



## NRI Institute of Technology Guntur

Information Technology

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

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Information Technology	UG	2008	2008	60	Yes	120	Applying first time	--	--	Yes	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						
2018-19					0						
Electronics & Communication Engineering	UG	2008	2008	60	Yes	180	Not accredited (specify visit dates, year)	09/08/2019	11/08/2019	No	4
<b>Sanctioned Intake for Last Five Years for the Electronics &amp; Communication Engineering</b>											
<b>Academic Year</b>				<b>Sanctioned Intake</b>							
2024-25					180						
2023-24					120						
2022-23					120						
2021-22					180						
2020-21					180						
2019-20					180						
Civil Engineering	UG	2009	2009	60	Yes	30	Not accredited (specify visit dates, year)	09/08/2019	11/08/2019	0	4
<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						
Artificial Intelligence and Machine Learning	UG	2021	2021	60	Yes	120	Not eligible for accreditation	--	--	No	4

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
<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							
ECE (Digital Electronics and Communication systems)	PG	2012	2012	18	No	18	Eligible but not applied	--	--	0	2
Computer Science and Engineering	UG	2008	2008	60	Yes	360	Not accredited (specify visit dates, year)	09/08/2019	11/08/2019	0	4
<b>Sanctioned Intake for Last Five Years for the Computer Science and Engineering</b>											
<b>Academic Year</b>				<b>Sanctioned Intake</b>							
2024-25				360							
2023-24				150							
2022-23				150							
2021-22				120							
2020-21				120							
2019-20				120							
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							
Master of Computer Applications	PG	2023	2023	120	Yes	180	Not eligible for accreditation	--	--	0	2

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
<b>Sanctioned Intake for Last Five Years for the Master of Computer Applications</b>											
<b>Academic Year</b>						<b>Sanctioned Intake</b>					
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:**

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

**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.

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

Head of the Institution	
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

## 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	109.18
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	197.96
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	50	50.00
8	FIRST YEAR ACADEMICS	50	45.23
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
		Total	<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 produce innovative IT professionals who can develop globally competitive and socially useful Information Technology enabled solutions by providing leading technologies in Information Technology.										
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>The Department of IT is dedicated to produce software engineers with basic knowledge in problem-solving skills necessary for career advancement in IT and allied disciplines.</td></tr> <tr> <td>M2</td><td>Produce engineers with a strong practical and theoretical exposure in the relevant disciplines, who are able to contribute to society through innovation.</td></tr> <tr> <td>M3</td><td>Produce engineers with team work, communication and interpersonal skill.</td></tr> <tr> <td>M4</td><td>To Strengthen industry-academia partnerships with global relevance.</td></tr> </tbody> </table>	Mission No.	Mission Statements	M1	The Department of IT is dedicated to produce software engineers with basic knowledge in problem-solving skills necessary for career advancement in IT and allied disciplines.	M2	Produce engineers with a strong practical and theoretical exposure in the relevant disciplines, who are able to contribute to society through innovation.	M3	Produce engineers with team work, communication and interpersonal skill.	M4	To Strengthen industry-academia partnerships with global relevance.
Mission No.	Mission Statements										
M1	The Department of IT is dedicated to produce software engineers with basic knowledge in problem-solving skills necessary for career advancement in IT and allied disciplines.										
M2	Produce engineers with a strong practical and theoretical exposure in the relevant disciplines, who are able to contribute to society through innovation.										
M3	Produce engineers with team work, communication and interpersonal skill.										
M4	To Strengthen industry-academia partnerships with global relevance.										

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Apply the knowledge of mathematics, science and Engineering fundamentals to identify and solve IT and Engineering problems.
PEO2	Use various software tools and technologies to solve problems related to academia, industry and society.
PEO3	Work with ethical and moral values in the multi-disciplinary teams and then communicate effectively among team members with continuous learning.
PEO4	Pursue higher studies and develop their career in IT industry.

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

Total Marks 10.00



Institute website-Department home page (<https://www.nriit.ac.in/it.html>)

Department Magazines

Laboratory Manuals

Laboratory Records

Event Brochures

• **Disseminated through**

Faculty Orientation program

Faculty Development program

First year orientation Sessions

Department Faculty Meetings

Workshops

Guest lecturers

Parent Teachers Meeting

Alumni Meetings

• **Displayed at**

HODs Chamber

Staff Rooms

Department Notice Boards

Department Library

Department Laboratories

Classrooms

Corridors

• **Published in:**

Institute website-Department home page (<https://www.nriit.ac.in/IT.html>) (<http://www.nriit.ac.in/IT.html>)

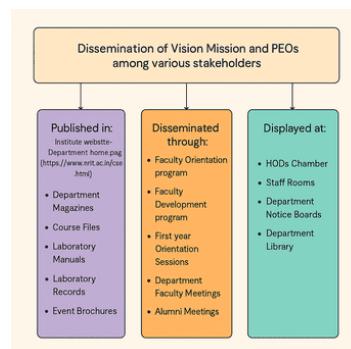
Department Magazines

Course Files

Laboratory Manuals

Laboratory Records

Event Brochures



- **Disseminated through**

Faculty Orientation program  
Faculty Development program  
First year orientation Sessions  
Department Faculty Meetings  
Workshops  
Guest lecturers  
Parent Teachers Meeting  
Alumni Meetings

- **Displayed at**

HODs Chamber  
Staff Rooms  
Department Notice Boards  
Department Library  
Department Laboratories  
Classrooms  
Corridors

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

Total Marks 25.00

#### Process for defining the Department Vision & Mission Formulation/Revision

Department of Information Technology defined its **Vision and Mission** by **involving all the stakeholders**. The stakeholders include parents, faculty, students, employers, industry experts, alumni etc.



The process for defining the **Department Vision & Mission Formulation/Revision** is as follows.

Step 1: The process begins with the Institute Vision and Mission, which provide the foundation

Step 2: Based on this foundation, the HoD/Dean along with Faculty collaboratively draft the preliminary Department Vision and Mission in alignment with the institute. A Department Advisory Committee (DAC) is constituted to guide this formulation.

Step 3: Stakeholder inputs are then collected from: Internal: Faculty, Students, Management. External: Alumni, Parents, Industry Experts, Employers.

Step 4: The draft is subjected to review by the DAC (industry & societal relevance) and by the PAC/BOS/IQAC (quality, policies, continuous improvement).

Step 5: The revised draft is forwarded to the Principal or Governing Body for final approval, ensuring compliance with institutional policies.

Step 6: After approval, the Department Vision and Mission are finalized.

Step 7: Finally, the Vision and Mission are published and disseminated to all stakeholders.

#### Process for defining the PEOs of the Program

Department of Information Technology defined its **Program Educational Objectives (PEOs)** by **involving all the stakeholders**. The stakeholders include parents, faculty, students, employers, industry, alumni etc.



The process for defining the Program Educational Objectives adopts the following sequence of steps.

Step 1: HoD/Dean establishes a Department Advisory Committee (DAC) comprising eminent faculty, alumni, and industry leaders, to develop Program Educational Objectives that align with the Vision and Mission of Institute and Department

Step 2: The HoD/Dean initiates the process of articulating the PEOs.

Step 3: Stakeholder inputs are collected from: Internal: Faculty, Students, Management. External: Alumni, Parents, Industry Experts, Employers.

Step 4: The faculty, under the guidance of the HoD/Dean, draft the initial PEOs based on the collected inputs.

Step 5: The draft PEOs are circulated among stakeholders for feedback.

Step 6: The draft is revised to incorporate relevant suggestions and improvements.

Step 7: The refined draft undergoes an approval process that includes: Review by the DAC for industry and societal relevance. Validation by the PAC/IQAC for quality and policy compliance. Final approval by the Board of Studies (BoS).

Step 8: Once approved, the PEOs are finalized. Step 9: Finally, the approved PEOs are disseminated to all stakeholders.

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

Total Marks 15.00

Institute Marks : 15.00

## DEPARTMENT OF INFORMATION TECHNOLOGY

## PEOs/ DEPARTMENT VISION MAPPING WITH CORRELATION LEVELS AND RELATIONSHIP

PEOS	DM1-The Department of IT is dedicated to produce software engineers with basic knowledge in problem-solving skills necessary for career advancement in IT and allied disciplines.	DM2-Produce engineers with a strong practical and theoretical exposure in the relevant <b>disciplines</b> , who are able to contribute to society through innovation.	DM3-Produce engineers with a strong practical and theoretical exposure in the relevant <b>disciplines</b> , who are able to contribute to society through innovation.	DM4-To Strengthen industry-academia partnerships with global relevance.
PEO1 -Apply the knowledge of <b>mathematics</b> , science and Engineering fundaments to identify and solve IT and Engineering problems.	3(High): Quality education directly builds strong foundational knowledge needed to analyze and solve engineering problems.	2(Moderate): Industry collaboration enhances practical problem-solving but is secondary to core learning.	3(High): Research activities deepen understanding of fundamentals for solving complex problems.	2(Moderate): Ethics and values indirectly support professional problem-solving mindset
PEO2- Apply the knowledge of <b>mathematics</b> , science and Engineering fundaments to identify and solve IT and Engineering problems.	3(High): Best teaching practices include hands-on use of current software tools, crucial for PEO2's technical skills.	3(High): Industry interaction exposes students to real-world tools and practices, crucial for PEO2	3(High): R&D facilities provide access to latest software tools supporting technical skills.	2(Moderate): Ethical awareness influences responsible use of technology but not directly technical skills.
PEO3- Work with ethical and moral values in the multi-disciplinary teams and then communicate effectively among team members with continuous learning.	2(Moderate): Education quality fosters interpersonal skills and ethics but is less directly focused on teamwork specifics.	2(Moderate): Collaborative projects with industry build teamwork and communication skills.	1(Slightly moderate): Research is usually individual or small groups; less emphasis on ethics or broad team communication.	3(High): This mission explicitly targets teamwork, ethics, and communication — core to PEO3.
PEO4- Pursue higher studies and develop their career in IT industry.	3(High): Solid educational foundation empowers graduates to advance academically and professionally.	2(Moderate): Industry exposure motivates career growth but doesn't fully guarantee it alone.	2(Moderate): Active R&D encourages academic progression and career development.	2(Moderate): Good values and interpersonal skills support career advancement and lifelong learning.

PEO Statements	M1	M2	M3	M4
Apply the knowledge of mathematics , science and Engineering fundaments to identify and solve IT and Engineering problems.	3	2	3	2
Use various software tools and technologies to solve problems related to academia, industry and society.	3	3	3	2
Work with ethical and moral values in the multi-disciplinary teams and then communicate effectively among team members with continous learning.	2	2	1	3
Pursue higher studies and develop their carrer in IT industry.	3	2	2	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

NRI Institute of Technology is affiliated to Jawaharlal Nehru Technological University, Kakinada (JNTUK). The institution's curriculum meticulously designed in alignment with the All India Council for Technical Education (AICTE) standards, ensuring that students receive a comprehensive education that equips them with the skills and knowledge required to meet industry demands upon graduation. The information technology(IT).Curriculum usually includes a balanced mix of basic science, humanities, and professional courses. If the Curriculum doesn't cover something needed to meet Course Outcomes (COs) and Program Outcomes (POs), the institution adds extra efforts to fill those gaps. This is done through a process called "GAP analysis" to identify missing contents and to ensure all necessary topics are covered. The regulation followed for respective year of study is shown in the following table 2.1.1.1.

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

Table 2.1.1.1: Regulation followed for respective year of study

The Curriculum given by the University is a composition of courses in alignment with AICTE

- Social Sciences & Humanities
- Basic Sciences
- Engineering Sciences
- Program Core Courses
- Program Electives
- Open Elective Courses
- Project & Seminar

The contribution of Program Curriculum Components is represented in the following table 2.1.1.2

S. No.	Types of Courses	R23 Regulation		R20 Regulation	
		No. of Courses	Percentage of Course	No. of Courses	Percentage of Course
1	Humanities Sciences including Management	4		3	4.54%
2	Basic Sciences (BS)	11		8	12.12%
3	Engineering Sciences	12		8	12.12%
4	Professional Core Courses (CSE)	19		25	37.87%
5	Professional Electives (CSE*)	5		5	7.57%
6	Open Subjects-Electives (OE)	2		4	6.06%
7	Skilled Courses (SC)	4		5	7.57%
8	Project Work and Seminar			3	4.54%
9	Non-Credit Based (NCB)			5	7.57%
TOTAL				66	100%

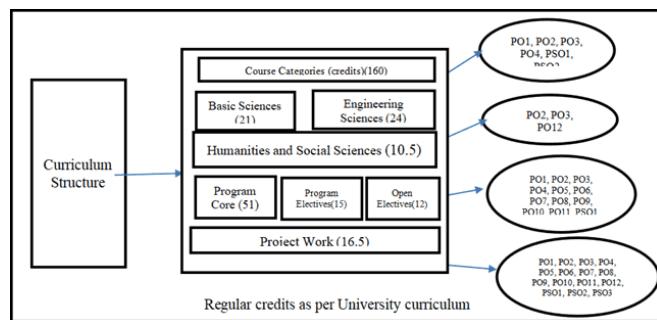
Table 2.1.1.2: Contribution of Program Curriculum components

The Curriculum is designed by the University with total credits of 160 in R23, R20 and R19 regulation for a student to be eligible to get an Under Graduate Degree in Computer Science and Engineering as recommended by the AICTE shown in Table 2.2.1.3.

S. No.	Course Modules	Credits Recommended by AICTE	Credits as per University Curriculum	
			R23	R20
1	Humanities Sciences including Management Courses (HS)	12		10.5
2	Basic Sciences (BS)	25		21
3	Engineering Sciences (ES)	24		24
4	Professional Core Courses (CS)	48		51
5	Professional Electives (CS*)	18		15

6	Open Subjects-Electives (OE)	18		12
7	Skill Oriented Courses (SO)	-		10
8	Project Work and Seminar	15		16.5
	<b>TOTAL</b>	<b>160</b>		<b>160</b>

Table 2.1.1.3: Curriculum Compliance with AICTE

**R19 Regulation Credits as per University Curriculum is depicted in Fig2.1.1.2.**

On comparison from Table 2.1.1.3, it is very clear that the number of courses provided by the University is incompliance with AICTE. The instructional hours required, credits for the course in R20 regulation are represented in below

**R20 Course Structure:**

I Year – I SEMESTER						
S. No	Course Code	Courses	L	T	P	Credits
1	HS	Communicative English	3	0	0	3
2	BS	Mathematics - I (Calculus And Differential Equations)	3	0	0	3
3	BS	Applied Physics	3	0	0	3
4	ES	Programming for Problem Solving using C	3	0	0	3
5	ES	Computer Engineering Workshop	1	0	4	3
6	HS	English Communication Skills Laboratory	0	0	3	1.5
7	BS	Applied Physics Lab	0	0	3	1.5
8	ES	Programming for Problem Solving using C Lab	0	0	3	1.5
<b>Total Credits</b>			<b>19.5</b>			

I Year – II SEMESTER						
S. No	Course Code	Courses	L	T	P	Credits
1	BS	Mathematics – II (Linear Algebra And Numerical Methods)	3	0	0	3
2	BS	Applied Chemistry	3	0	0	3
3	ES	Computer Organization	3	0	0	3
4	ES	Python Programming	3	0	0	3
5	ES	Data Structures	3	0	0	3
6	BS	Applied Chemistry Lab	0	0	3	1.5
7	ES	Python Programming Lab	0	0	3	1.5
8	ES	Data Structures Lab	0	0	3	1.5
9	MC	Environment Science	2	0	0	0
<b>Total Credits</b>			<b>19.5</b>			

II Year – I SEMESTER						
S. No	Course Code	Courses	L	T	P	Credits
1	BS	Mathematics III	3	0	0	3
2	CS	Object Oriented Programming through C++	3	0	0	3
3	CS	Operating Systems	3	0	0	3
4	CS	Database management systems	3	0	0	3
5	CS	discrete mathematics and graph theory	3	0	0	3
6	CS	Object Oriented Programming through C++ Lab	0	0	3	1.5
7	CS	Operating Systems Lab	0	0	3	1.5
8	CS	Database management systems Lab	0	0	3	1.5
	SO	<b>Skill oriented Course - I</b>				
		Animation-2d animation OR 2)Distributed technologies -Nosql	0	0	4	2
10	MC	Constitution of India	2	0	0	0
<b>Total Credits</b>			<b>21.5</b>			

II Year – II SEMESTER						
S. No	Course Code	Courses	L	T	P	Credits
1	BS	Statistics with R	3	0	0	3
2	CS	Principles of software engineering	3	0	0	3
3	CS	Automata Theory and compiler design	3	0	0	3
4	ES	Java Programming	3	0	0	3
5	HS	Managerial Economics and Financial Accountancy	3	0	0	3
6	CS	UML lab	0	0	2	1
7	CS	FOSS Lab	0	1	2	2
8	ES	Java Programming Lab	0	0	3	1.5
	SO	<b>Skill Oriented Course - II</b>				
		Animation-3d animation OR 2)Distributed technologies -mongo db	0	0	4	2
<b>Total Credits</b>			<b>21.5</b>			
10	Minor	Object oriented through c++	3	0	2	4
11	Honors	Any course from the Pool, as per the opted track	4	0	0	4

III B. Tech – I Semester						
S.No	Course Code	Courses	Hours per week		Credits	
			L	T	C	
1	PC	Computer Networks	3	0	0	3
2	PC	Design and Analysis of Algorithms	3	0	0	3
3	PC	Data Mining Techniques	3	0	0	3
	Open Elective / Job Oriented	<b>Open Elective-I</b>				
		Open Electives offered by other departments/ Optimization in Operations Research (Job oriented course)	3	0	0	3

5	PE	Professional Elective-I Artificial Intelligence Software Project Management Distributed Systems Advanced Unix Programming	3	0	0	3
6	PC	Data Mining techniques with R Lab	0	0	3	1.5
7	PC	Computer Networks Lab	0	0	3	1.5
8	SO	<b>Skill Oriented Course – III</b>  1. Animation course: Animation Design OR 2. Continuous Integration and Continuous Delivery using DevOps	0	0	4	2
9	MC	Employability Skills-I	2	0	0	0
10	PR	<b>Summer Internship 2 Months</b>  (Mandatory) after second year (to be evaluated during V semester	0	0	0	1.5
<b>Total credits</b>				<b>21.5</b>		
11	Minor	computer networks	3	0	2	3+1
12	Honors	Any course from the Pool, as per the opted track	4	0	0	4

<b>III B. Tech – II Semester</b>						
S.No	Course Code	Courses	Hours per week		Credits	
			L	T	P	C
1	PC	Machine Learning	3	0	0	3
2	PC	Big data analytics	3	0	0	3
3	PC	Cryptography and Network Security	3	0	0	3
4	PE	<b>Professional Elective-II</b>  1. Mobile Computing 2. Mean stack development 3. Design patterns 4. scripting languages	3	0	0	3
5	Open Elective /Job Oriented	<b>Open Elective-II</b>  Open Electives offered by other departments/ MEAN Stack Development ( <i>Job Oriented</i> )	3	0	0	3
6	PC	Big data analytics Lab	0	0	3	1.5
7	PC	Machine Learning using Python Lab	0	0	3	1.5
8	PC	Cryptography and Network Security Lab	0	0	3	1.5
9	SO	<b>Skill Oriented Course - IV</b>  1. data science:natural language processing OR 2. video analytics	0	0	4	2
10	MC	Employability skills-II	2	0	0	0
<b>Total credits</b>				<b>21.5</b>		
<b>Industrial/Research Internship(Mandatory) 2 Months during summer vacation</b>						
11	Minor	Data Structures and Algorithms <sup>s</sup>	3	0	2	3+1
12	Honors	Any course from the Pool, as per the opted track	4	0	0	4
<b>Minor course through SWAYAM</b>			-	-	-	2

<b>IV B. Tech –I Semester</b>				
S.No	Course Code	Course Title	Hoursperweek	Credits

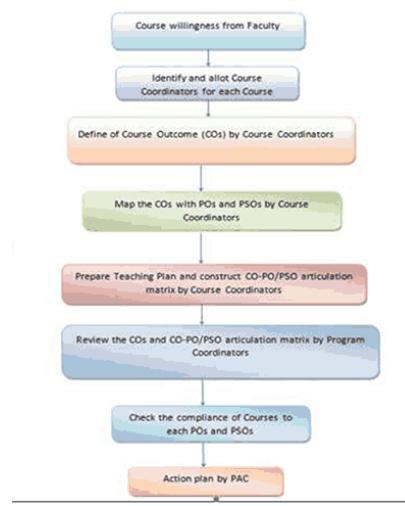
			L	T	P	C
1	PE	<b>Professional Elective-III</b> 1. Cloud Computing 2. Artificial Neural Networks 3. Internet of things(IOT) 4. Cyber Security & Forensics	3	0	0	3
2	PE	<b>Professional Elective-IV</b> 1. Deep Learning Techniques 2. Social Networks Analytics 3. Advanced databases 4. MOOCs-NPTEL/SWAYAM%	3	0	0	3
3	PE	<b>Professional Elective-V</b> 1. Block-Chain Technologies 2. M-Commerce 3. Ethical Hacking 4. MOOCs-NPTEL/SWAYAM%	3	0	0	3
4	Open Elective /Job Oriented	<b>Open Elective-III</b> Open Electives offered by other departments/ API and Microservices (Job Oriented Course)	3	0	0	3
5	Open Elective /Job Oriented	<b>Open Elective-IV</b> Open Electives offered by other departments/ Secure Coding Techniques (Job Oriented Course)	3	0	0	3
6	HS	Universal Human Values 2: Understanding Harmony	3	0	0	3
7	SO	1. PYTHON: Deep Learning OR 2. Secure Coding Techniques	0	0	4	2
8	PR	Industrial/Research Internship 2 months (Mandatory) after third year (to be evaluated during VII semester	0	0	0	3
<b>Total credits</b>				<b>23</b>		
11	Minor	Software Engineering <sup>§</sup> / any other from PART- B (For Minor)	3	0	2	3+1
12	Honors t	Any course from the Pool, as per the opted track	4	0	0	4
<b>Minor course through SWAYAM</b>			-	-	-	<b>2</b>

<b>IV B. Tech -II Semester</b>						
S.No	Course Code	Course Title	Hours per week		Credits	
			L	T	P	C
1	Project	Major Project Work, Seminar Internship	-	-	-	12
<b>Total credits</b>			<b>12</b>			

S. No.	Program Specific Outcome
PSO1	Model and develop efficient algorithms and software applications as safe and secure Information Technology Solutions.
PSO2	Employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur and a zest for higher studies/employability in the field of Information Technology.

Table2.1.1.4: List of Program Specific Outcomes

**Process used to identify the extent of compliance with university curriculum for attaining POs and PSOs**



In the process of enhancing the compliance of Curriculum with the program outcomes, there are **few Curriculum gaps identified**.

The **gaps are addressed by addition of add-on courses, Guest Lectures, Workshops and training programs**. The identified gaps are listed in the following tables for R20, R19 regulations respectively. However, the **gaps in the Curriculum are identified** by considering the **Pos** that are mapped with **greater than 75%**. Various technical events/activities were planned for the benefit of the student to overcome the identified gaps.

SL	PO's	Description
1	PO4	Conduct investigation
2	PO5	Modern tool Usage
3	PO6	The Engineer & Society
4	PO7	Environment & Sustainability
5	PO8	Ethics
6	PO9	Individual & Team Work
7	PO10	Communication
8	PO11	Project Management & Finance
9	PO12	Life Long Learning

Gaps identified through Curriculum for the compliance of PO &PSO for **R20 regulation**

Sl. No	Gap Identification	POs, PSOs to be covered
1	In adequate coverage of <b>Python</b> .	PO5,PO6,PO8, PO12,PSO1,PSO2
2	Agap in the ability to take <b>Cloud Computing</b> from concept to completion.	PO5,PO6, PO12,PSO1
3	Curriculum does not focus much on <b>complex models</b> description in <b>Design Analysis and Algorithm</b> .	PO4,PSO2
4	Lack of <b>hands-on experience</b> in <b>Coding skills &amp;Tools</b>	PO5,PSO2
5	Curriculum gap in addressing <b>ethics</b> and promoting <b>societal awareness</b> .	PO8,PO10

6	Agap in design and development to <b>computer based applications</b> in Varying <b>complexities</b> in emerging areas of <b>Machine Learning</b> .	PO4,PO5,PO12,PSO2
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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 get identified gaps included in the Curriculum

The Curriculum gaps are identified by considering the average of CO-PO / PSO mapping. The gaps are reported to the JNTUK University through proper channel and is represented in the following Fig 2.1.2.1

**Fig2.1.2.1:** Letter to JNTUK about identified gaps

Date: 27-01-2022

To  
The Director,  
Academic Planning,  
Jawaharlal Nehru Technological University Kakinada (JNTUK),  
Kakinada, Andhra Pradesh - 533003. .

**Subject: Request to Address Curriculum Gaps – Reg.**

Respected Sir/Madam,

I wish to bring to your kind notice that the Department of Information Technology has identified certain gaps in the current curriculum during the CO-PO-PSO mapping process. Based on stakeholder feedback and a detailed review of the course content, the following gaps have been noted

S. No.	Course Name	Gap Identified
1	Block Chain Technology	Inadequate coverage of data security and integrity
2	Cloud Computing	Integrating these topics could enhance students' preparedness for current industry challenges.
3	Design Analysis and Algorithms	Algorithms not strongly linked with data science, <u>cyber security</u> , IoT, or block chain applications.
4	Python Programming	Lack of hands-on experience in coding skills and tools
5	Human Values	Curriculum gap in addressing ethics and promoting societal awareness
6	Machine Learning	A gap in the design and development of computer based applications in varying complexity in emerging areas of Machine Learning

If necessary we would be glad to discuss these points further and provide additional insights.

Kindly consider our request and do the needful

Thanking you,

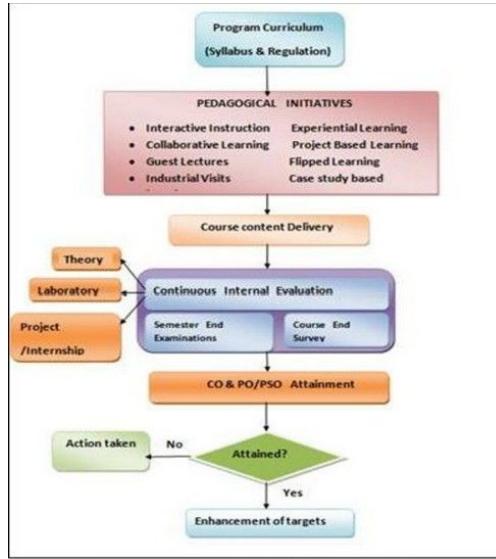
yours sincerely,  
  
Principal

**Fig2.1.2.1:** Letter to JNTUK about identified gaps

**Initiatives taken to address Curriculum gaps**

The department has initiated the following measures as additional courses to bridge the identified curricular gaps.

