nd</sup> Prize
8.	V. Susmitha	14.09.2022 to 15.10.2022	Poster Presentation	VIEW	1 <sup>st</sup> Prize
9.	U. Pavani	14.09.2022 to 15.10.2022	Live Models. Parna App	RVRJC	3 <sup>rd</sup> Prize
10.	P. Prudhvi Chowdary	11.08.2022 to 16.09.2022	Workshop on Android	RVRJC	Merit Certificate
11.	K. Sushanth	12.03.2023 to 14.04.2023	Electrothon 2K24	KLU	Zonal level 1 <sup>st</sup> prize

Table 9.7.27: Details of Student Technical Prizes for CAY m2 (2023-24)

S. No.	Name of the Student	Date(s)	Event Name	Institution Name	Awards
1.	K. Savitri	03.01.2023 To 04.02.2023	Introduction of Computer Vision	KHIT	Merit certificate
2.	L. Krishna	07.09.2023 to 08.10.2023	Workshop on Data Science	KHIT	Merit certificate

3.	D. Ayyappa	20.12.2023 to 21.01.2024	Workshop on Web development.	Andhra University	Merit certificate
4.	A.Kumar	23.12.2023	Hack AI on Health	VVIT	4 <sup>th</sup> Prize
5.	C. Charitha	05.01.2024 to 06.02.2024	Technical Content Writer	KLU	Merit
6.	G.Swapna	19.01.2024	Cyber security Internship	Vignan Nirula	Certificate of Appreciation
7.	A.Satwik	29.02.2024	Google IT	VIIT	1 <sup>st</sup> Prize
8.	D. Sai Ram	29.02.2024	Google IT	VIIT	2 <sup>nd</sup> Prize
9.	M.Hem Sai	21.03.2024 to 23.04.2024	Idea Presentation	KITS	1 <sup>st</sup> Prize
10.	K. Raju	21.09.2024 to 23.10.2024	Idea Presentation	KITS	2 <sup>nd</sup> Prize

Table 9.7.28: Details of Student Technical Prizes for CAY m2 (2024-25)

S. No.	Name of the Student	Date(s)	Event Name	Institution Name	Awards/ Rewards
1.	I. Santoshi	02.03.2024 to 03.04.2024	Workshop on IoT	SRM	Merit Certificate
2.	S. Tarun	20.05.2024 to 20.06.2024	Internship On Cyber Security and Ethical Hacking	KLU	Certificate of Appreciation

3.	B. Manasa	17.09.2024 to 18.10.2024	Cyber Security and Malware Analysis	KLU	Merit Certificate
4.	G. Navya	26.08.2024	Pixel Run	VIEW	2 <sup>nd</sup> Prize
5.	K. Sushma	26.09.2024 to 27.10.2024	HACKTHON 2024	VIEW	2 <sup>nd</sup> Prize
6.	M. Nagamani	06.12.2024 to 08.01.2025	Hackarena	VIIT	1 <sup>st</sup> Prize
7.	M. Sulaman	14.09.2024 to 15.10.2024	Poster Presentation	VIIT	2 <sup>nd</sup> Prize
8.	B. Goutami	14.09.2024 to 15.10.2024	Poster Presentation	VIIT	1 <sup>st</sup> Prize
9.	T. Ajay	14.09.2024 to 15.10.2024	Live Models. Parna App	VIIT	3 <sup>rd</sup> Prize
10.	SK. Sahisha Bhanu	11.05.2025 to 16.06.2025	Workshop on Android	VIEW	Merit Certificate

c. DEPARTMENT OF INFORMATION TECHNOLOGY (IT)

Table 9.7.29: Inter-institution events information technology

S. No.	Academic Year			Students Participants	
3	2023-24			25	
4	2024-25			15	
S .No.	Date	Student Name	Event	Prize Awarded	Venue

1.	15-02-2025 to 16-03-2025	Ch.Lahari	Intra Mural Competition KHO-KHO	Participation	Vignans University
2.	15-02-2025	P. Deepak	Intra Mural	Participation	VVIT

Table 9.7.30: Details of student participation in CAY m2 (2024-25)

	To 16-03-2025		Competition	(Kho-Kho)	
3.	03-03-2025	G.Sneha Latha	Machine Learning workshop	Participation	KHIT
4.	03-03-2025	.R.S. Teja Sri	Machine Learning workshop	Participation	KHIT
5.	03-03-2025	M. Pavan Kumar.	Machine Learning workshop	Participation	KHIT
6.	03-03-2025	N. Nagaraju	Machine Learning workshop	Participation	KHIT
7.	03-03-2025	P. Adarsh	Machine Learning workshop	Participation	KHIT

