# A.M. Reddy Memorial College of Engineering and Technology

## Computer Science and Engineering

# Part A : Institutional Information

**1 Name and Address of the Institution**

A.M. Reddy Memorial College of Engineering and Technology,
Vinukonada Road, Petlurivaripalem, Narasaraopet

**2 Name and Address of Affiliating University**

Jawaharlal Nehru Technological University Kakinada

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

2007

**4 Type of the Institution:**

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

**5 Ownership Status:**

| | |
|---|---|
| ☐ Central Government | ☐ Trust |
| ☐ State Government | ☑ Society |
| ☐ Government Aided | ☐ Section 25 Company |
| ☑ Self financing | ☐ 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 |
|---|---|---|---|
| A.M. Reddy Memorial College of Pharmacy | 2004 | B. Pharmacy, M.Pharmacy | Vinukonda Road Petlurivaripelam, Narasaraopet, Palnadu Dist, Andhra Pradesh- 522601 |

**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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Computer Science and Engineering | UG | 2008 | 2008 | 60 | Yes | 90 | Applying first time | -- | -- | Yes | 4 |

| Sanctioned Intake for Last Five Years for the Computer Science and Engineering | |
|---|---|
| **Academic Year** | **Sanctioned Intake** |
| 2024-25 | 90 |
| 2023-24 | 90 |
| 2022-23 | 60 |
| 2021-22 | 60 |
| 2020-21 | 60 |
| 2019-20 | 120 |

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

| S No | Level | Discipline | Program |
|---|---|---|---|
| 1 | Under Graduate | Engineering & Technology | Computer Science and Engineering |

**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) | 73 | 73 | 76 | 76 | 80 | 80 |
| Faculty in Engineering (Female) | 21 | 21 | 23 | 23 | 24 | 24 |
| Faculty in Maths, Science & Humanities (Male) | 13 | 13 | 11 | 11 | 11 | 11 |
| Faculty in Maths, Science & Humanities (FeMale) | 11 | 11 | 12 | 12 | 14 | 14 |
| Non-teaching staff (Male) | 25 | 25 | 22 | 22 | 18 | 18 |
| Non-teaching staff (FeMale) | 12 | 12 | 10 | 10 | 8 | 8 |

**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** | ☑ Shift1 | ☐ Shift2 |
| **Engineering and Technology- PG** | ☑ Shift1 | ☐ Shift2 |
| **Engineering and Technology- Polytechnic** | ☑ Shift1 | ☐ Shift2 |
| **MBA** | ☐ Shift1 | ☐ Shift2 |
| **MCA** | ☐ Shift1 | ☐ Shift2 |

**Engineering and Technology- UG Shift-1**

| Items | 2024-25 | 2023-24 | 2022-23 |
|---|---|---|---|
| Total no. of Boys | 117 | 99 | 80 |
| Total no. of Girls | 74 | 38 | 33 |
| **Total** | **191** | **137** | **113** |

**Engineering and Technology- PG Shift-1**

| Items | 2024-25 | 2023-24 | 2022-23 |
|---|---|---|---|
| Total no. of Boys | 7 | 9 | 1 |
| Total no. of Girls | 0 | 1 | 0 |
| **Total** | **7** | **10** | **1** |

**Engineering and Technology- Polytechnic Shift-1**

| Items | 2024-25 | 2023-24 | 2022-23 |
|---|---|---|---|
| Total no. of Boys | 190 | 214 | 248 |
| Total no. of Girls | 44 | 44 | 37 |
| **Total** | **234** | **258** | **285** |

**11 Vision of the Institution:**

**Vision :** To cultivate engineers into global leaders equipped with unwavering psychological resilience, profound emotional intelligence, and unwavering ethical integrity.

**12 Mission of the Institution:**

**MISSION :**

**M1: To delivering innovative and immersive educational experiences tailored to the needs of engineering students.**

**M2: To advance research and development through cutting-edge laboratories and state-of-the-art equipment.**

**M3:To nurture a culture of entrepreneurial spirit, fostering creativity and innovation among our engineering graduates.**

**M4: To promoting environmental sustainability and social responsibility by integrating ethical and emotional education into our curriculum.**

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

| Head of the Institution | |
|---|---|
| **Name** | Dr. Ch Mallikarjun |
| Designation | Professor & Principal |
| Mobile No. | 9866414252 |
| Email ID | principal.amreddyengineering@gmail.com |

**NBA Coordinator, If Designated**

| | |
|---|---|
| Name | Dr. K Sreekar Chand |
| Designation | Associate Professor |
| Mobile No. | 7013447854 |
| Email ID | amrniqac@amreddyengineering.ac.in |

# PART B: Criteria Summary

| Critera No. | Criteria | Total Marks | Institute Marks |
|---|---|---|---|
| 1 | VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES | 60 | 60.00 |
| 2 | PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES | 120 | 120.00 |
| 3 | COURSE OUTCOMES AND PROGRAM OUTCOMES | 120 | 120.00 |
| 4 | STUDENTS' PERFORMANCE | 150 | 111.18 |
| 5 | FACULTY INFORMATION AND CONTRIBUTIONS | 200 | 190.31 |
| 6 | FACILITIES AND TECHNICAL SUPPORT | 80 | 80.00 |
| 7 | CONTINUOUS IMPROVEMENT | 50 | 50.00 |
| 8 | FIRST YEAR ACADEMICS | 50 | 46.60 |
| 9 | STUDENT SUPPORT SYSTEMS | 50 | 50.00 |
| 10 | GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES | 120 | 120.00 |
| | **Total** | **1000** | **948** |

# 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 | **Vision :** To cultivate engineers into global leaders equipped with unwavering psychological resilience, profound emotional intelligence, and unwavering ethical integrity. |
| Mission of the institute | **MISSION :**<br>**M1: To delivering innovative and immersive educational experiences tailored to the needs of engineering students.**<br>**M2: To advance research and development through cutting-edge laboratories and state-of-the-art equipment.**<br>**M3:To nurture a culture of entrepreneurial spirit, fostering creativity and innovation among our engineering graduates.**<br>**M4: To promoting environmental sustainability and social responsibility by integrating ethical and emotional education into our curriculum.** |
| Vision of the Department | To become a reputed center in computer Science and systems engineering for quality, competency and social responsibility |
| Mission of the Department | |

| Mission No. | Mission Statements |
|---|---|
| M1 | Providing a strong theoretical and practical education in a congenial environment. |
| M2 | Providing additional skills and training to meet the current needs of the industry. |
| M3 | Inculcating ethical values to meet the challenges of life with courage and confidence |

**1.2 State the Program Educational Objectives (PEOs)** (5) Total Marks 5.00

Institute Marks : 5.00

| PEO No. | Program Educational Objectives Statements |
|---|---|
| PEO1 | Quality in professionalism, good and ethical conduct, interpersonal skills and adjustable communication to ubiquitous trends in latest technologies |
| PEO2 | Study of real-life troubles to enlarge economically feasible and social suitable solutions of engineering crisis. |
| PEO3 | Developing professional skills among the students and transforming them as effective professionals in programs. |

**1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders** (10) Total Marks 10.00

Institute Marks : 10.00

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

*(Describe where (websites, curricula, posters etc.) the Vision, Mission and PEOs are published and detail the process which ensures awareness among internal and external stakeholders with effective process implementation)*

*(Internal stakeholders may include Management, Governing Board Members, faculty, support staff, students etc. and external stakeholders may include employers, industry, alumni, funding agencies, etc.)*

#### A. Adequacy in respect of publication & dissemination (2)

At **A.M. Reddy Memorial College of Engineering and Technology**, the Vision, Mission, and Program Educational Objectives (PEOs) are effectively disseminated and communicated to both internal and external stakeholders through various channels.

*Overview of where and how these elements are published and how awareness is ensured:*

| Internal Stake Holders | External Stake Holders |
|---|---|
| **Management**<br>**Governing Body**<br>**Faculty & Supporting Staff**<br>**Students** | **Employers**<br>**Industry Partners**<br>**Alumni**<br>**Funding Agencies** |

**1. Internal Stakeholders**

Internal stakeholders include management, governing board members, faculty, support staff, and students.

- **Website**: The Vision, Mission, and PEOs are prominently published on the official website of the college, www.amreddyengineering.ac.in (http://www.amreddyengineering.ac.in/). This ensures that they are easily accessible to all internal stakeholders, including faculty, students, and staff, as the website is regularly visited for academic and administrative purposes.
- These statements are usually located under the "Home" (https://www.amreddyengineering.ac.in/index.php (https://www.amreddyengineering.ac.in/index.php)) and “Programs” section. (https://www.amreddyengineering.ac.in/programs/engineering/cse/about-department.php (https://www.amreddyengineering.ac.in/programs/engineering/cse/about-department.php)).
- **Curricula and Syllabi**: The Vision, Mission, and PEOs are integrated into the academic curricula. Faculty refer to these elements during course planning and discussions with students to ensure that the teaching and learning process aligns with the broader institutional objectives. They is also been included in course handbooks and syllabi, providing students with a clear understanding of how their academic programs are designed in line with the college’s strategic direction.
- **Posters and Signage**: To keep the Vision, Mission, and PEOs visible across the campus, posters and banners are placed in common areas such as the college entrance, faculty rooms, student lounges, libraries, Laboratories, Class rooms and administrative offices. These visual displays ensure constant awareness among internal stakeholders.
- **Student Handbooks and Orientation**: New students are introduced to the Vision, Mission, and PEOs during their orientation sessions. These elements are also included in the student handbooks, which provide essential information about the college and its educational philosophy.
- **Meetings and Workshops**: The college holds regular meetings and workshops with faculty, management, and staff to discuss strategic goals and initiatives. The Vision, Mission, and PEOs are often highlighted in these forums to maintain alignment and inspire ongoing efforts toward achieving institutional objectives.

**2. External Stakeholders**

External stakeholders include employers, industry partners, alumni, funding agencies, and the broader community.

- **Official Website**: The Vision, Mission, and PEOs are accessible to external stakeholders through the college’s official website, www.amreddyengineering.ac.in (http://www.amreddyengineering.ac.in/). This is a central point for disseminating these guiding statements to industry partners, potential collaborators, prospective students, and other interested parties.
- **Social Media**: The college actively shares updates and information about its Vision, Mission, and PEOs on its official social media platforms (Whatsapp, LinkedIn, Facebook, Twitter, etc.). These platforms help reach a broad audience, including alumni, employers, and potential students, while keeping them informed about how the college is progressing in its objectives.
- **Alumni Communications**: Alumni emails and events provide a way for the college to share updates about the Vision, Mission, and PEOs with former students. This helps alumni stay connected with the institution’s goals and achievements.
- **Industry and Employer Engagement**: Employers, industry partners, and collaborators are introduced to the Vision, Mission, and PEOs through partnership meetings, collaboration agreements, and annual reports. These guiding statements are also included in the college’s promotional materials and brochures, which are shared during employer interaction events, career fairs, and other industry engagement activities.
- **Accreditation Reports and External Evaluations**: The Vision, Mission, and PEOs are often included in reports sent to accreditation bodies, funding agencies, and external evaluators. This allows external stakeholders to assess how well the institution’s objectives align with broader industry trends and educational standards.
- **Conferences and Industry Events**: During academic and industry-related events, the Vision, Mission, and PEOs are communicated to external stakeholders, ensuring they understand the colleges strategic direction and its alignment with current industry needs.

**3. Process for Ensuring Awareness and Effective Implementation**

To ensure that all stakeholders are aware of the Vision, Mission, and PEOs and are aligned with them, **A.M. Reddy Memorial College of Engineering and Technology** follows an organized process:

- **Regular Communication**: Continuous communication through newsletters, emails, website updates, and social media posts ensures that both internal and external stakeholders are kept informed about the college’s strategic goals and their progress.
- **Feedback Mechanisms**: The college implements feedback mechanisms like surveys, focus groups, and consultation sessions to gauge awareness and gather input from stakeholders. This helps in identifying areas where communication can be improved and ensures that the Vision, Mission, and PEOs remain relevant and impactful.
- **Annual Reviews and Strategic Planning**: The college holds annual reviews and strategic planning meetings to assess progress toward achieving the Vision, Mission, and PEOs. These reviews involve key internal stakeholders, including management, faculty, and board members, and help identify areas for improvement.
- **Training and Orientation**: Faculty, staff, and students are regularly trained and oriented about the Vision, Mission, and PEOs. For new staff and students, these elements are introduced during orientation sessions, ensuring that everyone understands the institutional objectives from the outset.
- **Integration into Institutional Practices**: The Vision, Mission, and PEOs are integrated into everyday practices, from curriculum development to faculty training, student engagement, and institutional decision-making. This alignment helps reinforce the institutional goals at every level.

By utilizing these diverse channels and processes, **A.M. Reddy Memorial College of Engineering and Technology** ensures that its Vision, Mission, and PEOs are not only published but also communicated and ingrained within the culture and operations of the institution. These efforts help foster a unified and focused approach towards the college’s strategic objectives.

#### B. Process of dissemination among stakeholders (2)

**Display of Vision, Mission & PEOs:**

| Facility | Room Number(s) | Count |
|---|---|---|
| HoD Room | 417 | 1 |
| Department Corridors | III Floor | 3 |
| Department Notice Boards | All Labs and Staff Rooms Notice Boards | 7 |
| Faculty Rooms | 416,108 | 2 |
| Classrooms | 410,411,412,413,415 | 5 |
| Department Library | 414 | 1 |
| Laboratories | CSE Lab -1, CSE- Lab-2, CSE - Lab-3, CSE - Lab-4 | 4 |

***Table 1.3.1: Communication of Vision, Mission & PEOs to all the Stakeholders***

**C.Extent of awareness of Vision, Mission & PEOs among the stakeholder (6)**

The process which ensure awareness among internal and external stakeholders:

| S.No | Stakeholders | Process of Dissemination | Time line of Dissemination | Responsibility |
|---|---|---|---|---|
| 1 | Students | Induction Program | Beginning of the academic year | HoD Presentation |
| 2 | Parents | Parents Meeting | Beginning of the semester | Principal & HoD |
| 3 | Alumni | Alumni Meeting | Once in an academic year | Alumni Coordinator |
| 4 | Employer | Placement Drives | End of the semester | TPO |
| 5 | Faculty | Staff Meetings | Twice in a semester | HoD |
| 6 | Society | When NSS activities are conducted | Once in a semester | NSS Coordinator |
| 7 | Governing Body | GB Meeting | Once in an academic year | Principal |

***Table 1.3.2: Communication of Vision, Mission & PEOs to all the Stakeholders***

**1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program** (25) Total Marks 25.00

Institute Marks : 25.00

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

*(Articulate the process for defining the Vision and Mission of the department and PEOs of the program)*

**A. Description of process for defining the Vision, Mission of the Department (10)**

The consistency of Vision statements of the department with institute statements ascertained after a rigorous process of discussions at various levels.

Brainstorming sessions are conducted with the following committees that are constituted at the Department level. They are

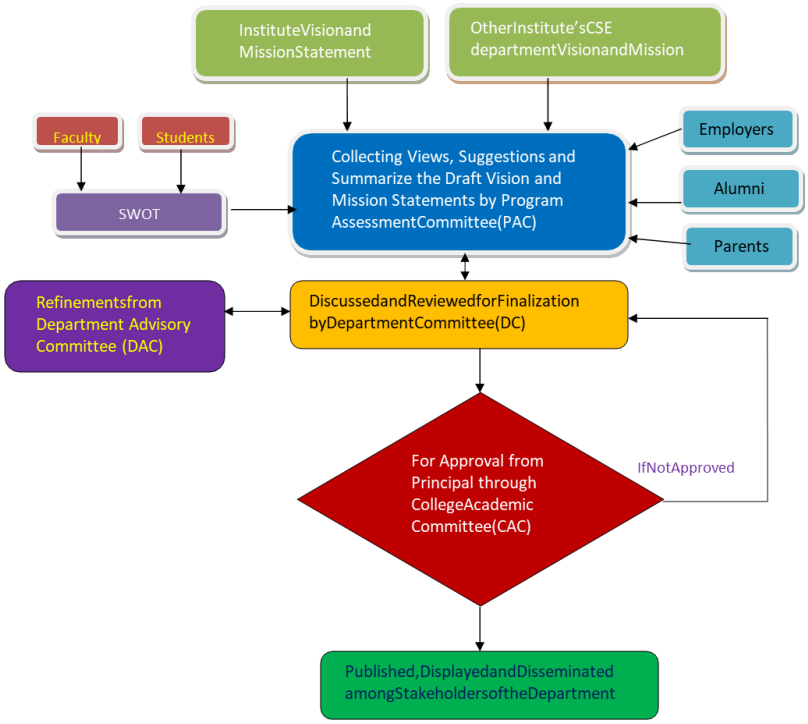
a. Program Assessment Committee (PAC)
b. Department Committee (DAAC)
c. Department Advisory Committee (DAC)

Process for Defining the Vision, Mission, and PEOs of the Department of Computer Science and Engineering at A.M. Reddy Memorial College of Engineering and Technology follows a systematic and inclusive process by involving stake holders of the Department. The goal is to align the departments aspirations with the colleges overarching objectives while considering the changing dynamics of the industry, technology, and society. Shown in figure 1.4.1.

In formulating the Vision and Mission of the Department, the following steps are followed:

| Steps | Process |
|---|---|
| Step -1 | Vision and Mission of the college and sample Vision and Mission statements of computer science and engineering department of other institutions are taken as basis. |
| Step -2 | Views are taken from the stakeholders of the department such as students, alumni, faculty members, employers and parents. |
| Step -3 | The views about the Vision and Mission of the department are formulated by the Program Assessment Committee (PAC). |
| Step -4 | The Department Committee (DC) reviews the Vision and Mission of the department and checks the consistency with the Vision and Mission of the institute and finalizes the Vision and Mission of the department. If the statements are not consistent then it sends them to Department Advisory Committee (DAC) to conduct brainstorming session for refining the Vision and Mission statements. |
| Step -5 | The Department Committee (DC) reviews and finalizes Vision and Mission statements and sends them to College Academic Committee (CAC) / Principal for approval. |
| Step -6 | Vision and Mission statements of the department are published, displayed and disseminated among stakeholders. |

Vision and Mission Process Chart:




(https://drive.google.com/file/d/1v7GfeFlfzQExfRHLW8cayRJKf081kb2D/view?usp=drive_link)

***Figure 1.4.1: Process Flow Chart for Defining Vision and Mission***

**B.Description of process for defining PEOs & PSOs of the program (15)**

In formulating PEOs & PSOs of the program, the following steps are followed:

| Steps | Process |
|---|---|
| **Step -1** | Vision and Mission of the college and department Vision & Mission statements are taken as basis. |
| **Step -2** | Vision and Mission of the department are taken as a basis to interact with various stakeholders |
| **Step -3** | The Program Assessment Committee (PAC) collects the survey results of various stakeholders. |
| **Step -4** | On considering the views of the stakeholders, the PEOs & PSOs are formulated by the PAC. |
| **Step -5** | The PEOs & PSOs are presented before the Department Committee (DC) for approval. The Department Committee (DC) sends the statements to the Department Advisory Committee (DAC) for suggestions, and after getting suggestions from DAC, DC finalize the PEO & PSO statements to improvise the program. |
| **Step -6** | DC reviews, finalizes by Department Committee (DC) and the same communicated to the College Academic Committee / Principal. |
| **Step -7** | Department PEOs & PSOs were published, displayed & disseminated among stake holders. |

**PEOs & PSOs formation process chart:**

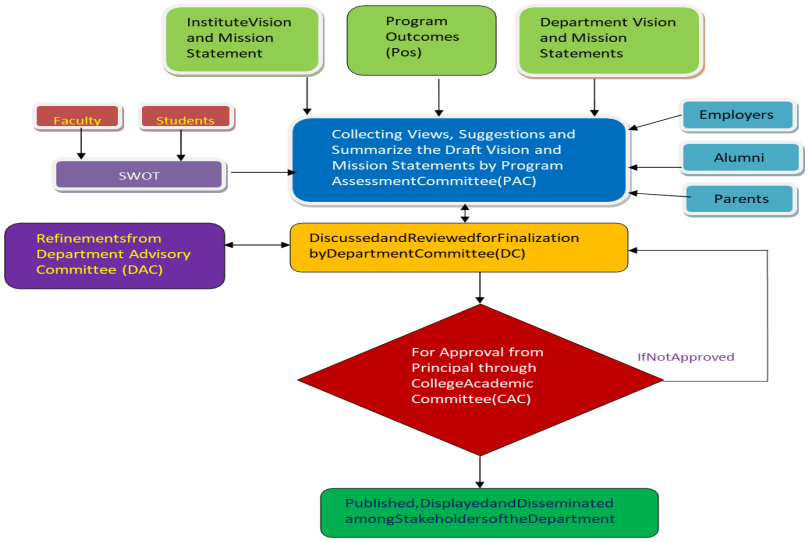



*Figure 1.4.2: Process Flow Chart for Defining PEOs & PSOs*

**1.5 Establish consistency of PEOs with Mission of the Department** (15) Total Marks 15.00

Institute Marks : 15.00

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

(*Generate a "Mission of the Department – PEOs matrix" with justification and rationale of the mapping*)

**A.Preparation of matrix of PEOs and elements of Mission statement (5)**

**PEOs Mapping with Department Mission:**

| PEO Statements | DM1 | DM2 | DM3 |
|---|---|---|---|
| **PEO1:** Quality in professionalism, good and ethical conduct, interpersonal skills, and adjustable communication to ubiquitous trends in the latest technologies | 3 | 2 | 3 |
| **PEO2:** Study of real-life troubles to enlarge economically feasible and socially suitable solutions to engineering crises | 2 | 3 | 2 |
| **PEO3:** Developing professional skills among students and transforming them into effective professionals in programs | 3 | 3 | 2 |

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

**B. Consistency / justification of the correlation parameters of the above matrix (10)**

**PEOs mapping with Department Mission**

**Program Name:** B. Tech in Computer Science and Engineering

**DM1: To provide a strong theoretical and practical education in a congenial environment**

| | $DM_1$ | Justification |
|---|---|---|
| **PEO1** | 3 | This mission supports PEO1 strongly by offering both theoretical understanding and hands-on learning, which are essential for developing professionalism, communication, and ethical behavior. |
| **PEO2** | 2 | It has a moderate connection, as it builds the foundational knowledge needed to understand and analyze real-life engineering problems. |
| **PEO3** | 3 | This mission aligns well by helping students build the necessary academic and practical skills to become competent professionals. |

**DM2**: **To provide additional skills and training to meet the current needs of the industry**

| | $DM_2$ | Justification |
|---|---|---|
| **PEO1** | 2 | It moderately supports PEO1 by helping students stay updated with recent technologies and improve their adaptability and communication for the modern workplace. |
| **PEO2** | 3 | This mission is strongly linked because it prepares students to tackle current industrial problems by equipping them with practical and job-ready skills. |
| **PEO3** | 3 | It supports PEO3 effectively by providing the training needed to shape students into skilled and industry-ready professionals. |

**DM3**: **To inculcate ethical values to meet the challenges of life with courage and confidence**

| | $DM_3$ | Justification |
|---|---|---|
| **PEO1** | 3 | This mission is closely connected, as it helps in shaping students with good ethics, professionalism, and the confidence to interact responsibly in various environments. |
| **PEO2** | 2 | It has a moderate influence, encouraging students to consider ethical and social aspects while solving technical problems. |
| **PEO3** | 2 | While not directly focused on skills, this mission contributes by building responsible and value-based professionals. |

| PEO Statements | M1 | M2 | M3 |
|---|---|---|---|
| Quality in professionalism, good and ethical conduct, interpersonal skills and adjustable communication to ubiquitous trends in latest technologies | 3 | 2 | 3 |
| Study of real-life troubles to enlarge economically feasible and social suitable solutions of engineering crisis. | 2 | 3 | 2 |
| Developing professional skills among the students and transforming them as effective professionals in programs. | 3 | 3 | 2 |

## 2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120) Total Marks 120.00

**2.1 Program Curriculum** (20) Total Marks 20.00

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

Institute Marks : 10.00

**2.PROGRAM CURRICULUM AND TEACHING – LEARNING PROCESSES (120)**

**2.0.1. Program Outcomes (POs)**

| | |
|---|---|
| **PO1** | **Engineering Knowledge:**<br>Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. |
| **PO2** | **Problem Analysis:**<br>Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. |
| **PO3** | **Design / Development of Solutions:**<br>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. |
| **PO4** | **Conduct Inveestigations of Complex Problems:**<br>Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. |
| **PO5** | **Modern Tool Usage:**<br>Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. |
| **PO6** | **The Engineer and Society:**<br>Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice. |
| **PO7** | **Environment and Sustainability:**<br>Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. |
| **PO8** | **Ethics:**<br>Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. |
| **PO9** | **Individual and Team Work:**<br>Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. |
| **PO10** | **Communication Skills:**<br>Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. |
| **PO11** | **Project Management and Finance:**<br>Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. |
| **PO12** | **Life-Long Learning:**<br>Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. |

***Table 2.0.1: List of Program Outcomes***

**2.0.2Program Specific Outcomes (PSOs)**

| | |
|---|---|
| **PSO1** | Students will be able to apply domain knowledge and expertise for enhancing research capability to transform innovative ideas into reality. |
| **PSO2** | To prepare students to undertake careers involving problem solving using computer science and technologies |

***Table 2.0.2: List of Program Specific Outcomes***

**2.1.Program Curriculum (20)**

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

**Program Curriculum**

Our college adheres to the curriculum and syllabi prescribed by JNTU, Kakinada. The syllabi comprised multi-faceted courses covering theory, practicals, and currently implementing the regulations that are underway.

| S. No | Batch | Regulation | University |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | 2018 – 19 | R16 | JNTUK University, Kakinada |
| 2 | 2019 – 20 | R19 | |
| 3 | 2020 – 21 | R20 | |
| 4 | 2021 – 22 | | |
| 5 | 2022 – 23 | | |
| 6 | 2023 – 24 | R23 | |
| 7 | 2024 - 25 | | |

***Table 2.1.1: Curriculum Regulation details***

**UNIVERSITY CURRICULUM**

**A.Process used to identify extent of compliance of the University Curriculum for attaining Program Outcomes and Program Specific Outcomes (6)**

The department follows the curriculum designed by the affiliating university, i.e., Jawaharlal Nehru Technological University, Kakinada. POs prescribed by the National Board of Accreditation (NBA). Course Outcomes (COs) are defined by the course handling faculty in alignment with the university curriculum. We relate these COs to POs and PSOs.

| S. No | Program curriculum based on course content | Number of courses in R20 | Number of Credits | PO's and PSO's |
|---|---|---|---|---|
| 1 | Basic Science Courses | 8 | 21 | PO1, PO2, PO3, PO4, PO6, PO8, PO12 |
| 2 | Professional Core Courses | 24 | 55.5 | PO1, PO2, PO3, PO4, PO5,PO8, PO12, PSO1, PSO2 |
| 3 | Engineering Science Courses including workshop, drawing, basics of electrical | 8 | 19.5 | PO1, PO2, PO3, PO5, PO7, PO8, PO12 |
| 4 | Humanities and Social Sciences including Management Courses | 4 | 10.5 | PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12 |
| 5 | Open Subjects – Electives from other technical and /or emerging subjects | 4 | 12 | PO1, PO2, PO3, PO4, PO5,PO8, PO12, PSO1, PSO2 |
| 6 | Professional Elective Courses relevant to chosen specialization / branch | 10 | 25 | PO1, PO2, PO3, PO4, PO5,PO8, PO12, PSO1, PSO |
| 7 | Project work, seminar and internship in industry or elsewhere | 3 | 16.5 | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| Total | | 61 | 160 | |

***Table 2.1.2: Various Curriculum Components of Program Curriculum***

The curriculum for the Computer Science and Engineering programme as prescribed by the University has:

Curriculum Components Analysis (R-20s):

Curriculum Components Analysis – No. of Courses, credits, hours Wise

| *Curriculum Components* | *No. Of Courses* | *% Courses* | *Total Credits* | *% Credits* | *Total Hours* | *% Hours* |
|---|---|---|---|---|---|---|
| **Basic Sciences** | **8** | **13.11** | **21** | **13.13** | **24** | **13.4** |
| **Program Core** | **24** | **39.34** | **55.5** | **34.69** | **70** | **39.1** |
| **Engineering Science** | **8** | **13.11** | **19.5** | **12.19** | **26** | **14.5** |
| **Humanities & Social Science** | **4** | **6.56** | **10.5** | **6.56** | **12** | **6.7** |
| **Open Elective** | **4** | **6.56** | **12** | **7.50** | **12** | **6.7** |
| **Professional Elective** | **10** | **16.39** | **25** | **15.63** | **35** | **19.6** |
| **Project & Seminar** | **3** | **4.92** | **16.5** | **10.31** | **-** | **-** |
| **TOTAL** | **61** | **100** | **160** | **100** | **179** | **100.0** |

***Table 2.1.3: Program Curriculum Analysis (R-20s)***

***Figure 2.1.1: Course-Wise Program Curriculum Analysis(R-20) - Annexed Separately***

***Figure 2.1.2: Credits-Wise Program Curriculum Analysis(R-20) - Annexed Separately***

***Figure 2.1.3: Hours-Wise Program Curriculum Analysis(R-20) - Annexed Separately***

**Basic Sciences**

The stream includes courses like Engineering Mathematics, Engineering Physics, Engineering Chemistry, Probability and Statistics, which provides basic knowledge on Mathematics, Physics, Chemistry,and Probability and Statistics.

**Professional Core Courses**

The stream include courses like Data Structures with C, Object Oriented Programming with C++, Software Engineering, Computer Organization, Java Programming, Operating Systems, Database Management Systems, Foramal Languages and Automata Theory, Data Warehousing and Data Mining, Computer Networks, Compiler Design, Artificial Intellegence, Web Technologies, Distributed Systems, Design and Analysis of Algorithms, Cryptography and Network Security, UML & Design Patterns, Machine Learning, Mathematical Foundations in Computer Science etc. Project work and students to develop understanding of the inter relationship between courses, develop and demonstrate higher order skills, and to apply the gained knowledge.

**Engineering Science Courses**

The stream include courses like Fundamentals of Computer Science, Engineering Drawing, IT Workshop, Programming for Problem Solving Using C, Digital Logic Design, Python Programming of all engineering disciplines.

**Humanities and Social Sciences Course**

The stream includes courses like Managerial Economics and Financial Accountancy, Management and Organizational Behavior, Management and Entrepreneurship. These are essential to create awareness on Managerial & Entrepreneurial Skills, Finance Management.

**Open Elective Courses**

The stream includes courses like Computer Graphics, Principles of Programming Languages, Advanced Data Structures, Software Testing Methodologies, Advanced Computer Architecture, NPTEL/SWAYAM courses with duration of 12 weeks' minimum with repitation of the title, Mobile Computing, Data Science, NoSQL Database, Internet of Things, Software Project Management, Web Services, Cloud Computing, Mean Stack Technologies, Ad-hoc and Sensor Networks, Cyber Security & Foorensics. These are create stong knowledge skills in addition to the program core courses. The Electives provide an avenue for specific courses.

**Professional Elective Courses**

The stream includes courses like Distributed Computing, AI Tools & Techniques, Big Data, Image Processing, Mobile Computing, Mobile Application Development, Cyber Security, Deep Learning, Blockchain Technologies offering to the other programs. Additionally, we provide courses from other programmes to the CSE programme.

**Project & Seminar**

The stream includes courses like Social Relevent Project, Project – I , and Project – II for provide complete a practical approach through the course which they learn.

**The following table shows the curriculum mapping to POs:(R-20)**

| S.NO | Subject Names | Course Code/POS | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Com. Engg | C111 | 2.60 | 2.40 | | | | | | | | 2.80 | | 2.00 |
| 2 | M-I | C112 | 3.00 | 2.60 | | 2.80 | | | | | | | | 2.20 |
| 3 | App. Phy | C113 | 3.00 | 2.20 | | 2.60 | 2.60 | | | | | 2.40 | | 2.60 |
| 4 | PPS Using C | C114 | 3.00 | 2.80 | 2.60 | | 2.60 | | | | | | | 2.00 |
| 5 | CE Workshop | C115 | 3.00 | 3.00 | 2.20 | 2.60 | 2.80 | | | | | | | 2.00 |
| 6 | ECS Lab | C116 | 3.00 | 3.00 | 2.60 | 2.60 | 2.80 | | | | | | | 2.20 |
| 7 | App. Phy Lab | C117 | 3.00 | 3.00 | 2.60 | 2.60 | 2.80 | | | | | | | 2.20 |
| 8 | PPS Lab | C118 | 3.00 | 2.60 | 2.60 | 2.80 | 2.60 | | | | | 2.60 | | 2.00 |
| 9 | M-II | C121 | 3.00 | 3.00 | 2.80 | 2.60 | 2.40 | | | | | | | 2.40 |
| 10 | App. Chem | C122 | 3.00 | 2.60 | 2.40 | 2.40 | 2.40 | | | | | | | 2.40 |
| 11 | CO | C123 | 3.00 | 2.80 | 2.80 | 2.60 | 2.40 | | | | | | | 2.40 |
| 12 | PP | C124 | 3.00 | 2.60 | 2.80 | 2.60 | 2.40 | | | | | | | 2.20 |
| 13 | DS | C125 | 3.00 | 2.80 | 2.80 | 2.40 | 2.40 | | | | | | | 2.40 |
| 14 | App. Chem Lab | C126 | 3.00 | 2.20 | 2.80 | 3.00 | 2.80 | | | | | 2.20 | | 2.40 |
| 15 | PP Lab | C127 | 3.00 | 2.60 | 2.80 | 2.80 | 3.00 | | | | | 2.40 | | 2.60 |
| 16 | DS Lab | C128 | 3.00 | 2.60 | 3.00 | 2.60 | 2.60 | | | | | | | |
| 17 | M-II | C211 | 3.00 | 2.60 | 2.40 | 2.60 | | | | | | | | |
| 18 | OOPS through C++ | C212 | 3.00 | 2.60 | 2.60 | 2.60 | 2.60 | | | | | | | |
| 19 | OS | C213 | 2.60 | 2.20 | 2.60 | 2.60 | | | | | | | | |
| 20 | SE | C214 | 3.00 | 2.60 | 2.40 | 2.40 | 2.60 | | | | | 2.40 | | 2.40 |
| 21 | MFCS | C215 | 2.40 | 2.60 | 2.60 | 2.60 | 2.40 | | | | | 2.60 | | 2.40 |
| 22 | OOPS Through C++ Lab | C216 | 3.00 | 2.80 | 3.00 | 2.60 | 2.60 | | | | | | | 2.00 |
| 23 | OS Lab | C217 | 3.00 | 2.60 | 2.60 | 2.60 | 3.00 | | | | | | | 2.60 |
| 24 | SE Lab | C218 | 3.00 | 2.80 | 2.60 | 2.80 | 3.00 | | | | | | | 2.60 |
| 25 | Applications Of Python-Numpy | C219 | 3.00 | 2.80 | 2.80 | 2.60 | 2.60 | | | | | 2.40 | | 2.60 |
| 26 | P & S | C221 | 3.00 | 2.80 | 2.60 | 2.40 | 2.40 | | | | | 2.40 | | 2.40 |
| 27 | DBMS | C222 | 3.00 | 2.60 | 2.80 | 2.40 | 2.20 | | | | | | | 2.40 |
| 28 | FLAT | C223 | 3.00 | 2.60 | | | 2.40 | | | | | | | |
| 29 | Java Programming | C224 | 3.00 | 2.60 | 2.60 | 2.40 | 2.20 | | | | | 2.40 | | 2.60 |
| 30 | MEFA | C225 | 2.80 | 2.40 | 2.40 | | | 2.40 | | | | 2.40 | | |
| 31 | DBMS Lab | C226 | 3.00 | 2.80 | 2.40 | 2.40 | 3.00 | | | | | 2.40 | | 2.40 |
| 32 | R Programming Lab | C227 | 3.00 | 2.80 | 2.20 | 2.40 | 3.00 | | | | | 2.20 | | 2.40 |
| 33 | Java Programming Lab | C228 | 3.00 | 2.80 | 2.40 | 2.60 | 3.00 | | | | | 2.40 | | 2.60 |
| 34 | Web Application Development Using Full Stack | C229 | 3.00 | 2.40 | 2.60 | 2.60 | 3.00 | | | | | 2.40 | | 2.40 |
| 35 | CN | C311 | 2.80 | 2.80 | 2.60 | | | | | | | 2.40 | | |
| 36 | DAA | C312 | 2.80 | 2.20 | 2.80 | 2.60 | 2.20 | | | | | | | |
| 37 | DWDM | C313 | 3.00 | 2.60 | 3.00 | 2.40 | 2.40 | | | | | | | |
| 38 | BE | C314 | 2.80 | 2.60 | 2.40 | 2.40 | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39 | SPM | C315 | 2.80 | 2.40 | 2.60 | 2.60 | | | | 2.60 | 2.60 | 2.40 | 2.00 | 2.40 |
| 40 | DWDM Lab | C316 | 2.80 | 2.00 | 3.00 | 3.00 | 2.80 | | | | | 2.40 | | 2.40 |
| 41 | CN Lab | C317 | 3.00 | 2.60 | 2.80 | 2.60 | 2.40 | | | | | | | 2.40 |
| 42 | Animation Design | C318 | 2.40 | | 2.40 | 2.40 | 2.80 | | | | | 2.20 | | 2.40 |
| 43 | Internship | C319 | 2.20 | 2.40 | 2.40 | 2.40 | 2.40 | | | | 2.40 | | | 2.60 |
| 44 | ML | C321 | 2.80 | 2.60 | 2.60 | 2.40 | 2.60 | | | | | | | 2.40 |
| 45 | CD | C322 | 3.00 | 2.80 | 2.80 | 2.20 | 2.40 | | | | | | | 2.60 |
| 46 | CNS | C323 | 3.00 | 2.80 | 2.40 | 2.40 | 2.40 | | | | | | | 2.60 |
| 47 | OOAD | C324 | 2.80 | 2.40 | 2.80 | 2.00 | 2.40 | | | | | | | 2.40 |
| 48 | FMPMC | C325 | 3.00 | 2.00 | 2.60 | | 2.40 | | | | | | | |
| 49 | ML Using Python | C326 | 3.00 | 2.40 | 2.60 | 2.80 | 3.00 | | | | | | | 2.60 |
| 50 | CD Lab | C327 | 3.00 | 2.40 | 2.60 | 2.80 | 3.00 | | | | | | | 2.60 |
| 51 | CNS Lab | C328 | 3.00 | 2.40 | 2.60 | 2.40 | 2.80 | | | | | | | |
| 52 | Mean Stack Technologies-Module I | C329 | 3.00 | 2.20 | 2.80 | 2.40 | 3.00 | | | | 2.20 | 2.20 | | 2.20 |
| 53 | CC | C411 | 3.00 | 2.80 | 2.40 | | 2.80 | | | | | | | 2.60 |
| 54 | SWSN | C412 | 3.00 | 2.80 | 2.40 | 2.60 | 2.80 | | | | 2.20 | 2.20 | | 2.40 |
| 55 | EH | C413 | 3.00 | 3.00 | 2.80 | 2.20 | 3.00 | 2.00 | | | 2.20 | 2.20 | 2.00 | |
| 56 | EMI | C414 | 3.00 | 2.80 | 2.60 | 2.20 | 2.60 | | | | 2.40 | 2.40 | | |
| 57 | RS & GIS | C415 | 3.00 | 2.80 | 2.80 | 2.20 | 2.60 | | | | 2.20 | 2.40 | | |
| 58 | UHV | C416 | 3.00 | 2.60 | 2.20 | 3.00 | 2.40 | 2.80 | 3.00 | 2.40 | | 2.20 | 2.40 | |
| 59 | Angular JS and Mongo DB | C417 | 3.00 | 2.40 | 2.40 | 3.00 | 2.60 | | 2.40 | 2.60 | | | | |
| 60 | Internship | C418 | 2.20 | 2.40 | 2.40 | 2.40 | 2.40 | | | | 2.40 | | | 2.60 |
| 61 | Project | C421 | 3.00 | 2.80 | 3.00 | 2.80 | 2.60 | | | | | 2.20 | | |
| **Avg** | | | **2.91** | **2.60** | **2.62** | **2.55** | **2.63** | **2.40** | **2.70** | **2.53** | **2.33** | **2.37** | **2.13** | **2.40** |
| **Total Number of Courses Mapped** | | | **61** | **60** | **57** | **54** | **53** | **3** | **2** | **3** | **8** | **26** | **3** | **43** |

| TOTAL | AVERAGE | 80% of Avg |
|---|---|---|
| 30.17 | 2.51 | 2.01 |

***Table 2.1.4: R-20 Curriculum mapping to POs***

**B. List the curricular gaps for the attainment of defined Program Outcomes (POs) and Program Specific Outcomes (PSOs) (4)**

Process for curriculum & beyond the curriculum gap identification:

As an affiliated institution, the programs are bound to follow the curriculum set by the university. It is necessary to identify the curricular gaps and take measures to bridge them by supplementing the curriculum with content beyond the syllabus through active teaching and learning methodologies.

The processes to identify the curricular gaps are carried out in the following ways:

Feedback from the student exit survey was consolidated to identify the curricular gaps. Employer feedback surveys are consolidated, and the suggestions are considered and conveyed to the appropriate boards responsible for framing the syllabi. An alumni survey has been taken to get information about requirements in industries, and industry experts who conduct placements shall be consolidated, and their suggestions shall be considered by the Program Assessment Committee for identifying the curricular gaps.

The shortcomings in the curriculum to attain the Program Outcomes(POs) are identified as curricular gaps. Program Assessment Committee(PAC) discusses the advantages and disadvantages of the current scheme with the help of course feedback surveys, student exit surveys, alumni surveys, employer surveys, etc., and formulates recommendations for the next scheme. These recommendations are submitted to the university.

The Course Outcomes(COs) of the courses are mapped to the relevant POs and PSOs through individual COs to identify the curriculum gaps.

**Process for Gap Identification**

***Figure 2.1.4: Process for Curriculum & Beyond the Curriculum Gap Identification- Annexed Separately***

**Curriculum gaps are identified using the following process in the department.**

- The university curriculum is taken as input.
- Course Outcomes (COs) can be defined by the course handling faculty according to the university curriculum.
- POs defined by the NBA and PSOs defined by the Department Committee (DC) are considered for mapping COs with POs and PSOs.
- Course handling faculty identify gaps in the course by considering the university curriculum.
- Alumni, employer, student (exit), and industry experts' feedback was also collected on the curriculum.
- The coordinator of the Programme Assessment Committee (PAC) collects the gaps from faculty.
- PAC receives input from the coordinator, discusses it with them, and lists out the gaps to conduct additional activities to strengthen weakly supported POs and PSOs.
- PAC suggests suitable implementation methods such as conducting guest lectures, seminars, certificate courses, additional lab sessions, workshops, industrial visits, etc.
- PAC sent the identified gaps and methodology to fill the gaps to the Department Committee (DC) for approval.
- After getting approval from the Department Committee (DC), the gaps and methodologies to fill the gaps are sent to the College Academic Committee (CAC).
- The CAC sends the list of gaps to the University Director of Academic and Planning (DAP).

**Evaluation Process:**

The consolidated curriculum gaps in each course and the proposed list of actions are put forth for verification by the Programme Assessment Committee (PAC). After being approved by the Department Advisory Committee (DAC), the actions are implemented in corporate at various stages of delivery in course lecture plans and in the department event planner, etc. After completion of every action, the DAC approves an additional concept (guest lectures, seminars, workshops, certificate courses, etc.) for fulfilling the curriculum gaps, and the result is accumulated to the attainment of POs and PSOs. During the semester course, the instructor assesses the COs and POs/PSOs by conducting midterm examinations, quizzes, and assessments as an internal assessment. The external assessment is done as per the schedule of the affiliated university, i.e., JNTU, Kakinada.

The procedural training for Outcome Based Education (OBE) was imparted to the course coordinators. Relevant courses are collected based on their contents and grouped as modules, which consist of basic sciences, humanities and social sciences, engineering core and electives, and other courses. For each course, the knowledge level of the corresponding course outcomes is formulated. Curriculum compliance may be verified by organising the information into a matrix (CO-PO *strength matrix),* which maps the link between the course outcomes (COs) and the program outcomes (POs). Mapping not only provides information on what requirements (POs) are required but also manifests the way and possible level of attainment of the POs by curriculum. The same process is extended to the COs-PSOs strength matrix. From the identified through consolidation of average CO-PO/PSO mapping of all courses. The entire process is shown in the flowchart in Figure 2.1.4.

**Curricular Gaps Identified in Academic Year 2024-25 (CAY)**

| S. No. | Course Name | Gap Description | Related CO | POs & PSOs |
|---|---|---|---|---|
| 1 | Cloud Computing | Cloud-native supports rapid, automated deployment and updates, a key enabler of modern development workflows. | CO4, CO5 | PO2, PO3 |
| 2 | Social Networks & Semantic Web | Linked Data and SPARQL Query Language | CO4 | PO3,PO5,PO12 |
| 3 | Ethical Hacking | Missing wireless security concepts (WEP, WPA, WPA2), wireless attack techniques | CO2, CO4 | PO3,PO5 |
| 4 | Computer Networks | Advanced Computer Networks | CO3, CO4 | PO2, PO3, PO4 |
| 5 | Design and Analysis of Algorithms | Greedy Algorithm | CO3, CO6 | PO1, PO3, PO4, PO6, PO9, PO12 |
| 6 | Data Warehousing & Data Mining | Data Mining Using Weka Tool | CO3, CO5 | PO2, PO3, PO4, PO5, PO6, PO12 |
| 7 | Software Project Management | Process Improvement Discipline | CO3, CO6 | PO2,PO11,PSO2 |
| 8 | Advanced data structures and algorithms | No Disjoint Set Union (Union-Find) data structure and its applications | CO2 | PO1,PO3 |
| 9 | Java Programming | Development of Upcoming Engineers, AWT, Swings | CO4 | PO1, PO2, PO3, PO4, PO5, PO6, PO12 |
| 10 | Operating System | Real Time Operating System | CO4, CO5 | PO2, PO3, PSO1, PSO2 |
| 11 | Data Base Management System | Mango DB | CO6 | PO1, PO2, PO3, PSO1 |
| 12 | Software Engineering | Agile Software Development Process, SCRUM – SE | CO6 | PO1, PO2, PO3, PO4, PO5, PO6, PO12 |
| 13 | Machine Learning | Keras and Tensor flow for developing theApplications of Machine Learning | CO3, CO4, CO5 | PSO1 |
| 14 | Compiler Design | Context Free Grammar | CO2, CO4 | PO1, PO2, PO4, PO5, PO6, PO12 |
| 15 | Cryptography and Network Security | IDEA and BLOWFISHAlgorithms. | CO2 | PO1, PO4, PO5, PO6, PO12 |
| 16 | Object Oriented Analysis and Design | Essential elements of design patterns and how to solve real world problems using design patterns | CO4 | PO4 |

***Table 2.1.5.1: List of curriculum gaps for academic year 2024-25***

| S. No. | Course Name | Gap Description | Related CO | POs & PSOs |
|---|---|---|---|---|
| 1 | OOPs through C++ | Advanced Computation and Graphics using C++ | CO4 | PO1, PO2, PO3, PO4, PO6, PO12 |
| 2 | Operating Systems | Real Time Operating System | CO4,CO5 | PO2, PO3, PO4, PO5, PO12 |
| 3 | Software Engineering | Agile Software Development Process, SCRUM – SE | CO6 | PO1, PO2, PO3, PO4, PO5, PO6, PO12 |
| 4 | Computer Networks | Advanced Computer Networks | CO3, CO4 | PO2, PO3, PO4 |
| 5 | Design and Analysis of Algorithms | Greedy Algorithm | CO3, CO6 | PO1, PO3, PO4, PO6, PO9, PO12 |
| 6 | Data Warehousing & Data Mining | Data Mining Using Weka Tool | CO3, CO5 | PO2, PO3, PO4, PO5, PO6, PO12 |
| 7 | Software Project Management | Process Improvement Discipline | CO3, CO6 | PO2,PO11,PSO2 |
| 8 | Cloud Computing | Cloud-native supports rapid, automated deployment and updates, a key enabler of modern development workflows. | CO4, CO5 | PO2, PO3 |
| 9 | Social Networks & Semantic Web | Linked Data and SPARQL Query Language | CO4 | PO3,PO5,PO12 |
| 10 | Ethical Hacking | Missing wireless security concepts (WEP, WPA, WPA2), wireless attack techniques | CO2, CO4 | PO3,PO5 |
| 11 | Operating System | Real Time Operating System | CO4, CO5 | PO2, PO3, PSO1, PSO2 |
| 12 | Data Base Management System | Mango DB | CO6 | PO1, PO2, PO3, PSO1 |
| 13 | Software Engineering | Agile Software Development Process, SCRUM – SE | CO6 | PO1, PO2, PO3, PO4, PO5, PO6, PO12 |
| 14 | Machine Learning | Keras and Tensor flow for developing theApplications of Machine Learning | CO3, CO4, CO5 | PSO1 |
| 15 | Compiler Design | Context Free Grammar | CO2, CO4 | PO1, PO2, PO4, PO5, PO6, PO12 |

***Table 2.1.5.2: List of curriculum gaps for academic year 2023-24***

*Table 2.1.5.3: List of curriculum gaps for academic year 2022-23 (Annexed Separately)*

**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

### 2.1.2. State the delivery details of the content beyond the syllabus for the attainmnet of POs and PSOs

**A. Steps taken to get identified gaps included in the curriculum (letter to univeristy / BOS) (2)**

**Inputs and Suggestons to JNTU Kakinada regading curriculum gaps and the possible addition of new content**

The Department consolidated all the additional contents in theory and laboratory courses and submitted them to the College Academic Committee (Principal) to communicate to the director, academics and planning, JNTU, Kakinada, and Board of Studies for their kind perusal and consideration for discussion in the exercise of upcoming regulations of curriculum and syllabus structure.

*Figure 2.1.2: Communicated Curricular Gaps to Affiliated University (Annexed Separately)*

**B. Delivery details of content beyond syllabus (5) &**

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

**Process to identify the gaps for attaining COs, POs, and PSOs**

- The Program Assessment Committee collects the list of curriculum gaps from the university curriculum, faculty, students, alumni, and employers, then forwards the list of consolidated gaps/content beyond the syllabus with actions to the Department Advisory Committee and Department Committee.
- The Department Advisory Committee will analyse the list of identified gaps/content beyond the syllabus with actions to strengthen weakly supported POs and PSOs given by the Program Assessment Committee, and it will give the suggestion to the Department Committee for further modification or approval.
- The Department Committee will finalise the list of gaps with actions

**2023-24**

| S.No | Gap | Action Taken | Date-Month-Year | Resource Person with Designation | % of students | Relevance to POs, PSOs |
|---|---|---|---|---|---|---|
| 1 | Advanced Computation and Graphics using C++ | Guest Lecture | 22/08/2023 | Mr. M Kalyan Chakravarthy, Sr. Software Engineer, Adaps IT Pvt.Ltd | 90 | PO1, PO2, PO3, PO5; PSO1, PSO2 |
| 2 | Real Time Operating System | Workshop | 11/09/2023 | Dr.Ch.V.Phani Krishna,Professor,TKR Engineering college, Hyderabad | 86 | PO1, PO2, PO3, PO4; PSO1 |
| 3 | Agile Excellence: Mastering Software Development with SCRUM | Guest Lecture | 10/05/2023 | Dr.Konda Srinivas, Professor ,CMRIT | 92 | PO1, PO8, PO9, PO10, PO11; PSO2 |
| 4 | Advanced Computer Networks | Guest Lecture | 08/07/2023 | Mr. M Kalyan Chakravarthy, Sr. Software Engineer, Adaps IT Pvt.Ltd | 85 | PO1, PO2, PO3, PO4; PSO1 |
| 5 | Greedy Algorithm | Guest Lecture | 13/09/2023 | Dr.V.Gowtham, Professor and Principal ,SMGOIH | 88 | PO1, PO2, PO3; PSO1 |
| 6 | Data Mining Using Weka Tool | Workshop | 10/05/2023 | Dr.N .Tirumala Rao, HOD,NEC ,Narasaraopet | 92 | PO1, PO2, PO4, PO5; PSO1, PSO2 |
| 7 | Process Improvement Discipline | Guest Lecture | 11/11/2023 | Dr.K Thirupathi Rao Associate Prof, GITHAM | 89 | PO8, PO9, PO10, PO11, PO12; PSO2 |
| 8 | Training Program on Could Computing | Workshop | 07/08/2023 | Dr.K Kumaraswamy,Assoc Prof,CMRCET, | 96 | PO1, PO2, PO3, PO5; PSO1, PSO2 |
| 9 | Unlocking the Semantic Web: An Introduction to Linked Data and SPARQL | Guest Lecture | 15/09/2023 | Dr.Y.Soumya,Assoc .Professor,CVR Engineering college ,Hyd | 92 | PO1, PO2, PO4, PO5; PSO1 |
| 10 | Securing the Airwaves: A Deep Dive into Wireless Protocols and Threats | Guest Lecture | 31/10/2023 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 95 | PO1, PO2, PO3, PO12; PSO1 |
| 11 | Mongo DB | Workshop | 26/02/2024 | Mrs.P.Sirisha Reddy , Team Lead ,Infosys | 89 | PO1, PO2, PO3, PO5; PSO1, PSO2 |
| 12 | Keras and Tensor flow for developing theApplications of Machine Learning | Workshop | 02/02/2024 | Dr.D Sasi Rajashekar,Dean,SMGOIH, | 78 | PO1, PO2, PO3, PO5; PSO1, PSO2 |
| 13 | Context Free Grammar | Guest Lecture | 04/04/2024 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 91 | PO1, PO2; PSO1 |
| 14 | IDEA and BLOWFISH Algorithms. | Guest Lecture | 08/04/2024 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 92 | PO1, PO2, PO3; PSO1, PSO2 |

**2022-23**

| S.No | Gap | Action Taken | Date-Month-Year | Resource Person with Designation | % of students | Relevance to POs, PSOs |
|---|---|---|---|---|---|---|
| 1 | IDEA and BLOWFISH Algorithms. | Guest Lecture | 20/07/2022 | Mr. M Kalyan Chakravarthy, Sr. Software Engineer, Adaps IT Pvt.Ltd | 92 | PO1,PO2,PO3,PO5,PSO1,PSO2 |
| 2 | Design Patterns Demystified: Solving Real-World Problems with Reusable Solutions | Workshop | 09/08/2022 | Dr.Y.Soumya,Assoc .Proff,CVR Engineering college ,Hyd | 94 | PO1,PO2,PO3,PO12,PSO1,PSO2 |
| 3 | Keras and Tensor flow for developing theApplications of Machine Learning | Guest Lecture | 12/09/2022 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 93 | PO1,PO2,PO3,PO5,PO12,PSO1,PSO2 |
| 4 | Training Program on Colud Computing | Workshop | 04/10/2022 | Dr.K Kumaraswamy,Assoc Prof,CMRCET, | 93 | PO1,PO2,PO3,PO5,PO12,PSO1,PSO2 |
| 5 | Advanced Computer Networks | Guest Lecture | 23/08/2022 | Mr. M Kalyan Chakravarthy, Sr. Software Engineer, Adaps IT Pvt.Ltd | 86 | PO1,PO2,PO3,PO5,PSO1,PSO2 |
| 6 | Greedy Algorithm | Guest Lecture | 06/09/2022 | Dr.V.Gowtham, Prof and Principal ,SMGOIH | 89 | PO1,PO2,PO3,PSO1,PSO2 |
| 7 | Data Mining Using Weka Tool | Workshop | 07/10/2022 | Dr.N .Tirumala Rao HOD,NEC ,Narasarao pet | 91 | PO1,PO2,PO3,PO5,PSO1,PSO2 |
| 8 | Process Improvement Discipline | Guest Lecture | 25/10/2022 | Dr.K Thirupathi Rao Assoc Prof, GITHAM | 90 | PO2,PO4,PO6,PO12,PSO1,PSO2 |
| 9 | Advanced Computation and Graphics using C++ | Guest Lecture | 26/09/2022 | Dr.P V S Srinivas, Prof and Principal,VBIT,Hyd | 88 | PO1,PO2,PO3,PSO1,PSO2 |
| 10 | Real Time Operating System | Workshop | 13/10/2022 | Dr.Ch.V.Phan Krishna,Prof,Tkr Eng college ,HYD | 89 | PO1,PO2,PO3,PO5,PSO1,PSO2 |
| 11 | Agile Excellence: Mastering Software Development with SCRUM | Guest Lecture | 04/11/2022 | Dr.Konda Srinivas, Prof ,CMRIT | 88 | PO6,PO7,PO9,PO10,PO11,PO12,PSO1,PSO2 |
| 12 | GIT and Jenkin Tools. | Workshop | 15/03/2023 | Mr.K.Ashok,Tech Lead,OSI Digital Pvt. Ltd | 78 | PO1,PO2,PO3,PO5,PO11,PO12,PSO1,PSO2 |
| 13 | Keras and Tensor flow for developing theApplications of Machine Learning | Workshop | 30/01/2023 | Dr.D Sasi Rajashekar,Dean,SMGOIH, | 89 | PO1, PO2, PO3, PO5, PO12,PSO1, PSO2 |
| 14 | Context Free Grammar | Guest Lecture | 17/02/2023 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 84 | PO1, PO2, PO3, PO4, PO12,PSO1, PSO2 |
| 15 | Mongo DB | Workshop | 02/03/2023 | Mrs.P.Sirisha Reddy , Team Lead ,Infosys | 84 | PO1, PO2, PO3, PO5, PO12,PSO1, PSO2 |

**2021-22**

| S.No | Gap | Action Taken | Date-Month-Year | Resource Person with Designation | % of students | Relevance to POs, PSOs |
|---|---|---|---|---|---|---|
| 1 | Cloud Computing | Training Program | 12/07/2021 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 85 | PO2, PO4, PO12 |
| 2 | Front End Development | Workshop | 20/10/2021 | Dr.Y.Soumya,Assoc .Proff,CVR Engineering college ,Hyd | 86 | PO1, PO2, PO4, PO5, PO6, PO12 |
| 3 | Context Free Grammar | Guest Lecture | 30/10/2021 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 83 | PO1, PO2, PO4, PO5, PO6, PO12 |
| 4 | Data Mining Using Weka Tool | Workshop | 08/11/2021 | Dr.K Kumaraswamy,Assoc Prof,CMRCET, | 90 | PO2, PO3, PO4, PO5, PO6, PO12 |
| 5 | Real Time Operating System | Guest Lecture | 18/11/2021 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 90 | PO2, PO3, PO4, PO5, PO12 |
| 6 | Introduction to Databases and its Connectivity | Training Program | 22/11/2021 | Dr.V.Gowtham, Prof and Principal ,SMGOIH | 92 | PO3, PO4, PO11, PO12 |
| 7 | Introduction to Artificial Intelligence | Workshop | 02/12/2021 | Dr.N .Tirumala Rao HOD,NEC ,Narasarao pet | 95 | PO1, PO2, PO3, PO4, PO6, PO12 |
| 8 | Advanced Computation and Graphics using C++ | Guest Lecture | 17/12/2021 | Dr.K Thirupathi Rao Assoc Prof, GITHAM | 92 | PO1, PO2, PO3, PO4, PO6, PO12 |
| 9 | Mobile Security Threats | Guest Lecture | 29/12/2021 | Dr.P V S Srinivas, Prof and Principal,VBIT,Hyd | 93 | PO1, PO2, PO4, PO6, PO12 |
| 10 | Python using Data Science | Training Program | 01/02/2022 | Dr.Ch.V.Phan Krishna,Prof,Tkr Eng college ,HYD | 92 | PO3, PO4, PO12, PSO2 |
| 11 | Angular JS | Workshop | 24/02/2022 | Dr.Konda Srinivas, Prof ,CMRIT | 93 | PO1, PO2, PO3, PO4, PO6, PO12 |
| 12 | Machine Learning Algorithms | Guest Lecturer | 04/03/2022 | Dr.D Sasi Rajashekar,Dean,SMGOIH, | 95 | PO1, PO2, PO4, PO6, PO9, PO12 |
| 13 | Regular and Context Free Languages | Guest Lecture | 12/03/2022 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 85 | PO1, PO2, PO4, PO6, PO12 |
| 14 | Advanced Java Programming | Workshop | 19/05/2022 | Mrs.P.Sirisha Reddy , Team Lead ,Infosys | 86 | PO1, PO2, PO4, PO6, PO9, PO12 |
| 15 | Greedy Algorithm | Guest Lecture | 06/05/2022 | Dr.K Kumaraswamy,Assoc Prof,CMRCET, | 90 | PO1, PO3, PO4, PO6, PO9, PO12 |

**2.2 Teaching - Learning Processes** (100) Total Marks 100.00

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

Institute Marks : 25.00

## 2.2. Teaching-Learning Processes

### 2.2.1. Describe processes followed to improve quality of Teaching & Learning

**A. Adherence to academic calendar (3)**

The Department follows the academic calendar given by the JNTUK, Kakinada. The academic calendar consists of two semesters, even and odd. The calendar includes the schedule of commencement of instructions, the first and second internal examinations, and external theory and practical examinations. The departments activities and events are scheduled well in advance of the commencement of the semester.

The department calendar was prepared well in advance before the commencement of the academic year based on the events of the university academic calendar and arranged at the department level for different technical events. It consists of the activities planned for the semester, which include the commencement of classes, industrial visits, internal mid-semester test dates, university exams, and the conduct of events like guest lectures, workshops, faculty development programmes, etc. As shown in the below figures 2.2.1.1 and 2.2.1.2.

**University Academic Calendar (Sample):**

***Figure 2.2.1.1: University Academic Calendar for the academic year 2024-25 (Annexed Separately)***

The Program Educational Objectives (PEOs) are established to guide the programme and prepare the graduates to achieve career and professional accomplishments. The PEOs are further transformed into specific student performance and behaviors that demonstrate students learning and skill development as Program Outcomes (POs). POs are clearly and unambiguously defined. As our college is affiliated with JNTU, Kakinada, we follow the curriculum prescribed by JUTU, Kakinada.

**Department Academic Calendar (Sample):**

***Figure 2.2.1.2: Department Academic Calendar for Semester – II of the academic year 2024-25 (Annexed Separately)***

- The departmental academic calendar is prepared for the academic year by conducting faculty meetings and considering the suggestions made by the Department Advisory Committee (DAC).
- The HoD conducts meetings before the commencement of the semester for course allotment. He also requests that the principal allot faculty to interdisciplinary courses. The timetable coordinator prepares time tables well in advance based on the central coordinators instructions and gets approval from the principal.
- Course allotment is done well in advance for the staff members; therefore, they prepare lesson plans, lecture notes, tutorials, assignments, and course files well in advance.
- Faculty members handling laboratories will prepare a lab schedule with a list of experiments to be conducted and laboratory manuals well in advance. Laboratory schedules and student batch divisions are prepared with reference to the finalised timetable. The batch strength is limited to two or three.
- The faculty members of the department adopt various teaching and learning methodologies to create the best learning environment for students, which is included in the lesson plan. The departmental academic calendar for II Semester for the academic year 2022-2023 is shown in the above figure. 2.1.2.

**Sample Time Table:**

***Figure 2.2.1.3: Department Time Table for Semester – II of academic year 2024-25 (Annexed Separately)***

For each course, a course file is prepared by the faculty members concerned. The course file consists of the following items, as shown in the below table:

| S. No | CONTENT |
|---|---|
| 1 | Content Page |
| 2 | Vision and Mission of the Institute |
| 3 | Vision and Mission of the Department |
| 4 | Program Outcomes (POs) |
| 5 | Program Educational Objectives (PEOs) |
| 6 | Program Specific Outcomes (PSOs) |
| Course Information Sheet | |
| 7 | Academic Calendar |
| 8 | Class Time Tables |
| 9 | Course Syllabus |
| 10 | Course Outcomes (Cos) with BT Level Mapping |
| 11 | Course Outcomes Mapping with POs and PSOs |
| 12 | Lesson Plan |
| 13 | References and Web References |
| 14 | NPTEL Videos / You Tube Videos Links |
| 15 | List of Gaps within & Topic beyond the syllabus – Mapped to CO, POs and PSOs with Justification and proposed mode of addressing |
| 16 | Lecture Notes – Unit wise including Gaps |
| 17 | List of Power Point Presentations |
| 18 | Unit wise Question Bank with CO and BT levels with Answers |
| 19 | Assignment Questions with CO and BT levels with key |
| 20 | Award List and sample proof |
| 21 | Objective Type Questions with Key |
| 22 | Mid Question Paper with CO and BT levels with Key |
| 23 | Award List and sample proof |
| 24 | Scheme of evaluation with CO and BT Level mapping |
| 25 | Tutorial topics with evidence both material and attendance |
| 26 | List of slow and advanced learners Based on previous semester / up to previous semester Based on faculty observations up to 3 weeks Based on 1st mid exams |
| 27 | Remedial Class for slow learners – schedule and contents / materials |
| 28 | Remedial class attendance sheet with delivery record |
| 29 | Advanced Learners – Engagement documentation For Preparation of Practicing writing Programming |
| 30 | Course Outcomes & its PO Attainments (Plan & Executions) |
| 31 | Course end survey form, filled forms and analysis |

| | |
|---|---|
| 32 | Students feedback on faculty and BT Level analysis, corrective measured planned – 3rd & 13th week |
| 33 | Observation for not attaining CO or for improvement |
| 34 | Plan of action to improve CO attainment next time |
| 35 | Attendance register ( including Theory / Tutorial) – Teacher / Course delivery record , continuous evaluation |
| 36 | Course file (Digital form ) – all the above contents |

***Table 2.2.1.1: Content for Course File***

**Impact analysis**

- A coherent framework was provided for smooth and efficient teaching, so course contents are effectively delivered in the stipulated time. By preplanning their academic calendar, students could plan their academics and utilize the resources properly.
- More students efficiently utilized the inter-college and inter-departmental events like Avishkar- Techno Cultural Fest, guest lectures, workshops, field visits, etc.
- Students effectively planned for industry interactions on vacation. So, the number of students who participated in summer training increased.

**B. Use of various instructional methods and pedagogical initiatives (3)**

**Improving instruction methods using pedagogical initiatives**

The head of the department conducts meetings with all the faculty members to discuss the various teaching and learning methods before each semester. He discusses how to initiate different teaching methods to create the best learning environment for students. Subject experts and domain coordinators give their suggestions and discuss different innovative techniques. Finally, after discussion, faculty members adopted various innovative teaching and learning methodologies based on available facilities on campus and planned events.

Well-structured lesson plans, lecture notes, and tutorial questions with keys are prepared and revised for all theory and practical courses on a period-to-period basis and are scrutinized by the HoD.

- The following facilities and teaching aids are available on campus for delivering lectures: In every classroom, projectors with Wi-Fi facilities are used for teaching purposes.
- Internet facilities and different reference books are available to students and faculty in the library.
- Faculty members are taking advantage of sources like the National Programme on Technology Enhanced.
- Learning (NPTEL), Internet sources for effective teaching Chalk and talk, LCDs, etc. are used for teaching purposes. Various journals are available on campus, and they are utilised for research and project-based learning.

**Sample Lesson Plan:**

***Figure 2.2.1.4: Lesson Plan for CNS of Semester – I for academic year 2024-25 (Annexed Separately)***

**Various Instructional Methods and Pedagogical Initiatives**

The Department Committee (DC) identified and finalized various instructional methods and pedagogical initiatives. The faculty members are instructed to use three or four of them. The same will be included in the lesson plan.

The following facilities and teaching aids are available on campus for delivering lectures:

In every classroom, projectors with Wi-Fi facilities are used for teaching purposes.

- Internet facilities and different reference books are available to students and faculty in the library.
- Faculty members are taking advantage of sources like the National Programme on Technology- Enhanced Learning (NPTEL).