- Add-on Lab experiments
- Pre-placement Training
- Assignments
- Training on Soft-skills
- Value added Courses
- Innovative Projects
- Guest lectures
- Workshops/Conferences/Symposiums
- Industrial Visits and Internships
- Coding classes



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

#### Mapping of content beyond syllabus with the POs and PSOs

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

S No.	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of Students	Relevance to POs, PSOs
1	Lack of hands-on experience in Coding skills & Tools	Guest lecture on "Identifying Key Influencers with centrality Metrics in Social Networks"	27-12-2024	Dr.Murali Krishna Enduri, HOD,CSE, SRM University-AP.	93%	PO4, PO5, PO6, PSO1, PSO2
2	Limited focus on Ethics and the art of seizing opportunities for future success	workshop on Robotics called Robotrix for III years	05-09-2023 to 06-09-2023	SRM University	90%	PO4, PO12, PSO1, PSO2
3	Gap in Industry-Academia Collaboration	Awareness program on "Business Technology Incubators & entrepreneurship"	26-07-2023	Mr.Abdul Riyaz, Incubation Manager, VignanDeemed University, Guntur.	95%	PO4, PO5, PSO1, PSO2

4	Limited skill development for future advancements in machine learning.	workshop on Designing of Deep Learning Models using Tensor Flow & Keras API	30-09-2021	Braino vision solutions India,Pvt.,Ltd.	93%	PO4, PO5, PO6, PO12, PSO1, PSO2
5	Limited focus on ethics and art of seizing opportunities for future success	Awareness program on "Career Guidance & Counselling"	28-07-2023	Er.Y.V.D.Chandra Sekar, Founder & CEO CS CODENZ, Vijayawada.	95%	PO6, PO7, PO8, P012
6	Limited focus on Ethics and the art of seizing opportunities for future success	4 days' workshop and 2 days Hackathon on AWS	24-01-2024	Braino vision solutions India,Pvt.,Ltd.	93%	PO6, PO8, PO12
7	Curriculum gap in addressing ethics and promoting societal awareness	Awareness program on "Har Ghar Dhyani"	10-02-2023	Mrs.Mani Are, Faculty ,Art of Living. Mr.N.. Sudhakara Rao	91%	PO6, PO7, PO8, P012
S No.	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	%of Students	Relevance to POs, PSOs
1	A gap in design and development of computer based applications in varying complexities in emerging areas of Machine Learning	Workshop on "Mastering data processing for Machine Learning success" IV years	22-05-2023 to 27-05-2023	Ms. Ruthumma, Technical Trainer, APSSDC.	93%	PO4, PO5, PO6, PSO1, PSO2
2	Curriculum gap in addressing ethics and promoting societal awareness	Workshop on "Sustainable Developolment" III years	01-03-2023	Burisetty Sri Lakshmi Ramya Krishna	93%	PO7, PSO1, PSO2
3	Curriculum gap in addressing ethics and promoting societal awareness	Seminar on "Digital Transformation of India"	15-02-2023	Sri Akhilesh Srivastava	97%	PO8, PSO1, PSO2
4	Lack of hands-on experience in Coding skills & Tools	hands-on session on Android Application Development for II years	08-12-2022	Mr.T.Pavan Kumar Reddy, Trust & Safety Analyst, Accenture and Mr.P.S.V.Krishna, Software Trainer.	93%	PO4, PSO1, PSO2
5	Lack of hands-on experience in Coding skills & Tools	APSSDC WORKSHOP II Years" Data Analytics using Python"	17-10-2022 to 22-10-2022	Ms. Ruthumma, Technical Trainer, APSSDC.	97%	PO4, PO5, PSO1, PSO2
6	Gap in the ability to Take web applications from the concept to completion	Workshop III years "web development using Django"	01-08-2022 to 05-08-2022	Dr. A Swapna Priya Asst. Prof, VVIT, Vizag	96%	PO4, PO5, PO6, PSO1, PSO2

7	Lack of knowledge in how to utilize Data structures concepts in Real time applications	Work shop on National Level Largest Student Work Shop on Data Science using Python"	Dr.Buddha Chandra Shekhar, Chief coordinator,AICTE.	97%	PO4, PO5, PO6 PSO1, PSO2
8	Lack of hands-on experience in coding skills & Tools	Hands-on Workshop on Ethical Hacking & Cyber Security	Santosh Chaluvadi, Founder & CEO, Supraja Technologies.	95%	PO4, PSO1, PSO2

Table 2.1.2.2 Delivery details of the content beyond the Syllabus (2023-22)

## Impact Analysis

- Enhanced understanding and depth in knowledge with
- Skill development and practical application knowledge of IV B-Tech students was improved with the support of workshops conducted.
- The Bright students have improved their problem-solving and research skills with the aid of guest Lectures of the eminent persons from industry.
- Diversification of Learning Approaches in Critical Thinking and Creativity was improved with the seminars organized.
- Seminar on "The Role of Ethics in Engineering", influences the students a lot which addresses their ethical values in their future endeavors.
- Seminar on "Cyber-Security and Ethical-Hacking" impacts ethical values in students.

## 2023-24

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	A gap in design and development of computer based applications in varying complexities in emerging areas of Machine Learning	Workshop on "Mastering data processing for Machine Learning success" IV years	22/05/2023	Ms. Ruthumma, Technical Trainer, APSSDC.	93	PO4, PO5, PO6, PSO1, PSO2
2	Limited focus on Ethics and the art of seizing opportunities for future success	workshop on Robotics called Robotrix for III years	09/09/2023	SRM University	90	PO4, PO12, PSO1, PSO2
3	Gap in Industry-Academia Collaboration	Awareness program on "Business Technology Incubators & entrepreneurship"	26/07/2023	Mr.Abdul Riyaz, Incubation Manager, VignanDeemed University, Guntur.	95	PO4, PO5, PSO1, PSO2
4	Limited focus on ethics and art of seizing opportunities for future success	Awareness program on "Career Guidance & Counselling"	28/07/2023	Er.Y.V.D.Chandra Sekar, Founder & CEO ,CS CODENZ, Vijayawada.	95	PO6, PO7, PO8, P012
5	Curriculum gap in addressing ethics and promoting societal awareness	Awareness program on "Har Ghar Dhyan"	10/02/2023	Mrs.Mani Are, Faculty ,Art of Living. Mr.N.Sudhakara Rao	91	PO6, PO7, PO8, P012

## 2022-23

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Lack of hands-on experience in Coding skills & Tools	hands-on session on Android Application Development for II years	08/12/2024	Mr.T.Pavan Kumar Reddy, Trust & Safety Analyst, Accenture and Mr.P.S.V.Krishna, Software Trainer.	93	PO4, PSO1, PSO2
2	Lack of hands-on experience in Coding skills & Tools	APSSDC WORKSHOP II Years" Data Analytics using Python"	18/10/2022	Ms. Ruthumma, Technical Trainer, APSSDC.	97	PO4, PO5, PSO1, PSO2
3	Gap in the ability to Take web applications from the concept to completion	Workshop III years "web development using Django"	02/08/2022	Dr. A Swapna Priya Asst. Prof, VVIT, Vizag	96	PO4, PO5, PO6, PSO1, PSO2
4	Lack of knowledge in how to utilize Data structures concepts in Real time applications	Work shop on National Level Largest Student Work Shop on Data Science using Python"	20/05/2022	Dr.Buddha Chandra Shekhar, Chief coordinator,AICTE.	97	PO4, PO5, PO6 PSO1, PSO2
5	Lack of hands-on experience in coding skills & Tools	Hands-on Workshop on Ethical Hacking & Cyber Security	11/05/2022	Santosh Chaluvadi, Founder & CEO, Supraja Technologies.	95	PO4, PSO1, PSO2

## 2021-22

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Limited skill development for future advancements in machine learning.	workshop on Designing of Deep Learning Models using Tensor Flow & Keras API	30/09/2021	Braino vision solutions India,Pvt.,Ltd.	93	PO4, PO5, PO6, PO12, PSO1, PSO2

## 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

Effective content delivery, the selection of appropriate teaching methodologies, and careful assessment are the key aspects to a successful Teaching-Learning process. The course coordinator will consult program coordinator to ensure that the course is delivered effectively within the allocated time frame. Teaching-Learning in the IT department follows a student-centric process employing experiential, participative.

#### Adherence to Academic Calendar

The academic calendar for the institute is distributed to departments in alignment with the University academic calendar. Each department then creates its own academic calendar based on this schedule. Below Fig 2.2.1.2&5, represents copy of the University academic calendar for the academic year 2022-23 for the IVB, Tech-Sem-I. The institute academic calendar is shown in Fig 2.2.1.4.

#### University Academic Calendar 2022-23 I B-Tech Sem-I & II

##### I SEMESTER

Description	From	To	Weeks
Commencement of class work	26-09-2022		
Induction classes	26-09-2022	15-10-2022	
I Unit of Instructions	17-10-2022	10-12-2022	8 Weeks
I Mid Examinations	05-12-2022	10-12-2022	
II Unit of Instructions	12-12-2022	04-02-2023	8 Weeks
II Mid Examinations	30-01-2023	04-02-2023	
Preparation and Practical's	06-02-2023	11-02-2023	1 Week
End Examinations	13-02-2023	25-02-2023	2 Weeks
Commencement of II Semester Class Work	<b>27-02-2023</b>	-	

##### II SEMESTER

Description	From	To	Weeks
I Unit of Instructions	<b>27-02-2023</b>	22-04-2023	8 Weeks
I Mid Examinations	17-04-2023	22-04-2023	
II Unit of Instructions	24-04-2023	17-06-2023	8 Weeks
II Mid Examinations	12-06-2023	17-06-2023	
Preparation and Practical's	19-06-2023	24-06-2023	1 Week
End Examinations	26-06-2023	08-07-2023	2 Weeks

#### University Academic Calendar 2022-23 II B-Tech Sem-I & II

##### I SEMESTER

Description	From	To	Weeks
Community Service Project	<b>22.08.2022</b>	<b>03.09.2022</b>	2 Weeks
I Unit of Instructions	05.09.2022	29.10.2022	8 Weeks
I Mid Examinations	24.10.2022	29.10.2022	
II Unit of Instructions	31.10.2022	24.12.2022	8 Weeks
II Mid Examinations	19.12.2022	24.12.2022	
Preparation and Practical's	26.12.2022	31.12.2022	1 Week
End Examinations	02.01.2023	14.01.2023	2 Weeks
Commencement of II Semester Class Work	<b>16-01-2023</b>	-	

##### II SEMESTER

Description	From	To	Weeks
I Unit of Instructions	<b>16.01.2023</b>	11.03.2023	8 Weeks
I Mid Examinations	06.03.2023	11-03-2023	
II Unit of Instructions	13.03.2023	06.05.2023	8 Weeks
II Mid Examinations	01.05.2023	06.05.2023	
Preparation and Practical's	08.05.2023	13.05.2023	1 Week
End Examinations	15.05.2023	27.05.2023	2 Weeks

**University Academic Calendar 2022-23 III B-Tech Sem-I & II****I SEMESTER**

Description	From	To	Weeks
Community Service Project	15-07-2022	30-07-2022	2 Weeks
I Unit of Instructions	01-08-2022	24-09-2022	8 Weeks
I Mid Examinations	26-09-2022	01-10-2022	1 Week
II Unit of Instructions	03-10-2022	26-11-2022	8 Weeks
II Mid Examinations	28-11-2022	03-12-2022	1 Week
Summer Internship	15.05.2023	24.06.2023	6 Weeks
Preparation and Practical's	05-12-2022	10-12-2022	1 Week
End Examinations	12-12-2022	25-12-2022	2 Weeks
Commencement of II Semester Class Work	<b>09-01-2023</b>	–	–

**II SEMESTER**

Description	From	To	Weeks
I Unit of Instructions	<b>09.01.2023</b>	04.03.2023	8 Weeks
I Mid Examinations	06.03.2023	11.03.2023	1 Week
II Unit of Instructions	13.03.2023	06.05.2023	8 Weeks
II Mid Examinations	01.05.2023	06.05.2023	1 Week
Summer Internship	15.05.2023	24.06.2023	6 Weeks
Preparation and Practical's	26.06.2023	01.07.2023	1 Week
End Examinations	03.07.2023	15.07.2023	2 Weeks
Commencement of IV-I Class Work	<b>17.07.2023</b>	–	–

**University Academic Calendar 2022-23 IV B-Tech Sem-I & II****I SEMESTER**

Description	From	To	Weeks
Commencement of Class Work	<b>04.07.2022</b>	–	–
I Unit of Instructions	04.07.2022	27.08.2022	8 Weeks
I Mid Examinations	29.08.2022	03.09.2022	1 Week
II Unit of Instructions	05.09.2022	29.10.2022	8 Weeks
II Mid Examinations	31.10.2022	05.11.2022	1 Week
Preparation and Practical's	07.11.2022	12.11.2022	1 Week
End Examinations	14.11.2022	26.11.2022	2 Weeks
Commencement of II Semester Class Work	<b>05-12-2022</b>	–	–

**II SEMESTER**

Description	From	To	Weeks
I Unit of Instructions	<b>05.12.2022</b>	28.01.2023	8 Weeks
I Mid Examinations	30.01.2023	04.02.2023	1 Week
II Unit of Instructions	06.02.2023	01.04.2023	8 Weeks
II Mid Examinations	03.04.2023	08.04.2023	1 Week
Preparation and Practical's	10.04.2023	15.04.2023	1 Week
End Examinations	17.04.2023	29.04.2023	2 Weeks

The daily activities within the department are carried out by the faculty members and overseen by the Head of Department (HOD) and the Principal to ensure the smooth functioning of the department. The details of course file list and lesson plan are represented in the following Fig 2.2.1.7 and Fig2.2.1.8 respectively.

Sl.no	Course file check list
1	Institute vision/mission

2	Department vision/mission/program Educational Objective (PEOs)/program specific outcomes(PSOs)
3	Program outcomes(POs)
4	Course syllabus with structure
5	Course outcomes(COs)
6	Mapping CO with PO/PSO course with PO/PSO with justification
7	Academic calendar (university Department)
8	Class time table – highlighting the course periods
9	Lesson Plan
10	Lecture notes
11	University question paper
12	International question papers key with CO and BI
13	Assignment question papers mapped with CO and BI
14	Schema of evolution with CO and BI mapping
15	Tutorial topics
16	Result analysis to identify weak and advanced learners
17	Result analysis at the end of the course
18	Remedial class for weak students
19	CO PO/PSO Assignment Sheets
20	Co Feedback form
21	Student Feedback analysis
22	Attendance register

#### Instructional methods and pedagogical initiatives

Innovative Teaching-Learning strategies offer students the chance to collaborate in teams, learn from their peers, and engage in self-directed learning. To enhance the quality of teaching and learning, and to encourage students to be more engaged in the classroom, the following methods are recommended. Different Teaching Methodologies are represented in Fig B.2.2.1.9.

A part from the above the mentioned methodologies, few practices are undertaken to instill interest among the students.

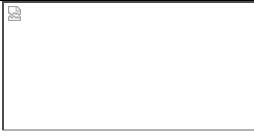
#### Think-Pair-Share

In this interactive teaching strategy, students begin by reflecting on a question individually, then exchange their ideas with a partner, and ultimately present their insights to the whole class. This approach is intended to enhance student participation and deepen their understanding of the material. It involves three stages:

Three stages:

Think  
Pair  
Share

Innovative Method	Outcomes	Images/Screenshot of the practice
	Encourages : Active participation, Reflection, Collaboration.	

Think-Pair-Share	<b>Activity on Think for Individual Reflection</b> 
	<b>Activity on Pair for Collaborative Discussion</b> 

**Project-Based Learning**

Students engage in a long-term project that challenges them to utilize a range of skills and knowledge in order to address a real-world issue.

Innovative Method	Outcomes	Images/ Screenshot of the practice
Project Based Learning	Encourages: Critical thinking, Collaboration and practical application of knowledge.	 Activity on projectbased Learning

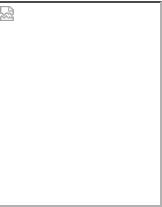
**Flipped Method**

Flipped Method involves students studying learning materials (videos, readings) at home, while class time is used for interactive, problem-solving activities.

InnovativeMethod	Outcomes	Images/Screenshot of the practice
Flipped Class Room	Improved understanding through active participation and discussion. Enhanced problem-solving and critical thinking skills.	

**Blended Learning**

The combination of in-person teaching with online learning activities and resources.

Innovative Method	Outcomes	Images/Screenshot of the practice
<b>Blended Learning</b>	<p>It offers flexibility, allowing students to progress at their own speed, while still enjoying the advantages of face-to-face interaction.</p> <p>Students are actively participated in Blended Learning</p> 	

#### Collaborative Learning

Students collaborate in teams to tackle challenges, accomplish tasks, or grasp new ideas.

Innovative Method	Outcomes	Images/Screenshot of the practice
<b>Collaborative e Learning</b>	<p>Teamwork, communication skills, and deepens understanding through Peer discussion.</p> 	

#### MOOCs (Massive Open Online Courses)

MOOCs, or Massive Open Online Courses, are digital classes available to a large audience. Typically offered by Universities or Educational Websites, these courses span various topics and may include video lectures, reading materials, quizzes, and discussion boards.

Innovative Method	Outcomes	Images/Screenshot of the practice

<b>Online Learning MOOCs</b>	<p>MOOC's provide students With access to top-notch Content from international experts, enabling them to Learn at their own speed and Expand their knowledge Beyond traditional classroom settings. Additionally, these courses often offer the Chance to earn certificates or credentials.</p> 
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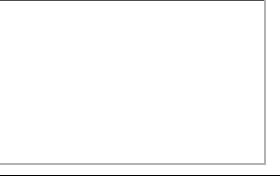
**Mind Mapping**

Students design visual diagrams to illustrate concepts, ideas, or topics, highlighting the connections between them.

Innovative Method	Outcomes	Images/Screenshot of the practice
<b>Mind Map</b>	<p>- Helps organize and structure thoughts, making complex information easier to understand.</p> 	

**One-Minute Paper**

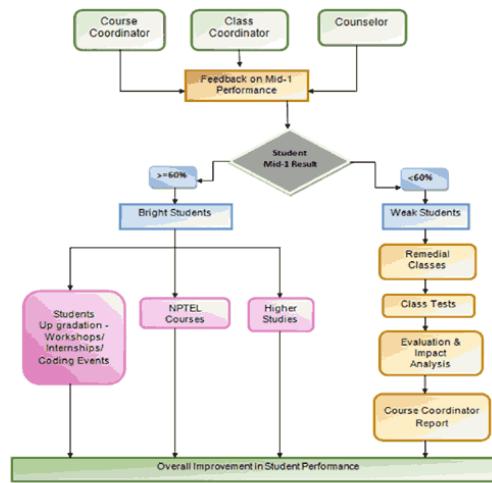
Provides **quick feedback** to the instructor and encourages students to **reflection their learning**.

Innovative Method	Outcomes	Images/Screenshot of the practice
<b>One-Minute Paper</b>	<p>Provides quick feedback to the instructor and encourages students to reflect on their learning.</p> 	

Methodologies to support Weak students and encourage Bright students

Guide lines to identify Weak and Bright students

The Bright students are identified from their participation in classroom discussion, performance in the assessment tests and participation in classroom seminars, questioning ability and University result analysis. The process



The course coordinator, class coordinator and counselor generate the feedback related to identification of bright student sand weak students, however all the students are encouraged to participate in workshops/Internships/Coding tests and encouraged to register in NPTEL courses/higher studies.

The Counselors regularly conduct meetings regarding progress of their mentees and are responsible for identification of students who have scored less than 60% Marks in their Mid-1 exam. Under the HOD direction, the student's Counselor evaluates the progress of the students who score below 60% Marks in MID-1 examinations and are considered as weak students and the same is also intimated to their parents.

## Methodologies to guide weak students

Remedial classes will be conducted for weak students from i.e., 3:00PM to 5:00PM. At the end of these classes the students have to write the test and it will be evaluated and analyzed properly by course coordinator.

Separate Assignments are given to weak students and extra classes are conducted by course coordinators. Separate materials are provided to weak students.

The course coordinator helps the students by teaching the essential concepts, giving **assignments** And **conducting tests** to improve the student's score.

Weak students mentoring will be frequently done to identify the student **socio economic problems and academic performance.**

Significant efforts are made to improve the academic performance of weak students through remedial classes/assignments. However, special trainings are conducted to get the campus placements for weak students.

Identification Criteria	Actions taken
Students scoring less than 60% of marks in Internal Assessment	Student' counselor follows their progress regularly, advising students about attending classes, making up classes missed, and getting additional help.  Conduction of remedial classes and providing separate fast track material.
Diploma students who entered from other branches and late joining	Conduction of extra classes and encourage to complete certification courses.
Students who fail in semester exams	Allotting separate course coordinator for each course. Conduction of extra classes to those who failed in  Previous semester courses.

**Table 2.2.1.13:** Plan of Action Taken for Weak students

The **remedial class timetable** is prepared and the course coordinators are instructed to take the classes and **monitoring student regularity** is done by the program coordinator. A sample remedial class time-table is shown below.

### **Remedial Class – Time Table**

Class: III B-Tech Sem:

## Timings

S. No	Schedule	Course Name	Faculty
1		CC	B.Sowjanya
2	03-06-2023	BCT	D.Devika
3	To	DC	M.Ravi
4	7-11-2023	DLT	P. Srinivas
5		CMM	Dr. V. N Maleeswari

Note: All the students have to attend the classes without fail.

#### Methodologies to encourage Bright students:

- The Institute encourages **bright students** to participate in the **National Level Technical Competitions** organized by **other Institutes and Universities**.
- Students are encouraged to **publish** their **scientific articles** in the department level/college level newsletter and Institute organizes events such as Technical Paper presentation, Student Symposium, Seminar, Project Exhibitions, Software development competitions and Problem-solving competitions to develop and promote creativity and critical thinking among the students.
- Students are **paid with incentives and stipend**.

The students are encouraged to actively participate in various **NCC & NSS Activities** as part of their technical education and to enrich their **leadership qualities** and team spirit.

Identification Criteria	Actions taken
Students awarded with First Class and with Distinction in their semester exams	<p>Motivated to take up mini projects.</p> <p>Encouraged to participate in inter college national level fests</p> <p>Motivated to take GATE, GRE and TOEFL exams to pursue higher studies</p> <p>Encouraged to do NPTEL courses, etc</p> <p>The management awarded cash prizes for students those who have possessed NPTEL certificates.</p> <p>Additional lab programs were given to improve their problem-solving skills.</p> <p>Conducting seminars on advanced electronic tools required for industry.</p> <p>Allotment of extra library books.</p> <p>Permitted to spend extra time in the project Lab</p>
Topper student of each class for Every academic year	Awarded with mementos and cash prizes to continue their Excellency in academics.

Table2.2.1.13: Plan of Action taken for Bright students

The institute offers cash prizes to the students who have achieved First rank in the institution.

The bright students are encouraged to do NPTEL courses along with academic to enrich their knowledge in technical skills. Many faculty members are mentors for different NPTEL courses which enhances their teaching skills as well as their active participation in academics as shown in below

Table2.2.1.12:

Academic Year	Year	Branch	Regd No	Name of the Student
2023-24	I BTech	IT	23KP1A1258	T.SIRISHA
	II BTech	IT	22KP1A1205	B.MANASA
	III BTech	IT	21KP1A1243	S.BHARGAVI
	IV BTech	IT	20KP1A1208	CHINNI B V M N D K DUTTA SAI
2022-23	I BTech	IT	22KP1A1225	M.ASHA JYOTHI
	II BTech	CSE	21KP1A1243	S.BHARGAVI
	III BTech	CSE	20KP1A1208	CHINNI B V M N D K DUTTA SAI
2021-22	I BTech	CSE	21KP1A1243	S.BHARGAVI
	II BTech	CSE	20KP1A1208	CHINNI B V M N D K DUTTA SAI

Table2.2.1.14: Details of Merit Students

The bright students are encouraged to do NPTEL courses along with academic to enrich their knowledge in technical skills. Many faculty members are mentors for different NPTEL courses which enhances their teaching skills as well as their active participation in academics. The details are shown in the following Table2.2.1.14:

S. No	Name of the Course	Dates of Participation	Relevance to POs and PSOs
1	Cloud Computing	15-07-2024 to 07-10-2024	PO5, PO6, PO9, PO12
2	Data Structures and Algorithms Using Java	15-07-2024 to 07-10-2024	PO5, PO6, PO9, PO12
3	Programming in Java	15-07-2024 to 07-10-2024	PO5, PO6, PO9, PO12
4	The Joy of Computing Using Python	15-07-2024 to 07-10-2024	PO5, PO6, PO9, PO12

Table2.2.1.15: NPTEL courses completed in three academic years

#### Impact Analysis:

All the students are encouraged in all aspects to enrich their technical skills by conducting several technical fests and personality development activities.

The students participated in various events like:

- Technical events
- NSS programs,
- Taking up there at time projects,
- Conferences,
- Under-going various certification courses,
- Various workshops and inter& intra college events

#### Quality of classroom teaching

NRI Institute of Technology is very particular in maintaining quality of teaching in the classroom. Every faculty in the institute is trained to deliver the content in the classroom by adopting following procedures.

##### 1.Instruction Delivery

Course coordinators take the classes as per the timetable and less on plan by following various teaching- learning techniques. The goals are revised by the faculty frequently to create satisfaction among students, outstanding performance of the students are appreciated through rewards in public. Newly recruited faculties are trained on how to use the ICT tools for lecture delivery.

##### 2.Continuation Evaluation

Two mid exams for every semester both descriptive and objective is conducted by University with assignments for theory courses. Viva-voce is conducted in every lab for evaluating the student's technical knowledge. Observation and Record evaluation is done frequently and internal lab exam for laboratory courses are conducted.

##### 3.Review of Syllabus Coverage

Program Assessment Committee (PAC) reviews the coverage of syllabus on a regular basis in faculty meetings; Class Review Committee (CRC) meetings are conducted in the subsequent intervals of semester duration to review the syllabus coverage of each course.

#### Impact Analysis:

- Improved results of students every year placing the institute in the top positions among the University affiliated colleges by implementing all these teaching initiatives in the classroom.
- Self Upgradation of faculty with the methodologies implemented in the department.
- Improved not only academic results but also placements of the students.

#### E-Conduct of experiments:

Being a technical institute, the labs in the college are equally important than the classroom to gain the practical oriented engineering knowledge and for the development of skills. The Laboratory experiments are conducted through the following measures:

- Sufficient numbers of computers are available in the lab for conducting the lab session. All the computers provided are in good working condition.
- Programmers in the lab are technically competent and they are responsible to verify the readiness of the lab before conducting the lab session.
- Every student is provided with a computer on 1:1 ratio which ensures quality of laboratory experience.
- Manuals are provided for all experiments in the laboratories before the commencement of the lab sessions.
- The concept of the program to be coded and executed in the lab is thoroughly explained in the class duration and lab.
- Course coordinator monitors that every student is involved in writing the program, debugging the program and obtaining the correct outputs.
- Analysis and writing programs, executing and obtaining the results is done by students individually.
- The obtained results are validated for all testcases.
- First year students who are using the computer for the first time are supported to operate on the system until they are trained well to use the system.
- There are few experiments included as content beyond the syllabus to meet the needs of the industry.
- Few experiments are conducted in groups to implement collaborative learning that facilitates the individual to work in a team.
- Viva-voce is conducted after each lab session.
- As part of this, different technical competitions like Quiz, Coding etc, are conducted to enrich the student's knowledge and to create competitive spirit among them.

#### Continuous assessment in the Laboratory:

For internal evaluation, total 25 marks are sub-categorized to 10marks for write-up and evaluation, 10 marks for continuous assessment and 5 marks for record work. Rubrics are used for the assessment of students in each Lab session

**Rubric for day-to-day evaluation:** The rubrics for day-to-day evaluation is designed based on student technical skills, interpersonal skills and regularity. The rubrics for lab session are designed to assess the student's performance that is shown in **Table 2.2.1.16**.

Rubric	Below Average (Marks)	Average (Marks)	Good (Marks)	Total (Marks)
Program	2	3	4	4
Output	2	3	4	4
Record	1	2	3	3
Viva	2	3	4	4
Total		15		

**Table 2.2.1.19:** Day to Day Assessment Rubrics

#### Technical Skills:

- Prior preparation of the student to do the current experiment.
- Programming knowledge of the student to interpret the results.
- Participation of student in performing the experiment.
- Evaluate the experiment using various methods and suggest possible improvements and further investigations.

#### Interpersonal Skills:

- Time management- Ability to complete the task in stipulated time
- Communication skills- Able to explain the obtained results

#### R23, R20 and R19 Regulations Rubrics for Internal Evaluation in Lab

Rubric	R23(Marks)	R20(Marks)
Continuous Assessment in Lab	5	5
Record	10	5
Internal Test	10	5
Total	25	15

#### Student feedback on teaching-learning process and action taken:

The PAC collects feedback from students on the effectiveness of teaching and learning at different points of time during the semester. Initially, verbal feedback is taken from each class in formally by HOD after 1-2 weeks of commencement of classwork. Feedback is also taken during students counseling and communicated to the PAC. If students are facing difficulty in any course, the concerned course faculty is informed with the same. Besides the above, online students feedback is taken anonymously twice in every semester. The feedback is analyzed and communicated to all faculty

members with necessary remarks by the PAC. Majority of the faculty members are graded with more than 85% which evidences for good quality in the Teaching-Learning process.

#### Action Taken

- Orientation Classes will be conducted to the course faculty with less than 85% feedback. PAC provides guidelines and suggestions to them for improvement in Teaching-Learning process.
- The lecture-notes are reviewed and necessary suggestions in the courses are offered. They are also suggested to refer more text-books.
- After 2-3 weeks, feedback is again taken from students in the course for necessary action.
- These master results are also analyzed for such faculty members.