Table 9.7.31: Details of student participation in CAY m3 (2023-24)

S. No.	Date	Student Name	Event	Prize Awarded	Venue
1	02-03-2024 to 4-04-2024	D. Rakesh	Central Zone For Women, Kho-Kho Team	1 <sup>st</sup> Position	VVIT
2	02-03-2024 to 4-04-2024	K. Sai Koti	Central Zone for Women, Throw Ball Team	3 <sup>rd</sup> Position	VVIT

3	30-03-2024 To 31-04-2024	N. Dheeraj	Smart indiaHackathon	Participant	VIIT
4	10-12-2023	P. Anitha	Walk for Future Smiles	Participant	UCE
5	10-12-2023	SH. Shaziya	Walk for Future Smiles	Participant	UCE

## 10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120)

Total Marks 120.00

### 10.1 Organization, Governance and Transparency (40)

Total Marks 40.00

#### 10.1.1 State the Vision and Mission of the Institute (5)

Institute Marks : 5.00

##### Vision :

To become reputed institution of Engineering & Management programs, Producing competitive, ethical & socially responsible professionals.

##### Mission :

IM1: Provide quality education through best teaching and learning practices of committed staff.

IM2: Establish a continuous interaction, participation and collaboration with industry to provide solutions.

IM3: Provide the facilities that motivate/encourage faculty and students in research and development activities.

IM4: Develop human values, professional ethics and interpersonal skills amongst the individuals.

#### 10.1.2 Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies (10)

Institute Marks : 10.00

MNK Educational Society started NRI Institute of Technology in 2008 has well established organizational structure to execute out smooth functioning of administrative and academic processes. Various bodies are formulated which constitutes the organization chart. The governing body is the highest decision-making body constituting members of the management, Principal and nominated faculty members. College Development Committee (formerly Local Management committee) includes representatives of members of society, Principal, three members elected from teaching faculty and one member of non-teaching staff. The constituents of the organization structure are as follows: Every department has Department Advisory Board (formerly Department Advisory Committee) to direct policies to excel students in academics and in work environments. It comprises one member each from industry, research establishment, and academic institute of repute, alumni, student, and parents and from management. Principal, Heads of the Departments, sectional heads and co-coordinators of various committees have adequate participation in making decisions in academic and administrative processes under their preview.

**10.1.3 Decentralization in working and grievancedressal mechanism (10)**

Institute Marks : 10.00

NRI Institute of Technology believe in decentralization of activities and delegation of authorities is the key concept in the success achieved by the institute on different platforms. Basically, overall working methodology at institute level is student centric and involvement of each and everyone in the decision-making at their respective levels is ensured through decentralization and delegation of powers. The principal is assisted by Academic Council and IQAC in all the matters of interest and holds review meetings on monthly basis and decisions are collectively taken on the issues pertaining to improvement and functioning of the Institute. In-turn the Heads of the Departments conduct monthly faculty meetings within respective departments and obtain the details pertaining to academic and non-academic and any student related problems. Also, all the faculty members are student counselors and they are in constant touch with the students through weekly meetings. The information collected by them is passed on to HODs who in turn appraise the HODs and the principal. Thus, the administration is transparent and trust-worthy and facilitates smooth conduct and function of the Institute. All purchases are handled by a Purchase committee who receive requisitions from various departments and the committee evaluates the need, timeframe of supply, budgetary provisions and accordingly processes the purchases requirements. The Committee is headed by Director and has senior faculties and administrators as members. The principal in turn briefs the management about the purchases to be made and all such proposals are finally put up in Governing Council meetings for approval.

