

# JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

## SELF ASSESSMENT REPORT(TIER - II) FOR Mechanical Engineering

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## Part A : Institutional Information

### 1 Name and Address of the Institution

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE,  
SHRI RAM KI NANGAL SITPURA RIICO EPIP GATE

### 2 Type of the Institution:

<input checked="" type="radio"/> Self-Supported Institute	<input type="radio"/> Autonomous
<input type="radio"/> Deemed University	<input type="radio"/> Non-Autonomous (Affiliated)
<input type="radio"/> University	<input type="radio"/> Any Other(Please Specify)
<input type="radio"/> Institute of National Importance	

### 3 Year of establishment of the Institution:

2000

www.jecrcfoundation.com

### 4 Ownership Status:

<input type="radio"/> Central Government	<input type="checkbox"/> Any Other(Please Specify)
<input type="radio"/> State Government	
<input type="radio"/> Government Aided	
<input checked="" type="radio"/> Self financing	

### 5 Name and Address of Affiliating University

RAJASTHAN TECHNICAL UNIVERSITY

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

Name of Institutions	Year of Establishment	Programs of Study	Location
JECRC UNIVERSITY www.	2012	UG, PG, Ph.D	Plot No. IS-2036 to IS-21

### 7 Details of all the programs being offered by the institution:

Program Name	Program Applied level	Year of Start	AICTE approval details	Sanctioned Intake	Increase/decrease in intake	Current Intake	Accreditation status	From	To	Program fo considerati
Mechanical Engineering	UG	2003	2023	60	Yes	30	Granted accreditation for 3 years for the period (specify period)	2018	2025	

**Sanctioned Intake for Last Five Years for the Mechanical Engineering**

Academic Year	Sanctioned Intake
2025-26	30
2024-25	30
2023-24	30
2022-23	60
2021-22	120
2020-21	120

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

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Mechanical Engineering

Table No. A8.2

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

**9 Total Number of Faculty Members in Various Departments:**

ID	Department Name	Number of faculty members in the Department (UG and PG)										
		2025-26 (CAY)				2024-25 (CAYm1)				2023-24 (CAYr)		
		No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors
1	First Year	18	10	46	74	18	8	16	42	10	15	
2	Artificial Intelligence and Data Science	2	4	9	15	2	4	10	16	1	4	
3	Civil Engineering	1	3	14	18	2	3	18	23	1	3	
4	Computer Science and Engineering	3	9	70	82	5	10	58	73	3	8	
5	Computer Science and Engineering (Artificial Intelligence)	0	1	16	17	0	1	13	14	0	1	
6	Electrical Engineering	1	3	10	14	1	3	15	19	1	2	
7	Mechanical Engineering	7	1	15	23	7	1	17	25	4	5	
8	Electronics and Communication Engineering	7	4	22	33	7	3	26	36	4	3	
9	Information Technology	1	2	18	21	1	1	20	22	1	1	

**10 Total Number of Engineering Students in Various Departments:**

ID	Department Name	Number of students in the Department (UG and PG)		
		2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)
1	Civil Engineering	63	65	66
2	Computer Science and Engineering	503	467	275
3	Computer Science and Engineering (Artificial Intelligence)	380	260	129
4	Electrical Engineering	62	56	51
5	Electronics and Communication Engineering	188	126	125
6	Information Technology	189	189	188
7	Mechanical Engineering	30	31	32
8	Artificial Intelligence and Data Science	253	198	194

**11 Vision of the Institution:**

**VISION OF THE INSTITUTE**

To become a renowned centre of outcome based learning and work toward academic, professional, cultural and social enrichment in the lives of individuals and communities.

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**12 Mission of the Institution:****MISSION OF THE INSTITUTE :**

1. Focus on evaluation of learning outcome and motivate students to inculcate research aptitude by project based learning.
  2. Identity based on informed perception of Indian, regional and global needs and the areas of focus and provide platform to gain knowledge and solutions.
  3. Offer opportunities for interaction between academia and industry.
  4. Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.
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**13 Contact Information of the Head of the Institution and NBA coordinator, if designated:**

<b>Head of the Institution</b>	
Name	Prof. VINAY KUMAR CHANDN
Designation	PRINCIPAL
Mobile No.	9891406784
Email ID	principal@jecrcmail.com

 **NBA Coordinator, If Designated**

Name	Dr. Fauzia Siddiqui
Designation	Professor
Mobile No.	9819695582
Email ID	fauziasiddiqui.me@jecrc.ac.in

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## PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	OUTCOME-BASED CURRICULUM	120	116.00
2	OUTCOME-BASED TEACHING LEARNING	120	106.00
3	OUTCOME-BASED ASSESSMENT	120	113.00
4	STUDENTS' PERFORMANCE	120	107.01
5	FACULTY INFORMATION	100	99.00
6	FACULTY CONTRIBUTIONS	120	107.00
7	FACILITIES AND TECHNICAL SUPPORT	100	96.00
8	CONTINUOUS IMPROVEMENT	80	73.00
9	STUDENT SUPPORT AND GOVERNANCE	120	117.00
	<b>Total</b>	<b>1000</b>	<b>934</b>

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## Part B : Criteria Summary

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1 OUTCOME-BASED CURRICULUM (120)