S. No	Class	Name of the Course	Name of the Faculty	Feedback%
1	II B-Tech Sem - I	DATA BASE MANAGEMENT SYSTEMS	K.TRIVENI DEEPTHI	77%
2	III B-Tech Sem - I	DESIGN ANALYSIS AND ALGORITHMS	N. RAJU DURGA RAO	75%

Table2.2.1.24: Faculty Details with less-than 85% Feedback

#### Impact Analysis:

- Improvement in presentation skills of the faculty and in lecture delivery after the orientation class/classes.
- Improvement in result of the concerned course is as follows

S. No	Class & Sec	Name of the Course	Name of the Faculty	Semester Results%
1	II B-Tech Sem - I	DATA BASE MANAGEMENT SYSTEMS	K.TRIVENI DEEPTHI	97%
2	III B-Tech Sem - I	DESIGN ANALYSIS AND ALGORITHMS	N. RAJU DURGA RAO	99%

Table2.2.1.25: Impact analysis of the faculty after orientation classes

#### III B-Tech II Semester (R20) Regular Examination Result

#### Course-wise Result

Academic Year: 2024-25 Date: 10-07-2025

Branch: Computer Science Engineering

Branch	IT	Total Attended:	48			77.08%
Subject Name		Faculty Name		PASS	FAIL	%PASS
IOT AND APPLICATIONS		B.INDHU LATHA	43	5	89.58	
CRYPTOGRAPHY AND NETWORK SECURITY		P. SRINIVAS	46	2	95.83	
MACHINE LEARNING		G.SRAVANI LATHA	41	7	85.42	
MACHINE LEARNING USING PYTHON LAB		G.SRAVANI LATHA	44	4	91.67	
CRYPTOGRAPHY AND NETWORK SECURITY LAB	P. SRINIVAS		46	2	95.83	
BIG DATA ANALYTICS	D.DEVIKA		41	7	85.42	
BIG DATA ANALYTICS LAB	D.DEVIKA		46	2	95.83	
SKILL ORIENTED COURSE-IV DATA SCIENCE	CH.USHA		46	2	95.83	
EMPLOYABILITY SKILLS-II	Smt. P Jeevana		48	0	100.00	
DESIGN PATTERNS	Ch. USHA		44	4	91.67	

Fig2.2.1.19:Impact analysis of the Orientation classes in External Results

#### Corrective measures

- Counseling the course faculty who scored less than 85% feedback.

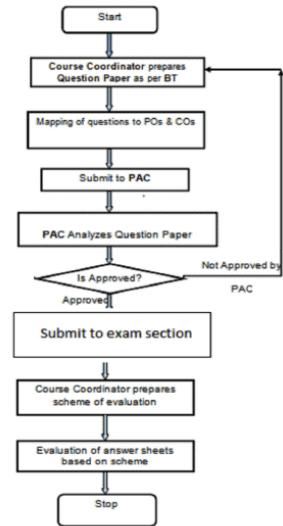
- Encouraging them to register for refresher courses (FDP/STDP) to improve the course knowledge.
- Encourage to attend workshops on teaching methodologies.
- Arranging special lectures by eminent persons.

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

Institute Marks : 20.00

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 Fig2.2.2.2.



**Fig2.2.2.1:**Process for internal semester question paper setting



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 Artificial Intelligence of Mid-I is shown below:



### NRI INSTITUTE OF TECHNOLOGY: GUNTUR

(Autonomous)

SET NO-1

### II B. TECH – II SEMESTER- I MID EXAMINATIONS-(R23), Feb-2024 SOFTWARE ENGINEERING (INFORMATION TECHNOLOGY)

Date: 07/02/2025 Time: 2 Hours Max Marks: 25 Marks

Answer the following

		Marks	CO	BTL
1	a) What is Software Engineering?	2M	C225.1	L1 Knowledge
	b) Define unit testing and integration testing.	2M	C225.1	L1 Knowledge
	c) Define Alpha,beta and Acceptance test	2M	C225.1	L1 Knowledge
	d) What is project size estimation?	2M	C225.2	L1 Knowledge
	e) List cost estimation models.	2M	C225.2	L1 Knowledge
2	a) Explain the Evolution of Software Engineering.	2.5M	C225.1	L2 Comprehension
	b) Explain about Computer systems engineering	2.5M	C225.1	L2 Comprehension
3	Explain about Software Life Cycle Models.	5M	C225.1	L2 Comprehension
4	a) Explain about Halstead's software science.	2.5M	C225.2	L2 Comprehension
	b) Explain about SRS in detail	2.5M	C225.2	L2 Comprehension

**Fig2.2.2.3:** Sample Question paper

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

### Scheme Of Evaluation

Answer the following

1.a) What is Software Engineering? 2M

Definition: Provide a concise and accurate definition of software engineering. 2M

b) Define unit testing and integration testing. 2M

Definition | Provide a clear and concise definition of the testing type. 1M

Purpose Focus | Explain the main goal or focus of the testing type. 1M

c) Define Alpha,beta and Acceptance test. 2M

Definition | Provide a clear and concise definition of each testing type. 1M

Purpose Focus | Explain the main goal or focus of each testing type 1M

d) What is project size estimation? 2M

Provide a clear and concise definition of project size estimation. And

Explain the significance of size estimation in software project management. 2M

e) List cost estimation models.

List at least two cost estimation models and briefly describe each model's purpose or methodology. 2M

2. a) Explain the Evolution of Software Engineering. 2.5M

Early Days & Need for Software Engineering. 1M  
Growth of Structured Methods 1M  
Modern Trends. 0.5M

b) Explain about Computer systems engineering. 2.5M

Definition and Scope. 1M  
Key Activities. 1M

**Fig2.2.2.4:** Scheme of Evaluation

3. Explain about Software Life Cycle Models. 5M  
 Definition of Software Life Cycle Model. 1M  
 Description 2 models. 2M  
 Comparison of features. 1M  
 Relevance examples. 1M
- 4.a) Explain about Halstead's software science. 2.5M  
 Introduction and Basic Definitions 1M  
 Important Formulas. 1M  
 Applications and Importance. 0.5M
- b) Explain about SRS in detail. 2.5M  
 Definition and Purpose. 1M  
 Contents of an SRS Document 1M  
 Importance/Benefits 0.5M

#### A.Process to ensure questions from out comes/learning levels perspective (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 used 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

NRI INSTITUTE OF TECHNOLOGY		
Class : B-Tech (R20)	Branch : III-IT	Mid - II
Subject : CRYPTOGRAPHY AND NETWORK SECURITY		

ANSWER ALL QUESTIONS			
1	Explain Chinese remainder theorem with an example.	5M	C323.3 L2 UNDERSTAND
2	Write a brief note on HMAC algorithm.	5M	C323.4 L1 REMEMBER
3	Explain the architecture of IP security.	5M	C323.5 L2 UNDERSTAND

[+] Scheme of valuation

1. Explain Chinese remainder theorem with an example.  
 For Chinese remainder theorem ...2M  
 For example .....3M
2. Write a brief note on HMAC algorithm.  
 For algorithm with example ....5M
3. Explain the architecture of IP security.  
 For the Explanation of architecture of IP security ....5M

**Fig2.2.5:** Cryptography and Network Security R20 mid-II Question paper

The questions in the mid question paper covers the tax on my level specified with the course out comes for course Operating Systems and the same followed or all courses.

#### A.Quality of Assignments and its relevance to COs(5)

- Assignments are given to students from the topics covered in each unit and satisfying the COs defined
- The questions framed in the assignments are taken from multiple sources (previous question papers, text books , etc.)and cover not only the theoretical conceptual so impart creativity on real time applications
- Six Assignments covering each unit are given in each course for every semester
- Every Assignment carries 5marks and an average of 3assignments for 5marks is considered for mid exam
- The assignments are evaluated within two weeks after submission and the valued assignments are returned to the students for their security and improvement Mapping is done for all questions of the assignment with the COs of the course.
- The quality of the assignment questions are also audited by PAC.

- Sample Assignment questions under R20 Regulations for OOPs Through C++ are below represented in Fig2.2.2.6:

**NRI INSTITUTE OF TECHNOLOGY: GUNTUR****Assignment Question****Assignment -I**

Define Machine Learning? Explain about the types of Machine Learning.	5M	C321.1	L1 Knowledge
Explain about MNIST	5M	C321.2	L2 Comprehension

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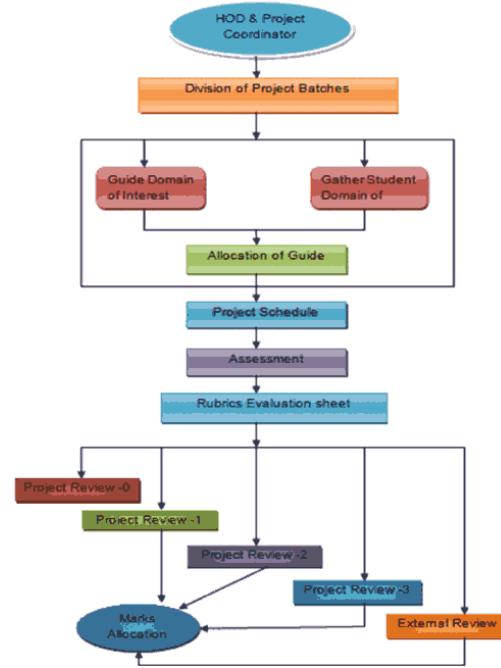
**2.2.3 Quality of student projects (25)**

Institute Marks : 25.00

(Quality of the project is measured in terms of consideration to factors including ,but not limited to, environment, safety, ethics, cost, type (application, product, research, review etc) and standards Processes related to project identification, allotment, continuous monitoring, evaluation including demonstration of working prototypes and enhancing there levance of projects Mention Implementation details including details of POs and PSOs addressed throughthe projects with justification)

#### A. Identification of Projects and Allocation Methodology to Faculty Members(3)

The Project Review Committee (PRC) members will initiate the process of Guide allocation for students projects, before the commencement of semester. They will conduct meeting with faculty members and will identify potential implementation areas of projects. During this meeting, they pin point key areas of focus, incorporating the latest Machine Learning, Deep Learning and IoT, etc. Problem statements with these domains are then formulated, by allowing students to select projects based on their personal interests. The detailed process of student's project is shown in Fig 2.2.3.1.



**Fig2.2.3.1:** The detailed process followed for Student's Project

#### Batch Formation

The students are divided into Project batches by first ranking the students based on their performance in examinations (CGPA/average SGPA/number of backlogs) up to III year II semester/III Year I Semester For example, for 15 batches, the top 15 students are nominated as team leaders for the respective batches. The 16 ranker is allotted to the 15 batch, 17 ranker to the 14 batch and soon with the 30 ranker to The 31 ranker is then allotted to the 1batch and the cycle is repeated. The following Fig 2.2.3.2 is a project registration form of 2023-24 academic year.

**NRI Institute of Technology**  
(Affiliated to INTUK, Approved by AICTE)

Department of Information Technology

Project guide Allocation

Department : IT	Date: 5/1-01-2023
Semester: 6 - I	Batch number: 1

1. Roll No. Name of the student Name of the Guide Title of the Project

1. 21MFT101020	SANGA BHARGAVI	E.Nagarjuna	AI MODELS FOR FRAUD DETECTION IN FINANCIAL SECTOR
2. 21MFT101021	TALARI ABINAY KUMAR		
3. 21MFT101022	INZOME LAPU PAVAN KUMAR REDDY		
4. 21MFT101024	VELLELA VENKATESWARA RAO		

**Fig2.2.3.2:** Project Registration form

**Guide Allocation Methodology:**

The selection of students for projects is based on their knowledge, methodology, skill-set, and interest in the project topic based on student **domain interest** from each project team. The team will consist of a maximum off our (in rare case five students) and faculty members will be assigned as guides to support the students. The faculty member's area of interest should align with the interested **project domain** of the students. The project batches list along with **guide allocation** is provided to the students. The **PRC** is responsible for the guide allocation. The project guide allocation form is shown below in Fig 2.2.3.3.3.



**PROJECT REGISTRATION**

DEPARTMENT: 3 DATE: 30-12-2023  
SEMESTER: 4 - 2

We, the undersigned students, read and understood the guidelines pertaining to project work.  
The tentative title of the project is AI based crop yield prediction system.

The project will be designed and executed by us with the guidance of internal guide and external guide (if any) from E. Nagarjuna.  
(Name of the organization). We request your permission to carry the same.

	Student Name	Signature
1. 20KP1A 12 43	S. Bhargavi	
2. 20KP1A 12 51	T. Abinash Kumar	
3. 20KP1A 12 27	M. Pavani Kumar	
4. 20KP1A 12 58	V. Venkateswara Rao	

PROJECT COORDINATOR

HEAD OF THE DEPARTMENT

**FigB.2.2.3.3: Project Guide Allotment form****Working Proto-type Projects Academic Year: 2022-2023****20-KP PROJECTS LIST**

Batch No.	Roll No.	Name of the student	Title of the Project	Name of the Guide
	20KP1A1203	BASIREDDY NAVEEN KUMAR REDDY		
	20KP1A1201	ALAVALA ANITHA		
1	20KP1A1220	MANDALAPU HIMAMADHURI	OBJECT DETECTION USING PYTHON	E.Nagarjuna
	20KP1A1245	THUMMALAPALLI VENKATA PRAVALLIKA		
	20KP1A1206	CH. NAGA PRASANNA		
	20KP1A1213	J. VANI		
2	20KP1A1215	K. PRASANTH	MUSIC RECOMMENDATION BASED ON FACIAL EXPRESSIONS BY USING CNN	G.Srividya
	20KP1A1210	D. MANOJ KUMAR		
	20KP1A1208	CHINNI DATTASAI		
	20KP1A1209	DARUVURI ANJALI		
3	20KP1A1219	MADALA SUKANYA	VIRTUAL MOUSE USING HAND GESTURES	P.Srinivas Reddy
	20KP1A1221	MATLA CHAKRAVARTHI YADAV		
4	20KP1A1211	GUDALA PRASANNA LAKSHMI		K.Jagan Mohan
	20KP1A1234	RAGI SAI DATTA VIRAT JASWANTH	CROP YIELD PREDICTION USING MACHINE LEARNING TECHNIQUES	

20KP1A1223	MEKALA RAJASREE		
20KP1A1214	KAMMA CHANDRIKA		
20KP1A1212	G SRINIVASULU		
20KP1A1217	K PAVAN KUMAR	REAL TIME OBJECT DETECTION USING MACHINE LEARNING	B.Sowjanya
5			
20KP1A1243	T NAGA SRAVANI		
20KP1A1230	P SANAVULLAKHAN		
20KP1A1225	NAGUR BAJI SHAIK		
6	RONDI ANAND	CHATBOT USING PYTHON AND NLP	D.Devika
20KP1A1248	VEERAGANDHAM BALA VINOD		
20KP1A1224	MUNAGAPATI GOPI		
20KP1A1226	ESWAR		
7	MAHALAKSHMI	FEED BACK MANAGEMENT SYSTEM	Ch.Usha
20KP1A1242	BASHA		
20KP1A1247	SATHWIKA		
20KP1A1227	P.BHARGAV		
20KP1A1233	PANJI REDDY		
8	V.MANIKANTA	DATA LEAK DETECTION	A.Purnima
20KP1A1249	Y.JAYANTH BABU		
20KP1A1229	PATHAN AZMEEN		
20KP1A1218,	KOTA MANEESHA	DESKTOP ASSISTANT	P.Srinivas
9	YENDLURI DHARANI		
20KP1A1239	SHAIK JANI BASHA		
20KP1A1231	P KIRAN KUMAR		
20KP1A1240	SK MOHAMMAD UMAR	DESIGN AND IMPLEMENTATION OF FLIGHT TICKET ESTIMATION	
10	R KOTESWARA RAO		G.Sravani Latha
20KP1A1204	B SAI PRABHA		
20KP1A1244	T AKHILA		
20KP1A1250	Y. CHANDRA SEKHAR	SMART GRID ASSET MANAGEMENT SYSEM USING BLOCK CHAIN TECHNOLOGY	
11	,SK. MUSHARAF		K.Gayatri
20KP1A1241	SK. FAIZ		
20KP1A1238	P. SRI GANESH		

The finalization of project teams and their guides is determined by the HOD, taking into account the students' interests and the faculty's domain expertise. The finalized team compositions and assigned guides will be posted on the department notice board for both students and staff.

#### A.Types and Relevance of the Projects and their Contribution towards Attainment of POs and PSOs (5)

The purpose of the project is to encourage students to think creatively about developing various software products or technologies within the field of Computer Science and Engineering.

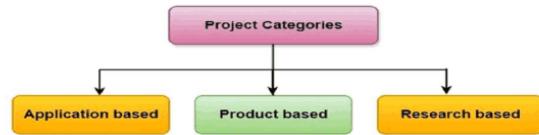
Students are expected to:

- Conduct a thorough study of the assigned topic based on the introductory report completed in the seventh semester.
- Analyze and finalize the approach to addressing the problem and Writing the problem statement.
- Outline the steps for conducting the investigation, including coordination within the team(Team Work).
- Carry out detailed analysis, modeling, simulation, design, problem-solving, or experiments as required.
- Develop a final product or process, perform testing, and draw conclusions If possible, suggest directions for future work.
- Prepare a paper for presentation at conferences or for publication in journals, if desired.
- Prepare documentation in the standard format required for evaluation by the Internal Project Review Committee.

Student projects are categorized into the following types:

- Application based: Projects focused on developing practical software applications or systems.
- Product based: Projects centered on creating or enhancing a specific product or technology
- Research based: Projects involving investigative studies or experiments to explore new concepts or solve complex problems.

The following Fig 2.2.3.4 depicts the types of projects



The following table represents the projects carried out in the two assessment years as in table 2.2.3.4.

Projects Types	CAY (2024-25)	CAYm1 (2023-24)
Application Based	8	9
Product Based	2	0
Research Based	2	2

Table 2.2.3.4: Type of Projects in three assessment years

The Fig 2.2.3.5 depicts various types in bar graph for the three assessment years as follows and mapping is represented in Table 2.2.3.5.

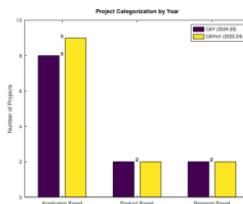


Fig 2.2.3.5: Comparing the types of projects for the last three academic years

Project Type	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Application-Based	3	2	3	3	2	3	3	3	3	3	2	3	3	2
Product-Based	3	3	3	3	3	2	1	2	3	3	1	3	3	2
Research-Based	3	3	3	3	3	2	2	2	3	3	1	3	2	3

Table 2.2.3.5: Mapping of Categorized Projects to Program Outcome

The quality of student projects is maintained by meeting well-defined course outcomes each project considers factors such as environmental impact, safety, ethics, cost, and standards. This is ensured through proper guidance from project mentors and regular project reviews, which focus on achieving the course outcomes. The mapping of Projects is represented in the following table 2.2.3.6

		Relevance to POs/PSOs

Co No	Course Outcomes for Student Projects	POs	PSOs
CO1	Identify, select and analyze an engineering problem to find an appropriate problem-solving methodology by following engineering standards (K4)	PO1-PO9, PO11, PO12	PSO1 PSO2
CO2	Make use of modern IT tools to implement the identified problem with ethics and Develop communication skills to present ideas clearly and coherently to specific audience in both the written and oral forms (K3)	PO1- PO7, PO9- PO12	PSO1 PSO2
CO3	Summarize final report using different visualization tools with good coordination among project members (K5)	PO1- PO6, PO8- PO12	PSO1 PSO2
CO4	Propose future work to enhance the research in the selected domain and engage in life-long learning (K6)	PO12	PSO1 PSO2

Table 2.2.3.6: Mapping of project COs with POs and PSOs

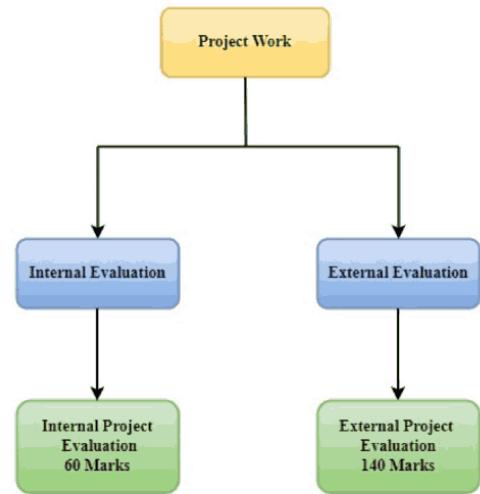
**C.Process for Monitoring and Evaluation (5) Project Monitoring:**

The progress of project work is continuously monitored through a series of three Project Reviews. These reviews assess both the quality and advancement of the project. The Project Review Committee (PRC), which observes these evaluations, comprises the Project Guide, Project Coordinator, one senior faculty member, and the HOD. Below is a sample circular for the Project Schedule and an Activity Calendar will be maintained by PRC is represented in Fig 2.2.3.6 & B.2.2.3.7 respectively.

**Project Evaluation**

S. No	Review & Assessment (RA)	Scope	Schedule	Marks
1	(Zero)0 <sup>th</sup> review	Project Selection	25 - 01 - 2025	-
		Abstract(5M)	15-02-2025	
2	1 <sup>st</sup> Review	Existing methods and their Drawbacks(10M)	to	20
		Proposed Methodology(5M)	22-02-2025	
		Project Architecture(10M)	01-03-2025	
3	2 <sup>nd</sup> Review	Design Methodology(10M)	To	30
		Implementation(10M)	06-03-2025	
		Testing (3M)	29-03-2025	
5	Final Review	Documentation(5M)	To	10
		Presentation (2M)	03-04-2025	
6	Final Documentation Submission	Document Submission	12-04-2025	-

Fig 2.2.3.6: Project Assessment Schedule

**Fig 2.2.3.8:**Project Evaluation

Review Number	Agenda	Review Assessment Weightage (Marks)	Overall Weightage (Marks)
0	Project Selection	-	60 Marks
1	First Review	20	
2	Mid Term Review	30	
3	Final Review	10	

**Table 2.2.3.8:**Rubrics for evaluation of UG Project Work

- a. Internal Evaluation: It is based on the basis of three review presentations given by each individual in a team on the topic of their project.  
 b. External Evaluation: It is done at the end of the semester by the external evaluator appointed by JNTUK University.

S NO	Agenda	Rubric Parameters	Review Assessment Weightage (Marks)	Overall Weight-age
1	Abstract	Abstract overview.	5	20 Marks
2	Existing methods and their Drawbacks	Explanation of Existing Methods and their drawbacks.	10	
3	Proposed Methodology	Proposed method and Novelty.	5	

**Table 2.2.3.9:**Rubrics for Evaluation of First Review

S NO	Agenda	Max Marks	Rubric Parameters	Level of Achievement		
				Excellent (20)	Good (18)	Poor (15)
1	Abstract	5	Abstract overview.	Abstract provided a concise overview.	Abstract was informative but could be more concise.	Abstract lacked clarity.

2	Existing methods and their Drawbacks	10	Explanation of Existing Methods and their drawbacks.	Effectively explained the existing method and clearly outlined its drawbacks.	Explained the existing method, but the drawbacks could have been presented with more clarity.	Existing method and drawbacks were not explained clearly.
3	Proposed Methodology	5	Proposed method and Novelty.	Proposed method was innovative and well-justified.	Proposed method was well-conceived, but there was some room for more detailed explanation.	Proposed method was not explained clearly.

Table 2.2.3.10: First Review Project Evaluation

S NO	Agenda	Rubric Parameters	Review Assessment	Overall Weightage (Marks)	Weightage
1	Project Architecture	Sequence and Clarity in Architecture	10	30 Marks	
2	Design Methodology	Conceptual design, Division of problem into modules.	10		
3	Implementation	Algorithm and Coding	10		

Table 2.2.3.11: Rubrics for Evaluation of Mid Term Review

#### A. Process to assess Individual and team Performance:

All projects are evaluated both on a batch-wise and individual basis. The grading rubric is provided with the problem statement, and evidence of group participation is incorporated into the grading procedure. To achieve the highest marks, continuous assessment by the project guide is maintained.

#### Evaluation Criteria:

##### ? Continuous Assessment:

- **Daily Reviews:** The project guide conducts daily reviews to assess the progress of the group and the interaction among students. This helps in obtaining a qualitative measure of group and individual performance.
- **Literature Survey and Presentation:** Weightage is given to the literature survey and presentations, evaluated both at the batch level and for individual contributions.

#### Quantitative Measures:

**Attendance:** Regular attendance is considered in the evaluation

**Group Evaluation:** Group performance is assessed to gauge collective effort and outcomes

#### Student Evaluation Form:

At every review session and at the end of the project, each student is required to fill out an evaluation form. The form includes ratings for all group members, including themselves, based on the following criteria:

2. **Overall Contribution:** Rank each batch member's overall contribution to the project
3. **Time and Effort:** Assess the amount of time and effort each member contributed to the project
3. **Willingness to Collaborate:** Evaluate each member's willingness to work with other group members
4. **Exceptional Contributions:** Determine if any member provided exceptional input to the project
5. **Completion of Assigned Tasks:** Rate how well each member completed their assigned part of the project

#### 6.Understanding of the Project: Assess how well each member understood all parts of the project

#### A. Quality of Completed Projects/Working Prototypes

The projects quality is assessed by the PRC and few projects are identified as **best projects** depending on the domains meeting industry 4.0. The emerging areas include machine learning, deep learning, blockchain, big data analytics, cloud computing, computer vision and Internet of things.

#### Process for selecting the Best Projects:

1. Establish specific criteria like creativity & innovation, technical complexity, execution, research, and presentation to ensure a fair assessment.
2. Carefully score each project against the criteria to gauge quality and impact.
3. Hold discussions among evaluators to consider both quantitative scores and qualitative insights.
4. Provide feedback to all participants, highlighting strengths and areas for improvement to encourage future development.
5. Choose the top projects based on scores and discussions.

Criteria	Excellent (9M - 10M)	Very Good (6M - 8M)	Good (<6M)
Creativity & Innovation	Highly original and creative idea.	Somewhat original; presents new insights or approaches.	Limited originality; mostly derivative work.

<b>Technical Complexity</b>	Highly complex, demonstrating advanced skills and understanding.	Moderately complex; demonstrates a good level of technical understanding.	Some complexity; basic skills are applied effectively.
<b>Execution</b>	Flawless implementation with thorough attention to detail using modern tools.	Minor errors; overall well-executed.	Several issues; execution needs improvement.
<b>Research &amp; Analysis</b>	Thorough research; insights are well-founded and clearly articulated.	Good research; some insights presented, though not thoroughly explored.	Basic research; limited analysis or insights.
<b>Presentation Skills</b>	Exceptionally clear, engaging, and professional presentation.	Clear presentation with minor issues; generally engaging.	Adequate presentation; may lack clarity or engagement.

Table 2.2.3.15: Rubrics for Selection of Best Projects

Projects which are Excellent range are considered as Best Projects

**Impact Analysis:**

- **Skill Enhancement:** Significant improvement in students' skills and abilities across various domains.
- **Encouragement to Creativity:** Students demonstrated innovative ideas, excelling in creative problem-solving.
- **Teamwork Development:** Enhanced teamwork spirit and collaboration among students.
- **Social and Environmental Impact:** Several projects focused on benefiting the environment and society.
- **Communication Excellence:** Students' presentation and communication skills were notably improved.
- **Boosted Confidence:** The experience led to improved team spirit and higher confidence.

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

Institute Marks : 15.00

(Give details of the industry involvement in the program such as industry-attached laboratories, partial delivery of appropriate courses by industry experts etc Mention the initiatives, implementation details and impact analysis)

An Engineering student should be technically and globally competent to acquire the opportunities and should also meet the industrial needs. To meet these objectives, it is necessary to provide industry exposure and a platform to adapt the technological changes. The department frequently takes necessary measures to fulfill the goals.

The implementation details for industry interaction are listed as below:

1. Initiate tasks by inviting the industrial members for valuable seminars and guest lectures.
2. Invite professional HR and conduct interaction sessions personally.
3. Encourage the students for industrial visits & training programs.
4. Interaction with different esteemed industrial experts like AIMER SOCIETY, CODE TECH IT SOLUTIONS, BRAINO VISION, HCL and etc
5. Conduct training sessions by industrial experts on latest technologies.
6. Collect feedback from experts for progressive conduction of events.
7. Feedback assessments are noted from students for further improvements.

- With the advent of globalization and opening up of Indian economy to outside world, competition among industries has become stiff. Similarly, there is an emerging need to prepare **engineering students** for jobs in **multinational companies**, by exposing them to newer technologies and engineering methodologies.
- These objectives can only be achieved well by **bridging the gap between industry and the academic institutions**. Better interaction between technical institutions and industry is the need of the hour. This will have great impact on the exposure of engineering students to industry and subsequent placements of young graduating engineers in industries across the country.
- Internet of Things (IOT) lab is established** in the department in association with **INNOVATIVE Technologies** and multiple projects are developed in this lab. The department is having MOUs with multiple industries and the industry-institute collaboration that helps in improving students technical skills.

S. No.	Company Name	Date
1	INNOVATIVE TECHNOLOGIES	15-11-2022
2	ELITE TECHNOLOGIES	09-03-2020
3	GAGAN APPS	19-08-2019
4	SUPRIJA TECHNOLOGIES	05-05-2025
5	EDIFY EDUCATIONAL SERVICES	10-12-2021
6	ORACLE ACADEMY	17-10-2024

**Table 2.2.4.1:** MOU's with companies

The IOT is a network of physical objects referred to as "things" equipped with electronics, software, sensors, and internet connectivity. This technology enables these objects to collect and exchange data remotely, facilitating real-time communication and automation.

#### Key Objectives

**Innovation:** To create and enhance IOT solutions that address specific challenges in various sectors.

**Prototyping:** To design and iterate on new IOT devices and systems in a controlled environment.

#### Scope of an IOT Lab

The scope of the IOT Lab encompasses a wide range of activities, research areas, and applications aimed at advancing IOT technologies.