#### ARIOUS INSTITUTE LEVEL ADMINISTRATIVE COMMITTEES AND COORDINATORS FOR TAKING ADMINISTRATIVE DECISIONS

S.No.	Committees/Cells	Position	Name of the Staff
1.	COLLEGE ACADEMIC COUNCIL	Coordinator	Dr. Dola Sanjay S
2.	INTERNAL QUALITY ASSURANCE CELL	Coordinator	Dr. B. Saidaiyah
3.	GRIEVANCE REDRESSAL COMMITTEE	Coordinator	Mrs.M.Junitha
4.	ALUMNI CELL	Coordinator	Mr.P.Ravi Kumar
5.	ANTI-RAGGING COMMITTEE (ARC)	Coordinator	Dr.Zia Ur Rehman
6.	DISCIPLINARY COMMITTEE	Coordinator	Dr.Zia Ur Rehman
7.	EXAMINATION CELL	Coordinator	Dr.J.Krishna Kishore
8.	LIBRARY COMMITTEE	Coordinator	Dr.SK.Rasool
9.	INTELLECTUAL PROPERTY RIGHT CELL	Coordinator	Dr.K.Chandra Mouli
10.	INFRASTRUCTURE PLANNING & MAINTENANCE COMMITTEE	Coordinator	Dr.K.Chandra Mouli
11.	STAFF SELECTION COMMITTEE	Coordinator	Dr. Dola Sanjay S
12.	FACULTY DEVELOPMENT PROGRAMS	Coordinator	Dr. Dola Sanjay S
13.	WEB APPLICATION DEVELOPMENT COMMITTEE	Coordinator	Mr.J. Ramu
14.	INNOVATION CELL	Coordinator	Dr.K.Srihari Rao
15.	NEWSLETTER COMMITTEE	Coordinator	Dr.Y.V.Ranga Rao
16.	TRAINING AND PLACEMENT COMMITTEE	Coordinator	Mr.G.Durga Naresh
17.	LADY ADVISORY COMMITTEE / INTERNAL COMPLAINT COMMITTEE	Coordinator	Mrs.M.Junitha
18.	ORGANIZATIONAL EVENTS AND NATIONAL IMPORTANCE	Coordinator	Dr.K.Srinivasu
19.	NSS	Coordinator	Mr.P. Ravi Kumar
20.	AUTOMATION CELL	Coordinator	Mr.K.Krishna Pratap
21.	TRASPORT COMMITTEE	Coordinator	Dr.K.Chandra Mouli
22.	TIME TABLE COMMITTEE	Coordinator	Mrs.K.Sujatha
23.	SC/ST Cell	Coordinator	Dr.V.Nagamalleswari
24.	NAAC COORDINATOR	Coordinator	Dr. B. Saidaiyah

25.	MEDICAL CELL	Coordinator	Mr.P.Manohar Rao
26.	CODING CLUB	Coordinator	Dr.J.Chandra Sekhar
27.	STUDENTS AMENITIES COMMITTEE (CANTEEN, STATIONARY AND STORES)	Coordinator	Dr.K.Srinivasa Rao
28.	SPORTS COMMITTEE	Coordinator	Mrs.K.Karuna Kumari
29.	LITERARY AND CULTURAL COMMITTEE	Coordinator	Dr.G.Krishan Kumari
30.	MUSIC CLUB COMMITTEE	Coordinator	Dr.G.Krishan Kumari
31.	PRESS AND MEDIA COMMITTEE	Coordinator	Mr.P.Ravi Kumar
32.	BOYS HOSTEL COMMITTEE	Coordinator	Mr.P.Ravi Kumar
33.	GIRLS HOSTEL COMMITTEE	Coordinator	Dr.G.Krishan Kumari
34.	YOGA CLUB	Coordinator	Mr.G.Suresh

Other than the above mentioned committees, at department level, committees are formed for the smooth and efficient management of activities at department level. The committees are constituted by the HOD in consultation with faculty. For effective implementation of various initiatives and for effective decentralisation, committees such as department advisory board and program assessment and quality improvement committees are formed at department level.

#### **Grievance Redressal Cell**

The Grievance Redressal Cell (GRC) aims to look into the complaints lodged by any student and redress it as per requirement. The students can state their grievance regarding any academic and non- academic matter within the campus through the online and grievance/ suggestion box. The institution aims at solving the grievances of the students within stipulated academic and non- academic matter within the campus through the grievance/ suggestion box. The institution aims at solving the grievances of the students within stipulated time.

#### **Objectives:**

The Grievance Redressal Cell has been developed to settle the grievances of the students and other stakeholders within a reasonable time period for further strengthening the bond of the students with the institution by providing them with all kind of facilities to a satisfaction level for maintaining a convenient ambience of academic teaching and learning.