Total

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

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

Vision of the institute	<p><b>VISION OF THE INSTITUTE</b></p> <p>To become a renowned centre of outcome based learning and work toward academic, professional, cultural and social enrichment in the lives of individuals and communities.</p>									
Mission of the institute	<p><b>MISSION OF THE INSTITUTE :</b></p> <ol style="list-style-type: none"> <li>1. Focus on evaluation of learning outcome and motivate students to inculcate research aptitude by project based learning.</li> <li>2. Identity based on informed perception of Indian, regional and global needs and the areas of focus and provide platform to gain knowledge and solutions.</li> <li>3. Offer opportunities for interaction between academia and industry.</li> <li>4. Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.</li> </ol>									
Vision of the Department	<p>The Mechanical Engineering Department strives to be recognized globally for outcome based technical knowledge and to produce quality human resource, which can manage the advance technologies and contribute to society.</p>									
Mission of the Department	<table border="1"> <thead> <tr> <th data-bbox="212 905 337 989">Mission No.</th> <th data-bbox="337 905 1136 989">Mission Statements</th> </tr> </thead> <tbody> <tr> <td data-bbox="212 989 337 1052">M1</td> <td data-bbox="337 989 1136 1052">To impart quality technical knowledge to the learners to make them globally competitive mechanical engineers.</td> </tr> <tr> <td data-bbox="212 1052 337 1115">M2</td> <td data-bbox="337 1052 1136 1115">To provide the learners ethical guidelines along with excellent academic environment for a long productive career.</td> </tr> <tr> <td data-bbox="212 1115 337 1178">M3</td> <td data-bbox="337 1115 1136 1178">To promote industry-institute relationship.</td> </tr> </tbody> </table>		Mission No.	Mission Statements	M1	To impart quality technical knowledge to the learners to make them globally competitive mechanical engineers.	M2	To provide the learners ethical guidelines along with excellent academic environment for a long productive career.	M3	To promote industry-institute relationship.
Mission No.	Mission Statements									
M1	To impart quality technical knowledge to the learners to make them globally competitive mechanical engineers.									
M2	To provide the learners ethical guidelines along with excellent academic environment for a long productive career.									
M3	To promote industry-institute relationship.									

1.1.2 State PEOs of the Program (5)

PEO No.	Program Educational Objectives Statements
PEO1	To equip graduates with a strong foundation in engineering sciences, with an emphasis on mechanical engineering principles, enabling them to analyze, design, and solve real-world engineering challenges.
PEO2	To prepare graduates with sound scientific and engineering fundamentals to innovate and deliver effective solutions addressing practical challenges in mechanical engineering.
PEO3	To inculcate in graduates a professional and ethical attitude, effective communication and teamwork skills, a multidisciplinary approach, entrepreneurial mindset, and the ability to connect engineering solutions with societal and environmental concerns.
PEO4	To provide students with an academic environment that fosters excellence, leadership, adherence to ethical standards, and encourages self-motivated lifelong learning essential for a successful professional career in mechanical.
PEO5	To prepare students to excel in industry and higher education by providing quality education grounded in strong technical knowledge and high moral values.

1.1.3 Process of Defining Vision, Mission and PEOs (15)

The process of defining the department Vision and Mission involved a collaborative effort among the departmental faculty members, ensuring that a wide range of perspectives contributed to shaping the direction of the program. Input from stakeholders, including employer, alumni, and industry professionals, was continuously gathered to ensure the departmental goals were relevant and forward-thinking. This inclusive process helped ensure that the department Vision and Mission are not only aligned with the broader goals of the Institute but also responsive to the evolving needs of the academic and professional landscapes.

- These statements were discussed further among faculty members before finalization.
- These statements were also discussed among stake holders before finalization.
- The Vision and Mission statements were sent to the Principal for approval.
- Our process for establishing and revising Department Vision, Department Missions and Program Educational Objectives (PEOs) are depicted in figures below. Faculty Members/Students/Stakeholders/Alumni inputs are obtained through surveys with follow-up email and telephone calls by the Department HoD and associated faculty members.
- This feedback is condensed and presented to faculty members at the final faculty members meeting.