#### Infrastructure

1. Raspberry pi 3-Board.
2. Arduino Uno Kit.
3. NODEMCU Trainer Kit with all sensors.
4. **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	Guest lecture on "Identifying Key Influencers with centrality Metrics in Social Networks"	27-12-2024	Dr.Murali Krishna Enduri, HOD,CSE,SRM University-AP.	95%	PO6, PSO1, PSO2, PSO3
2	Workshop on "Mastering data processing for Machine Learning success" IV years	22-05-2023 to 27-05-2023	Ms. Ruthumma, Technical Trainer, APSSDC.	95%	PO4, PSO1, PSO2, PSO3
3	Guest lecture "Advancements in Data Analysis using python"	22-08-2022	Mr. K Sai Satish CEO Indian Servers	96%	PO4, PO5 PSO1, PSO2, PSO3

4	Workshop on "Sustainable Development" III years	01-03-2023	Burisetty Sri Lakshmi Ramya Krishna	97%	PO4, PO5, PSO1, PSO2, PSO3
5	Guest Lecture on "Block chain - Fundamentals & its Essentials" for IV years	12-09-2024	T. Chakravarthi Technical Head HCL Technologies	95%	PO6, PSO1, PSO2, PSO3

**Table2.2.4.: The List of Technical talks by Industry Experts****2.2.5 Initiative related to industry internship/summer training (15)**

Institute Marks : 15.00

- Industrial/Internship/Summer Training:

Assessment of **PO & PSO** attainment for the current academic year, feedback analysis from alumni and **industrial experts** helps us to improve the **industry interaction process** for the students. Every year the III & IV B.Tech. Students are motivated to undergo industrial/internship training during semester break for a period of **at least two weeks** to get industrial exposure. The students with the support of the department, will approach the industries with a request for seeking training with stipend. The department also interacts with the industry to organize internships in the college. A report on the work carried out during the tenure

SNo	Roll Number	Name of the Student	Institute provides Internship	Starting Date	Ending Date
1	22KP1A1201	AMBATI VENKATESWARA RAO	AIMER Society	19-05-2024	19-07-2024
2	22KP1A1202	ANNAPARTHI ANIL KUMAR	AIMER Society	19-05-2024	19-07-2024
3	22KP1A1204	BITRAGUNTA PRABHU ANIL KUMAR	AIMER Society	19-05-2024	19-07-2024
4	22KP1A1205	BOMMINENI MANASA	AIMER Society	19-05-2024	19-07-2024
5	22KP1A1206	BOREDDY VENKATA SUBBA RAMI REDDY	AIMER Society	19-05-2024	19-07-2024
6	22KP1A1207	BUDDULA RAMA DEVI	AIMER Society	19-05-2024	19-07-2024
7	22KP1A1208	DAGGUBATI JAYA DURGA SRINIVAS	AIMER Society	19-05-2024	19-07-2024
8	22KP1A1209	DAMINENI SRI LAKSHMI TRIVENI	AIMER Society	19-05-2024	19-07-2024
9	22KP1A1210	DODDA RAKESH	AIMER Society	19-05-2024	19-07-2024

10 22KP1A1211 DUDEKULA GOUSYA BI	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
11 22KP1A1212 EEDA SIVARAMAKRISHNA REDDY	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
12 22KP1A1213 GANDRA SRINIVASA REDDY	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
13 22KP1A1214 GANGIREDLA SATISH NAIDU	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
14 22KP1A1215 GAYAM TULASIRAM REDDY	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
15 22KP1A1216 GONGATI YASWANTH	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
16 22KP1A1217 GORREPATI PRASANNA	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
17 22KP1A1218 GOSIPATALA SAMIALU	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
18 22KP1A1220 GUTHA BHARATH KUMAR	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
19 22KP1A1221 GUTTIKONDA CHANDRA MANOBHIRAM	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2

20 22KP1A1223KOTA SAI KOTI	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
21 22KP1A1224KOTHAMASU SURYA BRAHMA TEJ	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
22 22KP1A1225MIRIMPALLI ASHA JYOTHI	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
23 22KP1A1226NAGULAPATI TEJASWI RAMA	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
24 22KP1A1227NALABOLU KISHORE	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
25 22KP1A1228NALLAMOTHU DHANUSH	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
26 22KP1A1229NAMBURU DHEERAJ	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
27 22KP1A1230NANDURI JOHN VESLI	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
28 22KP1A1231NARAPUREDDY NAGARAJU	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
29 22KP1A1232NEMALITHOKA PHANENDRA KUMAR	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2

30 22KP1A1233NIMMAGADDA NAGA PHANIMDRA	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
31 22KP1A1234PAGIDIPALLI RAJESH	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
32 22KP1A1235PALISETTY USHA RANI	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
33 22KP1A1237PENDLI RAVI TEJA	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2
34 22KP1A1238PODAPATI THIRUMALA RAO	AIMER Society	19-05-2024	19-07-2024	PO4, PO5, PO6, PO10, PO12, PSO2

**Table 2.2.5.2:** Student batches of internship in 2023-24 provided by **AIMERS****Post Training Assessment :**• **Internship Certification:**

The internship certificates have been officially issued to the students who have successfully completed their internship program



Vijaywada  
Dt: 17 July 2025.

## Internship Completion Certificate

We are delighted to present this certificate to [REDACTED] for the successful completion of the Internship Program at [REDACTED]. We would like to express our sincere gratitude for your hard work and dedication throughout the duration of the program. Your enthusiasm and commitment to learning the advanced concepts of Artificial Intelligence and its applications in medical research has been truly inspiring. You have demonstrated exceptional skills in developing machine learning models, understanding complex medical data, and applying AI techniques to solve real-world problems. Your ability to think critically and independently has been particularly commendable.

We extend our heartfelt congratulations to [REDACTED] for their outstanding performance and achievements during the internship. We are confident that the knowledge and skills acquired during this internship will serve as a solid foundation for your future career in the field of Artificial Intelligence. We encourage you to continue your passion for learning and contributing to the advancement of medical research.

Certificate ID: [REDACTED]

S. S. S.  
Dr. Sri Satheesh  
President, AIMERS Society

This certificate can be verified.

[www.certificatelogin.com](http://www.certificatelogin.com) | [www.Nationalcertifications.info](http://www.Nationalcertifications.info) | Registration under Societies Act 2001



The certificate serves as a formal recognition of their participation, efforts, and achievements throughout the internship period. The Department had conducted Internship training on "Artificial Intelligence" for the II BTech students by Industry experts from AIMERS. Most of the students had participated and exposed to the new technologies in industries.

#### •Student Feedback on Internship:

Feedback is a powerful tool for learning, improving, and achieving success in both the short and long term. The feedback form is submitted by the students after the completion of internship which helps for further refinement of the process. The following Fig 2.2.5.2 represents a sample feedback form.



Name of the organization : NextHub Technologies pvt Ltd

Duration: 2 months

1. How would you rate your overall internship experience ?  
(scale : 1-5 \_ with 1 being poor and 5 being excellent)

[1] [2] [3] [4] [5]

2. How effectively were you able to apply the theoretical knowledge learned during your Studies to real-world tasks in the internship?  
(scale : 1-5 \_ with 1 being poor and 5 being excellent)

[1] [2] [3] [4] [5]

3. How well did your mentor/supervisor support your learning and growth  
During the internship?  
(scale : 1-5 \_ with 1 being poor and 5 being excellent)

[1] [2] [3] [4] [5]

4. Were the resources and tools provided during the internship adequate to complete  
Your task  
(scale : 1-5 \_ with 1 being poor and 5 being excellent)

[1] [2] [3] [4] [5]

5. How challenging were the tasks assigned to you during the internship ?  
(scale : 1-5 \_ with 1 being poor and 5 being excellent)

[1] [2] [3] [4] [5]

6. Did the internship help you clarify your career goals or interests?

(Yes / No)

7. Would you recommend this internship program to other students ?

(Yes / No)

8. What suggestions do you have to improve the internship experience for future students ?

#### Industrial Visits

- Industrial visits help students to develop and understand the process of software design/development and also real time issues. The implementation of industrial tours has shown significant enhancement in the abilities of students, leading to enhanced performance, ultimately resulting in increased placements.
- Each semester, students visit industries, providing them with practical experience related to their field of study.
- Industrial visits provide students with the opportunity to apply their program-specific knowledge in real time applications.
- 

S. No.	Academic Year	Students Visited	Company
1	2023-24	III IT	HCL COMPANY, BANGALORE
2	2022-23	III IT	HCL COMPANY, BANGALORE

Table 2.2.S.3: Industrial Visit for students

**Impact Analysis:**

- Enhances student's innovative skills and leadership qualities.
- 85% above students have showcased their trained skills in technical interviews to grab placement.
- Knowledge on various aspects of software project management was developed.
- In relevance to PO12 and PSO2 students utilize the opportunity.
- Impact of Industrial visits plays a vital role in students placements a lot.

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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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PSO1	model and develop efficient algorithms and software applications as safe and secure Information Technology Solutions.
PSO2	employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur and a zest for higher studies/employability in the field of Information Technology.

**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.

Course Name :	C2 12	Course Year :	2023-24
<b>Course Name</b>	<b>Statements</b>		
C2 12.1	Classify object oriented programming and procedural programming		
C2 12.2	Apply C++ features such as composition of objects, operator overloads, dynamic memory allocation, inheritance and polymorphism, file I/O, exception handling		
C2 12.3	Build C++ classes using appropriate encapsulation and design principles		
C2 12.4	Apply object oriented or non-object oriented techniques to solve bigger computing		
C2 12.5	Demonstrate proficiency in using templates, STL, and exception handling for developing robust C++ applications.		

Course Name :	C2 21	Course Year :	2023-24
<b>Course Name</b>	<b>Statements</b>		
C2 21.1	List motivation for learning a programming language Access online resources for R and import new function packages into the R workspace		
C2 21.2	Import, review, manipulate and summarize data-sets in R		
C2 21.3	Explore data-setsto create testable hypotheses and identify appropriate statistical tests		
C2 21.4	Apply R programming structures, control statements, recursion, and data structures (vectors, lists, matrices, data frames) to solve computational problems.estable hypotheses and identify appropriate statistical tests		
C2 21.5	Use R for statistical modeling and visualization, including regression, ANOVA, probability distributions, graphics, and machine learning methods (e.g., decision trees, random forests).		

Course Name :	C3 13	Course Year :	2023-24
<b>Course Name</b>	<b>Statements</b>		
C3 13.1	Illustrate the importance of Data Warehousing, Data Mining and its functionalities and Design schema for real time data warehousing applications.		
C3 13.2	Demonstrate on various Data Preprocessing Techniques viz. data cleaning, data integration, data transformation and data reduction and Process raw data to make it suitable for various data mining algorithms.		
C3 13.3	Choose appropriate classification technique to perform classification, model building and evaluation.		
C3 13.4	Make use of association rule mining techniques viz. Apriori and FP Growth algorithms and analyze on frequent itemsets generation.		
C3 13.5	Identify and apply various clustering algorithm (with open source tools), interpret, evaluate and report the result.		

Course Name :	C3 21	Course Year :	2023-24
<b>Course Name</b>	<b>Statements</b>		
C3 21.1	Explain the fundamental usage of the concept Machine Learning system		
C3 21.2	Demonstrate on various regression Technique		
C3 21.3	Analyze the Ensemble Learning Methods		
C3 21.4	Illustrate the Clustering Techniques and Dimensionality Reduction Models in Machine Learning.		
C3 21.5	Discuss the Neural Network Models and Fundamentals concepts of Deep Learning		

Course Name :	C4 12	Course Year :	2023-24
<b>Course Name</b>	<b>Statements</b>		
C4 12.1	Demonstrate the fundamental concepts learning techniques of Artificial Intelligence, Machine Learning and Deep Learning.		
C4 12.2	Discuss the Neural Network training, various random models.		
C4 12.3	Explain the Techniques of Keras, TensorFlow, Theano and CNTK		
C4 12.4	Classify the Concepts of CNN and RNN		
C4 12.5	Apply deep learning techniques to real-world applications and advanced models such as GANs, Reinforcement Learning, and Autoencoders		

Course Name :	C4 21	Course Year :	2023-24
<b>Course Name</b>	<b>Statements</b>		
C4 21.1	Able to apply knowledge of several courses to implement innovative ideas		
C4 21.2	To acquire additional skills otherwise not covered in the curriculum		
C4 21.3	To gain practical knowledge on various aspects in implementing and developing of projects for social benefits.		
C4 21.4	To improve team work spirit.		

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 : C212

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212.1	3 ✓	2 ✓	2 ✓	1 ✓	1 ✓	- ✓	- ✓	- ✓	1 ✓	1 ✓	- ✓	1 ✓
C212.2	3 ✓	3 ✓	3 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	1 ✓	2 ✓	- ✓	2 ✓
C212.3	3 ✓	3 ✓	3 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	1 ✓	2 ✓	- ✓	2 ✓
C212.4	2 ✓	3 ✓	3 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	2 ✓	2 ✓	- ✓	2 ✓
C212.5	3 ✓	3 ✓	3 ✓	2 ✓	3 ✓	- ✓	- ✓	- ✓	2 ✓	2 ✓	- ✓	2 ✓
Average	3.00	3.00	3.00	2.00	2.00	0.00	0.00	0.00	1.00	2.00	0.00	2.00

## 2 . course name : C221

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C221.1	3 ✓	2 ✓	- ✓	2 ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓
C221.2	3 ✓	3 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓
C221.3	3 ✓	3 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓
C221.4	3 ✓	3 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓
C221.5	3 ✓	3 ✓	3 ✓	3 ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓
Average	3.00	3.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 3 . course name : C313

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313.1	3 ✓	2 ✓	2 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	1 ✓	- ✓	1 ✓	1 ✓
C313.2	3 ✓	3 ✓	2 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	1 ✓	- ✓	1 ✓	1 ✓
C313.3	3 ✓	3 ✓	3 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	1 ✓	- ✓	1 ✓	1 ✓
C313.4	3 ✓	3 ✓	2 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	1 ✓	- ✓	1 ✓	1 ✓
C313.5	3 ✓	2 ✓	3 ✓	2 ✓	2 ✓	- ✓	- ✓	- ✓	1 ✓	- ✓	1 ✓	1 ✓
Average	3.00	3.00	2.00	2.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00

## 4 . course name : C321

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C321.1	3 ✓	2 ✓	2 ✓	2 ✓	3 ✓	- ✓	- ✓	- ✓	1 ✓	2 ✓	1 ✓	1 ✓
C321.2	2 ✓	2 ✓	3 ✓	3 ✓	3 ✓	- ✓	- ✓	- ✓	1 ✓	2 ✓	1 ✓	1 ✓
C321.3	3 ✓	2 ✓	3 ✓	3 ✓	3 ✓	- ✓	- ✓	- ✓	2 ✓	3 ✓	2 ✓	2 ✓
C321.4	2 ✓	2 ✓	3 ✓	3 ✓	3 ✓	- ✓	- ✓	- ✓	2 ✓	3 ✓	2 ✓	2 ✓
C321.5	3 ✓	2 ✓	3 ✓	3 ✓	3 ✓	- ✓	- ✓	- ✓	2 ✓	3 ✓	2 ✓	2 ✓
Average	3.00	2.00	3.00	3.00	3.00	0.00	0.00	0.00	2.00	3.00	2.00	2.00

## 5 . course name : C412

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C412.1	3 ✓	3 ✓	2 ✓	3 ✓	2 ✓	- ✓	- ✓	1 ✓	- ✓	2 ✓	- ✓	2 ✓
C412.2	3 ✓	2 ✓	2 ✓	3 ✓	2 ✓	- ✓	- ✓	1 ✓	- ✓	2 ✓	- ✓	2 ✓
C412.3	3 ✓	3 ✓	3 ✓	3 ✓	3 ✓	- ✓	- ✓	2 ✓	- ✓	2 ✓	- ✓	2 ✓

C412.4	3 ✓	3 ✓	3 ✓	3 ✓	3 ✓	- ✓	- ✓	2 ✓	- ✓	2 ✓	- ✓	2 ✓
C412.5	3 ✓	3 ✓	3 ✓	3 ✓	3 ✓	- ✓	- ✓	3 ✓	- ✓	3 ✓	- ✓	3 ✓
Average	3.00	3.00	3.00	3.00	3.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00

6 . course name : C421

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C421.1	3 ✓	3 ✓	2 ✓	1 ✓	2 ✓	2 ✓	- ✓	- ✓	2 ✓	2 ✓	1 ✓	2 ✓
C421.2	- ✓	- ✓	2 ✓	1 ✓	2 ✓	2 ✓	- ✓	- ✓	2 ✓	2 ✓	3 ✓	1 ✓
C421.3	2 ✓	3 ✓	3 ✓	2 ✓	3 ✓	3 ✓	1 ✓	- ✓	- ✓	2 ✓	1 ✓	2 ✓
C421.4	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	- ✓	3 ✓	3 ✓	3 ✓	3 ✓	3 ✓
Average	1.20	1.50	1.70	1.00	1.70	1.70	0.20	0.70	1.70	2.20	2.00	2.00

**1 . Course Name : C212**

Course	PSO1	PSO2
C212.1	2	1
C212.2	3	3
C212.3	3	2
C212.4	3	2
C212.5	3	3
<b>Average</b>	<b>3.00</b>	<b>2.00</b>

**2 . Course Name : C221**

Course	PSO1	PSO2
C221.1	3	2
C221.2	3	3
C221.3	3	3
C221.4	3	3
C221.5	3	3
<b>Average</b>	<b>3.00</b>	<b>3.00</b>

**3 . Course Name : C313**

Course	PSO1	PSO2
C313.1	3	2
C313.2	3	2
C313.3	3	3
C313.4	3	2
C313.5	3	3
<b>Average</b>	<b>3.00</b>	<b>2.00</b>

**4 . Course Name : C321**

Course	PSO1	PSO2
C321.1	3	2
C321.2	3	2
C321.3	3	3
C321.4	3	3
C321.5	3	3
<b>Average</b>	<b>3.00</b>	<b>3.00</b>

**5 . Course Name : C412**

Course	PSO1	PSO2
C412.1	3	2
C412.2	3	2
C412.3	3	3
C412.4	3	3
C412.5	3	3

Average	3.00	3.00
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## 6 . Course Name : C421

Course	PSO1	PSO2
C421.1	3	3
C421.2	2	3
C421.3	3	2
C421.4	2	2
Average	2.50	2.50

## 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(ENG)	3	1	2	2	1	1	PO7	PO8	PO9	PO10	PO11	PO12
C112(LAC)	3	2	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C113(BEE)	3	3	2	2	3	2	2	2	2	2	2	3
C114(EG)	3	2	2	2	2	2	2	2	2	2	2	3
C115(IP)	2	3	2	3	2	1	1	1	1	1	3	1
C116(IT V)	2	2	2	2	2	2	PO7	2	2	1	2	PO12
C117(EP I)	2	1	2	3	PO5	PO6	PO7	PO8	1	PO10	PO11	1
C118(EEE)	3	2	2	2	2	2	2	PO8	2	2	2	3
C119(IP L)	2	3	2	3	2	1	1	1	1	1	3	1
C121(CE)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2	3	PO11	2
C122(CHE)	3	2	2	2	2	PO6	1	PO8	PO9	PO10	PO11	1
C123(DE)	3	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1
C124(BCM)	3	2	2	3	2	2	2	PO8	PO9	1	1	1
C125(DS)	3	3	2	2	2	1	1	1	1	1	1	2
C126(CE I)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	2	3	PO11	2
C127(CHE)	3	2	1	2	PO5	2	PO7	PO8	1	PO10	1	PO12
C128(BCM)	3	2	1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	2
C129(DS I)	3	3	2	2	2	1	1	1	1	3	3	2
C211(M-II)	3	3	2	3	2	1	1	1	1	2	1	2
C212(OOI)	3	3	3	2	2	PO6	PO7	PO8	1	2	PO11	2
C213(OS)	3	3	2	2	2	PO6	PO7	PO8	PO9	PO10	PO11	2
C214(DBM)	3	3	2	2	2	2	2	2	PO9	PO10	PO11	2
C215(DM)	3	3	3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216(OOI)	3	2	3	2	2	PO6	PO7	PO8	1	2	PO11	2
C217(OS)	3	2	3	2	2	PO6	PO7	PO8	1	2	PO11	2
C218(DBM)	3	2	2	2	2	PO6	PO7	PO8	PO9	1	PO11	1
C219 DT-I	3	3	2	2	2	PO6	PO7	PO8	PO9	2	PO11	1
C221(STA)	3	3	2	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C222(POE)	3	3	3	2	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C223(ATC)	3	2	3	2	2	2	PO7	2	PO9	PO10	PO11	PO12

C224(JP)	3	2	3	2	2	2	PO7	2	PO9	PO10	PO11	PO12
C225(MEI)	3	3	3	2	2	2	2	2	2	PO10	PO11	PO12
C226(UMI)	3	2	3	2	2	2	PO7	2	PO9	PO10	PO11	PO12
C227(FOE)	3	3	2	2	2	PO6	PO7	PO8	PO9	2	PO11	1
c228(JP L)	3	3	3	2	2	PO6	PO7	PO8	PO9	2	PO11	1
C229(DT-I)	3	3	3	3	2	PO6	PO7	PO8	PO9	2	PO11	1
C311(CN)	3	3	2	2	2	PO6	PO7	PO8	PO9	1	PO11	1
C312(DA/I)	3	3	3	2	2	PO6	PO7	PO8	PO9	1	PO11	1
C313(DM)	3	3	2	2	2	PO6	PO7	PO8	PO9	1	PO11	1
C314(DLE)	3	2	2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	1	2
C315(AUF)	3	2	3	2	2	PO6	PO7	PO8	PO9	1	PO11	1
C316(DM)	3	2	3	2	3	PO6	PO7	PO8	PO9	1	PO11	1
C317(CN)	3	2	2	3	3	1	PO7	PO8	2	2	PO11	1
C318(CIC)	2	2	2	2	2	PO6	PO7	PO8	PO9	2	PO11	2
C319(SUM)	2	2	3	2	2	1	1	1	2	2	2	2
C321(ML)	3	2	3	3	3	PO6	PO7	PO8	2	3	2	2
C322(BD/I)	3	2	2	3	2	PO6	PO7	1	PO9	2	PO11	2
C323(CN)	3	2	3	3	3	2	PO7	PO8	2	3	2	2
C324(DP)	2	2	3	3	3	PO6	PO7	PO8	2	3	2	2
C325(IOT)	2	2	2	2	3	1	1	1	1	1	1	2
C326(BD/I)	3	3	3	3	3	PO6	PO7	PO8	PO9	3	PO11	3
C327(ML)	3	3	3	3	3	PO6	PO7	PO8	PO9	2	PO11	2
C328(CN)	3	3	3	3	3	PO6	PO7	PO8	PO9	2	PO11	2
C329(SO-)	3	3	3	3	2	PO6	PO7	PO8	PO9	2	PO11	1
C411(CC)	3	2	3	3	3	PO6	PO7	PO8	2	3	2	2
C412(DLT)	3	3	3	3	3	PO6	PO7	2	PO9	2	PO11	2
C413(BC1)	3	3	2	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C414(CMI)	3	3	3	2	2	PO6	PO7	PO8	1	1	PO11	PO12
C415(DC)	3	3	2	2	3	PO6	PO7	2	2	3	2	3
C416(UH)	3	3	3	2	2	2	2	2	2	PO10	PO11	PO12
C417(PY-I)	3	3	1	1	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C418(INT)	2	2	3	2	2	1	1	2	2	2	2	2
C421(PCR)	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
C111(ENG)	0	0
C112(LAC)	0	0
C113(BEE)	0	0
C114(EG)	0	0
C115(IP)	3	2
C116(IT W)	1	1
C117(EPI)	0	0

C118(EEE)	0	0
C119(IP L)	3	2
C121(CE)	0	0
C122(CHF)	0	0
C123(DE\)	0	0
C124(BCM)	0	0
C125(DS)	3	2
C126(CE)	0	0
C127(CHF)	0	0
C128(BCM)	0	0
C129(DS)	3	2
C211(M-II)	3	2
C212(OOI)	3	2
C213(OS)	3	2
C214(DBM)	3	2
C215(DM\)	3	2
C216(OOI)	3	3
C217(OS)	3	3
C218(DBM)	3	2
C219(SO-	3	2
C221(STA)	3	3
C222(PO\)	3	3
C223(ATC)	3	3
C224(JP)	3	3
C225(ME\)	2	2
C226(UMI)	3	3
C227(FO\\$)	3	2
C228(JP L)	3	3
C229(DT\)	3	3
C311(CN)	3	2
C312(DA\)	3	3
C313(DM\)	3	2
C314(DLC)	0	0
C315(AUF)	3	2
C316(DM\)	3	2
C317(CN)	3	2
C318(CIC)	2	2
C319(SUM)	3	2
C321(ML)	3	3
C322(BD\)	3	3
C323(CN\\$)	3	3
C324(DP)	3	3
C325(IOT)	0	0

C326(BD)	3	3
C327(ML)	3	3
C328(CN)	3	3
C329(NLF)	3	3
C411(CC)	3	3
C412(DLT)	3	3
C413(BC1)	3	3
C414(CMI)	0	0
C415(DC)	0	0
C416(UH)	0	0
C417(PY-I)	3	3
C418(INTI)	3	2
C421(SUM)	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

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

(Examples of data collection processes may include, but are not limited to, specific exam/tutorial questions, assignments, laboratory tests, project evaluation, student portfolios (A portfolio is a collection of artifacts that demonstrate skills, personal characteristics and accomplishments created by the student during study period), internally developed assessment exams, project presentations, oral exams etc.)

**NRI Institute of Technology**, affiliated to **JNTUK**, follows the **R20 Regulation** for students admitted in the academic years **2020-21, 2021-22, 2022-23, 2023-24** respectively. The assessment tools for evaluating Course Outcomes in the B.Tech program under these regulations include midterm examinations, assignments, online quizzes, project work, seminars, laboratory internal examinations, day-to-day lab course evaluations, and end-semester examinations for both theory and laboratory courses.

**Course outcomes** are statements that specify what a learner will know or be able to do as a result of a learning activity. Outcomes are usually expressed as knowledge, skills, or attitudes. It is a measurable, observable, and specific statement that clearly indicates what a student should know and be able to do as a result of learning. It describes what students are able to demonstrate in terms of knowledge, skills and values upon completion of a course/a span of several courses. **Program Outcomes** (Pos) describe what a program is expected to accomplish. Pos describe what students should know and be able to do at the end of the programme. Pos are to be in line with the graduate attributes as specified in the NBA. **Program Specific Outcomes** (PSOs) are statements that describe what the graduates of a specific engineering program should be able to do. Clear articulation of course outcomes, Pos and PSOs serves as the foundation for evaluating the effectiveness of the teaching and learning process. Course correlation matrix shows the learning relationship (Level of Learning Achieved) between Course Outcomes and Program Outcomes of a course. This matrix strongly indicates whether the students are able to achieve the course objectives/outcomes.

The matrix can be used for any course and is a good way to evaluate a course syllabus/content/structure.

## To evaluate the attainment of COs, the following are considered:

1. Performance of students in the Internal Examinations.
2. Performance of students in the Semester End Examinations.

**Direct assessment tools:** Internal Examinations and External Examinations.

**Indirect assessment tool:** Course End Survey.

## Theory Courses:

- Under the **R20 Regulation**, theory courses are evaluated with 30 marks allocated for internal assessments and 70 marks for the end-semester examinations. During the semester, two midterm exams are conducted.
- The internal marks, totalling 30, are distributed as follows: 15 marks for descriptive exams, 5 marks for assignments (which may involve theory, design, analysis, simulation, algorithms, or drawing, depending on the course), and 10 marks for an online quiz. The online quiz is conducted at the college level and consists of 20 multiple-choice questions, each carrying a weightage of 0.5 marks.
- The online quiz test for 20 minutes, while the subjective exam is 90 minutes long. The subjective exam includes 3 questions, all of which must be answered.
- The syllabus is divided into 5 units. The first midterm exam (both online quiz and subjective) covers units 1, 2, and the first half of the 3. The second midterm exam covers the second half of unit 3 and 4, 5.
- The end-semester examination, conducted by JNTUK, covers the entire syllabus and is worth 70 marks. It consists of 10 questions (two from each unit, with an internal choice), and students must answer five out of these 10 questions with each question carrying 14 marks.

## Laboratory Courses:

- For laboratory courses, continuous evaluation during the semester accounts for 15 internal marks, while the end-semester examination is worth 35 marks.
- The internal marks are awarded as follows: 5 marks for day-to-day evaluation, 5 marks for maintaining a lab record, and 5 marks based on an internal laboratory exam.
- The end-semester lab examination is conducted by the concerned faculty along with an external examiner appointed by JNTUK.