**AcademicYear:2024-25**

**Various Instructional Methods and Pedagogical Initiatives**

| S. No. | Description | S. No. | Description |
|---|---|---|---|
| T1 | Chalk & Talk (C&T) | T8 | Assignment (ASG) |
| T2 | Slides/PPT (S/P) | T9 | Brain Stroming (BS) |
| T3 | Videos | T10 | Online Lecture / Google Class Room (OL) |
| T4 | Seminar (sem) | T11 | Real Time Case Studies (RTCS) |
| T5 | Quiz | T12 | Journal Articles Review (JAR) |
| T6 | Group Discussion (GD) | T13 | Industrial Visit (IV) |
| T7 | Expert Talk/Guest Lecture (ET/GL) | T14 | Think Pair Share (TPS) |

***Table 2.2.1.2: List of various instructional methods and pedagogical initiatives***

**Teaching Methods adopted for Courses**

Program: **B. Tech in Computer Science and Engineering** Academic Year: **2024-25(Semester-I)**

| S. No. | | Teaching Methodology | | | | | | | | | | | | | | Number of Text Books | Number of Reference Books | Number of Web References |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Course Name | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | |
| 1 | Cloud Computing | Y | Y | | Y | Y | Y | | | | | | | | | 2 | 3 | 2 |
| 2 | Ethical Hacking | Y | Y | | | Y | Y | | | | | | | | | 2 | 3 | 2 |
| 3 | Social Networks and Semantic Web | Y | Y | | Y | Y | Y | | | | | | | | | 2 | 3 | 2 |
| 4 | Universal Human Values | Y | Y | | Y | | | | | Y | | | | | | 2 | 3 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | Electronics Measurements & Instrumentation | Y | | | Y | Y | Y | | Y | | | | | | | 2 | 2 | 3 |
| 6 | Remote Sensing And GIS | Y | Y | | Y | Y | Y | Y | Y | | | | | | | 2 | 2 | 4 |
| 7 | Computer Networks | Y | Y | | | | | Y | | | | | | | | 2 | 3 | 3 |
| 8 | Environmental Management | Y | Y | | Y | | Y | | Y | | | | | | | 2 | 2 | 6 |
| 9 | Design And Analysis of Algorithms | Y | Y | | Y | Y | Y | | | | | | | | | 2 | 3 | 2 |
| 10 | Data Warehousing and Datamining | Y | Y | | | | | Y | | | | | | | | 3 | 1 | 1 |
| 11 | Software Project Management | Y | Y | | Y | | Y | | Y | | | | | | | 3 | 1 | 3 |
| 12 | Oops through Java | Y | Y | | Y | Y | Y | | | | | | | | | 2 | 3 | 2 |
| 13 | Discreate Mathematics& Graph Theory | Y | | | Y | Y | Y | Y | | | | | | | | 2 | 1 | 2 |
| 14 | Advance Data Structures and Algorithms | Y | Y | | | | | | | | | | | | | 2 | 2 | 2 |
| 15 | Universal Human Values | Y | | | Y | | | | | | Y | | | | | 2 | 2 | 2 |
| 16 | Digital Logic & Computer Organization | Y | Y | | | | | | | | | | | | | 3 | 1 | 1 |
| **TOTAL** | | **16** | **13** | **0** | **11** | **8** | **10** | **4** | **4** | **1** | **1** | **0** | **0** | **0** | **0** | **35** | **35** | **39** |

***Table 2.2.1.3: List of various instructional methods and pedagogical initiatives adopted in Semester-I***

Program: **B. Tech in Computer Science and Engineering** Academic Year: **2024-25(Semester-II)**

| S. No. | | Teaching Methodology | | | | | | | | | | | | | | Num ber of Text Books | Numbe r of Referen ce Books | Numb er of Web References |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Course Name | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | |
| 1 | Machine Learning | Y | | | Y | | | | Y | | | | | | | 2 | 5 | 8 |
| 2 | compile Design | Y | Y | | Y | Y | Y | Y | Y | | | | | | | 2 | 3 | 6 |
| 3 | Disaster Management | Y | | | Y | Y | Y | | Y | | | | | | | 2 | 3 | 6 |
| 4 | Cryptography and Network Security | Y | Y | | Y | | | | | | | | | | | 2 | 3 | 2 |
| 5 | Object Oriented Analysis and Design | Y | Y | | Y | Y | Y | | | | | | | | | 2 | 3 | 2 |
| 6 | Managerial Economics Finacial Analysis | Y | | | Y | Y | Y | Y | | | | | | | | 2 | 1 | 2 |
| 7 | Operating Systems | Y | Y | Y | | Y | Y | | Y | | | | | | | 2 | 2 | 4 |
| 8 | Database Management Systems | Y | Y | | Y | | Y | | Y | | | | | | | 3 | 1 | 3 |
| 9 | Software Engineering | Y | Y | Y | Y | Y | Y | | | | | | | | | 2 | 4 | 3 |
| 10 | Probability & Statistics | Y | Y | | Y | Y | Y | Y | | | | | | | | 3 | 2 | 2 |
| TOTAL | | **10** | **7** | **2** | **9** | **7** | **8** | **3** | **5** | **0** | **0** | **0** | **0** | **0** | **0** | **22** | **27** | **38** |

***Table 2.2.1.4: List of various instructional methods and pedagogical initiatives adopted in Semester-II***

**Impact analysis**

Positive outcomes were observed after adopting the innovative teaching and learning methods. They are:

- Improved student performance in various courses.
- Improved attendance of students from the start of the semester to within a week.
- Active participation of students in outcome-based education activities.
- Better relationship between students and faculty towards research.

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

**Guidelines to identify weak students:**

The counselors and class in charge regularly conduct meetings regarding the progress of their mentees and are responsible for identifying students who scored less than 60% in their internals and/or fail in semester examinations. Under the HoD direction, the students' counselors evaluate the progress cards of those students who score below 60% marks in three or more subjects and below 75% attendance and are considered academically weak students, and the same is also communicated to their parents.

| Identification Criteria | Actions taken |
|---|---|

| | |
|---|---|
| Students who fail in semester exams.<br>Students scoring less than 60% of marks in internal assessment.<br>Slip test in prerequisite course<br>The students who are irregular in class and have attendance less than 75%<br>Students who entered with a diploma had less knowledge of the basics of mathematics. | 1. A student counselor follows their progress regularly, advising students about attending classes, making up classes, and getting additional help.<br>2. Intimating parents to counsel their wards<br>3. Conduct of remedial classes<br>4. Conduct of remedial classes<br>5. Solving previous question papers during tutorial classes.<br>6. Intimating parents to counsel their wards |

***Table 2.2.1.5: Process to identify the weak students and action taken***

Methodologies to support weak students and encourage bright students

Under the HoD 's directions, class in-charges, counselors, and course faculty members identify those students who fall under the weak students' category as per the above guidelines. Course faculty members conduct remedial classes for weak students. At that time, they solve previous university examination question papers. Each course faculty member identifies the performance of weak students after the completion of internal examinations and also takes corrective actions like conducting revision classes and slip tests for weak students.

The process of identifying and encouraging weak and bright students is shown below figure:2.2.1.5

***Figure 2.2.1.5: Process to identify the weak and bright students and action taken (Annexed Separately)***

**Strategies to Improve Performance of Weak students and Bright Students**

| **Bright Students**<br>(Good academic performance i.e. more than 60% till the current semester) | **Weak Students**<br>(Poor academic performance i.e., three or more backlogs) |
|---|---|
| 1. **Shared classroom activities**<br>○ Student seminars,<br>○ Poster presentation<br>○ Class room activities like quiz, debate, etc.<br>○ Peer learning | 1. **Shared classroom activities**<br>○ Tutorials related to basics<br>○ Solving previous university papers<br>○ Conducting revision practice tests beyond working hours |
| 2. **Professional Development**<br>○ Technical training,<br>○ Workshops,<br>○ Internship<br>○ Competitive exams and higher studies | 2. **Remedial classes**<br>○ Lagging concepts<br>○ Difficult subjects |
| 3. **Nurturing Student Creativity**<br>○ Intercollegiate fest,<br>○ State & National events | |

***Table 2.2.1.6: Tasks carried out to improve performance of weak students and bright students***

**Students Participation & Achievements in Co-Curricular Activities**

| S. No | Academic Year | No. of Participants | | Award Received Within the State | | | Award Received Outside the State | | | Total no. of Achievements Received |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Within The State | Outside The State | First Prize | Second Prize | Third Prize | First Prize | Second Prize | Third Prize | |
| 1 | 2023-24 | - | 6 | - | - | | - | 2 | 4 | 6 |
| 2 | 2022-23 | - | 2 | - | - | | - | 2 | - | 2 |
| 3 | 2021-22 | 2 | 2 | 2 | - | - | - | 2 | | 4 |

***Table 2.2.1.7: Summary of student participation & achievement for assessment period.***

**Sample Remedial Class Work Schedule:**

***Figure 2.2.1.6 Remedial class work schedule and student participation*** ***(Annexed Separately)***

**Sample performance analysis for slow learners is shown in below**

***Figure 2.2.1.7: Performance Analysis of Weak Students*** ***(Annexed Separately)***

Impact analysis:

- New view points and new project ideas are derived in class from bright students. The skills or abilities of students improved.
- Technical papers, document preparation, and presentation skills improved. Weak student academic performance increased.
- Due to counseling and tutorial classes, the confidence level of the weeks students was boosted.

**D. Quality of classroom teaching (Observation in Lab) (3)**

The following innovative teaching methods are adopted by the faculty:

- Well-structured lesson plans, lecture notes, and tutorial questions with keys are prepared and revised for all theory and practical courses from time to time and scrutinized by the HoD.
- In the classrooms, computers with internet facilities are used for teaching purposes. Internet facilities are available to students and faculty in the digital library.
- Faculty members are taking advantage of sources like the National Programme on Technology Enhanced Learning (NPTEL) and Internet sources for effective teaching. Smart boards and LCD projectors are used for teaching purposes.
- Various journals are available on campus.
- Every classroom in the department is equipped with LCD projectors and proper ventilation to help the students concentrate on the lectures. Faculty will take attendance within 5 minutes after entering the class.
- Class in-charges will monitor whether the faculty are taking classes according to the timetable or not.
- Every day, the heads of the departments will inspect the classroom teaching during the first hour, after the break, and after the lunch hours. The dean of academics and principal will also frequently inspect the departments during working hours.

*Figure 2.2.1.8: Quality of Classroom Teaching* ***(Annexed Separately)***

**E. Conduct of Experiments Continuous Assessment in laboratory (3)**

Conduct of Experiments:

- All the laboratories in the department are maintained neatly, with equipment in good working condition. Also, proper care is taken regarding safety and protection in the laboratory.
- Students should report to the respective lab as per the schedule.
- The batch-wise division made in the beginning should be adhered to, and no mix-up of students among different groups will be permitted later. Students are required to prepare thoroughly to perform the experiment before coming to the laboratory.
- Each batch will get the equipment by submitting the indent to the lab assistant and conducting the experiment.
- After connections are completed, students need to get them verified by the staff in charge, and then only the supply has to be turned on. Students have to conduct the experiment by following the procedure mentioned in the observation and recording the readings.
- When the experiment is completed, students should disconnect the setup they made and return all the components and instruments taken for the purpose. Any damage to the equipment or burn-out of components due to the negligence of the student will result in a penalty being awarded.
- After completion of the experiment, the student should get the observation book corrected by the staff in charge of that lab.
- The record of observations along with the detailed experimental procedure of the experiment performed in the immediate last session should be submitted.
- The curriculum stipulates 2 or 3 laboratory courses per semester from 1$^{st}$ to 7$^{th}$.
- Students carry out more than the required number of experiments, beyond the minimum specified by the university. All laboratories have excellent facilities with the required equipment.
- For the experiments, detailed instruction manuals are provided.
- The observations are checked and verified by faculty, and record books are maintained. Course faculty members and one instructor or technical staff member are assigned for each practical class.
- Additional lab facilities are available beyond working hours.
- We provide 2 or 3 additional experiments in each laboratory. Those who are interested can utilise the facilities during additional lab facility time.

| S No | COURSE | ASSOCIATED LABORATORY |
|---|---|---|
| **Semester 1** | | |
| 1 | Communicative English | Communicative English Lab |
| 2 | Engineering Chemistry | Engineering Chemistry Lab |
| 3 | Introduction to Programming | Computer Programming Lab |
| **Semester 2** | | |
| 1 | Engineering Physics | Engineering Physics Lab |
| 2 | Basic Electrical and Electronics Engineering | Electrical and Electronics Engineering Workshop |
| 3 | Data Structures | Data Structures Lab |
| **Semester 3** | | |
| 1 | Advanced Data Structures & Algorithm Analysis | Advanced Data Structures & Algorithm Analysis Lab |
| 2 | Object Oriented Programming Through Java | Object Oriented Programming Through Java Lab |
| **Semester 4** | | |
| 1 | Operating Systems | Operating Systems Lab |
| 2 | Database Management Systems | Database Management Systems Lab |
| **Semester-5** | | |
| 1 | Computer Networks | Computer Networks |
| 2 | Data Warehousing and Data Mining | Data Warehousing and Data Mining Lab |
| **Semester-6** | | |
| 1 | Machine Learning | Machine Learning using Python Lab |
| 2 | Compiler Design | Compiler Design Lab |
| 3 | Cryptography and Network Security | Cryptography and Network Security Lab |
| **Semester-7** | | |
| UML & Design Patterns | UML Lab | |

***Table 2.2.1.8 List of Course to be offered with Laboratory Experiments***

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

- A continuous assessment system is also implemented for the assessment of laboratory work.
- The assessment is done on the basis of the submission of laboratory records, understanding of the experiment through participation in performing the experiment, and viva voce.
- In every lab session, faculty update student record marks in the teacher ‘s attendance register.
- For practical subjects, there will be continuous evaluation during the semester for 30 internal marks and 70 end examination marks as per JNTUK R23 Regulations.
- For practical subjects, there will be continuous evaluation during the semester for 15 internal marks and 35 end examination marks as per JNTUK R20 Regulations.
- For practical subjects, there will be continuous evaluation during the semester for 20 internal marks and 30 end examination marks as per JNTUK R19 Regulations.
- For practical subjects, there will be continuous evaluation during the semester for 25 internal marks and 50 end examination marks as per JNTUK R16 Regulations.

**Impact analysis:**

- New view points and new project ideas are derived in the lab.
- Improvement in the analytical abilities of students thus improves placement.
- The stimulating environment created in laboratories is based on additional lab facilities, additional experiments, and mini-projects. It made students learn other technical aspects aside from the curriculum.
- Good results in the laboratory examination.

**G. Student feedback of teaching learning process and actions taken (6)**

The teaching and learning system followed by any educational institution needs continuous refinement. To facilitate the process of continuous refinement, the institution has adopted a feedback system that takes suggestions from students in each program. This eventually helps to tune the teaching and learning process. The same process was followed in our institution as a well-defined and formal feedback system. The feedback system has been identified as one of the important processes in our quality management system.

**Feedback collection process**

- Collecting feedback for all the courses twice in a semester Manually. The student feedback collection process is described in the flow chart in the figure 2.2.1.9 given below.
- Once the feedback collection process is completed, the reports are generated .
- The consolidated report containing grades for each faculty is sent to the respective head of the department, and the information is circulated to the faculty of the department for necessary action.

**Process Steps for Student’s Feedback**

***Figure 2.2.1.9: Flow chart for student feedback process (Annexed Separately)***

Feedback Analysis Process

- The feedback analysis is generated automatically.
- The feedback collected from students is first analyzed at the level of the HoD and then at the level of the principal.
- The contents of the feedback will be shared personally with each faculty member.
- The feedback on faculty is taken from the students, and the average is calculated.
- The faculty member who gets less average feedback is identified by the HoD, and he or she will be asked to submit an explanation to him. The student will select any one of the levels corresponding to each parameter for current semester courses.

**Actions Taken Procedure:**

- The increments and promotions are given based on input from a 5-point scale of student feedback in the faculty appraisal form.
- Those with low scores will be counseled and asked to improve their performance in the subsequent semesters by taking help from senior and experienced teachers or attending pedagogical training or other faculty development programmes as per necessity.
- The faculty members are constantly motivated by giving a word of appreciation in the departmental meetings.
- Normally, the feedback of the students is used to improve the performance of the faculty members. They are advised to improve in specific areas like blackboard management, class control, effective teaching, usage of teaching aids, etc.
- Regular training programs in collaboration with NITTTR and FDPs by experts from industry and academia are organized every year to train the faculty members in teaching methodologies and e teaching-learning process.
- Apart from this, the faculty members are encouraged to attend various faculty development programmes (FDPs), seminars, and workshops to up their skills.
- If needed, explanation from the faculty will be demanded for any inappropriate result, and subsequent action will be taken to improve the performance of the faculty member.

***Figure 2.2.1.10: Sample Feedback form for a faculty member collected from the students (Annexed Separately)***

***Figure 2.2.1.11.: Feedback summary for a faculty member collected from the students (Annexed Separately)***

**Evaluation form by HOD for the action taken:**

***Figure 2.2.1.12: Process of feedback evaluation by Head of the Department (Annexed Separately)***

Details of Computer Science and Engineering faculty members who got awards and rewards based on their best performance in the last three years

| Corrective Actions | No. of Corrective Actions in Last 3 Years | | |
|---|---|---|---|
| | 2023-24 | 2022-23 | 2021-22 |
| Awards / Rewards | 4 | 4 | 2 |
| No of faculty members Counselled for below average performance | 2 | 2 | 2 |

***Table 2.2.1.9: Summary of corrective measures in assessment period***

**Action Taken based on feedback for the academic year 2023-24:**

The following teachers identified as the best teachers based on the student feedback, and one teacher from each class was given an appreciation certificate

1. Mr. V V B Chari

2.Mrs. L Mounika

3. Mr. A Madhav Reddy

The following teachers are supposed to be nominated to attend faculty development programmes:

1. Mrs. Ch Rekha

2.Mr. G Mohan Singh Yadav

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

Institute Marks : 20.00

**2.2.2. Quality of internal semester question papers, Assignment and Evaluation**

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

**Internal Assessment:**

The institute conducts two midterm examinations after completing the 8th and 16th weeks, respectively, based on the academic calendar issued by JNTU, Kakinada. Each midterm examination covers half of the syllabus, and the midterm examinations are conducted for the marks as per the university. The duration of the midterm examination is one and a half hours, and the question papers are set by the concerned course faculty member. An online quiz exam is conducted by JNTU Kakinada and consists of 20 objective questions, each carrying a half mark. The department has a scrubbing committee called PAC (Program Assessment Committee), comprised of HoD and senior faculty members, to check the quality of the question paper, bloom taxonomy levels, and CO compliance.

The midterm question papers are prepared in 3 sets from half of the syllabus for the first midterm examination and the second half of the syllabus for the second midterm examination, along with Blooms taxonomy levels and CO compliance. The three sets of question papers are verified by the PAC (Program Assessment Committee). According to the level of toughness, the questions are prepared (viz., by analyzing the problems, implementing modern tools, formulating the problems, etc.), which is termed Bloom's taxonomy level. For each question, the teacher mentions the marks, outcome number, and Bloom's taxonomy level. The previous university examination papers are considered for the preparation of the question paper. For each course, three sets of question papers have to be submitted to the Examination Section. The Examination Section will select any one set for the midterm examinations.

The faculty members explain the solutions to the midterm examination question paper in the classroom, which will enable them to perform well in the final examination. The subject faculty members prepare the scheme of evaluation for the question paper and then evaluate the answer papers based on the scheme. The marks are evaluated based on the regulations guidelines. Finally, the marks scored by the student are distributed in the classroom and displayed on the notice board.

***Figure 2.2.2.1: Process for preparation of mid examination question paper (Annexed Separately)***

**Midterm Examination Conducting Process:**

**Procedure for the Conduction and Evaluation of Internal Assessment Tests:**

- The schedule for the midterm examinations will be displayed on the notice board one week prior to the commencement of the midterm and quiz examinations.
- The students write the midterm examination in their allotted seats in an examination hall, under the invigilation of a faculty member.
- The scheme of evaluation for the question paper is prepared by the course coordinator, ensuring an appropriate distribution of marks for a fair valuation as per the university norms.
- The faculties explain the solutions to the questions in the classroom after every midterm examination, which will enable them to perform well in the final examination.

**Assignments Conducting Process:**

- The course faculty or course coordinator announces the assignment topic and submission date and communicates with the class.
- Assignments are designed in such a way to promote self-learning from various sources.
- Assignments are evaluated for 5 marks, and feedback is given to the students to improve their learning and appreciate their efforts.

**Initiatives for implementation of Quality Assessment:**

- Assignments promote practice.
- Assignments may include theory, design, analysis, and problems.
- A minimum of two assignments are given for every course, and each assignment is evaluated for 5marks.
- The assignments are being practiced for the continuous improvement of learning capabilities and for good writing skills. These assignment questions are prepared as per Blooms Taxonomy levels.

**B. Process to Ensure Questions from an Outcomes/Learning Levels Perspective (5)**

Every course coordinator is responsible for analyzing the quality of the question paper, mapping with COs, and Bloom Taxonomy Levels. The scheme and solution of the internal question paper are maintained by the course coordinator.

***Figure 2.2.2.2 Bloom's Taxonomy Levels (Annexed Separately)***

The DAC will suggest modifications to the question paper in case of any discrepancies and verify them.

Program Assessment Committee is responsible for ensuring the quality of question papers in the department. External Examination question papers are set by eminent persons from reputed educational institutions as per the supplied syllabus and in line with COs and Bloom's taxonomy, and the same is moderated or verified by the course coordinator at the examination branch on the day of the examination.

Rubrics are prepared for project evaluation by the project coordinator.

Attainment of COs and POs is calculated after the evaluation of answer sheets, and the gaps are identified to address the curriculum gaps.

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

***Figure 2.2.2.4: Mid examination - I question paper for Ethical Hacking (Annexed Separately)***

***Figure 2.2.2.5: Mid examination - II question paper for Ethical Hacking (Annexed Separately)***

**D.Quality of Assignments and its elegance to COs (5)**

**Assignments:**

- The course coordinator announces the assignment topic and submission date and communicates to the class.
- Assignments are designed in such a way to promote self-learning from various sources.
- Assignments are evaluated for 5 marks, and feedback is given to the students to improve their learning and appreciate their efforts.
- Assignments shall be in the form of problems, mini-projects, design problems, slip tests, quizzes, etc., depending on the course content. It should be a continuous assessment throughout the semester, and the average marks will be considered.

**Sample Assignment Question Paper**

***Figure 2.2.2.6 Assignment - I question paper for Ethical Hacking (Annexed Separately)***

***Figure 2.2.2.7 Assignment - II question paper for Ethical Hacking (Annexed Separately)***

**Academic Year: 2024-25 (Semester-I)**

| Sl. No | Course | COs Mapped in MID-I | COs Mapped in Assignment-I | COs Mapped in MID-II | COs Mapped in Assignment-II |
|---|---|---|---|---|---|
| 1 | Oops Through Java | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 2 | Discreate Mathematics& Graph Theory | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 3 | Advance Data Structures and Algorithms | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 4 | Universal Human Values | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 5 | Digital Logic & Computer Organization | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 6 | Computer Networks | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 7 | Environmental Management | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 8 | Design And Analysis of Algorithms | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 9 | Data Warehousing and Datamining | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 10 | Software Project Management | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 11 | Cloud Computing | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 12 | Ethical Hacking | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 13 | Social Networks and Semantic Web | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 14 | Universal Human Values | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 15 | Electronics Measurements& Instrumentation | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 16 | Remote Sensing and GIS | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |

**Academic Year – 2024-25 (Semester -II)**

| Sl. No | Course | COs Mapped in MID-I | COs Mapped in Assignment-I | COs Mapped in MID-II | COs Mapped in Assignment-II |
|---|---|---|---|---|---|
| 1 | Managerial Economics Financial Analysis | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 2 | Operating Systems | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 3 | Database Management Systems | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 4 | Software Engineering | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 5 | Probability & Statistics | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 6 | Machine Learning | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 7 | compiler Design | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 8 | Disaster Management | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 9 | Cryptography and Network Security | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |
| 10 | Object Oriented Analysis and Design | CO 1, CO 2, CO 3 | CO 1, CO 2, CO 3 | CO 3, CO 4, CO 5 | CO 3, CO 4, CO 5 |

***Table:2.2.2.1 Consolidated COs mapping with Mid Examinations and Assignments***

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

**2.2.3. Quality of Student Projects (25)**

**Initiatives:**

1. The student's projects are selected in line with the departments vision, mission, and program outcomes.
2. Students are provided knowledge about different domains and broad areas for selecting their projects.
3. The list of previous years projects is displayed on a notice board, which ensures no repetition of projects.
4. The faculty members encourage the students to do project work with the facilities available in the department. Further, students are advised to take up industry projects.
5. The faculty members help the students avail themselves of external funding schemes for their project work.
6. The faculty members encourage the students to present posters and exhibit their work.
7. Students are encouraged to publish and present their project work in various journals and conferences.
8. Students are allowed to form groups that consist of a minimum of 3 or a maximum of 4 members.
9. If the students are not able to form the group, then the project coordinator will help them do so.
10. Implementation: The project coordinator is appointed by the head of the department and is responsible for the planning, scheduling, and execution of all the activities related to the student project work.

The Department Project Review Committee (DPRC), consisting of the Head of the Department, senior faculty members, and the Project Coordinator, evaluates and identifies the best projects by considering factors such as environment, safety, ethics, and cost.

***Figure 2.2.3.1 : Project Process Flow Chart (Annexed Separately)***

**Details of Project Implementation:**

***Table 2.2.3.1: Details of project implementation***

| Task | Particulars |
|---|---|
| Call for project batch and guide allotment | Students are asked to prepare their batch with the help of project coordinator of the department. With respect to the areas of interest of each guide the batches will be allotted with guides. |
| Call for Project Titles | Students are instructed to submit the title of the project in consultation with their respective guide to the project coordinator. |
| Synopsis submission | The student submitting project titles are pre-evaluated by a team of faculty. |
| Project title finalization and Abstract submission | The submitted project titles are reviewed by a committee consisting of Project coordinator, Head of the department and some senior faculties (project committee). |
| First Review | Students are instructed to submit software requirement specification and give a power point presentation for the project (Evaluation phase I by a team of faculty) |
| Second Review | Students are instructed to submit design documents of the project and give a PowerPoint presentation for the project (Evaluation phase II by a team of faculty) |
| Final demonstration | Students are instructed to submit complete project report with university compliance and give a PowerPoint presentation for the project (Evaluation phase III by a team of faculty) |
| Project internal marks announcement | The marks for the project work are announced and processed according to the university regulation |

| Components | | Criteria | Exceptionally well Executed (M>90%) | Good with Room Improvement (70%) | Meets Minimum Requirement (M<70%) |
|---|---|---|---|---|---|
| Demo of the project | 5 | Functionality | Task is broken into well thought out elements with good length, reusability and efficiency | Task broken into elements. Length, reusability and efficiency need to be taken care. | Code elements exist, no reusability and efficiency. |
| | 5 | Testing | All boundary cases are considered and tested. Program handles erroneous or unexpected input and meets all requirements. | All boundary cases are considered and tested. All obvious error conditions are checked and may not meet all the requirements. | Most boundary cases are considered and tested. Some error conditions are checked but did not meet all specified requirements. |
| Power Point Presentation | 5 | Content | Excellent organization of slides. | Contains all the details of the project, but slide organization are average. | Slides do not meet the minimum standard. |
| | 5 | Presentation | Excellent communication maintaining time limit. | Average communication skill, but time limit is followed. | Average communication skill, time limit also not followed. |

| | | | | | |
|---|---|---|---|---|---|
| Documentation | 5 | Synopsis | Well written synopsis clearly indicating the problem. | Synopsis clearly indicates the problem | Synopsis prepared without clear indication of problem |
| | 5 | Literature survey | Excellent. Referred international journals. | Good. Referred national journals. | Poor literature survey |
| | 5 | Schematic diagram and source code | Schematic diagram and source code clearly mentioned in the report | Missing source code or schematic diagram | Missing source code and schematic diagram |
| | 5 | Results and conclusion | All the results are clearly mentioned in the report and the conclusion is well written. | Report does not contain all the relevant results. | Report does not contain all the relevant results. Conclusion is also not written properly. |
| Question and answers | 10 | | Student is able to answer all the questions related to | Student is able to answer all the questions related to his/her project | Student is not able to answer many of the questions |

***Table 2.2.3.2: Rubric for Internal Project Evaluation***

***Figure 2.2.3.2: Project Process Flow Chart (Annexed Separately)***

**Rubrics format for Seminar Evaluation**

| Components | Marks(M) | Exceptionally well executed (M>90%) | Good with room for improvement(70% | Meets minimum requirement (M<70%) |
|---|---|---|---|---|
| Selection of topic | 10 | Very good. Latest topic | Good. Related to new areas in CSE. | Topic selected is not new. |
| Literature survey | 10 | Excellent. Referred international journals. | Good. Referred national journals. | Poor literature survey |
| Power point presentation | 15 | Excellent organization of slides. Effective communication. | Contains all the details of the topic, but slide organization are average. Average communication. | Slides do not meet the minimum standard. Voice clarity is poor. |
| Seminar report | 10 | Well written document. All information clearly organized. | Report gives enough information about the topic | Report prepared without enough information about the topic |
| Questions and answers | 5 | Student is able to answer all the questions related to his/her seminar. | Student is able to answer all the questions related to his/her seminar except one or two. | Student is not able to answer many of the questions related to his/her seminar. |

***Table 2.2.3.3.Rubrics format used for seminar evaluation***

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

**D. Process of Assess individual and team performamce (5)**

The project coordinator identifies the different research areas. DPRC identified research areas such as data mining, information security, network security, cloud computing, e-commerce, deep learning, data security, cloud security, cyber security, and web mining.

**Department Project Review Committee (DPRC):**

- The DPRC committee will be responsible for evaluating the timely progress of the projects and communicating the progress report to the students.
- At the end of the second semester of the third year (VI semester), the Department Project Review Committee should finalize the list of student batches with their projects, the list of available supervisors with their interesting research areas, and the list of identified research areas by the department if any research work is going on or specified by any faculty member.
- The list of all the projects conducted in the last 3 academic years by the department will be maintained along with their supporting documents like literature surveys submitted by the student groups, project evaluation forms, etc.
- It is ensuring that the department is equipped with high-quality laboratories so that the students have access for their project purposes.
- In case it is observed by the DPRC that any group of students is not performing well, the committee should take special care to improve their performance by counselling them.

**Academic Year 2024-25**

The following faculties are nominated as members of the departmental Project Review Committee (DPRC) to evaluate the project work of IV B. Tech. students:

| S. No. | Name of the Faculty | Designation | Position |
|---|---|---|---|
| 1 | Dr. M Anand Kumar | Head of the Department | Chairman |
| 2 | Dr. G Samba siva Rao | Professor | Coordinator |
| 3 | Dr. P Suresh | Professor | Member |
| 4 | Dr. G Madhava Rao | Professor | Member |

| | | | |
|---|---|---|---|
| 5 | Mr. V V B Chari | Asst. Professor | Member |

*Table 2.2.3.4: Department Project Review Committee for the academic year 2024-25*

**Objectives of DPRC:**

1. DPRC should follow the academic regulations R20 for B.Tech. (Regular) issued by JNTUK, Kakinada.
2. DPRC is responsible for the internal evaluation of each students project work.
3. DPRC should be aware of POs and PEOs.
4. DPRC should check whether the plan of action meets the project requirements or not.
5. DPRC should verify whether the project work meets the plan of action specified in review 1 or not in terms of scope, quality, and time period for module implementation.

**Allocation of Supervisor:**

Each project activity must be supervised by the faculty members of the department. These faculty members are termed supervisors. There can be at most two supervisors for a B. Tech. project, out of which at least one has to be from the department and the other can be from outside the department or institute. However, in order to select a supervisor from outside the institute, the department has to get prior permission from the principal.

**Project group formation:**

Each B.Tech. project has to be carried out by a group of students from the department. In order to ensure the participation of each student, the group size should be preferably at least 3 but not more than 4 students. The formation of project groups should be done such that each group has representation of students with varying academic merit, from best to average. In view of this, the following practice may be followed:

1. Decide the total number of feasible groups. Any left-out student(s) should be randomly assigned to any group. Enlist the students in the order of their previous years merit.
2. Depending on the number of groups to be formed, identify the group members in order of merit.
3. After forming the project groups, students should select the project supervisor based on the procedure specified by the DPRC and submit the project registration letter to the project coordinator. In cases where the project is multi-disciplinary, a project group can be formed consisting of students from other departments. But there must be at least one student from the department who is offering the project.

**Evaluation Procedure:**

The project work shall be evaluated for 200 marks, out of which 60 marks are for internal evaluation and 140 marks are for end-of-semester evaluation. To ensure proper conduct of each project, the progress of each project should be monitored on a continuous basis, first by the supervisor and then by the Department Project Review Committee. In order to do so, it is planned to hold two presentations to be made by each project group. The evaluation shall be done on the following basis:

| | |
|---|---|
| Zero$^{th}$ Review 1<br>(Preliminary Evaluation):<br>0 marks | Review 1<br>(Implementation Evaluation):<br>40 marks |
| Review 2<br>(Implementation Evaluation):<br>40 marks | Review 3<br>(Implementation Evaluation):<br>40 marks |
| End - Semester Evaluation: 140 marks | |

The internal marks are average of all reviews =40 Marks

**Supervisor Evaluation:**

Every supervisor should evaluate the respective project group based on the day-to-day evaluation through the "Project Work Book," which should be maintained by the project group, and submit the evaluated marks to DPRC at the time of the respective project group presentation. The project coordinator must arrange regular meetings with students and their supervisor and update their work progress through the project workbook. The meetings may be brief once the students project is under way, but the students supervisor needs to know that the students work is progressing and that it is being evaluated by day-to- day evolution and a weekly project status report. The students must note all concepts, drawings, formulae, derivations, experimental observations, graphs, charts, photographs, data flow charts, and pseudocodes on this note book, which must be produced before all evaluation boards. There shall be no blank pages between the writings.

**Guide's/Supervisor evaluation of marks is as follows:**

| S. No. | Assessment Basis | Maximum Marks |
|---|---|---|
| 1 | Day to day attendance of the student | 5 |
| 2 | Understanding of the topics and clarity on concepts as expressed through presentation | 5 |
| 3 | Experimental, computational or analytical skills learnt during the process | 5 |
| 4 | Initiative, involvement and approach to the work | 5 |
| **Total marks** | | T |

*Table 2.2.3.5: Criteria for Project Guide / Supervisor marks evaluation*

**Sample Evaluation Form Academic Year -2024-25**

**IV B. Tech II Semester Project work**

**Sample Evaluation Form AcademicYear-2023-2024**

**Review -II / III Evaluation Form**

***Note:(R1 to R5 are DPRC members, Remarks are all the DPRC members comments per student and see appendix V for evaluation rubrics)***

1. PRC members should be aware of the POs and PEOs of the department and ensure that the project work meets the POs and PEOs.
2. Thoroughly check the quality of the project and whether the work progresses as per the plan of action or not.
3. Collect the faculty evaluation forms and supporting documents for the completed work if they need them.

1. Marks Evaluation

   A = Knowledge on selected topic -- 10 M

   B = Quality of completed work -- 10 M

   C= Student contribution on project --- 05 M

D= Presentation Skills --- 10M

E = Queries answering --- 05 M

**Total marks 40 M**

| S.No | Roll No. | Name of the Student | Name of the Guide | Title of the Project | | Review Remarks | A | B | C | D | E | Total | Signature |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | R1 | | | | | | | | |
| | | | | | R2 | | | | | | | | |
| | | | | | R3 | | | | | | | | |
| | | | | | R4 | | | | | | | | |
| | | | | | R5 | | | | | | | | |
| | | | | | R1 | | | | | | | | |
| | | | | | R2 | | | | | | | | |
| | | | | | R3 | | | | | | | | |
| | | | | | R4 | | | | | | | | |
| | | | | | R5 | | | | | | | | |

***Table: 2.2.3.6: Sample evaluation form for project reviews***

This presentation shall be made before the respective project supervisor first, and on his approval, it should be made before the Department Project Review Committee. The second presentation of this project will be planned by he DPRC two weeks after the commencement of the first semester of the fourth year. This presentation will review the following:

- Introduction Problem Statement
- Methodology
- Modules
- Detailed Design
- Equations, design, and software to be used Algorithms/Techniques used
- Expected outcomes
- Plan of action for the project

DPRC should plan for the third presentation. This presentation will review the following:

- Introduction
- Abstract Methodology
- Modules Split-up and Gantt Chart Detailed Design (if any deviation)
- Work progresses towards the proposed system.
- Questions, design, and software to be used Algorithms/Techniques used
- Expected outcomes
- Plan of action for the project (if any deviations)
- References

The final internal presentation will be taken two weeks before the date of the final external presentation. This presentation will be made before the DPRC, and project guide of the department. The final project report should be extensively checked and signed by the supervisors and also by the DPRC. The groups are also required to make a final Power Point presentation.

**Sample Assessment of Project Internal Marks for the Academic Year 2023-24**

**IV B. Tech II Semester Project work Review - Consolidated Report**

| S.NO. | Regd. No. | R1 | R2 | R3 | R4 | R5 | Average | Day to Day Evaluation | Total |
|---|---|---|---|---|---|---|---|---|---|
| | Max.Marks | 40 | 40 | 40 | 40 | 40 | 40 | 20 | 60 |
| 1 | 20HM1A0508 | 40 | 40 | 40 | 40 | 40 | 40 | 20 | 60 |
| 2 | 20HM1A0533 | 38 | 35 | 40 | 40 | 40 | 39 | 18 | 57 |
| 3 | 20HM1A0520 | 30 | 34 | 37 | 37 | 37 | 35 | 18 | 53 |
| 4 | 20HM1A0532 | 40 | 40 | 40 | 40 | 40 | 40 | 18 | 58 |
| 5 | 20HM1A0535 | 40 | 40 | 40 | 40 | 40 | 40 | 19 | 59 |
| | | ***37.60*** | ***37.80*** | ***39.40*** | ***39.40*** | ***39.40*** | ***38.72*** | ***18.6*** | ***57*** |
| | **%Marks** | ***75%*** | ***95%*** | ***99%*** | ***99%*** | ***99%*** | ***97%*** | ***93%*** | ***96%*** |
| | Attainment | ***3*** | ***3*** | ***3*** | 3 | 3 | 3 | ***3*** | ***3*** |

***Table 2.2.3.7: Project internal marks for the academic year 2023-24***

R1 to R5 are conducted by DPRC members, marks of all the DPRC members per student should be note in R1 to R4 in marks evaluation table.

| | |
|---|---|
| **R1 = Marks of DPRC member1:** | **40** |
| **R2 = Marks of DPRC member2:** | **40** |
| **R3 = Marks of DPRC member3:** | **40** |
| **R4 = Marks of DPRC member4:** | **40** |
| **R5 = Marks of DPRC member5:** | **40** |
| **Avg. = Average marks of DPRC 1 to 5** | **40 M** |
| **Day to Day Evaluation** | **20 M** |
| **Total** | **60M** |

**Distribution of Marks for B. Tech Project Work End–Semester Evaluation:**

| S. No. | Particulars | Max. Marks |
|---|---|---|
| 1 | Literature Survey | 10 |
| 2 | Problem formulation | 30 |
| 3 | Experimental Design and Modules | 30 |
| 4 | Results – H/S Demo, Presentation & Discussion | 30 |
| 5 | Conclusions and scope for future work | 10 |
| 6 | Overall presentation of the Thesis and Oral presentation | 20 |
| 7 | Project Report Writing | 30 |
| Total Marks | | **160** |

***Table 2.2.3.8: Marks Distribution***

**B. Types and relevance of the Projects and their contribution towards attainmnet of POs and PSOs (5)**

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

1. Every week students will meet their guide three times as per schedule.
2. Guide will check their project diary and write comments.
3. Students will work on the comments given by the guide and rectify mistakes.
4. Guide will submit the progress report to the project coordinator and project Coordinator submits them to the HOD.
5. Students have to submit synopsis to the internal guide/co-guide
6. Internal guide/co-guide will give suggestions towards the improvement of the project work. Based on inputs, students have to start their work. In case, the student is doing project outside the institute such as industry internships, he/she has to consult the guide and co-guide towards implementation of the project.
7. The students have to give presentations three times on the project work which is reviewed by the project review committee; Internal guide will be a member of the committee.
8. Upon satisfactory reviews of the projects, project review committee will allow the students for submission of the report.

**Evaluation scheme for projects:**

1. Project viva voce examiner will be appointed by the JNTUK, Kakinada.
2. There will be a proposed time period to conduct project viva voce-JNTUK, Kakinada examiner will be contacted by the project coordinator to fix a suitable date and informs the same to the students.
3. Project viva voce will be held as per JNTUK, Kakinada schedule.

**Impact analysis:**

1. New innovative ideas from students form the basis of some projects Skills or abilities (Verbal/Non- verbal) of students improved.
2. Knowledge on various aspects of project management were developed.
3. Confidence level of the students was boosted.
4. Improved teamwork spirit.
5. Implementation and deployment of the project for social benefits.
6. Document preparation and presentation
7. Opportunities to showcase their project work in project exhibition

**Students Projects List**

| Batch No. | Hall Ticket No. | Student Name | Title | Guide | Relevant POs |
|---|---|---|---|---|---|
| 20CSE1 | 20HM1A0550 | Yakkanti Sai Teja (Team lead) | Email Spam Detection | Dr. G. Samba Siva Rao | PO1, PO2,PO3, PO4,PO5, PO8,PO9,PO10, PO12,PSO1,PSO2 |
| | 20HM1A0509 | Ediga Vamsi Goud | | | |
| | 20HM1A0522 | Kudumula Sumithra | | | |
| | 20HM1A0504 | Boya Vishnu Vardhan | | | |
| | 20HM1A0528 | Nalagangu Venkata Praveen | | | |
| 20CSE2 | 20HM1A0508 | Duggimi Sai Kumar(Team lead) | Student/ Employee Attendence Systems through IOT | Dr. Godagala Madhava Rao | PO1, PO2,PO3, PO4,PO5, PO8, PO9, PO10, PO12,PSO1, PSO2 |
| | 20HM1A0533 | Pathipati Mahesh | | | |
| | 20HM1A0520 | Kavali Narendra | | | |
| | 20HM1A0532 | Pathipati Hemalatha | | | |
| | 20HM1A0535 | RachagorlaJanakiram | | | |
| 20CSE3 | 20HM1A0515 | Kambam Aswini(Team lead) | Web based Graphical Passwords Authentication System using ML | Dr. Inaganti Shylaja | PO1, PO2,PO3, PO4,PO5, PO8, PO9, PO10, PO12,PSO1, PSO2 |
| | 20HM1A0526 | Mannuva Mallikharjuna | | | |
| | 20HM1A0542 | Talari Mahesh | | | |
| | 20HM1A0507 | Darnasi Rakshitha | | | |
| | 20HM1A0552 | Yarramareddy Aarthi Reddy | | | |
| 20CSE4 | 20HM1A0517 | Kandukuri Newton(Team lead) | Heart Disease Prediction using Machine Learning | Dr. Padigala Suresh | PO1, PO2, PO3, PO4, PO5, PO8, PO9, PO10, PO12,PSO1, PSO2 |
| | 20HM1A0502 | Bokka Venkat Rao | | | |
| | 20HM1A0510 | Galla Mohan Kumar | | | |
| | 20HM1A0502 | Bejjipalli Jeevamani | | | |
| | 20HM1A0551 | Year Nagapagari Girish | | | |

| | | | | | |
|---|---|---|---|---|---|
| 20CSE5 | 20HM1A0531 | Pallapu Sailaja (Team lead) | Automating E-Government using Artificial Intelligence | Nagam Aanjaneyulu | PO1, PO2, PO3, PO4,PO5, PO8,PO9, PO10, PO12,PS1, SO2 |
| | 20HM1A0530 | Nunsavathu Tirumala Bai | | | |
| | 20HM1A0523 | Maddirala Himabindu | | | |
| | 20HM1A0543 | Tammu Chandu | | | |
| | 20HM1A0506 | Chitimiti Ashok Chakravarthi Reddy | | | |
| 20CSE6 | 20HM1A0540 | Shyamala Kavya(Team lead) | Credit card Fraud Analysis using Predictive System In Machine Learning | Vanapamula Veerabrahmachari | PO1, PO2,PO3, PO4,PO5, PO8, PO9, PO10, PO12,PSO1, PSO2 |
| | 20HM1A0539 | Shaik Roshini | | | |
| | 20HM1A0537 | Sake Vinod | | | |
| | 20HM1A0501 | Addanki Ajay | | | |
| 20CSE7 | 20HM1A0545 | Thota Venkata Naveen(Team lead) | Chatbot using Artificial Intelligence | Arekatla Jaganmohan Reddy | PO1, PO2,PO3, PO4,PO5, PO8, PO9, PO10, PO12,PSO1, PSO2 |
| | 20HM1A0524 | Malyam Akhilamma | | | |
| | 20HM1A0505 | Chiruguri Akhil | | | |
| | 20HM1A0555 | Yerikala Ashok | | | |
| 20CSE8 | 20HM1A0547 | Vallepu Mahalakshmi(Team lead) | Intelligent Agent based Job Search System using React JS and Python | Shaik Guntur Mahabub Subhani | PO1, PO2,PO3, PO4,PO5, PO8, PO9, PO10, PO12,PSO1, PSO2 |
| | 20HM1A0527 | Meeniga Sravani | | | |
| | 20HM1A0519 | Kapu Vishnu | | | |
| | 20HM1A0518 | Kannedari Vinay Kumar | | | |
| | 20HM1A0554 | Yatham Muthyalu | | | |
| 20CSE9 | 20HM1A0548 | Velpula Chandrika(Team lead) | Weapon Detection using Artificial Intelligence and Deep Learning for Security Applications | Mr. M. Anand Kumar | PO1, PO2,PO3, PO4,PO5, PO8, PO9, PO10, PO12,PSO1, PSO2 |
| | 20HM1A0529 | Nalagangu Saran Venkata Achi Reddy | | | |
| | 20HM1A0538 | Sanivarpu Viswas Marreddy | | | |
| | 20HM1A0546 | Vadde Bhargava | | | |
| | 20HM1A0534 | Puli Pushpalatha | | | |
| 20CSE10 | 21HM5A0501 | Kosuri Lakshmana Rao | Emotion Face Detection using Twitter Datasets and Spacy Algorithm | Arekatla Madhava Reddy | PO1, PO2,PO3, PO4,PO5, PO8, PO9, PO10, PO12,PSO1, PSO2 |
| | 20HM1A0536 | Rapthadu Sreenath | | | |
| | 20HM1A0525 | Manda Ajay | | | |
| | 20HM1A0512 | Gogula Uma Maheswari | | | |
| | 20HM1A0553 | Yatham Mutyalu | | | |

***Table 2.2.3.9: Students Projects List***

| | | | |
|---|---|---|---|
| **PO1** | Engineering Knowledge | **PO8** | Ethics |
| **PO2** | Problem Analysis | **PO9** | Individual and Teamwork |
| **PO3** | Design/Develop solutions | **PO10** | Communication skills |
| **PO4** | Complex problem solving | **PO11** | Project Management & finance |
| **PO5** | Modern Tools usage | **PO12** | Lifelong learning |
| **PO6** | Engineer & Society | **PSO1** | Professional &Problem –Solving skills |
| **PO7** | Environment & Sustainability | **PSO2** | Successful career and Entrepreneurships. |

**Overall Mapping for a Batch (2023-24):**

| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 | PSO 1 | PSO 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C421** | **3** | **2.8** | **3** | **2.8** | **2.6** | **-** | **-** | **-** | **-** | **2.2** | **-** | **-** | **3** | **3** |

**Project overall attainment (Project Attainments): Direct Attainment (100 D)**

| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 | PSO 1 | PSO 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C421** | **3.00** | **3.00** | **3.00** | **3.00** | **3.00** | **-** | **-** | **-** | **-** | **3.00** | **-** | **-** | **3.00** | **3.00** |

**Project overall attainment (Project Attainments): Final Attainment (80 D+ 20 ID)**

| | PO 1 | PO 2 | PO 3 | PO 4 | PO 5 | PO 6 | PO 7 | PO 8 | PO 9 | PO 10 | PO 11 | PO 12 | PSO 1 | PSO 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C421** | **2.96** | **2.96** | **2.96** | **2.96** | **2.96** | **-** | **-** | **-** | **-** | **2.96** | **-** | **-** | **2.96** | **2.96** |

***Table 2.2.3.10:Project Attainmnet Sheet***

**E. Quality of completed projects / working Prototypes (5)**

**Summary Report of Best Projects**

The university will appoint an examiner to inspect all the prototypes developed by students as part of their final-year project work and identify the three best projects from every year.

The following table shows the three best projects of the last three assessment years.

| Sl. No | Batch No. | Hall Ticket No. | Title | Guide | A.Y. |
|---|---|---|---|---|---|
| 1 | 20CSE02 | 20HM1A0508<br>20HM1A0533<br>20HM1A0520<br>20HM1A0532<br>20HM1A0535 | Student/ Employee Attendance Systems through IOT | Dr. I. Shylaja | 2023-24 |
| ***2*** | 20CSE06 | 20HM1A0540<br>20HM1A0539<br>20HM1A0537<br>20HM1A0501<br>20HM1A0545 | Credit card Fraud Analysis using Predictive System In Machine Learning | Mr. A. Madhava Reddy | 2023-24 |
| 3 | 19CSE04 | 19HM1A0541<br>19HM1A0512<br>19HM1A0545<br>19HM1A0518<br>19HM1A0562 | Blockchain and Machine Learning in Health care and Management | Mr. V.V.B.CHARI | 2022-23 |
| 4 | 19CSE07 | 19HM1A0520<br>19HM1A0551<br>19HM1A0550<br>19HM1A0556<br>19HM1A0574 | Exercise Recommendation Method Based on Machine Learning | Mrs. SHAIK ARIFA | 2022-23 |
| 5 | 18CSE01 | 18HM1A0502<br>18HM1A0504<br>18HM1A0551<br>17HM1A0514<br>18HM1A0515 | NETWORK TRAFFIC ANALYSIS USING MACHINE LEARNING | Dr. K. Venkataraman | 2021-22 |
| 6 | 18CSE09 | 18HM1A0547<br>18HM1A0538<br>18HM1A0555<br>18HM1A0506<br>18HM1A0550 | AUTOMATING E-GOVERNMENT SEVICE WITH ML & AI. | Dr. Sk. Moulali | 2021-22 |

***Table: 2.2.3.11: List of best project for three assessment years***

Following is the list of students and a few photographs taken during the project exhibition organized in the department and also in the competitions.

| S.No. | Name of the Student | Event | College Name | Prize | Academic Year |
|---|---|---|---|---|---|
| 1 | Addanki Ajay<br>Chilukuri Akhil<br>Ediger Vamsi Goud<br>KambamAswini<br>Kapu Vishnu | Project Expo | A. M Reddy Memorial College of Engineering & Technology | First | 2023-24 |
| 2 | Nalagangu Venkata Praveen<br>Patriate Hemalatha<br>Rapthadu Sreenath<br>Shaik Roshini<br>Vadde Bhargava | Project Expo | A. M Reddy Memorial College of Engineering & Technology | Second | 2023-24 |

***Table 2.2.3.12:List of Students who recieved prizesin project expo***

Photographs during the Project Expo are done at A.M. Reddy Memorial College of Engineering amd Technology in the assessment period

***Figure: 2.2.3.3: Student participation in project expo*** ***(Annexed Separately)***

F. Evidence of papers published / Awards received by projects etc. (2)

**A M REDDY MEMORIAL COLLEGE OF ENGINEERING & TECHNOLOGY,**

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

List of Publications/Paper and Poster Presentations

Following are the list of publications, papers, posters, competitions participated by students to demonstrate the project outcomes from the last 3 assessment years

| Name of the Student | Event | College Name | Prize | Academic Year |
|---|---|---|---|---|
| B. Jeevamani , P. Pushpalatha | Paper Presentation | A. M Reddy Memorial College of Engineering & Technology | First | 2023-24 |
| M. Mallikharjuna, S. Vinod | Paper Presentation | Tirumala Engineeing College | Second | 2023-24 |
| Y. Ashok, R. Janakiram | Poster Presentation | St. Marys College of Engineering & Technology | First | 2023-24 |
| T. Mahesh, K. Narendra | Poster Presentation | A. M Reddy Memorial College of Engineering & Technology | Second | 2023-24 |
| B. Swathi, Ch. Ramya | Paper Presentation | Narasaropet Institute of College | First | 2022-23 |
| A. Kavitha, K. Deevena | Paper Presentation | Eswar College of Engineering & Technology | Second | 2022-23 |
| P. Divya, H Vannuraswamy | Poster Presentation | A. M Reddy Memorial College of Engineering & Technology | First | 2022-23 |
| P. Neelavathi, D. Rafi | Poster Presentation | St. Marys College of Engineering & Technology | Second | 2022-23 |
| B. Anitha, A. Siva Prasad | Paper Presentation | Universal College of Engineering & technology | First | 2021-22 |
| B. Kishore, Ch. Anusha | Paper Presentation | A. M Reddy Memorial College of Engineering & Technology | Second | 2021-22 |
| G. Lokesh, B. Gangadhar | Poster Presentation | Eswar College of Engineering & Technology | First | 2021-22 |
| K. Jeevan Kishore, K. Mounika | Poster Presentation | A. M Reddy Memorial College of Engineering & Technology | Second | 2021-22 |

***Table 2.2.3.13: Details of project implementation***

*Figure: 2.2.3.3: Student participation in* Paper and Poster Presentations ***(Annexed Separately)***

**2.2.4 Initiative related to industry interaction** (15) Institute Marks : 15.00

**2.2.4. Initiative related to industry interaction**

**The department has taken following initiatives:**

**A. Industry collaborated Events (5)**

**MOU'S with Industries: MOUs with different industries are as shown in the following table.**

***Table 2.2.4.1: Industry interaction impact analysis through functional MOUs (2024-25)***

| Sl. No | Name of the Company | Objectives (company objectives towards dept.) | Outcomes | Duration | Event | Impact Analysis |
|---|---|---|---|---|---|---|
| 1 | Global e- Smart Technologies | Entrepreneurial Skill Development, Outcome Based Trainings, Placement Andrelatedservices | MOU Sign,Skill Development ,Training,Placements | 19/05/2024 to 19/05/2025 | Workshop on Ethical Hacking | Practical cybersecurity skills to identify and defend against system vulnerabilities, enhancing both personal and organizational digital security. |
| 2 | HirotoInd Technologies | Training, Placement, Skill Development, R&D Services And Other Academic Matters | MOU Sign,Skill Development ,R&D ,Training,Placements | 15/05/2024 to 15/05/2025 | Technical Training Flask | Build and deploy dynamic web applications, fostering backend development skills essential for modern web development careers. |
| 3 | Sinnnovation pvt lmt | Skill Development, Certified Courses, Outcome Based Trainings, Placement And Related Services | MOU Sign,Skill Development ,Training,Placements | 18/05/2024 to 18/05/20225 | Technical talk Network Security | Awareness of network threats and defense strategies, promoting secure communication practices across digital infrastructures. |
| 4 | SMART SELECT Solutions | Entrepreneurial Skill Development, Outcome Based Trainings, Placement And Related Services | MOU Sign,Skill Development ,Training,Placements | 25/05/2024 to 25/05/2025 | Technical Talk on Python | Strengthened programming foundations using Python, opening pathways to careers in software development, automation, and data science. |
| 5 | Synctra Solutions | Training, Placement, Skill Development, R&D Services And Other Academic Matters | MOU Sign,Skill Development ,R&D ,Training,Placements | 18/05/2024 to 18/05/20225 | Technical Talk on Machine Learning | ML concepts and tools, empowering participants to analyze data and develop intelligent systems for real-world problem-solving. |

***Table 2.2.4.2: Industry interaction impact analysis through functional MOUs (2023-2024)***

| Sl. No | Name of the Company | Objectives (company objectives towards dept.) | Outcomes | Duration | Event | Impact Analysis |
|---|---|---|---|---|---|---|
| 1 | Global e- Smart Technologies | Entrepreneurial Skill Development, Outcome Based Trainings, Placement Andrelatedservices | MOU Sign,Skill Development ,Training,Placements | 19/04/2023 to 19/04/2024 | Workshop on Ethical Hacking | Practical cybersecurity skills to identify and defend against system vulnerabilities, enhancing both personal and organizational digital security. |
| 2 | HirotoInd Technologies | Training, Placement, Skill Development, R&D Services And Other Academic Matters | MOU Sign,Skill Development ,R&D ,Training,Placements | 15/04/2023 to 15/04/2024 | Technical Training Flask | Build and deploy dynamic web applications, fostering backend development skills essential for modern web development careers. |
| 3 | Sinnnovation pvt lmt | Skill Development, Certified Courses, Outcome Based Trainings, Placement And Related Services | MOU Sign,Skill Development ,Training,Placements | 18/04/2023 to 18/04/2024 | Technical talk Network Security | Awareness of network threats and defense strategies, promoting secure communication practices across digital infrastructures. |
| 4 | SMART SELECT Solutions | Entrepreneurial Skill Development, Outcome Based Trainings, Placement And Related Services | MOU Sign,Skill Development ,Training,Placements | 11/04/2023 to 11/04/2024 | Technical Talk on Python - | Strengthened programming foundations using Python, opening pathways to careers in software development, automation, and data science. |
| 5 | Synctra Solutions | Training, Placement, Skill Development, R&D Services And Other Academic Matters | MOU Sign,Skill Development ,R&D ,Training,Placements | 12/04/2023 to 12/04/2024 | Technical Talk on Machine Learning | ML concepts and tools, empowering participants to analyze data and develop intelligent systems for real-world problem-solving. |

***Table 2.2.4.3: Industry interaction impact analysis through functional MOUs (2022-2023)***

| Sl. No | Name of the Company | Objectives (company objectives towards dept.) | Outcomes | Duration | Event | Impact Analysis |
|---|---|---|---|---|---|---|
| 1 | Global e- Smart Technologies | Entrepreneurial Skill Development, Outcome Based Trainings, Placement Andrelatedservices | MOU Sign,Skill Development ,Training,Placements | 19/04/2023 to 19/04/2024 | Workshop on Devops | To steamline software development and operations through automation collaboration and continious integration practices |
| 2 | HirotoInd Technologies | Training, Placement, Skill Development, R&D Services And Other Academic Matters | MOU Sign,Skill Development ,R&D ,Training,Placements | 15/04/2023 to 15/04/2024 | Technical Training Flask | Build and deploy dynamic web applications, fostering backend development skills essential for modern web development careers. |
| 3 | Sinnnovation pvt lmt | Skill Development, Certified Courses, Outcome Based Trainings, Placement And Related Services | MOU Sign,Skill Development ,Training,Placements | 18/04/2023 to 18/04/2024 | Technical talk Network Security | Awareness of network threats and defense strategies, promoting secure communication practices across digital infrastructures. |
| 4 | SMART SELECT Solutions | Entrepreneurial Skill Development, Outcome Based Trainings, Placement And Related Services | MOU Sign,Skill Development ,Training,Placements | 11/04/2023 to 11/04/2024 | Technical Talk on Python - | Strengthened programming foundations using Python, opening pathways to careers in software development, automation, and data science. |
| 5 | Synctra Solutions | Training, Placement, Skill Development, R&D Services And Other Academic Matters | MOU Sign,Skill Development ,R&D ,Training,Placements | 12/04/2023 to 12/04/2024 | Technical Talk on Machine Learning | ML concepts and tools, empowering participants to analyze data and develop intelligent systems for real-world problem-solving. |

***Figure 2.2.4.1: Functional MoUs (Annexed Separately).***

**B. Industry expert involvement in developing syllabus and partial delivery of the course work (5)**

The following are the value-added courses offered during the last 3 assessment years, with industry experts involvement in identifying the gaps and also in the delivery of the courses.

Value added courses imparting transferable and life skills offered during the year

***Table 2.2.3.4: List of value added courses for academic year 2024-25***

**Academic Year: 2024-25 (CAY)**

| Value added courses | Date of introduction | Relevant POs & PSOs Mapping |
|---|---|---|
| Training on aptitude and reasoning | 25/07/2024 | PO10, PO12 |
| Training on interpersonal skills | 30/08/2024 | PO3, PO8, PO9, PO10 |
| Training on Leadership Qualities | 24/10/2024 | PO8, PO10, PO12 |
| Training on Emotional intelligence | 11/02/2025 | PO8, PO10, PO12 |
| Training on Communication skills | 12/03/2025 | PO3, PO4, PO12 |

*Table 2.2.4.5: List of value added courses for academic year 2023-2024*

**Academic Year: 2023-2024(CAYm1)**

| Value added courses | Date of introduction | Relevant POs & PSOs Mapping |
|---|---|---|
| Training on aptitude and reasoning | 10/08/2023 | PO10, PO12 |
| Training on interpersonal skills | 20/09/2023 | PO3, PO8, PO9, PO10 |
| Training on Leadership Qualities | 29/01/2024 | PO8, PO10, PO12 |
| Training on Emotional intelligence | 21/02/2024 | PO8, PO10, PO12 |
| Training on Communication skills | 27/03/2024 | PO3, PO4, PO |

*Table 2.2.4.6: List of value added courses for academic year 2022-2023*

**Academic Year: 2022-2023 (CAYm2)**

| Value added courses | Date of introduction | Relevant POs & PSOs Mapping |
|---|---|---|
| Training on aptitude and reasoning | 06/10/2022 | PO10, PO12 |
| Training on interpersonal skills | 16/11/2022 | PO3, PO8, PO9, PO10 |
| Training on Leadership Qualities | 06/02/2023 | PO8, PO10, PO12 |
| Training on Emotional intelligence | 13/03/2023 | PO8, PO10, PO12 |
| Training on Communication skills | 20/04/2023 | PO3, PO4, PO12 |

**C. Partial delivery of appropriate courses by industry experts & Impact analysis of industry institute interaction and actions taken**

The department invites experts from industries to deliver lectures to students. During the lecture, students can raise questions and interact with the experts from industry.

A report is prepared about the guest lecturer and workshops, and the feedback from the students is collected for improvement in future guest lectures.

***Table 2.2.6.7: Details of Courses Delivered by Industrial Experts during the A.Y.2024-2025***

| S. No | Topic | Course | Date/ Month/Year | Resource Person with Designation | Number of students attended | Relevant PO'S |
|---|---|---|---|---|---|---|
| 1 | Advanced Computer Networks | Guest Lecture | 27-07-2024 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 45 | PO1, PO2, PO3, PO4; PSO1, PSO2 |
| 2 | Mango DB | Guest Lecture | 10/2/2025 | Mrs.P.Sirisha Reddy , Team Lead ,Infosys | 70 | PO1, PO2, PO3, PO5; PSO1, PSO2 |
| 3 | IDEA and BLOWFISHAlgorithms. | Guest Lecture | 20-02-2025 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 45 | PO1, PO2, PO3, PO12; PSO1 |

***Table 2.2.6.8: Details of Courses Delivered by Industrial Experts during the A.Y.2023-2024***

| S. No | Topic | Course | Date/ Month/Year | Resource Person with Designation | Number of students attended | Relevant PO'S |
|---|---|---|---|---|---|---|
| 1 | Advanced Computation and Graphics using C++ | Guest Lecture | 22-08-2023 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | ***52*** | PO1, PO2, PO3, PO5; PSO1, PSO2 |
| 2 | Advanced Computer Networks | Guest Lecture | 7/8/2023 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 40 | PO1, PO2, PO3, PO4; PSO1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | IDEA and BLOWFISHAlgorithms. | Guest Lecture | 08/04//2024 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 40 | PO1, PO2, PO3; PSO1, PSO2 |

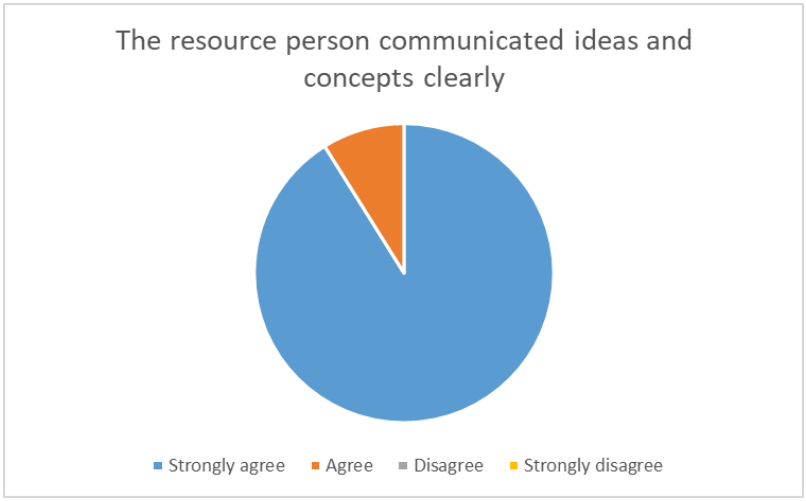
***Table 2.2.6.9: Details of Courses Delivered by Industrial Experts during the A.Y. 2022-2023***

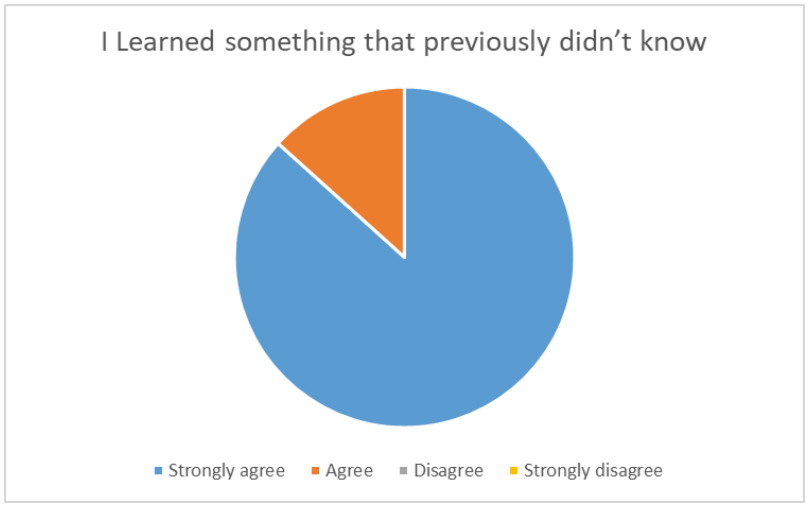
| S. No | Topic | Course | Date/ Month/Year | Resource Person with Designation | Number of students attended | Relevant PO'S |
|---|---|---|---|---|---|---|
| 1 | Advanced Computer Networks | Guest Lecture | 23-08-2022 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 52 | PO1,PO2,PO3,PO5,PSO1,PSO2 |
| 2 | GIT and Jenkin Tools. | Workshop | 15/03/2023 TO16/03/2023 | Mr.K.Ashok,Tech Lead,OSI Digital Pvt. Ltd | 70 | PO1,PO2,PO3,PO5,PO11,PO12,PSO1,PSO2 |
| 3 | Mongo DB | Workshop | 03/02/2023 TO 04/02/2023 | Mrs.P.Sirisha Reddy , Team Lead ,Infosys | 40 | PO1, PO2, PO3, PO5, PO12,PSO1, PSO2 |

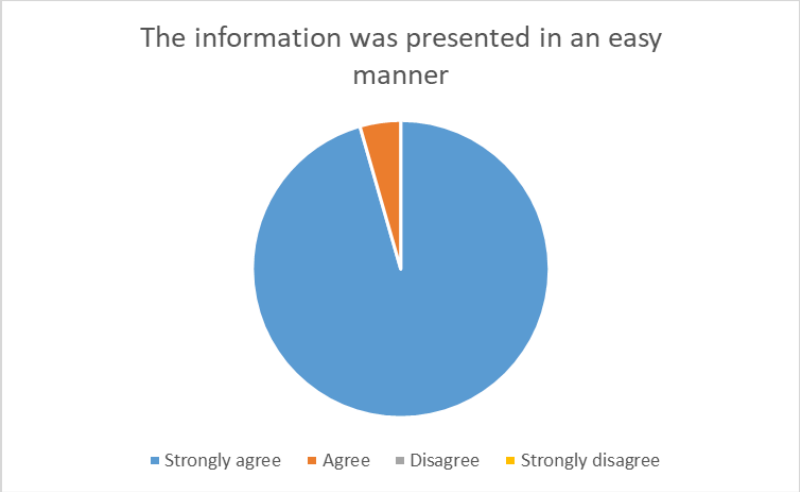
***Figure 2.2.4.2 : Sample empty feedback form (Annexed Separately).***

**Feedback Analysis of Workshop on "Advanced Computer Networks"**

***Figure 2.2.4.3: Feedback collection- I for workshop (Annexed Separately).***



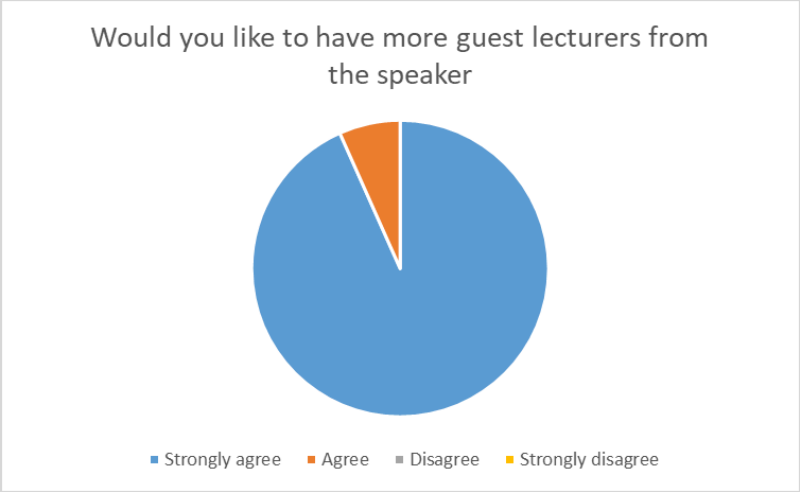




*Figure 2.2.4.4: Feedback analysis for workshop*

**C. Impact Analysis: (5)**

1. MOUs are signed between industries and institutes to establish an industry-institute link.
2. Students will be encouraged to take up ongoing industry projects.
3. Internships for the students are arranged.
4. Technical lecturers are organised with the help of industrial experts for gaining practical knowledge.
5. Arranging seminars, symposiums, workshops, and conferences in collaboration with industries

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

Institute Marks : 15.00

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

**A. Industrial training/tours for students (3) &**

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

Initiatives related to industrial internships and summer training for students are actually started in the month of January of every academic year. The correspondence starts with different companies or industries in Andhra Pradesh and Telangana states. After obtaining permission from different companies, students are informed about their internships at those companies. Some students, out of their own interest, get permission from industries for internships. After verifying the profiles of such industries, students are permitted to go for internships. The internship coordinator helps the students by interacting with the industrial experts, issuing recommendation letters to the students, and offering any other necessary support.