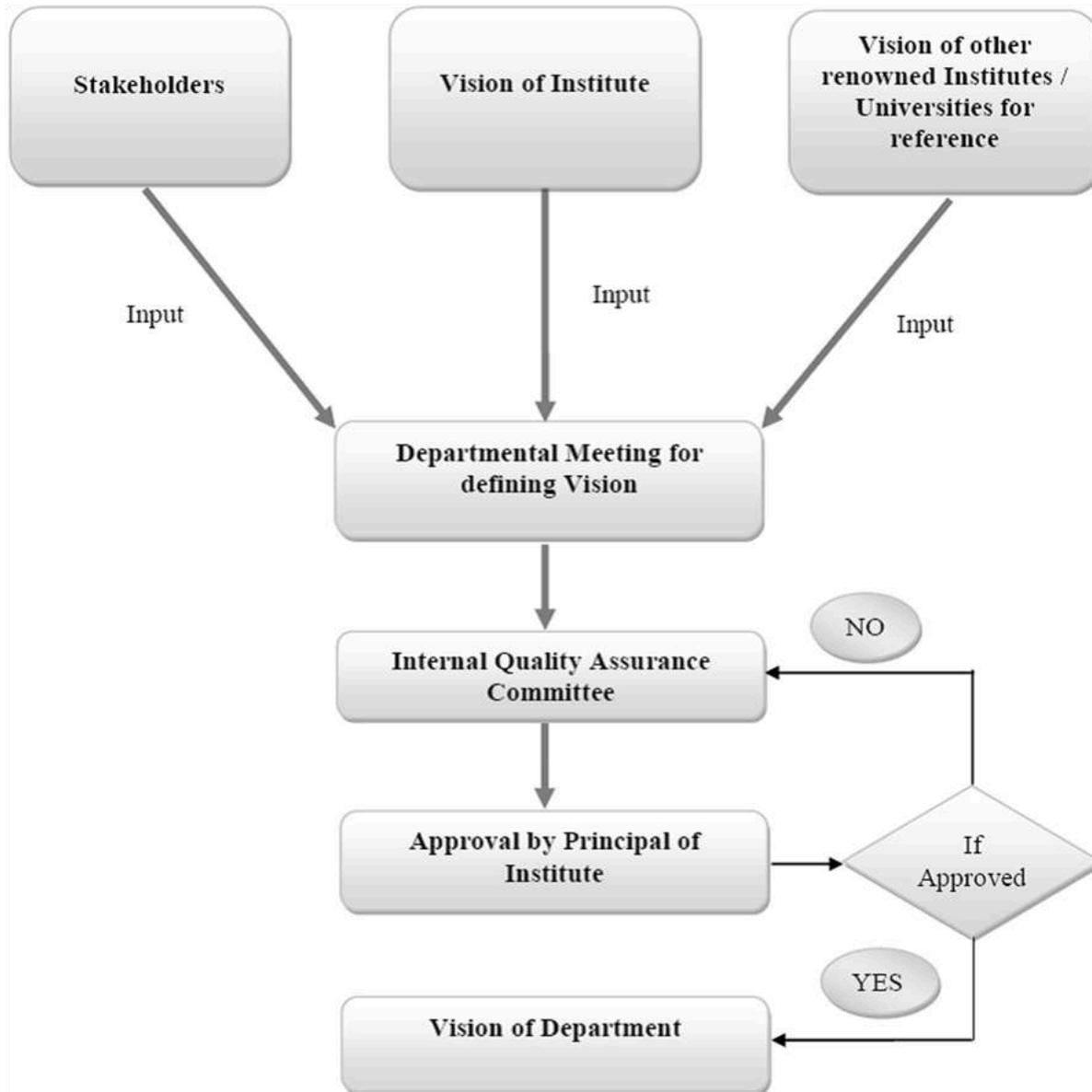


Figure 1.1 Selection Process of Department Vision

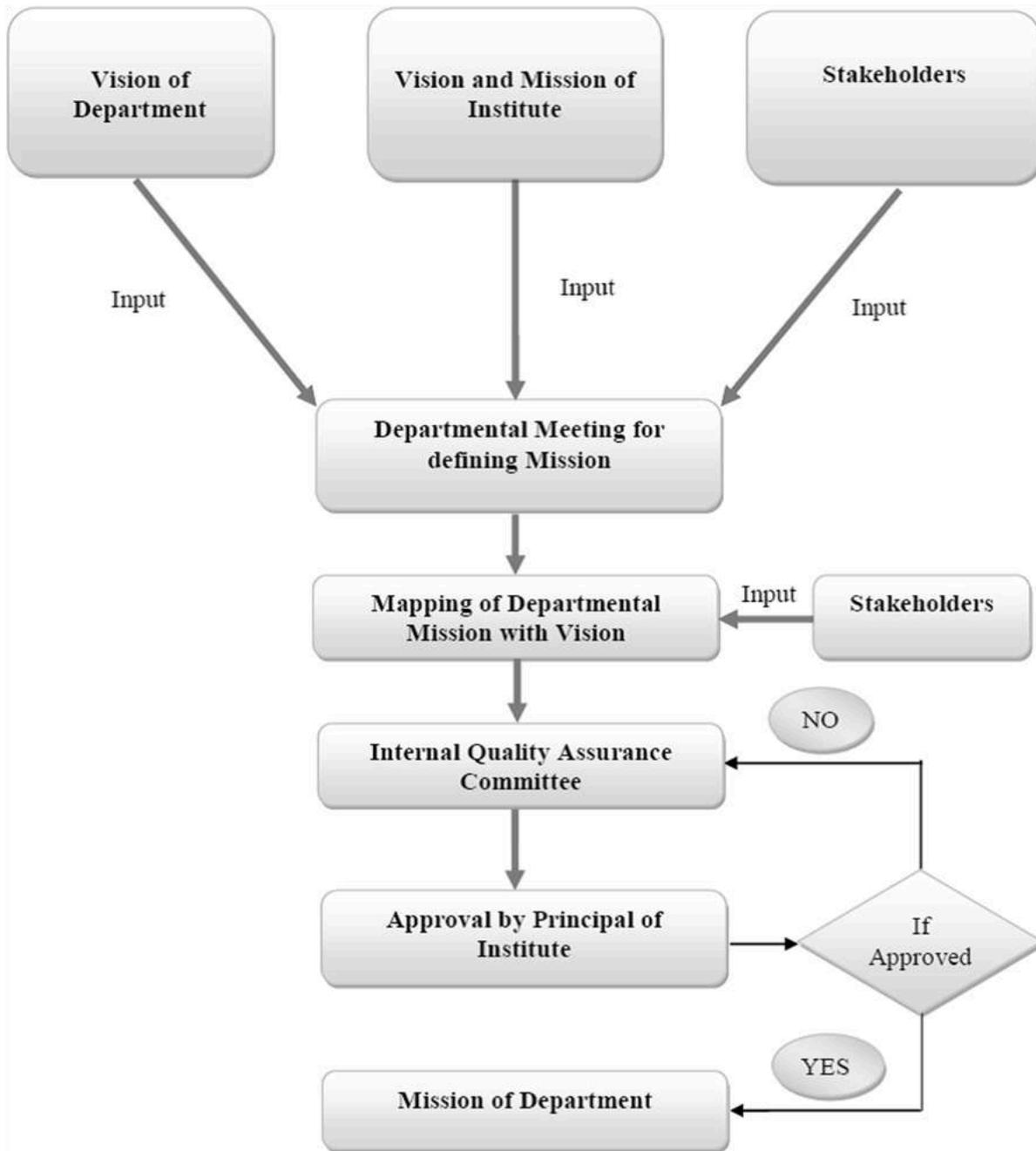


Figure 1.2 Selection Process of Department Missions

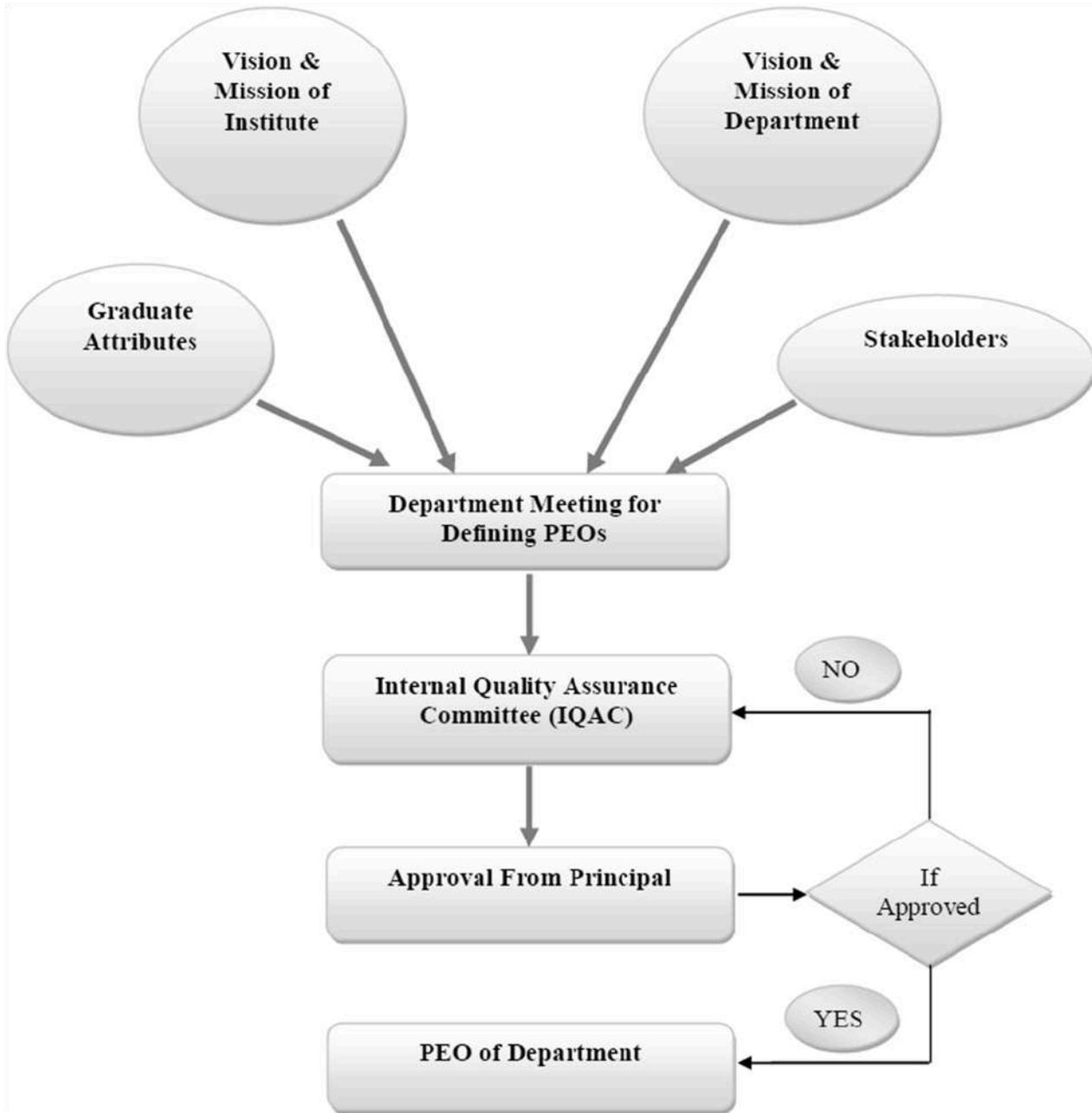


Figure 1.3 Selection Process of department PEOs

The Vision, Mission, and Program Educational Objectives (PEOs) of the Department of Mechanical Engineering are effectively disseminated among all internal and external stakeholders through a variety of structured initiatives. At the beginning of every academic session, dedicated awareness sessions are conducted for faculty members and laboratory staff members to familiarize them with the department Vision, Mission and PEOs. These statements are also communicated to the management through formal presentations during meetings. Newly admitted students and their parents are introduced to the Vision, Mission, and PEOs during the induction and orientation programs, ensuring early alignment with departmental goals. Alumni are informed about any revisions during alumni interaction sessions, maintaining their continued association and engagement with departmental aspirations. Furthermore, the Vision and Mission are shared with industry representatives and employers during industrial visits and various industry–institute interaction programs. The same is also communicated to newly appointed faculty members or staff members during their departmental joining process. Through these structured mechanisms, the department ensures clarity, transparency, and collective ownership of its Vision, Mission, and PEOs across all stakeholder groups.