## Project Work:

- The project work is evaluated out of a total of 200 marks, with 60 marks allotted for internal evaluation and 140 marks for the end-semester examination. The end-semester examination, which includes a viva-voice, is conducted by a committee comprising an external examiner appointed by JNTUK, the Head of the Department, and the project supervisor.
- The internal evaluation is based on three project reviews presented by each student, which are assessed by an internal committee. The project evaluation takes place at the end of the fourth year.

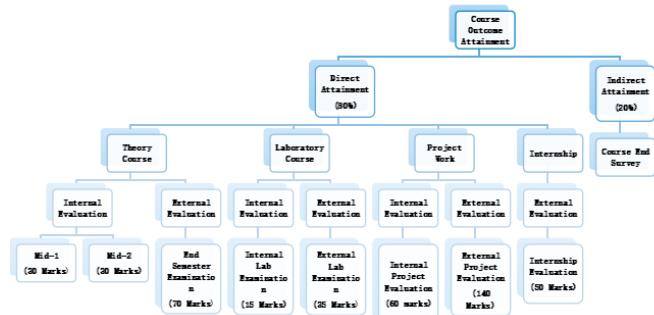
## Internship:

The internship, evaluated for a total of 50 marks, is designated by APSHE (Andhra Pradesh State Council of Higher Education). The evaluation is based on several components, including the internship report, where students document their experiences in detail, and a presentation summarizing their work, challenges faced, and the outcomes achieved. Feedback from the industry supervisor, who assesses the student's performance and professionalism during the internship, is also considered. The evaluation is conducted by a committee comprising an internal faculty supervisor, who oversees the student's progress and evaluates the report and presentation, and an external evaluator appointed by JNTUK, who ensures that the assessment aligns with university standards.

## Indirect Attainment:

At the end of every semester, a course end survey is taken for every course from which indirect attainment is calculated.

S. No	Assessment Components	Distribution of Marks		Credits	
		R20 Regulation			
		Internal	External		
1	Theory/drawing	30		3	
		Descriptive	Assignment		
		15	5		
2	Laboratory courses	15	35	1.5	
3	Internship	NA	50	1.5/3	
4	Project Work	60	140	12	



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 Record the attainment of Course Outcomes of all courses with respect to set attainment levels (40)

#### Attainment Calculation:

The overall attainment of course outcomes is determined through a combination of direct and indirect assessments.

**Direct Attainment** involves evaluating marks obtained from various assessments:

- **Internal Marks:** These include marks from midterm exams (descriptive, quizzes, and assignments), laboratory assessments (day-to-day performance, internal marks, and records), seminars, and projects.
- **External Marks:** These are derived from end-semester examinations.

For each course, 4 to 6 survey questions are designed to gather student feedback in a course-end survey, which constitutes the **Indirect Attainment**.

The weightage of each Course Outcome (CO) is calculated based on the marks obtained in descriptive exams, one-third of the online quiz marks, and one-third of the assignment marks.

**Direct Attainment Calculation:** A target value is set for internal and end-semester examination attainment. The internal examination target is 70%, while the end-semester examination target is 40%. These target values are converted into percentages to measure the course's achievement, as illustrated in Fig 3.2.2a

#### Attainment Level:

LEVEL 1: <50% Marks

LEVEL 2: 50-70% Marks

LEVEL 3: >70% Marks

Table for COs Attainment:

COURSE	CO1	CO2	CO3	CO4	CO5	CO6
CODE	AL	AL	AL	AL	AL	AL
C111	2.13	2.10	2.29	2.26	2.19	
C112	2.03	1.99	2.29	2.32	2.31	
C113	1.46	1.47	1.42	1.75	1.75	1.69
C114	1.75	1.50	1.62	1.51	1.51	
C115	1.56	1.59	1.75	1.75	1.76	
C116	2.89	2.90	2.92	2.90	2.92	
C117	2.89	2.90	2.92	2.90	2.92	
C118	2.89	2.90	2.92	2.89	2.92	
C119	2.89	2.90	2.92	2.90		
C121	2.59	2.55	2.81	2.84	2.79	
C122	2.09	2.07	2.29	2.32	2.31	
C123	2.17	2.11	2.06	2.14	2.14	
C124	2.63	2.53	2.51	2.77	2.74	2.75
C125	2.10	2.04	2.18	2.21	2.20	
C126	2.89	2.90	2.92	2.90	2.92	
C127	2.89	2.90	2.92	2.90	2.92	
C128	2.89	2.90	2.92	2.90		
C129	2.89	2.90	2.92	2.90	2.92	
C211	1.52	1.96	1.80	1.84	1.70	
C212	1.55	1.48	1.52	1.64	1.58	
C213	2.17	2.17	2.09	2.17	2.16	
C214	1.64	1.58	1.54	1.52	1.53	
C215	2.17	2.20	2.16	2.23	2.26	
C216	2.92	2.92	2.92	2.92	2.96	
C217	2.92	2.94	2.95	2.94	2.97	
C218	2.95	2.94	2.93	2.93	2.94	

C219	2.92	2.94	2.95	2.94	2.97
C221	2.05	2.04	2.11	2.20	2.14
C222	2.11	2.11	2.10	2.16	2.14
C223	1.99	1.93	1.90	1.81	1.80
C224	1.61	1.58	1.52	1.55	1.43
C225	2.03	2.02	2.02	1.99	2.02
C226	2.95	2.95	2.94	2.93	2.94
C227	2.90	2.90	2.90	2.91	2.91
C228	2.93	2.94	2.94	2.95	2.97
C229	2.94	2.92	2.92	2.92	2.92
C311	1.99	1.98	2.02	1.92	1.86
C312	2.78	2.78	2.55	2.72	2.72
C313	2.17	2.32	2.38	2.46	2.32
C314	1.61	1.60	1.58	1.48	1.42
C315	2.17	2.16	2.16	2.04	2.05
C316	2.95	2.94	2.94	2.94	2.93
C317	2.94	2.94	2.94	2.95	2.95
C318	2.93	2.94	2.95	2.93	2.93
C319	2.96	2.94	2.94	2.96	2.95
C321	2.73	2.73	2.75	2.82	2.79
C322	2.11	2.10	2.13	2.20	2.17
C323	2.79	2.82	2.82	2.88	2.84
C324	2.73	2.73	2.76	2.72	2.73
C325	1.83	1.84	1.78	1.60	1.59
C326	2.94	2.94	2.93	2.93	2.93
C327	2.94	2.94	2.94	2.94	2.95
C328	2.93	2.94	2.94	2.96	2.96
C329	2.94	2.93	2.92	2.92	2.92
C411	2.66	2.66	2.72	2.84	2.60
C412	2.85	2.84	2.88	2.84	2.84
C413	2.66	2.66	2.77	2.85	2.60
C414	1.43	1.46	1.70	1.26	1.24
C415	2.85	2.85	2.88	2.85	2.84
C416	2.60	2.54	2.66	2.58	2.55
C417	2.93	2.93	2.93	2.94	2.94
C418	2.96	2.94	2.94	2.96	2.95
C421	3.00	3.00	3.00	3.00	

## EXTERNAL ASSESSMENT

2023-2024 BATCH

COURSE: Deep Learning

Techniques

BRANCH:-IT

CODE:C412

SEM:I

SL.No

REG.NO

UNIVERSITY  
GRADES

1 20KP1A1201 B  
 2 20KP1A1203 B  
 3 20KP1A1204 D  
 4 20KP1A1206 C  
 5 20KP1A1207 AB  
 6 20KP1A1208 C  
 7 20KP1A1209 D  
 8 20KP1A1210 D  
 9 20KP1A1211 B  
 10 20KP1A1212 C  
 11 20KP1A1213 C  
 12 20KP1A1214 A  
 13 20KP1A1215 F  
 14 20KP1A1217 D  
 15 20KP1A1218 B  
 16 20KP1A1219 B  
 17 20KP1A1220 D  
 18 20KP1A1221 F  
 19 20KP1A1223 D  
 20 20KP1A1224 C  
 21 20KP1A1225 B  
 22 20KP1A1226 B  
 23 20KP1A1227 B  
 24 20KP1A1228 B  
 25 20KP1A1229 B  
 26 20KP1A1230 C  
 27 20KP1A1231 C  
 28 20KP1A1232 C  
 29 20KP1A1233 D  
 30 20KP1A1234 D  
 31 20KP1A1235 C  
 32 20KP1A1236 B  
 33 20KP1A1237 D  
 34 20KP1A1238 D  
 35 20KP1A1239 D  
 36 20KP1A1240 A  
 37 20KP1A1241 D  
 38 20KP1A1242 C  
 39 20KP1A1243 A  
 40 20KP1A1244 B  
 41 20KP1A1245 D  
 42 20KP1A1246 C  
 43 20KP1A1247 C  
 44 20KP1A1248 C  
 45 20KP1A1249 D  
 46 20KP1A1250 B  
 47 20KP1A1251 D

No: of students absentees 1  
 No: of students attended 46

Target Grade : D or above				
D	C	B	A	A+
15	13	13	3	0
44				

Students scored above target : 44

Percentage students scored more than target : 96%

CO Attainment Level :  
 <50% Level 1  
 50-70% Level 2  
 >70% Level 3



### **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

### 3. Attainment of Program Outcomes and Program Specific Outcomes (50)

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

The attainment of Program Outcomes (PO) is assessed through two key components: Direct Attainment and Indirect Attainment.

1. **Direct Attainment:** This involves calculating the attainment based on the marks students achieve in all courses, providing a quantitative measure of their academic performance.

2. **Indirect Attainment:** This is assessed by gathering feedback from stakeholders, such as students, alumni, and employers, regarding the effectiveness of the program outcomes, as illustrated in Fig.3.3.1.

Assessment Tools	Assessment component			
Direct attainment (80% weightage)	Theory	Internal Assessment	Internal mid exams	
			Assignments	
			Online exams	
		Semester end exams		
	Laboratory	Internal Assessment	Day to day performance	
			Record	
			Internal lab exam	
		Semester end exams		
	Seminar	Presentation and Reports		
	Project	Reviews		
		Report		
		External viva voce		
	Course End Survey			
Indirect attainment (20% weightage)	Program Exit Survey			

Table 3.3.1.1: Assessment tools for calculating PO – Course attainments

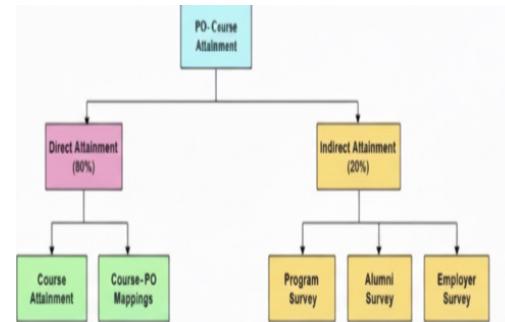


Figure 3.3.1.1: Assessment tools for calculating PO – Course attainments(HAS TO INDUSTRY SURVEY)

### Direct Attainment:

The direct attainment of Program Outcomes (PO) is determined by aggregating the attainment levels of all courses using the following assessment process:

1. **Course-PO Mapping:** Course-PO mapping tables, as shown in Table 3.1.3, are collected from the respective course coordinators for all courses.
2. **Course Attainment Values:** Course attainment values, as detailed in Table 3.2.1, are gathered from the respective course coordinators.
3. **Calculation of Course-PO Attainment:** The Course-PO attainment is calculated using the formula:

$$\text{course-PO attainment} = (\text{course to PO mapping}) * (\text{course attainment})$$

4. **Direct PO Attainment:** The average of these course-specific attainment values is then computed for each individual PO, resulting in the overall direct PO attainment.

## Indirect Attainment:

Various surveys are conducted to evaluate the Program Outcomes (PO), with feedback gathered from key stakeholders such as students, alumni, Employer Stakeholder opinions are collected using a grading scale where 3 indicates strong agreement, 2 indicates moderate agreement, and 1 indicates weak agreement.

### STUDENT EXIT SURVEY

Department:

Roll Number:

1.Engineering knowledge: Apply knowledge of mathematics, science, and engineering fundamentals.

1.  2.  3.

2.Problem analysis: Identify, formulate, and analyze complex engineering problems.

1.  2.  3.

3.Design/development: Design solutions for complex engineering problems.

1.  2.  3.

4.Conduct investigations: Use research methods to analyze data and interpret results.

1.  2.  3.

5.Modern tool usage: Apply modern engineering tools and techniques effectively.

1.  2.  3.

6.The engineer and society: Understand the impact of engineering solutions on society

1.  2.  3.

7.Environment and sustainability: Apply sustainable practices in engineering.

1.  2.  3.

8.Ethics: Apply ethical principles and responsibilities in engineering practice.

1.  2.  3.

9.Individual and teamwork: Function effectively as an individual and in teams.

1.  2.  3.

10.Communication: Communicate effectively with engineering community and society.

1.  2.  3.

11.Project management and finance: Understand management principles and finance.

1.  2.  3.

12.Develop and deploy software solutions using computing skills and modern tools to meet industry and societal needs.

1.  2.  3.

13.Apply computational principles and advanced tools in collaboration with academia, industry and research to deliver efficient solutions.

1.  2.  3.

14.Pursue emerging technologies and research with professionalism and ethical leadership, fostering lifelong learning and societal impact.

1.  2.  3.

PO Attainment Calculation:

1. The final PO attainment values are determined by considering 80% of the direct attainment value and 20% of the indirect attainment value.
2. The same method is applied to calculate Program Specific Outcome (PSO) attainment.

## PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111	2.19	0.73	1.46	1.46	PO5	0.73	PO7	PO8	PO9	PO10	PO11	PO12
C112	2.19	1.46	1.46	1.46	1.46	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C113	1.59	1.46	1.27	1.06	1.59	1.33	1.06	1.06	1.06	1.33	1.06	1.59
C114	1.58	1.16	0.95	0.74	0.95	0.53	0.11	1.05	1.05	0.63	0.53	1.16
C115	0.90	1.46	1.12	1.68	1.35	0.56	0.56	0.67	0.67	0.56	1.68	0.56
C116	2.32	2.42	1.94	1.94	2.42	1.69	PO7	1.94	2.42	1.45	1.94	PO12
C117	1.94	0.97	1.94	2.91	PO5	PO6	PO7	PO8	0.97	PO10	PO11	0.97
C118	2.71	2.42	2.26	1.94	2.52	2.42	1.94	PO8	1.94	1.18	1.94	2.90
C119	1.69	2.66	1.94	2.90	2.18	0.97	0.97	1.21	0.97	0.97	2.90	0.97
C121	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	1.81	2.72	PO11	1.81
C122	2.07	1.66	1.72	1.71	1.85	PO6	0.74	PO8	PO9	PO10	PO11	0.74
C123	2.12	1.70	1.42	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	0.71
C124	2.51	1.55	1.77	2.66	2.21	2.07	1.77	PO8	PO9	0.89	0.89	1.03
C125	2.15	2.00	1.57	1.57	1.29	0.72	0.72	0.72	0.72	0.72	0.72	1.43
C126	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	1.55	2.91	PO11	1.94
C127	2.91	1.94	0.97	1.94	PO5	1.94	PO7	PO8	1.36	PO10	0.97	PO12
C128	2.90	1.94	0.97	0.97	PO5	PO6	PO7	PO8	PO9	PO10	PO11	1.94
C129	2.71	2.91	2.32	2.13	2.13	0.97	0.97	0.97	0.97	2.91	2.91	1.74
C211	1.76	1.64	1.29	1.64	1.17	0.59	0.59	0.59	0.59	1.17	0.59	1.17
C212	1.55	1.34	1.34	1.44	1.13	PO6	PO7	0.72	PO9	1.03	PO11	1.03
C213	2.15	1.86	1.43	1.29	1.15	PO6	PO7	PO8	PO9	PO10	PO11	1.29
C214	1.56	1.35	1.14	1.04	0.83	0.21	0.21	0.21	PO9	PO10	PO11	0.94
C215	2.05	1.91	1.91	-	-	PO6	PO7	PO8	PO9	PO10	PO11	-
C216	2.93	2.34	2.73	1.56	2.34	PO6	PO7	PO8	0.98	1.76	PO11	1.95
C217	1.94	2.38	2.41	2.10	2.34	2.30	2.19	PO8	PO9	2.10	2.07	2.04
C218	2.94	2.35	2.16	2.116	1.57	PO6	PO7	PO8	PO9	1.18	PO11	0.98
C219	2.94	2.74	2.34	2.16	1.57	PO6	PO7	PO8	PO9	1.57	PO11	0.98
C221	2.11	2.11	1.41	1.41	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C222	2.12	2.12	1.98	1.55	0.84	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C223	1.89	1.26	1.89	1.26	1.26	1.26	PO7	1.26	PO9	PO10	PO11	PO12
C224	1.54	1.03	1.43	0.92	0.92	1.03	PO7	1.03	PO9	PO10	PO11	PO12
C225	2.02	1.35	1.35	1.08	1.08	1.35	PO7	0.67	PO9	PO10	PO11	PO12
C226	2.94	1.96	2.77	1.79	1.79	1.96	PO7	1.96	PO9	PO10	PO11	PO12
C227	2.90	2.32	2.71	1.55	2.32	PO6	PO7	PO8	0.97	1.74	PO11	1.93
C228	2.95	2.75	2.75	2.36	1.97	PO6	PO7	PO8	PO9	1.97	PO11	1.38
C229	2.92	2.73	2.73	2.53	2.34	PO6	PO7	PO8	PO9	1.95	PO11	1.36
C311	1.82	1.69	1.56	1.30	1.43	PO6	PO7	PO8	PO9	0.78	0.13	0.65
C312	2.71	2.52	2.52	1.81	1.81	PO6	PO7	PO8	PO9	0.9	PO11	0.9
C313	2.33	2.01	1.86	1.55	1.55	PO6	PO7	PO8	PO9	0.77	PO11	0.77
C314	1.54	1.03	1.23	1.23	PO5	PO6	PO7	PO8	PO9	PO10	0.51	1.02
C315	1.49	1.49	0.99	0.99	-	PO6	PO7	PO8	PO9	-	-	-
C316	2.94	2.35	2.55	1.96	2.94	PO6	PO7	PO8	PO9	1.37	0.39	0.98
C317	2.74	2.35	2.15	2.54	2.54	1.37	PO7	PO8	2.15	1.96	PO11	1.17
C318	2.35	2.35	1.96	2.35	2.35	PO6	PO7	PO8	PO9	2.35	PO11	2.35

C319	2.36	2.36	2.56	1.97	1.97	1.38	1.38	1.57	2.36	2.36	2.36	2.36
C321	2.39	1.84	2.58	2.58	2.76	PO6	PO7	PO8	1.47	2.39	1.47	1.47
C322	1.99	1.71	1.28	1.99	1.43	PO6	PO7	0.86	PO9	1.28	PO11	1.56
C323	2.46	1.89	2.64	2.64	2.83	1.89	PO7	PO8	1.5	2.46	1.5	1.5
C324	2.18	1.82	2.36	2.55	2.73	PO6	PO7	PO8	1.46	2.37	1.46	1.46
C325	1.15	1.27	1.38	1.04	1.49	0.69	0.58	0.69	0.69	0.58	0.69	1.15
C326	2.93	2.73	2.73	2.54	2.73	PO6	PO7	PO8	PO9	2.73	PO11	2.73
C327	2.94	2.74	2.74	2.94	2.55	PO6	PO7	PO8	PO9	2.35	PO11	2.35
C328	2.95	2.75	2.75	2.56	2.56	PO6	PO7	PO8	PO9	2.16	PO11	1.57
C329	2.93	2.73	2.73	2.54	2.34	PO6	PO7	PO8	PO9	1.95	PO11	1.37
C411	2.52	1.82	2.52	2.52	2.7	0.36	PO7	PO8	1.44	2.34	1.44	1.44
C412	2.85	2.66	2.47	2.85	2.47	PO6	PO7	1.71	PO9	2.09	PO11	2.09
C413	2.52	2.71	1.44	1.08	0.36	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C414	1.42	1.24	1.26	1.1	1.18	PO6	PO7	PO8	0.47	0.47	PO11	PO12
C415	2.27	1.74	2.45	2.45	2.62	-	-	-	1.39	2.27	1.39	1.39
C416	0.86	PO2	PO3	PO4	PO5	1.73	PO7	2.59	1.73	1.73	1.29	1.73
C417	2.93	2.93	1.47	0.98	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C418	2.36	2.36	2.56	1.97	1.97	1.38	1.38	1.57	2.36	2.36	2.36	2.36
C421	1.67	2	2.33	1.33	2.33	2.33	1	3	2.33	2.25	2	2
PO Attainment	2.32	2.10	2.08	1.99	2.03	1.57	1.35	1.53	1.63	1.89	1.65	1.71

**PO Attainment Level**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.25	1.98	1.93	1.83	1.88	1.30	1.01	1.24	1.38	1.70	1.41	1.48
InDirect Attainment	2.6	2.56	2.68	2.61	2.61	2.63	2.69	2.7	2.64	2.63	2.63	2.64

**PSO Attainment**

Course	PSO1	PSO2
C111	PSO1	PSO2
C112	PSO1	PSO2
C113	PSO1	PSO2
C114	PSO1	PSO2
C115	1.68	1.26
C116	1.16	0.97
C117	PSO1	PSO2
C118	PSO1	PSO2
C119	0.90	2.26
C121	PSO1	PSO2
C122	PSO1	PSO2
C123	PSO1	PSO2
C124	PSO1	PSO2
C125	2.15	1.86
C126	PSO1	PSO2
C127	PSO1	PSO2
C128	PSO1	PSO2
C129	2.52	2.18

C211	1.76	1.17
C212	1.45	1.45
C213	1.86	1.58
C214	1.46	1.35
C215	2.05	1.61
C216	2.93	2.54
C217	2.94	2.55
C218	2.94	2.16
C219	2.94	2.35
C221	2.11	2.11
C222	2.12	1.98
C223	1.89	1.89
C224	1.54	1.44
C225	1.62	1.62
C226	2.94	2.74
C227	2.90	2.51
C228	2.95	2.75
C229	2.92	2.93
C311	1.69	1.56
C312	2.53	2.35
C313	2.33	1.86
C314	0	0
C315	2.12	1.84
C316	2.94	2.35
C317	2.74	2.35
C318	2.35	2.35
C319	2.56	2.16
C321	2.76	2.39
C322	2.14	1.85
C323	2.83	2.45
C324	2.73	2.37
C325	0	0
C326	2.93	2.73
C327	2.94	2.74
C328	2.95	2.75
C329	2.93	2.73
C411	2.70	2.34
C412	2.85	2.47
C413	2.71	2.71
C414	0	0
C415	PSO1	PSO2
C416	PSO1	PSO2
C417	2.93	2.93
C418	2.55	2.16
C421	2.50	2.50
PSO Attainment	2.44	2.26

## PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	2.39	2.16
Indirect Attainment	2.65	2.68

4 STUDENTS' PERFORMANCE (150)

Total Marks 109.18

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)	120	60	60	60	60	0	0
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)	100	60	60	60	51	0	0
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	3	0	0	0	0	0	0
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	103	60	60	60	51	0	0

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)	103	0	0	0	0
2023-24 (CAYm1)	60	20	0	0	0
2022-23 (CAYm2)	60	17	16	0	0
2021-22 (CAYm3)	60	16	16	14	0
2020-21 (LYG)	51	19	17	16	16
2019-20 (LYGm1)	0	0	0	0	0
2018-19 (LYGm2)	0	0	0	0	0

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)	103	0	0	0	0
2023-24 (CAYm1)	60	60	0	0	0
2022-23 (CAYm2)	60	58	57	0	0
2021-22 (CAYm3)	60	58	56	50	0
2020-21 (LYG)	51	49	47	47	40
2019-20 (LYGm1)	0	0	0	0	0
2018-19 (LYGm2)	0	0	0	0	0

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)	120	100	83.33
2023-24 (CAYm1)	60	60	100.00
2022-23 (CAYm2)	60	60	100.00

Average [ (ER1 + ER2 + ER3) / 3 ] : 94.44

Assessment : 20.00

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

Total Marks 19.45

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

Institute Marks : 7.75

Item	Latest Year of Graduation, LYG (2020-21)	Latest Year of Graduation minus 1, LYGM1 (2019-20)	Latest Year of Graduation minus 2 LYGM2 (2018-19)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	51.00	0.00	0.00
Y Number of students who have graduated without backlogs in the stipulated period	16.00	0.00	0.00
Success Index [ SI = Y / X ]	0.31	0.00	0.00

Average SI [ (SI1 + SI2 + SI3) / 3 ] : 0.31

Assessment [25 \* Average SI] : 7.75

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

Institute Marks : 11.70

Item	Latest Year of Graduation, LYG (2020-21)	Latest Year of Graduation minus 1, LYGM1 (2019-20)	Latest Year of Graduation minus 2 LYGM2 (2018-19)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and separated division, if applicable	51.00	0.00	0.00
Y Number of students who have graduated in the stipulated period	40.00	0.00	0.00
Success Index [ SI = Y / X ]	0.78	0.00	0.00

Average SI[ ( SI1 + SI2 + SI3 ) / 3 ]: 0.78

Assessment [15 \* Average SI] : 11.70

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 6.83

Institute Marks : 6.83

Academic Performance	CAYM3 (2021-22)	LYG (2020-21)	LYGM1 (2019-20)
Mean of CGPA or mean percentage of all successful students(X)	7.18	7.25	0.00
Total number of successful students(Y)	50.00	47.00	0.00
Total number of students appeared in the examination(Z)	56.00	47.00	0.00
API [ X*(Y/Z) ]:	6.41	7.25	0.00

Average API [ (AP1 + AP2 + AP3)/3 ] : 4.55

Assessment [1.5 \* Average API] : 6.83

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

Total Marks 10.50

Institute Marks : 10.50

Academic Performance	CAYm2 (2022-23)	CAYm3 (2021-22)	LYG (2020-21)
Mean of CGPA or mean percentage of all successful students(X)	7.32	7.21	7.15
Total number of successful students (Y)	57.00	56.00	47.00
Total number of students appeared in the examination (Z)	58.00	58.00	49.00
API [ X * (Y/Z) ]	7.19	6.96	6.86

Average API [ (AP1 + AP2 + AP3)/3 ] : 7.00

Assessment [ 1.5 \* AverageAPI ] : 10.50

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

Total Marks 32.40

Institute Marks : 32.40

Item	LYG (2020-21)	LYGm1 (2019-20)	LYGm2 (2018-19)
Total No of Final Year Students(N)	47.00	0.00	0.00
No of students placed in the companies or government sector(X)	32.00	0.00	0.00
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	0.00	0.00
No of students turned entrepreneur in engineering/technology (Z)	0.00	0.00	0.00
x + y + z =	38.00	0.00	0.00
Placement Index [ (X+Y+Z)/N ] :	0.81	0.00	0.00

Average Placement [ (P1 + P2 + P3)/3 ] : 0.81

Assessment [ 40 \* Average Placement] : 32.40

Program Name :

Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	THANGELLA NAGA SRAVANI	20KP1A1243	CODEGNAN IT SOLUTIONS	2023-24
2	PAMIDI ESWAR	20KP1A1226	CODEGNAN IT SOLUTIONS	2023-24
3	NAGUR BAJI SHAIK	20KP1A1225	CODEGNAN IT SOLUTIONS	2023-24
4	CHINNI B V M N D K DATTA SAI	20KP1A1208	CODEGNAN IT SOLUTIONS	2023-24
5	CHENNAMSETTI NAGA PRASANNA	20KP1A1206	CODEGNAN IT SOLUTIONS	2023-24
6	JAKKIREDDY VANI	20KP1A1213	SMARTBRAINS	2023-24
7	KAMMA CHANDRIKA	20KP1A1214	SMARTBRAINS	2023-24
8	KOMMU PRASANTH	20KP1A1215	SMARTBRAINS	2023-24
9	KONDAVEETI PAVAN KUMAR	20KP1A1217	SMARTBRAINS	2023-24
10	KOTA MANEESHA	20KP1A1218	SMARTBRAINS	2023-24
11	MADALA SUKANYA	20KP1A1219	SMARTBRAINS	2023-24
12	MANDALAPU HIMAMDHURI	20KP1A1220	SMARTBRAINS	2023-24
13	MATLA ANANTH CHAKRAVARTHI YADAV	20KP1A1221	SMARTBRAINS	2023-24
14	MEKALA RAJASREE	20KP1A1223	SMARTBRAINS	2023-24
15	MUNAGAPATI GOPI CHAND	20KP1A1224	SMARTBRAINS	2023-24
16	PANCHETI BHARGAV	20KP1A1227	SMARTBRAINS	2023-24
17	PATHAN SANAVULLAKHAN	20KP1A1230	QSPIDERS	2023-24
18	ANITHA ALAVALA	20KP1A1201	QSPIDERS	2023-24
19	PONNABOINA KIRAN KUMAR	20KP1A1231	QSPIDERS	2023-24
20	BASIREDDY NAVEEN KUMAR REDDY	20KP1A1203	QSPIDERS	2023-24
21	POTHURI SRIGANESH	20KP1A1232	QSPIDERS	2023-24
22	THOTA AKHILA	20KP1A1244	QSPIDERS	2023-24
23	MACHANDRA SHEKHAR YARRAMSETTI	20KP1A1250	QSPIDERS	2023-24
24	SHAIK MUSHARAF	20KP1A1241	QSPIDERS	2023-24
25	YALAMANCHI JAYANTH BABU	20KP1A1249	QSPIDERS	2023-24
26	BOBBA SAI PRABHA	20KP1A1204	QSPIDERS	2023-24
27	DARUVURI ANJALI	20KP1A1209	QSPIDERS	2023-24
28	PAPPULA VENKATA MAHA LAKSHMI	20KP1A1228	SMARTBRAINS	2023-24
29	GUDALA PRASANNA LAKSHMI	20KP1A1211	SMARTBRAINS	2023-24
30	SHAIK NAZEER BASHA	20KP1A1242	SMARTBRAINS	2023-24
31	VANKAYALAPATI SATHWIKA	20KP1A1247	SMARTBRAINS	2023-24
32	YENDLURI DHARANI	20KP1A1251	SMARTBRAINS	2023-24

Assessment Year Name : CAYm2

No record exist(s)

Assessment Year Name : CAYm3

No record exist(s)

4.6 Professional Activities (20)

Total Marks 20.00

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

Institute Marks : 5.00

Department of Information Technology is associated with various professional societies and student chapters to make the students aware of the needs of industry. The co-circular and extra circular events are organized in collaboration with professional bodies/ student chapters. They assist the students by providing internships on their platform which enhances the real time technical skills in the domains like Machine Learning, Web development, project management etc.