After the completion of the internship, the students give their feedback about the industry in which they underwent internship training. Based on the students feedback about the industries where the training is not satisfactory, students are not encouraged to apply for internships in those industries starting in the next academic year.

**AcademicYear:2024-25 (CAY)**

| S.No | Hall Ticket No, | Student Name | Topic Name | Organization Name | Relevant PO |
|---|---|---|---|---|---|
| 1 | 22HM1A0502 | Angajala Veera lingeshwara | Data Science | Skill dzire | PO1,PO2,PO3,PO5,PO12 |
| 2 | 22HM1A0504 | Avula Veeranjineyulu | Artificial Intelligence | Skill dzire | PO1,PO2,PO3,PO5,PO12 |
| 3 | 22HM1A0505 | Bonthala Govinda Rajulu | Data Science | Skill dzire | PO1,PO2,PO3,PO5,PO12 |
| 4 | 22HM1A0507 | Chebrolu Jyothika Sai | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 5 | 22HM1A0508 | Dammalapati Sravanthi | Cyber Security | Excelr | PO1,PO6,PO7,PO8,PO12 |
| 6 | 22HM1A0509 | Danda Sarita | Machine Learning | Skill dzire | PO1,PO2,PO3,PO5,PO12 |
| 7 | 22HM1A0510 | Devarakonda Manikanta | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 8 | 22HM1A0511 | Dodlavaram Vishnu Vardhan | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 9 | 22HM1A0512 | Edigattu Sreenivasulu | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 10 | 22HM1A0513 | Gogula Ajay | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 11 | 22HM1A0515 | Gudipati Pallavi | Artificial Intelligence | Skill dzire | PO1,PO2,PO3,PO5,PO12 |
| 12 | 22HM1A0516 | Gummadi Praveen | Ai-Ml-Ds | Blackbug Engineers | PO1,PO2,PO3,PO5,PO12 |
| 13 | 22HM1A0517 | Gunja Narendra | Ai-Ml-Ds | Blackbug Engineers | PO1,PO2,PO3,PO5,PO12 |
| 14 | 22HM1A0518 | Gunja Sirisha | Ai-Ml-Ds | Blackbug Engineers | PO1,PO2,PO3,PO5,PO12 |
| 15 | 22HM1A0520 | Jampani Vanajadevi | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 16 | 22HM1A0521 | Juvvenaboyina Ramakrishna | Ai-Ml-Ds | Blackbug Engineers | PO1,PO2,PO3,PO5,PO12 |
| 17 | 22HM1A0522 | Kandula Dharani | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 18 | 22HM1A0523 | Karrothu Chaitanya Kumar | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 19 | 22HM1A0524 | Kesari Bhavani Prasad Reddy | Artificial Intelligence | Skill dzire | PO1,PO2,PO3,PO5,PO12 |
| 20 | 22HM1A0525 | Kolli Sivalakshmi | Ai-Ml-Ds | Blackbug Engineers | PO1,PO2,PO3,PO5,PO12 |
| 21 | 22HM1A0526 | Lotla Uday Kumar | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 22 | 22HM1A0527 | Majji Pavan Kumar | Ai-Ml-Ds | Blackbug Engineers | PO1,PO2,PO3,PO5,PO12 |
| 23 | 22HM1A0529 | Meeniga Sirisha | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 24 | 22HM1A0531 | Nidikonda Srinivasarao | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 25 | 22HM1A0534 | Pothireddy Susanna | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 26 | 22HM1A0535 | Pujari Somanath | Full Stack Development | Blackbug Engineers | PO1,PO2,PO3,PO5,PO12 |
| 27 | 22HM1A0536 | Rakonda Lakshmi Venkata Alivelu | Artificial Intelligence | Skill dzire | PO1,PO2,PO3,PO5,PO12 |
| 28 | 22HM1A0537 | Rasipogula Swapna | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 29 | 22HM1A0538 | Ravi Mani Deepthi | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |

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|---|---|---|---|---|---|
| 30 | 22HM1A0539 | Rebba Surya | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 31 | 22HM1A0540 | Sadhu Deepthi | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 32 | 22HM1A0541 | Sake Sravanthi | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 33 | 22HM1A0542 | Sali Karthik | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 34 | 22HM1A0544 | Shaik Mohith | Full Stack Development | Data valley | PO1,PO2,PO3,PO5,PO12 |
| 35 | 22HM1A0545 | Shaik Mubashira | Data Science Machine Learning | Data valley | PO1,PO2,PO3,PO5,PO12 |

*Table: 2.5.1. Internships for the A.Y. 2022-2023*

**AcademicYear:2023-2024 (CAYm1)**

| S.NO | Hall Ticket No. | Student name | Topic Name | Organization Name | Relavent PO |
|---|---|---|---|---|---|
| 1 | 21HM1A0501 | ALUKAPENTA THIMMAGURUDU SWAMY | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 2 | 21HM1A0502 | ARUMALLA SANDEEP KUMAR | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 3 | 21HM1A0504 | BADISA BHAVYA SRI | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 4 | 21HM1A0506 | BATTULA VENKATESH | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 5 | 21HM1A0507 | BEESABATHINA SARANSAI | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 6 | 21HM1A0509 | CHEDABAVI SHRAVANI | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 7 | 21HM1A0510 | CHEDIPOTHULA KONDALU | MACHINE LEARNING INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 8 | 21HM1A0511 | CHILAKURI RAMYA | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 9 | 21HM1A0512 | CHINNA NAGAPPA GARI JYOTHI | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 10 | 21HM1A0513 | DEGALA GOPINATH | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 11 | 21HM1A0514 | DEVARAPALLI SANDEEP REDDY | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 12 | 21HM1A0515 | DEVIREDDY PUJITHA | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 13 | 21HM1A0516 | EPPALA VISHNU VARDHAN REDDY | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 14 | 21HM1A0518 | GAJULA NAGA SIVA KIRAN | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 15 | 21HM1A0519 | GOLLA SIVA KUMAR (M) | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 16 | 21HM1A0520 | GOTTAPU SIREESHA | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 17 | 21HM1A0521 | HARIJANA MADHURIMA | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 18 | 21HM1A0522 | JAMPALA MALA KONDA RAYUDU | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 19 | 21HM1A0523 | JASTY MANOJ | MACHINE LEARNING INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 20 | 21HM1A0524 | KAMASANI BHASKAR RAO | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 21 | 21HM1A0525 | KOTTAPALLI KALYAN | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 22 | 21HM1A0526 | KUMMITHA GOPAL REDDY | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 23 | 21HM1A0527 | KURAKULA DIWAKAR | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 24 | 21HM1A0528 | LAKSHMI PRASANNA N | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 25 | 21HM1A0529 | LUKALAPU ADARSH | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 26 | 21HM1A0530 | MADIGA SANIYA | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |

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|---|---|---|---|---|---|
| 27 | 21HM1A0531 | MUKKELLA ANIL KUMAR | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 28 | 21HM1A0532 | PALLEPOGU INDU PRIYA | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 29 | 21HM1A0533 | PATHALA KRANTHI KUMAR | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 30 | 21HM1A0534 | PATTIPATI DEEKSHITHA | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 31 | 21HM1A0535 | PENUGONDA PAVAN | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 32 | 21HM1A0536 | PULLAIAHGARI ASWILATHA | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 33 | 21HM1A0537 | RAVULAPALLI SHANTHI TRIVENI | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 34 | 21HM1A0538 | SUGALI POOJITHA BAI | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 35 | 21HM1A0539 | SUNKARA GOPI AJAY KUMAR | DATA ANALYSIS INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 36 | 21HM1A0540 | VARIKUNTLA NARENDRA | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 37 | 21HM1A0541 | YERRABHOOMI SAMRUTHA | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |
| 38 | 21HM1A0542 | PODARALLA SAI KUMAR REDDY | PYTHON FULLSTACK DEVELOPER INTERN | CODEGNAN | PO1,PO2,PO3,PO5,PO12 |

*Table: 2.5.2. Internships for the A.Y. 2023-2024*

**AcademicYear:2022-2023 (CAYm2)**

| S.NO | Hall Ticket No. | Student Name | Topic Name | Organization Name | Relavent PO |
|---|---|---|---|---|---|
| 1 | 20HM1A0501 | ADDANKI AJAY | Al-ML Virtual lnternship | EDU SKILLS | PO1,PO2,PO3,PO5,PO12 |
| 2 | 20HM1A0502 | BEJJIPALLI JEEVAMANI | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 3 | 20HM1A0503 | BOKKA VENKATARAO | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 4 | 20HM1A0504 | BOYA VISHNUVARDHAN | AWS CLOUD Virtual lnternship | EDU SKILLS | PO1,PO3,PO5,PO11,PO12 |
| 5 | 20HM1A0505 | CHIRUGURI AKHIL | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 6 | 20HM1A0506 | CHITIMINI ASHOK CHAKRAVARTHI REDDY | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 7 | 20HM1A0507 | DARNASI RAKSHITHA | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 8 | 20HM1A0508 | DUGGIMI SAIKUMAR | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 9 | 20HM1A0509 | EDIGA VAMSI GOUD | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 10 | 20HM1A0510 | GALLA MOHAN KUMAR | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 11 | 20HM1A0512 | GOGULA UMA MAHESWARI | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 12 | 20HM1A0513 | GORANTLA SAI PUNEETH | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 13 | 20HM1A0515 | KAMBAM ASWINI | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 14 | 20HM1A0517 | KANDUKURI NEWTON | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 15 | 20HM1A0518 | KANNEDARI VINAY KUMAR | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 16 | 20HM1A0519 | KAPU VISHNU VARDHAN REDDY | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 17 | 20HM1A0520 | KAVALI NARENDRA | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 18 | 20HM1A0522 | KUDUMALA SUMITHRA | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 19 | 20HM1A0523 | MADDIRALA HIMA BINDHU | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |

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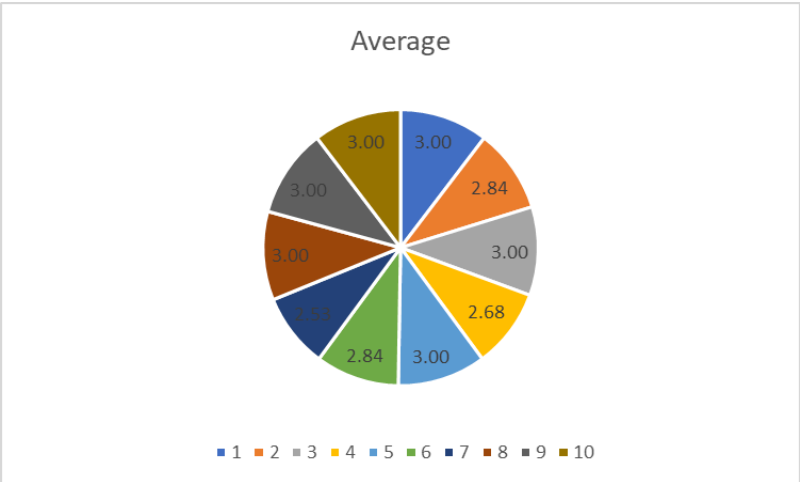
|---|---|---|---|---|---|
| 20 | 20HM1A0524 | MALYAM AKHILAMMA | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 21 | 20HM1A0525 | MANDA AJAY | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 22 | 20HM1A0526 | MANNUVA MALLIKHARJUNA | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 23 | 20HM1A0527 | MEENIGA SRAVANI | AWS CLOUD Virtual lnternship | EDU SKILLS | PO1,PO3,PO5,PO11,PO12 |
| 24 | 20HM1A0528 | NALAGANGU VENKATA PRAVEEN | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 25 | 20HM1A0529 | NALLAGANGULA SARAN VENKATA ATCHIREDDY | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 26 | 20HM1A0530 | NANSAVATHU THIRUMALA BAI | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 27 | 20HM1A0531 | PALLAPU SAILAJA | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 28 | 20HM1A0532 | PATHIPATI HEMALATHA | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 29 | 20HM1A0533 | PATHIPATI MAHESH | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 30 | 20HM1A0534 | PULI PUSHPALATHA | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 31 | 20HM1A0535 | RACHAGORLA JANAKI RAM | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 32 | 20HM1A0536 | RAPTHADU SREENATH | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 33 | 20HM1A0537 | SAKE VINOD | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 34 | 20HM1A0538 | SANIVARPU VISWAS MARREDDY | AWS CLOUD Virtual lnternship | EDU SKILLS | PO1,PO3,PO5,PO11,PO12 |
| 35 | 20HM1A0539 | SHAIK ROSHINI | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 36 | 20HM1A0540 | SHYAMALA KAVYA | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 37 | 20HM1A0542 | TALARI MAHESH | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 38 | 20HM1A0543 | TAMMU CHANDU | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 39 | 20HM1A0545 | THOTA VENKATA NAVEEN | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 40 | 20HM1A0546 | VADDE BHARGAVA | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 41 | 20HM1A0547 | VALLEPU MAHALAKSHMI | Al-ML Virtual lnternship | EDU SKILLS | PO1,PO2,PO3,PO5,PO12 |
| 42 | 20HM1A0548 | VELPULA CHANDRIKA | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 43 | 20HM1A0549 | VENNEPUSA LOKESHWAR REDDY | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 44 | 20HM1A0550 | YEKKANTI SAI TEJA | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 45 | 20HM1A0551 | YARRA NAGAPA GARI GIRISH | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 46 | 20HM1A0552 | YARRAMREDDY AARTHI REDDY | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |
| 47 | 20HM1A0553 | YATAM MUTHYALU | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 48 | 20HM1A0554 | YATHAM MUTHYALU | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 49 | 20HM1A0555 | YERIKALA ASHOK | DATA SCIENCE INTERN | CODEGNAN | PO1,PO2,PO4,PO5,PO12 |
| 50 | 21HM5A0501 | KOSURI LAKSHMANA RAO | SALESFORCE DEVELOPER VIRTUAL INTERNSHIP | SMART INTRENZ | PO1,PO3,PO5,PO6,PO12 |

*Table: 2.5.3. Internships for the A.Y. 2022-23*

**C. Student Feeback on Initiatives (4)**

*Fig: 2.2.5.1. Sample empty Feedback from for Industrial Internship (Annexed Separately)*

*Fig: 2.2.5.2. Sample Filled Feedback from for Industrial Internship (Annexed Separately)*



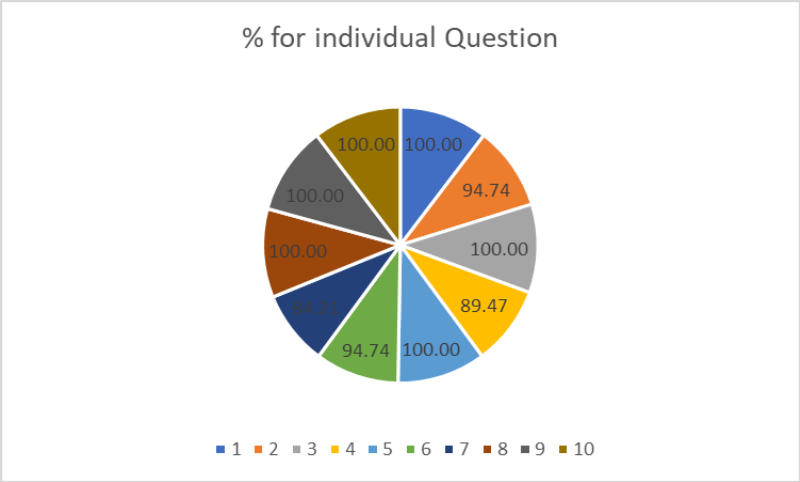




*Figure 2.2.5.3 : Feedback Analysis for Industrial Internship*

**Sample Certificate**

*Figure: 2.2.5.4: Sample Student certificates for Industrial Internship* *(Annexed Separately)*

**D. Impact Analysis (4)**

The internship has had an impact on the students in the following aspects:

1. Students gained innovative and technical ideas from industry professionals (PO1,PO2, PO3, PO5).
2. The skills and abilities of students were improved (PO1,PO2,PO3,PO4, PO5, PO10).
3. The confidence level of the students was boosted (PO9, PO10, PO12).
4. The team spirit of the students was improved (PO9, PO10).
5. Helped the students get an idea about their final project, apprenticeship after graduation, and job in the core sector (PO2, PO3, PO4, PO5, PO10, PO12).

## 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

:

| | |
|---|---|
| **PSO1** | To apply domain knowledge and expertise for enhancing research capability to transform innovative ideas into reality. |
| **PSO2** | To prepare students to undertake careers involving problem solving using computer science and technologies |

**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

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

| Course Name : | C2 14 | Course Year : | 2021-2022 |
|---|---|---|---|

| Course Name | Statements |
|---|---|
| C2 14.1 | Describe the nature of software, software engineering principles, and variou s software process models including prescriptive and specialized models. |
| C2 14.2 | Explain agile software development processes, including Extreme Program ming, and apply techniques for requirements elicitation, use case development, and validation. |
| C2 14.3 | Analyze and model software requirements using scenario-based techniques, UML diagrams, data modeling, and behavioral models for traditional and web applications. |
| C2 14.4 | Design software architecture and components by applying design concepts, architectural styles, and component-based development strategies for conventional and web applications. |
| C2 14.5 | Illustrate principles of software quality assurance, testing strategies, and debugging techniques applicable to conventional, object-oriented, and web applications. |

| Course Name : | C2 24 | Course Year : | 2021-2022 |
|---|---|---|---|

| Course Name | Statements |
|---|---|
| C2 24.1 | Apply object-oriented programming concepts and Java constructs to solve real-time problems. |
| C2 24.2 | Analyze the core features of Java such as operators, classes, objects, inheritance, packages, enumerations, and keywords. |
| C2 24.3 | Implement exception handling and perform input/output operations using Java. |
| C2 24.4 | Design Java applications and applets for interactive programming solutions. |
| C2 24.5 | Evaluate event handling mechanisms and GUI development using Abstract Window Toolkit (AWT). |

| Course Name : | C3 15 | Course Year : | 2022-2023 |
|---|---|---|---|

| Course Name | Statements |
|---|---|
| C3 15.1 | Apply the process to be followed in the software development life-cycle models |
| C3 15.2 | Apply the concepts of project management & planning |
| C3 15.3 | Evaluate the project plans through managing people, communications and change |
| C3 15.4 | Analyze activities necessary to successfully complete and close the Software projects |
| C3 15.5 | Evaluate communication, modeling, and construction & deployment practices in software development |

| Course Name : | C3 23 | Course Year : | 2022-2023 |
|---|---|---|---|

| Course Name | Statements |
|---|---|
| C3 23.1 | Explain security threats, countermeasures, and the foundation of cryptography mathematics. |
| C3 23.2 | Classify principles of symmetric key algorithms and operations of symmetric and asymmetric cryptography. |
| C3 23.3 | Analyzing the structure, functionality, and differences of these algorithms. |
| C3 23.4 | Analyze the effectiveness of various hash algorithms, digital signatures, and key management techniques in application security. |
| C3 23.5 | Understand application, transport, and network layer security protocols like PGP, S/MIME, SSL, TLS, and IPsec. |

| Course Name : | C4 11 | Course Year : | 2023-24 |
|---|---|---|---|

| Course Name | Statements |
|---|---|
| C4 11.1 | Apply virtualization techniques and tools in cloud computing environments. |
| C4 11.2 | Analyze the architecture and services of Google Cloud and Amazon Web Services. |
| C4 11.3 | Evaluate scheduling algorithms and combinatorial auctions for cloud resource allocation. |
| C4 11.4 | Assess storage control systems and security risks in cloud computing. |

| | |
|---|---|
| C4 11.5 | Analyze system requirements and cloud service models to architect secure and efficient cloud-based applications. |

| Course Name : | C4 21 | Course Year : | 2023-2024 |
|---|---|---|---|

| Course Name | Statements |
|---|---|
| C4 21.1 | Apply machine learning algorithms to build models for email spam detection and phishing website detection. |
| C4 21.2 | Analyze real-time data from sensors to develop IoT-based student/employee attendance systems. |
| C4 21.3 | Design and implement secure authentication systems using graphical passwords and machine learning techniques. |
| C4 21.4 | Evaluate performance of models for credit card fraud detection and cyberattack detection in network security. |
| C4 21.5 | Develop AI-based applications such as chatbots and job search agents using NLP tools and web technologies. |

**3.1.2 CO-POmatrices 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 : C214**

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C214.1 | 3 | 2 | 2 | 3 | 2 | - | - | - | - | 2 | - | 3 |
| C214.2 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | 3 | - | 3 |
| C214.3 | 3 | 3 | 2 | 2 | 3 | - | - | - | - | 2 | - | 2 |
| C214.4 | 3 | 3 | 2 | 3 | - | - | - | - | - | 2 | - | 2 |
| C214.5 | 3 | 2 | 3 | 3 | 3 | - | - | - | - | 3 | - | 2 |
| **Average** | **3.00** | **2.60** | **2.40** | **2.40** | **2.60** | **0.00** | **0.00** | **0.00** | **0.00** | **2.40** | **0.00** | **2.40** |

**2 . course name : C224**

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C224.1 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | 2 | - | 3 |
| C224.2 | 3 | 3 | 2 | 2 | 1 | - | - | - | - | 2 | - | 2 |
| C224.3 | 3 | 2 | 3 | 3 | 2 | - | - | - | - | 2 | - | 3 |
| C224.4 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 3 | - | 3 |
| C224.5 | 3 | 2 | 2 | 2 | 3 | - | - | - | - | 3 | - | 2 |
| **Average** | **3.00** | **2.60** | **2.60** | **2.40** | **2.20** | **0.00** | **0.00** | **0.00** | **0.00** | **2.40** | **0.00** | **2.60** |

**3 . course name : C315**

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C315.1 | 3 | 2 | 3 | 2 | - | - | - | 3 | 2 | 3 | 3 | 3 |
| C315.2 | 3 | 2 | 3 | 3 | - | - | - | 2 | 3 | 2 | 1 | 3 |
| C315.3 | 2 | 2 | 2 | 2 | - | - | - | 3 | 3 | 3 | 2 | 2 |
| C315.4 | 3 | 3 | 3 | 3 | - | - | - | 3 | 3 | 2 | 2 | 2 |
| C315.5 | 3 | 3 | 2 | 3 | - | - | - | 2 | 2 | 2 | 2 | 2 |
| **Average** | **2.80** | **2.40** | **2.60** | **2.60** | **0.00** | **0.00** | **0.00** | **2.60** | **2.60** | **2.40** | **2.00** | **2.40** |

**4 . course name : C323**

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C323.1 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | - | 2 |
| C323.2 | 3 | 3 | 2 | 2 | 2 | - | - | - | - | - | - | 3 |
| C323.3 | 3 | 3 | 2 | 3 | 2 | - | - | - | - | - | - | 3 |
| C323.4 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | 2 |
| C323.5 | 3 | 2 | 2 | 2 | 3 | - | - | - | - | - | - | 3 |
| **Average** | **3.00** | **2.80** | **2.40** | **2.40** | **2.40** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **2.60** |

**5 . course name : C411**

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C411.1 | 3 | 2 | 2 | - | 3 | - | - | - | - | - | - | 3 |
| C411.2 | 3 | 3 | 2 | - | 3 | - | - | - | - | - | - | 2 |
| C411.3 | 3 | 3 | 2 | - | 3 | - | - | - | - | - | - | 3 |
| C411.4 | 3 | 3 | 3 | - | 2 | - | - | - | - | - | - | 2 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C411.5 | 3 | 3 | 3 | - | 3 | - | - | - | - | - | - | 3 |
| **Average** | **3.00** | **2.80** | **2.40** | **0.00** | **2.80** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **2.60** |

**6 . course name : C421**

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C421.1 | 3 | 2 | 3 | 3 | 2 | - | - | - | - | 2 | - | - |
| C421.2 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | - | - |
| C421.3 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | 2 | - | - |
| C421.4 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | 2 | - | - |
| C421.5 | 3 | 3 | 3 | 2 | 3 | - | - | - | - | 3 | - | - |
| **Average** | **3.00** | **2.80** | **3.00** | **2.80** | **2.60** | **0.00** | **0.00** | **0.00** | **0.00** | **2.20** | **0.00** | **0.00** |

**1 . Course Name : C214**

| Course | PSO1 | PSO2 |
|---|---|---|
| C214.1 | 2 | 2 |
| C214.2 | 2 | 3 |
| C214.3 | 3 | 3 |
| C214.4 | 3 | 3 |
| C214.5 | 2 | 3 |
| **Average** | **2.40** | **2.80** |

**2 . Course Name : C224**

| Course | PSO1 | PSO2 |
|---|---|---|
| C224.1 | 3 | 2 |
| C224.2 | 3 | 3 |
| C224.3 | 3 | 3 |
| C224.4 | 3 | 3 |
| C224.5 | 3 | 2 |
| **Average** | **3.00** | **2.60** |

**3 . Course Name : C315**

| Course | PSO1 | PSO2 |
|---|---|---|
| C315.1 | 2 | 3 |
| C315.2 | 2 | 3 |
| C315.3 | 3 | 3 |
| C315.4 | 3 | 2 |
| C315.5 | 3 | 3 |
| **Average** | **2.60** | **2.80** |

**4 . Course Name : C323**

| Course | PSO1 | PSO2 |
|---|---|---|
| C323.1 | 3 | 3 |
| C323.2 | 3 | 3 |
| C323.3 | 3 | 2 |
| C323.4 | 3 | 3 |
| C323.5 | 3 | 2 |
| **Average** | **3.00** | **2.60** |

**5 . Course Name : C411**

| Course | PSO1 | PSO2 |
|---|---|---|
| C411.1 | 3 | 3 |
| C411.2 | 3 | 3 |
| C411.3 | 3 | 3 |
| C411.4 | 3 | 3 |
| C411.5 | 3 | 3 |
| **Average** | **3.00** | **3.00** |

**6 . Course Name : C421**

| Course | PSO1 | PSO2 |
|---|---|---|
| C421.1 | 3 | 3 |
| C421.2 | 3 | 3 |
| C421.3 | 3 | 3 |
| C421.4 | 3 | 3 |
| C421.5 | 3 | 3 |
| **Average** | **3.00** | **3.00** |

**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 | 2.60 | 2.40 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | 2.80 | PO11 | 2.00 |
| C112 | 3.00 | 2.60 | PO3 | 2.80 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.20 |
| C113 | 3.00 | 2.20 | PO3 | 2.60 | 2.60 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.60 |
| C114 | 3.00 | 2.80 | 2.60 | PO4 | 2.60 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.00 |
| C115 | 3.00 | 3.00 | 2.20 | 2.60 | 2.80 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.00 |
| C116 | 3.00 | 3.00 | 2.60 | 2.60 | 2.80 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.20 |
| C117 | 3.00 | 3.00 | 2.60 | 2.60 | 2.80 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.20 |
| C118 | 3.00 | 2.60 | 2.60 | 2.80 | 2.60 | PO6 | PO7 | PO8 | PO9 | 2.60 | PO11 | 2.00 |
| C121 | 3.00 | 3.00 | 2.80 | 2.60 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.40 |
| C122 | 3.00 | 2.60 | 2.40 | 2.40 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.40 |
| C123 | 3.00 | 2.80 | 2.80 | 2.60 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.40 |
| C124 | 3.00 | 2.60 | 2.80 | 2.60 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.20 |
| C125 | 3.00 | 2.80 | 2.80 | 2.40 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.40 |
| C126 | 3.00 | 2.20 | 2.80 | 3.00 | 2.80 | PO6 | PO7 | PO8 | PO9 | 2.20 | PO11 | 2.40 |
| C127 | 3.00 | 2.60 | 2.80 | 2.80 | 3.00 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.60 |
| C128 | 3.00 | 2.60 | 3.00 | 2.60 | 2.60 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C211 | 3.00 | 2.60 | 2.40 | 2.60 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C212 | 3.00 | 2.60 | 2.60 | 2.60 | 2.60 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C213 | 2.60 | 2.20 | 2.60 | 2.60 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C214 | 3.00 | 2.60 | 2.40 | 2.40 | 2.60 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.40 |
| C215 | 2.40 | 2.60 | 2.60 | 2.60 | 2.40 | PO6 | PO7 | PO8 | PO9 | 2.60 | PO11 | 2.40 |
| C216 | 3.00 | 2.80 | 3.00 | 2.60 | 2.60 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.00 |
| C217 | 3.00 | 2.60 | 2.60 | 2.60 | 3.00 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.60 |
| C218 | 3.00 | 2.80 | 2.60 | 2.80 | 3.00 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.60 |
| C219 | 3.00 | 2.80 | 2.80 | 2.60 | 2.60 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.60 |
| C221 | 3.00 | 2.80 | 2.60 | 2.40 | 2.40 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.40 |
| C222 | 3.00 | 2.60 | 2.80 | 2.40 | 2.20 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.40 |
| C223 | 3.00 | 2.60 | PO3 | PO4 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C224 | 3.00 | 2.60 | 2.60 | 2.40 | 2.20 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.60 |
| C225 | 2.80 | 2.40 | 2.40 | PO4 | PO5 | 2.40 | PO7 | PO8 | PO9 | 2.40 | PO11 | PO12 |
| C226 | 3.00 | 2.80 | 2.40 | 2.40 | 3.00 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.40 |
| C227 | 3.00 | 2.80 | 2.20 | 2.40 | 3.00 | PO6 | PO7 | PO8 | PO9 | 2.20 | PO11 | 2.40 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| C228 | 3.00 | 2.80 | 2.40 | 2.60 | 3.00 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.60 |
| C229 | 3.00 | 2.40 | 2.60 | 2.60 | 3.00 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.40 |
| C311 | 2.80 | 2.80 | 2.60 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | PO12 |
| C312 | 2.80 | 2.20 | 2.80 | 2.60 | 2.20 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C313 | 3.00 | 2.60 | 3.00 | 2.40 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C314 | 2.80 | 2.60 | 2.40 | 2.40 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C315 | 2.80 | 2.40 | 2.60 | 2.60 | PO5 | PO6 | PO7 | 2.60 | 2.60 | 2.40 | 2.00 | 2.40 |
| C316 | 2.80 | 2.00 | 3.00 | 3.00 | 2.80 | PO6 | PO7 | PO8 | PO9 | 2.40 | PO11 | 2.40 |
| C317 | 3.00 | 2.60 | 2.80 | 2.60 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.40 |
| C318 | 2.40 | PO2 | 2.40 | 2.40 | 2.80 | PO6 | PO7 | PO8 | PO9 | 2.20 | PO11 | 2.40 |
| C319 | 2.20 | 2.40 | 2.40 | 2.40 | 2.40 | PO6 | PO7 | PO8 | 2.40 | PO10 | PO11 | 2.60 |
| C321 | 2.80 | 2.60 | 2.60 | 2.40 | 2.60 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.40 |
| C322 | 3.00 | 2.80 | 2.80 | 2.20 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.60 |
| C323 | 3.00 | 2.80 | 2.40 | 2.40 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.60 |
| C324 | 2.80 | 2.40 | 2.80 | 2.00 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.40 |
| C325 | 3.00 | 2.00 | 2.60 | PO4 | 2.40 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C226 | 3.00 | 2.40 | 2.60 | 2.80 | 3.00 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.60 |
| C327 | 3.00 | 2.40 | 2.60 | 2.80 | 3.00 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.60 |
| C328 | 3.00 | 2.40 | 2.60 | 2.40 | 2.80 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C329 | 3.00 | 2.20 | 2.80 | 2.40 | 3.00 | PO6 | PO7 | PO8 | 2.20 | 2.20 | PO11 | 2.20 |
| C411 | 3.00 | 2.80 | 2.40 | PO4 | 2.80 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.60 |
| C412 | 3.00 | 2.80 | 2.40 | 2.60 | 2.80 | PO6 | PO7 | PO8 | 2.20 | 2.20 | PO11 | 2.40 |
| C413 | 3.00 | 3.00 | 2.80 | 2.20 | 3.00 | 2.00 | PO7 | PO8 | 2.20 | 2.20 | 2.00 | PO12 |
| C414 | 3.00 | 2.80 | 2.60 | 2.20 | 2.60 | PO6 | PO7 | PO8 | 2.40 | 2.40 | PO11 | PO12 |
| C415 | 3.00 | 2.80 | 2.80 | 2.20 | 2.60 | PO6 | PO7 | PO8 | 2.20 | 2.40 | PO11 | PO12 |
| C416 | 3.00 | 2.60 | 2.20 | 3.00 | 2.40 | 2.80 | 3.00 | 2.40 | PO9 | 2.20 | 2.40 | PO12 |
| C417 | 3.00 | 2.40 | 2.40 | 3.00 | 2.60 | PO6 | 2.40 | 2.60 | PO9 | PO10 | PO11 | PO12 |
| C418 | 2.20 | 2.40 | 2.40 | 2.40 | 2.40 | PO6 | PO7 | PO8 | 2.40 | PO10 | PO11 | 2.60 |
| C421 | 3.00 | 2.80 | 3.00 | 2.80 | 2.60 | PO6 | PO7 | PO8 | PO9 | 2.20 | PO11 | PO12 |

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

| Course | PSO1 | PSO2 |
|---|---|---|
| C111 | 3.00 | 2.80 |
| C112 | 3.00 | 2.60 |
| C113 | 3.00 | 2.80 |
| C114 | 2.80 | 2.80 |
| C115 | 2.60 | 3.00 |
| C116 | 3.00 | 2.80 |
| C117 | 3.00 | 2.80 |
| C118 | 3.00 | 2.80 |
| C121 | 2.80 | 2.80 |
| C122 | 2.80 | 2.80 |
| C123 | 2.80 | 2.80 |
| C124 | 2.80 | 2.80 |
| C125 | 3.00 | 2.60 |

| | | |
|---|---|---|
| C126 | 3.00 | 2.80 |
| C127 | 3.00 | 2.80 |
| C128 | 3.00 | 3.00 |
| C211 | 2.60 | 3.00 |
| C212 | 2.80 | 3.00 |
| C213 | 2.20 | 2.60 |
| C214 | 2.40 | 2.80 |
| C215 | 2.80 | 2.80 |
| C216 | 3.00 | 2.80 |
| C217 | 2.80 | 3.00 |
| C218 | 3.00 | 3.00 |
| C219 | 3.00 | 2.80 |
| C221 | 3.00 | 3.00 |
| C222 | 3.00 | 3.00 |
| C223 | 2.80 | 2.80 |
| C224 | 3.00 | 2.60 |
| C225 | 2.60 | 2.60 |
| C226 | 3.00 | 2.40 |
| C227 | 3.00 | 2.60 |
| C228 | 3.00 | 2.80 |
| C229 | 3.00 | 2.60 |
| C311 | 2.60 | 2.80 |
| C312 | 2.80 | 2.80 |
| C313 | 3.00 | 2.60 |
| C314 | 2.80 | 2.60 |
| C315 | 2.60 | 2.80 |
| C316 | 2.60 | 3.00 |
| C317 | 2.60 | 2.80 |
| C318 | 2.40 | 2.80 |
| C319 | 2.60 | 2.40 |
| C321 | 3.00 | 3.00 |
| C322 | 3.00 | 3.00 |
| C323 | 3.00 | 2.60 |
| C324 | 3.00 | 2.60 |
| C325 | 2.60 | 2.40 |
| C326 | 3.00 | 2.80 |
| C327 | 3.00 | 2.80 |
| C328 | 3.00 | 2.60 |
| C329 | 3.00 | 2.80 |
| C411 | 3.00 | 3.00 |
| C412 | 3.00 | 2.20 |
| C413 | 3.00 | 2.60 |
| C414 | 2.80 | 2.60 |
| C415 | 2.80 | 2.80 |

| | | |
|---|---|---|
| C416 | 3.00 | 2.80 |
| C417 | 3.00 | 2.60 |
| C418 | 2.60 | 2.40 |
| C421 | 3.00 | 3.00 |

**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

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

A. **List of assessment processes (2) &**

B. **The quality /relevance of assessment processes & tools used (8)**

Course Outcomes (COs) are evaluated based on two approaches, namely direct and indirect assessment methods. The direct assessment methods are based on the midterm examinations, assignments, online quizzes, and semester-end examinations. Whereas the indirect assessment methods are based on the course- end survey provided by the students. The weightage in CO attainment of direct and indirect assessments is illustrated in the table 3.2.1.1 and the flow with rubrics are also given in the below figure 3.2.1.1

***Figure 3.2.1.1: Flowchart for computing Process for COs attainment (Rubrics) (Annexed Separately)***

| Assessment Method | Assessment Tool | | Weightage in CO attainment |
|---|---|---|---|
| Direct Assessment | Internal Assessment | 30% | 80% |
| | Semester End Examinations | 70% | |
| Indirect Assessment | Course Exit Survey | | 20% |

***Table 3.2.1.1: Assessment Weightage***

**Direct Assessment:**

Direct assessment methods are based on the student's knowledge and performance in the various assessments and examinations. These assessment methods provide evidence that a student has command over a specific course, content, or skill, or that the students' work demonstrates a specific quality such as analysis, synthesis, or creativity.

**The various direct assessment tools used to assess the impact of delivery of course content is listed in Table**

| S. No. | Courses | Components | Frequency | Evidence |
|---|---|---|---|---|
| 1. | Core / Elective | Mid Internal Examination | Twice in a semester | Answer script |
| | | Quiz | Twice in a semester | Online |
| | | Assignment | Twice in a semester | Answer script |
| | | Semester End Examination | Once in a semester | Results sheet |
| 2. | Laboratory | Conduction of experiment | Once in a week | Observation book |
| | | Day to day Evaluation | Once in a week | |
| | | Observation | Once in a week | |
| | | Result | Once in a week | |
| | | Viva | Once in a week | |
| | | Record | Once in a week | Record |
| | | Internal Laboratory Assessment | Once in a semester | Answer script |
| | | External Laboratory Examination | Once in a semester | Answer script |
| 3. | Project Work | Internal Presentation | Twice in a semester | Presentation |
| | | Semester End Examination | Once in a semester | Thesis report |
| 4. | Seminar | Internal Assessment | Once in a semester | Report |

***Table 3.2.1.2: Assessment tools used for CO direct assessment***

**Indirect Assessment:**

**Course End Survey:** In this survey, course outcomes are taken directly as questionnaires, and collected students understanding level in 3-point of scale. The tools and processes used in indirect assessment are shown in the table 3.2.1.3**.**

**Table: Tools used in Indirect assessment**

| S. No. | Tools | Process | Frequency |
|---|---|---|---|
| 1 | Course End Survey | Taken for every course at the end of the semester.<br>Gives an overall view that helps assess the extent of coverage and compliance of COs<br>Helps the faculty to improve upon the various teaching methodologies | Once in a Semester |

***Table 3.2.1.3: Assessment tools used for CO indirect assessment***

**Direct Tools:** (Measurable in terms of marks and w.r.t. CO) Assessment done by faculty at the department level.

**Indirect Tools:** (Measurable (surveys) in terms of marks and w.r.t. CO) Assessment done at the department level.

**Course Assessment Process:**

Each course is evaluated by the assessment of course outcomes by direct and indirect assessment tools, which are predefined. Direct assessment is carried out by internal and external assessment, and indirect assessment is carried out by the course end survey (CO learning assessment). A schedule of direct assessments is prepared by the course coordinator while meeting the requirements of JNTU, Kakinada regulations.

**Assessment of theory courses:**

**Direct Assessment:** Direct assessment of theory courses is carried out through internal and external assessment of each defined outcome of a course. Internal assessment by midterm examinations, quiz examinations, assignments, and external assessment by semester-end examinations

**Internal Assessment:**

Day-to-day assessments: It means enhancing the learning process of the students on a regular basis, which is done by conducting at least one class test and any other direct assessment tools (assignments, quizzes, midterm examinations, etc.) as desired by the course coordinator after attending the teaching- learning process of a particular course outcome.

**Mid-examinations:** Descriptive examinations are conducted as per the JNTUK, Kakinada schedule by the course coordinator for one and a half hours without choice. Two such examinations are conducted for a course, covering all the course outcomes.

**Quiz examination:** An objective exam for twenty minutes with twenty questions is conducted twice for a course with the question bank received from JNTUK, Kakinada on the day of the exam as scheduled by JNTUK, Kakinada.

**Assignments:** Open-book assignments are given to the students as per the JNTUK, Kakinada guidelines. The course faculty has given such assignments to the students as part of the evaluation of the course. For a course, at least two such assignments covering all of the course outcomes are considered.

**External Assessment:**

Semester end comprehensive examination is conducted by JNTUK, Kakinada for three hours.

**Indirect Assessment:**

Indirect assessment of theory courses is carried out by conducting a survey on course outcomes with the students at the end of the semester.

The questionaries for the survey are the course outcomes of a particular course. These questions will be scrutinized by the HOD and Dean of Academics. At the end of the semester, the instructor will ask students to rate the course end survey questions. The attainment of the course end survey will be calculated, and 20% of that will be considered for the total course attainment calculation. A sample copy of the course-end survey is shown in the table.

**Sample of Course End Survey**

***Figure 3.2.1.2 Sample feedback form for CO indirect assessment* (Annexed Separately)**

**Assessment of Practical Courses:**

Assessment of practical courses is carried out based on day-to-day performance, internal and external examinations, and CO learning assessment.

**Day-to-Day Evaluation**: Practical courses focus on applying the theories learned in the class. The day-to- day performance of the student is assessed by the evaluation of experimentation results, reports presented through lab records, and vivo voce conducted after the completion of experimentation.

**Internal Examination**: Almost at the end of the semester, after completion of all the experiments, an internal examination for three hours will be conducted by the course coordinator to assess the skills acquired by the student through theory classes and the practical sessions held.

**End Examination**: Three hours of examination conducted in the institution as per the schedule of JNTUK in the presence of an external examiner. The performance of the student in conducting the given experiment is evaluated by the external examiner, along with a vivo voce conducted at the end of the experimentation to understand the correlation between the experimentation and the level of knowledge acquired by the student.

**CO learning assessment (indirect)**: is carried out by conducting a survey on course outcomes with the students at the end of the semester.

**Project:**Project work encourages students to improve their innovative and intellectual capabilities. Hence, every effort is made to involve them in real-time work by conducting frequent internal reviews by the project committee. Assessment is done through direct and indirect assessments.

**Direct Assessment for the Project:** It includes an internal assessment, which is carried out through reviews, and an external assessment, which is carried out via viva voce.

**Internal Assessment**: Internal assessment is done by conducting four internal reviews, namely an abstract review, a first review, and a second review.

**An Example of CO Attainment is shown here for B. Tech IV-I Semester for A.Y:2022-23**

**Course Attainment**

| | | | |
|---|---|---|---|
| Program Name: | **B. Tech in Computer Science and Engineering** | AY | **2023-2024** |
| Course Name: | **Ethical Hacking** | Class / Sem | **IV/I** |
| Faculty Name: | **Merugu Anand Kumar** | Regulation | **R20** |

| **Question Number** | Mid 1.Q 1 | Mid 1.Q 2 | Mid 1.Q 3 | Mid 2.Q 1 | Mid 2.Q 2 | Mid 2. Q3 | Q1 | Q2 | A1 | A2 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Max Marks** | 5 | 5 | 5 | 5 | 5 | 5 | 10 | 10 | 5 | 5 |
| **Satisfactory mark as set target** | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 3 | 3 |
| **No. of students scored above the set target** | 44 | 44 | 43 | 44 | 45 | 43 | 5 | 6 | 48 | 48 |
| **No. of students attempted** | 44 | 44 | 44 | 45 | 45 | 46 | 45 | 45 | 48 | 48 |
| **% Students scored above the set target** | 100 | 100 | 98 | 98 | 100 | 93 | 11 | 13 | 100 | 100 |

**Internal Attainment**

| CO Attainment Level | Mid 1.Q 1 | Mid 1.Q 2 | Mid 1.Q 3 | Mid 2.Q 1 | Mid 2.Q 2 | Mid 2. Q3 | Q1 | Q2 | A1 | A2 | Overall |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CO 1 | 2 | | | | | | 2 | 2 | 2 | 2 | 2 |
| CO 2 | | 2 | | | | | 2 | 2 | 2 | 2 | 2 |
| CO 3 | | | 2 | 2 | | | 2 | 2 | 2 | 2 | 2 |
| CO 4 | | | | | 2 | | 2 | 2 | 2 | 2 | 2 |
| CO 5 | | | | | | 2 | 2 | 2 | 2 | 2 | 2 |

| | | | |
|---|---|---|---|
| Program Name: | **B. Tech in Computer Science and Engineering** | AY | **2023-2024** |
| Course Name: | **Ethical Hacking** | Class / Sem | **IV/I** |
| Faculty Name: | **Merugu Anand Kumar** | Regulation | **R20** |

**Overall Course Attainment**

| CO Attainment Level | Internal Examination (I) | University Examination (U) | Direct Attainment (D) (0.3I+0.7U) | CO Feedback (F) | Overall 0.8D+0.2F |
|---|---|---|---|---|---|
| CO 1 | 2 | 3 | 2.70 | 2.50 | 2.66 |
| CO 2 | 2 | 3 | 2.70 | 2.48 | 2.66 |
| CO 3 | 2 | 3 | 2.70 | 2.46 | 2.65 |
| CO 4 | 2 | 3 | 2.70 | 2.44 | 2.65 |
| CO 5 | 2 | 3 | 2.70 | 2.50 | 2.66 |
| **Overall Course Attainment** | | | | | **2.66** |
| **Set Target for the course** | | | | | **2.01** |
| **Course Attainment Status(Yes/No)** | | | | | **YES** |

**Observations:**

| | |
|---|---|
| 1 | Target level is achieved and I will try to increase 5% of this target level for the next academic year. |
| 2 | More number of examples with real time hands on experience will be given for better level obtained in CO3 and CO4 |

**Plan of Action:**

| | |
|---|---|
| 1 | Technical talks will conduct to increase engineering knowledge further. |
| 2 | Seminars will conduct to increase engineering knowledge |
| 3 | Subsequent doubt clarify sessions will be conducted beyond the regular planned classes. |

***Figure 3.2.1.5 Sample CO attainment for a course Ethical Hacking***

**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):**

**A. Verify the attainment levels as per the benchmark set for all courses (40)**

**CO Overall Attainment:**

**II Year I Semester (2020 -24 Batch) A.Y. 2021-2022**

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | Overall Course attainment | Target Level | Status attained |
|---|---|---|---|---|---|---|---|---|---|
| C211 | M-II | 2 | 2 | 2 | 2 | 2 | 2 | 2.01 | No |
| C212 | OOPS through C++ | 2.4 | 2.4 | 2.7 | 2.7 | 2.7 | 2.58 | 2.01 | Yes |
| C213 | OS | 1.7 | 1.7 | 2 | 2 | 2 | 1.88 | 2.01 | No |
| C214 | SE | 2.4 | 2.4 | 2.7 | 2.7 | 2.7 | 2.58 | 2.01 | Yes |
| C215 | MFCS | 2 | 2 | 2 | 2 | 2 | 2 | 2.01 | No |
| C216 | OOPS Through C++ Lab | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C217 | OS Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C218 | SE Lab | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C219 | Applications Of Python-Numpy | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |

*Table 3.2.2.1: CO overall attainments for R-20 (2020 – 2024) batch*

**II Year II Semester (2020 -24 Batch) A.Y. 2021-2022**

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | Overall Course attainment | Target Level | Status attained |
|---|---|---|---|---|---|---|---|---|---|
| C221 | P & S | 2 | 2 | 2 | 2 | 2 | 2 | 2.01 | No |
| C222 | DBMS | 2 | 2 | 2 | 2 | 2 | 2 | 2.01 | No |
| C223 | FLAT | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C224 | Java Programming | 1.7 | 2 | 2 | 2 | 2 | 1.94 | 2.01 | No |
| C225 | MEFA | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.01 | Yes |
| C226 | DBMS Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C227 | R Programming Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C228 | Java Programming Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C229 | Web Application Development Using Full Stack | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |

**III Year I Semester (2020 -24 Batch) A.Y. 2022-2023**

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | Overall Course attainment | Target Level | Status attained |
|---|---|---|---|---|---|---|---|---|---|
| C311 | CN | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.01 | Yes |
| C312 | DAA | 2.70 | 2.40 | 2.70 | 2.40 | 2.40 | 2.52 | 2.01 | Yes |
| C313 | DWDM | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.01 | Yes |
| C314 | BE | 2.70 | 2.70 | 2.70 | 2.40 | 2.70 | 2.64 | 2.01 | Yes |
| C315 | SPM | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.01 | Yes |
| C316 | DWDM Lab | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.01 | Yes |
| C317 | CN Lab | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.01 | Yes |
| C318 | Animation Design | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 2.01 | Yes |
| C319 | Internship | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 2.01 | Yes |

**III Year II Semester (2020 -24 Batch) A.Y. 2022-2023**

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | Overall Course attainment | Target Level | Status attained |
|---|---|---|---|---|---|---|---|---|---|
| C321 | ML | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C322 | CD | 2.7 | 2.4 | 2.4 | 2.7 | 2.7 | 2.58 | 2.01 | Yes |
| C323 | CNS | 2.7 | 2.7 | 3 | 3 | 2.7 | 2.82 | 2.01 | Yes |
| C324 | OOAD | 2.4 | 2.4 | 2.7 | 2.4 | 2.4 | 2.46 | 2.01 | Yes |
| C325 | FMPMC | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C326 | ML Using Python | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C327 | CD Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C328 | CNS Lab | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C329 | Mean Stack Technologies-Module I | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |

**IV Year I Semester (2020 -24 Batch) A.Y. 2023-2024**

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | Overall Course attainment | Target Level | Status attained |
|---|---|---|---|---|---|---|---|---|---|
| C411 | CC | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C412 | SWSN | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C413 | EH | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C414 | EMI | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C415 | RS & GIS | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| C416 | UHV | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |
| C417 | Angular JS and Mongo DB | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C418 | Internship | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |
| C411 | CC | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.01 | Yes |

**IV Year II Semester (2020 -24 Batch) A.Y. 2023-2024**

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 | Overall Course attainment | Target Level | Status attained |
|---|---|---|---|---|---|---|---|---|---|
| C421 | Project & Seminar | 3 | 3 | 3 | 3 | 3 | 3 | 2.01 | Yes |

**Table 3.2.2. Direct Attainment (Annexed Separately)**

**Indirect Attainment (Course End Survey):**

| Course Code | Course Name | CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|---|
| **C211** | **M-II** | **2.5** | **2.5** | **2.6** | **2.7** | **2.5** |
| **C212** | **OOPS through C++** | **2.5** | **2.4** | **2.7** | **2.7** | **2.4** |
| **C213** | **OS** | **2.4** | **2.5** | **2.5** | **2.7** | **2.5** |
| **C214** | **SE** | **2.5** | **2.4** | **2.8** | **2.6** | **2.5** |
| **C215** | **MFCS** | **2.5** | **2.5** | **2.8** | **2.8** | **2.7** |
| **C216** | **OOPS Through C++ Lab** | **2.4** | **2.5** | **2.6** | **2.7** | **2.6** |
| **C217** | **OS Lab** | **2.5** | **2.6** | **2.7** | **2.7** | **2.6** |
| **C218** | **SE Lab** | **2.5** | **2.5** | **2.6** | **2.7** | **2.6** |
| **C219** | **Applications Of Python-Numpy** | **2.5** | **2.3** | **2.5** | **2.6** | **2.5** |

***Table 3.2.2.3: Some CO Indirect attainments for R-20 (2020 – 2024) batch (Annexed Separately)***

**FINAL CO ATTAINMNET (80% Direct +20% Indirect)**

| Course Code | Course Names | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C211 | M-II | 2.11 | 2.11 | 2.11 | 2.11 | | | | | | | | | 2.11 | 2.11 |
| C212 | OOPS through C++ | 2.57 | 2.55 | 2.59 | 2.59 | 2.57 | | | | | | | | 2.58 | 2.57 |
| C213 | OS | 2.01 | 2.02 | 2.01 | 2.01 | | | | | | | | | 2.02 | 2.01 |
| C214 | SE | 2.58 | 2.58 | 2.59 | 2.57 | 2.60 | | | | | 2.57 | | 2.55 | 2.59 | 2.59 |
| C215 | MFCS | 2.13 | 2.13 | 2.13 | 2.13 | 2.13 | | | | | 2.13 | | 2.13 | 2.13 | 2.13 |
| C216 | OOPS Through C++ Lab | 2.67 | 2.67 | 2.67 | 2.67 | 2.67 | | | | | | | 2.67 | 2.67 | 2.67 |
| C217 | OS Lab | 2.91 | 2.91 | 2.91 | 2.91 | 2.91 | | | | | | | 2.91 | 2.91 | 2.91 |
| C218 | SE Lab | 2.67 | 2.67 | 2.67 | 2.67 | 2.67 | | | | | | | 2.67 | 2.67 | 2.67 |
| C219 | Applications Of Python-Numpy | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | | | | | 2.90 | | 2.90 | 2.90 | 2.90 |
| C221 | P & S | 2.10 | 2.10 | 2.10 | 2.10 | 2.10 | | | | | 2.10 | | 2.10 | 2.10 | 2.10 |
| C222 | DBMS | 2.11 | 2.11 | 2.11 | 2.11 | 2.11 | | | | | | | 2.11 | 2.11 | 2.11 |
| C223 | FLAT | 2.67 | 2.67 | | | 2.67 | | | | | | | | 2.67 | 2.67 |
| C224 | Java Programming | 2.07 | 2.06 | 2.06 | 2.08 | 2.08 | | | | | 2.08 | | 2.06 | 2.07 | 2.08 |
| C225 | MEFA | 2.43 | 2.43 | 2.43 | | | | | | | 2.43 | | | 2.43 | 2.43 |
| C226 | DBMS Lab | 2.91 | 2.91 | 2.91 | 2.91 | 2.91 | | | | | 2.91 | | 2.91 | 2.91 | 2.91 |
| C227 | R Programming Lab | 2.91 | 2.91 | 2.91 | 2.91 | 2.91 | | | | | 2.91 | | 2.91 | 2.91 | 2.91 |
| C228 | Java Programming Lab | 2.92 | 2.92 | 2.92 | 2.92 | 2.92 | | | | | 2.92 | | 2.92 | 2.92 | 2.92 |
| C229 | Web Application Development Using Full Stack | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | | | | | 2.90 | | 2.90 | 2.90 | 2.90 |
| C311 | CN | 2.66 | 2.66 | 2.66 | | | | | | | 2.66 | | | 2.66 | 2.66 |
| C312 | DAA | 2.53 | 2.52 | 2.53 | 2.52 | 2.52 | | | | | | | | 2.53 | 2.53 |
| C313 | DWDM | 2.65 | 2.65 | 2.65 | 2.65 | 2.65 | | | | | | | | 2.65 | 2.65 |
| C314 | BE | 2.61 | 2.61 | 2.62 | 2.60 | | | | | | | | | 2.61 | 2.61 |
| C315 | SPM | 2.67 | 2.67 | 2.67 | 2.67 | | | | 2.67 | 2.67 | 2.67 | 2.67 | 2.67 | 2.67 | 2.67 |
| C316 | DWDM Lab | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | | | | | 2.68 | | 2.68 | 2.68 | 2.68 |
| C317 | CN Lab | 2.67 | 2.67 | 2.67 | 2.67 | 2.67 | | | | | | | 2.67 | 2.67 | 2.67 |
| C318 | Animation Design | 2.90 | | 2.90 | 2.90 | 2.90 | | | | | 2.90 | | 2.90 | 2.90 | 2.90 |
| C319 | Internship | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | | | | 2.93 | | | 2.93 | 2.93 | 2.93 |
| C321 | ML | 2.67 | 2.67 | 2.67 | 2.67 | 2.67 | | | | | | | 2.67 | 2.67 | 2.67 |
| C322 | CD | 2.57 | 2.56 | 2.56 | 2.58 | 2.56 | | | | | | | 2.57 | 2.57 | 2.57 |
| C323 | CNS | 2.76 | 2.77 | 2.77 | 2.79 | 2.77 | | | | | | | 2.76 | 2.76 | 2.76 |
| C324 | OOAD | 2.50 | 2.48 | 2.50 | 2.49 | 2.50 | | | | | | | 2.50 | 2.49 | 2.48 |
| C325 | FMPMC | 2.67 | 2.67 | 2.67 | | 2.67 | | | | | | | | 2.67 | 2.67 |
| C326 | ML Using Python | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | | | | | | | 2.93 | 2.93 | 2.93 |
| C327 | CD Lab | 2.91 | 2.91 | 2.91 | 2.91 | 2.91 | | | | | | | 2.91 | 2.91 | 2.91 |
| C328 | CNS Lab | 2.91 | 2.91 | 2.91 | 2.91 | 2.91 | | | | | | | | 2.91 | 2.43 |
| C329 | Mean Stack Technologies-Module I | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | | | | 2.90 | 2.90 | | 2.90 | 2.90 | 2.90 |
| C411 | CC | 2.66 | 2.66 | 2.66 | | 2.66 | | | | | | | 2.66 | 2.66 | 2.66 |
| C412 | SWSN | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | | | | 2.68 | 2.68 | | 2.68 | 2.68 | 2.68 |
| C413 | EH | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | | | 2.66 | 2.66 | 2.66 | | 2.66 | 2.66 |
| C414 | EMI | 2.67 | 2.67 | 2.67 | 2.67 | 2.67 | | | | 2.67 | 2.67 | | | 2.67 | 2.67 |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C415 | RS & GIS | 2.66 | 2.66 | 2.66 | 2.66 | 2.66 | | | | 2.66 | 2.66 | | | 2.66 | 2.66 |
| C416 | UHV | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | 2.68 | | 2.68 | 2.68 | | 2.68 | 2.68 |
| C417 | Angular JS and Mongo DB | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 | | | | | | | | 2.89 | 2.89 |
| C418 | Internship | 2.90 | 2.90 | 2.90 | 2.90 | 2.90 | | | | 2.90 | | | 2.90 | 2.90 | 2.90 |
| C421 | Project | 2.96 | 2.96 | 2.96 | 2.96 | 2.96 | | | | | 2.96 | | | 2.96 | 2.96 |

***Table 3.2.2.4: Final CO Attainment***

**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

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

A. **List of assessment tools & processes (5) &**

B. **The quality/relevance of assessment tools/processes used (5)**

POs/PSOs - Assessment tools and Processes

The institute has the following methods for assessing attainment of POs and PSOs.

1. **Direct Method**
2. **Indirect Method**

| Range of values | | Attainment |
|---|---|---|
| Internal | External | |
| 0 | 0 | 0 |
| <60% | <40% | 1 |
| 70% to 80% | 40% to 60% | 2 |
| >80% | >60% | 3 |
| *Internal Target Level: Greater than 80% | | |
| *External Target Level: Greater than 60% | | |

The attainment levels of course outcomes help in computing the POs and PSOs based on the mapping done

| | Assessment | Tools | Weight |
|---|---|---|---|
| POs / PSOs Attainment | Direct Assessment | Overall CO attainment of courses | 80% |
| | Indirect Assessment | Student exit survey | 20% |
| | | Alumni survey | |
| | | Employer survey | |

***Table: 3.3.1.1: Percentage of Assessment for POs and PSOs***

The CO values of both theory and laboratory courses with appropriate weightage as per CO-PO mapping, as per Program Articulation Matrix are considered for calculation of direct attainment of PO/PSOs.

**PO Direct Attainment is calculated using the following rubric**

If CO-PO mapping is high (3) then

PO Direct Attainment = CO Overall attainment * 1.0 (100% of CO Overall attainment)

If CO-PO mapping is moderate (2) then

PO Direct Attainment = CO Overall attainment * 0.8 (80% of CO Overall attainment)

If CO-PO mapping is low (1) then

PO Direct Attainment = CO Overall attainment * 0.6 (60% of CO Overall attainment)

Compute PO average of all COs to get PO direct attainment for a course

***Figure 3.3.1.1: Rubrics for POs and PSOs attainment (Annexed Separately)***

The above figure 3.3.1.1 represents the evaluation process of POs and PSOs attainment through course outcome attainment.

**Program Level Assessment:**

Assessment of Program learning outcomes and program-specific outcomes through direct and indirect methods of assessment methodology and tools like comprehensive examinations, rubrics, and surveys etc., is decided keeping in mind the parameters and learning outcomes to be measured and the desired emphasis during the delivery of a Program as prescribed in the course curriculum. The PO-PSO Attainment Tools and Process are represented in Figure 3.3.1.1.

**Assessment tools for POs and PSOs**

Assessment tools for POs and PSOs are categorized into two categories:

1. Direct assessment method: 80%
2. Indirect assessment method: 20%

**1. Direct assessment method**

The direct method helps increase the students knowledge and skills based on the cumulative internal examinations and semester-end examinations.

***Figure 3.3.1.2: Flow chart for computing POs and PSOs attainment* (Annexed Separately)**

The various assessment processes used to gather the data for evaluation of program outcomes and program specific outcomes are shown in the CO-PO mapping table and the overall attainment of COs for each course, as shown in the below table 3.3.2.1

| Assessment Method | Data | Source for data Collection |
|---|---|---|
| Direct Assessment (80%) | Internal Assessment of the Courses related to the respective PO-PSO | Average CO attainment level calculated |
| | University Examination Assessment of the Courses related to the respective PO-PSO | |

***Table: 3.3.1.2: Data for direct assessment of PO-PSO***

CO assessment is done by considering cumulative internal examinations and semester-end examination marks. It is used to identify the level of COs attainment. The attained COs for a course are multiplied by the values of the CO-PO mapping table and divided by the mapped cells multiplied by the substantial correlation value.

**Procedure to Validate the POs and PSOs:**

**Step 1:** Outline the Program Specific Outcomes (PSOs).

**Step 2**: Outline the Course Outcomes (COs) of each course.

**Step 3:** Establish a correlation between COs, POs, and PSOs.

**Step 4**: Define the rubrics to validate POs and PSOs.

**Step 5**: Define the Target Attainment Levels of POs and PSOs.

**Step 6**: Estimate the attainment of POs and PSOs through direct and indirect methods.

**Step 7**: CO and PO The target value is fixed by the Program Assessment Committee(PAC) with the final approval of the Department Committee (DC).