- The Vision, Mission and PEOs are published and disseminated through College Website: [jecrcfoundation.com](http://jecrcfoundation.com).
- The Vision, Mission and PEOs are displayed in HoD office.
- The Vision, Mission and PEOs are displayed in Faculty/Staff Rooms.
- The Vision, Mission and PEOs are displayed on Notice Boards.
- The Vision, Mission and PEOs are showcased in Class Rooms.
- The Vision, Mission and PEOs are showcased in Department Laboratories.
- The Vision, Mission and PEOs are showcased in Department Library.
- The Vision, Mission and PEOs are displayed in Respective Department floors.
- The Vision, Mission and PEOs are published in Department Magazines.
- The Vision, Mission and PEOs are published in Course Files of faculty members.
- The Vision, Mission and PEOs are published in Laboratory Manuals of respective laboratory.
- The Vision, Mission and PEOs are published and disseminated through Centre of excellence.
- The Vision, Mission and PEOs are published and disseminated through conference website: [jecrcconference.in](http://jecrcconference.in).
- The Vision, Mission and PEOs are included in Faculty Members' E-mail Signatures for continuous visibility in communication.

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#### 1.1.5 Mapping of PEOs with Mission (10)

Instit

PEO Statements	M1	M2	M3
To equip graduates with a strong foundation in engineering sciences, with an emphasis on mechanical engineering principles, enabling them to analyze, design, and solve real-world engineering challenges.	3	3	3
To prepare graduates with sound scientific and engineering fundamentals to innovate and deliver effective solutions addressing practical challenges in mechanical engineering.	3	3	3
To inculcate in graduates a professional and ethical attitude, effective communication and teamwork skills, a multidisciplinary approach, entrepreneurial mindset, and the ability to connect engineering solutions with societal and environmental concerns.	3	3	3
To provide students with an academic environment that fosters excellence, leadership, adherence to ethical standards, and encourages self-motivated lifelong learning essential for a successful professional career in mechanical.	3	3	3
To prepare students to excel in industry and higher education by providing quality education grounded in strong technical knowledge and high moral values.	3	3	3

The alignment of Program Educational Objectives (PEOs) with the department mission is a fundamental step in ensuring that the academic program is aligned with its strategic goals and vision. By mapping each PEO to specific elements of the department mission, we can clearly demonstrate how the program’s objectives contribute to the broader aims of student development, professional readiness, and societal impact. This mapping helps to ensure that the program is not only academically rigorous but also responsive to the evolving needs of both students and the industry. PEOs are aligned with:

- Graduate Attributes
- Industry expectations
- Higher education and entrepreneurship
- Professional ethics and societal responsibilities

PEOs are periodically reviewed (normally every 3–4 years) based on stakeholder surveys. The department prepared and shared the PEO-Mission mapping format with stakeholders and collected their feedback. A detailed analysis of this feedback was then performed, and the mapping was finalized according to the criteria below.

Average mapping point (m) given by stakeholders	Mapping finalization	Level of Relationship
$m < 0.5$	0	<b>No</b>
$0.5 \leq m \leq 1$	1	<b>Low</b>
$1 < m \leq 2$	2	<b>Medium</b>
$2 < m \leq 3$	3	<b>High</b>

The mapping of the PEOs to the department mission is followed by an in-depth rationale for why each PEO corresponds to specific aspects of the mission. The justifications highlight the strategic thought behind each mapping and show how the PEOs are designed to achieve the intended program outcomes, ensuring that the program remains effective, relevant, and aligned with both academic and professional standards.



## PEO 1 with Mission 1:

Graduates having a strong foundation in engineering sciences and mechanical engineering principles become globally competitive professionals capable of solving industrial and societal engineering challenges. Hence, a strong correlation exists.

## PEO 1 with Mission 2:

A deep understanding of engineering fundamentals promotes responsible and ethical problem-solving, thereby nurturing long-term professional growth. Thus, PEO1 shows a strong correlation.

## PEO 1 with Mission 3:

Strong mechanical engineering fundamentals enable students to interact effectively with industry and address real-world engineering needs, reflecting a strong correlation.

## PEO 2 with Mission 1:

Scientific and engineering fundamentals empower graduates to innovate and perform competitively at a global level, demonstrating a strong correlation.

## PEO 2 with Mission 2:

Innovation grounded in fundamentals enhances responsible engineering practice and encourages academic excellence, resulting in a strong correlation.

## PEO 2 with Mission 3:

Practical engineering solutions and innovation naturally strengthen industry–institute connections, establishing a strong correlation.

## PEO 3 with Mission 1:

Communication, teamwork, professionalism, and multidisciplinary thinking enhance student competitiveness in global engineering environments, creating a strong.

## PEO 3 with Mission 2:

PEO3 directly aligns with the mission of nurturing ethical behaviour, professional attitude, and holistic development, ensuring a strong correlation.

## PEO 3 with Mission 3:

Professional skills, teamwork, and entrepreneurial thinking promote stronger collaboration with industry and improve employability, indicating a strong correlation.

## PEO 4 with Mission 1:

Excellence, leadership, and continual learning significantly enhance global competitiveness, forming a strong correlation.

## PEO 4 with Mission 2:

Ethical standards, leadership development, and lifelong learning are central to an excellent academic environment, showing a strong correlation.

## PEO 4 with Mission 3:

Leadership and continuous learning contribute to meaningful and sustained engagement with the industry, demonstrating a strong correlation.

## PEO 5 with Mission 1:

High-quality technical education prepares graduates for global industry and higher studies, establishing a strong correlation.

## PEO 5 with Mission 2:

Moral values and quality education directly support ethical development and long-term professional success, ensuring a strong correlation.