S.No.	Name of the Member	Designation	Position
1.	Dr. Dola Sanjay S	Principal	Chairman
2.	Mrs.MM.Junitha	Professor ECE	Convener
3.	Mrs G.Haymavathi	Asst.Prof. CE	Member
4.	Mrs P. Anupama	Asst.Prof. MBA	Member
5.	Mrs K.Suryaprabha	Asst.Prof. S&H	Member
6.	Mrs V.Harika	Asst.Prof. EEE	Member
7.	Mrs B.Sujatha	Asst.Prof. CSE	Member
8.	Mrs D.Devika	Asst.Prof. IT	Member
9.	Mrs C.Amala	Asst.Prof. ECE	Member
10.	Mrs M.Sirisha	Asst.Prof. office	Member

The Governing Body of NRI Institute of Technology is resolved that to enhancement of financial power to Principal and all Head of the Departments.

a) Delegation of financial power to the Principal upto **Rs.25,000/-** which was sanctionned in the minutes of the Governing body metting held on 10.12.2015 will continue. No changes.

b) On the recommendations by the Principal, it is resolved to enhance delegation of financial power to Head of Departments, from existing to Rs.3,000/- to Rs.5,000/- which was sanctionned in the minutes of the Governing body meeting hel on 10.12.2015 other contents unaltered.Financial powers are delegated to the Principal of the institute and principal is the one of the signing authorities for financial transactions. Provision of petty cash of Rs. 5,000 is also made with the Principal and head of departments also can make expenses using Imprest cash with the approval of the principal.

Imprest Cash Utilization					
2022-23		2023-24		2024-25	
Sanctioned Amount	Utilization Amount	Sanctioned Amount	Utilization Amount	Sanctioned Amount	Utilization Amount
Rs.60,000	Rs.56,800	Rs.60,000	Rs.57,750	Rs.60,000	Rs.58,750

A healthy trend of increasing utilization and better imprest cash management. It indicates that the organization is moving towards **optimized fund usage**, with decreasing idle cash balances—an indicator of sound financial governance.

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**10.1.5 Transparency and availability of correct/unambiguous information in public domain (5)**

Institute Marks : 5.00

1. Unambiguous information is displayed on all general notice boards including department notice boards, Center for information, training and placement cell (TPC), student section, library, and other important areas.
2. Copies of official notices are circulated to the entire faculty, technical and non-technical staff and students.
3. The institute website is continuously updated for disseminating all the information about policies, students, faculty and relevant information. Institute website is [www.nriit.ac.in](http://www.nriit.ac.in)

S.No	Document Name	URL of document on website
1.	Vision, mission, goals and core values of the institute	<a href="https://www.nriit.ac.in/vmqp">https://www.nriit.ac.in/vmqp</a>
2.	Admissions	<a href="https://www.nriit.ac.in/admissions">https://www.nriit.ac.in/admissions</a>
3.	AICTE Approval Letters	<a href="https://www.nriit.ac.in/aicte">https://www.nriit.ac.in/aicte</a>
4.	Mandatory disclosure	<a href="https://www.nriit.ac.in/mandatory">https://www.nriit.ac.in/mandatory</a>
5.	Stakeholders Feedback	<a href="https://www.nriit.ac.in/feedback">https://www.nriit.ac.in/feedback</a>
6.	AICTE essentials	<a href="https://www.nriit.ac.in/aicte">https://www.nriit.ac.in/aicte</a>
<b>Faculty Profile</b>		
7.	Department of CE	<a href="https://www.nriit.ac.in/civil">https://www.nriit.ac.in/civil</a>
8.	Department of ECE	<a href="https://www.nriit.ac.in/ece">https://www.nriit.ac.in/ece</a>
9.	Department of CSE	<a href="https://www.nriit.ac.in/cse">https://www.nriit.ac.in/cse</a>
10.	Department of IT	<a href="https://www.nriit.ac.in/it">https://www.nriit.ac.in/it</a>
11.	Department of DS	<a href="https://www.nriit.ac.in/ds">https://www.nriit.ac.in/ds</a>
12.	Department of AI&ML	<a href="https://www.nriit.ac.in/ai&amp;ml">https://www.nriit.ac.in/ai&amp;ml</a>
13.	Department of VLSI	<a href="https://www.nriit.ac.in/vlsi">https://www.nriit.ac.in/vlsi</a>
14.	Department of Management Studies	<a href="https://www.nriit.ac.in/mba">https://www.nriit.ac.in/mba</a>
15.	Department of MCA	<a href="https://www.nriit.ac.in/mca">https://www.nriit.ac.in/mca</a>
<b>Departmental profile</b>		
16.	Department of CE	<a href="https://www.nriit.ac.in/civil">https://www.nriit.ac.in/civil</a>
17.	Department of ECE	<a href="https://www.nriit.ac.in/ece">https://www.nriit.ac.in/ece</a>
18.	Department of CSE	<a href="https://www.nriit.ac.in/cse">https://www.nriit.ac.in/cse</a>
19.	Department of IT	<a href="https://www.nriit.ac.in/it">https://www.nriit.ac.in/it</a>
20.	Department of DS	<a href="https://www.nriit.ac.in/ds">https://www.nriit.ac.in/ds</a>
21.	Department of AI&ML	<a href="https://www.nriit.ac.in/ai&amp;ml">https://www.nriit.ac.in/ai&amp;ml</a>
22.	Department of VLSI	<a href="https://www.nriit.ac.in/vlsi">https://www.nriit.ac.in/vlsi</a>
23.	Department of Management Studies	<a href="https://www.nriit.ac.in/mba">https://www.nriit.ac.in/mba</a>
24.	Department of MCA	<a href="https://www.nriit.ac.in/mca">https://www.nriit.ac.in/mca</a>
<b>Examination Detail</b>		
25.	Academic calendars	<a href="https://www.nriit.ac.in/calendars">https://www.nriit.ac.in/calendars</a>
26.	Academic Regulations	<a href="https://www.nriit.ac.in/regulations">https://www.nriit.ac.in/regulations</a>