**Step 8**: Compare the attainment of POs and PSOs with the target level.

**2. PO Indirect Assessment:**

**Program Exit Survey:** In this survey, Program Outcomes and Program Specific Outcomes are taken directly as questionnaires, and collected exit students understanding level in 3-point of scale. The tools and processes used in indirect assessment of POs are sown in the table 3.2.1.3**.**

***Figure 3.3.1.3: Student Exit Survey Empty Form* (Annexed Separately)**

***Figure 3.3.1.4 : Student Exit Survey Fille in Form (Annexed Separately)***

***Figure 3.3.1.5: Alumni Survey Empty Form* (Annexed Separately)**

***Figure 3.3.1.6:Alumni Survey Fille in Form* (Annexed Separately)**

***Figure 3.3.1.7: Employer Survey Empty Form* (Annexed Separately)**

***Figure 3.3.1.8: Employer Survey Fille in Form* (Annexed Separately)**

***Figure 3.3.1.9: Flow chart for validating POs and PSOs attainment and action taken (Annexed Separately)***

**3.3.2 Provide results of evaluation of PO&PSO** (40) Institute Marks : 40.00

PO Attainment

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C211 | 2.11 | 1.83 | 1.69 | 1.83 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C212 | 2.57 | 2.21 | 2.25 | 2.25 | 2.23 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C213 | 1.74 | 1.48 | 1.74 | 1.74 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C214 | 2.58 | 2.24 | 2.07 | 2.06 | 2.25 | PO6 | PO7 | PO8 | PO9 | 2.06 | PO11 | 2.04 |
| C215 | 1.71 | 1.85 | 1.85 | 1.85 | 1.71 | PO6 | PO7 | PO8 | PO9 | 1.85 | PO11 | 1.71 |
| C216 | 2.67 | 2.49 | 2.67 | 2.31 | 2.31 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.78 |
| C217 | 2.91 | 2.52 | 2.52 | 2.52 | 2.91 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.52 |
| C218 | 2.67 | 2.49 | 2.32 | 2.49 | 2.67 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.32 |
| C219 | 2.90 | 2.70 | 2.70 | 2.51 | 2.51 | PO6 | PO7 | PO8 | PO9 | 2.32 | PO11 | 2.51 |
| C221 | 2.10 | 1.96 | 1.82 | 1.68 | 1.68 | PO6 | PO7 | PO8 | PO9 | 1.668 | PO11 | 1.68 |
| C222 | 2.11 | 1.83 | 1.97 | 1.69 | 1.55 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.69 |
| C223 | 2.67 | 2.31 | PO3 | PO4 | 2.14 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C224 | 2.07 | 1.79 | 1.79 | 1.66 | 1.52 | PO6 | PO7 | PO8 | PO9 | 1.66 | PO11 | 1.79 |
| C225 | 2.27 | 1.94 | 1.94 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | 1.94 | PO11 | PO12 |
| C226 | 2.91 | 2.72 | 2.33 | 2.33 | 2.91 | PO6 | PO7 | PO8 | PO9 | 2.33 | PO11 | 2.33 |
| C227 | 2.91 | 2.71 | 2.13 | 2.33 | 2.91 | PO6 | PO7 | PO8 | PO9 | 2.13 | PO11 | 2.33 |
| C228 | 2.92 | 2.73 | 2.34 | 2.53 | 2.92 | PO6 | PO7 | PO8 | PO9 | 2.34 | PO11 | 2.53 |
| C229 | 2.70 | 2.32 | 2.51 | 2.51 | 2.90 | PO6 | PO7 | PO8 | PO9 | 2.32 | PO11 | 2.32 |
| C311 | 2.49 | 2.49 | 2.31 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | 2.13 | PO11 | PO12 |
| C312 | 2.36 | 1.85 | 2.36 | 2.19 | 1.85 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C313 | 2.65 | 2.30 | 2.65 | 2.12 | 2.12 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C314 | 2.44 | 2.26 | 2.10 | 2.08 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C315 | 2.49 | 2.14 | 2.31 | 2.31 | PO5 | PO6 | PO7 | 2.31 | 2.31 | 2.14 | 1.78 | 2.14 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C316 | 2.50 | 1.79 | 2.68 | 2.68 | 2.50 | PO6 | PO7 | PO8 | PO9 | 2.14 | PO11 | 2.14 |
| C317 | 2.67 | 2.31 | 2.49 | 2.31 | 2.13 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.13 |
| C318 | 2.32 | PO2 | 2.32 | 2.32 | 2.70 | PO6 | PO7 | PO8 | PO9 | 2.12 | PO11 | 2.32 |
| C319 | 2.15 | 2.34 | 2.34 | 2.34 | 2.34 | PO6 | PO7 | PO8 | 2.34 | PO10 | PO11 | 2.54 |
| C321 | 2.49 | 2.31 | 2.31 | 2.13 | 2.31 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.13 |
| C322 | 2.57 | 2.39 | 2.39 | 1.89 | 2.05 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.23 |
| C323 | 2.76 | 2.59 | 2.21 | 2.23 | 2.21 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.39 |
| C324 | 2.33 | 1.99 | 2.33 | 1.66 | 2.00 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.00 |
| C325 | 2.67 | 1.78 | 2.32 | PO4 | 2.14 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C326 | 2.93 | 2.54 | 2.93 | 2.54 | 2.93 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.54 |
| C327 | 2.91 | 2.33 | 2.52 | 2.71 | 2.91 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.52 |
| C328 | 2.91 | 2.33 | 2.53 | 2.33 | 2.72 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C329 | 2.90 | 2.13 | 2.71 | 2.32 | 2.90 | PO6 | PO7 | PO8 | 2.13 | 2.13 | PO11 | 2.13 |
| C411 | 2.66 | 2.49 | 2.13 | PO4 | 2.49 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.31 |
| C412 | 2.68 | 2.50 | 2.14 | 2.32 | 2.50 | PO6 | PO7 | PO8 | 1.96 | 1.96 | PO11 | 2.14 |
| C413 | 2.66 | 2.66 | 2.48 | 1.95 | 2.66 | 1.77 | PO7 | PO8 | 1.95 | 1.95 | 1.77 | PO12 |
| C414 | 2.67 | 2.49 | 2.31 | 1.96 | 2.31 | PO6 | PO7 | PO8 | 2.14 | 2.14 | PO11 | PO12 |
| C415 | 2.66 | 2.48 | 2.48 | 1.95 | 2.31 | PO6 | PO7 | PO8 | 1.95 | 2.13 | PO11 | PO12 |
| C416 | 2.68 | 2.32 | 1.96 | 2.68 | 2.14 | 2.50 | 2.68 | 2.14 | PO9 | 1.96 | 2.14 | PO12 |
| C417 | 2.89 | 2.32 | 2.32 | 2.89 | 2.51 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C418 | 2.13 | 2.32 | 2.32 | 2.32 | 2.32 | PO6 | PO7 | PO8 | 2.32 | PO10 | PO11 | 2.51 |
| C421 | 2.96 | 2.76 | 2.96 | 2.76 | 2.57 | PO6 | PO7 | PO8 | PO9 | 2.17 | PO11 | PO12 |
| C111 | 2.25 | 2.11 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | 2.25 | PO11 | 1.80 |
| C112 | 2.67 | 2.31 | PO3 | 2.49 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.31 |
| C113 | 2.15 | 1.86 | PO3 | 1.87 | 1.86 | PO6 | PO7 | PO8 | PO9 | 1.72 | PO11 | 1.86 |
| C114 | 2.10 | 2.10 | 1.82 | PO4 | 1.82 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.40 |
| C115 | 2.91 | 2.91 | 2.13 | 2.52 | 2.71 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.94 |
| C116 | 2.52 | 2.52 | PO3 | PO4 | 2.52 | PO6 | PO7 | PO8 | 2.52 | 2.91 | PO11 | 2.52 |
| C117 | 2.91 | 2.91 | 2.53 | 2.53 | 2.72 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.14 |
| C118 | 2.68 | 2.32 | 2.32 | 2.50 | 2.32 | PO6 | PO7 | PO8 | PO9 | 2.32 | PO11 | 1.78 |
| C121 | 2.72 | 2.72 | 2.54 | 2.36 | 2.17 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 2.18 |
| C122 | 2.11 | 1.83 | 1.69 | 1.69 | 1.69 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.69 |
| C123 | 2.17 | 2.03 | 2.03 | 1.89 | 1.73 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.73 |
| C124 | 2.07 | 1.81 | 1.93 | 1.81 | 1.66 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.52 |
| C125 | 2.11 | 1.97 | 1.97 | 1.69 | 1.69 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.69 |
| C126 | 2.91 | 2.13 | 2.71 | 2.91 | 2.71 | PO6 | PO7 | PO8 | PO9 | 2.13 | PO11 | 2.33 |
| C127 | 2.92 | 2.53 | 2.73 | 2.73 | 2.92 | PO6 | PO7 | PO8 | PO9 | 2.34 | PO11 | 2.53 |
| C128 | 2.92 | 2.53 | 2.92 | 2.53 | 2.53 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| PO Attainment | 2.59 | 2.38 | 2.41 | 2.38 | 2.46 | 2.28 | 2.72 | 2.35 | 2.31 | 2.28 | 2.11 | 2.29 |

**PO Attainment Level**

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Direct Attainment | 2.54 | 2.28 | 2.30 | 2.24 | 2.34 | 2.14 | 2.68 | 2.22 | 2.18 | 2.12 | 1.90 | 2.12 |
| InDirect Attainment | 2.79 | 2.77 | 2.85 | 2.93 | 2.93 | 2.85 | 2.90 | 2.89 | 2.85 | 2.93 | 2.93 | 2.95 |

## PSO Attainment

| Course | PSO1 | PSO2 |
|---|---|---|

| | | |
|---|---|---|
| C111 | 2.25 | 2.10 |
| C112 | 2.67 | 2.31 |
| C113 | 2.15 | 2.00 |
| C114 | 1.96 | 1.96 |
| C115 | 2.52 | 2.91 |
| C116 | 2.71 | 2.91 |
| C117 | 2.91 | 2.72 |
| C118 | 2.68 | 2.50 |
| C121 | 2.54 | 2.54 |
| C122 | 1.97 | 1.97 |
| C123 | 2.03 | 2.01 |
| C124 | 1.93 | 1.93 |
| C125 | 2.11 | 1.83 |
| C126 | 2.91 | 2.71 |
| C127 | 2.92 | PSO2 |
| C128 | 2.92 | 2.92 |
| C211 | 1.83 | 2.11 |
| C212 | 2.41 | 2.57 |
| C213 | 1.48 | 1.74 |
| C214 | 2.07 | 2.41 |
| C215 | 1.99 | 1.99 |
| C216 | 2.67 | 2.49 |
| C217 | 2.72 | 2.91 |
| C218 | 2.67 | 2.67 |
| C219 | 2.90 | 2.70 |
| C221 | 2.10 | 2.10 |
| C222 | 2.11 | 2.11 |
| C223 | 2.49 | 2.49 |
| C224 | 2.07 | 1.80 |
| C225 | 2.10 | 2.10 |
| C226 | 2.91 | 2.33 |
| C227 | 2.91 | 2.52 |
| C228 | 2.92 | 2.73 |
| C229 | 2.90 | 2.51 |
| C311 | 2.31 | 2.49 |
| C312 | 2.36 | 2.36 |
| C313 | 2.65 | 2.30 |
| C314 | 2.44 | 2.26 |
| C315 | 2.31 | 2.49 |
| C316 | 2.32 | 2.68 |
| C317 | 2.31 | 2.49 |
| C318 | 2.32 | 2.70 |
| C319 | 2.54 | 2.34 |
| C321 | 2.67 | 2.67 |
| C322 | 2.57 | 2.57 |
| C323 | 2.76 | 2.39 |
| C324 | 2.49 | 2.15 |

| | | |
|---|---|---|
| C325 | 2.32 | 2.14 |
| C326 | 2.93 | 2.74 |
| C327 | 2.91 | 2.71 |
| C328 | 2.91 | 2.11 |
| C329 | 2.90 | 2.71 |
| C411 | 2.66 | 2.66 |
| C412 | 2.68 | 1.96 |
| C413 | 2.66 | 2.30 |
| C414 | 2.49 | 2.31 |
| C415 | 2.48 | 2.48 |
| C416 | 2.68 | 2.50 |
| C417 | 2.89 | 2.51 |
| C418 | 2.51 | 2.32 |
| C421 | 2.96 | 2.96 |
| PSO Attainment | 2.58 | 2.50 |

**PSO Attainment Level**

| Course | PSO1 | PSO2 |
|---|---|---|
| Direct Attainment | 2.50 | 2.40 |
| InDirect Attainment | 2.91 | 2.92 |

4 STUDENTS' PERFORMANCE (150) Total Marks 111.18

:

**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) | 90 | 90 | 60 | 60 | 60 | 120 | 120 |
| 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) | 88 | 85 | 52 | 42 | 55 | 78 | 57 |
| Number of students admitted in 2nd year in the same batch via lateral entry (N2) | 0 | 0 | 4 | 2 | 2 | 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) | 88 | 85 | 56 | 44 | 57 | 78 | 57 |

**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) | 88 | 0 | 0 | 0 | 0 |
| 2023-24 (CAYm1) | 85 | 42 | 0 | 0 | 0 |
| 2022-23 (CAYm2) | 56 | 32 | 26 | 0 | 0 |
| 2021-22 (CAYm3) | 44 | 28 | 26 | 25 | 0 |
| 2020-21 (LYG) | 57 | 32 | 29 | 24 | 23 |
| 2019-20 (LYGm1) | 78 | 46 | 42 | 40 | 38 |
| 2018-19 (LYGm2) | 57 | 39 | 38 | 36 | 36 |

**Table 4.3**

| Year of entry | Total No of students admitted in the program (N1 + N2 + N3) | Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog] | | | |
|---|---|---|---|---|---|
| | | I year | II year | III year | IV year |
| 2024-25 (CAY) | 88 | 0 | 0 | 0 | 0 |
| 2023-24 (CAYm1) | 85 | 76 | 0 | 0 | 0 |
| 2022-23 (CAYm2) | 56 | 52 | 51 | 0 | 0 |
| 2021-22 (CAYm3) | 44 | 42 | 43 | 38 | 0 |
| 2020-21 (LYG) | 57 | 54 | 52 | 48 | 28 |
| 2019-20 (LYGm1) | 78 | 75 | 72 | 70 | 50 |
| 2018-19 (LYGm2) | 57 | 57 | 56 | 52 | 40 |

**4.1 Enrolment Ratio** (20)

Total Marks 20.00

Institute Marks : 20.00

| | N (From Table 4.1) | N1 (From Table 4.1) | Enrollment Ratio [(N1/N)*100] |
|---|---|---|---|
| 2024-25 (CAY) | 90 | 88 | 97.78 |
| 2023-24 (CAYm1) | 90 | 85 | 94.44 |
| 2022-23 (CAYm2) | 60 | 52 | 86.67 |

Average [ (ER1 + ER2 + ER3) / 3 ] : 92.96

Assessment : 20.00

**4.2 Success Rate in the stipulated period of the program** (40) Total Marks 21.90

**4.2.1 Success rate without backlogs in any semester / year of study** (25) Institute Marks : 12.75

| 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<br>Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable | 57.00 | 78.00 | 57.00 |
| Y<br>Number of students who have graduated without backlogs in the stipulated period | 23.00 | 38.00 | 36.00 |
| Success Index [ SI = Y / X ] | 0.40 | 0.49 | 0.63 |

Average SI [ (SI1 + SI2 + SI3) / 3 ] : 0.51

Assessment [25 * Average SI] : 12.75

**4.2.2 Sucess rate in stipulated period** (15) Institute Marks : 9.15

| 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<br>Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable | 57.00 | 78.00 | 57.00 |
| Y<br>Number of students who have graduated in the stipulated period | 28.00 | 50.00 | 40.00 |
| Success Index [ SI = Y / X ] | 0.49 | 0.64 | 0.70 |

Average SI[ ( SI1 + SI2 + SI3) / 3 ]: 0.61

Assessment [15 * Average SI] : 9.15

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

**4.3 Academic Performance in Third Year** (15) Total Marks 10.12

Institute Marks : 10.12

| Academic Performance | CAYm3 (2021-22) | LYG (2020-21) | LYGm1 (2019-20) |
|---|---|---|---|
| Mean of CGPA or mean percentage of all successful students(X) | 7.42 | 7.67 | 6.78 |
| Total number of successful students(Y) | 38.00 | 48.00 | 70.00 |
| Totalnumber of students appeared in the examination(Z) | 43.00 | 52.00 | 72.00 |
| API [ X*(Y/Z) ]: | 6.59 | 7.06 | 6.59 |

Average API [ (AP1 + AP2 + AP3)/3 ] : 6.75

Assessment [1.5 * AverageAPI] : 10.12

**4.4 Academic Performance in Second Year** (15) Total Marks 10.36

Institute Marks : 10.36

| Academic Performance | CAYm2 (2022-23) | CAYm3 (2021-22) | LYG (2020-21) |
|---|---|---|---|
| Mean of CGPA or mean percentage of all successful students(X) | 7.41 | 7.36 | 7.29 |
| Total number of successful students (Y) | 51.00 | 43.00 | 52.00 |
| Total number of students appeared in the examination (Z) | 56.00 | 44.00 | 56.00 |
| API [ X * (Y/Z) ] | 6.75 | 7.19 | 6.77 |

Average API [ (AP1 + AP2 + AP3)/3 ] : 6.90

Assessment [ 1.5 * AverageAPI ] : 10.36

**4.5 Placement, Higher Studies and Entrepreneurship** (40) Total Marks 28.80

Institute Marks : 28.80

| Item | LYG (2020-21) | LYGm1 (2019-20) | LYGm2 (2018-19) |
|---|---|---|---|
| Total No of Final Year Students(N) | 48.00 | 70.00 | 52.00 |
| No of students placed in the companies or government sector(X) | 36.00 | 49.00 | 37.00 |
| No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y) | 0.00 | 0.00 | 0.00 |
| No of students turned entrepreneur in engineering/technology (Z) | 0.00 | 0.00 | 0.00 |
| x + y + z = | 36.00 | 49.00 | 37.00 |
| Placement Index [ (X+Y+Z)/N ] : | 0.75 | 0.70 | 0.71 |

Average Placement [ (P1 + P2 + P3)/3 ] : 0.72

Assessment [ 40 * Average Placement] : 28.80

**Program Name :**

**Assessment Year Name : CAYm1**

| S.No | Student Name | Enrollment No | Employee Name | Appointment No |
|---|---|---|---|---|
| 1 | BOYA VISHNUVARDHAN | 20HM1A0504 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0002 |
| 2 | KANDUKURI NEWTON | 20HM1A0517 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0003 |
| 3 | PALLAPU SAILAJA | 20HM1A0531 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0004 |
| 4 | SANIVARPU VISWAS MARREDDY | 20HM1A0538 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0005 |
| 5 | THOTA VENKATA NAVEEN | 20HM1A0545 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0006 |
| 6 | ADDANKI AJAY | 20HM1A0501 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/43 |
| 7 | KAPU VISHNUVARDHAN REDDY | 20HM1A0519 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/44 |
| 8 | KUDUMULA SUMITHRA | 20HM1A0522 | HIROTOIND TECHNOLOGIES | HIT/HYD/JAN2024/42 |
| 9 | RAPTHADU SREENATH | 20HM1A0536 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/12 |
| 10 | GALLA MOHAN KUMAR | 20HM1A0510 | SMART SELECT SOLUTIONS | SMART/ HYD/MAR2024/29 |
| 11 | PATHIPATI MAHESH | 20HM1A0533 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/45 |
| 12 | TALARI MAHESH | 20HM1A0542 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/46 |
| 13 | VELPULA CHANDRIKA | 20HM1A0548 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/47 |
| 14 | MADDIRALA HIMA BINDU | 20HM1A0523 | HIROTOIND TECHNOLOGIES | HIT/HYD/JAN2024/43 |
| 15 | MANNUVA MALLIKHARJUNA | 20HM1A0526 | HIROTOIND TECHNOLOGIES | HIT/HYD/JAN2024/44 |
| 16 | SAKE VINOD | 20HM1A0537 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/13 |
| 17 | MEENIGA SRAVANI | 20HM1A0527 | SMART SELECT SOLUTIONS | SMART/ HYD/MAR2024/30 |
| 18 | SHYAMALA KAVYA | 20HM1A0540 | SMART SELECT SOLUTIONS | SMART/ HYD/MAR2024/31 |
| 19 | BEJJIPALLI JEEVAMANI | 20HM1A0502 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/DEC2023/22 |
| 20 | MALYAM AKHILAMMA | 20HM1A0524 | HIROTOIND TECHNOLOGIES | HIT/HYD/JAN2024/45 |
| 21 | SHAIK ROSHINI | 20HM1A0539 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/14 |
| 22 | KOSURI LAKSHMANA RAO | 21HM5A0501 | SMART SELECT SOLUTIONS | SMART/ HYD/MAR2024/32 |
| 23 | Ediga Vamshi Goud | 20HM1A0509 | SMART SELECT SOLUTIONS | SMART/ HYD/MAR2024/33 |
| 24 | YATHAM MUTYALU | 20HM1A0554 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/48 |
| 25 | BOKKA VENKATRAO | 20HM1A0503 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/DEC2023/23 |
| 26 | NALAGANGU VENKATA PRAVEEN | 20HM1A0528 | HIROTOIND TECHNOLOGIES | HIT/HYD/JAN2024/46 |
| 27 | TAMMU CHANDU | 20HM1A0543 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/15 |
| 28 | Kavali Narendra | 20HM1A0520 | SMART SELECT SOLUTIONS | SMART/ HYD/MAR2024/34 |
| 29 | YAKKANTI SAI TEJA | 20HM1A0550 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/16 |
| 30 | YARRAMREDDY AARTHI REDDY | 20HM1A0552 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/17 |
| 31 | NUNASANVATH TIRUMALA BAI | 20HM1A0530 | HIROTOIND TECHNOLOGIES | HIT/HYD/JAN2024/47 |
| 32 | PATHIPATI HEMALATHA | 20HM1A0532 | HIROTOIND TECHNOLOGIES | HIT/HYD/JAN2024/48 |
| 33 | DARNASI RAKSHITHA | 20HM1A0507 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/DEC2023/24 |
| 34 | DUGGIMI SAI KUMAR | 20HM1A0508 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/DEC2023/25 |
| 35 | GOGULA UMAMAHESWARI | 20HM1A0512 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/DEC2023/26 |
| 36 | KAMBAM ASWINI | 20HM1A0515 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/DEC2023/27 |

**Assessment Year Name : CAYm2**

| S.No | Student Name | Enrollment No | Employee Name | Appointment No |
|---|---|---|---|---|
| 1 | ONGOLU PUSHPA RANI | 19HM1A0554 | Tata Consultancy Services | TCSL/DT20222948422/ Hyderabad |
| 2 | TALATALA GEETHA SRAVANTHI | 19HM1A0574 | Tata Consultancy Services | TCSL/DT20223062279/ Hyderabad |
| 3 | MALLALA REVATHI | 19HM1A0543 | Tata Consultancy Services | TCSL/DT20229875527/ Hyderabad |
| 4 | TIPPIREDDY GEETHA RAMYA | 19HM1A0576 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/00010 |
| 5 | BUDDI DIVYA SREE | 19HM1A0511 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0006 |
| 6 | MADARAJU PREMA KUMARI | 19HM1A0541 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0007 |
| 7 | PANUGANTI P SUBBA RAO GUPTA | 19HM1A0558 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0008 |
| 8 | SAKAM AHALYA | 19HM1A0567 | PRO IT Solutions | PRO IT/OFFER/2023-2024/HYD/0009 |
| 9 | ANKALU SIVA PRASAD | 19HM1A0502 | Boston It Solutions Pvt. Ltd. | BOSTON/2023/AMRMCET/1 |
| 10 | CHEREDDY DANALAKSHMI | 19HM1A0517 | Boston It Solutions Pvt. Ltd. | BOSTON/2023/AMRMCET/2 |
| 11 | Ganipineni Sushma Chowdary | 19HM1A0521 | Boston It Solutions Pvt. Ltd. | BOSTON/2023/AMRMCET/3 |
| 12 | Golla Sirisha | 19HM1A0522 | Boston It Solutions Pvt. Ltd. | BOSTON/2023/AMRMCET/4 |
| 13 | MODI NAMRATHA | 19HM1A0548 | Boston It Solutions Pvt. Ltd. | BOSTON/2023/AMRMCET/5 |
| 14 | PALLAPATI CHENNAKESAVA | 19HM1A0557 | Boston It Solutions Pvt. Ltd. | BOSTON/2023/AMRMCET/6 |
| 15 | S Sruthi | 19HM1A0566 | Boston It Solutions Pvt. Ltd. | BOSTON/2023/AMRMCET/7 |
| 16 | Ediga Narendra | 19HM1A0520 | EXATHOUGHT TECHNOLOGY CONSULTING PRIVATE LIMITED | EXA/2023/AMRMCET/1 |
| 17 | MUKTHAPURAM SANGEETHA | 19HM1A0550 | Teamlease Services Limited | Teamlease/2023/AMRMCET/1 |
| 18 | CHINNAPUREDDY ANUSHA | 19HM1A0518 | Thinksynq | Thinksynq/2023/AMRMCET/1 |
| 19 | DEVARAKONDA TEJASWANI | 19HM1A0519 | Thinksynq | Thinksynq/2023/AMRMCET/2 |
| 20 | Kaipu Venkata Naga Bharathi | 19HM1A0530 | Thinksynq | Thinksynq/2023/AMRMCET/3 |
| 21 | KONCHA NANDANAJYOTHI | 19HM1A0536 | Thinksynq | Thinksynq/2023/AMRMCET/4 |
| 22 | Koneti Triveni | 19HM1A0537 | Thinksynq | Thinksynq/2023/AMRMCET/5 |
| 23 | Nandipati Siva Jyothi | 19HM1A0551 | Thinksynq | Thinksynq/2023/AMRMCET/6 |
| 24 | PERAM SRAVANTHI | 19HM1A0559 | Thinksynq | Thinksynq/2023/AMRMCET/7 |
| 25 | Sake Akhila | 19HM1A0568 | Thinksynq | Thinksynq/2023/AMRMCET/8 |
| 26 | Samrasu Ramadevi | 19HM1A0569 | Thinksynq | Thinksynq/2023/AMRMCET/9 |
| 27 | BEDADHALA NAVYA SREE | 19HM1A0507 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/JAN2023 /20 |
| 28 | BADDIGAM ANITHA | 19HM1A0505 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/JAN2023 /18 |
| 29 | BATHULA SURYANARAYANA | 19HM1A0506 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/JAN2023 /19 |
| 30 | MATAM MEGHANA | 19HM1A0544 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN 2022/31 |
| 31 | GUVVALA ASWINI | 19HM1A0525 | SMART SELECT SOLUTIONS | SMART/ HYD/JAN 2022/39 |
| 32 | INDLA MARIYA RAJU | 19HM1A0526 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN 2022/27 |
| 33 | POSA PAVITHRA | 19HM1A0561 | SYNCTRA SOLUTIONS | SYNCTRA/HYD/SEP2022/6 |
| 34 | NASYAM VENNELA | 19HM1A0553 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/17 |
| 35 | BOGA GANGADHAR | 19HM1A0509 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/JAN2023 /21 |
| 36 | BUSSA SHARON PUSHPA | 19HM1A0513 | SMART SELECT SOLUTIONS | SMART/ HYD/JAN 2022/37 |
| 37 | KAIPU RADHIKA | 19HM1A0529 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN 2022/29 |
| 38 | S MAMATHA | 19HM1A0565 | SYNCTRA SOLUTIONS | SYNCTRA/HYD/SEP2022/8 |
| 39 | SYED MOHAMMAD ZAMEER | 19HM1A0572 | SYNCTRA SOLUTIONS | SYNCTRA/HYD/SEP2022/10 |
| 40 | BOYA SOMNATH | 19HM1A0510 | GLOBAL E SMART TECHNOLOGIES | GLOBAL/HYD/JAN2023 /22 |
| 41 | CHANGALA ARAVIND | 19HM1A0515 | SMART SELECT SOLUTIONS | SMART/ HYD/JAN 2022/38 |
| 42 | SHAIK GOWSYA | 19HM1A0570 | SYNCTRA SOLUTIONS | SYNCTRA/HYD/SEP2022/9 |
| 43 | BUDDOLLA HEMALATHA | 19HM1A0512 | SMART SELECT SOLUTIONS | SMART/ HYD/JAN 2022/36 |
| 44 | JENNE SUSEELA | 19HM1A0527 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN 2022/28 |
| 45 | MADDIMINENI PRAMOD KUMAR | 19HM1A0546 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/16 |
| 46 | REBBA GOPI | 19HM1A0564 | SYNCTRA SOLUTIONS | SYNCTRA/HYD/SEP2022/7 |

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|---|---|---|---|---|
| 47 | PALAM DINESH REDDY | 19HM1A0555 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/18 |
| 48 | KAMARATHI MOUNIKA | 19HM1A0531 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN 2022/30 |
| 49 | PIDATHALA ANGEL | 19HM1A0560 | SMART INNOVATIONS Pvt Ltd | SI/HYD/JULY/2022/19 |

**Assessment Year Name : CAYm3**

| S.No | Student Name | Enrollment No | Employee Name | Appointment No |
|---|---|---|---|---|
| 1 | ATLURI KAVITHA | 18HM1A0503 | Capgemini Technology Services India Limited | 1621993 |
| 2 | Dugalam Eswar | 18HM1A0517 | Capgemini Technology Services India Limited | 1486769 |
| 3 | CHINNAPA REDDY MOUNIKA | 18HM1A0512 | PRO IT Solutions | PRO IT/OFFER/2021-2022/HYD/0018 |
| 4 | BASI SWATHI | 18HM1A0505 | PRO IT Solutions | PRO IT/OFFER/2021-2022/HYD/0019 |
| 5 | BILEPPAGARI KURBA SAI KEERTHANA | 18HM1A0506 | PRO IT Solutions | PRO IT/OFFER/2021-2022/HYD/0020 |
| 6 | PATIL DIVYA | 18HM1A0542 | PRO IT Solutions | PRO IT/OFFER/2021-2022/HYD/0021 |
| 7 | RATARA VIKAS | 18HM1A0548 | PRO IT Solutions | PRO IT/OFFER/2021-2022/HYD/0022 |
| 8 | Kuruba Karunakaran | 18HM1A0526 | Cogente Services | COGENTE/2022/AMRMCET/1 |
| 9 | Cheemala Prema Sankar | 18HM1A0509 | HCL Technologies Ltd. | HCL/2022/AMRMCET/1 |
| 10 | AITHARAPPA GARI SINDHU | 18HM1A0502 | Infinite Computer Solutions | INFINITE/2022/AMRMCET/1 |
| 11 | R Sairoopa | 18HM1A0547 | Infinite Computer Solutions | INFINITE/2022/AMRMCET/2 |
| 12 | Vannura Swamy Harijana | 18HM1A0519 | Infinite Computer Solutions | INFINITE/2022/AMRMCET/3 |
| 13 | MADIGA KAVYA | 18HM1A0531 | Infinite Computer Solutions | INFINITE/2022/AMRMCET/4 |
| 14 | PONNAGANTI CHAITANYA | 18HM1A0545 | Infinite Computer Solutions | INFINITE/2022/AMRMCET/5 |
| 15 | SUREPALLI HYMAVATHI | 18HM1A0551 | Infinite Computer Solutions | INFINITE/2022/AMRMCET/6 |
| 16 | YERREDDULA HARI PRIYA REDDY | 18HM1A0557 | Infinite Computer Solutions | INFINITE/2022/AMRMCET/7 |
| 17 | PUNDOLLA SAIROOPA | 18HM1A0546 | Wipro | WIPRO/2022/AMRMCET/1 |
| 18 | BOYA JUTURU KALYANI | 18HM1A0507 | Global E Smart Technoloies | GLOBAL/HYD/DEC/2021/10 |
| 19 | CHEPURI RAMYA | 18HM1A0510 | Global E Smart Technoloies | GLOBAL/HYD/DEC/2021/11 |
| 20 | DORAGARI SRIVAMSI | 18HM1A0515 | Global E Smart Technoloies | GLOBAL/HYD/DEC/2021/12 |
| 21 | GOLLA NARMADA | 18HM1A0518 | Global E Smart Technoloies | GLOBAL/HYD/DEC/2021/13 |
| 22 | KAMPARAJU SIREESHA | 18HM1A0522 | SMART SELECT Solutions | SMART/ HYD/JAN/2022/18 |
| 23 | KONKA MAMATHA | 18HM1A0524 | SMART SELECT Solutions | SMART/ HYD/JAN/2022/19 |
| 24 | KANDUKURI DEEVENA | 18HM1A0525 | SMART SELECT Solutions | SMART/ HYD/JAN/2022/20 |
| 25 | POLEPALLI AKHIL | 18HM1A0544 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN/2022/27 |
| 26 | SANDEPOGU SRAVANI | 18HM1A0550 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN/2022/29 |
| 27 | VUDUMULA SHANMUKHA NAIDU | 18HM1A0556 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/17 |
| 28 | M MOULIKA | 18HM1A0528 | SMART SELECT Solutions | SMART/ HYD/JAN/2022/21 |
| 29 | PALADUGU NEELAVATHI | 18HM1A0539 | Smart Innovations Pvt Ltd | SI/HYD/JULY/2022/43 |
| 30 | SAKE JYOSHNA | 18HM1A0549 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN/2022/28 |
| 31 | TADIMARRI KIRAN KUMAR | 18HM1A0552 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/15 |
| 32 | MALLAPPA GARI NARASIMHAPPA | 18HM1A0532 | Smart Innovations Pvt Ltd | SI/HYD/JULY/2022/40 |
| 33 | NARIMI SUNEETHA | 18HM1A0536 | Smart Innovations Pvt Ltd | SI/HYD/JULY/2022/42 |
| 34 | THALLAPOGU USHA RANI | 18HM1A0553 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/16 |
| 35 | MULAKALAPALLI PRIYANKA | 18HM1A0534 | Smart Innovations Pvt Ltd | SI/HYD/JULY/2022/41 |
| 36 | PATIL SHIVA PRASAD | 18HM1A0543 | HIROTOIND TECHNOLOGIES | HIT/ HYD/ JAN/2022/26 |
| 37 | H.YUVARAJU | 18HM1A0520 | SYNCTRA SOLUTIONS | SYNCTRA /HYD/SEP 2021/18 |

**4.6 Professional Activities** (20) Total Marks 20.00

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

Institute Marks : 5.00

### 4.6.1 Professional societies/ chapters and organizing engineering events

**A. Availability & activities of professional societies / chapters (3)**

| Sl. No | Academic Year | No. of Faculty Memberships | No. of student membership |
|---|---|---|---|
| 1 | 2024-25 | 16 | 166 |
| 2 | 2023-24 | 16 | 145 |
| 3 | 2022-23 | 15 | 165 |

| List of Faculty as Professional body members during the academic year: 2024-25 (CAY) | | |
|---|---|---|
| **Sl. No** | **Name of the Faculty** | **Name of the professional society as member** |
| 1 | Dr. Merugu Anand Kumar | CSI, IAENG and AMRCS |
| 2 | Dr. G. Samba Siva Rao | AMRCS |
| 3 | Dr. Inaganti Shylaja | AMRCS |
| 4 | Dr. Padigala Suresh | AMRCS |
| 5 | Dr. Godagala Madhava Rao | AMRCS |
| 6 | Nagam Aanjaneyulu | CSI & AMRCS |
| 7 | Arekatla Madhava Reddy | AMRCS |
| 8 | Arekatla Jaganmohan Reddy | AMRCS |
| 9 | Lankala Mounika | AMRCS |
| 10 | Vanapamula Veerabrahmachari | CSI & AMRCS |
| 11 | Motupalli Mallikarjuna Rao | AMRCS |
| 12 | Aremandla Sai Pujitha | AMRCS |
| 13 | Chevula Rekha | CSI & AMRCS |
| 14 | Shaik Guntur Mahabub Subhani | CSI & AMRCS |
| 15 | Butukuru Rojalakshmi | CSI & AMRCS |
| 16 | Gudipati Mohan Singh Yadav | AMRCS |

| List of Students as Professional body members during academic year: 2024-25 (CAY) | | |
|---|---|---|
| **Sl. No** | **Hall Ticket Number** | **Name of the Student** |
| 1 | 23HM1A0501 | Adepu Lavanya |
| 2 | 23HM1A0502 | Annapureddy Kiran |
| 3 | 23HM1A0503 | Annapureddy Rajeswari |
| 4 | 23HM1A0504 | Atluri Amrutha |
| 5 | 23HM1A0505 | Badisa Ashok |
| 6 | 23HM1A0506 | Badisa Rakesh |
| 7 | 23HM1A0507 | Banda Baji |
| 8 | 23HM1A0509 | Bellamkonda Sanjeevarao |
| 9 | 23HM1A0510 | Bhukya Kalyan Naik |
| 10 | 23HM1A0511 | Birudu Vijay Kumar |
| 11 | 23HM1A0512 | Bobba Surendra Reddy |
| 12 | 23HM1A0513 | Bodeddula Nandeeswar Reddy |
| 13 | 23HM1A0514 | Chelli Neerajitha |
| 14 | 23HM1A0516 | Chinta Poojitha |
| 15 | 23HM1A0517 | Chintala Nagi Reddy |
| 16 | 23HM1A0519 | Daram Varshitha |
| 17 | 23HM1A0520 | Dasari Abhi Ram |
| 18 | 23HM1A0521 | Dhulipalla Chinna Yalamanda |
| 19 | 23HM1A0522 | Dosakayalapati Renuka |
| 20 | 23HM1A0523 | Elpuri Sajeedh |
| 21 | 23HM1A0524 | Garlapati Yelleswara Rao |
| 22 | 23HM1A0525 | Garnipudi Praveen Kumar |
| 23 | 23HM1A0526 | Gopanaboina Gowry |
| 24 | 23HM1A0527 | Gundala Vamsi |

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|---|---|---|
| 25 | 23HM1A0528 | Gundu Pavan Kumar |
| 26 | 23HM1A0529 | Gunji Rajeswari |
| 27 | 23HM1A0530 | Guntaka Santhosh Kumar Reddy |
| 28 | 23HM1A0531 | Jimkala Rajesh |
| 29 | 23HM1A0532 | Kakarla Kamalakar |
| 30 | 23HM1A0533 | Kamatham Arun Kumar |
| 31 | 23HM1A0534 | Karri Lakshmi Vikas Reddy |
| 32 | 23HM1A0535 | Kasukurthi Tejaswini |
| 33 | 23HM1A0536 | Kojja Pavan |
| 34 | 23HM1A0537 | Kolaka Naveen |
| 35 | 23HM1A0540 | Kunala Jaswanthi |
| 36 | 23HM1A0541 | Kuruba Dinesh Gowd |
| 37 | 23HM1A0542 | Lakkepogu Mahima Raju |
| 38 | 23HM1A0543 | Lanjepalli Vasantha |
| 39 | 23HM1A0544 | Maddipi Lakshmi Narayana Reddy |
| 40 | 23HM1A0545 | Maganti Ajay Kumar |
| 41 | 23HM1A0546 | Mallarpu Chandana |
| 42 | 23HM1A0547 | Mallela Vishnuvardhanbabu |
| 43 | 23HM1A0548 | Manchikalapati Pavan Venu Kumar |
| 44 | 23HM1A0549 | Mannam Ramaiah |
| 45 | 23HM1A0550 | Manyam Veera Venkata Gopi Samba Siva Rao |
| 46 | 23HM1A0551 | Meruva Hari |
| 47 | 23HM1A0552 | Middepogu Maneesha |
| 48 | 23HM1A0553 | Navuluri Raja Sekhar |
| 49 | 23HM1A0554 | Nimmaka Babu Rao |
| 50 | 23HM1A0556 | Pallepogu Pavan Kumar |
| 51 | 23HM1A0557 | Parimalla Sowjanya |
| 52 | 23HM1A0558 | Peddapudi Nasar Reddy |
| 53 | 23HM1A0559 | Peela Gopinadh |
| 54 | 23HM1A0560 | Polaki Manikanta |
| 55 | 23HM1A0561 | Poleboina Ramana |
| 56 | 23HM1A0562 | Poluru Mokshitha Naga Venkata Asha |
| 57 | 23HM1A0563 | Putluru Amarnath Reddy |
| 58 | 23HM1A0564 | Rudrapati China Srinivasa Rao |
| 59 | 23HM1A0565 | Sanivarapu Siva Kasi Reddy |
| 60 | 23HM1A0566 | Sathikala Nagaguru Lakshmi |
| 61 | 23HM1A0567 | Sayyad Abdul Khadar |
| 62 | 23HM1A0568 | Shaik Adil |
| 63 | 23HM1A0571 | Talari Revathi |
| 64 | 23HM1A0572 | Telaprolu Jayanth |
| 65 | 23HM1A0573 | Tenali Nandini |
| 66 | 23HM1A0575 | Vaka Madhu Mohan Reddy |
| 67 | 23HM1A0576 | Vallem Rajeswari |
| 68 | 23HM1A0577 | Vasa Roj Pradeepa |
| 69 | 23HM1A0578 | Vattem Ramu |
| 70 | 23HM1A0579 | Vendekatla Vishnu Goud |
| 71 | 23HM1A0580 | Vurranki Jitendra |
| 72 | 23HM1A0581 | Yannam Prasanna Kumari |
| 73 | 23HM1A0582 | Yaradesi Balaiah |
| 74 | 23HM1A0583 | Yarraguntla Manoj Kumar |
| 75 | 23HM1A0584 | Yarramreddy Aditya Reddy |
| 76 | 23HM1A0585 | Potteti Ajay Kumar Reddy |

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| 77 | 22AR1A0533 | Kodavalla Omkara Mani Kanta |
| 78 | 20HM1A0516 | Kamineni Priyanka |
| 79 | 22HM1A0501 | Allam Sai Krishna |
| 80 | 22HM1A0502 | Angajala Veeralingeswara |
| 81 | 22HM1A0503 | Atchakkagari Kranthi Kumar |
| 82 | 22HM1A0504 | Avula Veeranjineyulu |
| 83 | 22HM1A0505 | Bonthala Govinda Rajulu |
| 84 | 22HM1A0506 | Challa Venkata Lakshmi Manikanta |
| 85 | 22HM1A0507 | Chebrolu Jyothika Sai |
| 86 | 22HM1A0508 | Dammalapati Sravanthi |
| 87 | 22HM1A0509 | Danda Sarita |
| 88 | 22HM1A0510 | Devarakonda Manikanta |
| 89 | 22HM1A0511 | Dodlavaram Vishnu Vardhan |
| 90 | 22HM1A0512 | Edigattu Sreenivasulu |
| 91 | 22HM1A0513 | Gogula Ajay |
| 92 | 22HM1A0515 | Gudipati Pallavi |
| 93 | 22HM1A0516 | Gummadi Praveen |
| 94 | 22HM1A0517 | Gunja Narendra |
| 95 | 22HM1A0518 | Gunja Sirisha |
| 96 | 22HM1A0520 | Jampani Vanajadevi |
| 97 | 22HM1A0521 | Juvvenaboyina Ramakrishna |
| 98 | 22HM1A0522 | Kandula Dharani |
| 99 | 22HM1A0523 | Karrothu Chaitanya Kumar |
| 100 | 22HM1A0524 | Kesari Bhavani Prasada  Reddy |
| 101 | 22HM1A0525 | Kolli Sivalakshmi |
| 102 | 22HM1A0526 | Lotla Uday Kumar |
| 103 | 22HM1A0527 | Majji Pavan Kumar |
| 104 | 22HM1A0528 | Markapuram Vishnu Vardhan Reddy |
| 105 | 22HM1A0529 | Meeniga Sirisha |
| 106 | 22HM1A0531 | Nidikonda Srinivasarao |
| 107 | 22HM1A0532 | Pannuru Pavan |
| 108 | 22HM1A0534 | Pothireddy Susanna |
| 109 | 22HM1A0535 | Pujari Somanath |
| 110 | 22HM1A0536 | Rakonda Lakshmi Venkata Alivelu |
| 111 | 22HM1A0537 | Rasipogula Swapna |
| 112 | 22HM1A0538 | Ravi Mani Deepthi |
| 113 | 22HM1A0539 | Rebba Surya |
| 114 | 22HM1A0540 | Sadhu Deepthi |
| 115 | 22HM1A0541 | Sake Sravanthi |
| 116 | 22HM1A0542 | Sali Karthik |
| 117 | 22HM1A0544 | Shaik Mohith |
| 118 | 22HM1A0545 | Shaik Mubashira |
| 119 | 22HM1A0546 | Shaik Sadhik |
| 120 | 22HM1A0547 | Shaik Siddhik |
| 121 | 22HM1A0548 | Tanamchinthala Dasu |
| 122 | 22HM1A0549 | Thota Venkata Sai Charan |
| 123 | 22HM1A0550 | Upputuri Vasu |
| 124 | 22HM1A0551 | Yadagiri Vasantha Laxmi |
| 125 | 22HM1A0552 | Yadlapalli Srinu |
| 126 | 23HM5A0501 | Alluri Sai Sree |
| 127 | 23HM5A0504 | Pulivarthi Raghuvardhan |
| 128 | 23HM5A0505 | Vankam Ganesh |

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|---|---|---|
| 129 | 21HM1A0501 | Alukapenta Thimmagurudu Swamy |
| 130 | 21HM1A0502 | Arumalla Sandeep Kumar |
| 131 | 21HM1A0504 | Badisa Bhavya Sri |
| 132 | 21HM1A0506 | Battula Venkatesh |
| 133 | 21HM1A0507 | Beesabathina Saran Sai |
| 134 | 21HM1A0509 | Chedabavi Shravani |
| 135 | 21HM1A0510 | Chedipothula Kondalu |
| 136 | 21HM1A0511 | Chilakuri Ramya |
| 137 | 21HM1A0512 | Chinna Nagappa Gari Jyothi |
| 138 | 21HM1A0513 | Degala Gopinath |
| 139 | 21HM1A0514 | Devarapalli Sandeep Reddy |
| 140 | 21HM1A0515 | Devireddy Pujitha |
| 141 | 21HM1A0516 | Eppala Vishnu Vardhan Reddy |
| 142 | 21HM1A0518 | Gajula Naga Siva Kiran |
| 143 | 21HM1A0519 | Golla Sivakumar |
| 144 | 21HM1A0520 | Gottapu Sireesha |
| 145 | 21HM1A0521 | Harijana Madhurima |
| 146 | 21HM1A0522 | Jampala Mala Konda Rayudu |
| 147 | 21HM1A0523 | Jasty Manoj |
| 148 | 21HM1A0524 | Kamasani Bhaskar Rao |
| 149 | 21HM1A0525 | Kottapalli Kalyan |
| 150 | 21HM1A0526 | Kummitha Gopal Reddy |
| 151 | 21HM1A0527 | Kurakula Diwakar |
| 152 | 21HM1A0528 | Lakshmi Prasanna N |
| 153 | 21HM1A0529 | Lukalapu Adarsh |
| 154 | 21HM1A0530 | Madiga Saniya |
| 155 | 21HM1A0531 | Mukkella Anilkumar |
| 156 | 21HM1A0532 | Pallepogu Indu Priya |
| 157 | 21HM1A0533 | Pathala Kranthi Kumar |
| 158 | 21HM1A0534 | Pattipati Deekshitha |
| 159 | 21HM1A0535 | Penugonda Pavan |
| 160 | 21HM1A0536 | Pullaiahgari Aswilatha |
| 161 | 21HM1A0537 | Ravulapalli Shanthi Triveni |
| 162 | 21HM1A0538 | Sugali Poojitha Bai |
| 163 | 21HM1A0539 | Sunkara Gopi Ajay Kumar |
| 164 | 21HM1A0540 | Varikuntla Narendra |
| 165 | 21HM1A0541 | Yerrabhoomi Samrutha |
| 166 | 21HM1A0542 | Podaralla Saikumar Reddy |

| **List of Faculty as Professional body members during the academic year: 2023-2024 (CAYm1)** | | |
|---|---|---|
| **Sl. No** | **Name of the Faculty** | **Name of the professional society as member** |
| 1 | Mr. Merugu Anand Kumar | IAENG and AMRCS |
| 2 | Dr. G. Samba Siva Rao | AMRCS |
| 3 | Dr. Inaganti Shylaja | AMRCS |
| 4 | Dr. Padigala Suresh | AMRCS |
| 5 | Dr. Godagala Madhava Rao | AMRCS |
| 6 | Nagam Aanjaneyulu | AMRCS |
| 7 | Arekatla Madhava Reddy | AMRCS |
| 8 | Arekatla Jaganmohan Reddy | AMRCS |
| 9 | Lankala Mounika | AMRCS |
| 10 | Vanapamula Veerabrahmachari | AMRCS |
| 11 | Motupalli Mallikarjuna Rao | AMRCS |

| | | |
|---|---|---|
| 12 | Aremandla Sai Pujitha | AMRCS |
| 13 | Chevula Rekha | AMRCS |
| 14 | Shaik Guntur Mahabub Subhani | AMRCS |
| 15 | Butukuru Rojalakshmi | AMRCS |
| 16 | Gudipati Mohan Singh Yadav | AMRCS |

**List of Students as Professional body members during academic year: 2023-2024(CAY1)** - Annexed Separately

List of Faculty as Professional body members during the academic year: **2022-2023** (CAYm2) - Annexed Separately

**List of Students as Professional body members during academic year: 2022-2023 (CAYm2)** - Annexed Separately

**B. Number, quality of engineering events (organized at institute) (Level Institute / State / National/International) (2)**

List of Technical / Engineering Events

Activities Summary for 3 – Assessment Years

| Academic Year | No. of Events | No. of Participants | Remarks |
|---|---|---|---|
| 2023-2024 | 14 | 565 | Institute Level |
| 2022-2023 | 15 | 710 | Institute Level |
| 2021-2022 | 15 | 750 | Institute Level |

**Details of courses delivered by industrial experts during the academic year 2023-2024 (CAYm1)**

| S.No | Topic Name | Course | Date / Month / Year | Resource Person With Designation | No. of students attended |
|---|---|---|---|---|---|
| 1 | Advanced Computation and Graphics using C++ | Guest Lecture | 22-08-2023 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | *46* |
| 2 | Real Time Operating System | Workshop | 11-09-2023 TO 12-09-2023 | Dr.Ch.V.Phan Krishna,Prof,Tkr Eng college ,Hyderabad | 46 |
| 3 | Agile Excellence: Mastering Software Development with SCRUM | Guest Lecture | 10-05-2023 | Dr.Konda Srinivas, Prof ,CMRIT,Hynderabad | *46* |
| 4 | Advanced Computer Networks | Guest Lecture | 08-07-2023 | Mr.M Kalyan Chakravarthy, Sr. Software engineer Adaps It Pvt.Lmt | 36 |
| 5 | Greedy Algorithm | Guest Lecture | 13-09-2023 | Dr.V.Gowtham, Prof and Principal ,SMGOIH, Hyderabad | 35 |
| 6 | Data Mining Using Weka Tool | Workshop | 05-10-2023 TO 06-10-2023 | Dr.N .Tirumala Rao HOD,NEC ,Narasarao pet | 35 |
| 7 | Process Improvement Discipline | Guest Lecture | 11-06-2023 | Dr.K Thirupathi Rao Professor, GITAM Deemed University, Vizag | 36 |
| 8 | Training Program on Could Computing | Workshop | 07-08-2023 TO 08-08-2023 | Dr.K Kumaraswamy,Assoc Prof,CMRCET, | 46 |
| 9 | Unlocking the Semantic Web: An Introduction to Linked Data and SPARQL | Guest Lecture | 15-09-2023 | Dr.Y.Soumya,Assoc .Proff,CVR Engineering college ,Hyd | 45 |
| 10 | Securing the Airwaves: A Deep Dive into Wireless Protocols and Threats | Guest Lecture | 31-10-2023 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 46 |
| 11 | Mango DB | Workshop | 26-02-2024 TO 27-01-2024 | Mrs.P.Sirisha Reddy , Team Lead ,Infosys | *47* |
| 12 | Keras and Tensor flow for developing the Applications of Machine Learning | Workshop | 02-02-2024 TO 03-02-2024 | Dr.D Sasi Rajashekar,Dean,SMGOIH, | 30 |
| 13 | Context Free Grammar | Guest Lecture | 03-04-2024 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 36 |
| 14 | IDEA and BLOWFISHAlgorithms. | Guest Lecture | 08-04-2024 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 35 |

*Table : 4.6.1.3. Details of courses delivered by industrial experts during the academic year 2023-2024 (CAYm1)*

**Details of courses delivered by industrial experts during the academic year 2022-2023 (CAYm2)**

| S.No | Topic Name | Course | Date / Month / Year | Resource Person With Designation | No. of students attended |
|---|---|---|---|---|---|
| 1 | IDEA and BLOWFISH Algorithms. | Guest Lecture | 20-07-2022 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | *60* |
| 2 | Design Patterns Demystified: Solving Real-World Problems with Reusable Solutions | Workshop | 9-8-2022 TO 10-08-2022 | Dr.Y.Soumya,Assoc .Proff,CVR Engineering college ,Hyd | *60* |
| 3 | Keras and Tensor flow for developing the Applications of Machine Learning | Guest Lecture | 09-12-2022 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | *55* |
| 4 | Training Program on Colud Computing | Workshop | 04-10-2022 TO 05-10-2022 | Dr.K Kumaraswamy,Assoc Prof,CMRCET,Hyd | *57* |
| 5 | Advanced Computer Networks | Guest Lecture | 23-08-2022 | Mr.M Kalyan Chakravarthy, Sr. Software enginer Adaps It Pvt.Lmt | 47 |
| 6 | Greedy Algorithm | Guest Lecture | 09-06-2022 | Dr.V.Gowtham, Prof and Principal ,SMGOIH | 46 |

| | | | | | |
|---|---|---|---|---|---|
| 7 | Data Mining Using Weka Tool | Workshop | 7-10-2022 TO 08-10-2022 | Dr.N .Tirumala Rao HOD,NEC ,Narasarao pet | 47 |
| 8 | Process Improvement Discipline | Guest Lecture | 25-10-2022 | Dr.K Thirupathi Rao Professor, GITAM Deemed University, Vizag | 48 |
| 9 | Advanced Computation and Graphics using C++ | Guest Lecture | 02-09-2022 | Dr.P V S Srinivas, Prof and Principal,VBIT,Hyd | 35 |
| 10 | Real Time Operating System | Workshop | 13-10-2022 TO 14-10-2022 | Dr.Ch.V.Phan Krishna,Prof,Tkr Eng college ,HYD | 34 |
| 11 | Agile Excellence: Mastering Software Development with SCRUM | Guest Lecture | 11-04-2022 | Dr.Konda Srinivas, Prof ,CMRIT | 35 |
| 12 | GIT and Jenkin Tools. | Workshop | 15-03-2023 TO16-03-2023 | Mr.K.Ashok,Tech Lead,OSI Digital Pvt. Ltd | 60 |
| 13 | Keras and Tensor flow for developing the Applications of Machine Learning | Workshop | 30-01-2023 TO 31-01-2023 | Dr.D Sasi Rajashekar, Dean,SMGOIH, | 45 |
| 14 | Context Free Grammar | Guest Lecture | 17-02-2023 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 46 |
| 15 | Mongo DB | Workshop | 03-02-2023 TO 04-02-2023 | Mrs.P.Sirisha Reddy , Team Lead ,Infosys | 35 |

Table : 4.6.1.4. Details of courses delivered by industrial experts during the academic year 2022-2023 (CAYm2)

**Details of courses delivered by industrial experts during the academic year 2021-2022 (CAYm3)**

| S.No | Topic Name | Course | Date / Month / Year | Resource Person With Designation | No. of students attended |
|---|---|---|---|---|---|
| 1 | Cloud Computing | Training Program | 12-07-2021 to 17-07-2021 | Mr.M Kalyan Chakravarthy, Sr. Software engineer Adaps It Pvt.Lmt | 45 |
| 2 | Front End Development | Workshop | 20-10-2021 To 22-10-2021 | Dr.Y.Soumya,Assoc .Prof, CVR Engineering college ,Hyd | 44 |
| 3 | Context Free Grammar | Guest Lecture | 30-10-2021 | Dr.K Suresh, HOD , St Mary's Engineering College Hyd | 55 |
| 4 | Data Mining Using Weka Tool | Workshop | 8-11-2021 to 10-11-2021 | Dr.K Kumaraswamy, Assoc Prof,CMRCET, | 56 |
| 5 | Real Time Operating System | Guest Lecture | 18-11-2021 | Mr.M Kalyan Chakravarthy, Sr. Software engineer Adaps It Pvt.Lmt | 53 |
| 6 | Introduction to Databases and its Connectivity | Training Program | 22-11-2021 To 27-11-2021 | Dr.V.Gowtham, Prof and Principal ,SMGOIH | 51 |
| 7 | Introduction to Artificial Intelligence | Workshop | 2-12-2021 To 4-12-2021 | Dr.N .Tirumala Rao HOD,NEC ,Narasarao pet | 56 |
| 8 | Advanced Computation and Graphics using C++ | Guest Lecture | 17-12-2021 | Dr.K Thirupathi Rao Assoc Prof, GITHAM | 45 |
| 9 | Mobile Security Threats | Guest Lecture | 29-12-2021 | Dr.P V S Srinivas, Prof and Principal,VBIT,Hyd | 44 |
| 10 | Python using Data Science | Training Program | 1-2-2021 To 05-02-2022 | Dr.Ch.V.Phan Krishna,Prof,Tkr Eng college ,HYD | 45 |
| 11 | Angular JS | Workshop | 24-02-2022 To 26-02-2022 | Dr.Konda Srinivas, Prof ,CMRIT | 56 |
| 12 | Machine Learning Algorithms | Guest Lecturer | 03-04-2022 | Dr.D Sasi Rajashekar,Dean,SMGOIH, | 55 |
| 13 | Regular and Context Free Languages | Guest Lecture | 03-12-2022 | Dr.K Suresh, HOD , St Mary"s Engineering College Hyd | 56 |
| 14 | Advanced Java Programming | Workshop | 19-05-2022 To 21-05-2022 | Mrs.P.Sirisha Reddy , Team Lead ,Infosys | 45 |
| 15 | Greedy Algorithm | Guest Lecture | 05-06-2022 | Dr.K Kumaraswamy, Assoc Prof,CMRCET, | 44 |

Table : 4.6.1.5. Details of courses delivered by industrial experts during the academic year 2021-2022 (CAYm3)

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

Institute Marks : 5.00

### 4.6.2 Publication of technical magazines, newsletters, etc.

**A. Quality & Relevance of the contents and Print Material (3)**

**B. Participation of Students from the program (2)**

**Department Publication:**

The Department of Computer Science and Engineering has started a Technical magazine. This magazine was initiated in the year 2022 and has continuously emerged as a platform to represent departmental yearly contributions from students and faculty. The magazine consists of original technical articles, literary articles, and trending information and technologies. Which are selected by the editor, the magazine is published twice in an academic year. The magazine committee consists of an editor and chief editor, and the editorial board consists of four (4) members of the CSE department.

| S.No | Name of the publication | Volume No. Month & Year | Frequency/ Year | Name of the Faculty Editor | Name of the Student Editors |
|---|---|---|---|---|---|
| **1** | **Technical Magazine** | Vol:1, Issue:1, Year-2023 | Half-Yearly | Mr. V V B Chari | D Gopinath – IV Year<br>D Pujitha – IV Year<br>R Surya – III Year<br>Alivelu -III Year |
| **2** | **Technical Magazine** | Vol:2, Issue:1, Year-2024 | Half-Yearly | Mr. V V B Chari | D Gopinath – IV Year<br>D Pujitha – IV Year<br>R Surya – III Year<br>Alivelu -III Year |

***Table 4.6.2.1: Volumes and students' members of department publication committee for magazine***

***Figure 4.6.2.1: Sample department magazine (Annexed Separately)***

**2. Newsletter:**

The Department of Computer Science and Engineering has started a newsletter and Volume I was launched in the year 2022. It is published every quarter of an academic year. It focuses mainly on the major events organized for the year, student and faculty publications, achievements, campus placement, industrial interactions, visits, higher studies, extracurricular and co- curricular activities, and many more in the department for every semester. The department publication committee will manage the process for both the magazine and the newsletter.

| S.No | Name of the publication | Volume No. Month & Year | Frequency/ Year | Name of the Faculty Editor | Name of the Student Editors |
|---|---|---|---|---|---|
| 1 | News letter | Vol: 2, Issue 1,Year 2023 | Quarterly | Mr. V V B Chari | G Nagasiva Kiran – IV Year<br>B Bhavaya Sri – IV Year<br>Sk Mubashira – III year<br>S Deepthi – III year |
| 2 | News letter | Vol: 2, Issue 2,Year 2023 | Quarterly | Mr. V V B Chari | G Nagasiva Kiran – IV Year<br>B Bhavaya Sri – IV Year<br>Sk Mubashira – III year<br>S Deepthi – III year |
| 3 | News letter | Vol: 2, Issue 3, Year 2024 | Quarterly | Mr. V V B Chari | G Nagasiva Kiran – IV Year<br>B Bhavaya Sri – IV Year<br>Sk Mubashira – III year<br>S Deepthi – III year |
| 4 | News letter | Vol: 2, Issue 4,Year 2024 | Quarterly | Mr. V V B Chari | G Nagasiva Kiran – IV Year<br>B Bhavaya Sri – IV Year<br>Sk Mubashira – III year<br>S Deepthi – III year |

***Table 4.6.2.2: Volumes and students' members of department publication committee for newsletter***

***Figure 4.6.2.2: Sample department newsletters (Annexed Separately)***

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

Institute Marks : 10.00

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

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

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

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

**Paper Presentation & Poster Presentation: Summary – Activities Attended for 3 Years**

| A.Y. | Total No. of events | Students Participation & Awards within the State | | | | Students Participation & Awards outside the State | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | No. of events | No. of Students attended | No. of student's participations | No. of Awards | No. of events | No. of Students attended | No. of student's participations | No. of Awards |
| 2023-24 | 8 | 4 | 28 | 4 | 4 | 22 | 8 | 8 | 4 |
| 2022-23 | 5 | 2 | 19 | 2 | 3 | 16 | 4 | 5 | 2 |
| 2021-22 | 3 | 2 | 26 | 2 | 1 | 14 | 6 | 3 | 2 |

**Summary of Students participation within the state and outside the state during assessment period**

| Assessment Year | No. of Events | No. of Students Attended | No. of Participations | No. of Awards |
|---|---|---|---|---|
| 2023-24 | 8 | 50 | 12 | 2023-24 |
| 2022-23 | 5 | 35 | 6 | 2022-23 |
| 2021-22 | 3 | 40 | 8 | 2021-22 |

*Table 4.6.3.1.1 Summary of Students participation within the state and outside the state during assessment period*

**Summary of Students participation within the state (State level) during assessment period**

| Assessment Year | No. of Events | No. of Students Attended | No. of Participations | No. of Awards |
|---|---|---|---|---|
| 2023-24 | 4 | 28 | 4 | 2023-24 |
| 2022-23 | 2 | 19 | 2 | 2022-23 |
| 2021-22 | 2 | 26 | 2 | 2021-22 |

***Table 4.6.3.1.2 Summary of Students participation within the state (State Level)during assessment period***

**Summary of Students participation Outside the state (National level) during assessment period**

| Assessment Year | No. of Events | No. of Students Attended | No. of Participations | No. of Awards |
|---|---|---|---|---|
| 2023-24 | 4 | 22 | 8 | 2023-24 |
| 2022-23 | 3 | 16 | 4 | 2022-23 |
| 2021-22 | 1 | 14 | 6 | 2021-22 |

***Table 4.6.3.1.2 Summary of Students participation Outside the state (National level) during assessment period***

**Academic Year: 2023-2024 (CAYm1) Prize Winner**

| S. No | Name of the Students | Name of the Event | Topic | Venue | Date | Award/ Reward |
|---|---|---|---|---|---|---|
| 1 | ADDANKI AJAY | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 | Third |
| 2 | BOKKA VENKAT RAO | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 | Third |
| 3 | KUDUMULA SUMITHRA | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1, 2023 | Second |
| 4 | VELPULA CHANDIRKA | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1, 2023 | Second |
| 5 | DARNASI RAKSHITHA | Computational Intelligence & Data Engineering | Paper Presentation | Vidya Jyothi Institute of Technology (VJIT), Hyderabad, India | 6–7 January 2023 | Second |
| 6 | KAMBAM ASWINI | Computational Intelligence & Data Engineering | Paper Presentation | Vidya Jyothi Institute of Technology (VJIT), Hyderabad, India | 6–7 January 2023 | Second |

| | | | | | | |
|---|---|---|---|---|---|---|
| 7 | BADISA BHAVYA SRI | YUKTI 2023 | Poster Presentation | D-Block, MGIT Campus, Hyderabad | April 27–29, 2023 | Second |
| 8 | CHILAKURI RAMYA | YUKTI 2023 | Poster Presentation | D-Block, MGIT Campus, Hyderabad | April 27–29, 2023 | Second |
| 9 | KUMMITHA GOPAL REDDY | Annual Technical Fest Poster Competition | Poster Presentation | Maturi Institute of Technology, Hyderabad | May 2023 | Third |
| 10 | GAJULA NAGA SIVA KIRAN | Annual Technical Fest Poster Competition | Poster Presentation | Maturi Institute of Technology, Hyderabad | May 2023 | Third |
| 11 | MUKKELLA ANILKUMAR | Machine Learning for Signal Processing, Communications & Control Systems: | Paper Presentation | Geethanjali College of Engineering and Technology, Hyderabad | December 15–16, 2023 | Third |
| 12 | PATTIPATI DEEKSHITHA | Machine Learning for Signal Processing, Communications & Control Systems: | Paper Presentation | Geethanjali College of Engineering and Technology, Hyderabad | December 15–16, 2023 | Third |

***Table 4.6.3.2: List of student won awards at inter-institute event in the academic year 2023-2024.***

**Academic Year: 2022-2023 (CAYm2) Prize Winner**

| S. No | Name of the Students | Name of the Event | Topic | Venue | Date | Award/ Reward |
|---|---|---|---|---|---|---|
| 1 | BEDADHALA NAVYA SREE | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS), Ongole, Andhra Pradesh | May 20 | Second |
| 2 | BUDDI DIVYASREE | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS), Ongole, Andhra Pradesh | May 20 | Second |
| 3 | GUVVALA ASWINI | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology, Hyderabad | October 2022 | Third |
| 4 | REBBA GOPI | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology, Hyderabad | October 2022 | Third |
| 5 | SHYAMALA KAVYA | IoT and Smart Applications Poster Contest | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad | August 2022 | Second |
| 6 | VALLEPU MAHALAKSHMI | IoT and Smart Applications Poster Contest | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad | August 2022 | Second |

***Table 4.6.3.3: List of student won awards at inter-institute event in the academic year 2022-2023***

**Academic Year: 2021-2022 (CAYm3) Prize Winner**

| S. No | Name of the Students | Name of the Event | Topic | Venue | Date | Award/ Reward |
|---|---|---|---|---|---|---|
| 1 | YERREDDULA HARI PRIYA REDDY | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 | Third |
| 2 | KAPU GEETHA | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 | Third |
| 3 | ATLURI KAVITHA | Poster Presentation on AI & Robotics | Poster Presentation | Mahatma Gandhi Institute of Technology (MGIT), Hyderabad | March 2021 | second |
| 4 | BASI.SWATHI | Poster Presentation on AI & Robotics | Poster Presentation | Mahatma Gandhi Institute of Technology (MGIT), Hyderabad | March 2021 | second |
| 5 | DORAGARI SRIVAMSI | Cybersecurity Poster Presentation | Poster Presentation | VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad | June 2021 | second |
| 6 | PATIL SHIVA PRASAD | Cybersecurity Poster Presentation | Poster Presentation | VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad | June 2021 | second |
| 7 | MALLALA REVATHI | Paper Presentation on Cloud Security and Data Privacy | Paper Presentation | Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad | October 2021 | second |
| 8 | POSA PAVITHRA | Paper Presentation on Cloud Security and Data Privacy | Paper Presentation | Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad | October 2021 | second |

***Table 4.6.3.4: List of student won awards at inter-institute event in the academic year 2021-2022***

**Academic Year: 2023-2024 (CAYm1) Participation**

| S. No | Name of the Students | Name of the Event | Topic | Venue | Date |
|---|---|---|---|---|---|
| 1 | Addanki Ajay | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 2 | BOKKA VENKAT RAO | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 3 | Darnasi Rakshitha | Computational Intelligence & Data Engineering | Paper Presentation | Vidya Jyothi Institute of Technology (VJIT), Hyderabad, India | 6–7 January 2023 |
| 4 | Kambam Aswini | Computational Intelligence & Data Engineering | Paper Presentation | Vidya Jyothi Institute of Technology (VJIT), Hyderabad, India | 6–7 January 2023 |
| 5 | KUDUMULA SUMITHRA | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1, 2023 |
| 6 | VELPULA CHANDIRKA | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1, 2023 |
| 7 | Badisa Bhavya Sri | YUKTI 2023 | Poster Presentation | D-Block, MGIT Campus, Hyderabad | April 27–29, 2023 |
| 8 | Chilakuri Ramya | YUKTI 2023 | Poster Presentation | D-Block, MGIT Campus, Hyderabad | April 27–29, 2023 |
| 9 | KUMMITHA GOPAL REDDY | Annual Technical Fest Poster Competition | Poster Presentation | Maturi Institute of Technology, Hyderabad | May 2023 |
| 10 | Gajula Naga Siva Kiran | Annual Technical Fest Poster Competition | Poster Presentation | Maturi Institute of Technology, Hyderabad | May 2023 |
| 11 | Mukkella Anilkumar | Machine Learning for Signal Processing, Communications & Control Systems | Paper Presentation | Geethanjali College of Engineering and Technology, Hyderabad | December 15–16, 2023 |
| 12 | Pattipati Deekshitha | Machine Learning for Signal Processing, Communications & Control Systems | Paper Presentation | Geethanjali College of Engineering and Technology, Hyderabad | December 15–16, 2023 |
| 13 | Bejjipalli Jeevamani | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 14 | Boya Vishnuvardhan | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 15 | Duggimi Sai Kumar | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 16 | Ediga Vamsi Goud | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 17 | Kavali Narendra | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 18 | Malyam Akhilamma | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 19 | Manda Ajay | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 20 | Mannuva Mallikharjuna | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |

| | | | | | |
|---|---|---|---|---|---|
| 21 | Manda Ajay | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 22 | Pathipati Mahesh | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 23 | Puli Pushpalatha | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 24 | Rachagorla Jankiram | Emerging Technologies in Engineering and Science | Paper Presentation | DVR & Dr. HS MIC College of Technology, Kanchikacherla, Andhra Pradesh | 11–12 August 2023 |
| 25 | Rapthadu Sreenath | Annual Technical Fest Poster Competition | Paper Presentation | Maturi Institute of Technology | May 2023 |
| 26 | Shaik Roshini | Annual Technical Fest Poster Competition | Paper Presentation | Maturi Institute of Technology | May 2023 |
| 27 | Shyamala Kavya | Computational Intelligence & Data Engineering | Paper Presentation | Vidya Jyothi Institute of Technology (VJIT) | 6–7 January 2023 |
| 28 | Talari Mahesh | Computational Intelligence & Data Engineering | Paper Presentation | Vidya Jyothi Institute of Technology (VJIT) | 6–7 January 2023 |
| 29 | Tammu Chandu | Computational Intelligence & Data Engineering | Paper Presentation | Vidya Jyothi Institute of Technology (VJIT), Hyderabad, India | 6–7 January 2023 |
| 30 | Yatham Mutyalu | Computational Intelligence & Data Engineering | Paper Presentation | Vidya Jyothi Institute of Technology (VJIT), Hyderabad, India | 6–7 January 2023 |
| 31 | Yerikala Ashok | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 32 | Kosuri Lakshmana Rao | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 33 | Alukapenta Thimmagurudu Swamy | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 34 | Arumalla Sandeep Kumar | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 35 | Beesabathina Saran Sai | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 36 | Chedabavi Shravani | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 37 | Chedipothula Kondalu | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 38 | Golla Sivakumar | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 39 | Gottapu Sireesha | Machine Learning for Signal Processing | Paper Presentation | Geethanjali College of Engineering and Technology | December 15–16 |
| 40 | Harijana Madhurima | Machine Learning for Signal Processing | Paper Presentation | Geethanjali College of Engineering and Technology | December 15–16 |
| 41 | Jasty Manoj | Machine Learning for Signal Processing | Paper Presentation | Geethanjali College of Engineering and Technology | December 15–16 |
| 42 | Kamasani Bhaskar Rao | Machine Learning for Signal Processing | Paper Presentation | Geethanjali College of Engineering and Technology | December 15–16 |
| 43 | Kottapalli Kalyan | YUKTI 2023 | Paper Presentation | D-Block, MGIT Campus, Hyderabad | April 27–29 |
| 44 | Sugali Poojitha Bai | YUKTI 2023 | Paper Presentation | D-Block, MGIT Campus, Hyderabad | April 27–29 |
| 45 | Sunkara Gopi Ajay Kumar | YUKTI 2023 | Paper Presentation | D-Block, MGIT Campus, Hyderabad | April 27–29 |
| 46 | Yerrabhoomi Samrutha | YUKTI 2023 | Paper Presentation | D-Block, MGIT Campus, Hyderabad | April 27–29 |
| 47 | Podaralla Saikumar Reddy | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1, 2023 |
| 48 | Marem Vijay Kumar | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1, 2023 |

| | | | | | |
|---|---|---|---|---|---|
| 49 | Shaik Shabana | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |
| 50 | Degala Gopinath | EVINCE 2k23 | Poster Presentation | Sri Krishnadevaraya Univ. College of Engineering & Technology, Anantapur | March 31 – April 1 |