S. No.	Name of the Professional Society/Chapter	Year of Establishment
1	ISTE Student Chapter	2024
2	CSI Studnt Branch	2025
3	IAENG INTERNATIONAL ASSOCIATION OF ENGINEERS	2024

2024-25

S No.	Name	Date- Month- Year	Resource Person with Designation	%of Students
1	Workshop on AI Integration in Hardware	30-12-2024 to 31-12-2024	Mr Sai Stish, CEO Indian Severs	94%
2	Guest lecture on "Identifying Key Influencers with centrality Metrics in Social Networks"	27-12-2024	Dr.Murali Krishna Enduri, HOD,CSE, SRM University-AP.	93%
3	4 days' workshop and 2 days Hackathon on AWS	24-01-2024	Braino vision solutions India,Pvt.,Ltd.	93%
4	Workshop on Artificial Intelligence & Cloud Computing	22-01-2024	E. Narendra Senior Tranier, Edunet Foundation	94%

2023-24

S No.	Action Taken	Date- Month- Year	Resource Person with Designation	%of Students
1	Workshop on Designing of Deep Learning Models using Tensor Flow & Keras API	30-09-2023	Braino vision solutions India,Pvt.,Ltd.	93%
2	workshop on Robotics called Robotrix for III years	05-09-2023 to 06-09-2023	SRM University	90%
3	Awareness program on "Career Guidance & Counselling"	28-07-2023	Er.Y.V.D.Chandra Sekar, Founder & CEO, CS CODENZ, Vijayawada.	95%
4	Awareness program on "Business Technology Incubators & entrepreneurship"	26-07-2023	Mr.Abdul Riyaz, Incubation Manager, VignanDeemed University, Guntur.	95%

5	Workshop on "Mastering data processing for Machine Learning success" IV years	22-05-2023 to 27-05-2023	Ms. Ruthumma, Technical Trainer, APSSDC.	93%
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2022-23

S No.	Name	Date- Month- Year	Resource Person with Designation	%of Students
1	Workshop on "Sustainable Development" III years	01-03-2023	Burisetty Sri Lakshmi Ramya Krishna	93%
2	Seminar on "Digital Transformation of India"	15-02-2023	Sri Akhilesh Srivastava	97%
3	Awareness program on "Har Ghar Dhyan"	10-02-2023	Mrs.Mani Are, Faculty ,Art of Living. Mr.N..Sudhakara Rao	91%
4	hands-on session on Android Application Development for II years	08-12-2022	Mr.T.Pavan Kumar Reddy, Trust & Safety Analyst, Accenture and Mr.P.S.V.Krishna, Software Trainer.	93%
5	APSSDC WORKSHOP II Years" Data Analytics using Python"	17-10-2022 to 22-10-2022	Ms. Ruthumma, Technical Trainer, APSSDC.	97%
6	Workshop III years "web development using Django"	01-08-2022 to 05-08-2022	Dr. A Swapna Priya Asst. Prof, VVIT, Vizag	96%
7	Work shop on National Level Largest Student Work Shop on Data Science using Python"	20-05-2022	Dr.Buddha Chandra Shekhar, Chief coordinator,AICTE.	97%
8	Hands-on Workshop on Ethical Hacking & Cyber Security	11-05-2022	Santosh Chaluvadi, Founder & CEO, Supraja Technologies.	95%

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

Institute Marks : 5.00

Name of the Magazine	Academic Year	No of Publications	Editors	Chief Editor
INFOSPARK	2024-25	4	1.G.Sravani Latha 2.P.Srinivas	B. Sowjanya
INFOSPARK	2023-24	3	1.P.Srinivas 2.Ch. Usha	B. Sowjanya
INFOSPARK	2022-23	3	1.Ch. Usha 2. D. Devika	Dr. P. Srinivasa Reddy

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**4.6.3 Participation in inter-institute events by students of the program of study (10)**

Institute Marks : 10.00

Academic Year	Name of the Student	Name of the Event	Name of the Host Institute	Prize Won
2024-25	NIMMAGADDA NAGA PHANIMDRA	Cricket	Seven Squares,JKC	Medal+Trophy
2024-25	PAGIDIPALLI RAJESH	INVINCIBLE OF SOIREE	RVR & JC College of Engineering	Third
2024-25	PAGIDIPALLI RAJESH NALLAMOTHU DHANUSH DODDA RAKESH YALAMANDALA SRINIVAS	AI Hackthon	V R Siddartha Engineering College	Participants
2024-25	NANDURI JOHN VESLI NAMBURU DHEERAJ KOTA SAI KOTI KOTHAMASU SURYA BRAHMA TEJ	AI Hackthon	V R Siddartha Engineering College	Participants
2024-25	GUTTIKONDA CHANDRA MANOBHIRAM GANGIREDLA SATISH NAIDU THUMMAPUDI SUNIL DAGGUBATI JAYA DURGA SRINIVAS	AI Hackthon	V R Siddartha Engineering College	Participants
2024-25	BITRAGUNTA PRABHU ANIL KUMAR ANNAPARTHI ANIL KUMAR SUDA KISHORE BABU PENDLI RAVI TEJA	AI Hackthon	V R Siddartha Engineering College	Participants
2024-25	M.HEMA	COLORIDO	RVR & JC College of Engineering	Participants
2024-25	K.Ramya sree	COLORIDO	RVR & JC College of Engineering	Participants
2024-25	SD. Tanzeela	COLORIDO	RVR & JC College of Engineering	Participants
2024-25	P.Heena Begum	COLORIDO	RVR & JC College of Engineering	Participants

Academic Year	Name of the Student	Name of the Event	Name of the Host Institute	Prize Won

2023-24	PAMIDI ESWAR	Paper Presentation on Sustainable Development	SRM University	First (Gold Medal)
2023-24	NAGUR BAJI SHAIK	Paper Presentation	SRM University	Participants
2023-24	SHAIK NAZEER BASHA	Paper Presentation	SRM University	Participants

## LIST OF NPTEL CERTIFICATIONS

S.NO	Rollno of the Student	Name of the Student	Course
1.	23KP1A1225	M. Hema	Data Structures and Algorithms using Java
2.	22KP1A1252	T. Madhav Sharath	Programing in Java
3.	22KP1A1248	S. Kishore Babu	Programing in Java
4	22KP1A1256	T.S Sameer	Cloud Computing
5	22KP1A1204	B.Prabhu Anil Kumar	Programing in Java
6	22KP1A1218	G.Samuel	Joy of Computing using Python
7	22KP1A1231	N.Naga Raju	Introduction to Internet of Things
8	22KP1A1218	G.Samuel	Privacy and security in social media
9	22KP1A1218	G.Samuel	Psychology of Stress,Health and well being
10	21KP1A1255	T. Gayathri	Data Structures and Algorithms using Java
11	21KP1A1238	P.Lakshmi Srikanth	Cloud Computing
12	21KP1A1218	G.Susmitha	Cloud Computing
13	21KP1A1258	V. Venkateswara Rao	Programing in Java
14	21KP1A1252	T. Preeti Padmavathi	Cloud Computing

## 5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Total Marks 197.96

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?
BATTULA SOWJANYA	AMGPB4443C	M.Tech	24/10/2011	COMPUTER SCIENCE & ENGINEERING	3	0	0	Assistant Professor		20/03/2023	Regular	Yes		Yes
PATCHALA SRINIVAS	CAUPP4414P	M.Tech	27/08/2018	COMPUTER SCIENCE & ENGINEERING	0	0	0	Assistant Professor		30/06/2023	Regular	Yes		No
GARNEPUDI SRAVANILATHA	CKUPG6787L	M.Tech	27/09/2021	COMPUTER SCIENCE & ENGINEERING	1	0	0	Assistant Professor		18/07/2023	Regular	Yes		No
USHA CHERUKURI	AGNPC4621Q	M.Tech	20/12/2013	COMPUTER SCIENCE & ENGINEERING	0	0	0	Assistant Professor		30/06/2022	Regular	Yes		No
PURNIMA ANNPUREDDY	BZEPAP5209F	M.Tech	24/09/2014	COMPUTER SCIENCE & ENGINEERING	0	0	0	Assistant Professor		06/06/2022	Regular	Yes		No
KONJETI GAYATHRI	ENNBK9054E	M.Tech	26/10/2017	COMPUTER SCIENCE & ENGINEERING	0	0	0	Assistant Professor		06/06/2022	Regular	Yes		No
DUTTA DEVika	FFEPD1851Q	M.Tech	28/04/2022	COMPUTER SCIENCE & ENGINEERING	1	0	0	Assistant Professor		27/01/2021	Regular	Yes		No
SRINIVAS REDDY PALLE	APCPP4507Q	Ph.D	22/04/2011	COMPUTER SCIENCE & ENGINEERING	0	0	0	Professor	01/07/2022	01/07/2022	Regular	No	30/06/2025	No
KOTA TRIVENI DEEPTHI	GKBPK4116E	M.Tech	17/08/2018	COMPUTER SCIENCE & ENGINEERING	0	0	0	Assistant Professor		04/07/2022	Regular	Yes		No
KAMMILI JAGAN MOHAN	ATPPK6474N	Ph.D	28/06/2016	COMPUTER SCIENCE & ENGINEERING	0	0	0	Professor	17/06/2023	17/06/2023	Regular	No	30/04/2024	No
DESU SABARI GIRINATH BABU	BEWPD1223D	M.Tech	29/12/2014	COMPUTER SCIENCE & ENGINEERING	0	0	0	Assistant Professor		01/06/2022	Regular	Yes		No
MEDA MALLIKARJUNA RAO	CSYPM7167A	M.Tech	15/09/2014	COMPUTER SCIENCE & ENGINEERING	0	0	0	Assistant Professor		15/07/2022	Regular	Yes		No
NADAPARAJU DURGA RAO	GOIPD3934Q	M.Tech	28/05/2018	COMPUTER SCIENCE & ENGINEERING	0	0	0	Assistant Professor		04/07/2022	Regular	Yes		No
EDURU NAGARJUNA	ABTPE8752D	Ph.D	02/11/2016	COMPUTER SCIENCE & ENGINEERING	0	0	0	Professor	02/06/2022	02/06/2022	Regular	Yes		No
GANGAPATNAM SRIVIDYA	BAVPG0343L	Ph.D	23/07/2018	COMPUTER SCIENCE & ENGINEERING	0	0	0	Professor	13/06/2022	13/06/2022	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 

Year of Study	CAY		CAYm1		CAYm2	
	(2024-25)		(2023-24)		(2022-23)	
	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students
2nd Year	60	3	60	0	60	0
3rd Year	60	0	60	0	60	0
4th Year	60	0	60	0	0	0
<b>Sub-Total</b>	<b>180</b>	<b>3</b>	<b>180</b>	<b>0</b>	<b>120</b>	<b>0</b>
<b>Total</b>	<b>183</b>		<b>180</b>		<b>120</b>	
Grand Total	183		180		120	

## PG

No. of PG Programs in the Department 

Grand Total			
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## SFR

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

Description	CAY(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
Total No. of Students in the Department(S)	183 Sum total of all (UG+PG) students	180 Sum total of all (UG+PG) students	120 Sum total of all (UG+PG) students
No. of Faculty in the Department(F)	14 F1	15 F2	11 F3
Student Faculty Ratio(SFR)	13.07 SFR1=S1/F1	12.00 SFR2=S2/F2	10.91 SFR3=S3/F3
Average SFR	11.99 SFR=(SFR1+SFR2+SFR3)/3		

F=Total Number of Faculty Members in the Department (excluding first year faculty)

**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)	14	0
CAYm1(2023-24)	15	0
CAYm2(2022-23)	11	0

Average SFR for three assessment years : 11.99

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)	1.00	3.00	2.00	0.00	6.00	11.00
CAYm1(2023-24)	1.00	4.00	2.00	0.00	6.00	11.00
CAYm2(2022-23)	1.00	3.00	1.00	0.00	4.00	8.00
Average Numbers	1.00	3.33	1.67	0.00	5.33	10.00

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

**5.3 Faculty Qualification (25)**

Total Marks 24.96

Institute Marks : 24.96

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F ]
2024-25(CAY)	3	11	9.00	20.56
2023-24(CAYm1)	4	11	9.00	23.33
2022-23(CAYm2)	3	8	5.00	31.00

Average Assessment : 24.96

**5.4 Faculty Retention (25)**

Total Marks 25.00

Institute Marks : 25.00

Description	2023-24	2024-25
No of Faculty Retained	11	11
Total No of Faculty	6	6
% of Faculty Retained	183	183

Average : 183.00

Assessment Marks : 25.00

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

Total Marks 20.00



Faculty members of the IT 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 (4)

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. This ensures transparency, accessibility, and continuous engagement for students, faculty, and stakeholders.

#### B. The work must be available for peer review and critique (4)

The Department of IT 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 (2)

The academic work of the Department of IT, 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 (10)

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 (ICT-enabled teaching, 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 key IT areas such as software development, cybersecurity, data analytics, cloud computing, AI/ML, network management, and web/mobile app development.
- Integration of NPTEL Courses: NPTEL Courses (Data Structures and Algorithms, Database Systems, Computer Networks, Operating Systems, Machine Learning) aligned with the curriculum.
- In-house Workshops for Skill Development: Workshops were conducted in Software Development, Cybersecurity, Cloud Computing, and related IT domains.
- Interactive Learning Tools: Use of Google Classrooms, Google Forms for quizzes, and online discussions.
- Technology-Enhanced Pedagogy: Use of LCD projectors, NPTEL videos, simulation tools, and classroom technology for interactive teaching.
- 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.

## 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.

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

Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
Battula sowjanya	5.00	5.00	5.00
PATCHALA SRINIVAS	5.00	5.00	5.00
GARNEPUDI SRAVANILATHA	5.00	5.00	5.00
USHA CHERUKURI	5.00	5.00	5.00
PURNIMA ANNPUREDDY	5.00	5.00	5.00
KONJETI GAYATHRI	5.00	4.00	5.00
KAMMILI JAGAN MOHAN	5.00	5.00	5.00
DESU SABARI GIRINATH BABU	5.00	4.00	4.00
MEDA MALLIKARJUNA RAO	5.00	5.00	4.00
NADAPARAJU DURGA RAO	4.00	5.00	3.00
GANGAPATNAM SRIVIDYA	5.00	5.00	5.00
Sum	54.00	53.00	51.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	9.15	9.00	6.00
Assessment [3*(Sum / 0.5RF)]	35.41	35.33	51.00

Average assessment over 3 years: 40.58

**5.7 Research and Development (30)**

Total Marks 28.00

5.7.1 Academic Research (10)

Institute Marks : 10.00

**Table 5.7.1(a) Publication Details Journals-Conferences**

Publication Details		
Year	Journals	Conference
2021-2022	02	0
2022-2023	01	02
2023 -2024	01	01
2024 -2025	01	01

**Table 5.7.1.(b)Last 3 years Publication Details**

Year-2021-2022						
Faculty Name	Title of Research Paper	Journal ( Name, Volume, Issue & Page Nos)	Authors & Co Author	IJ/ NJ	ISSN / ISBN & Country	Month&Year
Mrs D.Devika	Moving Object Detection with Deep CNNs	Design Engineering	1.D. Devika, 2 K.Siva Kumar,	IJ	ISSN: 0011-9342	2021
Mrs G.Sravanilatha	Effective Heart Disease Prediction Using Hybrid Machine Learning Techniques	Design Enginerring	1.Garnepudi Sravanilatha 2. Meda Srikanth 3.M.Vasavi	IJ	0011-9342	2021
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
Mrs B.Sowjanya	Experimental Investigations to Fault Reduction System for Software Applications	International Information and EDngineering Technology Association(IIETA) Vol,28,No.3, June 2023, pp.567-573	Battula Sowjanya, Vemulapalli Rashmi, Chetla Chandra Mohan	IJ	ISI 208304	January 2023
Year-2023-2024						
Faculty Name	Title of Research Paper	Journal ( Name, Volume, Issue & Page Nos)	Authors & Co Author	IJ/ NJ	ISSN / ISBN & Country	Month&Year

Mrs B.Sowjanya	SRP- Efficient Modified GSM Cloud Based Weather Monitoring Using Wireless Sensor Networks	Journal of Theoretical and Applied Information Technology  31 <sup>ST</sup> May 2024, Vol.102.No.10	Battula Sowjanya Dr Bethala Ramya, N.Sudhakar Reddy, Krishna Sai Ujwal	IJ	ISSN:1992-8645	31 <sup>st</sup> May 2024
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YEAR	TITLE	CONFERENCE	FACULTY NAME	IC/NC	MONTH
2022-2023	Generated AI	International Conference on Computational Intelligence , Network and Security (ICCINS-2023)	B.Sowjanya	IC	21 <sup>st</sup> December 2023
2022-2023	Graph Learing	International Conference on Computational Intelligence , Network and Security (ICCINS-2023)	B.Sowjanya	IC	22 <sup>st</sup> December 2023
2023-2024	Emerging Trends in Research Methodology: Bridging between Traditional and Modern Approaches	International Webinar	B.Sowjanya	IW	9 <sup>th</sup> to 15 <sup>th</sup> December 2024
2024-25	A Dynamic Threshold Approach to EdDSA for Secure IOT Transactions on Blockchasin Netwroks	IEEE Conference	B.Sowjanya	IC	23 <sup>rd</sup> -25 <sup>th</sup> July 2025

Table 5.7.1.(c)Last 3 years Conferences Details

## 5.7.2 Sponsored Research (5)

Institute Marks : 5.00

## 2023-24 (CAYm1)

Project Title	Duration	Funding Agency	Amount
Student Training	6 months	PMKVY	722908.80
Student Training	6 months	NRI Educational Society	1003389.00
			Total Amount(X): 1726297.80

## 2022-23 (CAYm2)

Project Title	Duration	Funding Agency	Amount
Student Training	6 months	NRI Educational Society	1003389.00
			Total Amount(Y): 1003389.00

2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount
Student Training	6 months	NRI Educational Society	1003389.00
			Total Amount(Z): 1003389.00

Cumulative Amount(X + Y + Z) = 3733075.80

**5.7.3 Development Activities (10)**

Institute Marks : 10.00

**A. Product Development****Best Project Outcome of Research Lab set up in Department**

<b>Batch No.</b>	<b>Name of the student</b>	<b>Title of the Project</b>	<b>Name of the Guide</b>
	BASIREDDY NAVEEN KUMAR REDDY		
	ALAVALA ANITHA		
1	MANDALAPU HIMAMADHURI	OBJECT DETECTION USING PYTHON	E.Nagarjuna
	THUMMALAPALLI VENKATA PRAVALLIKA		
	CH. NAGA PRASANNA		
	J. VANI		
2	K. PRASANTH	MUSIC RECOMMENDATION BASED ON FACIAL EXPRESSIONS BY USING CNN	G.Srividya
	D. MANOJ KUMAR		
	CHINNI DATTASAI		
	DARUVURI ANJALI		
3	MADALA SUKANYA	VIRTUAL MOUSE USING HAND GESTURES	P.Srinivas Reddy
	MATLA CHAKRAVARTHI YADAV		
	GUDALA PRASANNA LAKSHMI		
4	RAGI SAI DATTA VIRAT JASWANTH	CROP YIELD PREDICTION USING MACHINE LEARNING TECHNIQUES	K.Jagan Mohan
	MEKALA RAJASREE		
	KAMMA CHANDRIKA		
	G SRINIVASULU		
5	K PAVAN KUMAR	REAL TIME OBJECT DETECTION USING MACHINE LEARNING	B.Sowjanya
	T NAGA SRAVANI		
	P SANAVULLAKHAN		
	NAGUR BAJI SHAIK		
6	RONDI ANAND	CHATBOT USING PYTHON AND NLP	D.Devika
	VEERAGANDHAM BALA VINOD		
	MUNAGAPATI GOPI		
	ESWAR		
7	MAHALAKSHMI	FEED BACK MANAGEMENT SYSTEM	Ch.Usha
	BASHA		
	SATHWIKA		
	P.BHARGAV		
	PANJI REDDY		
8	V.MANIKANTA	DATA LEAK DETECTION	A.Purnima
	Y.JAYANTH BABU		
	PATHAN AZMEEN		
9	KOTA MANEESHA	DESKTOP ASSISTANT	P.Srinivas
	YENDLURI DHARANI		
	SHAIK JANI BASHA		
10	P KIRAN KUMAR		G.Sravani Latha
	SK MOHAMMAD UMAR	DESIGN AND IMPLEMENTATION OF FLIGHT TICKET ESTIMATION	

R KOTESWARA RAO

B SAI PRABHA

T AKHILA

Y. CHANDRA SEKHAR

11 ,SK. MUSHARAF

SMART GRID ASSET MANAGEMENT SYSEM USING BLOCK CHAIN TECHNOLOGY

K.Gayatri

SK. FAIZ

P. SRI GANESH

#### **B. Research laboratories**

The Department of IT is equipped with a dedicated Research 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 software solutions, algorithms, and IT-based projects.

S. No	Name of the Laboratory	Name of the Equipment/ Software
1	Lab for Advanced Information Technology Research	Lab Equipped with <b>Visual Studio Code</b> <b>Eclipse IDE</b> <b>PyCharm</b> (for Python) <b>IntelliJ IDEA</b> (for Java) <b>NetBeans</b> <b>MySQL</b> <b>PostgreSQL</b> <b>MongoDB</b> (NoSQL) <b>Oracle DB</b> <b>SQLite</b>

#### **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. **Smart Lab cum Classrooms (with Multimedia Projectors):** Equipped with ICT tools for interactive and technology-enabled learning.
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. **Course Files with Handouts:** Comprehensive course files containing lecture notes, tutorial sheets, question banks, and other relevant study materials.
6. **Textbooks and Reference Books (from Library):** A well-stocked library with prescribed textbooks, reference books, journals, and e-resources to support academic requirements.

#### **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 that provide step-by-step instructions for conducting practical experiments and hands-on activities related to various IT concepts. These manuals are essential teaching tools that help students and researchers gain practical experience, reinforce theoretical knowledge, and develop technical skills.
3. **Working Models:** Innovative software prototypes and project models developed by undergraduate and postgraduate students, demonstrating the practical application of theoretical knowledge, creativity, and problem-solving skills in various domains of Information Technology.

## 2023-24 (CAYm1)

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

## 2022-23 (CAYm2)

Project Title	Duration	Funding Agency	Amount
AP TET	1 Year	TCS ION	72538.00
ICAI	1 Year	TCS ION	205200.00
			Total Amount(Y): 277738.00

## 2021-22 (CAYm3)

Project Title	Duration	Funding Agency	Amount
AP PSEAE	1 Year	TCS ION	9000.00
			Total Amount(Z): 9000.00

Cumulative Amount(X + Y + Z) = 609880.00

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

Total 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	Counselled, 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	1	1

No. of faculty sent for FDP's	1	2	1
<b>Award/Reward</b>			
No. of faculty received Certificate of Merit and cash Award	1	2	1
No. of faculty received Certificate of Merit	2	1	2

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

Total Marks 10.00



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

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

- Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc.

(Minimum 50 hours interaction in a year will result in 3 marks for that year; 3marks x3years =9marks)

To bridge the gap between industry and institute professionals from various IT industries are brought in to provide a well-balanced mix of theoretical and practical knowledge that aligns with the current demands of the IT industry. This approach has significantly aided students in securing placements in leading companies. Adjunct faculty members remain engaged in academic research throughout the academic year and work towards enhancing teaching and learning methods. They also contribute to the institution

by participating in diverse activities, such as teaching, mentoring both students and faculty, and conducting research and development initiatives.