27.	Course Structures	<a href="https://www.nriit.ac.in/coursestructure">https://www.nriit.ac.in/coursestructure</a>
28.	Exam Time Tables	<a href="https://www.nriit.ac.in/exams">https://www.nriit.ac.in/exams</a>
29.	Students Result	<a href="https://www.nriit.ac.in/results">https://www.nriit.ac.in/results</a>
30.	Admission Details	<a href="https://www.nriit.ac.in/admissions#">https://www.nriit.ac.in/admissions#</a>

**10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30)**

Total Marks 30.00

**Summary of current financial year's budget and actual expenditure incurred(for the institution exclusively)in the three previous financial years**

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

CFY : (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

**Table 1 - CFY 2024-25**

Total Income 116547326				Actual expenditure(till...): 137419951				Total No. Of Students 3052
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries				Non Recurring
115604700	0	0	942626	126959308	10460643	0	Expenditure per student	45026.20

**Table 2 - CFYm1 2023-24**

Total Income 82595601				Actual expenditure(till...): 134828137				Total No. Of Students 2448
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries				Non Recurring
81771900	0	0	823701	103166644	31661493	0	Expenditure per student	55076.85

**Table 3 - CFYm2 2022-23**

Total Income 76603457				Actual expenditure(till...): 97726147				Total No. Of Students 1796
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries				Non Recurring
75754700	0	0	848757	80347772	17378375	0	Expenditure per student	54413.22

**Table 4 - CFYm3 2021-22**

Total Income 81231799				Actual expenditure(till...): 77257289				Total No. Of Students 1724
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries				Non Recurring
80494155	0	0	737644	57098762	20158527	0	Expenditure per student	44812.81

Items	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till	Budgeted in 2021-22	Actual Expenses in 2021-22 till
Infrastructure Built-Up	27000000	26773762	27000000	24821748	28000000	26794817	30900000	30691794
Library	1900000	1783455	1750000	1586227	2000000	1863509	3000000	2517321
Laboratory equipment	6250000	6179775	6700000	6554423	7900000	7664763	9000000	8440395

Laboratory consumables	1500000	1386884	525000	501236	325000	299313	1000000	940224
Teaching and non-teaching staff salary	57000000	55268495	45000000	43616813	39000000	36158250	24000000	23706097
Maintenance and spares	2600000	2454574	5300000	5138525	7300000	7095500	3250000	3147034
R&D	280000	260000	240000	220000	190000	170000	160000	145000
Training and Travel	1000000	878661	510000	506353	750000	696876	450000	404309
	120000	100000	80000	70000	60000	50000	40000	30000
Others, specify	65000	60000	55000	50000	45000	40000	30000	25000
<b>Total</b>	<b>97715000</b>	<b>95145606</b>	<b>87160000</b>	<b>83065325</b>	<b>85570000</b>	<b>80833028</b>	<b>71830000</b>	<b>70047174</b>

**10.2.1 Adequacy of budget allocation (10)**

Institute Marks : 10.00

S. No.	Assessment Year	Budget Allocated	Actual Expenses	Adequate
1	2024 - 25	97715000	95145606	Yes
2	2023 - 24	87160000	83065325	Yes
3	2022 - 23	85570000	80833028	Yes
4	2021 - 22	71830000	70047174	Yes

- **2021-22:** Out of ₹71.83 crores allocated, ₹70.05 crores were spent, showing adequate utilization.
- **2022-23:** With a budget of ₹85.57 crores, ₹80.83 crores were utilized, and the funds were adequate.
- **2023-24:** An allocation of ₹87.16 crores resulted in actual spending of ₹83.06 crores, confirming adequacy.
- **2024-25:** Out of ₹97.71 crores, ₹95.15 crores were expended, again marking the utilization as adequate.