***Table 4.6.3.5: List of student participated at inter-institute event in the academic year 2023-2024.***

**Academic Year: 2022-2023 (CAYm2) Participation**

| S. No | Name of the Students | Name of the Event | Topic | Venue | Date |
|---|---|---|---|---|---|
| 1 | Bedadhala Navya Sree | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 2 | Buddi Divyasree | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 3 | Guvvala Aswini | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology, Hyderabad | October 2022 |
| 4 | Rebba Gopi | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology, Hyderabad | October 2022 |
| 5 | Shyamala Kavya | IoT and Smart Applications Poster Contest | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT) | August 2022 |
| 6 | Vallepu Mahalakshmi | **I**oT and Smart Applications Poster Contest | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT) | August 2022 |
| 7 | Bathula Suryanarayana | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 8 | Birudoor Kishore | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 9 | Kaipu Venkata Naga Bharathi | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 10 | Kamarathi Mounika | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 11 | Mora Sai Meghana | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 12 | Mukthapuram Sangeetha | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 13 | Sakam Ahalya | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology,HYDERABAD | October 2022 |
| 14 | Sake Akhila | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology,HYDERABAD. | October 2022 |
| 15 | Samrasu Ramadevi | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology,HYDERABAD. | October 2022 |
| 16 | Shaik Gowsya | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology,HYDERABAD. | October 2022 |
| 17 | Tadimalla Venkata Rao | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology,HYDERABAD. | October 2022 |
| 18 | Talatala Geetha Sravanthi | Paper Presentation on Big Data Analytics and Cloud Computing | Paper Presentation | Keshav Memorial Institute of Technology,HYDERABAD. | October 2022 |
| 19 | Tippireddy Geetha Ramya | **IoT and Smart Applications Poster Contest** | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad | August 2022 |
| 20 | Tadimalla Venkata Rao | **IoT and Smart Applications Poster Contest** | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad | August 2022 |

| | | | | | |
|---|---|---|---|---|---|
| 21 | Maddimineni Pramod Kumar | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 22 | Mekala Prasanth | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 23 | Rayampalli Chaitanya | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole, | May 20 |
| 24 | Koneti Triveni | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole, | May 20 |
| 25 | Koppula Jeevan Kishore | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole, | May 20 |
| 26 | Vennapusa Lokeswar Reddy | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 27 | Yakkanti Sai Teja | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 28 | Yarra Nagapa Gari Girish | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 29 | Rachagorla Jankiram | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 30 | Rapthadu Sreenath | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole. | May 20 |
| 31 | Sake Vinod | SRUJANA 2K22 | Poster Presentation | PACE Institute of Technology & Sciences (PITS),ongole | May 20 |
| 32 | Rachagorla Jankiram | IoT and Smart Applications Poster Contest | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad | August 2022 |
| 33 | Nallagangula Saran Venkata Achi Reddy | **IoT** and Smart Applications Poster Contest | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT),Hyderabad. | August 2022 |
| 34 | Nunsavathu Tirumala Bai | IoT and Smart Applications Poster Contest | Poster Presentation | Chaitanya Bharathi Institute of Technology August 2022 (CBIT),Hyderabad. | August 2022 |
| 35 | Chiruguri Akhil | IoT and Smart Applications Poster Contest | Poster Presentation | Chaitanya Bharathi Institute of Technology (CBIT),Hyderabad. | August 2022 |

***Table 4.6.3.6: List of student participated at inter-institute event in the academic year 2022-2023.***

**Academic Year: 2021-2022 (CAYm3) Participation**

| S. No | Name of the Students | Name of the Event | Topic | Venue | Date |
|---|---|---|---|---|---|
| 1 | Atluri Kavitha | Poster Presentation on AI & Robotics | Poster Presentation | Mahatma Gandhi Institute of Technology (MGIT), Hyderabad | March 2021 |
| 2 | Basi.Swathi | Poster Presentation on AI & Robotics | Poster Presentation | Mahatma Gandhi Institute of Technology (MGIT), Hyderabad | March 2021 |
| 3 | Doragari Srivamsi | Cybersecurity Poster Presentation | Poster Presentation | VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad | June 2021 |
| 4 | Patil Shiva Prasad | Cybersecurity Poster Presentation | Poster Presentation | VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad | June 2021 |
| 5 | Yerreddu Lahari Priya Reddy | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 6 | Kapu Geetha | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 7 | Mallala Revathi | Paper Presentation on Cloud Security and Data Privacy | Paper Presentation | Goka raju Rangaraju Institute of Engineering and Technology, Hyderabad | October 2021 |
| 8 | Posa Pavithra | Paper Presentation on Cloud Security and Data Privacy | Paper Presentation | Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad | October 2021 |
| 9 | Bileppagari Kurba Sai Keerthana | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 10 | Chepuri Ramya | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 11 | Chinnapareddy Mounika | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 12 | Dudekal Rafi | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 13 | Golla Narmada | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |

| | | | | | |
|---|---|---|---|---|---|
| 14 | H Vannuraswamy | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 15 | Kogara Prasad | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 16 | Konka Mamatha | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 17 | Madiga Kavya | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 18 | Mallappa Gari Narasimhappa | Poster Presentation on AI & Robotics | Poster Presentation | Mahatma Gandhi Institute of Technology (MGIT), Hyderabad | March 2021 |
| 19 | Naupada Ganesh | Poster Presentation on AI & Robotics | Poster Presentation | Mahatma Gandhi Institute of Technology (MGIT), Hyderabad | March 2021 |
| 20 | Paladugu Neelavathi | Cybersecurity Poster Presentation | Poster Presentation | VNR Vignana Jyothi Institute of Engineering & Technology | June 2021 |
| 21 | Ragulapadu Sai Roopa | Cybersecurity Poster Presentation | Poster Presentation | VNR Vignana Jyothi Institute of Engineering & Technology | June 2021 |
| 22 | Ratara Vikas | Cybersecurity Poster Presentation | Poster Presentation | VNR Vignana Jyothi Institute of Engineering & Technology | June 2021 |
| 23 | Surepalli Hymavathi | Cybersecurity Poster Presentation | Poster Presentation | VNR Vignana Jyothi Institute of Engineering & Technology | June 2021 |
| 24 | Tadimarri Kiran Kumar | Paper Presentation on Cloud Security and Data Privacy | Paper Presentation | Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad | October 2021 |
| 25 | Vudumula Shanmukha Naidu | Paper Presentation on Cloud Security and Data Privacy | Paper Presentation | Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad | October 2021 |
| 26 | Chereddy Danalakshmi | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 27 | Ganipineni Sushma Chowdary | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 28 | Golla Sirisha | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 29 | Gurram Lokesh | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 30 | Guvvala Aswini | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 31 | Indla Mariya Raju | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 32 | Kavali Bharath Kumar | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 33 | Kota Surendra | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 34 | Lanjepalli Naresh | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 35 | Madaraju Prema Kumari | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 36 | Modi Namratha | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 37 | Mora Sai Meghana | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 38 | Palam Dinesh Reddy | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 39 | Palam Rajashekhar Reddy | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |
| 40 | Pallapati Chennakesava | ICCIDE-2021 | Paper Presentation | VIT-AP University | 13–14 August 2021 |

***Table 4.6.3.7: List of student participated at inter-institute event in the academic year 2021-2022***

5 FACULTY INFORMATION AND CONTRIBUTIONS (200) Total Marks 190.31

| 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 | Associatio Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nagam Aanjaneyulu | AJXPN8330N | M.E/M.Tech | 01/10/2009 | CSE | 29 | 0 | 0 | Associate Professor | 01/10/2018 | 06/07/2011 | Regular |
| Arekatla Madhava Reddy | AUJPA4187D | M.E/M.Tech | 01/09/2017 | CSE | 27 | 0 | 0 | Assistant Professor | | 01/09/2017 | Regular |
| Arekatla Jaganmohan Reddy | ASLPA2769F | M.E/M.Tech | 01/12/2014 | CSE | 11 | 0 | 0 | Associate Professor | 01/12/2022 | 06/07/2017 | Regular |
| Gudipati Mohan Singh Yadav | BROPG6896A | M.E/M.Tech | 01/02/2019 | CSE | 9 | 0 | 0 | Assistant Professor | | 05/08/2019 | Regular |
| Lankala Mounika | ANUPL7023K | M.E/M.Tech | 01/09/2017 | CSE | 32 | 0 | 0 | Associate Professor | 01/02/2024 | 01/11/2019 | Regular |
| Vanapamula Veerabrahmachari | APQPV2716R | M.E/M.Tech | 01/01/2015 | CSE | 27 | 0 | 0 | Associate Professor | 02/01/2023 | 18/08/2020 | Regular |
| Motupalli Mallikarjuna Rao | CUBPM6638R | M.E/M.Tech | 01/12/2015 | CSE | 1 | 0 | 0 | Associate Professor | 02/12/2024 | 11/06/2021 | Regular |
| Dr. G. Samba Siva Rao | AGVPG0571D | ME/M. Tech and PhD | 02/04/2007 | CSE | 22 | 3 | 1 | Professor | 13/07/2021 | 13/07/2021 | Regular |
| Aremandla Sai Pujitha | AXJPA5342B | M.E/M.Tech | 01/03/2018 | CSE | 15 | 0 | 0 | Assistant Professor | | 22/11/2021 | Regular |
| Shaik Guntur Mahabub Subhani | DWMPS2298D | M.E/M.Tech | 02/12/2013 | CSE | 22 | 0 | 0 | Associate Professor | 11/07/2022 | 11/07/2022 | Regular |
| Chevula Rekha | ANJPC7048Q | M.E/M.Tech | 01/06/2017 | CSE | 23 | 0 | 0 | Assistant Professor | | 11/07/2022 | Regular |
| Dr. Merugu Anand Kumar | BGIPM7787F | ME/M. Tech and PhD | 10/03/2025 | CSE | 24 | 0 | 0 | Associate Professor | 01/02/2023 | 01/08/2022 | Regular |
| Dr. Godagala Madhava Rao | AFOPG3428F | ME/M. Tech and PhD | 01/07/2004 | CSE | 8 | 0 | 0 | Professor | 01/06/2022 | 01/06/2022 | Regular |
| Dr. Inaganti Shylaja | AAUPI0225K | ME/M. Tech and PhD | 01/03/2012 | CSE | 10 | 0 | 0 | Professor | 01/06/2022 | 01/06/2022 | Regular |
| Dr. Padigala Suresh | CFRPP2576Q | ME/M. Tech and PhD | 02/07/2018 | CSE | 10 | 0 | 0 | Professor | 01/07/2024 | 01/06/2022 | Regular |
| Butukuru Rojalakshmi | DLIPB9994N | M.E/M.Tech | 01/03/2023 | CSE | 17 | 0 | 0 | Assistant Professor | | 04/07/2023 | Regular |

**5.1 Student-Faculty Ratio** (20)

Total Marks 20.00

Institute Marks : 20.00

## UG

**No. of UG Programs in the Department** 1

| Computer Science and Engineering | | | | | | |
|---|---|---|---|---|---|---|
| **Year of Study** | **CAY** | | **CAYm1** | | **CAYm2** | |
| | **(2024-25)** | | **(2023-24)** | | **(2022-23)** | |
| | **Sanction Intake** | **Actual admitted through lateral entry students** | **Sanction Intake** | **Actual admitted through lateral entry students** | **Sanction Intake** | **Actual admitted through lateral entry students** |
| 2nd Year | 90 | 0 | 60 | 4 | 60 | 2 |
| 3rd Year | 60 | 4 | 60 | 2 | 60 | 2 |
| 4th Year | 60 | 2 | 60 | 2 | 120 | 0 |
| **Sub-Total** | **210** | **6** | **180** | **8** | **240** | **4** |
| **Total** | **216** | | **188** | | **244** | |

| Grand Total | 216 | 188 | 244 |
|---|---|---|---|

## PG

**No. of PG Programs in the Department** 0

| Grand Total | | | |
|---|---|---|---|

## SFR

**No. of UG Programs in the Department** 1

**No. of PG Programs in the Department** 0

| **Description** | **CAY(2024-25)** | **CAYm1 (2023-24)** | **CAYm2 (2022-23)** |
|---|---|---|---|
| Total No. of Students in the Department(S) | 216 **Sum total of all (UG+PG) students** | 188 **Sum total of all (UG+PG) students** | 244 **Sum total of all (UG+PG) students** |
| No. of Faculty in the Department(F) | 16 **F1** | 16 **F2** | 15 **F3** |
| Student Faculty Ratio(SFR) | 13.50 **SFR1=S1/F1** | 11.75 **SFR2=S2/F2** | 16.27 **SFR3=S3/F3** |
| Average SFR | 13.84 **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) | 16 | 0 |
| CAYm1(2023-24) | 16 | 0 |
| CAYm2(2022-23) | 15 | 0 |

Average SFR for three assessment years : 13.84

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 | 4.00 | 2.00 | 0.00 | 7.00 | 12.00 |
| CAYm1(2023-24) | 1.00 | 3.00 | 2.00 | 1.00 | 6.00 | 12.00 |
| CAYm2(2022-23) | 1.00 | 3.00 | 2.00 | 1.00 | 8.00 | 11.00 |
| Average Numbers | 1.00 | 3.33 | 2.00 | 0.67 | 7.00 | 11.67 |

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

**5.3 Faculty Qualification** (25)

Total Marks 21.31

Institute Marks : 21.31

| | X | Y | F | FQ = 2.5 x [(10X + 4Y) / F )] |
|---|---|---|---|---|
| 2024-25(CAY) | 4 | 12 | 10.00 | 22.00 |
| 2023-24(CAYm1) | 4 | 12 | 9.00 | 24.44 |
| 2022-23(CAYm2) | 4 | 11 | 12.00 | 17.50 |

Average Assessment : 21.31

**5.4 Faculty Retention** (25)

Total Marks 25.00

Institute Marks : 25.00

| Description | 2023-24 | 2024-25 |
|---|---|---|
| No of Faculty Retained | 15 | 15 |
| Total No of Faculty | 12 | 12 |
| % of Faculty Retained | 125 | 125 |

Average : 125.00

Assessment Marks : 25.00

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

Total Marks 20.00

Institute Marks : 20.00

**5.5. Innovations by the Faculty in Teaching and Learning**

**Summary of Innovative Teaching learning brought in by the Faculty for Academic Year: 2023-24 (CAYm1)**

| S.No | Faculty Name | Class - Year | Course | Topics | Methodology/AID |
|---|---|---|---|---|---|
| 1 | Mr.SK. Mahabub Subhani | II-I | Java Programming | ODBC, JDBC Connectivity | Flipped Classroom |
| 2 | Mrs.B. RojaLkshmi | II-II | Software Engineering | Agile Process Model | Audio Video Lecture |
| 3 | Mr. V.V. B Chari | III-II | Cryptography and Network Security | Expert system and applications | Learning by doing |
| 4 | Dr. P.Suresh | III-I | Compiler Design | Methodologies for Parsing Techniques | Audio Video Lecture |
| 5 | Mr. M.Anand Kumar | III-I | Software Project Management | Data Integrity, Digital Signature Schemes & Key Management Message Integrity | Brain Storming |

*Table 5.5.1: Summary of Innovative Teaching learning brought in by the Faculty for Academic Year: 2023-24 (CAYm1)*

**Summary of Innovative Teaching learning brought in by the Faculty for Academic Year: 2022-23 (CAYm2)**

| S.No | Faculty Name | Class - Year | Course | Topics | Methodology/AID |
|---|---|---|---|---|---|
| 1 | Mr. M.Anand Kumar | IV-I | Ethical Hacking | Vulnerability Analysis | Learning by doing |
| 2 | Mr. N.Anjeneyulu | IV-I | Cloud Computing | Resource Scheduling | Mind Mapping |
| 3 | Dr. G. Madhava Rao | III-I | Design And Analysis Of Algorithms | Dynamic Programming | Learning by doing |
| 4 | Mr. A. Madhava Reddy | III-I | Software Project Management | Risk Management | Role Play |
| 5 | Dr. I. Shylaja | III-II | Machine Learning | Supervised Learning | Brain Storming |

*Table 5.5.2: Summary of Innovative Teaching learning brought in by the Faculty for Academic Year: 2022-23 (CAYm2)*

***Summary of Innovative Teaching learning brought in by the Faculty for Academic Year: 2021-22 (CAYm3)***

| S.No | Faculty Name | Class - Year | Course | topics | Methodology/AI D |
|---|---|---|---|---|---|
| 1 | Dr. G.Sambasiva Rao | II-I | OOPS THROUGH C++ | Inheritance | Role Play |
| 2 | Mr. M. Mallikarjuna Rao | III-I | Data Warehousing and Data Mining | Association Rule Mining | Mind Mapping |
| 3 | Mr.A.Jagan Mohan Reddy | IV-I | Unified Modeling Language | Public Key Cryptography (RSA) | Learning by doing |
| 4 | Dr. P. Suresh | II-II | Formal Languages And Automata Theory | Deterministic Finite Automata (DFA) | Audio Video Lecture |
| 5 | Mr. A. Madhava Reddy | III-II | Compiler Design | Lexical Analysis | Mind Mapping |

*Table 5.5.3: Summary of Innovative Teaching learning brought in by the Faculty for Academic Year: 2021-22 (CAYm3)*

**Pedagogical initiatives**

The faculty members of the department adopted the following innovative teaching and learning methodologies to create the best learning environment for the students:

| Sl. No | ITEM | DESCRIPTION |
|---|---|---|
| 1 | Role Play | The students are formed into groups of 3-5 members, and roles are assigned. |
| 2 | Brian Stroming | The objective and outcomes of the project or problem are explained clearly. |
| 3 | Group problem-solving (Mind Mapping) | The students are monitored during the activity. |
| 4 | Debate | The students should support this team with valid points are monitored during the activity. |
| 5 | Modern Tools Usage (ICT) | LCD Projectors, Speakers, Systems with Keyboard and mouse, power point presentation, Laser Pointer, Slide changer, writing pads, Wi-Fi enabled classrooms and other student learning environments. |
| 6 | Innovative Learning practices | Various cutting-edge techniques, such as activity-based learning and project-based learning, were discussed throughout the lecture sessions. IoT role playing and brainstorming Assignments, Application Development, Poster Presentation, Mooc Course, Presentation, Poster Design, Partial Delivery, and Mini Project Review , Group Seminar, Collaborative Learning |
| 7 | Quality course materials | The digital library has expert video subject lectures given by a variety of notable resource people, which makes it easier for professors and students to use NPTELs E-Tutorials, MOOCs, and other online resources. |
| 8 | Industry Visits | Industry Visits will be organized once in a semester for delivering the practical exposure to the students |
| 9 | Online platform | Faculty members use Google Drive, Google class rooms, Google forms and other platforms |

| | | |
|---|---|---|
| 10 | Open/Industry Courses/Skill/Enhancement Courses | These activity are provided by the department for a set time during the academic year. Here, the students proficiency with tools and software used in industry was improved. |
| 11 | Internship | Internship will be conducted during the semester end before the start of next semester .student will be trained on the industry-oriented skills some of the students will be sent to the industry/company/organization for conduction the internships |

**A. Availability of work in Institute website (4)**

Sample Innovations of the faculty available in website

Link : https://www.youtube.com/watch?v=c7N21WEAXUQ&t=129s (https://www.youtube.com/watch?v=c7N21WEAXUQ&t=129s)

***Figure: 5.5.1. Faculty Innovations in Institutes' Departmental Webpage (Annexed Separately)***

**B. Availability of peer reviews and critiques (4)**

**Link: https://www.youtube.com/watch?v=DXr2CB1-sew (https://www.youtube.com/watch?v=DXr2CB1-sew)**

***Figure 5.5.2: Faculty Innovations Peer Reviews (Annexed Separately)***

**C. The work must be reproducible and developed further by other scholars (2)**

***Figure 5.5.3: Faculty Innovations reproducible and developed further by other scholars (Annexed Separately)***

**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) |
| Dr. G. Samba Siva Rao | 5.00 | 5.00 | 5.00 |
| Dr. Inaganti Shylaja | 5.00 | 5.00 | 0.00 |
| Dr. Padigala Suresh | 5.00 | 5.00 | 0.00 |
| Dr. Godagala Madhava Rao | 5.00 | 5.00 | 0.00 |
| Dr. Merugu Anand Kumar | 5.00 | 5.00 | 0.00 |
| Nagam Anjaneyulu | 5.00 | 5.00 | 5.00 |
| Arekatla Madhava Reddy | 5.00 | 5.00 | 5.00 |
| Arekatla Jaganmohan Reddy | 5.00 | 5.00 | 5.00 |
| Lankala Mounika | 5.00 | 5.00 | 5.00 |
| Vanapamula Veerabrahmachari | 5.00 | 5.00 | 5.00 |
| Motupalli Mallikarjuna Rao | 5.00 | 5.00 | 5.00 |
| Aremandla Sai Pujitha | 5.00 | 5.00 | 5.00 |
| Chevula Rekha | 5.00 | 5.00 | 0.00 |
| Shaik Guntur Mahabub Subhani | 5.00 | 5.00 | 0.00 |
| Butukuru Rojalakshmi | 5.00 | 0.00 | 0.00 |
| Gudipati Mohan Singh Yadav | 5.00 | 5.00 | 5.00 |
| Dr. K.N.V.R. Kumar | 0.00 | 0.00 | 5.00 |
| Dr. S K Moulali | 0.00 | 0.00 | 5.00 |
| Dr.K Venkataramana | 0.00 | 0.00 | 5.00 |
| Dr .Y Ravi Kumar | 0.00 | 0.00 | 5.00 |
| Kamjula Ramalinga Reddy | 0.00 | 0.00 | 5.00 |
| Sum | 80.00 | 75.00 | 70.00 |
| RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1 | 10.80 | 9.40 | 12.20 |
| Assessment [3*(Sum / 0.5RF)] | 44.44 | 47.87 | 34.43 |

Average assessment over 3 years: 42.25

**5.7 Research and Development** (30) Total Marks 24.00

**5.7.1 Academic Research** (10)

Institute Marks : 10.00

## 5.7. Research and Development

### 5.7.1. Academic Research

**A. Number of quality publications in refereed/SCI Journals (6)**

| Academic Year | CAY (2024-2025) | CAYm1(2023-2024) | CAYm2(2022-2023) | CAYm3(2021-2022) |
|---|---|---|---|---|
| No. of Publications (Scopus) | 24 | 16 | 12 | 8 |
| Referred Journals | 64 | 64 | 56 | 48 |
| Total | 88 | 80 | 68 | 56 |

*Table 5.7.1.1: Summary of faculty publications in assessment period*

| Assessment Year | No. of Publications | No. of Scopus / SCI | No. of UGC Care / AICTE Approved |
|---|---|---|---|
| 2024-2025 | 88 | 24 | 64 |
| 2023-2024 | 80 | 16 | 64 |
| 2022-2023 | 68 | 12 | 56 |
| 2021-2022 | 56 | 8 | 48 |
| Total | 292 | 60 | 232 |

***Table 5.7.1.2 Details of Faculty Research Publications during assessment period***

**Faculty Publications:**

| S No. | Name of the Faculty | CAY (2024-25) | CAYm1 (2023-24) | CAYm2 (2022-23) | CAYm3 (2021-22) |
|---|---|---|---|---|---|
| 1 | Dr. G. Samba Siva Rao | 3 | 3 | 3 | 5 |
| 2 | Nagam Aanjaneyulu | 7 | 7 | 6 | 9 |
| 3 | Arekatla Madhava Reddy | 8 | 7 | 7 | 5 |
| 4 | Arekatla Jaganmohan Reddy | 3 | 4 | 2 | 2 |
| 5 | Lankala Mounika | 7 | 9 | 7 | 9 |
| 6 | Vanapamula Veerabrahmachari | 8 | 7 | 7 | 5 |
| 7 | Motupalli Mallikarjuna Rao | - | - | - | 1 |
| 8 | Aremandla Sai Pujitha | 4 | 3 | 3 | 5 |
| 9 | Gudipati Mohan Singh Yadav | 2 | 3 | 2 | 2 |
| 10 | Dr. Inaganti Shylaja | 4 | 3 | 3 | - |
| 11 | Dr. Padigala Suresh | 4 | 3 | 3 | - |
| 12 | Dr. Godagala Madhava Rao | 3 | 3 | 2 | - |
| 13 | Dr. M. Anand Kumar | 9 | 7 | 8 | - |
| 14 | Chevula Rekha | 9 | 7 | 7 | - |
| 15 | Shaik Guntur Mahabub Subhani | 7 | 7 | 8 | - |
| 16 | Butukuru Rojalakshmi | 10 | 7 | - | - |
| 17 | Dr. K.N.V.R. Kumar | - | - | - | 3 |
| 18 | Dr. S K Moulali | - | - | - | 2 |
| 19 | Dr.K Venkataramana | - | - | - | 2 |
| 20 | Dr .Y Ravi Kumar | - | - | - | 2 |
| 21 | Kamjula Ramalinga Reddy | - | - | - | 4 |

***Table 5.7.1.3: Faculty publications during assessment period (academic year – wise)***

**Academic Year 2024-25 (CAY)**

| S.No | Name of the Faculty | Title | Name of the Journal / Conference/ Event/ Publisher | Year | Vol/ Issue | ISSN No. |
|---|---|---|---|---|---|---|
| 1 | Arekatla Jaganmohan Reddy | Trust But Verify: A Framework For The Trustworthiness Of Distributed Systems | Reinforced Plastics | 2024 | 2024/2 | 0034-3617 |
| 2 | | DEA-RNN: A Hybrid Deep Learning Approach For Cyberbullying Detection In Twitter Social Media Platform | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 3 | | Enhancing Cooperation In MANET Using The Backbone Group Model (An Application Of Maximum Coverage Problem) | ISJCRESM | 2024 | 9/1 | 2456-1134 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 4 | Arekatla Madhava Reddy | Evaluation Of Features On Sentimental Analysis | ISJCRESM | 2026 | 9/4 | 2456-1136 |
| 5 | | Adaptive Hierarchical Cyber Attack Detection And Localization In Active Distribution | Reinforced Plastics | 2024 | 2024/1 | 0034-3617 |
| 6 | | Cuckoo Search Based Optimal Mask Generation For Noise Suppression And Enhancement Of Speech Signal | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 7 | | Dark-TRACER: Early Detection Framework For Malware Activity Based On Anomalous Spatiotemporal Patterns | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 8 | | DEA-RNN: A Hybrid Deep Learning Approach For Cyberbullying Detection In Twitter Social Media Platform | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 9 | | Design Of Wireless Electronic Scale Based On MSP430 Microprocessor | IJAIEM | 2024 | 13/2 | 2319-4847 |
| 10 | | Distilling Structure In Taverna Scientific Workflows: A Refactoring Approach | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 11 | | Framework And Architecture For Programming Education Environment As A Cloud Computing Service | IJAEP | 2024 | 13/2 | 2322-3537 |
| 12 | Aremandla Sai Pujitha | A Comprehensive Survey On Computer Forensics: State-Of-The-Art Tools Techniques Challenges And Future Directions | Reinforced Plastics | 2024 | 2024/6 | 0034-3617 |
| 13 | | Toward Data Justice Understanding Police Shooting Data Systems And Narratives | Reinforced Plastics | 2024 | 2024/3 | 0034-3617 |
| 14 | | Deep Network Optimization Utilizing Adaptive Rates | IJAIEM | 2024 | 13/2 | 2319-4847 |
| 15 | | Efficient Context Modelling Using OWL In Mobile Cloud Computing | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 16 | Butukuru Rojalakshmi | Finding Number Of Clusters Before Finding Cluster | IJAEP | 2024 | 13/1 | 2322-3537 |
| 17 | | Trustworthiness Assessment Of Users In Social Reviewing Systems | Reinforced Plastics | 2024 | 2024/4 | 0034-3617 |
| 18 | | Data Poisoning Attacks On Federated Machine Learning | Reinforced Plastics | 2024 | 2024/5 | 0034-3617 |
| 19 | | A Comprehensive Survey On Computer Forensics: State-Of-The-Art Tools Techniques Challenges And Future Directions | Reinforced Plastics | 2024 | 2024/6 | 0034-3617 |
| 20 | | Cuckoo Search Based Optimal Mask Generation For Noise Suppression And Enhancement Of Speech Signal | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 21 | | Enhancing Cooperation In MANET Using The Backbone Group Model (An Application Of Maximum Coverage Problem) | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 22 | | Evaluation Of Features On Sentimental Analysis | ISJCRESM | 2025 | 9/3 | 2456-1135 |
| 23 | | Formalization Of Learning Objects For Image-Based Language Learning In Mobile Environments | IJAEP | 2024 | 13/1 | 2322-3537 |
| 24 | | Framework And Architecture For Programming Education Environment As A Cloud Computing Service | IJAEP | 2024 | 13/2 | 2322-3537 |
| 25 | | Deep Network Optimization Utilizing Adaptive Rates | IJAIEM | 2024 | 13/2 | 2319-4847 |
| 26 | Chevula Rekha | A Comprehensive Survey On Computer Forensics: State-Of-The-Art Tools Techniques Challenges And Future Directions | Reinforced Plastics | 2024 | 2024/6 | 0034-3617 |
| 27 | | Fast And Accurate Algorithm For Core Point Detection In Fingerprint Images | IJAEP | 2024 | 13/1 | 2322-3537 |
| 28 | | Trust But Verify: A Framework For The Trustworthiness Of Distributed Systems | Reinforced Plastics | 2024 | 2024/2 | 0034-3617 |
| 29 | | Data Poisoning Attacks On Federated Machine Learning | Reinforced Plastics | 2024 | 2024/5 | 0034-3617 |
| 30 | | Dark-TRACER: Early Detection Framework For Malware Activity Based On Anomalous Spatiotemporal Patterns | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 31 | | Design Of Wireless Electronic Scale Based On MSP430 Microprocessor | IJAIEM | 2024 | 13/2 | 2319-4847 |
| 32 | | Distilling Structure In Taverna Scientific Workflows: A Refactoring Approach | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 33 | | Enhancing Cooperation In MANET Using The Backbone Group Model (An Application Of Maximum Coverage Problem) | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 34 | | Evaluation Of Features On Sentimental Analysis | ISJCRESM | 2027 | 9/5 | 2456-1137 |
| 35 | Dr. G. Samba Siva Rao | Era Of Cloud Computing: A New Insight To Hybrid Cloud | ISJCRESM | 2024 | 9/2 | 2456-1134 |
| 36 | | Dark-TRACER: Early Detection Framework For Malware Activity Based On Anomalous Spatiotemporal Patterns | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 37 | | Adaptive Hierarchical Cyber Attack Detection And Localization In Active Distribution | Reinforced Plastics | 2024 | 2024/1 | 0034-3617 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 38 | Dr. Godagala Madhava Rao | Trustworthiness Assessment Of Users In Social Reviewing Systems | Reinforced Plastics | 2024 | 2024/4 | 0034-3617 |
| 39 | | Formalization Of Signalling System By Process Calculus | IJAEP | 2024 | 13/2 | 2322-3537 |
| 40 | | Finding Number Of Clusters Before Finding Cluster | IJAEP | 2024 | 13/1 | 2322-3537 |
| 41 | Dr. Inaganti Shylaja | Digital Control Algorithm For Two-Stage DC-DC Converters | IJAEP | 2024 | 13/2 | 2322-3537 |
| 42 | | Data Poisoning Attacks On Federated Machine Learning | Reinforced Plastics | 2024 | 2024/5 | 0034-3617 |
| 43 | | A Comprehensive Survey On Computer Forensics: State-Of-The-Art Tools Techniques Challenges And Future Directions | Reinforced Plastics | 2024 | 2024/6 | 0034-3617 |
| 44 | | Design Of Wireless Electronic Scale Based On MSP430 Microprocessor | IJAIEM | 2024 | 13/2 | 2319-4847 |
| 45 | Dr. Padigala Suresh | Adaptive Hierarchical Cyber Attack Detection And Localization In Active Distribution | Reinforced Plastics | 2024 | 2024/1 | 0034-3617 |
| 46 | | Toward Data Justice Understanding Police Shooting Data Systems And Narratives | Reinforced Plastics | 2024 | 2024/3 | 0034-3617 |
| 47 | | Fast And Accurate Algorithm For Core Point Detection In Fingerprint Images | IJAEP | 2024 | 13/1 | 2322-3537 |
| 48 | | Framework And Architecture For Programming Education Environment As A Cloud Computing Service | IJAEP | 2024 | 13/2 | 2322-3537 |
| 49 | Gudipati Mohan Singh Yadav | Distilling Structure In Taverna Scientific Workflows: A Refactoring Approach | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 50 | | Data Poisoning Attacks On Federated Machine Learning | Reinforced Plastics | 2024 | 2024/5 | 0034-3617 |
| 51 | Lankala Mounika | Digital Control Algorithm For Two-Stage DC-DC Converters | IJAEP | 2024 | 13/2 | 2322-3537 |
| 52 | | Formalization Of Signalling System By Process Calculus | IJAEP | 2024 | 13/2 | 2322-3537 |
| 53 | | Trust But Verify: A Framework For The Trustworthiness Of Distributed Systems | Reinforced Plastics | 2024 | 2024/2 | 0034-3617 |
| 54 | | DEA-RNN: A Hybrid Deep Learning Approach For Cyberbullying Detection In Twitter Social Media Platform | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 55 | | Deep Network Optimization Utilizing Adaptive Rates | IJAIEM | 2024 | 13/2 | 2319-4847 |
| 56 | | Efficient Context Modelling Using OWL In Mobile Cloud Computing | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 57 | | Fast And Accurate Algorithm For Core Point Detection In Fingerprint Images | IJAEP | 2024 | 13/1 | 2322-3537 |
| 58 | Mr. Merugu Anand Kumar | Era Of Cloud Computing: A New Insight To Hybrid Cloud | ISJCRESM | 2024 | 9/2 | 2456-1134 |
| 59 | | Trust But Verify: A Framework For The Trustworthiness Of Distributed Systems | Reinforced Plastics | 2024 | 2024/2 | 0034-3617 |
| 60 | | Trustworthiness Assessment Of Users In Social Reviewing Systems | Reinforced Plastics | 2024 | 2024/4 | 0034-3617 |
| 61 | | Cuckoo Search Based Optimal Mask Generation For Noise Suppression And Enhancement Of Speech Signal | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 62 | | Design Of Wireless Electronic Scale Based On MSP430 Microprocessor | IJAIEM | 2024 | 13/2 | 2319-4847 |
| 63 | | Digital Control Algorithm For Two-Stage DC-DC Converters | IJAEP | 2024 | 13/2 | 2322-3537 |
| 64 | | Efficient Context Modelling Using OWL In Mobile Cloud Computing | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 65 | | Evaluation Of Features On Sentimental Analysis | ISJCRESM | 2028 | 9/6 | 2456-1138 |
| 66 | | Formalization Of Learning Objects For Image-Based Language Learning In Mobile Environments | IJAEP | 2024 | 13/1 | 2322-3537 |
| 67 | Nagam Aanjaneyulu | Toward Data Justice Understanding Police Shooting Data Systems And Narratives | Reinforced Plastics | 2024 | 2024/3 | 0034-3617 |
| 68 | | Cuckoo Search Based Optimal Mask Generation For Noise Suppression And Enhancement Of Speech Signal | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 69 | | Dark-TRACER: Early Detection Framework For Malware Activity Based On Anomalous Spatiotemporal Patterns | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 70 | | Digital Control Algorithm For Two-Stage DC-DC Converters | IJAEP | 2024 | 13/2 | 2322-3537 |
| 71 | | Era Of Cloud Computing: A New Insight To Hybrid Cloud | ISJCRESM | 2024 | 9/2 | 2456-1134 |
| 72 | | Formalization Of Learning Objects For Image-Based Language Learning In Mobile Environments | IJAEP | 2024 | 13/1 | 2322-3537 |
| 73 | | Formalization Of Signalling System By Process Calculus | IJAEP | 2024 | 13/2 | 2322-3537 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 74 | Shaik Guntur Mahabub Subhani | Trustworthiness Assessment Of Users In Social Reviewing Systems | Reinforced Plastics | 2024 | 2024/4 | 0034-3617 |
| 75 | | Efficient Context Modelling Using OWL In Mobile Cloud Computing | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 76 | | Era Of Cloud Computing: A New Insight To Hybrid Cloud | ISJCRESM | 2024 | 9/2 | 2456-1134 |
| 77 | | Fast And Accurate Algorithm For Core Point Detection In Fingerprint Images | IJAEP | 2024 | 13/1 | 2322-3537 |
| 78 | | Finding Number Of Clusters Before Finding Cluster | IJAEP | 2024 | 13/1 | 2322-3537 |
| 79 | | Formalization Of Signalling System By Process Calculus | IJAEP | 2024 | 13/2 | 2322-3537 |
| 80 | | DEA-RNN: A Hybrid Deep Learning Approach For Cyberbullying Detection In Twitter Social Media Platform | IJAIEM | 2024 | 13/1 | 2319-4847 |
| 81 | Vanapamula Veerabrahmachari | Formalization Of Learning Objects For Image-Based Language Learning In Mobile Environments | IJAEP | 2024 | 13/1 | 2322-3537 |
| 82 | | Enhancing Cooperation In MANET Using The Backbone Group Model (An Application Of Maximum Coverage Problem) | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 83 | | Adaptive Hierarchical Cyber Attack Detection And Localization In Active Distribution | Reinforced Plastics | 2024 | 2024/1 | 0034-3617 |
| 84 | | Toward Data Justice Understanding Police Shooting Data Systems And Narratives | Reinforced Plastics | 2024 | 2024/3 | 0034-3617 |
| 85 | | Distilling Structure In Taverna Scientific Workflows: A Refactoring Approach | ISJCRESM | 2024 | 9/1 | 2456-1134 |
| 86 | | Framework And Architecture For Programming Education Environment As A Cloud Computing Service | IJAEP | 2024 | 13/2 | 2322-3537 |
| 87 | | Deep Network Optimization Utilizing Adaptive Rates | IJAIEM | 2024 | 13/2 | 2319-4847 |
| 88 | | Finding Number Of Clusters Before Finding Cluster | IJAEP | 2024 | 13/1 | 2322-3537 |

**Academic Year – 2023-2024 (CAYm1) - Annexed Separately**

**Academic Year – 2022-2023 (CAYm2) - Annexed Separately**

**Academic Year – 2021-2022 (CAYm3) - Annexed Separately**

**B. Ph.D Guided / Ph.D Awarded (4)**

**Ph.D Awarded**

| Name of the Faculty | Research Guide | Registration No | Data of Registration | University | Research Area / Topic | Awarded on |
|---|---|---|---|---|---|---|
| Merugu Anand Kumar | Dr. S Gowri | 2019201114 | 22-11-2019 | Sathyabama Institute of Science and Technology | Protecting Sensitive Information: A Systematic Approach To Big Data Anonymization And Privacy | Feb- 2025 |

**Ph.D Guiding / Guided**

| Research guide | Name of the Scholar | Status |
|---|---|---|
| **Dr. G Sambasiva Rao** | Mr. B Narasimha | Completed |
| | Mr. U Vinay | Completed |
| | Mr. Sharjeel Ahmed | Completed |

**Ph.D Registered Faculty**

| S. No. | Name of the Faculty | University / Research center | Guide | Area of Research | Year of Registration | Status |
|---|---|---|---|---|---|---|
| 1 | Mr. N Anjineyulu | Sathyabama Institute of Science and Technology, Chennai | Dr. K Nirmal Raj | Deep Learning | 2023 | Course work Completed |

**5.7.2 Sponsored Research** (5)

Institute Marks : 0.00

**2023-24 (CAYm1)**

| Project Title | Duration | Funding Agency | Amount |
|---|---|---|---|
| Touch less gaming System with integrated hand gesture and voice recognition | 6 months | A.M. Reddy Educational Society | 25000.00 |
| | | | Total Amount(X): 25000.00 |

**2022-23 (CAYm2)**

| Project Title | Duration | Funding Agency | Amount |
|---|---|---|---|
| | | | |
| | | | |

**2021-22 (CAYm3)**

| Project Title | Duration | Funding Agency | Amount |
|---|---|---|---|
| | | | |
| | | | |

Cumulative Amount(X + Y + Z) =

**5.7.3 Development Activities** (10)

Institute Marks : 10.00

**5.7.3. Development Activities**

**A. Product Development**

Apart from the products and prototypes developed by the students as part of their mini projects and main projects, the faculty members of the department are collaborating with product developments. Following are the details of the products developed by the department faculty:

**Academic year : 2024-2025 (CAY)**

| S. No | Faculty Name | Product Name | Description of the Product | No of Faculty involved | No of students involved |
|---|---|---|---|---|---|
| 1 | Mr. V V B Chari | Hand Gesture Recognition Gaming Control System: Harnessing Hand Gestures and Voice Commands for Immersive Gameplay | Gesture Voice is an innovative Human-Computer Interaction (HCI) based gaming control system that transforms traditional gameplay into an immersive experience using hand gesture recognition and voice commands. This system leverages computer vision, machine learning, and speech recognition to replace conventional controllers with intuitive body movements and spoken commands, enabling a highly interactive and engaging gaming environment. Designed to be hardware-light, AI-powered, and cross-platform, the system is ideal for casual gamers, VR enthusiasts, and people with accessibility needs. | 3 | 5 |
| 2 | Dr. Merugu Anand Kumar | An Automated System for Accident Detection using ML | AutoSafe is an intelligent, real-time accident detection system that utilizes Machine Learning (ML) and IoT sensors to monitor vehicle behavior, detect road accidents automatically, and alert emergency services instantly. The system is designed to improve road safety, reduce emergency response time, and potentially save lives by providing immediate alerts with precise location and impact data. By analyzing data from onboard sensors like accelerometers, gyroscopes, GPS, and cameras, the ML models can distinguish between normal driving behavior and collision patterns with high accuracy. | 3 | 5 |

***Table 5.7.3.1: List of Product development activities in the academic year 2024-2025***

**Academic year : 2023-2023 (CAYm1)**

| S. No | Faculty Name | Product Name | Description of the Product | No of Faculty involved | No of students involved |
|---|---|---|---|---|---|
| 1 | Dr. G Sambasiva Rao | Student/ Employee Attendance Systems through IOT | The IoT-based Attendance System is an intelligent solution designed to automate and streamline the attendance process of students or employees using Internet of Things (IoT) technologies. This system ensures real-time tracking, enhanced accuracy, and eliminates manual errors typically associated with traditional attendance methods. | 3 | 5 |
| 2 | Mr. N Anjineyulu | Automating E-Government using Artificial Intelligence | The AI-powered E-Government Automation System is an innovative digital governance platform designed to automate, streamline, and optimize government services using Artificial Intelligence. The system integrates advanced technologies like Natural Language Processing (NLP), Machine Learning (ML), and Predictive Analytics to improve transparency, responsiveness, and citizen engagement in public service delivery. | 3 | 5 |

***Table 5.7.3.2: List of Product development activities in the academic year 2023-2024***

**Academic year : 2022-2023 (CAYm2)**

| S. No | Faculty Name | Product Name | Description of the Product | No of Faculty involved | No of students involved |
|---|---|---|---|---|---|
| 1 | Mr. V V B Chari | Blockchain and Machine Learning in Health care and Management | This solution integrates Blockchain and Machine Learning (ML) technologies to create a secure, intelligent, and patient-centric healthcare management system. It is designed to revolutionize how medical data is stored, shared, analyzed, and used to improve patient care, diagnostics, and administrative efficiency. The system leverages Blockchain for secure, tamper-proof, and decentralized medical records, while ML algorithms analyze healthcare data to assist in predictive diagnostics, treatment recommendations, and personalized care plans. | 3 | 5 |
| 2 | Mr. A Madhava Reddy | 5g-Smart Diabetes: Toward Personalized Diabetes Diagnosis With Healthcare Big Data Clouds | 5G-Smart Diabetes is an advanced healthcare solution that leverages the power of 5G connectivity, big data analytics, and cloud-based Artificial Intelligence (AI) to provide real-time, personalized diabetes monitoring and diagnosis. This system is designed to offer continuous glucose tracking, predictive alerts, lifestyle recommendations, and seamless communication between patients, caregivers, and healthcare providers.The integration of 5G technology ensures ultra-fast data transmission, while healthcare big data clouds enable large-scale analysis and AI-driven decision support for proactive and customized diabetes care. | 3 | 5 |

***Table 5.7.3.3: List of Product development activities in the academic year 2022-2023***

**B. Research laboratories**

A separate space for a research laboratory is provided for the department of Computer Science and Engineering. The research lab is well equipped and includes the following facilities:

**Configuration of Computer Systems:**

Intel Core i5 10th Generation, 250 GB SSD, 8GB RAM, fully connected with an Internet facility, etc.

**Availability of Software:**

Java Developer Kit. Python, IBM Rational Rose, SQL server, and other software supporting research work.

**List of Research activities in Research lab:**

| S. No | Name of the Faculty | Area of research | Outcomes of the Research Work |
|---|---|---|---|
| 1 | Dr. G Sambasiva Rao | Data Mining | PO1, PO2, PO4, PO5, PO10, PO11, PO12 |
| 2 | Dr. G Madhava Rao | Computer Science & Engineering | PO1, PO2, PO4, PO10, PO11, PO12 |
| 3 | Dr. P Suresh | Image Processing | PO1, PO2, PO4, PO5, PO10 ,PO11, PO12 |

***Table 5.7.3.4 List of Research Activities in Research Lab***

### C. Instructional materials

**Course files as Instruction Material**

**Academic Year: 2024-2025(CAY)**

| S. No | Name of The Faculty | Course File Prepared | Class & Sem |
|---|---|---|---|
| 1 | Mr N Anjeneyulu | Cloud Computing | IV-I |
| 2 | Mr.M.Anand Kumar | Ethical Hacking | IV-I |
| 3 | Mr.G.Mohan Singh Yadav | Social Networks and Semantic Web | IV-I |
| 4 | Mrs T Deepthi | Universal Human Values | IV-I |
| 5 | Mrs. Sk Kasim Bee Bi | Electronics Measurements& Instrumentation | IV-I |
| 6 | Mr. K Ramu | Remote Sensing and GIS | IV-I |
| 7 | Mr. N Anjeneyulu | Machine Learning | III-II |
| 8 | Dr. P.Suresh | Compile Design | III-II |
| 9 | Mr. Sk.Subhani | Disaster Management | III-II |
| 10 | Mr. V V B Chari | Cryptography And Network Security | III-II |
| 11 | Mrs. A. Sai Pujitha | Object Oriented Analysis and Design | III-II |
| 12 | Mr. V V B Chari | Computer Networks | III-I |
| 13 | Mr. Sk.Subhani | Environmental Management | III-I |
| 14 | Mrs. A. Sai Pujitha | Design And Analysis Of Algorithms | III-I |
| 15 | Mr. A. Jagan Mohan Reddy | Data Warehousing and Data Mining | III-I |
| 16 | Mr. A. Madhava Reddy | Software Project Management | III-I |
| 17 | Mrs. G. Sravani | Managerial Economics Financial analysis | II-II |
| 18 | Dr. I. Shylaja | Operating Systems | II-II |
| 19 | Mrs. Ch. Rekha | Database Management Systems | II-II |
| 20 | Mrs. B. Roja lakshmi | Software Engineering | II-II |
| 21 | Mr. M. P.Nagur | Probability & Statistics | II-II |
| 22 | Mr. Sk. Mahabub Subhani | OOPS Through Java | II-I |
| 23 | Dr. G. Bhaskar Reddy | Discreate Mathematics& Graph Theory | II-I |
| 24 | Mrs. Ch.Rekha | Advance Data Structures And Algorithms | II-I |
| 25 | Mrs. G.Sravani | Universal Human Values | II-I |
| 26 | Mr. T.Manoj | Digital Logic & Computer Organization | II-I |

***Table 5.7.3.5 List of course faculty prepared course files for the academic year 2024-2025***

**Academic Year: 2023-2024(CAYm1)**

| S. No | Name Of The Faculty | Course File Prepared | Class & Sem |
|---|---|---|---|
| 1 | Mr. N.Anjeneyulu | Cloud Computing | IV-I |
| 2 | Mr. M.Anand Kumar | Ethical Hacking | IV-I |
| 3 | Mr. A.Jagan Mohan Reddy | Social Networks And Semantic Web | IV-I |
| 4 | Mrs. G.Sarvani | Universal Human Values | IV-I |
| 5 | Mr. G.Anil Kumar | Electronics Measurements& Instrumentation | IV-I |
| 6 | Mr. R .Rathaiah | Remote Sensing And GIS | IV-I |
| 7 | Dr. I. Shylaja | Machine Learning | III-II |
| 8 | Mr.A. Madhava Reddy | Compile Design | III-II |
| 9 | Mrs. T.Pavani | Environmental Engineering | III-II |
| 10 | Mr.V. Veerabrahmachari | Cryptography And Network Security | III-II |

| | | | |
|---|---|---|---|
| 11 | Mrs.L. Mounika | Object Oriented Analysis and Design | III-II |
| 12 | Mr.V.V.B.Chari | Computer Networks | III-I |
| 13 | Mr.Sk.Subani | Environmental Management | III-I |
| 14 | Dr.G.Madhava Rao | Design And Analysis Of Algorithms | III-I |
| 15 | Mr.M.Mallikarjuna Rao | Data Ware housing And Data mining | III-I |
| 16 | Mr.A.Madhava Reddy | Software Project Management | III-I |
| 17 | Mrs.Ch.Rekha | Database Management System | II-II |
| 18 | Mr.G. Bhaskar Reddy | Probability And Statistics | II-II |
| 19 | Ms.G. Sravani | Managerial Economics Financial Accountancy | II-II |
| 20 | Mr.Sk.M.Subhani | Java Programming | II-II |
| 21 | Dr. Padigala Suresh | Formal Language &Automata Theory | II-II |
| 22 | Dr. I. Shylaja | Operating System | II-I |
| 23 | Dr. G. Samba Siva Rao | Oops Through C++ | II-I |
| 24 | B.Roja Lakshmi | Software Engineering | II-I |
| 25 | Mr.Nagur Mp | Mathematics Iii | II-I |
| 26 | Mr.G.Baskar Reddy | Mathematical Foundations Of Computer Science | II-I |

***Table 5.7.3.6 List of course faculty prepared course files for the academic year 2023-2024***

**Academic Year: 2022-2023(CAYm2)**

| S. No | Name Of The Faculty | Course File Prepared | Class & Sem |
|---|---|---|---|
| 1 | Mrs.T.Deepthi | Management And Organizational Behavior | IV-II |
| 2 | Mrs. G Sravani | Entrepreneurship | IV-II |
| 3 | Dr. P. Suresh | Devops | IV-II |
| 4 | Mr.A. Madhava Reddy | Software Project Management | IV-I |
| 5 | Mr.A.Jagan Mohan Reddy | Unified Modeling Language | IV-I |
| 6 | Mr.M.Anand Kumar | Machine Learning | IV-I |
| 7 | Mr.N.Anjaneyulu | Could Computing | IV-I |
| 8 | Mr.N Ramesh Babu | Embedded System | IV-I |
| 9 | Mr.M.Mallikarjuna Rao | Cryptography And Network Security | IV-I |
| 10 | Mr.V.V.B.Chari | Cryptography And Network Security | III-II |
| 11 | Mrs. L. Mounika | Object Oriented Analysis And Design | III-II |
| 12 | Dr. I Sailaja | Machine Learning | III-II |
| 13 | Mr. A. Madhava Reddy | Compiler Design | III-II |
| 14 | Mr. Ch. Raghunatha Babu | Fundamentals Of Micro Processors & Micro Controllers | III-II |
| 15 | Mrs.A.Madhava Reddy | Software Project Management | III-I |
| 16 | Dr.G.Madhava Rao | Design And Analysis Of Algorithms | III-I |
| 17 | Mrs.M.Mallikarjuna Rao | Data Warehousing And Datamining | III-I |
| 18 | Mr.V.V.B.Chari | Computer Networks | III-I |
| 19 | Dr. P.Ganesh | Basics Of Electronics | III-I |
| 20 | Mr P.Nagur | Probability And Statistics | II-II |
| 21 | Mrs.Ch. Rekha | Database Management System | II-II |
| 22 | Dr. P. Suresh | Formal Languages And Automata Theory | II-II |
| 23 | Mr. Sk. Subhani | Java Programming | II-II |
| 24 | Mrs .G.Sravani | Managerial Economics And Financial Accountancy | II-II |
| 25 | Mr. Nagur M.P | Mathematics- Iii | II-I |
| 26 | Mr. G.Bhasker Reddy | Mathematical Foundation Of Computer Science | II-I |
| 27 | Dr. G.Sambasiva Rao | Oops Through C++ | II-I |
| 28 | Dr. I Sailaja | Operating Systems | II-I |
| 29 | Dr. P.Suresh | Software Engineering | II-I |

***Table 5.7.3.7 List of course faculty prepared course files for the academic year 2022-23***

**Lab files as Instruction Material**

**Academic year – 2024-2025 (CAY)**

| S. No | Name Of The Faculty | Lab Course File Prepared | Class & Sem |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Dr. G. Samba Siva Rao / Dr.G.Madhava Rao | Project | IV/II |
| 2 | Mrs.L.Mounika | Mean Stack Technologies Lab | IV/I |
| 3 | Mr.N Anjaneeyulu | Machine Learning Lab | III/II |
| 4 | Dr.P.Suresh | Compile Design Lab | III/II |
| 5 | Mr.V V B Chari | Cryptography And Network Security Lab | III/II |
| 6 | Mrs.L.Mounika | Mean Stack Technologies -Ii | III/II |
| 7 | Mr. V.V. B Chari | Computer Networks Lab | III/I |
| 8 | Mr.A.Jagan Mohan Reddy | Data Wearhousing And Datamining Lab | III/I |
| 9 | Mrs.L.Mounika | Animation Course Lab | III/I |
| 10 | Dr.I.Shylaja | Operating Systems Lab | II/II |
| 11 | Mrs.Ch.Rekha | Database Management Systems Lab | II/II |
| 12 | Mrs.T.Deepthi | Design Thinking & Inovation | II/II |
| 13 | Mr.Sk.M.Subhani | Full Stack Development-1 | II/II |
| 14 | Mr.Sk.M.Subhani | Oops Throufgt Java Lab | II/I |
| 15 | Mrs.Ch.Rekha | Advance Data Structer And Algorithems Lab | II/I |
| 16 | Mr.M.Malikarjuna | Python Programming Lab | II/I |

***Table 5.7.3.8 List of course faculty prepared Lab course files for the academic year 2024-2025***

**Academic Year – 2023-2024 (CAYm1)**

| S. No | Name Of The Faculty | Lab Course File Prepared | Class & Sem |
|---|---|---|---|
| 1 | Dr. G. Samba Siva Rao/ Dr.G.Madhava Rao | Project | IV/II |
| 2 | Mr.Sk.M.Subhani | Mean Stack Technologies Lab | IV/I |
| 3 | Dr. Inaganti Shylaja | Machine Learning Lab | III/II |
| 4 | Mr.A Madhava Reddy | Compile Design Lab | III/II |
| 5 | V. Veerabrahmachari | Cryptography And Network Security Lab | III/II |
| 6 | Mr.M.Mallikarjuna Rao | Mean Stack Technologies -Ii | III/II |
| 7 | Mr.V.V.B.Chari | Computer Networks Lab | III/I |
| 8 | Mr.M.Mallikarjuna Rao | Data Wearhousing And Datamining Lab | III/I |
| 9 | Dr.G.Madhava Rao | Animation Course Lab | III/I |
| 10 | Mrs.Ch.Rekha | Database Management System Lab | II/II |
| 11 | Mr.Sk.M.Subhani | Java Programming Lab | II/II |
| 12 | Mr.N.Anjeneyulu | R Programming Lab | II/II |
| 13 | Mr.M.Mallikarjuna Rao | Mean Stack Technologies -I | II/II |
| 14 | Dr. G. Samba Siva Rao | Oops Through C++ Lab | II/I |
| 15 | Dr. I. Shylaja | Operating System Lab | II/I |
| 16 | B.Roja Lakshmi | Software Engineering Lab | II/I |
| 17 | Dr. P.Suresh | Python Numpy Lab | II/I |

***Table 5.7.3.9 List of course faculty prepared Lab course files for the academic year 2023-2024***

**Academic Year – 2022-2023 (CAYm2)**

| S. No | Name Of The Faculty | Lab Course File Prepared | Class & Sem |
|---|---|---|---|
| 1 | Dr. G. Sambasiva Rao/<br>Dr. G. Madhava Rao | Project | IV/II |
| 2 | Mr.A.Jagan Mohan Reddy | Unified Modeling Language Lab | IV/I |
| 3 | Dr.P.Suresh | Project | IV/I |
| 4 | Mr.V.V.B.Chari | Cryptography And Network Security Lab | III/II |
| 5 | Dr. I. Sailaja | Machine Learning Lab | III/II |
| 6 | Mr. A. Madhava Reddy | Compiler Design Lab | III/II |
| 7 | Mr. M. Mallikarjuna Rao | Compiler Design Lab | III/II |
| 8 | Mrs.M.Mallikarjuna Rao | Data Warehousing And Data Mining Lab | III/I |
| 9 | Mr.V.V.B.Chari | Computer Networks Lab | III/I |
| 10 | Dr.G.Madhava Rao | Animation Course Lab | III/I |

| | | | |
|---|---|---|---|
| 11 | Mrs.Ch. Rekha | Java Programming Lab | II/II |
| 12 | Mr. N. Anjaneyulu | Database Management System Lab | II/II |
| 13 | Mr. Sk. Subhani | R Prog Lab | II/II |
| 14 | Mr. M. Anand Kumar | Python-Pandas | II/II |
| 15 | Dr. G.Sambasiva Rao | Oops Through C++ Lab | II/I |
| 16 | Dr. I Sailaja | Operating Systems & Unix Programming Lab | II/I |
| 17 | Mr. M.Mallikarjuna Rao | Python Numpy Lab | II/I |
| 18 | Dr. P.Suresh | Software Engineering Lab | II/I |

*Table 5.7.3.10 List of course faculty prepared Lab course files for the academic year 2022-2023*

*Figure 5.7.3.1: Sample Lab Manual of Faculty(Master) Copy* ***(Annexed Separately)***

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

List of working models and charts available for Teaching learning prepared by the faculty are given below

| S. No. | Model / Chart | Working Model/ charts/ monograms |
|---|---|---|
| 1. | Computer Networks Lab Chart | CSE LAB-2 |
| 2. | Python Programming Lab Chart | CSE LAB-1 |
| 3. | UNIX & OS Lab Chart | CSE LAB-2 |
| 4. | CNS Lab Chart | CSE LAB-3 |
| 5. | Machine Learning Lab Chart | CSE LAB-3 |
| 6. | Data Structure Lab Chart | CSE LAB-1 |
| 7. | Compiler Design Lab Chart | CSE LAB-3 |
| 8. | Mean Stack Module Lab Chart | CSE LAB-2 |
| 9. | Software Engineering Lab Chart | CSE LAB-2 |
| 10 | Java Lab Chart | CSE LAB-1 |

*Table 5.7.3.11 List of working model prepared by faculty in assessment period.*

*Figure 5.7.3.2: Working Models (Charts / Posters)* ***(Annexed Separately)***

**5.7.4 Consultancy(from Industry)** (5) Institute Marks : 4.00

**2023-24 (CAYm1)**

| Project Title | Duration | Funding Agency | Amount |
|---|---|---|---|
| Smart attendance System with Face recognition | 2 Years | ProIT Solutions | 300000.00 |
| AI-Based Traffic Violation Detection System | 2 Years | ProIT Solutions | 300000.00 |
| AI-Driven mental Health Chat support | 2 Years | ProIT Solutions | 300000.00 |
| | | | Total Amount(X): 900000.00 |

**2022-23 (CAYm2)**

| Project Title | Duration | Funding Agency | Amount |
|---|---|---|---|
| | | | |
| | | | |

**2021-22 (CAYm3)**

| Project Title | Duration | Funding Agency | Amount |
|---|---|---|---|
| | | | |
| | | | |

Cumulative Amount(X + Y + Z) =

**5.8 Faculty Performance Appraisal and Development System (FPADS)** (30) Total Marks 30.00

Institute Marks : 30.00

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

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

The assessment is based on:

**A. A well-defined system for faculty appraisal for all the assessment years (10)**

The performance appraisal system of the staff is evaluated on multiple activities which are appropriately captured and considered for better appraisal through the following steps:

**Step- 1: Yearly Self- Appraisal**

- Based on Academic Results
- Based on Number of Workshops and training Programs Conducted
- Based on Faculty achievements such as research contributions (paper publications, funded R&D projects, and consultancy)
- Membership in professional societies
- Additional responsibilities contribute to administration.

**Step- 2: Student Feedback on faculty**

- Feedback on faculty from students is collected every semester and evaluated. Based on the performance of the faculty, a HoD recommendation will be suggested.

**Step- 3: HoD Recommendation**

- After evaluation of student feedback from faculty, HoD asks for explanation and action to improve on poor performances. And HoD recommends the faculty for best performance for college-level awards and suggests corrective measures for poor performances.

**Self-Appraisal:**

The following parameters are evaluated for the faculties:

1. Instructional work is assigned.
2. Supervisory and guidance support is provided to UG and PG projects.
3. Responsibilities undertaken as coordinator for institutional committees, events, etc.
4. Activities organized: seminars, workshops, conferences, symposiums, and continuing education Programmer etc.)
5. Research papers, books published, conferences, articles, monographs, etc.
6. Sponsored Projects/Consultancy
7. Participation: seminars, workshops, conferences, symposiums, and continuing education programs (training, etc.).

**The format of Self-appraisal and Performance appraisal are given below:**

***Figure 5.8.1: Format of faculty self – appraisal and performance evaluation (Annexed Separately)***

**Sample Filled Performance Appraisal:**

***Figure 5.8.2: Filled sample faculty self – appraisal (Annexed Separately)***

*Figure 5.8.3: Remarks of HoD, Principal on faculty performance appraisal* ***(Annexed Separately)***

*Figure 5.8.4: Faculty Certificate of Appreciation* ***(Annexed Separately)***

*Figure 5.8.5: Cash Award for best performance payment through voucher* ***(Annexed Separately)***

**B. Its implementation and effectiveness: (20)**

At the end of every academic year, the entire faculty is required to submit the filled-in Performance Appraisal form along with necessary enclosures. The Head of the Department reviews the filled-in proforma submitted by the faculty member and awards his/her evaluation marks. The Appraisal form is then reviewed by Principal.

All successful faculty get a cash award of Rs. 5000 and a certificate of appreciation. Those whose performance is not up to par are counselled and advised to attend various orientation programs for their personal and professional development.

| Effectiveness | 2023-24 | 2022-23 | 2021-2022 | 2020-2021 |
|---|---|---|---|---|
| Award/Reward | 5 | 4 | 4 | 2 |
| Corrective measures | 1 | 2 | 2 | 2 |

**Outcome of the review of the performance appraisal reports:**

The decision taken is based on the outcome of the review of the performance appraisal reports by the management. It is conveyed by

a. One-one interaction
b. Discussions of general issues in departmental meetings

**Decisions:**

1. The increments are given at the end of the academic year.
2. Knowing the status and capabilities of the faculty.
3. Identify the areas in which training is required.
4. Check the loopholes, if any, in the system or policies.
5. Taking the output of the performance appraisal, as basis to plan for the future to ensure right man to right job.
6. Enforced the training program.
7. Repositioned the employees according to their performances in their roles assigned to them.

8. Good performers are appreciated and encouraged further for better performance.
9. Reward/Award to the outstanding performers.

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

Institute Marks : 10.00

### Visiting/Adjunct/ Emeritus Faculty etc. (10)

**Provision for Inviting Adjunct Faculty:**

There is a provision for inviting adjunct faculty to make the students interact with industry persons or eminent academicians to get exposure to the industry, in- depth knowledge, or hands-on experience.

| S. No | Name of the Visiting Faculty | Visiting faculty details |
|---|---|---|
| 1 | Mr. M Kalyana Chakravarthy | Sr. Software Engineer, Adaps IT Private Limited, Hyderabad |
| 2 | Mr. Ramu Reddy | Co-Founder, Meticulous Orbit |
| 3 | Mr. Vijay Kumar | Co- Founder, Ratiosphere Technologies, Hyderabad |
| 4 | Mr. CH Sreeram Reddy | Founder Pro-IT Solutions |

**Details of the interaction Year wise:**

| Academic Year | Visiting faculty | Hours |
|---|---|---|
| 2023-2024 | 03 | 72 |
| 2022-2023 | 03 | 72 |
| 2021-2022 | 03 | 72 |

***Table 5.9.1 List visiting faculty and No. of hours' hours took the class work.***

**Details of Visiting Faculty**

AcademicYear:2023-24 (CAYm1)

| S. No | Name of the Visiting Faculty | Visiting faculty details | Name of the Course | Relevance to PO | Class | % of students | No. of Hours |
|---|---|---|---|---|---|---|---|
| 1 | Mr. M Kalyana Chakravarthy | Sr. Software Engineer, Adaps IT Private Limited, Hyderabad | Cryptography and Network Security | PO1, PO2, PO3, PO4, PO5, PO12 | III | 85 | 24 |
| 2 | Mr. Ramu Reddy | Co-Founder, Meticulous Orbit | Ethical Hacking | PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11 | IV | 90 | 24 |
| 3 | Mr. Vijay Kumar | Co- Founder, Ratiosphere Technologies, Hyderabad | Machine Learning | PO1, PO2, PO3, PO4, PO5, PO12 | III | 86 | 24 |

***Table 5.9.2 List visiting faculty advised to students in the academic year 2023-24***

AcademicYear:2022-23 (CAYm2)

| S. No | Name of the Visiting Faculty | Visiting faculty details | Name of the Course | Relevance to PO | Class | % of students | No. of Hours |
|---|---|---|---|---|---|---|---|
| 1 | Mr. M Kalyana Chakravarthy | Sr. Software Engineer, Adaps IT Private Limited, Hyderabad | Cryptography and Network Security | PO1, PO2, PO3, PO4, PO5, PO12 | III | 92 | 24 |
| 2 | Mr. Ramu Reddy | Co-Founder, Meticulous Orbit | Ethical Hacking | PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11 | IV | 94 | 24 |
| 3 | Mr. Vijay Kumar | Co- Founder, Ratiosphere Technologies, Hyderabad | Software Engineering | PO1, PO2, PO3, PO4, PO5, PO10, | II | 90 | 24 |

***Table 5.9.3 List visiting faculty advised to students in the academic year 2022-23***

AcademicYear:2021-22 (CAYm3)

| S. No | Name of the Visiting Faculty | Visiting faculty details | Name of the Course | Relevance to PO | Class | % of students | No. of Hours |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Mr. M Kalyana Chakravarthy | Sr. Software Engineer, Adaps IT Private Limited, Hyderabad | Cryptography and Network Security | PO1, PO2, PO3, PO4, PO5, PO12 | III | 92 | 24 |
| 2 | Mr. Ramu Reddy | Co-Founder, Meticulous Orbit | Ethical Hacking | PO1, PO2, PO3, PO4, PO5, PO6, PO9, PO10, PO11 | IV | 89 | 24 |
| 3 | Mr. Ch Sreeram Reddy | Founder Pro-IT Solutions | Software Project Management | PO1, PO2, PO3, PO4, PO8,PO9, PO10, PO11,PO12 | III | 98 | 24 |

***Table 5.9.4 List visiting faculty advised to students in the academic year 2021-22***

## 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 | LAB -1 | 60 | Computer, UPS,AC, Switches, LAN | 85 | M Lavanya | Lab Programmer | MCA |
| 2 | LAB -2 | 60 | Computer, UPS,AC, Switches, LAN | 82 | T Koteswara Rao | Lab Programmer | MCA |
| 3 | LAB -3 | 60 | Computer, UPS,AC, Switches, LAN | 85 | M Bharath | Lab Programmer | MCA |
| 4 | LAB -4 | 60 | Computer, UPS,AC, Switches, LAN | 90 | V Vineesha | Lab Programmer | B.SC (Computers) |

**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 | Project Lab | JDK, Rational Rose,Python, Anaconda, | To provide platform for Developing projects beyond college hours | Utilized for IV year students | Developing project with respect to Machine Learning and deep learning projects | PO1,PO2,PO3,PO4,PO5,P10,PSO1,PSO2 |
| 2 | Mongo DB | Advanced Database | To provide a platform for upgradation of database system | To conduct a programs for the Students | Creation and all other operations on the database by using MongoDB | PO1,PO2, PO3, PO4, PO5,PO6, PO9, PO11,PO12, PSO2. |
| 3 | Anaconda, Python, IDLE 3.5 | Free and open source distribution of python and R programming languages for scientific computing. | To provide a platform for the Students to develop Applications. | To conduct a program for Students. | Data analytics, AI, Machine learning | PO1, PO2, PO3, PO4 PO5, PO9, PO11 PSO1, PSO2 |
| 4 | Design of Website | Application Development | To provide a platform to Students for building web applications. | To conduct a program for Students. | Applications development for Android device. | PO1,PO2, PO3,PO4 PO5,PO9, PO11, PSO1, PSO2 |
| 5 | Weka | It provides tools for data preprocessing | To provide a platform for data preprocessing | To conduct Data mining experiments for 4th year students. | Data preprocessing and implementation of several Machine Learning algorithms | PO1,PO2, PO3,PO4 PO5,PO9, PO11, PSO1, PSO2 |

**6.3 Laboratories: Maintenance and overall ambiance** (10)

Total Marks 10.00

Institute Marks : 10.00

### 6.3. Laboratories: Maintenance and overall ambiance (10)

**Regular Maintenance**

- A complaint register is maintained in all the laboratories.
- If any complaints are registered by the students, then the technical staff will monitor and solve the complaint. If the complaint is not resolved, then it is registered in the maintenance register.
- The system administrator will monitor and solve the issue. If the complaint is not resolved, then third parties will be involved to solve the complaint.
- A regular checkup of the equipment is carried out at the end of every semester.
- Trained technical staff are available for the maintenance of equipment and software.
- Software required for every semester is installed at the beginning of the semester by the technical staff of the respective lab in the presence of the concerned subject faculty.
- A specific maintenance slot is provided for every lab.
- Chairs and tables are serviced and maintained.
- Electrical maintenance items such as UPS, A/C, electrical ports, switches, network cables, lights, and fans are serviced periodically.