(10)

S. No	Name of the Expert	AFFILIATION	Course	No of hours
1	T. Chakravarthi	Sr. Software Engineer, Wipro	Machine Learning	58
2	B. Vijay	Tech lead, Site Reliability Engineering Prokotpo Inc.	Cloud Computing	58
3.	Dr. Alapati Ravindra	Chairman, NRI Institute of Technology	Teaching and Learning Pedagogy	55
Total				171 hrs

Table 5.9.1 List of visiting/adjunct/emeritus faculty members for the Year 2024-2025

S. No	Name of the Expert	AFFILIATION	Course	No of hours
1	B. Vijay	Tech lead, Site Reliability Engineering Prokotpo Inc.	Cloud Computing	58
2	M.Rajesh	Sr. Software Engineer, Newfold Digital	Advanced Java	60
3.	Dr. Alapati Ravindra	Chairman, NRI Institute of Technology	Teaching and Learning Pedagogy	54
Total				172 hrs

Table 5.9.2 List of visiting/adjunct/emeritus faculty members for the Year 2023-2024

S. No	Name of the Expert	AFFILIATION	Course	No of hours
1	T. Chakravarthi	Sr. Software Engineer, Wipro	Machine Learning	58
2	M.Rajesh	Sr. Software Engineer, Newfold Digital	Advanced Java	60
3	Dr. Alapati Ravindra	Chairman, NRI Institute of Technology	Teaching and Learning Pedagogy	55
Total				173 hrs

Table 5.9.3 List of visiting/adjunct/emeritus faculty members for the Year 2022-2023

## 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

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	Basic Programming Lab	60	Dell G6 MT DesktopPC/Intel Core i5,(TM) 10thgen processor/H470 Chipped,LenovoDesktop 8GB RAM/ SATAHDD/WINDOWSPro SL,64 BIT/HP Keypad&Mouse /HP 19.5" LED TFT Monitor Total:60	Semester ITotal: 36 Hours per week Semester II Total: 36 Hours per week			
					Ch. Vishnu Priya	Programmer	B.Tech
2	Networks Lab	50	Acer G6 MT DesktopPC/Intel Core i5, 10thgen processor/H470 Chipped ,16gb DDR4 RAM/16GB SATAHDD/ WINDOWS10Home SL,64 BIT/HP Keypad&Mouse /HP 19.5" LED TFT Monitor Total:50	Semester ITotal: 36 Hours per week Semester II Total: 36 Hours per week			
					Y .Divya Sai	Programmer	B.Tech
3	Advanced Computing Lab1	50	Lenovo Idea Centre 510S071CB,Intel Rcore TM i3 8th gen,3.6GHz Intel R UHD Graphics 610 4GB DDR4,1 TB SATA HDD, M.2*2(1*wifi;1*M.2SSD ) Total : 50	Semester ITotal: 36 Hours per week Semester II Total: 36 Hours per week			
					G.Lakshmi	Programmer	MCA
4	Advanced Computing Lab2	50	Lenovo Think Centre 510S071CB,Intel Rcore TM i3 8th gen,3.6GHz Intel R UHD Graphics 610 4GB DDR4,1 TB SATA HDD, M.2*2(1*wifi;1*M.2SSD ) Total : 50	Semester I Total: 36 Hours per week Semester II Total: 36 Hours per week			
					sk.khajavali	Programmer	MCA
5	Advanced Computing Lab3	60	Dell G6 MT DesktopPC/Intel Core i5,(TM) 10thgen processor/H470 Chipped,LenovoDesktop 8GB RAM/ SATAHDD/WINDOWSPro SL,64 BIT/HP Keypad&Mouse /HP 19.5" LED TFT Monitor Total:60	Semester I Total: 36 Hours per week Semester II Total: 36 Hours per week			
					sk.Nagul meera	Programmer	MCA
6	Projects Lab	60	Dell G6 MT DesktopPC/Intel Core i5,(TM) 10thgen processor/H470 Chipped,LenovoDesktop 8GB RAM/ SATAHDD/WINDOWSPro SL,64 BIT/HP Keypad&Mouse /HP 19.5" LED TFT Monitor Total:60	Semester I Total: 36 Hours per week Semester II Total: 36 Hours per week			
					p.Nalini	Programmer	MCA

## 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	web programming lab	Java programming lab	To support core subjects like web technologies , internet programming . To train students in front -end .Provides infrastructure for mini projects and innovative student research .	For curriculum delivery. For projects and innovation . For skill development beyond curriculum for technical support and maintenance	Technical skills . practical problem solving .Life long learning and certifications .	1, 2, 3, 5, ,9, 10, 12-POs.1,2-PSOs
2	Advanced Computing Lab1	Object Oriented.Computer Networks Lab Software Development Lab	Project and product development.curriculum requirement . Alignment with emerging technologies.	For curriculum delivery. For projects and innovation . For skill development beyond curriculum for technical support and maintenance	Technical skills . practical problem solving .Life long learning and certifications .	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12-POs.1,2-PSOs
3	Basic Programming Lab	Programming for problem solving Lab	Skill development.Support for projects and competitions .Enterpreneurship & innovation	For curriculum delivery. For projects and innovation . For skill development beyond curriculum for technical support and maintenance	Technical skills . practical problem solving .Life long learning and certifications .	1, 2, 3, 5, 9, 10, 12-POs. 1,2-PSOs
4	projects lab	project lab	To do mini and major projects	For curriculum delivery. For projects and innovation . For skill development beyond curriculum for technical support and maintenance	Technical skills . practical problem solutions.	1,2,3,4,5,6,7,8,9,10,11,12-POs. 1,2-PSOs
5	IOT lab	smart sensor,Embedded systems	Research and advanced learning .Skill development.Exposure to Emerging technologies	For curriculum delivery. For projects and innovation . For skill development beyond curriculum for technical support and maintenance	Technical skills . practical problem solutions.	1,2,3,4,5,6,7,8,9,10,11,12-POs. 1,2-PSOs
6	Operating Systems Lab	Linux or Unix Environment	to provide practical exposure in implementing Operating Systems concepts	For curriculum	Technical skills . practical problem solutions.	1,2,3,4,5,6,9,12,PSO-1,PSO-2
7	Database Management Lab	SQL, PLSQL,NOSQL	Practical understanding of DBMS Concepts	For curriculum	Technical skills . problem solutions.	1,2,3,4,5,6,9,10,12,PSO-1,PSO-2
8	Cloud Computing Lab	Docker & Kubernetes	Hands on exposure to emerging Technology	For curriculum	Technical skills . problem solutions.	1,2,3,4,5,6,9,10,12,PSO-1,PSO-2
9	Datascience Lab	Numpy,pandas, jupiter notebook	practical exposure to datascience concepts	For curriculum	Technical skills . problem solutions.	1,2,3,4,5,6,7,9,10,12,PSO-1,PSO-2
10	MobileApplication Development Lab	Flutter,Android Studio	practical exposure to datascience concepts	For curriculum development and for project innovation	Technical skills . problem solutions.	1,2,3,4,5,6,7,9,10,12,PSO-1,PSO-2

6.3 Laboratories: Maintenance and overall ambiance (10)

Total Marks 10.00



All labs are well equipped and have advanced computing facilities maintained by dedicated and experienced supporting staffs. So as to monitor the maintenance of laboratories, a departmental committee is constituted headed by the head of the department. All the laboratories are maintained periodically. Each laboratory maintains a lab register for detailing the proper utilization of labs and information related to lab records. All the Lab in charges maintain the indent book on a regular basis and also the overall ambience of the laboratories is well maintained. To maintain the laboratories a departmental committee is constituted which is headed by head of the department and the faculty lab in charge. This committee is responsible for monitoring and taking necessary actions for maintenance of labs. All the laboratories are maintained periodically. In house maintenance is carried out as per requirement on a periodic basis and major issues are outsourced as per the procedure followed by the institution.

**Policy:** Equipment is operated in accordance with manufacturer's instructions and in a way which minimizes the cost of repairs and maintenance.

**Procedure:**

1. Do's and Don'ts and Safety measures are displayed in each lab.
2. Skilled Technical Staff are available for maintenance of electronic equipment's and software.

**Laboratory maintenance**

1. All the systems are checked and updated as per the requirements, before the start of every semester.
2. Student Attendance Register is maintained for Students IN/OUT time and PCs usage.
3. Dos and Donts and Safety estimates rules are displayed in each laboratory.
4. Department has 20KVA UPS along with batteries and backup to support power suppliers.
5. One Teaching faculty and a Lab instructor are in-charge of the overall functioning of each lab.
6. Stock register is maintained separately for each lab.
7. Fire Extinguishers are available in each lab and floor.
8. First Aid Kit is available for emergencies.
9. The list of lab programs is displayed in all the labs.
10. Software installation and minor software/hardware issues are solved by lab instructor.
11. Major problem is outsourced by Institution.

**Overall Ambiance**

1. All laboratories are equipped with state of art equipment to meet the requirements of curriculum for all UG and PG courses.
2. All labs have experienced faculty to educate the students in all the aspects of Computer science and engineering. All faculty members who are involved in labs are well trained in all recent software and tools to educate the students in new technologies.
3. All labs are spacious and equipped with comfortable furniture like chairs and benches.
4. Hard copy and soft copy of lab manuals are available in the lab for student reference as well as distributed to students.
5. Every lab is provided with one entry / exit and sufficient number of windows for ventilation and natural light.
6. Project lab has been provided for the students to carry out their mini and major projects.
7. Cup-boards are available in each lab for students to place their belongings.
8. Each lab is equipped with white board, multimedia projector, computer, Internet, and other amenities.
9. The laboratories are facilitated with proper air conditioning systems.
10. All labs are supported by Uninterrupted Power Supply which ensures that all laboratory slots are utilized effectively. Separate rooms are allotted for maintaining UPS and batteries.

The technical supporting staff (Teaching) of our Information Technology department is shown in Table

**Technical Supporting Staff (Teaching)**

S. No	Name of the Faculty	Designation	Qualification	Name of the Laboratory
1.	Mrs. B.Sowjanya	Assistant professor	Mtech	Computer Networks Lab
2.	Mr. P.Srinivas	Assistant professor	Mtech	Advanced Data Structures Lab Cryptography and Network Security
3.	Mrs.G.Sravani Latha	Assistant professor	Mtech	FOSS Lab UML Lab Advanced Unix Programming

4.	Mrs. P.Nalini	Assistant professor	Mtech	Database Management Systems Java Programming Lab Machine Learning Lab
5.	Mrs. G.Usha	Assistant professor	MTech	Python with Django Lab
6.	Mrs .N.Meghana	Assistant professor	Mtech	Big data Analytics Lab
7.	Mrs. M.Anusha	Assistant professor	MTech	Operating Systems Lab

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**6.4 Project laboratories (5)**

Total Marks 5.00



Lab	Facilities	Utilization	Utilization in Hrs
<b>Basic Programming Lab</b>	IBM LENOVO Think Centre model (8985 Az7) Pentium @D CPU 2.80GHzProcessor 800 MHZ FSB3GB DDR2 RAM.160GB SATA HDD.17" TFT colour, Monitor, DVD Writer <b>Open Source Software</b> Turbo C,DevC++,Adobe Reader, NetBeans with Java1.8.0, MySQL plus- Python3.6.7, Wireshark, Tableau, Cisco Pocket Tracer, JFlap, Logisim, RStudio	UG students PG students Research Scholars Faculty members Students/Faculty members use this lab to do their mini projects, projects and research activities.	24 hrs per week
<b>Advanced Computing Lab 1</b>	HP 280 G2, MT Intel Core TM i5-6500 Cpu@3.20GHz (mailto:Cpu@3.20GHz) 8GB DDR4 1TB HDD 19" LED Monitor DVD Writer <b>Open Source Software</b> Apache Spark, Tableau, RStudio	UG students PG students Research Scholars Faculty members Students/Faculty members use this lab to do their mini projects, projects and research activities.	20 hrs per week
<b>Advanced Computing Lab2</b>	HP 280 G2, MT Intel Core TM i5-6500 Cpu@3.20GHz (mailto:Cpu@3.20GHz) 8GB DDR4 1TB HDD 19" LED Monitor DVD Writer <b>Open Source Software</b> Apache Spark, Tableau, RStudio	UG students PG students Research Scholars Faculty members Students/Faculty members use this lab to do their mini projects, projects and research activities.	20 hrs per week
<b>Advanced computing lab-3</b>	HP 280 G2, MT Intel Core TM i5-6500 Cpu@3.20GHz (mailto:Cpu@3.20GHz) 8GB DDR4 1TB HDD 19" LED Monitor DVD Writer <b>Open Source Software</b> Apache Spark, Tableau, RStudio	UG students PG students Research Scholars Faculty members Students/Faculty members use this lab to do their mini projects, projects and research activities.	20 hrs per week
<b>Networks lab</b>	Intel i7, 16 GB RAM, 1 TB HDD, MS Windows 10, Keyboard, Optical Mouse	UG students PG students Research Scholars Faculty members Students/Faculty members use this lab to do their mini projects, projects and research activities.	20 hrs per week
<b>Projects Lab</b>	Arduino UNO R3 Development Board	UG students PG students Research Scholars Faculty members Students/Faculty members use this lab to do their mini projects, projects and research activities.	20 hrs per week

S.No.	Team No.	Roll No.	Name of the student	Name of the Guide	Title of the Project
1		21KP1A1243	SANGA BHARGAVI		
2		21KP1A1251	TALARI ABINAY KUMAR		AI MODELS FOR FRAUD DETECTION IN FINANCIAL SECTOR
3	1	21KP1A1227	MUDIMELAPU. PAVAN KUMAR REDDY	E.Nagarjuna	
4		21KP1A1258	VELLELA VENKATESWARA RAO		
6	2	21KP1A1202	UDAY KIRAN	G.Srividya	BUILDING AI MODELS FOR INTERACTING ART AND MUSIC GENERATOR
7		21KP1A1216	SRAVAN KUMAR		
8		21KP1A1213	SNEHA LATHA		

9	21KP1A1259	SNEHA LATHA		
11	21KP1A1218	G.SUSMITHA		
12	21KP1A1206	CH.VENU BABU	P.Srinivas	ML USING REAL TIME OBJECT
13	3 21KP1A1260	V.SWATHI	Reddy	DETECTION
14	21KP1A1257	V.PRAMOD		
15	21KP1A1254	THIMMISETTY MADHU PRIYA		
16	21KP1A1232	PATHELLA ARAVIND SWAMI	K.Jagan	AI FOR SMART HOME AUTOMATION
17	4 21KP1A1240	PULLALACHERUVU BRAHMAIAH	Mohan	SYSTEMS
18	21KP1A1217	GOLLA RAMA SUBBAMMA TEJA SRI		
19	21KP1A1256	V LAKSHMI		
20	21KP1A1212	D MANIKANTA		SMART IRRIGATION SYSTEMS USING
21	5 21KP1A1225	M SURENDRA	B.Sowjanya	AI POWERED SENSORS
	21KP1A1244	SK HASSIAN		
23	21KP1A1255	THUMMURU GAYATHRI		
24	21KP1A1208	DASARI PURUSHOTTAM DEEPAK	D.Devika	AI-POWERED PLATFORM FOR
25	21KP1A1245	SHAIK IMAMBI		REMOTE WORK COLLABORATION
26	21KP1A1246	SHAIK MOHAMMAD AHMED		
27	21KP1A1226	M.RAVINDRA		
28	21KP1A1211	D.SRINIVAS		
29	7 21KP1A1235 21KP1A1205	P.RAKESH	Ch.Usha	PREDICTING WEATHER CONDITIONS
	21KP1A1241	CH.LAHARI		USING ML AND HISTORICAL DATA
31	21KP1A1201	PUSHADAPU LASYA SRI		
32	8 21KP1A1231	AINALA LAKSHMI SAMRAJYAM PATHAN YASIN KHAN	A.Purnima	ML POWERED RISK ASSESSMENT FOR
33				HEALTHCARE APPLICATIONS
34	21KP1A1230	NALLABOTHULA NAGARAJU		
35	9 21KP1A1223	KASARAGADDA VENKATA NAVYA SRI	P.Srinivas	AI DRIVEN SENTIMENTAL ANALYSIS OF
				SOCIAL MEDIA TRENDS
36	21KP1A1248	SHAIK SHABANA		
37	21KP1A1238	POLANA LAKSHMI SRIKANTH		

38	21KP1A1220	GURRAM SWATHI DURGA
39	21KP1A1236	PENTELA MADHULATHA
40	21KP1A1234	PATTI HARIBABU
10		G.Sravani Latha AI POWERED NEWS SUMMARIZER
41	21KP1A1209	DAVULURI HARIKA
42	21KP1A1253	TANNERU GANESH KUMAR
43	21KP1A1252	TALUCHURI PREETHI PADMAVATHI
44	21KP1A1239	PULICHARLA RISHI KUMAR
11	21KP1A1228	K.Gayatri AI BASED SOLUTIONS FOR URBAN TRAFFIC MANAGEMENT
45		MUNDRU MAHESH
46	21KP1A1233	PATHI ADARSH
47	21KP1A1229	MUPPIDI DAYASAGAR
48	12 21KP1A1215	K.Triveni Deepthi ML FOR ENHANCED CYBERSECURITY IN NETWORK SYSTEMS
49	21KP1A1224	KOTA RAMU

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

Total Marks 10.00

Institute Marks : 10.00



Sr. No	Laboratory Name	Safety Measures
1	Basic Programming Lab	<p>Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. Proper earthing has been done for all Electrical Equipment. Maintain a clean and organized laboratory. Avoiding the use of cell phones. Appropriate storage areas Permission denied for pen drives. Sign the log-out register before leaving the lab.</p> <p>Computers should be turned off properly before leaving the lab. Students must remove their footwear before entering to the lab. The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).</p>
2	Networks Lab	<p>Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. Proper earthing has been done for all Electrical Equipment. Maintain a clean and organized laboratory. Avoiding the use of cell phones. Appropriate storage areas Permission denied for pen drives. Sign the log-out register before leaving the lab.</p> <p>Computers should be turned off properly before leaving the lab. Students must remove their footwear before entering to the lab. The student must check the computer unit and its Peripherals attached before using it.</p>
3	Advanced Computing Lab1	<p>Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. Proper earthing has been done for all Electrical Equipment. Maintain a clean and organized laboratory. Avoiding the use of cell phones. Appropriate storage areas Permission denied for pen drives. Sign the log-out register before leaving the lab.</p> <p>Computers should be turned off properly before leaving the lab. Students must remove their footwear before entering to the lab. The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).</p>
4	Advanced Computing Lab2	<p>Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. Proper earthing has been done for all Electrical Equipment. Maintain a clean and organized laboratory. Avoiding the use of cell phones. Appropriate storage areas Permission denied for pen drives. Sign the log-out register before leaving the lab.</p> <p>Computers should be turned off properly before leaving the lab. Students must remove their footwear before entering to the lab. The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).</p>

5	Advanced Computing Lab3	<p>Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. Proper earthing has been done for all Electrical Equipment. Maintain a clean and organized laboratory. Avoiding the use of cell phones. Appropriate storage areas Permission denied for pen drives. Sign the log-out register before leaving the lab.</p> <p>Computers should be turned off properly before leaving the lab. Students must remove their footwear before entering to the lab. The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).</p>
6	Projects Lab	<p>Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. Proper earthing has been done for all Electrical Equipment. Maintain a clean and organized laboratory. Avoiding the use of cell phones. Appropriate storage areas Permission denied for pen drives. Sign the log-out register before leaving the lab.</p> <p>Computers should be turned off properly before leaving the lab. Students must remove their footwear before entering to the lab. The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).</p>

**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	1.80	2.32	Target is achieved However, there is a scope for improvement in the following subjects:C113(Basic Electrical and Electronics Engineering), C114(Engineering Graphics), C115(Introduction to Programming), C119(Computer Programming Lab):  Action 1: Implementation of circuit connections in class and labs (C113). Action 2: Pre requisites are explained before starting the syllabus (C114). Action 3: Practice the programs and discussed in the classroom (C115). Action 4: Senior faculty has been mentoring the concerned faculty and students continuously (C119).
<b>PO 2 : Problem Analysis</b>			
PO 2	1.80	2.10	Target is achieved However, there is a scope for improvement in the following subjects : C111(Engineering Physics), C112(Linear Algebra And Calculus) :  Action 1: Students are instructed to practice more number of problems (C111). Action 2: Students are advised to understand more number of concepts(C112).
<b>PO 3 : Design/development of Solutions</b>			
PO 3	1.80	2.08	Target is achieved However, there is a scope for improvement in the following subjects : C122(Chemistry) , C121(Communicative English), C123(Differential Equations & Vector Calculus):  Action 1: Students are explained about the specific principle and application to solve the given problems (C122). Action 2: Students are advised to learn grammar and basic concepts (C121) . Action 3: Students are Practice to improve problems skills while solving equations (C123).
<b>PO 4 : Conduct Investigations of Complex Problems</b>			
PO 4	1.80	1.99	Target is achieved However, there is a scope for improvement in the following subjects : C213(Operating Systems) , C215(Discrete Mathematics & Graph Theory),C224(JAVA):  Action 1: Students are instructed to practice different algorithms and understand the concepts (C213). Action 2: Students are guided to apply discrete mathematical concepts and graph theory. (C215). Action 3: Practice more number of programs and understand logics behind them (C224).
<b>PO 5 : Modern Tool Usage</b>			
PO 5	1.80	2.03	Target is achieved However, there is a scope for improvement in the following subjects: C311(Computer Networks), C313(Digital Logic and Design), C416(Universal Human Values).  Action 1: Students are encouraged to analyse and simulate network protocols to investigate and interpret complex communication problems(C311). Action 2: Students are guided to design and test logic circuits for analyzing and solving complex problems(C313). Action 3: Students participate in workshops, guest lectures and seminars through which continuous learning options are available(C416).
<b>PO 6 : The Engineer and Society</b>			
PO 6	1.80	1.57	Low attainment value is Observed Due to the lower attainment in few courses such as: C112(Linear Algebra And Calculus), C214(Data Base Management Systems):  Action 1: Students are advised to understand more number of concepts(C112). Action 2: Conduct extra problem-solving sessions on SQL queries and normalization(C214).
<b>PO 7 : Environment and Sustainability</b>			
PO 7	1.80	1.35	Low attainment value is Observed However, there is a scope for improvement in the following subjects : C111 (Engineering Physics),C211(Mathematics-III) :  Action 1: Conduct lab-based sessions to strengthen practical applications of physics concepts (C111). Action 2: Strengthen problem-solving skills through additional tutorials and practice sessions(C211).
<b>PO 8 : Ethics</b>			
PO 8	1.80	1.53	Low attainment value is Observed Due to the lower attainment in few courses such as : C124(Basic Civil and Mechanical Engineering) , C222(Principles of Software Engineering).  Action 1: Reinforce fundamentals through practical demonstrations and model-based learning(C124). Action 2: Strengthen software development skills through case studies and mini-projects(C222).
<b>PO 9 : Individual and Team Work</b>			
PO 9	1.80	1.63	Low attainment value is Observed Due to the lower attainment in few courses such as : C125 (Data Structures) , C212(C+ +),C225(Managerial Economics and Financial Accountancy):  Action 1: Improve problem-solving by implementing algorithms in lab sessions (C125). Action 2: Strengthen coding skills through hands-on practice and mini-projects (C212). Action 3: Relate concepts to real-time case studies and business applications (C225).
<b>PO 10 : Communication</b>			
PO 10	1.80	1.89	Target is not achieved There is a scope for improvement in the following courses : C211(Statistics With R),C313(Data Mining Techniques) , C322(Big Data Analytics).  Action 1: Enhance analytical skills through R-based statistical projects (C211). Action 2: Strengthen practical knowledge by applying algorithms on real datasets (C313). Action 3: Encourage hands-on practice with big data tools and case studies (C322).
<b>PO 11 : Project Management and Finance</b>			
PO 11	1.80	1.65	Low attainment value is Observed Due to the lower attainment in few courses such as: C223(Automata Theory and Compiler Design),C226(Unified Model Language Lab)  Action 1: Reinforce design concepts through case studies and UML tool-based modelling (C223). Action 2: Strengthen understanding with problem-solving and simulation exercises(C226).
<b>PO 12 : Life-long Learning</b>			

PO 12	1.80	1.71	Target is not achieved There is a scope for improvement in the following: C315(Advanced Unix Programming ), C321(Machine Learning),C411(Cloud Computing)
Action 1: Implement and manage processes, threads, file systems, and inter-process communication in Unix/Linux (C315). Action 2: Develop predictive models using algorithms like regression, classification, and clustering (C321). Action 3 : Design, deploy, and manage applications on cloud platforms with scalability and security(C411).			

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

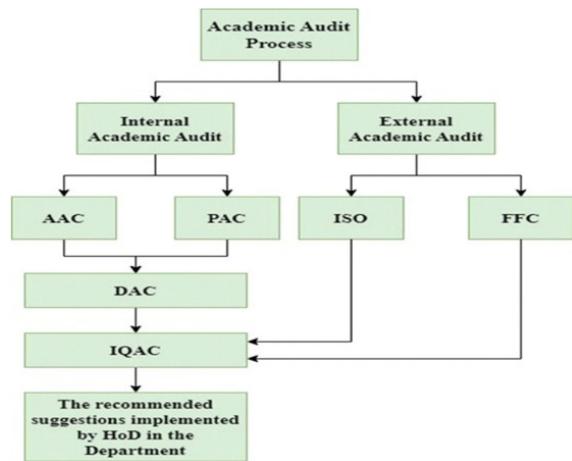
PSOs	Target Level	Attainment Level	Observations
<b>PSO 1 : model and develop efficient algorithms and software applications as safe and secure Information Technology Solutions.</b>			
PSO 1	1.80	2.44	Target is achieved However, there is a scope for betterment in few courses such as: C122 (Chemistry), C325(Internet Of Things),C415(Data Communication):
Action 1: Analyze chemical reactions, properties, and laboratory experiments(C122). Action 2: Design and implement connected IoT devices and sensor networks (C325). Action 3: Understand and apply principles of networking, protocols, and data transmission(C415).			
<b>PSO 2 : employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur and a zest for higher studies/employability in the field of Information Technology.</b>			
PSO 2	1.80	2.26	Target is achieved There is a scope for improvement in the following subjects : C121(Communicative English),C325(Digital Logic and Design).
Action 1: Develop effective speaking, listening, reading, and writing skills for professional and everyday communication(121). Action 2: Design and analyze digital circuits using logic gates, flip-flops, and combinational/sequential systems (C325).			
<b>PSO 3</b>			
PSO 3	0	0	0
0			Total Marks 10.00

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

Total Marks 10.00



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.



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> • Head of the Department • Attendance Coordinator • Feedback coordinator • Examination Coordinator • Faculty activities and R& D Coordinator • Project Coordinator • Student Mentoring Coordinator • Training and Placement Coordinator • IQAC Department Coordinator • Student activities Coordinator	<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>Mr. P. Srinivas Reddy Palle <i>Head of the Department</i></p> <p>Mr. E. Nagarjuna <i>Associate Professor</i></p> <p>Mrs.G. Sri Vidhya <i>Associate Professor</i></p> <p>Mr.K. Subramanyam, Proprietor, Kumar Pumps, <i>Industry person</i></p> <p>Mrs. M. Anusha <i>Alumni</i></p>	<ul style="list-style-type: none"><li>• Advised faculty to publish one Scopus Indexed paper for every 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> <ul style="list-style-type: none"><li>• Management is encouraging faculty members to publish papers in reputed journals to improve their number of publications for the subsequent academic years.</li><li>• Faculty are advised to take part in AICTE sponsored FDPs, STTPs organized by other premier institutes, and do NPTEL certifications.</li><li>• Students are encouraged to participate in inter institute level events.</li><li>• Faculty members are advised to motivate students to pursue higher education.</li><li>• Planned to conduct Workshops, Guest lectures on recent trends in technology in this semester.</li></ul>
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2	<b>Program Assessment Committee (PAC)</b>	<p>Mr. P. Srinivas Reddy Palle Head of the Department</p> <p>Mrs. Purinima Anupu reddy Attendance Coordinator</p> <p>Mrs. Ch. Usha Feedback coordinator</p> <p>Mr.M.Mallikarjunrao Examination Coordinator</p> <p>Mrs.G.Srividya R&amp;D Coordinator</p> <p>Mr. E. Nagarjuna Project Coordinator</p> <p>Mrs.D.Devika Student Mentoring Coordinator</p> <p>Ms. Triveni Deepthi T&amp;P Coordinator</p> <p>Mr.P.Srinivas reddy palle IQAC Department Coordinator</p> <p>Mrs. D. Devika Student activities Coordinator</p>	<ul style="list-style-type: none"> <li>• Quality Improvement of question paper and scheme of valuation according to Blooms taxonomy</li> <li>• New online methods for teaching must be adapted</li> <li>• Faculty must focus on the creation of e-content</li> <li>• Additional experiments should be included beyond the syllabus</li> <li>• Interaction with students with less online attendance should be continuous.</li> <li>• Programs beyond the syllabus must be explained</li> </ul>	<ul style="list-style-type: none"> <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 glass boards while teaching online.</li> <li>• For core programming courses, extra lab hours and programs beyond the syllabus are explained.</li> </ul>

Table 7.2.2: Actions on audit committee reports for Assessment year CAYm2

S.No	Academic Audit Committee	Committee members	Major findings/ Suggestions	Corrective actions
1.	Department Advisory Committee (DAC)	Mr. K. Jagan Mohan Head of the Department  Mr.E.Nagarjuna Associate Professor  Mrs. G. Sri vidya Associate Professor  Mr.K. Subramanyam, Proprietor, Kumar Pumps, Industry person  Mr. M. Anusha Alumni	<ul style="list-style-type: none"> <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>• Teaching methods learned during the FDP attended by a few faculty members have been implemented in the classroom.</li> <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>• The Department of CSE is planning to conduct a One week FDP on Advancements in machine learning.</li> </ul>

2 <b>Program Assessment Committee (PAC)</b>	Mr. K. Jagan Mohan Head of the Department		
	Mrs. G. Sravanilatha Attendance Coordinator		
	Mrs. Ch. Usha Feedback coordinator		
	Mr.M.Mallikarjunrao Examination Coordinator	<ul style="list-style-type: none"> <li>• Remedial classes should be conducted for Students with backlogs.</li> </ul>	
	Mrs.G.Srividya R&D Coordinator	<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> </ul>	<ul style="list-style-type: none"> <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> </ul>
	Mr. E. Nagarjuna Project Coordinator	<ul style="list-style-type: none"> <li>• Some of Software in the labs must be updated</li> <li>• Lack of participation in CRT training classes More number of projects should be on the latest technologies like IoT etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Labs 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. Project Guides and the students are advised to do projects adapting new technologies</li> </ul>
	Mr.P.Srinivas Student Mentoring Coordinator		
	Ms. Triveni Deepthi T&P Coordinator		
	Mr. K. Jagan Mohan IQAC Department Coordinator		
	Mrs.D.Devika Student activities Coordinator		

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

<b>Department Advisory Committee (DAC)</b>	Mrs. B. Sowjanya Head of the Department		
	Mrs.G.Sridhya Associate Professor	<ul style="list-style-type: none"><li>• Advised faculty to publish one Scopus Indexed paper for every Semester.</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></ul>
	Mr.E.Nagarjuna Associate Professor	<ul style="list-style-type: none"><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></ul>	<ul style="list-style-type: none"><li>• Feedback from the students who attended remedial classes are considered.</li><li>• Faculty are advised to attend FDPs in reputed Institutes . certification</li></ul>
	Mr.K. Subramanyam, Proprietor, Kumar Pumps, Industry person	<ul style="list-style-type: none"><li>• Faculty members are advised to take professional body memberships.</li></ul>	<ul style="list-style-type: none"><li>• Faculty and students are advised to take Professional body memberships.</li></ul>
	Mrs.M.Anusha Alumni		