**Conclusion:** Across all four years, actual expenses remained close to allocations, indicating consistent and adequate budget utilization.

**10.2.2 Utilization of allocated funds (15)**

Institute Marks : 15.00

S. No.	Assessment Year	Budget Allocated	Actual Expenses	% Utilized
1	2024 - 25	97715000	95145606	97 %
2	2023 - 24	87160000	83065325	95 %
3	2022 - 23	85570000	80833028	94 %
4	2021 - 22	71830000	70047174	98 %

- **2021-22:** Out of ₹71.83 crores allocated, ₹70.05 crores were spent, achieving **98% utilization**.
- **2022-23:** With a budget of ₹85.57 crores, ₹80.83 crores were utilized, reflecting **94% utilization**.
- **2023-24:** An allocation of ₹87.16 crores led to actual expenses of ₹83.06 crores, resulting in **95% utilization**.
- **2024-25:** From ₹97.71 crores allocated, ₹95.15 crores were spent, showing **97% utilization**.

**Conclusion:** Budget utilization has consistently remained high (94–98%), indicating effective financial management and optimal use of allocated resources.

#### 10.2.3 Availability of the audited statements on the institute's website (5)

Institute Marks : 5.00

[https://drive.google.com/file/d/1Vx3hoCBnWwTbCxITbq7hSPBP-BJzOMXM/view?usp=drive\\_link](https://drive.google.com/file/d/1Vx3hoCBnWwTbCxITbq7hSPBP-BJzOMXM/view?usp=drive_link), [https://drive.google.com/file/d/1TnliEW0kYh9HbjF6fst6FP83CPiLhfq/view?usp=drive\\_link](https://drive.google.com/file/d/1TnliEW0kYh9HbjF6fst6FP83CPiLhfq/view?usp=drive_link), [https://drive.google.com/file/d/189zyX6W8MFifyM0XxSlmVwnHZsWk51m2/view?usp=drive\\_link](https://drive.google.com/file/d/189zyX6W8MFifyM0XxSlmVwnHZsWk51m2/view?usp=drive_link), [https://drive.google.com/file/d/1B5BgbgbHWT1ciFqkpgtX6liWOBOXKsol/view?usp=drive\\_link](https://drive.google.com/file/d/1B5BgbgbHWT1ciFqkpgtX6liWOBOXKsol/view?usp=drive_link)

#### 10.3 Program Specific Budget Allocation, Utilization (30)

Total Marks 30.00

Institute Marks :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3  
 CFY: (Current Financial Year),  
 CFYm1 : (Current Financial Year minus 1),  
 CFYm2 : (Current Financial Year minus 2) and  
 CFYm3 : (Current Financial Year minus 3)

**Table 1 :: CFY 2024-25**

3025000		Actual expenditure (till...): 2885000		Total No. Of Students 555
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1590000	1435000	1515000	1370000	5198.20

**Table 2 :: CFYm1 2023-24**

3395000		Actual expenditure (till...): 3200000		Total No. Of Students 550
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1425000	1970000	1350000	1850000	5818.18

**Table 3 :: CFYm2 2022-23**

3192000		Actual expenditure (till...): 3060000		Total No. Of Students 493
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1257000	1935000	1205000	1855000	6206.90

**Table 4 :: CFYm3 2021-22**

2757000		Actual expenditure (till...): 2660000		Total No. Of Students 508
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1707000	1050000	1656500	1003500	5236.22

Items	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till	Budgeted in 2021-22	Actual Expenses in 2021-22 till
Laboratory equipment	1570000	1500000	1150000	1100000	1250000	1200000	1700000	1650000
Software	20000	15000	275000	250000	7000	5000	7000	6500
Laboratory consumable	325000	300000	170000	150000	80000	75000	200000	185000
Maintenance and spares	725000	700000	1550000	1500000	1550000	1500000	700000	685000
R & D	65000	60000	75000	50000	60000	50000	40000	35000

Training and Travel	280000	275000	150000	130000	230000	220000	100000	90000
	40000	35000	25000	20000	15000	10000	10000	8500
<b>Total</b>	<b>3025000</b>	<b>2885000</b>	<b>3395000</b>	<b>3200000</b>	<b>3192000</b>	<b>3060000</b>	<b>2757000</b>	<b>2660000</b>