**Breakdown Maintenance (Process of servicing)**

- The technical staff of the respective lab will inform the concerned authority.
- The technical staff of the respective lab will check whether the issue can be solved at their level.
- If not, the incident is reported to the system administrator, who further looks into the complaint and tries to troubleshoot the problem. If the problem could be fixed locally, he would call his teammates and try to solve the issue.
- Otherwise, the help of an external service agency is sought for repairs or replacement.
- The system administrator will verify the job done and certify that the job has been carried out satisfactorily.

| S. No. | Name of the Lab | Area in sq.mt. | Periodic Maintenance |
|---|---|---|---|
| 1 | CSE LAB-1 | 104.44 | Weekly once |
| 2 | CSE LAB-2 | 104.44 | Weekly once |
| 3 | CSE LAB-3 | 87.01 | Weekly once |
| 4 | CSE LAB -4 | 87.01 | Weekly once |

Overall Ambience:

- The department is furnished with state-of-the-art laboratories, such as computers with LAN connectivity, projectors, and printers. Computers are installed with the required software (licenced or open source) to run program-specific curriculum as well as off-program curriculum.
- The floors are cleaned and mopped periodically.
- Lab equipment such as tables, chairs, systems, peripherals, and other components is cleaned regularly.
- The labs are well designed, with a sufficient number of windows for ventilation and natural light.Along with an adequate number of fans, LED lights, and curtains.
- Every laboratory is provided with air conditioners for the smooth running of computers.
- The laboratories also contain shoe racks for student convenience.

***Figure 6.3.5 View of CSE LAB -I (Annexed Separately)***

***Figure 6.3.6 View of CSE LAB -2 (Annexed Separately)***

***Figure 6.3.7View of CSE LAB -3 (Annexed Separately)***

***Figure 6.3.8 View of CSE LAB -4 (Annexed Separately)***

**6.4 Project laboratories** (5) Total Marks 5.00

Institute Marks : 5.00

**6.4. Project Work Laboratory**

Facilities & Utilization (5)

1. A project work laboratory with a total area of 104.44 sq ft is dedicated for all semester students who are interested in carrying out individual or team projects for various competitions like Hackathon or any other organisational events, assignment projects, mini projects, major projects, etc.
2. Students utilise the lab facility with the help of concerned guides, mentors, and technical staff.
3. The room number of the project lab is IG18.
4. 60 computer systems were assigned exclusively for the project work which they can utilize beyond college hours. The configuration of the computer systems is given below.

**Computer Systems Configuration in Project Lab:**

| S. No | Equipment | Specification |
|---|---|---|
| 1 | Company Name | Lenova |
| 2 | CPU Model | Lenova Think centers |
| 3 | Processor | Intel i5, 4 th Gen |
| 4 | Speed | 3.70 GHz |
| 5 | RAM | 16 GB |
| 6 | Hard Disk/SSD | 256 GB SSD |
| 7 | Monitor | 18.5” LED |

***Table 6.4.1: Details of Computers Facility in Project Laboratory***

**List of Software Used in Project Lab:**

| S. No | Software | Description |
|---|---|---|
| 1 | JDK | Object oriented programming language |
| 2 | Python | Object oriented programming language |
| 3 | IBM Rational Rose | To create UML Diagrams and generate code for Design Patterns |
| 4 | Oracle | It’s a multi-model database management system |
| 5 | Anaconda | Free and open source distribution of python and R programming languages for scientific computing. |
| 6 | Plagiarism Software | For research work and project documentation using to check the plagiarism. |

***Table 6.4.2: List of Software in Project Laboratory***

**List of projects done in this Lab**

**Academic Year 2023-24 (CAYm1)**

| S. No. | Hall Ticket No. | Title of the Project | Name of the Guide |
|---|---|---|---|
| 1 | 20HM1A0550 | Email Spam Detection | Dr. G. Samba Siva Rao |
| | 20HM1A0509 | | |
| | 20HM1A0522 | | |
| | 20HM1A0504 | | |
| | 20HM1A0528 | | |
| 2 | 20HM1A0508 | Student/ Employee Attendance Systems through IOT | Dr. Godagala Madhava Rao |
| | 20HM1A0533 | | |
| | 20HM1A0520 | | |
| | 20HM1A0532 | | |
| | 20HM1A0535 | | |
| 3 | 20HM1A0515 | Web based Graphical Passwords Authentication System using ML | Dr. Inaganti Shylaja |
| | 20HM1A0526 | | |
| | 20HM1A0542 | | |
| | 20HM1A0507 | | |
| | 20HM1A0552 | | |

| | | | |
|---|---|---|---|
| 4 | 20HM1A0517<br>20HM1A0502<br>20HM1A0510<br>20HM1A0502<br>20HM1A0551 | Heart Disease Prediction using Machine Learning | Dr. Padigala Suresh |
| 5 | 20HM1A0531<br>20HM1A0530<br>20HM1A0523<br>20HM1A0543<br>20HM1A0506 | Automating E-Government using Artificial Intelligence | Nagam Aanjaneyulu |
| 6 | 20HM1A0540<br>20HM1A0539<br>20HM1A0537<br>20HM1A0501 | Credit card Fraud Analysis using Predictive System In Machine Learning | Vanapamula Veerabrahmachari |
| 7 | 20HM1A0545<br>20HM1A0524<br>20HM1A0505<br>20HM1A0555 | Chatbot using Artificial Intelligence | Arekatla Jaganmohan Reddy |
| 8 | 20HM1A0547<br>20HM1A0527<br>20HM1A0519<br>20HM1A0518<br>20HM1A0554 | Intelligent Agent based Job Search System using React JS and Python | Shaik Guntur Mahabub Subhani |
| 9 | 20HM1A0548<br>20HM1A0529<br>20HM1A0538<br>20HM1A0546<br>20HM1A0534 | Weapon Detection using Artificial Intelligence and Deep Learning for Security | Mr. M. Anand Kumar |
| 10 | 21HM5A0501<br>20HM1A0536<br>20HM1A0525<br>20HM1A0512<br>20HM1A0553 | Emotion Face Detection using Twitter Datasets and Spacy Algorithm | Arekatla Madhava Reddy |

***Table 6.4.3: List of projects done in project lab for the A.Y. 2023-24***

**Academic Year 2022-23 (CAYm2)**

| S. No. | Hall Ticket No. | Title of the Project | Name of the Guide |
|---|---|---|---|
| 1 | 19HM1A0532<br>19HM1A0505<br>19HM1A0573<br>19HM1A0534<br>19HM1A0519 | Survey on fake detection on social sites by using Machine Learning Algorithm | Dr. G. Samba Siva Rao |
| 2 | 19HM1A0554<br>19HM1A0561<br>19HM1A0553<br>19HM1A0522<br>19HM1A0513 | A Comparative Study of Machine Learning And Deep Learning Techniques For Sentiment Analysis | Dr. Godagala Madhava Rao |

| | | | |
|---|---|---|---|
| 3 | 19HM1A0564<br>19HM1A0503<br>19HM1A0529<br>19HM1A0521<br>19HM1A0514 | Automated head gesture recognition using a Deep convolutional neural network model | Dr. Inaganti Shylaja |
| 4 | 19HM1A0541<br>19HM1A0512<br>19HM1A0545<br>19HM1A0518<br>19HM1A0562 | Blockchain and Machine Learning in Health care and Management | Nagam Aanjaneyulu |
| 5 | 19HM1A0526<br>19HM1A0536<br>19HM1A0549<br>19HM1A0524<br>19HM1A0576 | 5g-Smart Diabetes: Toward Personalized Diabetes Diagnosis With Healthcare Big Data Clouds | Vanapamula Veerabrahmachari |

***Table 6.4.4: List of projects done in project lab for the A.Y. 2022-23***

**Academic Year 2021-22 (CAYm3)**

| Batch No | Hall Ticket No | Title of the Project | Project Guide |
|---|---|---|---|
| 1 | 18HM1A0502<br>18HM1A0504<br>18HM1A0551<br>17HM1A0514<br>18HM1A0515 | NETWORK TRAFFIC ANALYSIS USING MACHINE LEARNING | Mr. V.V.B.CHARI |
| 2 | 18HM1A0503<br>18HM1A0505<br>18HM1A0511<br>18HM1A0532<br>18HM1A0554 | STUDENTS ATTENDANCE VISULIZATION | Mr. N. ANJANEYULU |
| 3 | 18HM1A0507<br>18HM1A0519<br>18HM1A0524<br>18HM1A0549<br>18HM1A0556 | PHISING WEBSITE DETECTION USING ML ALGORITHM | Mr. SK. SUBHANI |
| 4 | 18HM1A0509<br>18HM1A0508<br>18HM1A0526<br>18HM1A0535<br>18HM1A0542 | RAINFALL PREDCTION USING MACHINE LEARNING | Mr. A. MADHAV REDDY |

***Table 6.4.5: List of projects done in project lab for the A.Y. 2021-2022***

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

Total Marks 10.00

Institute Marks : 10.00

| Sr. No | Laboratory Name | Safety Measures |
|---|---|---|
| 1 | LAB -1 | First Aid Box with medicine, Fire Extinguisher, Display of Lab Safety Rules, Good Ground Earthing, Emergency Contact Numbers |
| 2 | LAB -2 | First Aid Box with medicine, Fire Extinguisher, Display of Lab Safety Rules, Good Ground Earthing, Emergency Contact Numbers |
| 3 | LAB -3 | First Aid Box with medicine, Fire Extinguisher, Display of Lab Safety Rules, Good Ground Earthing, Emergency Contact Numbers |
| 4 | LAB -4 | First Aid Box with medicine, Fire Extinguisher, Display of Lab Safety Rules, Good Ground Earthing, Emergency Contact Numbers |

## 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 |
|---|---|---|---|
| **PO 1 : Engineering Knowledge** | | | |
| PO 1 | 2.33 | 2.59 | Target is Achieved. |
| Action 1: Plan to conduct technical talks to increase engineering knowledge further. Action 2: Plan to conduct seminars to increase engineering knowledge. Action 3: Plan to conduct subsequent doubts clarifying session / Study Hours beyond the regular planned classes. Action 4: Plan to arrange bridge courses before the semester begins for 1st year subjects. | | | |
| **PO 2 : Problem Analysis** | | | |
| PO 2 | 2.08 | 2.38 | Target is Achieved. |
| Action 1: It is proposed to increase the target level in the next academic year. Action 2: Assignments will be framed to increase the problem-solving capabilities further. Action 3: Increase the problem-solving capabilities by giving the needed writing work. | | | |
| **PO 3 : Design/development of Solutions** | | | |
| PO 3 | 2.10 | 2.41 | Target is Achieved. |
| Action 1: Plan to conduct a web and user interface development workshop. Action 2: Projects will be given to students to increase their design capabilities. | | | |
| **PO 4 : Conduct Investigations of Complex Problems** | | | |
| PO 4 | 2.04 | 2.38 | Target is Achieved. |
| Action 1: An Android Application Development Workshop will be conducted in the next academic year. Action 2: Students will be motivated to participate in national and international conferences. Action 3: It is proposed to increase the target level in the next academic year. | | | |
| **PO 5 : Modern Tool Usage** | | | |
| PO 5 | 2.10 | 2.46 | Target is Achieved. |
| Action 1: AMR Hackmania will be conducted in the future. Action 2: Workshops will be conducted to improve modern tool usage capabilities. | | | |
| **PO 6 : The Engineer and Society** | | | |
| PO 6 | 1.92 | 2.28 | Target is Achieved. |
| Action 1: Students will be encouraged to participate in a hackathons to solve problems related to societal needs. Action 2: Students are to be given awareness of real-world problems so that they will be motivated to develop any application that will be useful for society. | | | |
| **PO 7 : Environment and Sustainability** | | | |
| PO 7 | 2.16 | 2.72 | Target is Achieved. |
| Action 1: Encouraging the students to participate in conferences, seminars, and workshops Action 2: Training sessions need to be conducted to build confidence in the profession’s trustworthiness and provide greater transparency about handling their affairs. | | | |
| **PO 8 : Ethics** | | | |
| PO 8 | 2.02 | 2.35 | Target is Achieved. |
| Action 1: Internship talk on skill development Action 2: Students are to be trained on communication skills so that they can convey their ideas, which will be helpful to society. Action 3: Community service projects will be assigned to identify major societal problems and apply students' engineering knowledge to develop effective solutions for the betterment of society. | | | |
| **PO 9 : Individual and Team Work** | | | |
| PO 9 | 1.86 | 2.31 | Target is Achieved. |
| Action 1: Encouraging the students to participate in conferences, seminars, and workshops Action 2: Training sessions need to be conducted to build confidence in the profession’s trustworthiness and provide greater transparency about handling their affairs. Action 3: Students were involved in teamwork, such as project work and the conduct of events. Action 4: students are encouraged to develop the habit of breaking down tasks, assigning responsibilities, and setting timelines when working in a team | | | |
| **PO 10 : Communication** | | | |
| PO 10 | 1.90 | 2.28 | Target is Achieved. |
| Action 1: Students are to be trained on communication skills so that they can convey their ideas, which will be helpful to society. Action 2: Students were guided for technical seminars and internship presentations on communication skills. Action 3: It is proposed to increase the target level in the next academic year. | | | |
| **PO 11 : Project Management and Finance** | | | |
| PO 11 | 1.70 | 2.11 | Target is Achieved. |
| Action 1: Encourage the students to participate in funded agency projects to learn about project management and finance management. Action 2: Training sessions have to be conducted by industrial experts related to project management and finance and to discuss different case studies pertaining to the application of leadership qualities and managing finance in multi-disciplinary environments. Action 3: Project exhibitions will be held to encourage the students to exhibit their project management skills. Action 4: It is proposed to increase the target level in the next academic year. | | | |
| **PO 12 : Life-long Learning** | | | |
| PO 12 | 1.92 | 2.29 | Target is Achieved. |

| |
|---|
| Action 1: A technical talk on the Internet of Things will be organized. Action 2: Students will be encouraged to register and complete online courses from Coursera, Udemy and NPTEL. |

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

| PSOs | Target Level | Attainment Level | Observations |
|---|---|---|---|
| **PSO 1 : To apply domain knowledge and expertise for enhancing research capability to transform innovative ideas into reality.** | | | |
| PSO 1 | 2.29 | 2.58 | Target is Achieved. |
| Action 1: Encourage final-year and mini projects focused on solving real-world problems using core engineering principles. Action 2: Organize workshops to train students in writing and publishing technical papers in reputed journals and conferences. Action 3: Allocate dedicated lab hours or resources for students interested in prototype development and experimental research. Action 4: Encourage students to align academic project work with current research trends and societal needs Action 5: Use student feedback, project reviews, and publication quality assessments to identify gaps and improve research-oriented teaching. | | | |
| **PSO 2 : To prepare students to undertake careers involving problem solving using computer science and technologies** | | | |
| PSO 2 | 2.21 | 2.50 | Target is Achieved. |
| Action 1: Encourage students to develop software solutions for real-life problems via mini and major projects. Action 2: Encourage completion of NPTEL, Coursera in programming, system design, or domain-specific problem-solving. Action 3: Provide focused aptitude, coding, and interview preparation training aligned with industry recruitment standards. Action 4: Partner with IT companies to provide students with real-world problem statements as part of their final-year projects. Action 5: Collect inputs from employers, alumni, and industry experts to identify gaps in problem-solving skills and continuously improve teaching methods. | | | |

**7.2 Academic Audit and actions taken thereof during the period of Assessment** (10) Total Marks 10.00

Institute Marks : 10.00

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

A. **Assessment shall be based on conduct and actions taken in relation to continuous improvement (10)**

The purpose of an academic audit is to improve the quality of the education system within the departments and identify the activities required to improve the quality of teaching and learning.

- Academic Audit includes monitoring the conduct of the course, adherence to the course plan, time tables, completion of the syllabus, standards for internal tests, and the evaluation process.
- It also addresses the difficulties faced by students and recommends suitable remedial actions, if required.
- The academic audit team also investigates the involvement of both students and faculty members in skill enhancement programs and research.

**Internal Audits:**

The audits are taken up by IQAC, where the senior faculty is the coordinator and one senior faculty member from each department is a member. The whole system is viewed as a continuous process, with emphasis on continuous improvement.

The following documents are maintained at the department level for the purpose of academic audit:

1. Personal files of each faculty member
    a. Towards their quality improvement
    b. Contribution for their personal and professional growth.
2. Course Files

a. Towards quality teaching and learning
b. Contribution towards their professional growth.
c. Lab instruction manuals for practical courses
d. Log book details in the laboratory

3. Stock Verification in the laboratory
4. Time Tables and attendance registers with day – to – day evaluation
    a. These time tables show the faculty work load and the time of the class. The master timetable will have comprehensive information about teacher-wise and class- wise time-slot allocation in a single view. Class time table shows the schedule of time allotment to various subjects and activities.
    b. Lab files
    c. Class time tables and Master time tables.
    d. Marking the attendance of the students regularly as per the time table.
    e. Result Analysis.
5. Results Analysis will help to understand how the students are learning, and how they have performed and allows us to check student progress.
6. Details of students' success (Placements, Higher education, competitive exams etc.).
    a. Placements, Competitive exams and Higher studies give students the opportunity for improvement of skills explicit to their subject or industry of choice as well as the employability skills required for real work.
7. Student Feedback
    a. Student feedback has become a widely used process to evaluate and improve teaching effectiveness. Obtaining student feedback allows the students to actively become more engaged and involved in the classroom.
8. Students Counselling & Mentoring registers.
    a. Students Counselling & Mentors provide knowledge and counsel to help individuals through their undergraduate and graduate educational journey.
9. Various Professional activities like expert/guest lectures, seminars, workshops and conferences documentation.
    a. Guest lectures or seminars or workshops can introduce a new concept, spurring participants to investigate it further on their own, or can demonstrate and encourage the practice of actual methods. It's a great way to teach hands-on skills because it offers participants a chance to try out new methods and fail in a safe situation.
10. Students' activities which include co-curricular and extra-curricular activities.
    a. They supplement the academic curriculum and help in learning by doing. These activities help students to develop problem-solving, reasoning, critical thinking, creative thinking, communication, and collaborative abilities.

**Frequency of Audit:**

| S. No. | Activity of Audit | Frequency | Outcome |
|---|---|---|---|
| 1. | Syllabus Coverage | 15 days | The faculty who are not completed the course syllabus as per lesson plan or in the prescribed time. So that accordingly to inform that faculty take additional hours to complete the course in the stipulated time. |
| 2. | Course files | Every month | Course file monthly status identifies the faculty handling the course properly or not. If not, senior faculty may help them to complete the course. |
| 3. | Faculty Personal files | Yearly | Personal file status gives the faculty growth in terms of academic, research activities. if not, encourage the faculty to attend FDP'S and for higher education |
| 4. | Lab files | Monthly | Lab file monthly status identifies the faculty handling the lab properly or not. If not, senior faculty may help them to complete the lab |
| 5. | Time table file | semester | Which shows the faculty work load based on faculty recruitment required or not |
| 6. | Examinations file | yearly | Based on the results what measures or steps are required to improve the pass percentage |

| | | | |
|---|---|---|---|
| 7. | Placements file | yearly | Which gives the data how many of the students are skilled after completion of the course. Based on that that add the new courses to the program or new course objectives to be add to the course to enhance the percentage of skilled students |

***Table 7.2.1: Details of frequency of conducting academic audit and outcomes***

**Frequency of Course File Audit**

| S. No. | Content | Expected response | Frequency |
|---|---|---|---|
| 1. | Lesson Plan with S. No as L. No., Topic, Teaching aid (TA)/ Methodology (TM), Text/Reference book and web references. | L: ---<br>T: ---<br>TA: ---<br>TM: ---- | Before the semester starts |
| 2. | 1. Course Outcomes (COs) – 6 Based on syllabus with BT level mapped<br>2. Course Outcomes Mapping with POs and PSOs<br>3. Justification for CO-PO and CO-PSO mapping | COs: ---<br>POs: ---<br>PSOs: -- | Before the semester starts |
| 3. | List of Gaps within & beyond the syllabus – Mapping to CO, POs and PSOs with Justification and proposed mode of addressing | Gaps: ---<br>COs: ---<br>POs: ---<br>PSOs: --- | Before the semester starts |
| 4. | CO – PO/PSO Mapping including Gaps | POs: ---<br>PSOs: -- | Before the semester starts |
| 5. | Gap addressed – Single page report | Yes/No | Every month |
| 6. | Lecture Notes - Unit wise including gaps | Pages: --- | Before the semester starts |
| 7. | List of Power Point Presentations / Videos along with CD | PPTs: ---<br>Videos: -- | Every month |
| 8. | University Question Papers (3 previous years Xerox copies) (with CO and Bloom's Taxonomy (BT) mapping) | AYs: --- | Before the semester starts |
| 9. | Class Tests Question Papers mapped with CO and BT with solutions (Award list, Xerox copy of any 3 students answers script) | Yes/No | Every week |
| 10. | Assignment Question Papers mapped with CO and BT with solutions (Award list, Xerox copy of any 3 students answers script) | Yes/No | Every week |
| 11. | Internal Question Papers mapped with CO and BT (Present semester course and previous 3 years Xerox copy) with solutions (Award list, Xerox copy of any 3 students answers scripts) | Yes/No | One week before the exam |
| 12. | Scheme of evaluation with CO and BT mapping | Yes/No | One week before |
| 13. | Tutorial topics with evidence both material and attendance | Yes/No | Every week |
| 14. | 3 lists of slow and advanced learners –<br>. Based on previous semester/up to to previous semester.<br>. Based on faculty observations up to 3 weeks.<br>. Based on 1st mid exams. | Yes/No<br>Yes/No<br>Yes/No | Timeline given |
| 15. | Remedial class for slow learners – schedule and contents/materials. | Yes/No | Every week |
| 16. | Remedial class attendance sheet with delivery record | Yes/No | Every week |
| 17. | Advance Learners – Engagement documentation<br>For GATE preparations Or any others (please specify) | No.<br>No. | Every week |
| 18. | Course & its PO Attainments (Plan & Execution) | Att: --- | After the semester results |

| | | | |
|---|---|---|---|
| 19. | Course end survey form, filled forms and analysis | Att: --- | At the end of the semester |
| 20. | Students feedback on faculty and Teaching Learning analysis, corrective measured planned – 3rd & 13th week | Yes/No<br>Yes/No | After 3rd week and 13th week |
| 21. | Observation for not attaining CO or for improvement | No. of observations | After the semester results |
| 22. | Plan of action to improve CO attainment next time | No. of act | After the semester results |
| 23. | Attendance register (including Theory/Tutorial) – Teacher/Course delivery record, continuous evaluation | Filled<br>Yes/No | Every week |
| 24. | Course file (Digital form) – all the above contents | Yes/No | After the semester results |

***Table 7.2.2: Details of frequency of conducting course audit***

**Faculty Personal File Audit:**

| S. No. | Content | Expected response | Frequency |
|---|---|---|---|
| 1 | Self-Appraisal | Yes/No | After the 2nd semester results |
| 2 | Incentives/Award/Reward/Recognitions | N/amount | Yearly |
| 3 | Member of external bodies (Journals EB / BoS / GB/ EC of Prof. Soc) | Number(N) | Yearly |
| 4 | CSI/IETE/IE/IEEE or any other | Number(N) | Yearly |
| 5 | Promotion | Yes/No | Yearly |
| 6 | FDPs Organized | Number(N) | Yearly |
| 7 | Faculty Development programs attended / resource person | 6 N/ Days/ Amount | Yearly / Days |
| 8 | List of NPTEL courses certification done | 6 N/ Days/ Amount | Yearly |
| 9 | Conferences/Seminars/Workshop organized | 6 N/ Days/ Amount | Yearly |
| 10 | Conferences/Seminars/Workshop attended | 6 N/ Days/ Amount | Yearly |
| 11 | Invited Lectures (Expert/conference/etc.) | Number(N) | Yearly |
| 12 | Responsibility in Committees - copy | Number(N) | Yearly |
| 13 | Industrial visits / Trainings / Internships organized | Number(N) | Yearly |
| 14 | Counselling/Mentoring | Number(N) | Yearly |
| 15 | Individual Time table – copy | - | Semester |
| 16 | List of Projects guided; Cover/Certificate Page | N/Amount | Yearly |
| 17 | List of In-house R&D projects; documentation | N/Amount | Yearly |
| 18 | List of Funded R&D projects; documentation | N/Amount | Yearly |
| 19 | List of Consultancy activities; documentation | N/Amount | Yearly |
| 20 | List of Instructional materials like course files, lab manuals; cover page | Number(N) | Semester |
| 21 | List of Working models / Products developed / Incubation/ Startups | N/Amount | Yearly |
| 22 | Research Publications (Paper/Poster/book/book chapters/ citations/etc.) | Number(N) | Yearly |
| 23 | List of projects received seed money | N/Amount | Yearly |
| 24 | International fellowship for advanced studies/research | N/Amount | Yearly |
| 25 | List of innovative T/L methodologies | Number(N) | Semester |
| 26 | Link of webpage/blog/google classroom/LMS etc. | Number(N) | Semester |
| 27 | Ph.D., enrolled/ awarded / guided | Number(N) | Yearly |

*Table 7.2.3: Details of frequency of conducting faculty personnel file audit*

| Academic year | Date of inspection | Committee Members | | |
|---|---|---|---|---|
| | | Member 1 | Member 2 | Member 3 |
| 2022-23 | 01-08-2022 | | | |
| 2023-24 | 12-07-2023 | Dr. A Krishna Mohan, Professor of CSE & Director of SMS, JNTUK | Dr. V Jaya Prasad, Asst. Professor of Mechanical Dept., UCEK. JNTUK | - |
| 2024-25 | 20-06-2024 | Dr. K Padma Priya Professor of ECE & Director , Green Initiatives, JNTUK, Kakinada | Dr. G Padmaja Rani, Professor, Head of Physics, UCEK, JNTUK, Kakinada | Dr. K Padma Kumari Professor of Geology, UCEK, JNTUK, Kakinada |

*Figure : External Audit schedule from Affiliated University (JNTUK, Kakinada)*

| S.No | Description |
|---|---|
| 1. | Students Admissions Details |
| 2. | Teaching and Non-Teaching Staff Details |
| 3. | Computers and Internet Details (Software Details) |
| 4. | Library Facilities Details |
| 5. | Examination Details |
| 6. | Aadhar Biometric System Details |
| 7. | Boys Girls Hostel Accommodation Details |
| 8. | Sports Area Details |
| 9. | Co-Curricular Aspects Details |
| 10. | College Facilities Details |

*Table 7.2.4 Details of frequency of conducting external audit*

**7.3 Improvement in Placement, Higher Studies and Entrepreneurship** (10) Total Marks 10.00

Institute Marks : 10.00

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

**A. Improvement in placement mumbers, quality Core hiring industry and pay packages (5)**

**B. Improvement in Higher studies admissions for pursing higher education (3)**

**C. Improvement in number of Entrepreneurs (2)**

Continuous Improvement in Placement, and Higher Studies during last 3 Assessment Years

| A. Y | No. of Companies Visited | Average CTC in LPA | No of Students attended final year | No. of Students Placements | % |
|---|---|---|---|---|---|
| 2021-2022 | 11 | 3.86 | 52 | 37 | 71.15 |
| 2022-2023 | 11 | 4.01 | 70 | 49 | 70.00 |
| 2023-2024 | 12 | 4.56 | 48 | 36 | 75.00 |

**Placement Assessment**

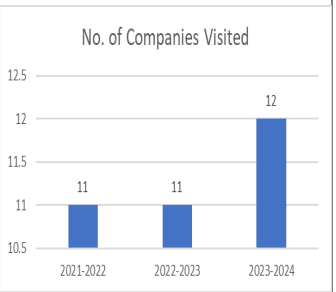
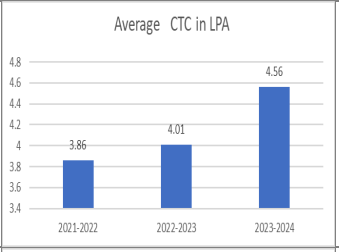
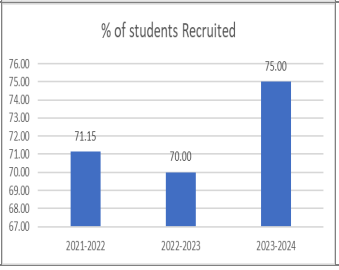
| Sl. No. | Representation | Observation |
|---|---|---|
| 1 |   | There's been gradual increase in placements is observed from A.Y 2021-22 to 2023-24 |
| 2 |   | There's been gradual increase in placements is observed from A.Y 2021-22 to 2023-24 |
| 3 |   | There's been gradual increase in placements is observed from A.Y 2021-22 to 2023-24 |

**Figure 7.3. Summary of continuous improvement in placements during assessment period**

**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<br>-<br>State/ University/ Level Entrance Examination/ Others<br>APEAPCET<br>Name of the Entrance Examination for Lateral Entry or lateral entry details<br>APECET | No of students admitted | 0 | 0 | 0 |
| | Opening Score/Rank | 0 | 0 | 0 |
| | Closing Score/Rank | 0 | 0 | 0 |
| | No of students admitted | 60 | 64 | 39 |
| | Opening Score/Rank | 48885 | 98405 | 40817 |
| | Closing Score/Rank | 176788 | 141472 | 172560 |
| | No of students admitted | 0 | 2 | 3 |
| | Opening Score/Rank | 0 | 3999 | 2279 |
| | Closing Score/Rank | 0 | 6712 | 5009 |
| Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths) | | 82 | 79 | 77 |

## 8 FIRST YEAR ACADEMICS (50)

Total Marks 46.60

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

Total Marks 5.0

Institute Marks : 5.0

**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 | | | |
| M V RAMARA( | BOVPM9811B | MA | 27/07/2016 | ELT | Assistant Professor | 20/06/2022 | 100 | 100 | 100 | Yes | Regular | |
| Dr.G. BHASKA | BEVPG0603R | M.SC. (Mathematics) and PhD | 20/02/2013 | Mathemactics | Professor | 17/06/2019 | 100 | 100 | 100 | Yes | Regular | |
| NAGURU MEI | BFGPP1362E | M.Sc | 01/07/2005 | Mathematics | Associate Professor | 04/07/2017 | 100 | 100 | 100 | Yes | Regular | |
| RAYAPATI RAI | FVRPK6177F | M.Sc | 01/06/2011 | Mathematics | Assistant Professor | 26/07/2021 | 100 | 100 | 100 | Yes | Regular | |
| ISIREDDY SEI | ADKPI8380A | M.Sc | 01/04/2008 | Physics | Associate Professor | 01/07/2019 | 100 | 100 | 100 | Yes | Regular | |
| I ANIL BABU | AWUPN9222H | M.Tech | 09/05/2017 | EEE | Assistant Professor | 13/06/2024 | 100 | 100 | 100 | Yes | Regular | |
| G. MASTAN RI | BUSPG0873Q | M.Tech | 01/02/2014 | EEE | Assistant Professor | 11/11/2019 | 100 | 100 | 100 | Yes | Regular | |
| K. VIJAY KUM/ | CGIPK1737L | M.Tech | 02/02/2015 | Mechnaical Engineering | Assistant Professor | 17/06/2019 | 100 | 100 | 100 | Yes | Regular | |
| S.K MERAVAL | EIYPS1078E | M.Tech | 01/08/2018 | Mechanical Engineering | Assistant Professor | 01/09/2021 | 100 | 100 | 100 | Yes | Regular | |
| K RAMU | EMNPK7965R | M.Tech | 01/08/2018 | Civil Engineering | Assistant Professor | 01/09/2018 | 100 | 100 | 100 | Yes | Regular | |
| K SANJEEV R/ | EQVPR2995J | M.Tech | 31/12/2013 | ECE | Assistant Professor | 07/03/2022 | 100 | 100 | 100 | Yes | Regular | |
| K BHASKAR R | BXPPK3809J | M.Tech | 01/12/2014 | ECE | Assistant Professor | 23/07/2022 | 100 | 100 | 100 | Yes | Regular | |
| B CHINNABAE | EYIPB6189R | M.Tech | 01/08/2023 | Agricultural Engineeirng | Assistant Professor | 21/08/2023 | 100 | 100 | 100 | Yes | Regular | |
| N.SAI SRAVYA | ALAPN1697B | MA | 01/06/2024 | ELT | Assistant Professor | 31/07/2024 | 100 | 0 | 0 | Yes | Regular | |
| K CHANDRA S | BUWPK5171K | M.Sc | 01/06/2006 | Physics | Associate Professor | 01/06/2016 | 100 | 100 | 100 | Yes | Regular | |
| N.VENKATA KI | ACNPN3591L | M.Sc | 02/05/1983 | Chemsitry | Assistant Professor | 02/06/2022 | 100 | 100 | 100 | Yes | Regular | |
| SHAIK KARIMI | BWOPS2472M | M.Sc | 04/08/2009 | Chemsitry | Associate Professor | 20/07/2015 | 100 | 100 | 100 | Yes | Regular | |
| G KOTESHWA | APJPG4923L | M.Tech | 01/02/2013 | CSE | Associate Professor | 10/07/2020 | 100 | 100 | 100 | Yes | Regular | |
| DUGGENPUD | APKPD6490A | M.Tech | 02/12/2013 | CSE | Assistant Professor | 01/06/2019 | 0 | 100 | 100 | No | Regular | 20/06/2024 |
| KOTHAPALLI ( | DZBPK8523B | MA | 24/06/2013 | English | Associate Professor | 01/07/2021 | 100 | 100 | 100 | Yes | Regular | |
| S.PARDHA SA | ETWPS8361D | M.Tech | 02/02/2017 | CSE | Assistant Professor | 01/06/2019 | 100 | 100 | 100 | Yes | Regular | |
| A.SIREESHA | BSEPA6185R | M.Tech | 01/03/2021 | CSE | Assistant Professor | 01/07/2021 | 100 | 100 | 100 | Yes | Regular | |
| G MADHAVI | AXRPG1860E | M.Tech | 01/08/2019 | Civil Engineering | Assistant Professor | 03/01/2020 | 100 | 100 | 100 | Yes | Regular | |

| 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) | 330 | 22 | 15 | 5 |
| 2023-24(CAYm1) | 270 | 22 | 12 | 5 |
| 2024-25(CAY) | 270 | 22 | 12 | 5 |
| **Average** | 290 | 22 | 13 | 5 |

**8.2 Qualification of Faculty Teaching First Year Common Courses** (5) Total Marks 4.33

Institute Marks : 4.33

| Year | x (Number Of Regular Faculty with Ph.D) | y (Number Of Regular Faculty with Post graduate Qualification) | RF (Number Of Faculty Members required as per SFR of 20:1 | Assessment Of Faculty Qualification [ (5x + 3y) / RF ] |
|---|---|---|---|---|
| 2022-23 | 1 | 19 | 16 | 3.00 |
| 2023-24 | 1 | 20 | 13 | 5.00 |
| 2024-25 | 1 | 21 | 13 | 5.00 |

Average Assessment: 4.33

**8.3 First Year Academic Performance** (10) Total Marks 7.27

Institute Marks : 7.27

| Academic Performance | 2024-25 | 2023-24 | 2022-23 |
|---|---|---|---|
| Mean of CGPA or mean percentage of all successful students(X) | 7.08 | 7.34 | 8.15 |
| Total Number of successful students(Y) | 76.00 | 52.00 | 42.00 |
| Total Number of students appeared in the examination(Z) | 85.00 | 52.00 | 42.00 |
| API [X*(Y/Z)] | 6.33 | 7.34 | 8.15 |

Average API[ (AP1+AP2+AP3)/3 ] : 7.27

Assessment [ 1.5 * Average API] : 7.27

**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

**8.4. Attainment of Course outcomes of First year courses**

**8.4.1. Describe the assessment process used to gather the data upon which the evaluation of course outcomes of first year is done**

**A. Evaluation of Course Outcomes of first year Assessment Processes (1)**

**B. The Relevance of Assessment tools used (4)**

***Figure 8.4.1: Flowchart for computing COs attainment (Rubrics) (Annexed Separately)***

Assessment tools are categorized into two types:

direct methods and indirect methods.

- Direct Attainment methods display the students knowledge and skills based on their performance in the continuous internal assessment examinations, assignments, semester examinations, seminars, and class room and laboratory tests. These methods provide a sample of what students know and/or can do and provide strong evidence of student learning.
- Indirect Attainment methods such as surveys and interviews ask the stakeholders to reflect on student's They assess the opinions or thoughts of different stakeholders about the graduate's knowledge or skills.

**Direct Attainment Process:**

Direct attainment of COs can be determined from the performances of students in all the relevant assessment instruments. Mainly, it is divided into two categories, and they are

- Internal Assessment
- External Assessment

**Internal Assessment**

30% of the weightage to internal assessments and

**External Assessment / University Assessment/ Semester End Exam**

70% weight age to external examination assessment are assigned.

**Internal Assessment methods are their description are given in the following table**

| S. No | Internal Assessment Method | Description |
|---|---|---|
| 1 | Mid Examinations | As per the university regulations, two mid examinations will be conducted for every course in a semester. Each mid examination is conducted after every 2 months and is useful to assess the student performance at the middle and end of the semester. In internal examinations questions are given to cover the respective COs by following the blooms taxonomy levels. As the information on performance in mid examination of each student for individual COs is available, the department can determine attainment of each course outcome separately through mid examinations. Mid examination to be conducted for 15 marks. |
| 2 | Quiz (online) | Multiple Choice Questions (of 10 marsks) based examination system provides an easy to use environment for both test conductors and students appearing for examination. This quiz (online) examination is conducted by the university and department has no provision to set the question paper and the department will have access only to the marks obtained by each student in the course. As the information on performance in quiz (online) examination on each student in individual COs is not available, the attainment value is taken uniformly for the respective COs. |
| 3 | Assignments | The assignment is a qualitative performance assessment tool designed to assess students' knowledge of engineering practices, framework, and problem solving. In this regulation, a total of 2 assignments will be given to the students. Assignments (of 5 marks) will be given by the faculty members themselves. Hence assignments are given to cover the entire COs. As the information on performance in assignments on each student in individual COs is available, the department can determine the attainment |
| **Laboratory** | | |
| 4 | Internal Lab Examinations | Internal lab exam will be conducted after completion of all the experiments for 15 marks for a duration of 3 Hours. The students are asked to submit the record and choose the any experiment to perform in the internal exam viva voice will be asked be the internal examiner. As per the guidelines of the affiliated university mid examinations are evaluated for 15 marks. |
| 5 | External Lab Examinations | At the end of the semester external lab examinations will be conducted, as per the affiliated university JNTU, Kakinada schedule. As per the guidelines of the affiliated university mid examinations are evaluated for 35 marks. |
| **External Assessment** | | |
| 6 | Lab external | At the end of the semester lab external will be conducted , as per the affiliated University . |
| 7 | Semester End Exam | Will be conducted as per JNTUK University schedule |

**Weightage distribution of internal assessment**

30% weightage of internal assessment is subdivided among all the internal assessment tools as follows

- Mid Examinations - 15 Marks
- Quiz Exam- 10 Marks
- Assignments - 5Marks

**Frequency of conducting internal assessment**

| S. No. | Internal Assessment Method | Frequency |
|---|---|---|
| 1 | Mid Examinations | Two mid exams are conducted for every course in a Semester. Each mid exam is conducted after every two months duration |
| 2 | Assignments | Total of two assignments are given. Assignment 1 is given for the syllabus related to mid1 and Assignment-2 is given for the syllabus related to mid -2. |
| 3 | Quiz Examinations | Two Online exams are conducted per semester along with mid exams. |
| 4 | Lab internal | Lab internal exam will be conducted after completion of all the experiments for 15 marks for a duration of 3 Hrs |

*Table 8.4.1.2 The frequency of assessment.*

**External Assessment:**

- External assessment is determined based on the performance of the students in the exams conducted by the JNTU, Kakinada.
- For the detailed assessment division, table indicates the subdivision of assessment tools that are related to the individual CO.

**Course Attainment for the course: Data Structure**

(Internal attainment, University attainment, indirect feedback, Overall attainment)

**Internal Attainment**

| Question Number | M1.1 | M1.2 | M1.3 | M2.1 | M2.2 | M2.3 | Q1 | Q2 | A1 | A2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Max Marks | 5 | 5 | 5 | 5 | 5 | 5 | 10 | 10 | 5 | 5 |
| Satisfactory mark as set target | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 |
| No. of students scored above the set target | 46 | 37 | 40 | 31 | 23 | 32 | 18 | 19 | 76 | 73 |
| No. of students attempted | 66 | 61 | 66 | 56 | 42 | 50 | 76 | 76 | 76 | 73 |
| % Students scored above the set target | 69.70 | 60.66 | 60.61 | 55.36 | 54.76 | 64.00 | 2.68 | 25.00 | 100 | 100 |

| CO Attainment Level | M1.1 | M1.2 | M1.3 | M2.1 | M2.2 | M2.3 | Q1 | Q2 | A1 | A2 | Overall |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CO 1 | 1 | - | - | - | - | - | 1 | - | 1 | - | 1 |
| CO 2 | - | 1 | - | - | - | - | 1 | | 1 | - | 1 |
| CO 3 | - | - | 1 | 1 | - | - | 1 | 1 | 1 | 1 | 1 |
| CO 4 | - | - | - | - | 1 | - | - | 1 | - | 1 | 1 |
| CO 5 | - | - | - | - | - | 1 | - | 1 | - | 1 | 1 |

**Semester End Attainments:**

| | | |
|---|---|---|
| Max Marks | 70 | |
| Satisfactory grade asset target | 28 | |
| No. of students scored target grade and above | 56 | |
| No. of students attempted | 71 | |
| % Students scored target grade and above | 78.87 | |
| **CO** | **Attainment Level** | **Overall** |
| CO1 | 2 | 2 |
| CO2 | 2 | 2 |
| CO3 | 2 | 2 |
| CO4 | 2 | 2 |
| CO5 | 2 | 2 |

| Condition | Attainment Level |
|---|---|
| >70% students score target grade | 3 |
| 60% - 69% students score target grade | 2 |
| <50 - 59% students score target grade | 1 |

**Indirect Attainment (Course End Feedback)**

| Course Name : Data Structure | |
|---|---|
| **CO. No** | **Indirect Attainment** |
| CO1 | 2.68 |
| CO2 | 2.42 |

| | |
|---|---|
| CO3 | 2.58 |
| CO4 | 2.36 |
| CO5 | 2.56 |
| **Indirect Attainment (Average)** | **2.52** |

**Overall Attainment**

| CO Attainment | Internal Examination (I) | University Examination (U) | Direct Attainment (D) (0.3I+0.7U) | CO Feedback (F) | Overall (0.8D+0.2F) |
|---|---|---|---|---|---|
| CO 1 | 1 | 2 | 1.7 | 2.68 | 1.90 |
| CO 2 | 1 | 2 | 1.7 | 2.42 | 1.84 |
| CO 3 | 1 | 2 | 1.7 | 2.58 | 1.88 |
| CO 4 | 1 | 2 | 1.7 | 2.36 | 1.83 |
| CO 5 | 1 | 2 | 1.7 | 2.56 | 1.87 |
| Overall Course Attainment | | | | | **1.86** |

**PO Attainment**

| Subject | Data Structures | | | | | | 2023 Admitted Batch | | | | | | | Reg: R23 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Final CO attainment | CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO 1 | PSO 2 |
| 1.9 | C126.1 | 3 | 2 | 2 | 2 | 3 | - | - | - | - | - | - | 3 | 3 | 2 |
| 1.84 | C126.2 | 3 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 2 | 3 | 3 |
| 1.88 | C126.3 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | - | 3 | 3 | 3 |
| 1.83 | C126.4 | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | - | 2 | 3 | 2 |
| 1.87 | C126.5 | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | 2 | 3 | 3 |
| | C126 | 3 | 2.8 | 2.8 | 2.4 | 2.4 | - | - | - | - | - | - | 2.4 | 3 | 2.6 |
| | | | | | | | | | | | | | | | |
| PO FINAL | | 2.10 | 1.96 | 1.96 | 1.68 | 1.68 | - | - | - | - | - | - | 1.68 | 2.10 | 1.82 |
| TARGET | | 2.15 | 1.87 | 2.01 | 1.95 | 1.80 | - | - | - | - | - | - | 1.70 | 2.19 | 1.78 |
| PO STATUS | | Yes | Yes | Yes | Yes | Yes | - | - | - | - | - | - | Yes | Yes | Yes |

**Observations:**

1. **Target is achieved**

**Plan of action:**

1. **For the next academic year plan to increase course target value 5%**

**Course Attainment for Engineering Chemistry Lab**

**Internal Attainment**

| Experiments | Internal Examination | Record | Day to Day Evaluation |
|---|---|---|---|
| Max Marks | 10 | 10 | 10 |
| Satisfactory mark asset target | 8 | 8 | 8 |
| No. of students scored above set target | 63 | 76 | 76 |
| No. of students attempted | 76 | 76 | 76 |
| % Students scored above set target | 82.96 | 100 | 100 |

| CO Attainment Level | Internal Examination | Record | Day to Day Evaluation |
|---|---|---|---|
| CO 1 | 3 | 3 | 3 |
| CO 2 | 3 | 3 | 3 |
| CO 3 | 3 | 3 | 3 |
| CO 4 | 3 | 3 | 3 |
| CO 5 | 3 | 3 | 3 |

| Condition | Attainment Level |
|---|---|
| >85% students score target grade | 3 |
| 65% - 85% students score target grade | 2 |
| <65% students score target grade | 1 |

**External Attainment:**

| | |
|---|---|
| Max Marks: | **70** |
| Satisfactory mark as set target | 42 |

| | |
|---|---|
| No. of students scored target mark and above | 76 |
| No. of students attempted | 76 |
| % Students scored target grade and above | 100% |

| CO | Attainment Level | Overall |
|---|---|---|
| CO1 | 3 | 3 |
| CO2 | 3 | 3 |
| CO3 | 3 | 3 |
| CO4 | 3 | 3 |
| CO5 | 3 | 3 |

| Condition | Attainment Level |
|---|---|
| >70% students score target grade | 3 |
| 60% - 69% students score target grade | 2 |
| 50 - <59% students score target grade | 1 |

**Indirect Feedback (Course End Feedback)**

| Engineering Chemistry Lab | |
|---|---|
| **CO. No** | **Attainment** |
| CO1 | 2.41 |
| CO2 | 2.55 |
| CO3 | 2.57 |
| CO4 | 2.69 |
| CO5 | 2.53 |
| **Indirect Attainment (Average)** | **2.64** |

**Overall Attainment**

| CO Attainment | Internal Examination(I) | | | University Examination (U) | Direct Attainment (0.7I+0.3U) | CO Feedback (F) | Overall 0.8D+0.2F |
|---|---|---|---|---|---|---|---|
| | D –D | R | Int | | | | |
| CO 1 | 3 | 3 | 3 | 3 | 3 | 2.41 | 2.88 |
| CO 2 | 3 | 3 | 3 | 3 | 3 | 2.55 | 2.91 |
| CO 3 | 3 | 3 | 3 | 3 | 3 | 2.57 | 2.91 |
| CO 4 | 3 | 3 | 3 | 3 | 3 | 2.69 | 2.94 |
| CO 5 | 3 | 3 | 3 | 3 | 3 | 2.53 | 2.91 |
| **Overall Course Attainment** | | | | | **3** | **2.64** | **2.93** |

**PO Attainment**

| | | | |
|---|---|---|---|
| CLASS | **B.Tech. (CSE) I Year I Semester** | AY | **2021-22** |
| Name of the Course & Code | Engineering Chemistry Lab | Name of the Faculty | **Mr. Sk Karimulla** |

**CO-PO Mapping**:

| Subject | Engineering Chemistry Lab | | | | | | 2023 Admitted Batch | | | | | | | Reg: R23 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Final CO attainment | CO No | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO 1 | PSO 2 |
| 2.88 | C127.1 | 3 | 2 | 2 | 2 | - | - | - | - | 2 | 2 | - | 2 | 3 | 2 |
| 2.91 | C127.2 | 3 | 2 | 2 | 2 | 2 | - | - | - | 2 | 2 | - | 2 | 3 | 2 |
| 2.91 | C127.3 | 3 | 2 | 3 | 2 | 2 | - | - | - | 2 | 2 | - | 2 | 3 | 2 |
| 2.94 | C127.4 | 3 | 2 | 2 | 2 | - | - | - | - | 2 | 2 | - | 2 | 3 | 2 |
| 2.91 | C127.5 | 3 | 2 | 3 | 2 | 2 | - | - | - | 2 | 2 | - | 2 | 3 | 2 |
| | C127 | 3 | 2 | 2.4 | 2 | 2 | - | - | - | 2 | 2 | - | 2 | 3 | 2 |
| | | | | | | | | | | | | | | | |
| PO FINAL | | 2.91 | 1.94 | 2.33 | 1.94 | 1.94 | 2.91 | 1.94 | - | 1.94 | 1.94 | - | 1.94 | 2.91 | 1.94 |
| TARGET | | 2.15 | 1.87 | 2.01 | 1.95 | 1.80 | 1.86 | 1.78 | - | 1.76 | 1.71 | - | 1.70 | 2.19 | 1.78 |
| PO STATUS | | Yes | Yes | Yes | Yes | Yes | Yes | Yes | - | Yes | Yes | - | Yes | Yes | Yes |

**Observations:**

1. **Target is achieved**

**Plan of action:**

1. **For the next academic year plan to increase course target value**

**Rubrics for CO Assessment**

- Percentage of marks obtained by each student in each assessment tool is calculated.
- Course Outcome will be achieved by the student if he/she scores more than 45% of marks in the corresponding assessment tool related to that CO.
- Level is determined for each CO from each tool after measuring the percentage of students scoring
- more than set target percentage of marks based on rubrics as shown in table 8.4.1.5

| S No | Level | Rubrics |
|---|---|---|
| 1 | 3 | If more than 70% of the students score above set target level |
| 2 | 2 | In between 60-69% of the students score above set target level |
| 3 | 1 | If less than 50-59% of the students score above set target level |

The overall CO level is determined by the weighted average of levels of attainment of that CO from all the internal and external assessment tools Overall CO Level = (0.15* level from Mid exam) +(0.10*level from quiz) + (0.05*level from assignment) + (0.7*level from University End Examination)

The CO attainment levels for all the courses in the program are to be determined using the same procedure as described above.

**Sample CO – PO Data Structure Course**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CO1** | 3 | 2 | 2 | 2 | 3 | - | - | - | - | - | - | 3 |
| **CO2** | 3 | 3 | 3 | 3 | 2 | - | - | - | - | - | - | 2 |
| **CO3** | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | - | 3 |
| **CO4** | 3 | 3 | 3 | 2 | 2 | - | - | - | - | - | - | 2 |
| **CO5** | 3 | 3 | 3 | 3 | 3 | - | - | - | - | - | - | 2 |
| **Overall** | **3.00** | **2.80** | **2.80** | **2.40** | **2.40** | **-** | **-** | **-** | **-** | **-** | **-** | **2.40** |

***Table 8.4.1.6 Sample CO – PO mapping for a course***

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

Institute Marks : 5.00

**8.4.2. Record the attainment of Course Outcomes of all first-year courses**

**Measuring Course Outcomes attained through University Examinations (5)**

Target may be stated in terms of percentage of students getting more than the university average marks or more as selected by the Program in the final examination. For cases where the university does not provide useful indicators like average or median marks etc., the program may choose an attainment level on its own with justification. *(Refer 3.2.2 for further details)*

**B Tech (CSE) I Year Semester I Overall Attainments 2023-2024**

| Course Code | Courses | Direct Course Attainment | Indirect Course Attainment | Overall Course Attainment |
|---|---|---|---|---|
| C111 | Communicative English | 2.76 | 2.53 | 2.71 |
| C112 | Engineering Chemistry | 1.94 | 2.55 | 2.06 |
| C113 | Linear Algebra & Calculus | 2.00 | 2.57 | 2.11 |
| C114 | Basic Civil And Mechanical Engineering | 2.00 | 2.58 | 2.12 |
| C115 | Introduction To Programming | 1.82 | 2.56 | 1.97 |
| C116 | Communicative English Lab | 2.70 | 2.49 | 2.66 |
| C117 | Engineering Chemistry Lab | 3.00 | 2.55 | 2.91 |
| C118 | Engineering Workshop | 3.00 | 2.62 | 2.92 |
| C119 | Computer Programming Lab | 3.00 | 2.55 | 2.91 |
| C1110 | Health and Wellness , YOGA and Sports | 3.00 | 2.48 | 2.89 |

***Table 8.4.2.1 Overall CO attainment for semester – I of the academic year 2023-2024***

**B Tech (CSE) I Year Semester II Overall Attainments 2023-2024**

| Course Code | Courses | Direct Course Attainment | Indirect Course Attainment | Overall Course Attainment |
|---|---|---|---|---|
| C121 | Engineering Physics | **2.64** | **2.54** | **2.62** |
| C122 | Differential Equations And Vector Calculus | **2.64** | **2.53** | **2.62** |
| C123 | Basic Electrical And Electronics Engineering | **2.70** | **2.57** | **2.67** |
| C124 | Engineering Graphics | **2.30** | **2.63** | **2.37** |
| C125 | It Workshop | **3.00** | **2.63** | **2.93** |
| C126 | Data Structures | **1.70** | **2.52** | **1.86** |
| C127 | Engineering Physics Lab | **3.00** | **2.63** | **2.93** |
| C128 | Electrical & Electronics Engineering Workshop | **3.00** | **2.62** | **2.92** |
| C129 | Data Structures Lab | **2.70** | **2.60** | **2.68** |
| C1210 | NSS/ NCC/Scouts & guides Community Services | **3.00** | **2.47** | **2.89** |

***Table 8.4.2.3 Direct CO attainment for semester – I & II of the academic year 2023-24***

**B Tech (CSE) I Year Semester I & II Direct Attainments 2023-2024**

| Course Code | Courses | CO1 | CO2 | CO3 | CO4 | CO5 | AVG |
|---|---|---|---|---|---|---|---|
| C111 | Communicative English | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C112 | Engineering Chemistry | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| C113 | Linear Algebra & Calculus | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| C114 | Basic Civil And Mechanical Engineering | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| C115 | Introduction To Programming | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| C116 | Communicative English Lab | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 |
| C117 | Engineering Chemistry Lab | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C118 | Engineering Workshop | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C119 | Computer Programming Lab | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C1110 | Health and Wellness , YOGA and Sports | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |

| Course Code | Courses | CO1 | CO2 | CO3 | CO4 | CO5 | AVG |
|---|---|---|---|---|---|---|---|
| C121 | Engineering Physics | 2.00 | 3.00 | 3.00 | 2.00 | 2.00 | 2.40 |
| C122 | Differential Equations And Vector Calculus | 2.00 | 2.00 | 3.00 | 2.00 | 2.00 | 2.20 |
| C123 | Basic Electrical And Electronics Engineering | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| C124 | Engineering Graphics | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 | 2.30 |
| C125 | It Workshop | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C126 | Data Structures | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| C127 | Engineering Physics Lab | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C128 | Electrical & Electronics Engineering Workshop | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |
| C129 | Data Structures Lab | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 |
| C1210 | NSS/ NCC/Scouts & guides Community Services | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 |

***Table 8.4.2.3 Direct CO attainment for semester – I & II of the academic year 2023-2024***

**B Tech (CSE) I Year Semester I & II Indirect Attainments 2023-2024**

| Course Code | Courses | CO1 | CO2 | CO3 | CO4 | CO5 | AVG |
|---|---|---|---|---|---|---|---|
| C111 | Communicative English | 2.63 | 2.45 | 2.52 | 2.45 | 2.58 | 2.53 |
| C112 | Engineering Chemistry | 2.65 | 2.47 | 2.54 | 2.45 | 2.64 | 2.55 |
| C113 | Linear Algebra & Calculus | 2.67 | 2.52 | 2.57 | 2.48 | 2.61 | 2.57 |
| C114 | Basic Civil And Mechanical Engineering | 2.69 | 2.52 | 2.60 | 2.48 | 2.59 | 2.58 |
| C115 | Introduction To Programming | 2.61 | 2.58 | 2.48 | 2.53 | 2.61 | 2.56 |
| C116 | Communicative English Lab | 2.65 | 2.57 | 2.43 | 2.61 | 2.51 | 2.55 |
| C117 | Engineering Chemistry Lab | 2.41 | 2.55 | 2.57 | 2.69 | 2.53 | 2.55 |
| C118 | Engineering Workshop | 2.37 | 2.59 | 2.80 | 2.78 | 2.57 | 2.62 |
| C119 | Computer Programming Lab | 2.41 | 2.55 | 2.57 | 2.69 | 2.53 | 2.55 |
| C1110 | Health and Wellness , YOGA and Sports | 2.49 | 2.30 | 2.49 | 2.62 | 2.47 | 2.47 |

| Course Code | Courses | CO1 | CO2 | CO3 | CO4 | CO5 | AVG |
|---|---|---|---|---|---|---|---|
| C121 | Engineering Physics | 2.64 | 2.52 | 2.53 | 2.44 | 2.59 | 2.54 |
| C122 | Differential Equations And Vector Calculus | 2.67 | 2.45 | 2.52 | 2.44 | 2.58 | 2.53 |
| C123 | Basic Electrical And Electronics Engineering | 2.50 | 2.53 | 2.58 | 2.50 | 2.61 | 2.54 |
| C124 | Engineering Graphics | 2.55 | 2.51 | 2.82 | 2.73 | 2.55 | 2.63 |
| C125 | It Workshop | 2.55 | 2.51 | 2.82 | 2.73 | 2.55 | 2.63 |
| C126 | Data Structures | 2.68 | 2.42 | 2.58 | 2.36 | 2.56 | 2.52 |
| C127 | Engineering Physics Lab | 2.53 | 2.49 | 2.82 | 2.73 | 2.57 | 2.63 |
| C128 | Electrical & Electronics Engineering Workshop | 2.55 | 2.51 | 2.75 | 2.73 | 2.55 | 2.62 |
| C129 | Data Structures Lab | 2.47 | 2.51 | 2.78 | 2.71 | 2.51 | 2.60 |
| C1210 | NSS/ NCC/Scouts & guides Community Services | 2.48 | 2.31 | 2.418 | 2.60 | 2.48 | 2.45 |

***Table 8.4.2.4 Imdirect CO attainment for semester – I & II of the academic year 2023-2024***

**8.5 Attainment of Program Outcomes from first year courses** (20) Total Marks 20.00

**8.5.1 Indicate results of evaluation of ezch 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 | 2.52 | 2.32 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | 2.71 | PO11 | 1.94 |
| C112 | 2.11 | 1.39 | 1.97 | 1.69 | 1.41 | 1.41 | 1.41 | PO8 | PO9 | 1.41 | PO11 | 1.55 |
| C113 | 2.11 | 1.83 | 1.41 | 1.69 | 1.41 | PO6 | PO7 | 1.41 | 1.41 | PO10 | 1.41 | 1.69 |
| C114 | 2.12 | 1.83 | 1.97 | 1.69 | 1.41 | 1.41 | 2.1 | PO8 | PO9 | 1.41 | PO11 | 1.69 |
| C115 | 2.11 | 1.97 | 1.58 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | 1.41 | PO11 | PO12 |
| C116 | 2.30 | 2.30 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | 2.30 | 2.66 | PO11 | 2.33 |
| C117 | 2.91 | 1.94 | 2.33 | 1.94 | 1.94 | 2.91 | 1.94 | PO8 | 1.94 | 1.94 | PO11 | 1.94 |
| C118 | 2.92 | 1.95 | 2.92 | 1.95 | 1.95 | PO6 | 1.95 | PO8 | 1.95 | 1.95 | PO11 | 1.95 |
| C119 | 2.91 | 2.52 | 2.52 | 2.72 | 2.52 | PO6 | PO7 | PO8 | PO9 | 2.52 | PO11 | 1.94 |
| C1110 | 1.93 | 1.93 | PO3 | 1.93 | PO5 | 2.32 | 2.71 | 2.42 | 2.90 | 1.93 | PO11 | PO12 |
| C121 | 2.43 | 1.76 | PO3 | 2.15 | 2.10 | PO6 | PO7 | PO8 | PO9 | 1.94 | PO11 | 2.09 |
| C122 | 2.91 | 2.91 | PO3 | 2.91 | 2.91 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C123 | 2.91 | 2.10 | PO3 | 2.91 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C124 | 2.37 | 1.84 | PO3 | 2.37 | 2.37 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C125 | 2.93 | 2.28 | PO3 | 2.93 | 2.93 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C126 | 2.10 | 1.96 | 1.96 | 1.68 | 1.68 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | 1.68 |
| C127 | 2.93 | 2.54 | 2.93 | 2.93 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C128 | 2.92 | 2.53 | 2.92 | 2.92 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C129 | 2.68 | 2.32 | 2.68 | 2.32 | 2.32 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| C1210 | 1.94 | 1.94 | 2.42 | PO4 | PO5 | 2.90 | 2.32 | 2.42 | 2.42 | 2.26 | 1.94 | 2.32 |

**PO Attainment Level**

| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO Attainment | 2.50 | 2.11 | 2.30 | 2.30 | 2.08 | 2.19 | 2.07 | 2.08 | 2.15 | 2.01 | 1.68 | 1.92 |
| Direct Attainment | 2.50 | 2.11 | 2.30 | 2.30 | 2.08 | 2.19 | 2.07 | 2.08 | 2.15 | 2.01 | 1.68 | 1.92 |
| CO Attainment | 2.50 | 2.11 | 2.30 | 2.30 | 2.08 | 2.19 | 2.07 | 2.08 | 2.15 | 2.01 | 1.68 | 1.92 |

**PSOs Attainment:**

| Course | PSO1 | PSO2 |
|---|---|---|
| C111 | 2.91 | 2.71 |
| C112 | 2.11 | 1.69 |
| C113 | 2.11 | 1.69 |
| C114 | 2.12 | 1.55 |
| C115 | 2.11 | 1.41 |
| C116 | 2.48 | 2.66 |
| C117 | 2.94 | 1.94 |
| C118 | 2.92 | 2.34 |
| C119 | 2.91 | 2.72 |
| C1110 | PSO1 | 1.93 |
| C121 | 2.43 | 2.23 |
| C122 | 2.91 | 1.66 |
| C123 | 2.91 | 1.41 |
| C124 | 2.37 | 2.05 |
| C125 | 2.93 | 2.54 |
| C126 | 2.10 | 1.82 |
| C127 | 2.93 | 1.95 |
| C128 | 2.92 | 1.95 |
| C129 | 2.68 | 2.68 |
| C1210 | 1.74 | PSO2 |
| PSO Attainment | 2.55 | 2.05 |

**PSO Attainment Level**

| Course | PSO1 | PSO2 |
|---|---|---|
| Direct Attainment | 2.55 | 2.05 |

**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 |
|---|---|---|---|
| **PO 1 : Engineering Knowledge** | | | |
| PO 1 | 2.15 | 2.50 | Target is Achieved. |
| Action 1: Plan to conduct technical talks to increase engineering knowledge further. Action 2: Plan to conduct seminars to increase engineering knowledge. Action 3: Plan to conduct subsequent doubts clarifying session / Study Hours beyond the regular planned classes. Action 4: Plan to arrange bridge courses before the semester begins for 1st year subjects. | | | |
| **PO 2 : Problem Analysis** | | | |
| PO 2 | 1.87 | 2.11 | Target is Achieved |
| Action 1: It is proposed to increase the target level in the next academic year. Action 2: Assignments will be framed to increase the problem-solving capabilities further. Action 3: Increase the problem-solving capabilities by giving the needed writing work. | | | |
| **PO 3 : Design/development of Solutions** | | | |
| PO 3 | 2.01 | 2.30 | Target is Achieved |
| Action 1: Plan to conduct a web and user interface development workshop. Action 2: Projects will be given to students to increase their design capabilities. | | | |
| **PO 4 : Conduct Investigations of Complex Problems** | | | |
| PO 4 | 1.95 | 2.30 | Target is Achieved |
| Action 1: Students will be motivated to participate in national and international conferences. Action 2: It is proposed to increase the target level in the next academic year. | | | |
| **PO 5 : Modern Tool Usage** | | | |
| PO 5 | 1.80 | 2.08 | Target is Achieved |
| Action 1: AMR Hackmania will be conducted in the future. Action 2: Workshops will be conducted to improve modern tool usage capabilities. | | | |
| **PO 6 : The Engineer and Society** | | | |
| PO 6 | 1.86 | 2.19 | Target is Achieved |
| Action 1: Students will be encouraged to participate in a hackathons to solve problems related to societal needs. Action 2: Students are to be given awareness of real-world problems so that they will be motivated to develop any application that will be useful for society. | | | |
| **PO 7 : Environment and Sustainability** | | | |
| PO 7 | 1.78 | 2.07 | Target is Achieved |
| Action 1: Encouraging the students to participate in conferences, seminars, and workshops Action 2: Training sessions need to be conducted to build confidence in the profession's trustworthiness and provide greater transparency about handling their affairs. | | | |
| **PO 8 : Ethics** | | | |
| PO 8 | 1.75 | 2.08 | Target is Achieved |
| Action 1: Internship talk on skill development Action 2: Students are to be trained on communication skills so that they can convey their ideas, which will be helpful to society. Action 3: Community service projects will be assigned to identify major societal problems and apply students' engineering knowledge to develop effective solutions for the betterment of society. | | | |
| **PO 9 : Individual and Team Work** | | | |
| PO 9 | 1.76 | 2.15 | Target is Achieved |
| Action 1: Encouraging the students to participate in conferences, seminars, and workshops Action 2: Training sessions need to be conducted to build confidence in the profession's trustworthiness and provide greater transparency about handling their affairs. Action 3: Students were involved in teamwork, such as project work and the conduct of events. Action 4: students are encouraged to develop the habit of breaking down tasks, assigning responsibilities, and setting timelines when working in a team | | | |
| **PO 10 : Communication** | | | |
| PO 10 | 1.71 | 2.01 | Target is Achieved |
| Action 1: Students are to be trained on communication skills so that they can convey their ideas, which will be helpful to society. Action 2: Students were guided for technical seminars and internship presentations on communication skills. Action 3: It is proposed to increase the target level in the next academic year. | | | |
| **PO 11 : Project Management and Finance** | | | |
| PO 11 | 1.50 | 1.68 | Target is Achieved |
| Action 1: Encourage the students to participate in funded agency projects to learn about project management and finance management. Action 2: Training sessions have to be conducted by industrial experts related to project management and finance and to discuss different case studies pertaining to the application of leadership qualities and managing finance in multi-disciplinary environments. Action 3: Project exhibitions will be held to encourage the students to exhibit their project management skills. Action 4: It is proposed to increase the target level in the next academic year. | | | |
| **PO 12 : Life-long Learning** | | | |
| PO 12 | 1.70 | 1.92 | Target is Achieved |

| |
|---|
| Action 1: A technical talk on the Internet of Things will be organized. Action 2: Students will be encouraged to register and complete online courses from Coursera, Udemy and NPTEL. |

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

| PSOs | Target Level | Attainment Level | Observations |
|---|---|---|---|
| **PSO 1 : To apply domain knowledge and expertise for enhancing research capability to transform innovative ideas into reality.** | | | |
| PSO 1 | 2.19 | 2.55 | Target is Achieved |
| Action 1: Expert sessions on duties and responsibilities of Engineers in the society Action-2: Exposure to professional approach in transforming ideas in hackathons | | | |
| **PSO 2 : To prepare students to undertake careers involving problem solving using computer science and technologies** | | | |
| PSO 2 | 1.78 | 2.05 | Target is Achieved |
| Action -1:Planning to conduct online guest lecture Action -2:Remedial classes are arranged for the course and to build the confidence of the students in solving the programs | | | |

## 9 STUDENT SUPPORT SYSTEMS (50) Total Marks 50.00

**9.1 Mentoring system to help at individual level** (5) Total Marks 5.00

Institute Marks : 5.00

### 9.1. Mentoring system to help at individual level

### A. Details of Mentoring systemthat has been developed for the students for various purpose (5)

**Counselling / Mentoring**

Counselling is an important part of all educational institutions. In this practice, students, their loved ones, and even staff can resolve outstanding negative situations and improve upon positive aspects. Student mentoring is an integral part of the organization. A mentor is the teacher who shares his knowledge and experiences while bringing the students (mentees) up the ranks. The system of mentoring is followed in every department with the primary objective of providing reliable and constant support to the mentees in order to excel in both personal and professional life.