## PEO 5 with Mission 3:

Strong technical skills and professional preparedness promote high employability and reinforce institute–industry collaboration, resulting in a strong correlation.

## Observation:

- M1 contributes strongly to technical readiness and global competence.
- M2 is highly correlated with ethics, lifelong learning, and holistic development.
- M3 reinforces practical exposure, industry readiness, and innovation.

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## 1.2 Curriculum Structure and Features (30)





[Edit](#)

ID	Course Code	Course Title	Classroom Instruction (CI) (in hours per semester)		Lab Instruction (LI) (in hours per semester)	Term Work (TW) and Self Learning (SL) (TW+ SL) (in hours per semester)	Total no. of Hours per semester	Total Credits (C)* (Total Hours/30)
			L	T				
1	1FY2-01	Engineering Mathematics-I	42	14	0	64	120	4.00
2	1FY2-02/2FY2-02	Engineering Physics	42	14	0	64	120	4.00
3	1FY1-04/2FY1-04	Communication Skills	28	0	0	32	60	2.00
4	1FY3-07/2FY3-07	Basic Mechanical Engineering	28	0	0	32	60	2.00
5	1FY3-08/2FY3-08	Basic Electrical Engineering	28	0	0	32	60	2.00
6	1FY2-20/2FY2-20	Engineering Physics Lab	0	0	28	2	30	1.00
7	1FY1-22/2FY1-22	Language Lab	0	0	28	2	30	1.00
8	1FY3-25/2FY3-25	Manufacturing Practices Workshop	0	0	42	3	45	1.50
9	1FY3-26/2FY3-26	Basic Electrical Engineering Lab	0	0	28	2	30	1.00
10	1FY3-29/2FY3-29	Computer Aided Machine Drawing	0	0	42	3	45	1.50
11	1FY8-0X	Sports	0	0	14	1	15	0.50
12	2FY2-01	Engineering Mathematics-II	42	14	0	64	120	4.00
13	2FY2-03/1FY2-03	Engineering Chemistry	42	14	0	64	120	4.00
14	2FY1-05/1FY1-05	Human Values	28	0	0	32	60	2.00
15	2FY3-06/1FY3-06	Programming for Problem Solving	28	0	0	32	60	2.00
16	2FY3-09/1FY3-09	Basic Civil Engineering	28	0	0	32	60	2.00
17	2FY2-21/1FY2-21	Engineering Chemistry Lab	0	0	28	2	30	1.00
18	2FY1-23/1FY1-23	Human Values Activities	0	0	28	2	30	1.00
19	2FY3-24/1FY3-24	Computer Programming Lab	0	0	42	3	45	1.50
20	2FY3-27/1FY3-27	Basic Civil Engineering Lab	0	0	28	2	30	1.00
21	2FY3-28/1FY3-28	Computer Aided Engineering Graphics	0	0	42	3	45	1.50
22	1FY8-0X	NCC/NSS	0	0	14	1	15	0.50
23	3ME2-01	Advance Engineering Mathematics-I	42	0	0	48	90	3.00
24	3ME1-03	Managerial Economics and Financial Accounting	28	0	0	32	60	2.00
25	3ME3-04	Engineering Mechanics	28	0	0	32	60	2.00
26	3ME4-05	Engineering Thermodynamics	42	0	0	48	90	3.00
27	3ME4-06	Materials Science and Engineering	42	0	0	48	90	3.00

28	3ME4-07	Mechanics of Solids	42	14	0	64	120	4.00
29	3ME4-21	Machine drawing practice	0	0	42	3	45	1.50
30	3ME4-22	Materials Testing Lab	0	0	42	3	45	1.50
31	3ME4-23	Basic Mechanical Engineering Lab	0	0	42	3	45	1.50
32	3ME4-24	Programming using MATLAB	0	0	42	3	45	1.50
33	3ME7-30	Industrial Training	0	0	14	16	30	1.00
34	FECxx	Foundation Courses	0	0	0	15	15	0.50
35	4ME2-01	Data analytics	28	0	0	32	60	2.00
36	4ME1-02	Technical Communications	28	0	0	32	60	2.00
37	4ME3-04	Digital Electronics	28	0	0	32	60	2.00
38	4ME4-05	Fluid Mechanics and Fluid Machines	42	14	0	64	120	4.00
39	4ME4-06	Manufacturing Processes	42	0	0	48	90	3.00
40	4ME4-07	Theory of machines	42	14	0	64	120	4.00
41	4ME3-21	Digital Electronics lab	0	0	42	3	45	1.50
42	4ME4-22	Fluid Mechanics lab	0	0	42	3	45	1.50
43	4ME4-23	Production practice lab	0	0	42	3	45	1.50
44	4ME4-24	Theory of machines Lab	0	0	42	3	45	1.50
45	FECxx	Foundation Courses	0	0	0	15	15	0.50
46	5ME3-01	Mechatronic Systems	28	0	0	32	60	2.00
47	5ME4-02	Heat Transfer	42	0	0	48	90	3.00
48	5ME4-03	Manufacturing Technology	42	0	0	48	90	3.00
49	5ME4-04	Design of Machine Elements I	42	0	0	48	90	3.00
50	5ME4-05	Principles of Management	28	0	0	32	60	2.00
51	5ME5-12	Automobile Engineering	42	0	0	48	90	3.00
52	5ME3-21	Mechatronic Lab	0	0	28	2	30	1.00
53	5ME4-22	Heat Transfer lab	0	0	28	2	30	1.00
54	5ME4-23	Production Engineering Lab	0	0	28	2	30	1.00
55	5ME4-24	Machine Design Practice I	0	0	28	2	30	1.00
56	5ME7-30	Industrial Training	0	0	14	61	75	2.50
57	FECxx	Foundation Courses	0	0	0	15	15	0.50
58	6ME3-01	Measurement and Metrology	28	0	0	32	60	2.00
59	6ME4-02	CIMS	42	0	0	48	90	3.00
60	6ME4-03	Mechanical Vibrations	42	0	0	48	90	3.00