**10.3.1 Adequacy of budget allocation (10)**

Institute Marks : 10.00

Sl. No.	Assessment Year	Budget Allocated in Lakhs	Actual Expenditure in Lakhs	Adequate / Non Adequate
1	2024-25	3025000	2885000	Adequate
2	2023-24	3395000	3200000	Adequate
3	2022-23	3192000	3060000	Adequate
4	2021-22	2757000	2660000	Adequate

- **2021-22:** Out of ₹27.57 lakhs allocated, ₹26.60 lakhs were spent, showing **adequate utilization**.
- **2022-23:** With a budget of ₹31.92 lakhs, ₹30.60 lakhs were utilized, marked as **adequate**.
- **2023-24:** An allocation of ₹33.95 lakhs led to actual expenses of ₹32.00 lakhs, proving **adequate**.
- **2024-25:** From ₹30.25 lakhs allocated, ₹28.85 lakhs were expended, again **adequate**.

**Conclusion:** In all four years, expenditure closely matched allocations, confirming that the budget was **consistently adequate and effectively utilized**.

**10.3.2 Utilization of allocated funds (20)**

Institute Marks : 20.00

Sl. No.	Assessment Year	Budget Allocated in Lakhs	Actual Expenditure in Lakhs	% of Utilization
1	2024-25	3025000	2885000	95 %
2	2023-24	3395000	3200000	94 %
3	2022-23	3192000	3060000	96 %
4	2021-22	2757000	2660000	96 %

- **2021-22:** Out of ₹27.57 lakhs allocated, ₹26.60 lakhs were spent, achieving **96% utilization**.
- **2022-23:** With a budget of ₹31.92 lakhs, ₹30.60 lakhs were utilized, reflecting **96% utilization**.
- **2023-24:** An allocation of ₹33.95 lakhs led to actual spending of ₹32.00 lakhs, showing **94% utilization**.
- **2024-25:** From ₹30.25 lakhs allocated, ₹28.85 lakhs were spent, resulting in **95% utilization**.

**Conclusion:** Across all four years, utilization has consistently remained high (94–96%), indicating strong financial discipline and effective use of allocated budgets.

**10.4 Library and Internet (20)**

Total Marks 20.00

10.4.1 Quality of learning resources (hard/soft) (10)

Institute Marks : 10.00

The Learning Resource Center, the Central Library of NRI Institute of Technology with its state-of-the- art facilities and excellent resources play proactive role in providing excellent user services, optimal use of resources supporting quality enhancement in teaching-learning, research and extension. keeping pace with the developments in the ICTs, Institute library works as a digitized knowledge Center for accessibility with print and e-resources and provides focused services to the students and faculty. The library has significant collection of books, journals, e-books, e-journals, secondary sources, databases, digital primary sources. Integrated Library Management System NEW GEN LIB Software is used to manage different functions of library for improving accessibility to students. Institute Central Library is using commercial software as well as NEW GEN LIB Software for Automation of Library Services. With NEW GEN LIB retrieval of information becomes easy and even a catchy phrase in the description of the catalogued item can be used for searching. NEW GEN LIB supports flexible workflow to cover activities related to acquisition of books, serials control, and funds monitoring.

#### **Learning resources available in Library**

Learning Resources	Number of resources
Books	19462
E Journals	1014
e-Journals/e-Books	5000
List of print journals/Magazine	95
List of Newspapers	07
CD/DVD	1862

#### **Expenditure in last three years on learning resources**

Year	No of New Titles added	No of new volumes added	Expenditure
CFY -2022-23	45	183	72,944.00
CFY-2023-24	29	209	1,89,198.00
CFY- 2024-25	47	127	1,27,780.00
CFY- 2025-26	16	95	4,26,623.00

#### **Expenditure in last three years on Journals Subscription**

Year	Number of Journals	Expenditure
CFY -2022-23	92	2,80,750.00
CFY-2023-24	108	2,71,658.00
CFY- 2024-25	72	2,56,680.00
CFY- 2025-26	72	2,56,680.00

**Institute Library has made following online resources available to the staff and students.**

**Various online resources available in Library**

DELNET	Access Millions of Networked Library	<a href="http://164.100.247.26/">http://164.100.247.26/</a> ( <a href="http://164.100.247.26/">http://164.100.247.26/</a> )
DELNET	Resources through DELNET, 2,20,00,000+ Books available for loan, 5,000+ Full-text E-journals, 1,00,000+Thesis/Dissertations	
NDLI	Includes all disciplines	<a href="https://ndl.iitkgp.ac.in/">https://ndl.iitkgp.ac.in/</a>