**Objectives of the Mentoring System**

1. To help students understand the challenges and opportunities present in the institute and develop a smooth transition
2. To counsel the students on how to cope with academic, non-academic, and personal problems
3. To provide positive role models to undergraduate students of the Institute
4. To proactively identify problems with the students and bring them to the attention of the authorities concerned.

***Figure 9.1.1 Levels in mentoring system (Annexed Separately)***

**Benefits of the Mentoring System**

- It supports mentees advancement in research activity, conference presentations, publications, and pedagogical skills.
- Mentoring provides resources for dealing with stressful or difficult periods in their graduate careers.
- Mentors, with their experiences and networks, help improve the students' prospects of securing professional placement.
- Mentoring can help the students lower their stress and build confidence.
- Constant interaction with a mentor will promote students' engagement in the field through active participation.

**Types of Mentoring Professional Guidance**

The departments are well equipped with knowledgeable human resources in the form of faculty members who, by keeping themselves abreast of the latest developments, offer guidance to prospective professionals in addition to classroom teaching.

**Career Advancement**

The Training and Placement Cell has been active not only in arranging campus recruitment drives but also in offering awareness and training for the students.

**Coursework**

The mentor and members of the faculty handling different courses interact with students to clarify all their doubts in their respective courses.

**Lab-Specific**

Each of the lab sessions is handled by two teachers in order to have special care for the students while the experiments are being handled. A demonstrative presentation is given by the teacher concerned before every experiment. The laboratory records are evaluated after the experiment is held. In other words, there is active involvement of the members of the faculty at the pre- experiment stage, at the time of the experiment, and after the experiment.

**Mentor's Roles and Responsibilities:**

1. Mentors serve as positive role models, encouraging and motivating students to achieve their target or goal.
2. Motivate and guide the students in all academic, co-curricular, and extra-curricular activities.
3. Mentors maintain records of mentees.
4. Collect information regarding weak students from the subject teachers on the basis of their previous results, various other skills, having less attentiveness, etc.
5. The record of counselling and mentoring is maintained in a file or book, which is updated on a regular basis.
6. Mentors submit a report to the HOD, and after approval by the Principal remedial actions are sought for improvement.
7. monitors the student's readiness for a personal interview, group discussion, technical and non- technical support (including resume making, dressing sense, skills, etc.)
8. Encourages and motivates the students to attend all the classes, expert lectures, and other technical sessions for better performance in examinations, contests, and placement.

**List of mentors and mentees**

Sample List of Department of Computer Science & Engineering

| S.No | Name of the Mentor | Year | Student Roll Number | | No Of Students |
|---|---|---|---|---|---|
| | | | From | To | |
| 1 | Dr. G. SAMBA SIVA RAO | - | - | - | - |
| 2 | Dr. INAGANTI SHYLAJA | I | 23HM1A0501 | 23HM1A0517 | 15 |
| 3 | Dr. PADIGALA SURESH | I | 23HM1A0519 | 23HM1A0535 | 15 |
| 4 | Dr. GODAGALA MADHAVA RAO | I | 23HM1A0536 | 23HM1A0554 | 15 |
| 5 | NAGAM AANJANEYULU | I | 23HM1A0556 | 23HM1A0575 | 15 |
| 6 | AREKATLA MADHAVA REDDY | I | 23HM1A0576 | 23HM1A0585 | 10 |
| 7 | AREKATLA JAGANMOHAN REDDY | II | 22HM1A0502 | 22HM1A0520 | 15 |
| 8 | LANKALA MOUNIKA | II | 22HM1A0521 | 22HM1A0539 | 15 |
| 9 | VANAPAMULA VEERABRAHMACHARI | II | 22HM1A0540 | 23HM5A0505 | 15 |
| 10 | MOTUPALLI MALLIKARJUNA RAO | III | 21HM1A0501 | 21HM1A0519 | 15 |
| 11 | AREMANDLA SAI PUJITHA | III | 21HM1A0520 | 21HM1A0534 | 15 |
| 12 | CHEVULA REKHA | III | 21HM1A0535 | 21HM1A0542 | 8 |
| 13 | SHAIK GUNTUR MAHABUB SUBHANI | IV | 20HM1A0501 | 20HM1A0517 | 15 |
| 14 | Mr. M. ANAND KUMAR | IV | 20HM1A0518 | 20HM1A0533 | 15 |
| 15 | BUTUKURU ROJALAKSHMI | IV | 20HM1A0534 | 20HM1A0549 | 15 |

| | | | | | |
|---|---|---|---|---|---|
| 16 | GUDIPATI MOHAN SINGH YADAV | IV | 20HM1A0550 | 21HM5A0501 | 7 |

***Table-9.1.1 List of Mentors – Mentees***

**Mentoring Process**

- Students are assigned to a counsellor or mentor whose role is to be a point of contact for advice and guidance.
- Mentors will listen, advise, and refer mentees to higher authorities if necessary.
- It provides reflection and support for the students' academic development while they are doing their course. It promotes other activities and experiments related to the career and personal development of students.

***Figure 9.1.2: Sample Mentoring Process of a student (Annexed Separately)***

- Provides guidance on career development.
- Helps the students settle down in their respective courses.
- Students requiring additional help are identified, and their progress is monitored regularly.
- In the mentoring system, a proctor diary is maintained for each student, where the following details are provided:
  - Personal Information
  - Previous Record
  - Academic Performance in Competitive Examinations
  - Details of Internship and Industrial Training Scholarships Received
  - Co-curricular and extra-curricular activities
  - The mentors meet the students periodically and monitor their performance and activities. Guidance regarding the lagging issues is provided. Occasionally, a proctor meeting is conducted with the parents based on the requirement.

**Impact of the Mentor Teaching-Learning System**

- Reduction in absenteeism.
- Improvement in overall performance.
- Improvement in personality.
- Increased participation in co-curricular activities.
- Improvement in behavior and attitudes
- Improved interpersonal relationships with elders and peers.
- Becoming a responsible citizen
- Improvement in the performance of weak students.
- Increased campus selection ratio.
- Receiving awards and recognition

**9.2 Feedback analysis and reward /corrective measures taken, if any** (10) Total Marks 10.00

Institute Marks : 10.00

### 9.2. Feedback analysis and reward or corrective measures taken, if any

#### A. Methodology beeing followed for analysis of feedback and its effectiveness (5)

Feedback was collected for all courses: YES

Feedback collection process: Feedback Form (Hardcopy)

Eligibility of the percentage of students to give feedback: 100%

**Introduction**

The teaching-learning system followed by any educational institution needs continuous refinement. To facilitate this process of continuous refinement, the institution has adopted a feedback system that takes suggestions from students in each program. This eventually helps to fine-tune the teaching-learning process and the curriculum. The institution follows a well-defined and formal feedback system. The feedback system has been identified as one of the important processes in our quality management system.

**Specify the feedback collection process.**

- Collecting feedback for all the courses/faculty that are being taught, twice in a semester
- Once the feedback collection process is completed, the reports are generated.
- The consolidated report containing feedback percentage for each faculty is sent to the respective heads of the departments, and the information is circulated to the faculty of the department for necessary action.

**Sample Feedback From**

***Figure 9.2.2: Format of Student Feedback on Faculty(Annexed Separately)***

**Specify the feedback analysis process:**

- The feedback analysis is done manually.
- The feedback collected from students is first analyzed at the level of the HoD and then at the level of the principal.
- The contents of the feedback will be shared personally with each faculty member based on the parameters in the questionnaire and their metrics of measurement in the given format.
- Based on these parameters, the feedback given by the faculty is taken from the students, and the average is calculated.
- The faculty member who gets less than 75% average in the feedback is identified by the HoD, and he or she will be asked to submit an explanation to him.

***Figure 9.2.3: Student Feeback Analysis Form (Annexed Separately)***

Students will select any one of the levels corresponding to each parameter for current semester courses.

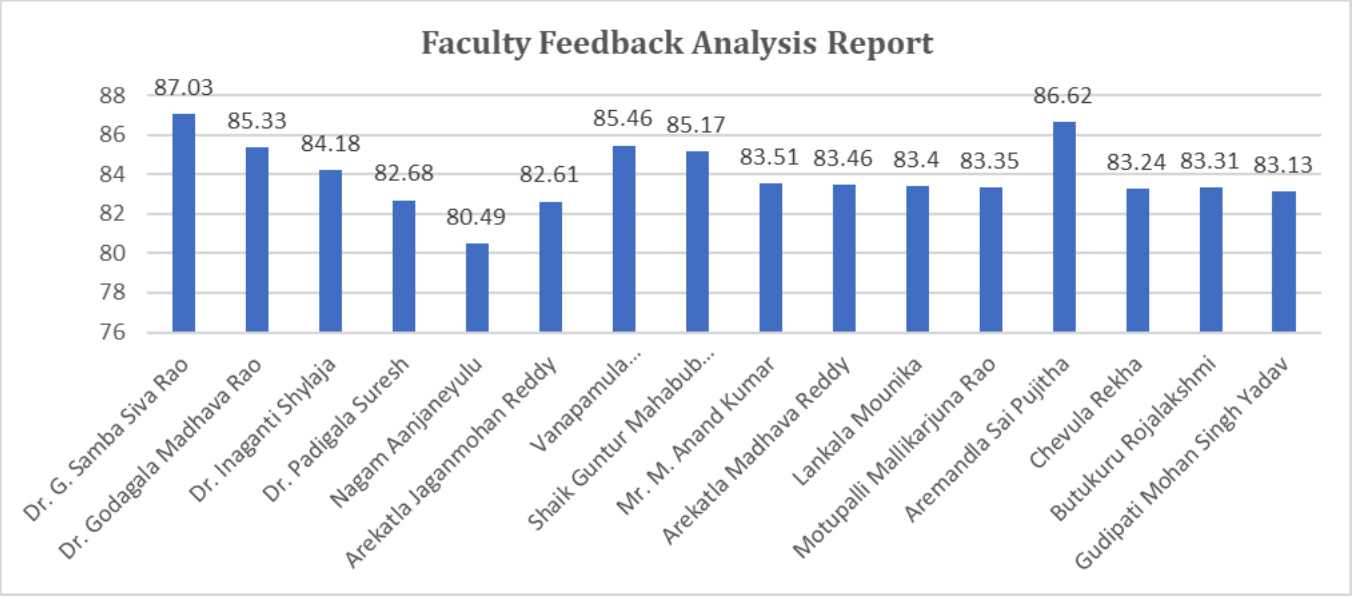



***Figure 9.2.4. Sample Feedback Analysis Report (Graphical)***

#### Feedback on faculty analysis and action taken for the Academic Year 2023-2024

| Sl. No | Feedback | Name of the Faculty Member | Action Taken |
|---|---|---|---|
| 1 | Need to improve communication | Mr. N Anjineyulu | Recommended to attend FDPs by experts and encouraged to participate in Workshops and Seminars also |
| 2 | Irregularity | Mr. A Jagan Mohan Reddy | Recommended to attend college regularly |
| 3 | Best Performance | Mr. V V B Chari | Provided with Appreciation certificate |
| 4 | Best Performance | Mrs. A Sai Pujitha | Provided with Appreciation certificate |
| 5 | Best Performance | Dr. G Samba Siva Rao | Provided with Appreciation certificate |

*Table 9.2.2: Corrective measures for the assessment period*

| No of faculty members counseled for below average performance | No. of corrective actions in last 3 years | | |
|---|---|---|---|
| | 2022-2023 | 2023-2024 | 2024-2025 |
| | 5 | 3 | 2 |

**Basis of Reward**

- The feedback system works as an eye-opener for the faculty members.
- The increments and promotions are given based on a scale of 4 for student feedback in the faculty appraisal form.
- Those with low scores will be counselled and asked to improve their performance in the subsequent semesters by taking help from senior and experienced teachers or attending pedagogical training or other faculty development programs as per necessity.
- The faculty members are constantly motivated by giving a word of appreciation in the departmental meetings.

### B. Corrective Measures (5)

1. Normally, the feedback of the students is used to improve the performance of the faculty members.
2. Regular training programs and FDPs by experts from industry and academia are organized every year to train the faculty members in teaching methodologies and e-teaching-learning process.
3. Apart from this, the faculty members are encouraged to attend various faculty development programs (FDPs) seminars and workshops to hone their skills.
4. If needed, explanation from the faculty will be demanded for any inappropriate result, and subsequent action will be taken to improve the performance of the faculty member.
5. Counselling will be given to the faculty concerned by the HOD and principal whenever required.

**9.3 Feedback on facilities** (5) Total Marks 5.00

Institute Marks : 5.00

### 9.3 Feedback on facilities

### A. Feedback Collection, analysis and corrective actions (5)

The aim of the college is to provide the best facilities for the students.

Students feedback on facilities is collected from the students through online.

Feedback is collected from all the students twice in an academic year.

The students do not disclose their identities while giving feedback.

The feedback is collected in the following fields:

- Adequacy of Classrooms
- Availability and Maintenance of Laboratories
- Availability of Modern Equipment in Labs
- Functioning of Computers and Internet in Labs
- Access to Licensed Software and Tools
- Library Facilities
- Availability of Reading Room / Digital Library
- Wi-Fi / Internet Connectivity across Campus
- Cleanliness and Sanitation in Campus
- Drinking Water Facilities
- Power Backup in Classrooms and Labs
- Canteen and Food Quality
- Hostel Accommodation and Facilities (if applicable)
- Transportation Facilities (College Bus / Connectivity)
- Medical / First Aid Facilities
- Sports and Recreational Facilities

**Following is the process of providing feedback on facilities.**

- Feedback Collection Process
- Feedback Analysis
- Corrective Measures

**Feedback Collection Process**

- Feedback on facility is collected Manually

***Figure 9.3.1: Sample Empty Feedback on facilities form***

***Figure 9.3.2: Filled in Feedback on facilities form***

**Step-by-step feedback collection process from industry personnel, alumni, or parents:**

- **Step 1: The coordinator** will give feedback forms to industry persons, alumni, or parents at the time of the visit (advisory committee meetings, guest lectures, collection of certificates, and alumni meets).
- **Step 2:** Feedback on facilities filled by the stakeholders for all facilities by using one of the levels.
- **Step 3:** After completion of the form, the coordinator will collect the data for analysis.

**Feedback Analysis:**

- The collected feedback is scrutinized by a committee with representation from each department. The details of the obtained feedback are thoroughly analyzed by a group of committee members. The committee takes appropriate decisions.

**Corrective Measures**

- Additional blocks were constructed for the Boys' hostel and Availed New Girls Hostel.
- A new shed has been provided in the parking area and Mess area.
- Additional buses are provided on new routes.
- CC cameras are provided in all corridors and throughout the entire campus for the girls' safety and security.
- The necessary corrective measures are implemented after discussion with the management. A review is conducted by the principal to check on the corrective measures taken and whether they need to be continued

**Feedback Action Taken Report**

| Sl. No | Feedback | Action Taken Report |
|---|---|---|
| 1 | Monitoring system facility in the campus | As per the student feedback, the committee installed more no. of CC Cameras at the respective places and took necessary steps in monitoring them periodically |
| 2 | Library facilities | The committee advised to allocate library hours in the time table for the students and take steps for functioning of the library beyond college hours. |

***Figure 9.3.3: Feedback on facilities for the academic year***

**9.4 Self-Learning** (5) Total Marks 5.00

Institute Marks : 5.00

### 9.4. Self-Learning (or) Central Library and Information Centre

### A. Scope for Self- learning (2)

### B. Facilities, materials for learning beyond syllabus, webinars, MOOCS and demonstarte its effective utilization (3)

The academic performance of the students is enhanced through self-learning and learning beyond the syllabus. The institute takes maximum care to provide the necessary facilities beyond the curriculum, which includes Library facility, Internet facility, and online journal subscription

**Central Library and Information Centre functions**

- To provide general direction to the Central and Departmental Libraries of the Institute
- To review the functioning of the library with regards to its support for the academic programmers of the institute.
- To emulate an action plan for the development of library infrastructure, facilities, products, and services
- To evaluate the suggestions made by the library users and to advise the management on matters of policy relating to the development of libraries
- To enhance and support the research activity of the institution
- To look into the day-to-day problems of the library client, library staff
- To maintain liaison between the Central Library and various academic departments for the procurement of books and journals.
- Students are encouraged and guided to enroll in NPTEL and SWAYAM.

**Central Library Advisory Committee**

| S.No | Name | Designation | Department |
|---|---|---|---|
| 1 | Mrs. P. Sailaja | Coordinator | Librarian |
| 2 | Mr. G. Masthan Reddy | Member | EEE |
| 3 | Mr. K. Vijay Kumar | Member | MECH |
| 4 | Mr. P. Sudheer Kumar | Member | ECE |
| 5 | Dr. K. Sreekar Chand | Member | CIVIL |
| 6 | Mr. V.V.B. Chari | Member | CSE |
| 7 | Koppala Mahendra | Student Member | CIVIL |
| 8 | Boya Narasimhulu | Student Member | EEE |
| 9 | Devajji Lokesh | Student Member | ECE |
| 10 | Nenavathu Koteswari Bai | Student Member | ECE |
| 11 | Chilakuri Ramya | Student Member | CSE |
| 12 | Golla Sivakumar | Student Member | CSE |
| 13 | Ponamala Venu | Student Member | AG |
| 14 | Kadiyam Narendra | Student Member | CS |
| 15 | Chimpiri Raju | Student Member | CIVIL |
| 16 | Itla Maheedhar | Student Member | EEE |
| 17 | Rampuram Ramanjineyulu | Student Member | MECH |
| 18 | Kasukurthi Akhila | Student Member | ECE |
| 19 | Kambam Aswini | Student Member | CSE |

***Table 9.4.1: Members of Library Advisory Committee***

**Services Rendered by the Committee**

- Circulation
- Reference services
- E-journals browsing
- Reprographic Services
- User Orientation
- Maintenance of News Paper Clipping
- Service Filling of Previous Year Question Papers
- Current Awareness Service
- Back Volumes

**Library Facilities and Services**

a. Upgraded to email integration in library automation software. Through this library user receive the mail alerts whenever they did a transaction like check-in, check-out, renewal remainder, overdue alerts and so on.
b. Library created its resources database and provided Online Public Access Catalogue (OPAC) through which users can access from any of the computers connected in the campus LAN to know available resources and the status of the book https://webprosindia.com/amrcet/
c. The library is a member of DELNET and provides web access to e- resources that includes journals, text books, thesises/ dissertations
d. Established the NPTEL Local Chapter in association with IIT Madras. Through this, NPTEL has been offering online certification for its courses, the highlight being the certification exam through which the student gets an opportunity to earn a certificate from the IITs. https://archive.nptel.ac.in/LocalChapter/statistics/2333/ (https://archive.nptel.ac.in/LocalChapter/statistics/2333/)
e. For effective utilization of resources, orientation programs are conducted to the library users based on the assessment level of skill of the users when ever needed.
f. Newspapers of local and English languages are available in central library.
g. Library is Wi-Fi enabled.

**Facilities for Student Self-Learning**

| S.No | Facility/Item | Description |
|---|---|---|

| | | |
|---|---|---|
| 1 | Central Computer Centre | 30 Computers with Internet and Internet Facilities |

*Table 9.4.2: Facilities for students in library*

**Self-Learning Sources in Central & Department Library**

| | |
|---|---|
| 1 | Library facility from 8 AM to 8 PM |
| 2 | Library Hour included in Time Table |
| 3 | NPTEL Video Lectures – 6568 |
| 4 | Volumes - 19036 |
| 5 | Titles - 3384 |
| 6 | Net Browsing & Web Downloads |
| 7 | Project works – 380 |
| 8 | DELNET Resources, NDLI, e-Books - 300 and above, GATE 15, Material |
| 9 | Competitive Exams Preparation Aptitude & Reasoning Books-61, English Vocabulary & Grammar Books - 138 |
| 10 | Lecture notes of Faculty, PPTs & Web Materials |

*Table 9.4.3 Self learning sources in library*

**Program Wise Titles & Volumes**

| S.No | BRANCH | BOOKS | | JOURNAL | | E-RESOURCES |
|---|---|---|---|---|---|---|
| | | VOLUMES | TITLES | NATIONAL /INTERNATIONAL | E-JOURNALS | |
| 1 | CSE | 4007 | 820 | 20 | 160 | DELNET JOURNAL TO NATIONAL DIGITAL NPTEL |
| 2 | ECE | 3199 | 535 | 15 | 41 | |
| 3 | EEE | 2393 | 451 | 14 | 51 | |
| 4 | CIVIL | 1820 | 413 | 14 | 115 | |
| 5 | MECH | 1337 | 280 | 9 | 40 | |
| 6 | AGE | 130 | 24 | 7 | 116 | |
| 7 | MBA | 1115 | 213 | 13 | 240 | |
| 8 | S&H | 3653 | 648 | 5 | 467 | |
| **TOTAL** | | **17654** | **3384** | **97** | **1230** | |
| 1 | SC & ST | 1382 | 370 | | | |
| 2 | Projects Reports | 380 | 380 | | | |
| Total | | 1762 | 750 | | | |

Table 9.4.4: Program wise books & journals information available in library

**Web-based Learning Facilities:**

- The institute has created central internet facility 200Mbps speed leased line and 20 computer terminals facility to promote and motivate students to self -learning.
- The Internet is an open information system in which various sources of information, media and materials such as texts, images, video sequences can be linked together in diverse ways to form so-called self-learning environments.
- Internet offers new possibilities to structure, represent, adapt and integrate various learning content and materials. Furthermore, due to its interactivity, learners can process the material in accordance with their individual preferences and strategies at any time and from any place provided an internet connection is available.
- Faculty members suggest different sources for each subject.
- Faculty members prepare their course files and place them in college website.

**Learning with Multi-Media Facilities:**

- Availability of course material on intra-net
- Digital library facility
- Language lab facility
- Availability of video lectures
- LCD projectors for presentation

**NPTEL Local Chapter Statistics**

- NPTEL (National Program on Technology Enhanced Learning) provides E-learning through online Video and Web courses in Engineering, Sciences and Humanities streams.
- The objective is to enhance the learning component of all Engineering aspects including Electronics & Communication Engineering aspects of some of the current learning methods.
- Having access to 1000+ web and video courses of NPTEL – view, download and copy.
- Through local chapter NPTEL has initiated Open online courses that have certification as an option. 10hr, 20hr and 30hr courses are offered on the model of MOOCs on the online courses portal
- The objective of enabling students to obtain certificates for courses is to make students employable in the industry or pursue a suitable higher education program.

**NPTEL VIDEOS**

| | | |
|---|---|---|
| 1 | Basic Sciences & Humanities | 1654 |

| | | |
|---|---|---|
| 2 | Civil Engineering | 1163 |
| 3 | Electrical Engineering | 1116 |
| 4 | Mechanical Engineering | 1388 |
| 5 | Electronics and Communication Engineering | 1178 |
| 6 | Computer Science and Engineering | 1185 |

***Table 9.4.5: Program-wise number of NPTEL videos***

**Course Wise Videos of Basic Sciences & Humanities department**

| **BASIC SCIENCES &HUMANITIES** | | |
|---|---|---|
| **S. no** | **Title of the subject** | **No. of videos** |
| 1 | Organization Management | 40 |
| 2 | Organization of Engineering | 38 |
| 3 | Econometric Modelling | 40 |
| 4 | Security Analysis And Portfolio | 40 |
| 5 | Six Sigma | 40 |
| 6 | Consumer Behavior | 40 |
| 7 | Strategic Management | 37 |
| 8 | Elementary Numerical Analysis | 40 |
| 9 | Measure And Integration | 40 |
| 10 | Stochastic Process | 39 |
| 11 | Applied Multi Variety Analysis | 44 |
| 12 | Calculus of Variations And Integration | 40 |
| 13 | Linear Programming And Extension | 40 |
| 14 | Convex Optimization | 42 |
| 15 | Advanced Engineering Mathematics | 42 |
| 16 | Functional Analysis | 39 |
| 17 | Probability And Statistics | 40 |
| 18 | Statistics Inference | 40 |
| 19 | A Basic Course In Real Analysis | 46 |
| 20 | Advanced Matrix Theory | 40 |
| 21 | Electromagnetic Theory | 40 |
| 22 | Special Theory of Relativity | 21 |
| 23 | Electronics | 42 |
| 24 | Plasma Physics Fundamentals | 42 |
| 25 | Quantum Electronics | 42 |
| 26 | Quantum Mechanics And Application | 42 |
| 27 | Special Topics In Classical Mechanic | 40 |
| 28 | Applied Mechanics | 16 |
| 29 | Management Science | 39 |
| 30 | Material Science | 37 |
| 31 | Numerical Methods | 41 |
| 32 | Engineering Mechanics | 31 |
| 33 | Engineering Physics | 28 |
| 34 | Mathematics I | 32 |
| 35 | Human resource Management | 22 |
| 36 | Leadership | 13 |
| 37 | Management Information System | 29 |
| 38 | Physics I | 44 |
| 39 | Strategic Management | 11 |
| 40 | Basic Electronics Lab | 40 |
| 41 | Classical Physics | 38 |
| 42 | Engineering Chemistry I | 10 |

| | | |
|---|---|---|
| 43 | Numerical Analysis | 38 |
| 44 | Quantum Physics | 31 |
| 45 | Mathematics III | 38 |
| 46 | Concept of Management | 40 |
| **TOTAL** | | **1654** |

***Table 9.4.6: Course-wise videos of Basic Science and Humanities department***

| **CIVIL ENGINEERING** | | |
|---|---|---|
| **S. No** | **Title of the subject** | **No. of videos** |
| 1 | Soil dynamics | 38 |
| 2 | Watershed management | 40 |
| 3 | Geotechnical earthquake engineering | 43 |
| 4 | Geo technical measurements | 40 |
| 5 | Advanced foundation engineering | 40 |
| 6 | Finite element analysis | 40 |
| 7 | Urban transportation planning | 41 |
| 8 | Ground improvement techniques | 40 |
| 9 | Stochastic hydrology | 40 |
| 10 | Stochastic structural dynamics | 42 |
| 11 | Water resources systems | 40 |
| 12 | Fluid mechanics | 42 |
| 13 | Soil mechanics | 57 |
| 14 | Structural analysis II | 40 |
| 15 | Civil engineering building | 41 |
| 16 | Hydraulics | 40 |
| 17 | Environmental air pollution | 39 |
| 18 | Surveying | 40 |
| 19 | Water resource engineering | 28 |
| 20 | Design of rein forced concrete | 20 |
| 21 | Engineering geology | 40 |
| 22 | Introduction to transportation | 41 |
| 23 | Strength of materials | 40 |
| 24 | Mechanics of solids | 39 |
| 25 | Pre-stressed concrete structures | 40 |
| 26 | Water and waste water engineering | 40 |
| 27 | Foundation engineering | 40 |
| 28 | Modern surveying techniques | 12 |
| 29 | Transportation engineering | 40 |
| 30 | Design of steel structures | 40 |
| **TOTAL** | | **1163** |

***Table 9.4.7: Course-wise videos of Civil Engineering department***

| **ELECTRICAL & ELECTRONICS ENGINEERING** | | |
|---|---|---|
| **S. No** | **Title of the subject** | **No. of videos** |
| 1 | Power system dynamics | 45 |
| 2 | Advanced control systems | 40 |
| 3 | High voltage dc transmissions | 37 |
| 4 | An introduction to electronics | 42 |
| 5 | Control engineering | 47 |
| 6 | Power electronics | 43 |
| 7 | Circuit theory | 51 |
| 8 | Control engineering | 41 |
| 9 | Embedded systems | 37 |

| | | |
|---|---|---|
| 10 | Power system generation transmission | 35 |
| 11 | Power system dynamics | 40 |
| 12 | Intelligent systems and control | 32 |
| 13 | Power system s operation | 35 |
| 14 | Chaos fractals & dynamics | 40 |
| 15 | Digital signal process | 35 |
| 16 | Dynamics of physical systems | 34 |
| 17 | Energy resources and technology | 40 |
| 18 | Estimation of signals and systems | 30 |
| 19 | Illumination engineering | 20 |
| 20 | Industrial automation | 40 |
| 21 | Industrial instrumentation | 40 |
| 22 | Networks signals and systems | 36 |
| 23 | Power system analysis | 40 |
| 24 | Analog ICs | 28 |
| 25 | Digital integrated circuits | 40 |
| 26 | Electromagnetic fields | 42 |
| 27 | Network and systems | 50 |
| 28 | Basic electrical technology | 39 |
| 29 | Industrial drives power electronics | 37 |
| **TOTAL** | | **1116** |

***Table 9.4.8: Course-wise videos of Electrical and Electronic Engineering department***

| **ELECTRONICS AND COMMUNICATION ENGINEERING** | | |
|---|---|---|
| **S. No** | **Title of the subject** | **No. of videos** |
| 1 | Advanced digital signal processing | 50 |
| 2 | Advance optical communication | 41 |
| 3 | Advanced 3G and 4G wireless communication | 40 |
| 4 | Circuit for analog system | 40 |
| 5 | Error correcting codes | 42 |
| 6 | Broadband networks concepts and technology | 32 |
| 7 | Digital communication | 32 |
| 8 | Information theory and coding | 41 |
| 9 | Transmission lines and waves | 60 |
| 10 | Communication engineering | 41 |
| 11 | Digital signal processing | 43 |
| 12 | Wireless communication | 38 |
| 13 | Basic electronics | 40 |
| 14 | Signals and systems | 45 |
| 15 | Adaptive signal processing | 41 |
| 16 | Digital computer organization | 28 |
| 17 | Digital image processing | 40 |
| 18 | Digital systems design | 40 |
| 19 | Digital voice & picture communication | 40 |
| 20 | MEMS and Microsystems | 32 |
| 21 | Neural networks and applications | 37 |
| 22 | Probability and random processes | 40 |

| | | |
|---|---|---|
| 23 | Digital circuits and systems | 40 |
| 24 | Electronics for analog signal processing - I | 38 |
| 25 | Electronics for analog signal processing - II | 39 |
| 26 | Speed devices and circuits | 41 |
| 27 | Solid state devices | 42 |
| 28 | VLSI circuits | 55 |
| 29 | VLSI Technology | 40 |
| **TOTAL** | | **1178** |

***Table 9.4.9: Course-wise videos of Electronics and Communication Engineering department***

| **COMPUTER SCIENCE AND ENGINEERING** | | |
|---|---|---|
| **S. No** | **Title of the subject** | **No .of videos** |
| 1 | Computational geometry | 40 |
| 2 | Design verification and testing | 44 |
| 3 | Biometrics | 26 |
| 4 | Cryptography and network security | 40 |
| 5 | Low power VLSI circuits & systems | 38 |
| 6 | Real time systems | 40 |
| 7 | Performance evaluation | 42 |
| 8 | Theory of Automata | 42 |
| 9 | Complier design | 50 |
| 10 | Graph theory | 40 |
| 11 | High performance computing | 41 |
| 12 | Numerical optimization | 41 |
| 13 | Design and analysis of algorithms | 34 |
| 14 | Software engineering | 39 |
| 15 | Computer architecture | 38 |
| 16 | Data structures and algorithms | 36 |
| 17 | Introduction to computer Graphics | 35 |
| 18 | Principles of programming language | 40 |
| 19 | Introduction to problem solving | 24 |
| 20 | Artificial intelligence | 40 |
| 21 | Artificial intelligence | 28 |
| 22 | Computer Networks | 40 |
| 23 | Data communications | 41 |
| 24 | Electronic design automation | 35 |
| 25 | Internet technology | 40 |
| 26 | Programming and data structures | 32 |
| 27 | Computer graphics | 43 |
| 28 | Computer organization | 33 |
| 29 | Data base design | 43 |
| 30 | Discrete mathematical structures | 40 |
| 31 | System analysis and design | 40 |
| **TOTAL** | | **1185** |

**Additional Information**

ATAL : https://www.aicte-india.org/atal/ (https://www.aicte-india.org/atal/) ,

COURSEERA : https://www.coursera.org/ (https://www.coursera.org/)

DATACAMP : https://www.datacamp.com/ (https://www.datacamp.com/)

ANALYSTICS VIDHYA: https://www.analyticsvidhya.com/ (https://www.analyticsvidhya.com/)

**E-BOOKS**

LIBRARY GENESIS : http://93.174.95.27/ (http://93.174.95.27/)

FREE-EBOOKS : https://www.free-ebooks.net/ (https://www.free-ebooks.net/)

DIGILIBRARIES : https://digilibraries.com/ (https://digilibraries.com/)

ARCHIVE : https://archive.org/ (https://archive.org/)

GUTENBERG : https://www.gutenberg.org/ (https://www.gutenberg.org/)

**E-JOURNALS**

DIRECTORY OF OPEN ACCESS : https://doaj.org/ (https://doaj.org/)

BENTHAM OPEN : https://benthamopen.com/ (https://benthamopen.com/)

WSPC : https://www.worldscientific.com (https://www.worldscientific.com/)

**DICTIONARIES**

CAMBRIDGE ONLINE DICTIONARY : https://dictionary.cambridge.org/ (https://dictionary.cambridge.org/)

DICTIONARY : https://www.merriam-webster.com/ (https://www.merriam-webster.com/)

**Previous years question papers**

https://www.jntufastupdates.com/question-papers/ (https://www.jntufastupdates.com/question-papers/)

https://www.manaresults.co.in/b-tech-jntuk-old-previous-question-papers.php (https://www.manaresults.co.in/b-tech-jntuk-old-previous-question-papers.php) https://www.alljntuworld.in/jntu-kakinada-previous-question-papers/ (https://www.alljntuworld.in/jntu-kakinada-previous-question-papers/)

**R20 regulation syllabus link**

https://www.jntukinformation.com/jntuk-btech-r20-regulation-syllabus-pdf-download/ (https://www.jntukinformation.com/jntuk-btech-r20-regulation-syllabus-pdf-download/)

**CENTRAL COMPUTING FACILITY (COMMON COMPUTER CENTER)**

A common computer center is a vital hub for students and faculty members, providing essential computing resources and support for academic and administrative activities. Heres a brief overview of what you can expect from a common computer center:

- Access to Technology: Common computer centers offer students access to a wide range of computing resources and specialized software. This accessibility allows students to complete assignments, conduct research, and develop digital skills necessary for their academic pursuits.
- Academic Support: Trained staff members are often available in the common computer center to assist students with technical issues, software inquiries, and general computer-related questions. They provide valuable guidance to ensure students can effectively use the available resources.
- Internet Connectivity: High-speed internet connectivity is a hallmark of common computer centers. Reliable internet access is crucial for research, online coursework, and communication, and these centers ensure that students have a stable connection.
- Quiet Study Environment: In addition, computer centers usually provide quiet study areas where students can focus on individual coursework without distractions. Students can access e- resources like e-journals, e-books, thesis using DELNET, NDL

**9.5 Career Guidance, Training, Placement** (10) Total Marks 10.00

Institute Marks : 10.00

## 9.5 Career Guidance, Training, Placement

The institution has a well-organized and operated training and placement cell. A large number of reputed companies in various domains visits the institution for recruitment. This has been made possible by specific training and skill-based trainings through outsourced agencies and in-house training.

**A. Availability of career guidance facilities (2)**

1. Prepare the students for placement and organize pre-placement training for them as well as guidance for higher education.
2. Organize seminars for students to provide information about career and education-related opportunities and create awareness of current trends (current trends in industries, emerging areas, scholarships for higher studies in India or abroad).
3. Help in building the self-confidence of students and developing aptitude-solving abilities
4. Help the students with career guidance.
5. Conduct motivational talks periodically for all the students.
6. Conduct online tests of students and, on the basis of their results, guide them towards corrective measures.

| S. No | Facilities |
|---|---|
| 1 | Training and placement cell office |
| 2 | Seminar hall |
| 3 | Class Rooms for Group discussions |
| 4 | Interview rooms |
| 5 | Computer labs for online tests |

***Table -9.5.1 The List of facilities provided***

| S. No | Name of the Activity | Date | Event Details/Speaker | No Of Student |
|---|---|---|---|---|
| 1 | Emerging Trends in Automotive Industry –Digital Age” | 24/08/2023 | Dr. S S N Anjaneyulu | 85 |
| 2 | Organization Readiness to Reskills and Upskills Campus Talent | 29/08/2023 | Dr. S. Joy Kumar | 93 |
| 3 | Preparation for Service Selection Board Interview and Tips | 31/01/2024 | Mr. K Sunil Kumar | 87 |
| 4 | Effective Ways of Writing Research Articles Live National Webinar | 08/02/2024 | Dr.V. Samba Siva Rao | 72 |

***Table-9.5.2: Events for Career Guidance of Students for the A.Y. 2023-24***

| S. No | Name of the Activity | Date | Event Details/Speaker | No Of Student |
|---|---|---|---|---|
| 1 | Guidance for Competitive Exams | 13/09/2023 | Mr. K. Doctor Babu | 93 |
| 2 | Career Counseling Program | 06/02/2024 | Mr. J. Sarathi | 75 |
| 3 | Awareness on GATE | 05/03/2024 | K. Ravindra Reddy | 45 |

***Table-9.5.3: Events for Career Guidance of students for the A.Y. 2022-23***

| S. No | Name of the Activity | Date | Event Details/Speaker | No Of Student |
|---|---|---|---|---|
| 1 | A Seminar on Gate Exam Preparation Strategies | 23/01/2024 | Mr. J. Vijay Kumar | 35 |
| 2 | Seminar on "Study Abroad? – A Reality Check". | 21/02/2024 | V. Prasanna /Leo | 41 |
| 3 | GRE & GMAT Seminar | 14/03/2024 | Mr. J. Vijay Kumar | 45 |

***Table-9.5.4: Events for Career Guidance of students for the A.Y. 2021-22***

**B. Counseling for higher studies (2)**

The Placement and Career Guidance Cell was reconstituted under the coordinator ship of Sri. P. Nagur Meeraiah to extend support to the students in planning and molding their careers

**Objectives of Placement and Career Guidance Cell:**

a. To maintain a good interface with industries so as to facilitate the training of students.
b. To inspire the faculty to update so as to include in their teaching the requirements of industry and produce industry-ready graduates.
c. To approach industry for industry-institute partnerships wherein consultancy and research projects can be offered to faculty members.
d. To create placement avenues in different industries for all the eligible students.
e. To train the students to upgrade their skill sets in tune with the requirements of the industry.
f. To arrange guest lecturers from eminent personalities in industry for career counselling

**Faculty Member**

| S.No | Name | Designation | Department |
|---|---|---|---|
| 1 | Mr. P. Nagur Meeraiah | Coordinator | B S&H |
| 2 | Mr. A.Madhava Reddy | Member | CSE |
| 3 | Mr. Vijaya Kumar | Member | MECH |
| 4 | Mr G Masthn Reddy | Member | EEE |
| 5 | Mr. P. Sudheer Kumar | Member | ECE |

***Table 9.5.5 Faculty Members***

**Student Members**

| S.No | Reg. No | Name Of The Student Members | Department |
|---|---|---|---|
| 1 | 20HM1A0112 | Pamula Sushma | CE-IV Year |
| 2 | 20HM1A0203 | Jarapala Prasad Naik | EEE-IV Year |
| 3 | 20HM1A0301 | Dara Ajay Kumar | MECH-IV Year |
| 4 | 20HM1A0407 | Bodagala Venugopal | ECE-IV Year |
| 5 | 20HM1A0502 | Bejjipalli Jeevamani | CSE-IV Year |
| 6 | 20HM1A3512 | Depangi Vasu | AG-IV Year |
| 7 | 21HM1A0101 | Duggepogu Jhansi Rani | CE-III Year |
| 8 | 21HM1A0204 | Golla Bharath Yadav | EEE-III Year |
| 9 | 21HM1A0409 | Gadidesi Siva | ECE-III Year |
| 10 | 21HM1A0513 | Degala Gopinath | CSE-III Year |
| 11 | 21HM1A3511 | Palle Pragathi | AG-III Year |
| 12 | 21HM1A5919 | Nayudu Anil | CS-III Year |

***Table 9.5.6 Student Members***

**Functions:**

a. To be responsible for student enrollments for training and placements.
b. To find the best training partners from the industry and organize company-specific training during campus selections.
c. To interact with industry experts and students on a regular basis to bridge the gap between industry and academia by arranging industry-connected programs.
d. To arrange programs for career guidance and counselling of the students with regards to higher education in national and international universities.
e. To identify the need for training for the students.
f. To collect and maintain the reports of students' online assessment practice tests.

**Placement Process and Support:**

a. The training division of the placement cell, through its custom-made modules, prepares the students not only for the corporate world but also for life at large. The cell organizes workshops and training on personality development, soft skills, quantitative aptitude, company-specific modules, a crash course on technical topics, and other placement-related training every year for all students across all semesters.
b. To strengthen the industry-academia interaction, a number of technical talks, seminars, and workshops are also organized by inviting industry experts on topics like robotics, artificial intelligence, machine learning, cyber security, data analytics, life in the corporate world, etc.

**Recruitment Process:**

1. Prepare the students database based on their merit.
2. Invite companies to visit AMRMCET for recruitment.
3. If the company accepts, collect the relevant data like the minimum cut-off percentage, branches in demand, selection procedures, etc.
4. Inform the students of the requirement.
5. Prepare a database of eligible candidates.
6. Finalize the schedule sent in concurrence with the industry and conduct the process.
7. Prepare a list of selected candidates.
8. Get the appointment letters or selection letters (e-mail) from the
9. Distribute the appointment letters and inform the students regarding selection.
10. Get the date of joining from the company and inform the students.

**C. Pre-Placement Training (3)**

The various components of the Pre-Placement Training Programs include modules on Current Affairs, General Aptitude, Technical Aptitude, Presentation Skills, Group Discussion Skills, Debate Skills, Interviews Skills & Mock Interviews, Workshops, etc. The various components of the Pre-Placement Training Programs include modules on Aptitude, Soft skills and Technical Skills, Resume building, Group Discussion, Interviews Skills & Mock Interviews, Workshops, etc., for 3rd and 4th B.Tech., students for 2 weeks. Training modules and timing schedules are given below

| S.No | Module Name | No Of Hours |
|---|---|---|
| 1 | Aptitude | 30 |
| 2 | Soft skills | 14 |
| 3 | Technical | 30 |

***Table 9.5.7 CRT Modules***

**PRE-PLACEMENT TALKS (PPT)**

1. Notices of the training programs will be shared well in advance.
2. Students interested in a particular company, can attend its PPT.
3. Students should be available 15 minutes before the schedule.
4. Students must go through the complete selection process of a particular company.
5. Any clarification regarding salary break-up, job profile, place of work, bond details etc. must be sought from the companies during PPT or interview.
6. DRESS CODE: Students must be formally dressed whenever they participate in any interaction with a company. AMRMCET reserves the right to refuse permission to a student to attend the selection process/PPT, if they do not dress up formally.

**Academic Year: 2024-25**

| S.No | Targeted Students | Name Of The Training Module | Date Of Event | Name of the Resource Person |
|---|---|---|---|---|
| 1 | IV,III | Soft skills | 24/3/2025 | S.Ram |
| 2 | IV,III | Coding | 24/3/2025 | K. Vijay Kumar |

| | | | | |
|---|---|---|---|---|
| 3 | IV,III | Aptitude | 25/3/2025 | M.Venu Gopal |
| 4 | IV,III | Coding | 25/3/2025 | K. Vijay Kumar |
| 5 | IV,III | Soft skills | 26/3/2025 | S.Ram |
| 6 | IV,III | Coding | 26/3/2025 | K. Vijay Kumar |
| 7 | IV,III | Aptitude | 27/3/2025 | M.Venu Gopal |
| 8 | IV,III | Coding | 27/3/2025 | K. Vijay Kumar |
| 9 | IV,III | Reasoning | 28/3/2025 | P.Ravi Teja |
| 10 | IV,III | Coding | 28/3/2025 | K. Vijay Kumar |
| 11 | IV,III | Aptitude | 29/3/2025 | M.Venu Gopal |
| 12 | IV,III | Coding | 29/3/2025 | K. Vijay Kumar |
| 13 | IV,III | Aptitude | 31/3/2025 | M.Venu Gopal |
| 14 | IV,III | Coding | 31/3/2025 | K. Vijay Kumar |

***Table 9.5.7.1 Activities of Placement and Career Guidance Cell – Campus Recruitment Training***

**Academic Year: 2023-24**

| S.No | Targeted Students | Name Of The Training Module | Date Of Event | Name of the Resource Person |
|---|---|---|---|---|
| 1 | IV,III | Aptitude | 11/09/2023 | M.Venu Gopal |
| 2 | IV,III | Soft Skills | 11/09/2023 | S.Ram |
| 3 | IV,III | Aptitude | 12/09/2023 | M.Venu Gopal |
| 4 | IV,III | Soft Skills | 12/09/2023 | S.Ram |
| 5 | IV,III | Aptitude | 13/09/2023 | M.Venu Gopal |
| 6 | IV,III | Reasoning | 13/09/2023 | P.Ravi Teja |
| 7 | IV,III | Soft Skills | 14/09/2023 | S.Ram |
| 8 | IV,III | Aptitude | 14/09/2023 | M.Venu Gopal |
| 9 | IV,III | Soft Skills | 15/09/2023 | S.Ram |
| 10 | IV,III | Reasoning | 15/09/2023 | P.Ravi Teja |
| 11 | IV,III | Soft Skills | 16/09/2023 | S.Ram |
| 12 | IV,III | Reasoning | 16/09/2023 | P.Ravi Teja |
| 13 | IV,III | Coding | 18/03/2024 | K. Vijay Kumar |
| 14 | IV,III | Coding | 18/03/2024 | K. Vijay Kumar |
| 15 | IV,III | Coding | 19/03/2024 | K. Vijay Kumar |
| 16 | IV,III | Coding | 19/03/2024 | K. Vijay Kumar |
| 17 | IV,III | Coding | 20/03/2024 | K. Vijay Kumar |
| 18 | IV,III | Coding | 20/03/2024 | K. Vijay Kumar |
| 19 | IV,III | Coding | 21/03/2024 | K. Vijay Kumar |
| 20 | IV,III | Coding | 21/03/2024 | K. Vijay Kumar |
| 21 | IV,III | Coding | 22/03/2024 | K. Vijay Kumar |
| 22 | IV,III | Coding | 22/03/2024 | K. Vijay Kumar |
| 23 | IV,III | Coding | 23/03/2024 | K. Vijay Kumar |
| 24 | IV,III | Coding | 23/03/2024 | K. Vijay Kumar |

***Table 9.5.7.1 Activities of Placement and Career Guidance Cell – Campus Recruitment Training***

**Academic Year: 2022-23**

| S.No | Targeted Students | Name Of The Training Module | Date Of Event | Name of the Resource Person |
|---|---|---|---|---|
| 1 | IV,III | Aptitude | 19/10/2022 | M.Venu Gopal |
| 2 | IV,III | Soft Skills | 19/10/2022 | S.Ram |
| 3 | IV,III | Aptitude | 20/10/2022 | M.Venu Gopal |
| 4 | IV,III | Soft Skills | 20/10/2022 | S.Ram |
| 5 | IV,III | Aptitude | 21/10/2022 | M.Venu Gopal |
| 6 | IV,III | Reasoning | 21/10/2022 | P.Ravi Teja |
| 7 | IV,III | Aptitude | 22/10/2022 | M.Venu Gopal |
| 8 | IV,III | Reasoning | 22/10/2022 | P.Ravi Teja |
| 9 | IV,III | Technical Training | 21/02/2023 | K. Vijay Kumar |

| | | | | |
|---|---|---|---|---|
| 10 | IV,III | Technical Training | 21/02/2023 | K. Vijay Kumar |
| 11 | IV,III | Technical Training | 22/02/2023 | K. Vijay Kumar |
| 12 | IV,III | Technical Training | 22/02/2023 | K. Vijay Kumar |
| 13 | IV,III | Technical Training | 23/02/2023 | K. Vijay Kumar |
| 14 | IV,III | Technical Training | 23/02/2023 | K. Vijay Kumar |
| 15 | IV,III | Technical Training | 24/02/2023 | K. Vijay Kumar |
| 16 | IV,III | Technical Training | 24/02/2023 | K. Vijay Kumar |
| 17 | IV,III | Technical Training | 25/02/2023 | K. Vijay Kumar |
| 18 | IV,III | Technical Training | 25/02/2023 | K. Vijay Kumar |

***Table 9.5.7.1 Activities of Placement and Career Guidance Cell – Campus Recruitment Training***

**The Companies who visited the campus for recruitment**

| 2023-2024 | 2022-2023 | 2021-2022 |
|---|---|---|
| GLOBAL E SMART TECHNOLOGIES | PRO IT Solutions | Capgemini Technology Services India Limited |
| HIROTOIND TECHNOLOGIES | Tata Consultancy Services | Cogente Services |
| PRO IT Solutions | Boston It Solutions Pvt. Ltd. | Global E Smart Technoloies |
| SMART INNOVATIONS Pvt Ltd | EXATHOUGHT TECHNOLOGY CONSULTING PRIVATE LIMITED | HCL Technologies Ltd. |
| SMART SELECT SOLUTIONS | Teamlease Services Limited | HIROTOIND TECHNOLOGIES |
| SYNCTRA SOLUTIONS | Thinksynq | Infinite Computer Solutions |
| EXATHOUGHT TECHNOLOGY CONSULTING PRIVATE LIMITED | GLOBAL E SMART TECHNOLOGIES | PRO IT Solutions |
| Boston It Solutions Pvt. Ltd. | SMART SELECT SOLUTIONS | Smart Innovations Pvt Ltd |
| Tata Consultancy Services | HIROTOIND TECHNOLOGIES | SMART SELECT Solutions |
| Cogente Services | SMART INNOVATIONS Pvt Ltd | SYNCTRA SOLUTIONS |
| Infinite Computer Solutions | SYNCTRA SOLUTIONS | Wipro |
| Thinksynq | | |

***Table 9.5.8 The Companies who visited the campus for recruitment***

**9.6 Entrepreneurship Cell** (5)

### 9.6. Entrepreneurship Cell

### Enterpreneurship Initiatives (1)

**Entrepreneurship Development & Innovation and Incubation Cell**

**Functions:**

- To identify the required skills for entrepreneurs and conduct relevant training for sharpening entrepreneurship an environment for self-employment through formal and non-formal entrepreneurship development programs.
- Develop management personnel at appropriate levels for the non-corporate and unorganized sectors like education, rural development, small-scale industry, etc. Utilization of the infrastructure facilities and technically traine
- Promoting employment opportunities for the younger generation

**Facilities:**

Seminar hall with 150 seats.

Entrepreneurship Development Cell Room for Committee Meetings and Discussions. Conference hall.

Having a computer system with Printer and Internet facilities

**Composition & Committee Members:**

**Committee Composition:**

- One senior faculty as coordinator.
- One faculty from each department.
- One final year student from each department

**Committee Members:**

**Faculty Members:**

| S.No | Name | Designation | D |
|---|---|---|---|
| 1 | Mr P S K Ganesh Kumar | Coordinator | |
| 2 | Mr. A Madhava Reddy | Member | |
| 3 | Mr. I Anil Babu | Member | |
| 4 | N Hanumanth Rao | Member | |
| 5 | B Chinna Babu | Member | |

**Student Members:**

| S. No. | Roll No. | Name of the Student | |
|---|---|---|---|
| 1 | 21HM1A0509 | Ch Kondalu | |
| 2 | 21HM1A0423 | R Bairesh | |
| 3 | 21HM1A0205 | G Messiah | |
| 4 | 21HM1A0101 | D Jhansi Rani | |
| 5 | 21HM1A3501 | A Sushma Lahari | |

**Role & Responsibilities:**

**Coordinator:**

- To induce and enhance the entrepreneurial culture at the college.
- Try to bridge the gap between demand and supply of manpower through self-employment as a feasible option.
- To develop and maintain a cordial and healthy relationship between all supporting institutions and organizations promoting entrepreneurship development.
- To prepare a yearly action plan for conducting entrepreneurship training programs.
- To coordinate all the training programs of the National Entrepreneurship Network.
- To arrange interactive sessions with successful business people.

**Faculty Members:**

- To prepare a year wise activity schedule for EDC and publish the same to all stakeholders, and department notice boards
- To monitor works allotted to all members of EDC and plan future works by arranging meetings on last Saturday of every month throughout the year.
- To publish and disseminate various events through posters, website, Notice boards and prominent places in college and to Press and Media time to time.
- Organize lectures, workshops, and seminars by renowned personalities from different domains of expertise, competitions of various kinds, etc., round-the-year in order to create awareness and sharpen the business acumen c
- Arranging for suitable skill development programs related to Entrepreneurship Development.

**Student Member:**

- To identify interested students for training in EDC and to motivate and organize small group camps at the department class level by presentations and showing videos of successful entrepreneurs.
- To identify the students with entrepreneurial ideas and innovation.
- To identify successful entrepreneurs from the college alumni in each department and get their contact address and report to the coordinator every 15 days.

**Year Planner for the Academic Year:2024-2025**

| S.no | Name of the event | Date/dates | Name of the Organization | |
|---|---|---|---|---|
| 1 | Workshop on Igniting Ideas: Awareness programme for aspiring Entrepreneur | November 4th week | Retd. Asst. Director, MSME | |

| | | | | |
|---|---|---|---|---|
| 2 | “Business opportunities in SSI." | September 3rd week. | General Manager from a Industry | |
| 3 | Entrepreneurship Opportunities In India | December 2nd week. | HR Manager | |
| 4 | Success of Entrepreneur | February 1st week. | An Entrepreneur | |

*Table 9.6.2.1 Year planner of EDC Cell for academic year 2024-2025*

**Events / Activities Organized for the Academic Year:2024-2025**

| S.No | Name Of the faculty Coordinator | Area/ Topic | Resource Person | Course/ class | Date/ Dates |
|---|---|---|---|---|---|
| 1 | Mr. A Madhava Reddy | Workshop on Igniting Ideas: Awareness programme for aspiring Entrepreneur | Mr. K S Chowdary | CE, ECE, CSE, EEE | 27-Nov-24 |
| **2** | Mr. I Anil Babu | “Business opportunities in SSI." | Mr. K Vijay Kumar | CE, ECE, CSE, EEE | 13-09- 2024 |
| **3** | N Hanumanth Rao | Entrepreneurship opportunities In India | Mr. Ch Sreeram Reddy | CE, ECE, CSE, EEE | 16-Dec-24 |
| **4** | B Chinna Babu | Success of Entrepreneur | Mr. Ramu Reddy | CE, ECE, CSE, EEE | 2-2-2024 |

*Table 9.6.2.2 Events or Activities organized by EDC Cell for academic year 2024-2025*

**Year Planner for the Academic Year:2023-2024**

| S.no | Name of the event | Date/dates | Name of the Organization | |
|---|---|---|---|---|
| 1 | Awareness program on Start- up's. | April 2nd week. | NSIC (National Small Industries Corporation Limited) | |
| 2. | Business Opportunities – government Schemes | October 3rd Week | General Manager District Industries Center | |
| 3. | Women Entrepreneurship. | December 1st week. | Women Entrepreneur. | |
| 4 | Workshop on start-ups | February 3rd week | Industry Expert | |

*Table 9.6.2.3 Year planner of EDC Cell for academic year 2023-2024*

**Events / Activities Organized for the Academic Year:2023-2024**

| S.No | Name Of the faculty Coordinator | Area/ Topic | Resource Person | Course/ class | Date/ Dates |
|---|---|---|---|---|---|
| 1 | Dr. G Samaba Siva Rao | Awareness programme on Start- up’s. | Dr. Himaja Trivedi | CE, ECE, CSE, EEE | 7-4-2023 |
| 2 | Mr. Sk Meeravali | Business Opportunities – government Schemes | Dr. M Manjunath | CE, ECE, CSE, EEE | 16-10-2023 |
| 3 | Dr. K Sreekar Chand | Women Entrepreneurship. | Mrs. M L Surekha | CE, ECE, CSE, EEE | 4-12-2023 |
| 4 | Dr. K Krishna Reddy | Workshop on start-ups | Mr. M Dilip Kumar | CE, ECE, CSE, EEE | 16-02-2024 |

*Table 9.6.2.4 Events or Activities organized by EDC Cell for academic year 2023-2024*

**Events / Activities Organized for the Academic Year:2022-2023**

| S.No | Name Of the faculty Coordinator | Area/ Topic | Resource Person | Course/ class | Date/ Dates |
|---|---|---|---|---|---|
| 1 | Dr. G Madhav rao | Entrepreneurship and Innovation as Career Opportunity | Mr. B. Ram Kumar | CE, ECE, CSE, EEE | 13-09-2022 |
| 2 | Mr. SK Saida | Entrepreneurial Opportunities in MSME | Dr. S. Santhosh Kumar | CE, ECE, CSE, EEE | 19-12-2022 |
| 3 | Mr. K Chandra Shekar | “Functions of Entrepreneur” | Dr. B. Madhusudhan | CE, ECE, CSE, EEE | 10-2-2023 |

*Table 9.6.2.5 Events or Activities organized by EDC Cell for academic year 2023-2024*

**Image Gallery:**

***Figure 9.6.1: Event Photographs of EDC Cell (Annexed Separately)***

**Impact Analysis:**

1. Registered IPRs with Startup Ideas
2. Increased student awareness about startups, business models, and innovation
3. Greater involvement in EDC activities like workshops, idea contests, hackathons, and pitch fests.
4. Created a startup ecosystem within the campus; students are encouraged to build and scale ideas.

**B. Data on students benefitted (4)**

| Sl.No | Name of Student | Registaration No. |
|---|---|---|

| | | |
|---|---|---|
| 1 | Mohd. Shaik Masaheef | AP-22-14-009-03905845 |

**9.7 Co-curricular and Extra-curricular Activities** (10) Total Marks 10.00

Institute Marks : 10.00

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

**A. Availabilitiy of Sports and cultural facilities (3)**

**B. NCC, NSS and other clubs (3)**

**C. Annual students activities (4)**

**Co-curricular and Extra-Curricular Activities:**

Students are engaged in co-curricular and extra-curricular activities and field trips through student chapters and events, which provide opportunities for students to explore new fields of interest, cultivate leadership skills, and learn teamwork. In this regard, institution has formed various committees for participating and organizing the cultural and sports activities. Every department has its own association through which various department symposiums; project expo and other technical and nontechnical events are being conducted. These association activities benefit in developing leadership skills and make them work in teams.

**9.7.1 National Service Scheme (NSS) Committee.**

A.M. Reddy Memorial College of Engineering & Technology, National Service Scheme (NSS) Unit No.90214725 enrolls 100 NSS volunteers every year. The National Service Scheme (NSS) is an Indian government- sponsored public service program conducted by the Department of Youth Affairs and Sports of the Government of India. Popularly known as NSS, the scheme was launched in Gandhiji's Centenary year, 1969. Aimed at developing student's personality through community service, NSS is a voluntary association of young people in Colleges, Universities and at +2 levels working for a campus-community linkage. The cardinal principle of the NSS program is that itis organized by the students themselves, and both students and teachers through their combined participation in community service, get a sense of involvement in the tasks of nation building. Motto: "NOT ME, BUT YOU" "A.M. Reddy Memorial College of Engineering & Technology Committee" has been constituted, under the coordinator ship of Dr.K Krishna Reddy with the following members, to make the students aware of social responsibilities and dignity of labor and make them self-reliant.

**Committee Members:**

| S.No | Name | Designation | Department |
|---|---|---|---|
| 1 | Dr. Ch. Mallikarjun | Chairman | Principal |
| 2 | Dr. K. Krishna Reddy | Program Officer | EEE |
| 3 | Mr. G. Mastan Reddy | Member | EEE |
| 4 | Mr. K. Vijay Kumar | Member | ME |
| 5 | Mr. V.V.B. Chari | Member | CSE |
| 6 | Mr. P. Sudheer Kumar | Member | ECE |
| 7 | Dr. K. Sreekar Chand | Member | CE |
| 8 | Dr. G. Bhaskar Reddy | Member | BS&H |

***Table 9.7.1.1: Members of National Service Scheme (NSS) Committee for Academic year 2023-24***

**NSS Program Officer Details:**

| | |
|---|---|
| **Name of NSS Program officer** | **Dr. K. Krishna Reddy** |
| **Qualification** | **PHD** |
| **Designation** | **Assoc prof** |
| **AMRMCET NSS Unit Code** | **90214725** |

**Aim of National Service Scheme (NSS)**

The program aims to inculcate social welfare in students, and to provide service to society without bias. NSS volunteers work to ensure that everyone who is needy gets help to enhance their standard of living and lead a life of dignity. In doing so, volunteers learn from people in villages how to lead a good life despite a scarcity of resources. It also provides help in natural and man-made disasters by providing food, clothing and first aid to the disaster victims

**Functions of NSS**

- To encourage students to take active participation in social responsibilities.
- To arrange road shows and processions for creating awareness to people on certain health and social problems.
- To arrange Blood donation camps.
- To organize free health check-up campus by inviting willing doctors to the campus.
- To organize special camping program.
- To organize plantation programs.
- The program aims to install the idea of social welfare in students, and to provide service to society without bias.
- NSS volunteers work to ensure that everyone who is needy gets help to enhance their standard of living and lead a life of dignity
- Making education more relevant to the present situation to meet the felt needs of the community and supplement the education of the university/college students by bringing them face to face with the rural situation
- Providing opportunities to the students to play their role in planning and executing development projects which would not only help in creating durable community assets in rural areas and urban slums but also results in the improvement of quality of life of the economically and socially weaker sections of the community Encouraging students and non-students to work together along with the adults in rural areas
- Developing qualities of leadership by discovering the latent potential among the campers, both students as well as local youth (Rural and Urban), with a view to involve them more intimately in the development program and also to ensure proper maintenance of the assets created during the camps
- Emphasizing dignity of labour and self-help and the need for combining physical work with intellectual pursuits
- Encouraging youth to participate enthusiastically in the process of national development and promote national integration, through corporate living and cooperative action.
- To assist and guide the NSS unit for implementation of NSS Programs at College level.
- To help in organizing camps, training and orientation programs for the NSS Program officers. To visit
- the NSS units for monitoring and evaluation.
- Conduct free medical camps for nearby villages.
- Organize Awareness programs on various issues, e.g. swachhta bharath sanitation, pollution and environmental issues, social issues etc.,
- To promote Community education through meetings, talks, news bulletins, Discussions etc.,

**Annual NSS Camps**

Camps are held annually, funded by the government of India, and are usually Located in a rural village or a city suburb. Volunteers may be involved in such Activities as:

- Cleaning A forestation
- Stage shows or a procession creating awareness of such issues as social problems, education and cleanliness
- Inviting doctors for health camps

- Crowd regulation during festival season
- Flood relief operation
- Conducting adult education class

**Details of College NSS Account:**

Name of the bank: State bank of India

A/C number: 41720104176

IFSC code: SBIN0000884

Address: Narasaraopet, Palnadu Dist. (Formerly Guntur Dist.)

**NSS UNIT FOR UNIVERSITY CORRESPONDENCE**

| S.No | Academic Year | Amount Sanctioned by JNTUK, Kakinada | Amount Spent | Balance |
|---|---|---|---|---|
| 1 | 2024-2025 | 36.000 | 36.000 | Nil |
| 2 | 2023-2024 | 36.000 | 36.000 | Nil |
| 3 | 2022-2023 | 36.000 | 36.000 | Nil |

***Table 9.7.1.3: Bank details of the NSS unit for university correspondence (fund sanction & utilization)***

**Special Camping Program:**

Special Camping forms an integral part of National service Scheme. It has special appeal to the youth as it provides unique opportunities to the students for group living, collective experience sharing and constant interaction with community. Special camping's organized generally on various developmental issues of national importance. In the past the themes of the special camping programs have been 'Youth for Rural Reconstruction' "Healthy Youth for healthy India''. Every year 50 percent of the NSS volunteers are expected to participate in special camp which is of seven days duration.

**Report:**

The NSS Program officer of the institution will coordinate with the "NSS Coordinator of JNTUK, Kakinada in respect of various activities taken up and submit a report to him.

| S. No | Date | Name Of The Activity |
|---|---|---|
| 1 | 22-05-2024 | Environmental Conservation |
| 2 | 13-05-2024 | Plastic Free Awareness Campaign |
| 3 | 12-04-2024 | Child Marriage Prevention awareness program |
| 4 | 02-02-2024 | Environmental Conservation |
| 5 | 19-01-2024 | Plastic Free Awareness Campaign |
| 6 | 20-12-2023 | Road Safety Awareness Program |
| 7 | 31-10-2023 | Blood Grouping Camp |
| 8 | 30-10-2023 | Distribution Drive for blanket and Essential Items |
| 9 | 19-10-2023 | Awareness Campaign on Pollution control |
| 10 | 06-10-2023 | Swatch Bharath |
| 11 | 08-09-2023 | Rally on importance of Literacy |
| 12 | 03-08-2023 | Plastic Free Awareness Campaign |
| 13 | 19-07-2023 | Awareness Campaign on Sanitation |

***Table 9.7.1.4: NSS activities for the Academic Year 2023-24***

***Figure 9.7.1.1: Sample images of NSS Activities (Annexed Separately)***

**Association Activities**

- Departmental association activities are conducted twice in a week for II, III&IV B.Tech. Students.
- To conduct these activities two faculty members are allocated for each section to perform the association activities effectively
- The main objective of the association activities is to impart various skills in activities such as brain teasers, group discussions, etc to make students excel in their carrier guidance.

| Class | Activity Name |
|---|---|
| B. Tech – II, III & IV | My Goal/ My Destination/ My Ambition, JAM, Techie Talk, Do society needs engineer, Sell self, Device description, Book talk. |

### 9.7.2 Sports:

The Institution has a sports ground. There are well equipped gymnastics and sports kits. Students are encouraged to participate in various zonal and inter-zonal tournaments. Students participate in inter and intra collegiate and University tournaments. Sports day is celebrated with various indoor & outdoor sports Long Jump, Volleyball, Table Tennis, Cricket, Basket Ball, Chess, and Carrom. both for staff and students, as part of recreation.

**Aim:**

For the overall development of a professional to be placed in the highest realms, they have to be physically, mentally, emotionally and intellectually top in their field. Our institute provides excellent sporting facilities and intensive sport programs to make the students improve in all situations and circumstances.

**Objectives:**

- To improve physical fitness and strength
- To improve competitive spirit
- Motivate the students to involve in physical activities and sports
- Feeling the sense of wellness of the students and staff by participating in sports.
- To make the students participate in the tournaments and loyalty to the college.