61	6ME4-04	Design of Machine Elements II	42	0	0	48	90	3.00
62	6ME4-05	Quality Management	42	0	0	48	90	3.00
63	6ME5-11	Refrigeration and Air Conditioning	42	0	0	48	90	3.00
64	6ME4-21	CIMS Lab	0	0	42	3	45	1.50
65	6ME4-22	Vibration Lab	0	0	42	3	45	1.50
66	6ME4-23	Machine Design Practice II	0	0	42	3	45	1.50
67	6ME4-24	Thermal Engineering Lab I	0	0	42	3	45	1.50
68	FECxx	Foundation Courses	0	0	0	15	15	0.50
69	7ME5-11	I. C. Engines	42	0	0	48	90	3.00
70	7EE6-60.2	Power Generation Sources	42	0	0	48	90	3.00
71	7ME4-21	FEA Lab	0	0	42	3	45	1.50
72	7ME4-22	Thermal Engineering Lab II	0	0	42	3	45	1.50
73	7ME4-23	Quality Control Lab	0	0	28	2	30	1.00
74	7ME7-30	Industrial Training	14	0	0	61	75	2.50
75	7ME7-40	Seminar	28	0	0	32	60	2.00
76	7ME8-00	Social Outreach, Discipline & Extra Curricular Activities	0	0	0	15	15	0.50
77	8ME5-13	Additive Manufacturing	42	0	0	48	90	3.00
78	8MI6-60.2	Maintenance Management	42	0	0	48	90	3.00
79	8ME4-21	Industrial Engineering Lab	0	0	28	2	30	1.00
80	8ME4-22	Metrology Lab	0	0	28	2	30	1.00
81	8ME7-50	Project	42	0	0	168	210	7.00
82	8ME8-00	Social Outreach, Discipline & Extra Curricular Activities	0	0	0	15	15	0.50
		<b>Total</b>	<b>1484</b>	<b>98</b>	<b>1176</b>	<b>2222</b>	<b>4980</b>	<b>166.00</b>

## 1.2.2 Components of Program Curriculum (5)

Inst

Course Components	Curriculum Content (% of total number of credits of the program )	Total number of contact hours	Total number of credits
Basic Sciences	13.85	350.00	23.00
Basic Engineering	15.06	476.00	25.00
Humanities and Social Scie	6.02	168.00	10.00
Program Core	42.77	1372.00	71.00
Program Electives	7.23	168.00	12.00
Open Electives	3.61	84.00	6.00
Project(s)	4.23	42.00	7.00
Internships/Seminars	4.82	70.00	8.00
Any other (Please specify)	2.41	28.00	4.00
<b>Total number of Credits</b>			<b>166.00</b>

1.2.3 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 II. Also Mention the Identified Curricular Gaps, if any (10)

Inst

Jaipur Engineering College and Research Centre (JECRC), affiliated with Rajasthan Technical University (RTU), Kota. The Department of Mechanical Engineering strictly follows the academic framework and curriculum prescribed by RTU. The current pace of industry’s changes mean that some curriculum is not according to the current demand of industries. Besides the domain skills, the industry also looks soft skills, team building, values and attitude of an individual at the time of hiring. Therefore, it is essential to assess the extent of compliance of the university curriculum with contemporary industry expectations.

**Process for Evaluating Curriculum Compliance and Identifying Gaps for Attainment of POs and PSOs:**

A structured, systematic approach is adopted to evaluate the extent of alignment between the university-prescribed curriculum and the attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs). The procedure also facilitates the identification and bridging of curriculum gaps through stakeholder collaboration and continuous feedback mechanism.

- On the basis of POs and PSOs attainment.
- Input from industry experts / employers.
- Based on alumni feedback.
- Feedback from the faculty member handling the course
- Feedback from placement cell .

**1. Curriculum–PO–PSO Mapping**

The extent of compliance of the University curriculum with Program Outcomes (POs) and Program Specific Outcomes (PSOs) is identified through a systematic curriculum mapping process.

- Each course in the program is mapped with relevant POs and PSOs using a three-point correlation scale (Low–1, Medium–2, High–3).
- Mapping is carried out collectively by Faculty members and finalize.
- The mapping ensures that all POs and PSOs are addressed across core, elective, laboratory, and project courses.