**LIBRARY PHYSICAL AREA**

1	Carpet area of Library	755.00 Sq.M
2	Reading Space	319.35 Sq. M
3	E- Library Space	58.61 Sq .M
4	Reference Section	58.61 Sq. M
5	Circulation Counter	56.06 Sq. M
6	Librarian Chamber	17.03 Sq. M
7	Text Book Section	245.34 Sq. M
8	E- Library seating capacity	25
9	Number of Seats in reading space	150
10	Number of Users Per day	250

**LIBRARY HOLDINGS**

S No.	Items	Total Volumes	Total Titles
<b>Books</b>			
1	Books	19462	3763
2	Book Bank Books	781	133

	Grand Total:	20243	3896
<b>Journals</b>			
1	Journals and Magazines	95	
2	Magazines Technical	5	
3	Non-Technical	6	
<b>Project Records</b>			
1	Project Records (All Departments including MBA)	1776	
<b>CDs</b>			
1	CDs Records (All Departments including MBA)	1862	
<b>Digital Library &amp; Membership</b>			
	Digital Library systems	25	
	Seating Capacity	25	
<b>Sources available through Digital Library</b>			
1	Source	available	<a href="http://www.delnet.nic.nic">http://www.delnet.nic.nic</a> ( <a href="http://www.delnet.nic.nic/">http://www.delnet.nic.nic/</a> )
2	DELNET	e-books -130003 e-journals -14377	Login: apnriit
3	NDLI	e-books 4123	Login: <b>grsailaja123@gmail.com</b> (mailto:grsailaja123@gmail.com)
4	NPTEL Videos	1032 videos available	25 Departments

#### **Book Purchase System Process**

Library books requirement is collected through a book requisition form which is made available to all faculty through the google drive link. List of books requested by faculty are send for quotation to the supplier, after that purchase order is placed to the supplier with Head of Department and Principal approval.

#### **Support to students for self-learning**

Institute Library supports students for self-learning activities by creating and making available various platforms for learning. Following resources are accessible to the students:

- 9000 + NPTEL Videos
- 100+ Subjects NPTEL Text Content
- 1500+ E-Books

- Access to previous year question papers

Digital library has been established by library for the effective use of these self-learning resources. Question point service, "Ask a Librarian" is a unique online service available where queries and reference questions from students are responded within 24 hours. Additional facilities created in the library for improving accessibility and support to students for self-learning.

- Wi-Fi accessible across the Library.
- Library e-resources Remote Access (off-campus access) through Knimbus remote access platform.
- User Training, Sensitization and Information Literacy programs.
- Research Data Management, Publishing support, Style Manua
- Workshops/Programs on research methods Tools.
- Plagiarism Check tools (Turnitin) and services.
- Institutional Repository Dspace for faculty publication
- Faculty publication platform Vidwan
- Print, Scan Services.
- Access to previous year question papers and syllabus

#### **Reprography Machine, Scanner and Bar Code printing facility**



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**10.4.2 Internet (10)**

Institute Marks : 10.00

Name of the Internet provider	BSNL and Blue Web
Available band width	500 MBPS & 100 MBPS
WiFi availability	Yes
Internet access in labs, classrooms, library and offices of all Departments	Internet access are available in all the labs, classrooms, Library and offices of all departments
Security arrangements	Mikrotik CCR1007 Cloud Rooter with firewall and hotspot

**Annexure I**  
**(A) PROGRAM OUTCOME (POs)**

Engineering Graduates will be able to:

1. **Engineering Knowledge :** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

**(B) PROGRAM SPECIFIC OUTCOME (PSOs)**

PSO1	Professional Knowledge: Apply the concepts of Electronics and Communications to arrive cost effective and appropriate solutions.
PSO2	Problem-solving skills: Apply the principles of analog, digital and Signal processing systems for Consumer electronics, medical and radar systems.
PSO3	Software Usage: Use VHDL, MATLAB, MULTISIM and MENTOR GRAPHICS to design integrated circuits and analyze signals.

## 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 shall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

**Head of the Institute**

Name : Dr Dola Sanjay S

Designation : Professor and Principal

Signature :



Seal of The Institution :



**Place :** Guntur

**Date :** 27-09-2025 19:17:42