- To develop leadership quality and overall development by involving in sports

A well-qualified physical director will manage all sport activities like

a. Cricket
b. Volleyball
c. Shuttle (Boys & Girls) – Singles & Doubles
d. Chess (Boys & Girls)
e. Carroms (Boys & Girls) – Singles & Doubles
f. Tennikoit (Girls) – Singles & Doubles
g. Throw Ball (Girls)

**Physical Director Details:**

| | |
|---|---|
| Name of Physical Director | A. EMNANUYELU |
| Qualification | M.PEd |
| Designation | Physical Director |

***Table 9.7.2.2: Details of Physical Director***

**9.7.3 Arts/Cultural/Literary & Hobby Club Functions of the Cell:**

1. To bring out hidden talents of the students.
2. To increase the social relationship in the college hence to mingle with society.
3. To encourage the students to express their inner feelings to the outside world.
4. To make the students more active in their academics by providing a platform for recreation and self- expression

**Composition of the Committee:**

| S.No | Name | Designation | Department |
|---|---|---|---|
| 1 | Dr. Ch. Mallikarjun | Chairman | Principal |
| 2 | Mr. N Sai Sravya | Coordinator | BS&H |
| 3 | Mrs. Ch Rekha | Member | CSE |
| 4 | Mrs. T Pavani | Member | CE |
| 5 | Mrs. Shaik Kasim Bee | Member | ECE |
| 6 | Mrs. P Koteswaramma | Member | EEE |

***Table 9.7.3.1.1: Faculty members in committee (Arts/Cultural)***

| S.No | Roll Number | Name of The Student Member | Department |
|---|---|---|---|
| 1 | 21HM1A0104 | Mr. K Nani | CE |
| 2 | 21HM1A0208 | Mr K Lokesh | EEE |
| 3 | 21HM1A0418 | Miss. N Koteswari bai | ECE |
| 4 | 21HM1A0520 | Miss G Sireesha | CSE |
| 5 | 21HM1A5918 | Miss N Sindhu Priya | CS |
| 6 | 21HM1A3519 | Miss Y Jhansi | AGE |

***Table 9.7.3.1.2: Student members in committee (Arts/Cultural)***

**Roles and Responsibilities:**

- The committee seeks to create a platform that provides the students with an opportunity to display creative talents in a variety of ways. Coordinator and faculty members shall discuss and decide the year plan for the events.
- Coordinator assigns responsibilities for faculty and students.
- Coordinator and members shall estimate the budget for an event to be conducted.
- Coordinator and faculty members coordinate with the students and conduct events committee coordinator solves the indisciplinary issues and takes necessary measures.
- Coordinator shall select and nominate few of the students members for the discipline committee.

**Functions:**

- The Cultural Committee shall be responsible for all intra and inter collegiate cultural events in the College.
- To prepare annual budget for all cultural events and take necessary steps for its approval.
- To obtain formal permission from the College authorities to arrange program to decide the date, time and agenda of the program.
- To inform members of staff and students about the event to arrange the venue and logistics (audio/video system, dais, podium etc).
- To invite the Chief Guest and other dignitaries.
- To arrange mementos for guests and gifts/certificates for the participants.

| S.No | Date | Name of The Event | No of participant's | Venue |
|---|---|---|---|---|
| 1 | 26-08-2024 | Krishnastami Celebration | 211 | Ground |
| 2 | 05-10-2024 | Dusshera Utsavalu | 400 | Ground |
| 3 | 09-11-2024 | Secretary Madam Birthday Celebration | 486 | Ground |
| 4 | 07-12-2024 | Diploma Freshers Day | 222 | Seminar hall |
| 5 | 21-12-2024 | Semi- Christmas Celebration | 324 | Ground |
| 6 | 10-01-2025 | Sankranthi Samburalu | 412 | Ground |

***Table 9.7.3.2Events or Activities held by A&C Cell for academic Year 2024-2025***

**Image Gallery**

***Figure 9.7.2. : Image gallery of Events conducted under Arts and Cultural***

## 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 :**

**Vision :** To cultivate engineers into global leaders equipped with unwavering psychological resilience, profound emotional intelligence, and unwavering ethical integrity.

**Mission :**

**MISSION :**

**M1: To delivering innovative and immersive educational experiences tailored to the needs of engineering students.**

**M2: To advance research and development through cutting-edge laboratories and state-of-the-art equipment.**

**M3:To nurture a culture of entrepreneurial spirit, fostering creativity and innovation among our engineering graduates.**

**M4: To promoting environmental sustainability and social responsibility by integrating ethical and emotional education into our curriculum.**

**10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies** (10) Institute Marks : 10.00

### 10.1.2. Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies (10)

**Governing Body:**

- The college has a governing body which has a Principal as the Member Secretary, which meets at least twice in a year and has the following responsibilities:
- To provide effective leadership to enhance the quality and performance of the institution.
- To motivate, empower and encourage the staff to prepare and implement the quality policy.
- To encourage the innovation and excellence in all departments of the institution.
- To provide Institutional benefits to the faculty and staff involved in preparation and implementation of quality policy and plans.
- To provide research facilities for the benefit of staff and students.
- To provide necessary manpower and infrastructure for the scrupulous implementation of quality policy and plans.
- To extend the authority, support and freedom to all the staff engaged in implementation of quality plans.
- To consult the Principal, stake holders and other experts (in-house as well as outside) on all matters for enhancing the quality of Institutional activities.

**Members of Governing body of A.M. Reddy Memorial College of Engineering and Technology**

| Sl. No. | Name, Designation & Address of the Members | Designation | Postion |
|---|---|---|---|
| 1 | Sri. Atluri Srinivas Reddy | President, A.M.Reddy Group, Association Board of Governance | President |
| 2 | Sri. B Ramanuja Reddy | Vice-President, A.M.Reddy Group, Association Board of Governance | Vice President |
| 3 | Smt. Atluri Santhi Srinivas Reddy | Secretary & Correspondent, , A.M.Reddy Group | Secretary |
| 4 | Smt. A Mahalakshmamma | Joint Secertary, A.M.Reddy Group, Association Board of Governance | Joint Secretary |
| 5 | Smt. Vajarala Anasuya | Treasurer, A.M.Reddy Group, Association Board of Governance | Treasurer |
| 6 | Prof. K Ravindra, | Professor, Department of EEE, JNTU Kakinada | State Govt. Nominee |
| 7 | Dr. N Balaji, | Professor, Department of ECE, UCEK, JNTUK Kakinada | University Nominee |
| 8 | Dr. Ch. Mallikarjun | Principal, A.M.Reddy Memeorial College of Engineering and Technology | Principal & Member Secretary, (Ex- Officio) |
| 9 | Mr. Ch Sreeram Reddy, | CEO, Sailotech , Hyderabad | Industrialist |
| 10 | Mr. Navuru. Dilip kumar, | Deputy Project Manager in projects, DEC infra India private limited | Industrialist |
| 11 | Dr. K. Krishna Reddy, | HoD, EEE | Senior Faculty Member |
| 12 | Dr. K. Sreekar Chand, | HoD, Civil & IQAC coordinator | Senior Faculty Member |
| 13 | Mrs. Ponnapati Venkata Padmavathi | Executive Member, A.M.Reddy Group, Association Board of Governance | Executive Member |

**10.1.1.1. Administrative Setup:**

A.M.Reddy Memeorial College of Engineering and Technology is committed to achieving global standards and excellence in teaching, research, and consultancy by creating a conducive environment in the fields of technical, managerial, and professional professionalism with a global outlook, ensuring continuous improvement.

***Figure 10.1.2.1: Organizational Chart (Annexed Separately)***

**Functions of Key Administrative Positions:**

| | |
|---|---|
| Secretary & Correspondent | To look after the overall development of the institute, in tune with its vision and mission |
| | Mobilize external resources to strengthen the institute |
| | Plan & provide necessary facilities / equipment for development of infrastructure |
| | Instil devotion to duty in every member of the institute and ensure confidence in all the stake holders |

| | |
|---|---|
| Principal | To determine the quality policy, educational character and mission of the institute and for oversight of its activities. |
| | To prepare Infrastructure development plans |
| | To prepare and get approved the Budget proposals |
| | To improve the quality of publications, quality of website and research activities of the institute. |
| | To maintain and enforce strict discipline in the campus. |
| | To collaborate with the industry and undertake developmental activities thatare mutually beneficial. |
| | To conduct internal and external examinations as perthe guidelines and academic calendar of the affiliating university. |
| | To ensure that adequate opportunities are available for students in co- curricular and extra-curricular activities |
| | To achieve maximum number of placements for the students |
| | To arrange Faculty development programs |
| | Encourage faculty to acquire additional qualifications |
| Heads of Department | Plan and execute academic activities of the department |
| | Maintain the facilities and equipment always in good conditions |
| | Maintain discipline throughout the department |
| | Arrange workshops, symposiums, seminars, guest lectures etc., for the benefit of faculty and students |
| | Encourage the students to undertake Research, development and project activities for their career growth |
| | Ensure that the students actively participate in the curricular, co- curricular and extra-curricular activities |
| | Timely completion of academic activities of the department Prepare Department Budget and procure the approved items |
| | Maintain records of departmental activities and achievements |

***Table 10.1.2.2.1: Functions of key administration positions of AMRMCET***

| |
|---|
| **Arts and Cultural Committee** |
| **Functions:** |
| The arts & cultural committee brings out the hidden talents of student by organizing the arts & cultural programs. |
| The cultural committee shall be responsible for all intra and inter collegiate cultural events. To plan and schedule cultural events for the academic year by delegating various tasks to the members of the committee and the students. |
| To communicate about various events to be celebrated in the college and post the related information on the website or on notice board. |
| Arranging events/programmes for staff and students in coordination with administration. The committee coordinator convenes meeting for the committee members to discuss and delegate tasks. |
| The committee is also responsible to design and finalize the list of cultural events, participants related to the specific cultural program |
| The committee prepares and maintains records for all cultural activities |
| **NSS Committee** |
| **Functions:** |
| Identifying the needs and problems of the community / society and make the students toinvolveto solve the problems. |
| Developing the civic and social responsibility. |
| Utilizing the knowledge in finding practical solutions to individual and community problems. Developing the required competence to mingle with others and sharing the responsibilities. Making to obtain the skills for mobilizing the community participation. |
| Preparing the students to acquire leadership qualities and democratic attitudes. Developing the strengths to meet emergencies and natural disasters. |
| Making the practice of national integration and social harmony. |
| **Entrepreneurship Development & Innovation and Incubation Cell** |
| **Functions:** |
| To organize Entrepreneurship Awareness Camps, Entrepreneurship Development Programmes, Awareness programs and Seminars in the region for the benefit of S&T persons. |
| To guide and assist prospective entrepreneurs on various aspects such as preparing project reports. |
| To arrange visits to industries for prospective entrepreneurs |
| To act as a Regional Information Centre on business opportunities, processes, technologies, market, etc. |
| To conduct skill development training programmes leading to self employment. |
| **Industry Institution Coordination Cell (IIC)** |
| **Functions:** |
| Computer Maintenance is the practice of keeping computers in a good state of repair. Install an antivirus program to protect it. |
| Daily duties may include fielding inquiries, running Hardware diagnostic tests to resolve issues and installing updates to existing software and hardware. |
| Keep Computers in Good Working condition. |
| Find a problem with a computer, diagnose equipment and troubleshooting procedures to resolve the issue and get the computer back in working order. |
| Checking printers, scanners and other equipment to make sure that they are working properly. |
| To Maintain and troubleshoot Networking Issues. |
| **Examination Cell** |
| **Functions:** |
| Examination Cell serves all Examination notices received from University to all concerned. Examination cell prepares Circulars for students regarding Exam Fee Collection, the last date of fee Collection, modalities of payments of fine etc. |
| Examination cell takes necessary steps for distribution of Answer sheets to the concerned teachers after completion of the internal exam and receiving the answer sheets, award list,and preparing in the desired format to send them to University. |

| |
|---|
| Examination Cell takes all precautions while preparing Examination Time table, Invigilation duties, seating plans for the students in the Examination halls, smooth conduct of Examinations etc. |
| Examination Cell mobilizes the proper staff during the Examination time, and assigningthem duty as per the invigilation duties already prepared. |
| Examination Cell staff collects Marks Memos of various examinations from the University and they distribute them to the corresponding students. |
| Examination Cell keeps all records pertaining to examinations. |
| Examination Cell staff addresses grievances of administration, faculty, staff and students on all examination related issues. |
| **Transportation Committee** |
| **Functions**: |
| Arranging the transport facility for all students and staff from college to different areas and vice versa. |
| Maintaining periodically all the buses and respond immediately to major repairs if any. Checking periodically the log books maintained by the drivers |
| Arranging transport facility for the students and staff for any educational tour, visit for sports competitions etc. |
| Time management of buses. |
| **Internal Quality Assurance Cell (IQAC)** |
| **Functions:** |
| Development and application of quality benchmarks/lesson plans, course coverage, course files etc.for the various academic and administrative activities of the Institution. |
| Facilitating the creation of a learner-centric environment conducive for quality education and faculty maturation to adopt the required knowledge and technology for participatoryteaching and learning process. |
| Arrangement for feedback responses from students, parents and other stakeholders on quality- related institutional processes. |
| Dissemination of information on the various quality parameters of higher education; Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles. |
| Development and maintenance of Institutional database through software for the purpose of maintaining /enhancing the institutional quality. |
| Development of Quality Culture in institution. |
| Preparation of the Annual Quality Assurance Report (AQAR) of the institution based on the quality parameters/assessment criteria developed by the relevant quality assurance body (like NAAC, NBA) in the prescribed format. |
| In pursuance of the National Action Plan of the National Assessment and Accreditation Council (NAAC), Bangalore, IQAC shall act as the Documentation and Record-Keeping cell, including assistance in the development. In order to facilitate the process, all teachers shall submit the duly filled-in the given Performa to the IQAC annually. |
| Any other assignment by the principal. |
| **Press Media and Publicity Committee** |
| **Functions:** |
| Understanding the needs of the community and making the students themselves to relate with the work. |
| Identifying the needs and the problems of the community and make the students to involve to solve the problems |
| Utilizing the knowledge in finding practical solutions to individual and community problems. |
| Preparing the students to acquire leadership qualities |
| Help all the users to develop the skills to make optimum use of all the facilities |
| To work efficiently and effectively by under taking every activity in a professional manner. Developing the civic and social responsibility. |
| Maintaing periodically all the press notes and immedietly sent to all the departments. |
| **Sports and Games Committee** |
| **Functions:** |
| To encourage the students to participate very actively in organising and conducting various sports and games in the college. |
| To motivate the students to actively participate in various sports and games competitions outside the college. |
| To develop the spirit of sportsmanship among students. |
| To make the students aware about the benefits of physical exercise to maintain a good physical and mental health |
| To sort out any sports related issues. |
| To schedule events/planner for the academic year in consultation with the Student’s representative and management. |
| To inculcate the value of keeping good health and mind by participating in lectures / seminars related to Sports & Games. |
| **Training, Placement and Career Guidance Committee** |
| **Functions:** |
| Interaction between industry and institute. Campus Recruitment Training to students. Arranging Campus Interviews to students. Guest lecturers by eminent industry experts Counseling and Personality Development. |
| Conducting Mock Interviews and Group Discussions. |
| **Student Grievance Redressel Committee** |
| **Functions:** |
| The institute has an efficient mechanism for students to express their grievances freely. |
| To take up and address each grievance from all possible angles through meetings and site visits. |
| To conduct enquiries into all grievances in an impartial manner and ensure justice to the effected persons. |
| To ascertain the root cause of each grievance, recommend suitable action for resolving each grievance in the shortest time possible. |
| To recommend remedial measures for avoiding similar grievances in future. |
| To work in coordination with other redressel forums like sexual harassment committee, student welfare committee etc., arrange guest lectures, demonstrations etc. for increasing the awareness among all the stake holders |
| **Website Development Committee** |
| **Functions:** |
| Provide and solicit appropriate content for the web pages.Present the content in a timely and user friendly manner. |
| The web committee helps to facilitate development and keep up of an active web page which reflects the purposes and activities of the society. |
| Ensure the department activities are posted within one day of the event. Responsible for site updates, site content and create webmail for all departments. |
| **Anti-Ragging Committee** |
| **Functions:** |
| Displaying the charts and other material stating evil nature, punishment of ragging and also students discipline. |
| Creation of cordial and free atmosphere. |

| |
|---|
| Involving seniors and freshers jointly in value based cultural and other activities. Entrusting the responsibilities jointly. |
| Inter-action and casual warning. |
| Ensuring the spot solutions by adopting soft measures. In case of need, reporting to the nearest police station. |
| **Internal Complaints Committee (ICC)** |
| **Functions:** |
| To enhance the self esteem and self confidence of girl students, faculty and staff in the college |
| To promote intellectual and cultural activities for over all personality development of women To develop critical thinking ability of women students such that it enhances critical thinking ability |
| To enhance participation of girl students on an equal footing in all areas. |

***Table 10.1.2.2.2: Decentralization of power for smooth running of academics & administration***

### 10.1.2.3. The rules and policies of AMRMCET

**Selection Procedure & Rules:**

- The qualification required for filling a post shall be such as may be determined by the CAC from time to time taking into consideration the norms prescribed by Government of Andhra Pradesh/University/AICTE.
- The Governing Body shall have the power to decide whether a particular post will be filled by open advertisement or by an invitation from amongst the members of the existing staff in conformity with University Rules and Regulations.
- All teaching staff posts from Assistant Professor and above and any other post classified as teaching staff shall be filled up by open competition. The selection will be based on the recommendations of the Staff Selection Committee duly constituted as per the norms of the Affiliating University.
- All other teaching staff posts and non-teaching posts, shall be based on the recommendations of the Staff Selection Committee duly constituted from time to time.
- The Selection Committee interview the candidates invited for interview and make its recommendations to the Governing Body, the names of the selected candidates being arranged on order of merit. The Selection Committees may recommend more names than the number of posts for which applications are invited or may reject all the applicants. However, the appointment orders are issued in the order of merit.
- No act or proceedings of any Selection Committee shall be questioned on the ground, merely, of any member of the Selection Committee.
- The procedure adopted by the Selection Committee in selecting the candidates shall not be questioned as improper or irrelevant or unfair.
- The Governing Body may in special circumstances appoint persons (Eg. Retired persons) on contract basis, year after year up to the age of 65 years, in case of teaching posts.Any other instruction given, or rule prescribed, from time to time by Govt. of Andhra Pradesh / Affiliating University / AICTE regarding selection procedure will automatically form part of the rules/procedure of selection.

**APPOINTMENTS**

The Chairman of GB shall be the authority in approving all appointments based on the selection committee. All orders will be issued by Principal.

**Pay, Allowance & Increments:**

a. U.G.C 6$^{th}$ scales of pay fitment in accordance with Institution tuition fee of pay, as applicable from time to time, shall be adopted to posts classified as teaching staff, but, subject to approval of the Governing Body.
b. The scales of pay as approved by the Governing Body shall be adopted for all posts not falling under the category of teaching staff.
c. Dearness and House Rent Allowances as per A.P. State Government rates shall be adopted, but subject to approval of Governing Body.
d. Unless otherwise stated in the appointment order, an employee on appointment shall be eligible to draw pay at the minimum of time scale of pay for the post. However, in case of appointment by promotion from a lower post, his pay in the lower post at the time of promotion shall be protected in the time scale of pay of the higher post.
e. All service in a post on time scale of pay shall count for eligibility for increment.
f. Leave granted shall be counted as service for the purpose of eligibility for increment. But leave granted on loss of pay, if it is for more than seven days, shall not be counted as service for the purpose of eligibility of increment. If leave on loss of pay is granted for more than seven days, the date of subsequent increment is postponed by as many days as he was on leave on loss of pay.
g. The Governing Body shall have the authority to withhold an increment for a certain period not exceeding one year as a disciplinary measure for sufficient and valid reasons and after the employee has been afforded a fair opportunity to defend. However, such withholding of an increment will not have cumulative effect. When an increment is withheld for a certain period, this period shall be exclusive of any interval spent on leave on loss of pay, if it is for more than seven days.

**Conduct Rules:**

a. Every employee shall be governed by these rules and is liable for consequences in the event of any breach of rules by him/her.
b. Every employee, at all times, maintains integrity, be devoted to his duty and also be honest and impartial in his/her official dealings. An employee shall, at all times be courteous and polite in his/her dealings with the Management, with other members of staff, students and with members of the public. He shall exhibit/utmost loyalty and shall always, act in the interests of the college.
c. An employee shall be required to observe the scheduled hours of working during which he/she must be present at the place of his/her work. No employee shall be absent from duty without prior permission. Even during leave or vacation, no employee shall leave head-quarters except with the prior permission of proper authority. Whenever leaving station, an employee shall inform the Principal, in writing, through the respective HOD or the Principal directly if he happens to be a HOD, the address at which he/she would be available during the period of his/her absence from the head-quarters.
d. No employee shall make any statement, publish or write through any media which has the effect of an adverse criticism of any policy or action of the college or detrimental to the interests of the college.
e. An employee against whom an Insolvency Proceedings commenced in the court of Law shall forthwith report full facts thereof to the college.
f. An employee against whom Criminal Proceedings are initiated in a Court of Law shall immediately inform the competent authority of the college regarding the details thereof.
g. No employee shall, except with prior permission of the competent authority, have recourse to law or to the press for the vindication of any official act of the college which has been the subject matter of criticism or attack of defamatory character.
h. Whenever an employee wishes to put forth any claim or seeks redressal of any grievance he/she must forward his/her case in writing through proper channel to the competent authority and shall not forward any such advance copies of his/her application to any higher authorities unless the competent authority has rejected the claim or refused redressal of the grievance or has delayed the matter beyond a reasonable time.
i. An employee who commits any offence or dereliction of duty or does an act detrimental to the interests of the college is subjected to an enquiry and punishment by the competent authority. However, any employee aggrieved with the decision of the competent authority may appeal against such punishment or decision within 15 days of the receipt of the orders of the decision to the Governing Body, thereon, is final and binding on the employee.
j. No employee shall engage in strike or incitements there to or similar activities such as absence from work or neglect of duties or participate in hunger strike etc. Violation of this rule will amount to misconduct and attracts deterrent punishment.

**10.1.3 Decentralization in working and grievanceredressal mechanism** (10) Institute Marks : 10.00

### 10.1.3. Decentralization in working and grievance redressal mechanism (10)

**Decentralization in Working**

The institution vision and mission as well as the decisions of the Governing Body are implemented by the principal with the help of various heads of the department, committee coordinators.

| S.No | Name of the HoD / Dean | Department / Area |
|---|---|---|
| 1. | Dr. G Bhaskar Reddy | BS&H |
| 2. | Dr. Merugu Anand Kumar | CSE |
| 3. | Dr. K Sreekar Chand | CE |
| 4. | Mr. P S K Ganesh | ECE |
| 5. | Mr. G Mastan Reddy | EEE |
| 6. | Mr. K Vijay Kumar | MECH |

*Table 10.1.3.1: Details of implementation of delegation of power for smooth running*

For ensuring participation of faculty, staff, students and other stakeholders, a number of Committees are constituted for progressing the institute functions as indicated below.

| S. No. | Name of the Committee | Coordinator |
|---|---|---|
| 1. | Governing Body | Principal-Member Secretary |
| 2. | College Academic Committee | Principal-Member Secretary |
| 3. | IQAC | Dr. K Sreekar Chand |
| 4. | Students Grievance Redressal Committee | Mr. V V B Chari |
| 5. | Research & Development Committee | Dr. K Krishna Reddy |
| 6. | Library Committee | Mrs. P Shailaja |
| 7. | Website Development Committee | Mr. M Bharath |
| 8. | IT Infrastructure Committee | Mr. A Madhava Reddy |
| 9. | Anti-Ragging Committee | Dr. G Bhaskar Reddy |
| 10. | Social Welfare (SC / ST) Committee | Mr. K Sanjeeva Rao |
| 11. | Hostel Committee | Mr. P Sudheer Kumar |
| 12. | NSS Committee | Mr.G Masthan Reddy |
| 13. | Press, Media & Publicity Committee | Mr. Sk Meeravali |
| 14. | Admissions Committee | Mr. G Koteshwar Rao |
| 15. | Student Counseling Committee | Mr. K Vijay Kumar |
| 16. | Industry Institution Coordination (IIC) Cell | Mr. P Nagur Meeraiah |
| 17. | Internal Complaint Committee (ICC) | Mrs. T Deepthi |
| 18. | Training, Placement & Career Guidance Committee | Mr. P Nagur Meeraiah |
| 19. | Professional Societies Coordination Committee | Mr. P S K Ganesh Kumar |
| 20. | College Time Table Committee | Dr. K Sreekar Chand |
| 21. | Examination Cell | Mr. N Anjineyulu and Dr. K Sreekar chand |
| 22. | Transportation Committee | Mr. K Ramu |
| 23. | Campus Maintenance Committee | Mr. K Krishna Reddy |
| 24. | Sports & Games Committee | Mr. Emanuel |
| 25. | Medical Cell | Dr. Ashok Reddy |
| 26. | Faculty Grievance & Redressal Committee | Mr. N V Krishna Reddy |
| 27. | Arts & Cultural Committee | Mr. N Sai Sravya |
| 28. | Finance Committee | Mr. M Koti Reddy |
| 29. | Entrepreneurship Development & Innovation and Incubation Cell | Mr P S K Ganesh Kumar |
| 30. | Co-Curricular Activities Cell (Student Association Committee) | Mr. N Hanumanth Rao |
| 31. | Canteen / House Keeping/ Sanitation/ Food Safety Cell | Mr. K Bhaskar Rao |
| 32. | Alumni Coordination Cell | Mr. P Sudheer Kumar |

*Table 10.1.3.2: List of Institution Level Committees/Cells and its coordinators for A.Y. 2023-2024*

**ANTI – RAGGING COMMITTEE:**

**Functions:**

- To publicize to all students and relevant directives and the actions that can be taken against those indulging in Ragging. Constitute anti- ragging committees/squads to make surprise visits and takes effective steps prevent ragging.

- Oversee the procedure of obtaining undertaking from the students in accordance with the provisions. Construct workshops against ragging menace and orient the students.
- To Provide students the information pertaining to contact address and telephone numbers of the person(s) identified to receive complaints/distress calls. To take all necessary measures for prevention of ragging inside the campus/Hostels.

**Facilities:**

- Seminar hall with 500 capacity.
- Smart Class room for committee meetings and discussions, Board Room.
- Having computer system With Internet facility. Printer to get the Xerox copies.

**Composition & Committee Members:**

**Committee Composition:**

1. Principal - Chairman
2. One Senior faculty / HoD
3. HoDs
4. MRO
5. Revenue Inspector
6. Police Department (CI & SI)
7. One News Reporter
8. Six Students and 4 Parents

**Committee Members**

| Sl. No | Name | Designation | Department |
|---|---|---|---|
| 1 | Dr. Ch Mallikarjun | Chairman | Principal |
| 2 | Dr. G Bhaskar Reddy | Coordinator | BS&H |
| 3 | Dr. K Sreekar Chand | Member | CE |
| 4 | Mr. G Masthan Reddy | Member | EEE |
| 5 | Mr. K Vijay Kumar | Member | MECH |
| 6 | Mr. P S K Ganesh | Member | ECE |
| 7 | Mr. V V B Chari | Member | CSE |
| 8 | Mr. K. Venugopala Rao | Member | MRO-Narasaraopet |
| 9 | Mr. Ramesh Babu | Member | Revenue Inspector |
| 10 | Mr. P. Rama Krishna | Member | CI-Narasaraopet |
| 11 | Mr. Ch. Kishore | Member | SI-Narasaraopet |
| 12 | Mr. Ramanjaneyulu | Member | Reporter, Sakshi |
| 13 | Miss. R Mani Deepthi | Member | Student |
| 14 | Mr. S Karthik | Member | Student |
| 15 | Mr. B Gowri Sankar | Member | Student |
| 16 | Miss. M Bhargavi | Member | Student |
| 17 | Mr. B Naga Jagadish | Member | Student |
| 18 | Miss. Sk Meera Jasmine | Member | Student |
| 19 | Mr. A Kiran Kumar | Member | Parent |
| 20 | Mr. T. Venkata Rao | Member | Parent |
| 21 | Mr. M. Madhusudhan Rao | Member | Parent |
| 22 | Mr. B. Narasimha Rao | Member | Parent |

***Table 10.1.3.3.1 : Anti ragging committee and its members for the Academic year 2023-24***

**Roles & Responsibilities:**

The Institute has set up an Anti-Ragging Committee under the leadership of the Head of the Institute to ensure that measures for prevention of ragging and monitoring mechanisms are in place. There are also provisions for actions to be taken against students for indulging in and abetting ragging.

- Vigilant at all hours all around the campus and other places vulnerable to incidents of and having the potential of ragging and shall be empowered to inspect such places.
- Make surprise raids at all places vulnerable to incidents along those that are having the potential for ragging.
- Conduct an on-the-spot enquiry into any incident of ragging referred to it by the faculty or student or parent or guardian as the case may be, and submits the enquiry report along with recommendations to the Head of the Institution for immediate action.
- Ensure the display of Anti-Ragging posters on Institutional and departmental Notice Boards and other prominent places of students' movements.
- Ensure measures to see that Anti-Ragging Squad regularly makes rounds in the campus to effectively monitor the students behaviour in the campus.
- Offer services of counselling and create awareness to the students on the impacts and consequences of Ragging.
- Set up a Suggestion Box and place it in the college to help the students to drop complaints or any kind of problems.
- Initiate timely action against students violating / erring the Anti-Ragging Policy.
- Sensitize students about the evils of ragging and its prevention in the Campus by organizing Awareness talks/ programs.
- Address complaints about ragging as per the Govt. and University procedures.
- Maintain the records and file all the activities conducted and submit the same to the IQAC Committee.

**Year Planner for the Academic Year 2024-25 (CAY)**

| S. No. | Name of the event | Date/dates | Name of the Organization | Department |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1. | Anti Ragging Awareness Program | 13-10-2024 | Police department | I & II<br>B Tech Students |
| 2. | Personality development program | 16-11-2024 | Motivational speaker | I & II B Tech Students |

*Table – 10.1.3.3.1. Year Planner for the Academic Year 2024-25 (CAY)*

**Events / Activities Organized for the Academic Year 2024-2025 (CAY)**

| S. No. | Name of the Faculty | Area / Topic | Resource Person | Course / Class | Date / Dates | No. of participants |
|---|---|---|---|---|---|---|
| 1. | Dr G Bhaskar Reddy | Anti Ragging Awareness Program | Mr. Ch. Kishore | I & II B Tech Students | 13-10-2024 | 186 |
| 2. | Dr G Bhaskar Reddy | Anti Ragging Awareness Program | P Aravind Kumar | I & II B Tech Students | 16-11-2024 | 148 |

*Table – 10.1.3.3.2.* Events / Activities Organized for the Academic Year 2024-2025 (CAY)

**Year Planner for the Academic Year 2023-2024 (CAYm1)**

| S. No. | Name of the event | Date/dates | Name of the Organization | Department |
|---|---|---|---|---|
| 1. | Anti Ragging Awareness Program | 01-11-2023 | Police department | I & II<br>B Tech Students |
| 2. | Personality development program | 03-12-2023 | K Chaitanya Naidu<br>Motivational speaker | I & II B Tech Students |

*Table – 10.1.3.3.3. Year Planner for the Academic Year 2023-2024 (CAYm1)*

**Events / Activities Organized for the Academic Year 2023-2024(CAYm1)**

| S. No. | Name of the Faculty | Area / Topic | Resource Person | Course / Class | Date / Dates | No. of participants |
|---|---|---|---|---|---|---|
| 1. | Dr G Bhaskar Reddy | Anti Ragging Awareness Program | Mr. Ch. Kishore | I & II B Tech Students | 01-11-2023 | 112 |
| 2. | Dr G Bhaskar Reddy | Anti Ragging Awareness Program | K Chaitanya Naidu | I & II B Tech Students | 03-12-2023 | 131 |

*Table – 10.1.3.3.4. Events / Activities Organized for the Academic Year 2023-2024(CAYm1)*

**Year Planner for the Academic Year 2022-23 (CAYm2)**

| S. No. | Name of the event | Date/dates | Name of the Organization | Department |
|---|---|---|---|---|
| 1. | Anti Ragging Awareness Program | 02-11-2022 | Legal Authorities | I & II B Tech Students |
| 2. | Personality development program | 16-11-2023 | P Raghavendra Reddy<br>Motivational speaker | I & II B Tech Students |

*Table – 10.1.3.3.5. Year Planner for the Academic Year 2022-23 (CAYm2)*

**Events / Activities Organized for the Academic Year 2022-202 (CAY2)**

| S. No. | Name of the Faculty | Area / Topic | Resource Person | Course / Class | Date / Dates | No. of participants |
|---|---|---|---|---|---|---|
| 1. | Dr G Bhaskar Reddy | Anti Ragging Awareness Program | Mr. B Jagadeesh Kumar | I & II B Tech Students | 02-11-2022 | 82 |
| 2. | Dr G Bhaskar Reddy | Anti Ragging Awareness Program | A Kishore Babu | I & II B Tech Students | 16-11-2023 | 79 |

*Table – 10.1.3.3.6. Events / Activities Organized for the Academic Year 2022-202 (CAY2)*

**Year Planner for the Academic Year 2021-2022 (CAYm3)**

| S. No. | Name of the event | Date/dates | Name of the Organization | Department |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1. | Anti Ragging Awareness Program | 10-Aug-2021 | Legal Authorities | I & II<br>B Tech Students |
| 2. | Personality development program | 03-11-20221 | P Raghavendra Reddy<br>Motivational speaker | I & II B Tech Students |

*Table – 10.1.3.3.7. Year Planner for the Academic Year 2021-2022 (CAYm3)*

**Events / Activities Organized for the Academic Year 2021-2022 (CAY3)**

| S. No. | Name of the Faculty | Area / Topic | Resource Person | Course / Class | Date / Dates | No. of participants |
|---|---|---|---|---|---|---|
| 1. | Dr G Bhaskar Reddy | Anti Ragging Awareness Program | Mr. M Krishna Jayanth Reddy | I & II B Tech Students | 10-Aug-2021 | 101 |
| 2. | Dr G Bhaskar Reddy | Anti Ragging Awareness Program | M Appa Rao | I & II B Tech Students | 03-11-20221 | 111 |

*Table – 10.1.3.3.8. Events / Activities Organized for the Academic Year 2021-2022 (CAY3)*

### Internal Complaints Committee (ICC)

**Functions:**

- To develop a policy against sexual harassment of women at the Institute.
- To evolve a permanent mechanism for the prevention and redressal of sexual harassment cases and other acts of gender-based violence at the Institute.
- To ensure the implementation of the policy in letter and spirit through proper reporting of the complaints and their follow-up procedures.
- To uphold the commitment of the Institute to provide an environment free of gender-based discrimination.
- To create a secure physical and social environment to deter any act of sexual harassment.
- To promote a social and psychological environment to raise awareness on sexual harassment in its various forms.

**Composition & Committee Members:**

**A. Committee Composition**

- Principal as chairperson.
- One senior faculty member as coordinator.
- One faculty from each department.
- One external member
- One final year student from each department.

**B. Committee Members**

| S. No. | Name | Designation | Department |
|---|---|---|---|
| 1. | T Deepthi | Coordinator | BS&H |
| 2. | G Madhavi | Member | CE |
| 3. | B Roja Lakshmi | Member | CSE |
| 4. | P Koteswaramma | Member | EEE |
| 5. | P Shailaja | Member | Library |
| 6. | Raja Lakshmi | Member | Non- Teaching |
| 7. | G Anasuya | Member | Social Activist |
| 8 | G Soniya | Student Member | CE |
| 9 | K Sravani | Student Member | EEE |
| 10 | P Deevika | Student Member | ECE |
| 11 | Ch Ramya | Student Member | CSE |

*Table 10.1.3.4 .1 Committee Members*

**Roles & Responsibilities**

**Coordinator :**

- Providing safe work and academic environment for staff and students respectively. Providing indisputable justice against all genders who are involved in an incident. Working towards achieving gender equity and empowering the women students and staff.
- Publicizing the rules against Sexual Harassment display the policy at various locations in college Displays the name & phone numbers of the committee members to whom can be reached for a complaint

**Faculty members:**

- Conducting awareness programs for students and staff on gender equity, woman health, safety & security and sexual harassment. Creates a mechanism for registering the complaints.
- Conduct inquiries and facilitates redressal of the complaints. Recommends follow-up action & monitoring to the concerned authorities
- Provides appropriate emotional & psychological support to the victims in the form of counseling, security.

**Student members:**

- Receive the complaints of sexual harassment.
- Initiate the inquiry and submit the findings from the inquiry done. Direct the employer to undertake required actions.

**Year Planner for the Academic Year 2023-2024 (CAYm1)**

| S.No. | Name of the event | Date/dates | Resource Organization |
|---|---|---|---|
| 1 | Motivational Talk on Women Empowerment | July 4nd week. | Secretary Madam |
| 3 | Awareness on Cancer | October 3rd Week | Lalitha Hospital Guntur |
| *4* | Seminar on Cyber Crimes | December 1rd Week | Mr. K Pradeep, Certified Cyber Crime Intervention Officer, NSB |
| 5 | Seminar-Health Management | December 3rd Week | Local NGOs |
| 6 | Social Responsibility-Seminar | March 2rd Week | Local NGOs and Police department |

***Table 10.1.3.4.2 Year planner of Internal Complaints Committee for academic year 2023-2024***

**Events / Activities Organized for the Academic Year 2023-24 (CAYm1)**

| S.No | Name of the faculty | Area/Topic | Resource person | Class/Course | Date/Dates | No of Participants |
|---|---|---|---|---|---|---|
| 1 | Mrs Uma Suseela | Identification of Abusive Relationships and Prevention of Domestic Violence | Ms. Sathya Vijana Devi, Mr. RangaSai.Dr. G. Srividhya, Dr. Subhash, Mrs. K. Latha | CS, CSE, AGE, ECE, EEE, ME, & CE | 22/03/2024 | 102 |

***Table 10.1.3.4.3 Events/Activities Organized by Internal Complaints Committee for academic year 2023 – 2024***

**Events / Activities Organized for the Academic Year 2022-23 (CAYm2)**

| S. No | Name of the faculty | Area/Topic | Resource person | Class/Course | Date/Dates | No of Participants |
|---|---|---|---|---|---|---|
| 1 | Mrs. Ramya Swetha | Awareness Program on Women Safety | Ms. Sathya Vijana Devi, Mr. RangaSai. Dr. G. Srividhya, Dr. Subhash, Mrs. K. Latha | CS, CSE, AGE, ECE, EEE, ME, & CE | 7/11/2022 | 93 |

***Table 10.1.3.4.4 Events/Activities Organized by Internal Complaints Committee for academic year 2022 – 23***

**Events / Activities Organized for the Academic Year 2021-22 (CAYm3)**

| S.No | Name of the faculty | Area/Topic | Resource person | Class/Course | Date/Dates | No of Participants |
|---|---|---|---|---|---|---|
| 1 | Mrs. S. Koteswari | Empowering Women and Girls in Engineering | Ms. Sathya Vijana Devi, Mr. RangaSai. Mrs. Y. Nagalakshmi | CS, CSE, AGE, ECE, EEE, ME, & CE | 5/8/2019 | 95 |

*Table 10.1.3.4.5 Events/Activities Organized by Internal Complaints Committee for academic year 2021 – 22*

**Student Counseling Committee:**

**Functions of the Cell**

- A grievance cell is established in this college to resolve any types of disputes among students.
- The college provided many grievance boxes in prominent places.
- Stakeholders will drop the grievance listed in a paper in the box.
- Resolve grievances addressing mechanism available in the college.
- Maintain partiality transparency in grievances addressing mechanism.
- Establish grievance free college enrolment.
- To resolve the disputes prevailing among students or any other issues.
- To create a professional environment for sustainable development.
- Encourage the students to show responsibilities for professional engineering practice.
- To enhance effective communication to showcase grievance verbally or through grievance box.
- Encourage the students to practice disputes free environment.

**Facilities of the Cell**

- If any person is unwilling to appear in self, grievances may be dropped in writing at the letterbox/ suggestion box of the Grievance Cell across the institute.
- Grievances may also be sent through e-mail to the officer in-charge of Students' Grievance Cell
- Ladies waiting room
- Medical facility.

**Composition of Committee Members:**

| S.No | Name | Designation | Department |
|---|---|---|---|
| 1 | Dr. Ch. Mallikarjun | Chairman | Principal |
| 2 | Mr. K. Vijaya Kumar | Member | ME |
| 3 | Mrs. A. Sai Pujitha | Member | CSE |
| 4 | Mr. P. Sudheer Kumar | Member | ECE |
| 5 | Mr. K. Ramu | Member | CE |
| 6 | Dr. D. Anand Babu | Member | AGE |
| 7 | Mr. R. Koteswara Naik | Member | EEE |
| 8 | Mr. I. Sitarami reddy | Member | BS&H |

***Table 10.1.3.5.1: Student Counselling Committee and its members for the academic year 2023-24***

**Role of the Coordinator:**

- The facts shall try to redress the grievance within a reasonable time, preferably within a week of the receipt of the complaint.
- If the student is not satisfied with the verdict or solution of the Programme Coordinator, as the case may be then the same should be placed before the Head of the Institution that is Principal.

The principal shall, if necessary, refer the same to the respective College level committee (Students Grievance Redressal Cell) for redressal

- To enlighten the students on their duties and responsibilities to access benefits under the policies.
- To establish structured interactions with students to elicit information on their expectations.

**Events Organized:**

| S. No | Name of the program | Date | Resource person | No. of participants |
|---|---|---|---|---|
| 1 | Awareness Program on Breast Cancer | 29/08/2023 | Dr. N. Rajesh, Lalitha Hospital Guntur | 82 |
| 2 | Health Awareness Camp | 09/11/2023 | Dr Ramalinga Reddy Maxi vision Super Specialty Hospital Narasaraopet, | 90 |
| 3 | Disha Awareness Programme | 23/03/2024 | Sri Kanchi Srinivasa Rao, S.P Narasaraopet. | 85 |

***Table 10.3.5.2 Events organized by Student Counselling Committee during assessment period***

**Faculty Grievance Redressal Committee**

**Functions:**

- To conduct Staff meeting at regular intervals for healthy progress in professional Guidance, Career advancement and all-round development.
- To look into the grievances put forward by the women employees of the college irrespective of the complaint against Male or Women employee
- To ensure proper investigation of facts and figures related to the problem.
- To make positive and friendly ways to resolve any Crisis than to punitive steps.
- To maintain a calm and quiet composure and behave in an unbiased and impartial manner. To oversee that the suggestion boxes are set at the right places and complaints are filled and noted in a proper way

**Facilities:**

- Faculty Grievance &Redressal cell room for committee meetings and discussions.
- Conference hall.
- Having computer system with Internet facility.
- Printer to get the Xerox copies.
- Suggestions Boxes at prominent places.

**Management – Composition & Committee Members:**

Committee Composition:

- One senior faculty as coordinator.
- One faculty from each department.

Committee Members:

| S. No. | Name | Designation | Department |
|---|---|---|---|
| 1. | Mr. V. V. B Chari | Coordinator | CSE |
| 2 | Mr. A. Durga prasad Rao | Member | ME |
| 3. | Mr. K. Bhaskar Rao | Member | ECE |
| 4.. | Mrs. P. Koteswaramma | Member | EEE |
| 5. | Mr. G. Madhavi | Member | CE |
| 6. | Mr. Sk. Karimulla | Member | BS&H |
| 7. | Mr. B. Chinna Babu | Member | AGE |

***Table 10.1.3.6.1: Faculty Grievance Redressal Committee and its members for the academic year 2023-24***

**Role & Responsibilities:**

Coordinator:

- To Maintain online/ offline submission of Faculty Grievances. Periodical submission of reported Grievances in AICTE online portal, if any.to review the suggestions/complaints raised by the staff.
- To consider and provide the welfare facilities for faculty and staff. To provide the recreational and health care facilities for faculty.

**Faculty Member:**

- All the grievances of the staff which could not be settled in the routine process should be referred to this committee. Committee tries to settle the issues amicably in a time bound manner.
- Introduces a reasonable and reliable solution for grievances of various issues received from Staff. Ensures that the grievances are resolved on time impartially and confidentially.

**10.1.4 Delegation of financial powers** (10) Institute Marks : 10.00

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

**Delegation of financial powers**

In accordance with the Institution Rules and the management has agreed to delegate the following financial powers to the Principal and Head of the Departments to facilitate them.

| S. No. | Designation | Financial Power | Purpose |
|---|---|---|---|
| 1 | Principal | Rs 1,00,000/- | To purchase consumables, Stationery, Expenditure connected with the conduct of Seminars, Workshops and other petty contingent expenditure connected with academic activity |
| 2 | HoD | Rs. 5,000/- | To purchase consumables and other petty contingent Expenditure. |
| 3 | Committee Coordinator | Rs.1,000/- | Towards event planning |

The Heads of the Department are given an Imprest amount of Rs 5,000 towards the purchase of consumables and other petty contingent expenditure. After that amount is spent and bills are settled another advance amount of Rs 5,000 will be given.

**10.1.5 Transparency and availability of correct/unambiguous information in public domain** (5) Institute Marks : 5.00

**10.1.5. Transparency and availability of correct/unambiguous information in public domain (5)**

The institution communicated its quality assurance policies, mechanisms and outcomes through college magazine, newsletters, publications and website. The entire information about the institution is transparent to all stake holders and is available at website: www.amreddyengineering.ac.in (http://www.dnrcet.org/) all the information are available with total transparency of information including circulars, AICTE Compliance Report, events in the Institute, placements, exams and academic calendar etc.

**10.2 Budget Allocation, Utilization, and Public Accounting at Institute level** (30) Total Marks 30.00

**Summary of currentfinancial 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 40360232.04 | | | | Actual expenditure(till…): 56773834.25 | | | Total No. Of Students 1272 |
|---|---|---|---|---|---|---|---|
| Fee | Govt. | Grants | Other sources(specify) | Recurring including salaries | Non Recurring | Special Projects/Anyother, specify | Expenditure per student |
| 23472265.19 | 16887966.85 | 0 | 0 | 33348419.89 | 23425414.36 | 0 | 44633.52 |

**Table 2 - CFYm1 2023-24**

| Total Income 34982107.52 | | | | Actual expenditure(till…): 60375918.24 | | | Total No. Of Students 1392 |
|---|---|---|---|---|---|---|---|
| Fee | Govt. | Grants | Other sources(specify) NA | Recurring including salaries | Non Recurring | Special Projects/Anyother, specify | Expenditure per student |
| 17016451.61 | 17965655.91 | 0 | 0 | 32311402.11 | 28064516.13 | | 43373.50 |

**Table 3 - CFYm2 2022-23**

| Total Income 37900891.48 | | | | Actual expenditure(till…): 41496953.03 | | | Total No. Of Students 1602 |
|---|---|---|---|---|---|---|---|
| Fee | Govt. | Grants | Other sources(specify) - | Recurring including salaries | Non Recurring | Special Projects/Anyother, specify | Expenditure per student |
| 20794263.57 | 17106627.91 | 0 | 0 | 37219433.65 | 4277519.38 | | 25903.22 |

**Table 4 - CFYm3 2021-22**

| Total Income 37092880.56 | | | | Actual expenditure(till…): 42092198.45 | | | Total No. Of Students 1761 |
|---|---|---|---|---|---|---|---|
| Fee | Govt. | Grants | Other sources(specify) | Recurring including salaries | Non Recurring | Special Projects/Anyother, specify | Expenditure per student |
| 16797001.27 | 20295879.29 | 0 | 0 | 39705413.19 | 2386785.26 | | 23902.44 |

| **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 | 25200000.00 | 23425414.36 | 29000000.00 | 28064516.13 | 4900000.00 | 4277519.38 | 2850000.00 | 2386785.26 |
| Library | 300000.00 | 204972.38 | 240000.00 | 224516.13 | 295000.00 | 262170.54 | 300000.00 | 294618.81 |
| Laboratory equipment | 120000.00 | 84917.13 | 110000.00 | 99784.95 | 110000.00 | 106937.98 | 1125000.00 | 1047947.90 |
| Laboratory consumables | 40000.00 | 35138.12 | 55000.00 | 46774.19 | 50000.00 | 44844.96 | 55000.00 | 50719.19 |
| Teaching and non-teaching staff salary | 30000000.00 | 27943005.52 | 28000000.00 | 27905273.08 | 33600000.00 | 32849119.70 | 35250000.00 | 34672279.77 |
| Maintenance and spares | 3600000.00 | 3396685.08 | 3000000.00 | 2962365.59 | 2800000.00 | 2721744.19 | 2625000.00 | 2461372.30 |
| R&D | 150000.00 | 131767.96 | 120000.00 | 102903.23 | 120000.00 | 102798.45 | 110000.00 | 89504.45 |
| Training and Travel | 480000.00 | 439226.52 | 336000.00 | 330537.63 | 385000.00 | 359104.65 | 400000.00 | 395311.31 |
| Miscellaneous Expenses | 120000.00 | 117127.07 | 110000.00 | 93548.39 | 70000.00 | 58643.41 | 75000.00 | 59669.63 |
| Others | 1200000.00 | 995580.11 | 600000.00 | 545698.92 | 840000.00 | 714069.77 | 675000.00 | 633989.83 |
| **Total** | **61210000.00** | **56773834.25** | **61571000.00** | **60375918.24** | **43170000.00** | **41496953.03** | **43465000.00** | **42092198.45** |

**10.2.1 Adequacy of budget allocation** (10)

Institute Marks : 10.00

**10.2.2. Adequacy of budget allocation** (10)

The yearly budget is prepared according to the needs & requirements of the departments taking into consideration of annual intake of students, laboratory & infrastructure developments, Students, faculty & staff requirements and promotions and latest technologies etc. Various departments submit the annual budget to principal. On receipt of such proposals, Principal, in consultation with departmental HODs,prepares a consolidated proposal. After deliberations, formal budget made altered in departments and forwarded to Principal for preparing final budget at college level and submit it to the Governing Body for approval and sanction. The Management is approving almost 100% which was proposed by the institute. The budget allocation and utilization for the last three years is adequate. All the expenditure needs prior approval from the competent authority. Funds would be spent only from the approved budget. If funds are required for expenses not mentioned in the proposal, management's approval is a must.

| S.No | Assessment Year | Budget Allocated in Lakhs | Actual Expenditure in Lakhs | Adequate /Non Adequate |
|---|---|---|---|---|
| 1. | 2024-2025 | 61210000.00 | 56773834.25 | Adequate |
| 2. | 2023-2024 | 61571000.00 | 60375918.24 | Adequate |
| 3. | 2022-2023 | 43170000.00 | 41496953.03 | Adequate |
| 4 | 2021-2022 | 43465000.00 | 42092198.45 | Adequate |

***Table 10.2.1: Adequacy of budget allocation during assessment period.***

**10.2.2 Utilization of allocated funds** (15)

Institute Marks : 15.00

**10.2.2. Utilization of allocated funds (15)**

The funds are utilized by the Principal, Heads, and Finance Committee as per the allocation. Any additional fund requirements, beyond budget allocations are approved by the Management.

| S.No | Assessment Year | Budget Allocated in Lakhs | Actual Expenditure in Lakhs | % |
|---|---|---|---|---|
| 1 | 2024-2025 | 612.10 | 567.73 | 92.75 |
| 2 | 2023-2024 | 615.71 | 603.75 | 98.06 |
| 3 | 2022-2023 | 431.70 | 414.96 | 96.12 |
| 4 | 2021-2022 | 434.65 | 420.92 | 96.84 |

***Table 10.2.2: Adequacy of budget utlized during assessment period.***

**10.2.3 Availability of the audited statements on the institute's website** (5)

Institute Marks : 5.00

**10.2.3. Avauilability of the audited statements on Website (5)**

| Sl.No | Year | Link |
|---|---|---|
| 1 | 2024-2025 | https://amreddyengineering.ac.in/AuditStatements/2024-2025AUDITREPORT.pdf (https://amreddyengineering.ac.in/AuditStatements/2024-2025AUDITREPORT.pdf) |
| 2 | 2023-2024 | https://amreddyengineering.ac.in/AuditStatements/2023-2024AUDITREPORT.pdf (https://amreddyengineering.ac.in/AuditStatements/2023-2024AUDITREPORT.pdf) |
| 3 | 2022-2023 | https://amreddyengineering.ac.in/AuditStatements/2022-2023AUDITREPORT.pdf (https://amreddyengineering.ac.in/AuditStatements/2022-2023AUDITREPORT.pdf) |
| 4 | 2021-2022 | https://amreddyengineering.ac.in/AuditStatements/2021-2022AUDITREPORT.pdf (https://amreddyengineering.ac.in/AuditStatements/2021-2022AUDITREPORT.pdf) |

***Table 10.2.3. Availability of the audited statementon Website***

**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**

| 15109000.00 | | Actual expenditure (till…): 13390108.81 | | Total No. Of Students 300 |
|---|---|---|---|---|
| Non Recurring | Recurring | Non Recurring | Recurring | Expenditure per student |
| 6,325,000.00 | 8,784,000.00 | 5,544,911.68 | 7,845,197.13 | 44633.70 |

**Table 2 :: CFYm1 2023-24**

| 12290000.00 | | Actual expenditure (till…): 11226902.00 | | Total No. Of Students 270 |
|---|---|---|---|---|
| Non Recurring | Recurring | Non Recurring | Recurring | Expenditure per student |
| 5,820,000.00 | 6,470,000.00 | 5,237,151.79 | 5,989,750.21 | 41581.12 |

**Table 3 :: CFYm2 2022-23**

| 7712000.00 | | Actual expenditure (till…): 7490614.98 | | Total No. Of Students 300 |
|---|---|---|---|---|
| Non Recurring | Recurring | Non Recurring | Recurring | Expenditure per student |
| 900,000.00 | 6,812,000.00 | 791438.4 | 6,699,176.58 | 24968.72 |

**Table 4 :: CFYm3 2021-22**

| 8537000.00 | | Actual expenditure (till…): 8321206.70 | | Total No. Of Students 360 |
|---|---|---|---|---|
| Non Recurring | Recurring | Non Recurring | Recurring | Expenditure per student |
| 720,000.00 | 7,817,000.00 | 679,012.40 | 7,642,194.30 | 23114.46 |

| **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 | 25000.00 | 20027.71 | 20000.00 | 18555.01 | 20000.00 | 19303.37 | 220000.00 | 207168.82 |
| Software | 3000.00 | 2486.20 | 3000.00 | 2609.30 | 3000.00 | 2428.49 | 4000.00 | 3008.00 |
| Laboratory consumable | 6000.00 | 5801.13 | 7000.00 | 6088.36 | 6000.00 | 5666.47 | 8000.00 | 7018.67 |
| Maintenance and spares | 810000.00 | 801108.18 | 600000.00 | 550851.88 | 500000.00 | 491302.04 | 500000.00 | 486588.69 |
| R & D | 35000.00 | 31077.47 | 20000.00 | 19134.86 | 20000.00 | 18556.15 | 20000.00 | 17694.13 |
| Training and Travel | 110000.00 | 103591.57 | 65000.00 | 61463.47 | 70000.00 | 64821.98 | 80000.00 | 78149.09 |
| Miscellaneous Expenses | 14120000.00 | 12426016.55 | 11575000.00 | 10568199.12 | 7093000.00 | 6888536.48 | 7705000.00 | 7521579.30 |
| **Total** | **15109000.00** | **13390108.81** | **12290000.00** | **11226902.00** | **7712000.00** | **7490614.98** | **8537000.00** | **8321206.70** |

**10.3.1 Adequacy of budget allocation** (10) Institute Marks : 10.00

**10.3.1. Adequacy of budget allocation**

The allocated budget was used to meet the new facilities, equipment, replacement of out-dated equipment and new labs due to revision in syllabi. Budget requirements under recurring and non- recurring heads are collected from departments before the commencement of the financial year.

Allocations are made as per the availability of funds. Spending is monitored by the accounts section. The institution carefully monitors the expenses so that the necessities are met without affecting the smooth working of the institution. The finance committee has been very efficiently doing this over the past several years that the institution never had any serious budget crunch that affected the functioning of the college.

The sample table shows the details of adequacy of budget allocation for the last three years for the department of Computer science and Engineering.

| S.No | Assessment Year | Budget Allocated in Lakhs. | Actual Expenditure in Lakhs. | Adequate / Non Adequate |
|---|---|---|---|---|
| 1. | 2024-2025 | 1019000.00 | 991716.68 | Adequate |
| 2. | 2023-2024 | 735000.00 | 676098.20 | Adequate |
| 3. | 2022-2023 | 632000.00 | 612664.22 | Adequate |
| 4. | 2021-2022 | 847000.00 | 811423.49 | Adequate |

***Table 10.3.1: Program specific adequacy of budget allocation during assessment period.***

**10.3.2 Utilization of allocated funds** (20) Institute Marks : 20.00

**10.3.2. Utilization of allocated funds**

Funds are allocated by the Management of the College. Department Heads are intimated of the extent of funds allocated against their budget proposals. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc., are initiated from the department and the funds are released on a case by case basis from the accounts office of the college on approval by the Management. During the last three years, the budget was utilized to meet expenses like purchase of equipment, expenses towards consumables and contingencies, etc. The Table shows the percentage of funds utilization for the last three years for the department of Computer Science & Engineering.

| S. No | Assessment Year | Budget Allocated in Lakhs. | Actual Expenditure in Lakhs. | Percentage of Utilization |
|---|---|---|---|---|
| 1 | 2024-2025 | 10.19 | 9.91 | 97.32% |
| 2 | 2023-2024 | 7.35 | 6.76 | 91.99% |
| 3 | 2022-2023 | 6.32 | 6.12 | 96.94% |
| 4 | 2021-2022 | 8.47 | 8.11 | 95.80% |

***Table 10.3.2.1: Program specific utilization of allocated budget for the assessment period***

**10.4 Library and Internet** (20) Total Marks 20.00

**10.4.1 Quality of learning resources (hard/soft)** (10)

Institute Marks : 10.00

### 10.4. Library and Internet

Library at AMRMCET has subscribed e-journals from various services providers such as DELNET, NDL.

Elements which affect the quality of journals include Reputation – of the journal and the publisher, Scope and focus of the journal, Turnaround time / publication lag, Longevity, Editorial standards / Journal information, Acceptance rate, Cost etc. AMRMCET Library and information Centre procured all quality journals maintaining time trusted values.

Library space and ambience, timings and usage, availability of a qualified librarian and other staff, library automation, online access, networking, etc.

Carpet area of library (in m 2): 675 Sqm

Reading Room Space (in m 2): 350 Sqm

Number of seats in reading space: 150

Number of users visiting library per day: 132

Number of users (issue book) per day: 35

Number of users (reading space) per day: 132

Number of users at digital library per day: 40

Digital Library: 30 Systems

Number of library staff: 4

Number of library staff with a degree in Library Management: 2

Computerization for search, indexing.: YES

Issue/return records Bar coding used.: YES

**Timings:**

**Working Days: 08.00 AM to 08.00 PM**

**Weekend and Vacation: 10:00 AM to 1:00 PM**

**Details of Library as on 1st July 2024**

| S. No | Name of the Item | Available as on 1st July 2024 |
|---|---|---|
| 1 | Books – Titles | 3754 |
| 2 | Books – Volumes | 19036 |
| 3 | Print Journals | 97 |
| 4 | e-Journals | 1230 |
| 5 | Library management software | 1 |
| 6 | Reading Room Seating Capacity | 150 |
| 7 | Digital Library | 30 |

***Table 10.4.1.1: Library Details***

**DELNET e-Journals - 2354**

Agriculture & Horticulture - 116

Architecture -92

Divyangjan (Persons with Special Needs) - 382

Education - 206

Engineering and Technology -911

Food Technology - 133

Library and Information Technology - 55

Management -240

Science -13

Skill & Entrepreneurship- 58

Startups, Innovation and Entrepreneurship- 53

Women and Child Development - 71

Yoga -24

**List of Journals – Department wise**

| Department | Print Journals | Online Journals |
|---|---|---|
| Civil Engineering | 14 | |
| Electrical and Electronics Engineering | 14 | |
| Mechanical Engineering | 9 | |
| Electronics and Communication Engineering | 15 | |
| Computer Science and Engineering | 20 | |

| | | |
|---|---|---|
| MBA | 13 | 240 |
| Basic Science and Humanities | 5 | |
| Agriculture Engineering | 7 | |
| **TOTAL** | **97** | **1230** |

***Table 10.4.1.2: List of journals dept. wise***

**PRINTED JOURNALS**

| S. No | Name of the Journals & Magazine |
|---|---|
| 1 | Journal Of Information Knowledge And Research In Civil Engineering |
| 2 | The Iup Journal Of Structural Engineering |
| 3 | Journal Of Structural Engineering |
| 4 | Journal Of Surveying And Structural And Engineering |
| 5 | International Journal of Civil Engineering |
| 6 | International Journal Of Civil And Structural Engineering |
| 7 | Journal Of Civil And Construction Engineering |
| 8 | Journal Of Water Resources And Pollution Studies |
| 9 | Journal Of Environmental Engineering And Studies |
| 10 | International Journal Of Environmental Management And Renewable Energy System |
| 11 | Journal Of Transportation Systems |
| 12 | Journal Of Construction And Building Materials Engineering |
| 13 | Journal Of Geotechnical Studies |
| 14 | International Journal Of Building Information Modelling Applications In Constructing |
| 15 | Ieema Journal |
| 16 | The Iup Journal Of Electrical And Electronics Engineering |
| 17 | Advance In Power Electronics(International) |
| 18 | International Journal Of Emerging Electric Power System |
| 19 | Iup Journal Of Electrical And Electronics Engineering |
| 20 | Journal Of Advance Electrical Engieering And Devices |
| 21 | Journal Of Controller Convertors |
| 22 | Journal Of Digital Integrated Circuitsin Electrical Devices |
| 23 | Journal Of Control Of Instrumental Engineering |
| 24 | Advance Research In Powewr Electronics And Devices |
| 25 | Journal Of Electronics Design And Technology |
| 26 | International Journal Of Emerging Iot Technologies In Smart Electronics And Communication |
| 27 | Journal Of Alternative And Renewable Energy Sources |
| 28 | International Journal Of Renewable Energy And Electrical Power Systems |
| 29 | Journal Of Information ,Knowledge And Research In Mechanical Engineering |
| 30 | The Iup Journal Of Mechanical Engineering |
| 31 | Journal Of Mechanical And Mechanics Engineering |
| 32 | International Journal Of Manufacturing And Technologyand Industrial Engineering |
| 33 | Journal Of Advancement In Machines |
| 34 | Jornal Industrial Mechanics |
| 35 | Journal Of Thermal Energy Systems |
| 36 | Journal Of Mechanical Of Robotics |
| 37 | Journal Of Fluid Mechanics And Mechanical Design |
| 38 | Journal Of Information Knowledge And Research In Electronics Communication Engineering |
| 39 | Journal Of Information Knowledge And Research In Biomedical Engineering |
| 40 | The Iup Journal Of Telecommunications |
| 41 | Tele Comunication Journal()Bsnl) |
| 42 | Ie1 Electronics And Telecom Engineering |
| 43 | Vlsi Journal An International Journal |
| 44 | International Journal Of Wireless & Mobile Networks |

| | |
|---|---|
| 45 | Telecommunications |
| 46 | Journal Of Analog And Digital Communications |
| 47 | International Journal Of Advances In Biomedical Sciences |
| 48 | Research And Review;Electronics And Communication Engineering |
| 49 | Journal Of Micro Processors And Micro Controller Research |
| 50 | Advance Research In Analog And Digital Communications |
| 51 | Journal Of Electronics And Tele Communnicaton Sysytem And Engineering |
| 52 | International Journal Of Digital Technology And Network Security System |
| 53 | International Journal Of Computer Application In Engineering Technology & Sciences |
| 54 | International Journal Of Emerging Engineering Technology And Application And Science |
| 55 | Journal Of Information Knowledge And Research In Information Technology |
| 56 | Journal Of Information Knowledge And Research Computer Science And Application |
| 57 | Journal Of Information Knowledge And Research Computer Engineering |
| 58 | The Iup Journal Of Computer Engineering |
| 59 | The Institution Of Electronics And Telecommunication Engineers(Iete) Journal Of Research |
| 60 | The Institution Of Electronics And Telecommunication Engineers(Iete) Journal Of Research |
| 61 | Inverts Journal Of Science And Technology |
| 62 | Journal Of Information Technology |
| 63 | Oriented Journal Of Computer Science |
| 64 | National Journal Of Of Computer Science |
| 65 | Advance In Software Engineering |
| 66 | International Journal Of Computer Science And Information Security |
| 67 | International Journal Of Computer Networks And Communications |
| 68 | Journal Of Computer Sciences |
| 69 | Journal Of Network Security Computer Networks |
| 70 | Journal Of Datamining And Management |
| 71 | Journal Of Computer Sciences Engineering And Software Testing |
| 72 | Journal Of Computer Based Parallel Programming |
| 73 | International Journal Of Advance In Engineering Science |
| 74 | The Iup Journal Of English Studies |
| 75 | Journal Of Resources ,Energy And Development |
| 76 | Journal Of Statistics And Mathematical And Engineering |
| 77 | Journal Of Crystallization And Physics And Chemistry |
| 78 | International .Journal Of Agriculture And Plant Pathology |
| 79 | International Journal Of Agronomy |
| 80 | Journal Of Advanced Research In Agriculture Science And Technology |
| 81 | South Asian Journal Of Agricultural Science |
| 82 | International Journal Of Reserarch In Agronomy |
| 83 | International Journal Of Agriculture And Nutrition |
| 84 | International Journal Of Agriculture Extension And Social Development |
| 85 | Journal Of Information Knowledge And Research In Business Management Adminstration |
| 86 | The Iup Journal Of Marketing Management |
| 87 | The Iup Journal Of Financial Risk Management |
| 88 | The Iup Journal Of Business Strategy |
| 89 | The Iup Journal Of Management Research |
| 90 | The Iupjpurnal Of Optimazational Behaviour |
| 91 | The Iup Journal Of Supply And Chain Management |
| 92 | The Iup Journal Of Brand Management |
| 93 | Hrm Reviews |
| 94 | Indian Journal Of Prabhandan Management |
| 95 | Indian Journal Of Finance |
| 96 | International Journal Of Business Management |

| | |
|---|---|
| 97 | The International Review Of Business And Finance |

*Table 10.4.1.3: List of printed Journals*

**Magazines**

| Sl.No | Magazine |
|---|---|
| 1 | Electronics Today |
| 2 | Electrical India |
| 3 | Chip |
| 4 | Developer Iq |
| 5 | Civil Engineering Construction Reviews |
| 6 | Business World |
| 7 | Frp Today |
| 8 | Digital Learning |
| 9 | Corporate Citizen |
| 10 | The Scitech Journal |
| 11 | The Lup Journal Of Knowledge Management |
| 12 | Journal Of Information Technology(It) |
| 13 | Iete Journal Of Research |
| 14 | Iete Journalm Of Educaton |
| 15 | Iete Journal Of Technical Review |
| 16 | [Efy] Benefit |
| 17 | [Efy]Linux For You |
| 18 | [Efy] Electronic For You |
| 19 | Indian Jr.Of Marketing |
| 20 | Frontline |
| 21 | Sri Rama Krishna Prabha |
| 22 | Jr Of Electronics And Telecom Engineering]The Institutes Of Engineers |
| 23 | Iete Jr Of Research |
| 24 | Iete Jr Of Technical Review |
| 25 | Jr Of Electrical Electronics And Engineering |
| 26 | The Journal Of Business Respective |
| 27 | Indian Jr Of Marketing |
| 28 | Current Science |

*Table 10.4.1.4: List of Magazines*

*List of E Journals*

*Table: 10.4.1.5. List of E Journals (Annexed Separately)*

**10.4.2 Internet** (10) Institute Marks : 10.00

| | |
|---|---|
| Name of the Internet provider | BSNL |
| Available band width | 500 MBPS |
| WiFi availability | Yes |
| Internet access in labs, classrooms, library and offices of all Departments | Yes |
| Security arrangements | YES |

**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 | To apply domain knowledge and expertise for enhancing research capability to transform innovative ideas into reality. |
| PSO2 | To prepare students to undertake careers involving problem solving using computer science and technologies |

# Declaration

The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

**Head of the Institute**
Name : Dr.Ch.Mallikarjun
Designation : Professor and principal
Signature :


Seal of The Institution :


**Place :** Narasaraopet
**Date :** 13-07-2025 10:13:24