2.	Mrs. B. Sowjanya Head of the Department		
	Mrs.G.Sravanilatha Attendance Coordinator		
	Mrs. Ch. Usha Feedback coordinator		
	Mr.M.Mallikarjunrao Examination Coordinator	<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> </ul>	<ul style="list-style-type: none"> <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> </ul>
	Mrs.G.Sridhya R&D Coordinator	<ul style="list-style-type: none"> <li>• Quality Improvement of question paper and scheme of valuation according to Blooms taxonomy</li> <li>• Lab manuals must be updated</li> </ul>	<ul style="list-style-type: none"> <li>• Lab In charges are instructed to update Lab manuals as per new regulation and to encourage the usage of open-source software</li> <li>• Additional experiments are planned for Python and ML labs</li> </ul>
	Mr. E. Nagarjuna Project Coordinator	<ul style="list-style-type: none"> <li>• License and open-source software should be more in the lab.</li> <li>• Additional experiments should be included beyond the syllabus</li> </ul>	<ul style="list-style-type: none"> <li>• Mentors are in contact with students and their parents.</li> </ul>
	Mr.P.Srinivas Student Mentoring coordinator	<ul style="list-style-type: none"> <li>• Frequent monitoring on the students with less attendance should be done</li> </ul>	
	Ms. Triveni Deepthi T&P Coordinator		
	Mrs. B. Sowjanya IQAC Department Coordinator		
	Mrs. D. Devika Student activities Coordinator		

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

<b>2024-25</b> <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>• 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>
<b>2023-24</b> <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>• Guest Lectures are organized to fill the curriculum gaps</li> <li>• Remedial classes are provided to slow learners.</li> <li>• Student participation in coding challenges is improved</li> </ul>
<b>2022-23</b> <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>• Faculty participation in AICTE sponsored FDPs, Coursera certifications are improved</li> </ul>

Table 7.2.5: Audit committee actions- Continuous improvement

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

Total Marks 10.00

Institute Marks : 10.00

- **Placement:** Number, quality of placement, core industry, Pay package etc.
- **Higher studies:** Performance in **GATE, GRE, GMAT, CAT** etc , and admissions in premier institutions
- **Entrepreneurs.**

Batch	2024-2025 (CAY)	2023-2024 (CAYm1)	2022-23 (CAY)
Total No. of Final Year Students (N)	47	47	C
No. of students placed in companies or Government Sector (X)	33	32	C
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (Y)	6	6	0
No. of students turned entrepreneur in engineering/technology (Z)	0	0	0
Placement index : ( X+Y+Z ) / N	39	38	0
Average placement in percentage = $(P1+P2+P3)/3 \times 100$		81%	

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
	Opening Score/Rank	0	0
	Closing Score/Rank	0	0
State/ University/ Level Entrance Examination/ Others EAMCET	No of students admitted	100	45
	Opening Score/Rank	54946	32933
	Closing Score/Rank	177875	150121
Name of the Entrance Examination for Lateral Entry or lateral entry details ECET	No of students admitted	3	0
	Opening Score/Rank	5075	0
	Closing Score/Rank	8177	0
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)	85	80	75

**8 FIRST YEAR ACADEMICS (50)**

Total Marks 45.23

**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
B.NAGAMANI	CHVPB8471N	M.Sc	07/10/2016	MATHEMATICS	Assistant Professor	30/06/2023	100	100	0	Yes	Regular	
G.SURESH	AMAPG0946M	M.Sc	22/01/2005	MATHEMATICS	Assistant Professor	27/11/2021	100	100	100	Yes	Regular	
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	
Y.RAJYALAKS	CAAPR6697C	M.Sc	18/04/2011	MATHEMATICS	Assistant Professor	04/06/2022	100	100	100	Yes	Regular	
M.KALYANI	GHZPM4947L	M.Sc	17/07/2015	MATHEMATICS	Assistant Professor	28/10/2022	100	100	0	Yes	Regular	
J.SUNIL GOW	BIZPJ4761M	M.Sc	10/08/2021	MATHEMATICS	Assistant Professor	01/04/2022	0	0	100	No	Regular	30/05/2023
K.SRI NAGAV/	CSVPV0592C	M.Sc	06/04/2018	MATHEMATICS	Assistant Professor	01/06/2024	100	0	0	Yes	Regular	
J.BRAMARAM	AOZPJ1480L	M.Sc	31/07/2008	PHYSICS	Assistant Professor	08/11/2021	100	100	100	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.NAGA LAKS	EAMPG0472E	M.Sc	17/04/2017	PHYSICS	Assistant Professor	10/07/2023	100	100	0	Yes	Regular	
P.BHIKSHALU	DWNPP8224F	M.Sc	01/04/2022	CHEMISTRY	Assistant Professor	26/05/2022	100	100	100	Yes	Regular	
V.NAGARANI	ADJP08651M	M.Sc	20/08/2021	CHEMISTRY	Assistant Professor	26/05/2022	0	100	100	No	Regular	03/08/2024
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	
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

CH.ANUSHA	AKKPC8107C	M.Sc	19/01/2011	CHEMISTRY	Assistant Professor	01/04/2015	100   100   100	Yes	Regular		
Dr.P.RAVICHAI	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		
G.RAMAKOTE	ASEPG3588M	MA	15/07/2009	ENGLISH	Assistant Professor	03/06/2013	0   0   100	No	Regular		15/06/2023
V.GOVARDHAI	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		
Y.SRINIVASAR	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	AMTPPT1158M	M.Tech	14/03/2017	ELECTRICAL AND ELECTRONICS ENGINEERING	Assistant Professor	11/12/2019	100   100   100	Yes	Regular		
J.NANCYNAMI	ALHPJ5030D	M.Tech	26/07/2012	ELECTRICAL AND ELECTRONICS ENGINEERING	Assistant Professor	11/12/2019	100   100   100	No	Regular		16/06/2025
T.NAGABHARI	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.GAYATHRI	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.MEDASRIMF	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	DDRPM3350J	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.ANJANEYUL	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 KU	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	
DR.SK.MUNTA	EFPPS9216L	M.Sc. (Physics) and Ph.D.	18/02/2020	PHYSICS	Associate Professor	01/06/2022	100 100 100	Yes	Regular	
Dr.M.PANDU	CEBPM7354E	Ph.D	18/03/2016	LIBRARIAN	Associate Professor	20/07/2022	0 100 100	No	Regular	02/07/2024
CH.VISVANATI	BRVPC1435L	M.P.Ed	07/02/2022	PD	Assistant Professor	01/04/2022	0 100 100	No	Regular	01/06/2024

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>	<b>822</b>	<b>55</b>	<b>14</b>	<b>5</b>

## 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 5.90

Institute Marks : 5.90

Academic Performance	2024-25	2023-24	2022-23
Mean of CGPA or mean percentage of all successful students(X)	6.56	5.65	5.89
Total Number of successful students(Y)	60.00	58.00	58.00
Total Number of students appeared in the examination(Z)	60.00	60.00	60.00
API [X*(Y/Z)]	6.56	5.46	5.69

Average API[ (AP1+AP2+AP3)/3 ] : 5.90

Assessment [ 1.5 \* Average API] : 5.90

#### 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:
  - Performance of the students in the CIE examinations.
  - 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 %)

Assessment tool	Maximum marks
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

Assessment tool	Maximum marks
Continuous evaluation	15
Internal Lab exam	15
End Semester lab exam	70

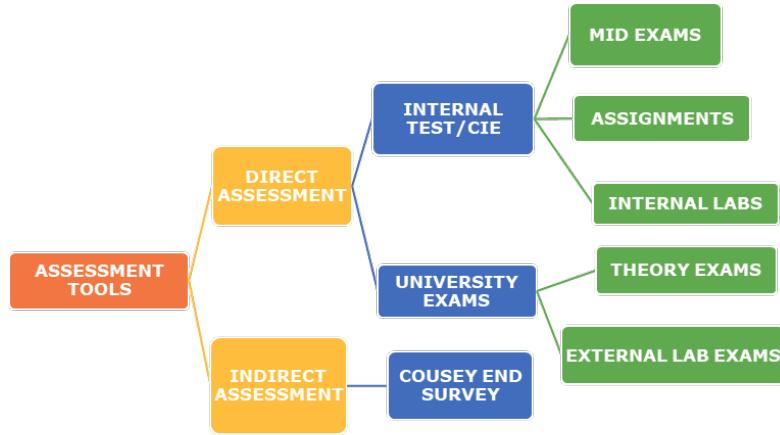
**Indirect Assessment process**

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]

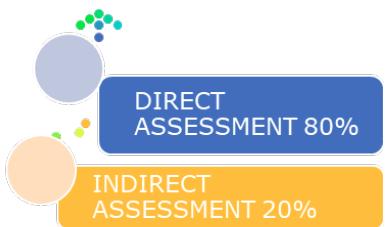


Table 8.4.1.1. List of assessment tools used for measure CO.

SN	Name of assessment tool	Weightage	Frequency of data collection
1	Direct assessment tools	80%	End of semester
			End of semester
2	Indirect assessment tools	20%	End of semester

8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Institute Marks : 5.00

**Table 8.4.2.1.** Target & attainment levels of COs of 1<sup>st</sup> year courses-year 2023-2024

COURSE CODE	CO1 AL	CO2 AL	CO3 AL	CO4 AL	CO5 AL	CO6 AL
C111	2.13	2.10	2.29	2.26	2.19	
C112	2.03	1.99	2.29	2.32	2.31	
C113	1.46	1.47	1.42	1.75	1.75	1.69
C114	1.75	1.50	1.62	1.51	1.51	
C115	1.56	1.59	1.75	1.75	1.76	
C116	2.89	2.90	2.92	2.90	2.92	
C117	2.89	2.90	2.92	2.90	2.92	
C118	2.89	2.90	2.92	2.89	2.92	
C119	2.89	2.90	2.92	2.90		
C121	2.59	2.55	2.81	2.84	2.79	
C122	2.09	2.07	2.29	2.32	2.31	
C123	2.17	2.11	2.06	2.14	2.14	
C124	2.63	2.53	2.51	2.77	2.74	2.75
C125	2.10	2.04	2.18	2.21	2.20	
C126	2.89	2.90	2.92	2.90	2.92	
C127	2.89	2.90	2.92	2.90	2.92	
C128	2.89	2.90	2.92	2.90		
C129	2.89	2.90	2.92	2.90	2.92	

**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:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111	2.19	0.73	1.46	1.46	0	0.73	0	0	0	0	0	0
C112	2.19	1.46	1.46	1.46	1.46	0	0	0	0	0	0	0
C113	1.59	1.46	1.27	1.06	1.59	1.33	1.06	1.06	1.06	1.33	1.06	1.59
C114	1.58	1.16	0.95	0.74	0.95	0.53	0.11	1.05	1.05	0.63	0.53	1.16
C115	0.90	1.46	1.12	1.68	1.35	0.56	0.56	0.67	0.67	0.56	1.68	0.56
C116	2.32	2.42	1.94	1.94	2.42	1.69	0	1.94	2.42	1.45	1.94	0
C117	1.94	0.97	1.94	2.91	0	0	0	0	0.97	0	0	0.97
C118	2.71	2.42	2.26	1.94	2.52	2.42	1.94	0	1.94	2.18	1.94	2.90
C119	1.69	2.66	1.94	2.90	2.18	0.97	0.97	1.21	0.97	0.97	2.90	0.97
C121	0	0	0	0	0	0	0	0	1.81	2.72	0	1.81
C122	2.07	1.66	1.72	1.72	1.85	0	0.74	0	0	0	0	0.74
C123	2.12	1.70	1.42	0	0	0	0	0	0	0	0	0.71
C124	2.51	1.55	1.77	2.66	2.21	2.07	1.77	0	0	0.89	0.89	1.03
C125	2.15	2.00	1.57	1.57	1.29	0.72	0.72	0.72	0.72	0.72	0.72	1.43
C126	0	0	0	0	0	0	0	0	1.55	2.91	0	1.94
C127	2.91	1.94	0.97	1.94	0	1.94	0	0	1.36	0	0.97	0
C128	2.90	1.94	0.97	0.97	0	0	0	0	0	0	0	1.94
C129	2.71	2.91	2.32	2.13	2.13	0.97	0.97	0.97	0.97	2.91	2.91	1.74

## PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.16	1.78	1.57	1.81	1.81	1.27	0.98	1.09	1.29	1.57	1.55	1.39
CO Attainment	2.16	1.78	1.57	1.81	1.81	1.27	0.98	1.09	1.29	1.57	1.55	1.39

## PSOs Attainment:

Course	PSO1	PSO2
C115	1.68	1.26
C116	1.16	0.97
C119	2.90	2.26
C125	2.15	1.86
C129	2.52	2.18
PSO Attainment	2.08	1.71

## PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	2.08	1.71

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	1.80	2.16	Target attained. However, there is a scope for improvement in the following subjects-C114(Engineering graphics) C115 (C-Programming)
Action-1: Encourage students to practice 2Dand 3D drawing using CAD tools for better visualization skills (C114) Action-2: Daily practice of coding problems. (C115)			
<b>PO 2 : Problem Analysis</b>			
PO 2	1.80	1.78	Target not attained. Due to the lower attainment in few courses such as- 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	1.80	1.57	Target not attained. Due to the lower attainment in few courses such as- C114(Engineering graphics) C123 (DEVC)
Action-1: Encourage students to practice 2Dand 3D drawing using CAD tools for better visualization skills (C114) Action-2: Tutorial sessions on simplification techniques. (C123)			
<b>PO 4 : Conduct Investigations of Complex Problems</b>			
PO 4	1.80	1.81	Target attained. However, there is a scope for improvement in the following subjects- C114(Engineering graphics) C125 (Data structures)
Action 1: Providing the fundamentals of the subjects to make easy to understand(C114) Action 2: Weekly coding labs on stacks, queues, linked lists. (C125)			
<b>PO 5 : Modern Tool Usage</b>			
PO 5	1.80	1.81	Target attained. However, there is a scope for improvement in the following subjects-C112(LAC) C125 (Data structures)
Action 1: Plan regular problem-solving sessions. (C112) Action 2: Train students to use modern tools and software for engineering tasks.(C125)			
<b>PO 6 : The Engineer and Society</b>			
PO 6	1.80	1.27	Target not attained. Due to the lower attainment in few courses such as - C114(Engineering graphics) C125 (Data structures)
Action 1: To improve PO attainment value, to improve attainment value, Slip test on projections and isometric drawings. (C114) Action 2: Weekly coding labs on stacks, queues, linked lists. (C125)			
<b>PO 7 : Environment and Sustainability</b>			
PO 7	1.80	0.98	Target not attained. Due to the lower attainment in few courses such as- C114(Engineering graphics) C122(Chemistry)
Action 1: Faculty members encouraged students to make of modern tools in solving problems, Weekly drawing assignments.. (C114) Action 2: Motivate students to apply chemistry concepts in industrial and environmental applications through experiments. (C122)			
<b>PO 8 : Ethics</b>			
PO 8	1.80	1.09	Target not attained. Due to the lower attainment in few courses such as-C115(C-Programming) C125((Data structures))
Action 1: To improve PO attainment value, to improve attainment value, in order to improve attainment value, Daily practice of coding problems. (C115) Action 2: Revision through flowcharts and diagrams. (C125)			
<b>PO 9 : Individual and Team Work</b>			
PO 9	1.80	1.29	Target not attained. Due to the lower attainment in few courses such as- C115(C-Programming) C125(Data structures)
Action 1: To improve PO attainment value, Providing basic concepts and fundamentals in the class. (C115) Action 2: Problem-solving contests. (C125)			
<b>PO 10 : Communication</b>			
PO 10	1.80	1.57	Target not attained. Due to the lower attainment in few courses such as-C119(CP lab) C125(Data structures)
Action 1: To improve PO attainment value, more lab sessions will be given for program practice. (C119) Action 2: Weekly coding labs on stacks, queues, linked lists. (C125)			
<b>PO 11 : Project Management and Finance</b>			
PO 11	1.80	1.55	Target not attained. Due to the lower attainment in few courses such as-C114(Engineering graphics) C125(Data structures)
Action 1: To improve PO attainment value, Train students in project management and working with teams. (C114) Action 2: Introduce real life concepts using DS concepts. (C125)			
<b>PO 12 : Life-long Learning</b>			
PO 12	1.80	1.39	Target not attained. Due to the lower attainment in few courses such as- C119(CP lab) C123(DEVC)
Action 1: To improve PO attainment value, Continuous assessment through record writing and lab exams. (C119) Action 2: Tutorial sessions on simplification techniques. (C123)			

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

PSOs	Target Level	Attainment Level	Observations
<b>PSO 1 : model and develop efficient algorithms and software applications as safe and secure Information Technology Solutions.</b>			
PSO 1	1.80	2.08	Target attained.
<input type="checkbox"/> Action 1: Encourage students to participate in coding competitions.			

9 STUDENT SUPPORT SYSTEMS (50)

Total Marks 50.00

9.1 Mentoring system to help at individual level (5)

Total 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 takes 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
  - Economic Issues
  - Teenage Issues
  - Health Issues
  - Emotional Issues
  - 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

- 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.
- 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

- 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.
- The detailed performance evaluation/results for every assessment will be noted down in the respective student mentoring book.
- If the student/mentee performance is good then she will 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

- 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.
- 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 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 inorder 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	
<b>Academic details</b>	
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?	Academic:
Any awards?	Cultural: Sports:
Any district/state level participations ?	
Languages known?	Read:
What are your hobbies?	Write:
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						
3						
4						

<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>					

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



**Feedback analysis and reward /corrective measures taken**

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		LAB NAME	
<b>FACULTY NAME----→</b>					
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				

**Principal****Calculation of overall Index:****Figure 9.2.2 Illustration of student feedback form on Faculty**

Step-1: Consider all 9 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

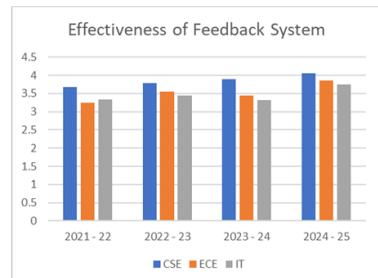
Step-4: Convert into percentage index, Index(%) = Average score / Maximum scale value \* 100

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.

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.



**Figure 9.2.3: Effectiveness of feedback system**

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:**

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 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 be 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

9.3 Feedback on facilities (5)

Total Marks 5.00



#### Feedback on facilities:

##### 1. Feedback collection process:

Feedback on facilities is collected every year through IQAC from the following means:

- a. Student Feedback Form
- b. Parent Feedback Form
- c. 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.

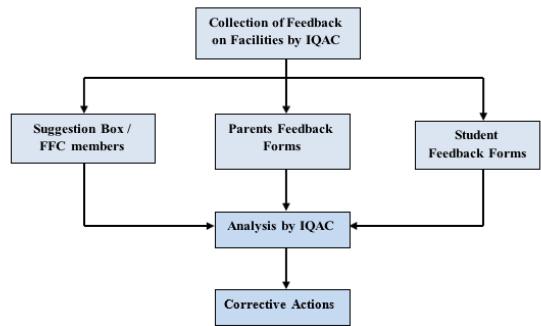


Figure 9.3.1: Illustration of implementation process of feedback on facilities

#### 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
Average		4.22	4.06	4.02	3.83

### 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>		Branch/Section:
<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 College? Yes/No		
4. Is placement training is helpful to you? Yes/No		
5. Has the College contributed in moulding 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>

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.

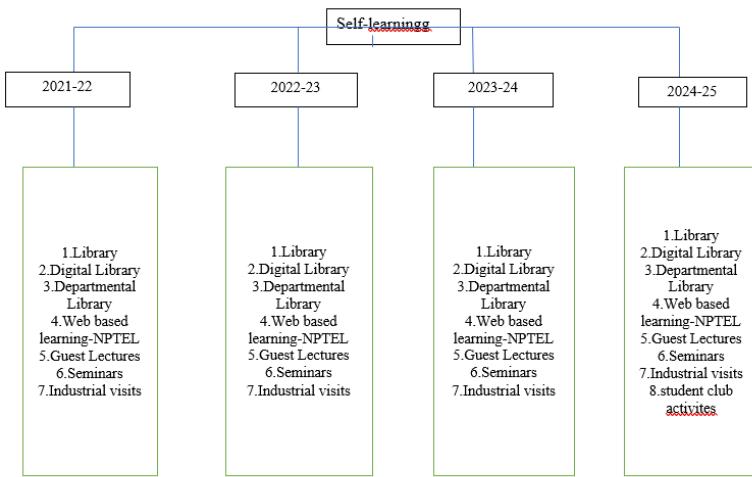
All parent feedback is treated with confidentiality and used as a valuable resource to align institutional practices with stakeholder expectations, fostering a collaborative educational environment.



## 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.	Self – Learning process	Description
No		
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	18747	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	Others	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	100%								
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	IT	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	IT	NPTEL	28	
	4		CISCO	32	
	5		Udemy	10	
	6	CSE	NPTEL	2	
	7		CISCO	62	
2022-23	1	ECE	NPTEL	04	169
	2		CISCO	68	
	3	IT	NPTEL	04	
	4		CISCO	35	
5		CSE	NPTEL	1	

6		CISCO	57	125
1	ECE	CISCO	42	
2		NPTEL	03	
3	IT	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

Effective Utilization			
2024-25	2023-24	2022-23	2021-22
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

S.NO	Type of Event	Academic Year			
		2024-25	2023-24	2022-23	2021-22
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

S.No.	Club Name	Academic Year		
		2024-25	2023-24	2022-23
1	Sports Club	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

S.NO	Club Name	Academic Year			
		2024-25	2023-24	2022-23	2021-22
1	Academic club	2	2	1	1
2	Technical club	2	2	1	1
3	Cultural club	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. CAREER GUIDANCE, TRAINING & PLACEMENTS (10)

### 1. Career Guidance Facilities:

NRIIIT 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 NRIIIT 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, Vijaywada	NRIIT	17-03-2020
6	ELEATION	NRIIT	09-09-2021

**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 Moulali	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

7	GAGAN APPS	NRIIT	19-08-2019	4	17-03-2024	V Dhyana Malika	Kodnest Technologies	Free Training Without stipend
8	TEAM LEASE EDUTECH LTD	NRIIT	09-09-2021	5	24-12-2023	Sashipriya	Codegnan IT Solutions	Free Training Without stipend
9	PANTECH SOLUTIONS PVT LTD	NRIIT	23-09-2021	6	01-05-2024	J Sivasai	Kodnest Technologies	Free Training Without stipend
10	IVIS TECHNOLOGIES	NRIIT	21-07-2022	7	09-03-2023	G Sivasai Kalyan	Suryatech Solutions	10,000
11	SUPRAJA TECHNOLOGIES	NRIIT	05-05-2025	8	09-03-2023	G Ramarao	Suryatech Solutions	10,000
12	UNIVERSITY OF SILICON ANDHRA	NRIIT	30-11-2021	9	12-12-2022	P Raghavendra	Q spiders	Free Training Without stipend
13	SRM UNIVERSITY	NRIIT	07-09-2023	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 Sampoorna	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	134	120	118	88.05
		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



#### **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	Entreneurship 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

#### 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	Typeof Business	Name of the Company and Place
1	Koushik	DS	Gold Shop	
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 to11am

**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!"

A handwritten signature in black ink on a light gray rectangular background.

**Principal**



## 9.7.Co-Curricular and Extra-Curricular Activities

As per our vision, institute constantly beliefs 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 koi 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	OUTDOOR
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 NRIT is very active in organizing awareness rallies and programs to create awareness among the public on environmental relevant issues. NSS unit of NRIT 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 Mammohan 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**

		Academic Year
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S.No.	Event	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 &amp; 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

**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)
	22KP1A0417	Ch.GAYATRI (IV-ECE)
II	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 Jotirmay	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
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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	Participant	UCE
			Smiles		

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**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.

**ARIOS 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. Saidaiah
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. Saidaiah
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

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**10.1.4 Delegation of financial powers (10)**

Institute Marks : 10.00

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 sanctioned in the minutes of the Governing body meeting 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 sanctioned in the minutes of the Governing body meeting held 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.

Petty Cash Utilization					
2022-23		2023-24		2024-25	
Sanctioned Amount	Utilization Amount	Sanctioned Amount	Utilization Amount	Sanctioned Amount	Utilization Amount
Rs.60,000	Rs.55,800	Rs.60,000	Rs.57,750	Rs.60,000	Rs.56,625

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

- . 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/examination.calendars">https://www.nriit.ac.in/examination.calendars</a>
26.	Academic Regulations	<a href="https://www.nriit.ac.in/examination.regulations">https://www.nriit.ac.in/examination.regulations</a>
27.	Course Structures	<a href="https://www.nriit.ac.in/examination.coursestructure">https://www.nriit.ac.in/examination.coursestructure</a>
28.	Exam Time Tables	<a href="https://www.nriit.ac.in/examination.timetables">https://www.nriit.ac.in/examination.timetables</a>

29.	Students Result	<a href="https://www.nriit.ac.in/examination.results">https://www.nriit.ac.in/examination.results</a>	
30.	Admission Details	<a href="https://www.nriit.ac.in/examination.admissions">https://www.nriit.ac.in/examination.admissions</a>	

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**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	Special Projects/Anyother, specify	Expenditure per student
115604700	0	0	942626	126959308	10460643	0	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	Special Projects/Anyother, specify	Expenditure per student
81771900	0	0	823701	103166644	31661493	0	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	Special Projects/Anyother, specify	Expenditure per student
75754700	0	0	848757	80347772	17378375	0	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	Special Projects/Anyother, specify	Expenditure per student
80494155	0	0	737644	57098762	20158527	0	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/1TnliEW0kYh9HbjF6fst6FP83CPilLhfq/view?usp=drive\\_link](https://drive.google.com/file/d/1TnliEW0kYh9HbjF6fst6FP83CPilLhfq/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

1617500		Actual expenditure (till...): 1440000		Total No. Of Students 270
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
847500	770000	805000	635000	5333.33

Table 2 :: CFYm1 2023-24

2210000		Actual expenditure (till...): 2093000		Total No. Of Students 222
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1315000	895000	1250000	843000	9427.93

Table 3 :: CFYm2 2022-23

1758500		Actual expenditure (till...): 1636000		Total No. Of Students 166
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
953500	805000	903000	733000	9855.42

Table 4 :: CFYm3 2021-22

1380000		Actual expenditure (till...): 1326400		Total No. Of Students 109
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
905000	475000	889600	436800	12168.81

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
Laboratory equipment	840000	800000	1140000	1100000	950000	900000	900000	885000
Software	7500	5000	175000	150000	3500	3000	5000	4600
Laboratory consumable	250000	200000	60000	50000	60000	50000	100000	90000
Maintenance and spares	350000	300000	730000	700000	650000	600000	300000	279000
R & D	50000	35000	25000	20000	20000	15000	20000	18000
Training and Travel	100000	85000	70000	65000	65000	60000	50000	45000
	20000	15000	10000	8000	10000	8000	5000	4800
<b>Total</b>	<b>1617500</b>	<b>1440000</b>	<b>2210000</b>	<b>2093000</b>	<b>1758500</b>	<b>1636000</b>	<b>1380000</b>	<b>1326400</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 / Not Adequate
1	2024-25	1617500	1440000	Adequate
2	2023-24	2210000	2093000	Adequate
3	2022-23	1758500	1636000	Adequate
4	2021-22	1380000	1326400	Adequate

- In 2024–25, a budget of ₹16,17,500 lakhs was allocated, and ₹14,40,000 lakhs was spent.
- During 2023–24, the allocation stood at ₹22,10,000 lakhs, with an actual expenditure of ₹20,93,000 lakhs.
- For 2022–23, ₹17,58,500 lakhs were allocated, and ₹16,36,000 lakhs were utilized.
- In the year 2021–22, the budget was ₹13,80,000 lakhs, and the spending reached ₹13,26,400 lakhs.
- Across all four years, the expenditures remained close to the allocated budgets, indicating effective financial planning and utilization.

#### 10.3.2 Utilization of allocated funds (20)

Institute Marks : 20.00

Sl. No.	Assessment Year	Budget Allocated in Lakhs	Actual Expenditure in Lakhs	% Utilized
1	2024-25	1617500	1440000	89 %
2	2023-24	2210000	2093000	95 %
3	2022-23	1758500	1636000	93 %
4	2021-22	1380000	1326400	96 %

- 2021-22:** With 96% utilization, almost the entire budget of ₹13.8 lakh crores was effectively spent.
- 2022-23:** Out of ₹17.58 lakh crores allocated, ₹16.36 lakh crores was utilized, achieving a strong 93% utilization rate.
- 2023-24:** Budget allocation rose to ₹22.1 lakh crores, with ₹20.93 lakh crores spent, reflecting a high 95% utilization.
- 2024-25:** Utilization dipped to 89%, as only ₹14.4 lakh crores were spent from the ₹16.17 lakh crores allocated.

**Conclusion:** Overall, utilization has consistently remained above 90% in previous years, though 2024-25 shows a slight decline, indicating room for improvement in fund absorption.

#### 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>
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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: <a href="mailto:grsailaja123@gmail.com">grsailaja123@gmail.com</a> (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



**10.4.2 Internet (10)**

Institute Marks : 10.00

Name of the Internet provider	BSNL & 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 labs, classrooms, library and offices of all Department
Security arrangements	Mikrotek CCR 1007 Cloud Rutter with firewall and Hot spot

**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	model and develop efficient algorithms and software applications as safe and secure Information Technology Solutions.
PSO2	employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur and a zest for higher studies/employability in the field of Information Technology.

## 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 19:20:04