**2 Course Outcome (CO) Alignment with POs and PSOs**

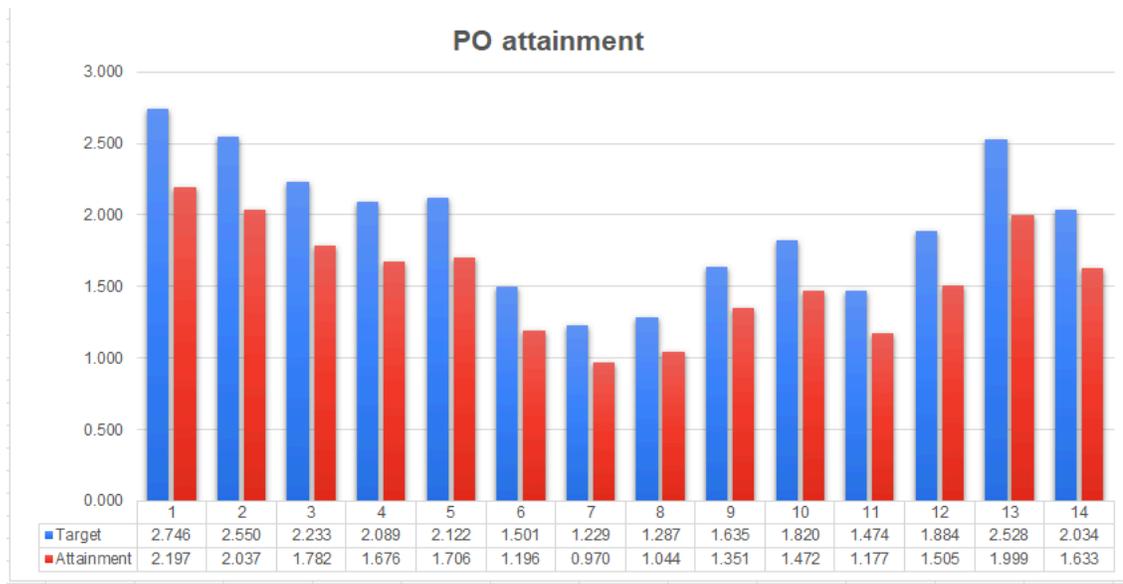
- COs are framed as per Bloom’s Taxonomy and approved by the Departmental Committee members.
- Clearly defined Course Outcomes (COs) for every course are mapped with POs and PSOs.
- The contribution of each CO towards PO/PSO attainment is established through the CO–PO–PSO mapping matrix.

**3 Identification of Compliance through Curriculum Coverage**

- Compliance is analyzed by verifying the depth of PO/PSO coverage across the curriculum.
- Core courses ensure strong coverage of fundamental engineering knowledge and problem-solving skills.
- Laboratory courses, mini-projects, internships, and final-year projects strengthen design, investigation, modern tool usage, teamwork, and communication-related POs and PSOs.

**4. Assessment-Based Attainment Analysis**

- Direct assessment tools such as internal tests, assignments, laboratory evaluations, projects, and end-semester examinations are mapped to COs and further linked to POs and PSOs.
- CO attainment levels are computed and aggregated to determine PO and PSO attainment.
- Indirect attainment through student exit survey, alumni and placement feedbacks are taken.
- Attainment levels are compared against predefined targets to assess the extent of compliance of the curriculum.



**5 Stakeholder Feedback:**

Continuous inputs are gathered from diverse stakeholders including industry experts, employers, alumni, placement cell, and internal/external academic reviewers. Feedback data is correlated with PO and PSO attainment levels to ensure consistency between academic outcomes and stakeholder expectations

The feedback and curriculum are mapped against POs / PSOs to identify deficiencies:

- Mapping of Courses to POs / PSOs (CO–PO Mapping).
- Assessment of POs / PSOs Attainment from previous batches.
- Identification of low-attainment areas.
- Comparison with Industry Requirements / Emerging Technologies.
- Identification of ‘Gaps’ in the Curriculum.

Feedback rating range:  
Excellent:(5) Very Good:(4) Good:(3) Satisfactory:(2) Needs improvement: (1)

Dear Alumni,  
JECRC is privileged to have you as one of its utmost assets and its global representative. Thus, your inputs would be most valuable. We would really appreciate if you can spare some of your valuable time to fill up the following questionnaire. Your answers would help your Alma Mater in making further improvements.

Name: Vishal Bhat  
Year of Graduation: 2010  
Branch: Mechanical Engineering  
Name of the Company/Organization: Samiraj Auto Components Pvt. Ltd.  
Designation: Senior Engineer - Vehicle  
Email: vishal.bhat@samiraj.com  
Mobile number: 9843022222

**Vision of Jaipur Engineering College and Research Centre**  
To become a renowned centre of outcome based learning, and work towards academic, professional, cultural and social enrichment of the lives of individuals and communities.

**Mission of Jaipur Engineering College and Research Centre**  
M1. Focus on evaluation of learning outcomes and motivate students to inculcate research aptitude by project based learning.  
M2. Identify, based on informed perception of Indian, regional and global needs, areas of focus and provide platform to gain knowledge and solutions.  
M3. Offer opportunities for interaction between academia and industry.  
M4. Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.

Parameters	(5) Excellent	(4) Very Good	(3) Good	(2) Satisfactory	(1) Needs Improvement
1. To what extent you agree with the vision of JECRC	<input checked="" type="checkbox"/>				
2. To what extent you agree with the Mission of JECRC	<input checked="" type="checkbox"/>				
3. To what extent you agree with the following abilities/skills were inculcated in you:					
a. Technical abilities	<input checked="" type="checkbox"/>				
b. Communications Skills	<input checked="" type="checkbox"/>				
c. Problem Solving Capacity	<input checked="" type="checkbox"/>				
d. Ethical Values & Social Responsibility	<input checked="" type="checkbox"/>				
e. Leadership Skills	<input checked="" type="checkbox"/>				
f. Ability to develop practical solutions to work place problems using technology and workplace equipment	<input checked="" type="checkbox"/>				
g. Working as part of a team	<input checked="" type="checkbox"/>				

How could our programs be improved? What specific comments do you have regarding the curriculum enrichment?  
More subject knowledge, practicals, case studies, etc.

Any Suggestion (s) you would like to make regarding Department/College:  
More practicals, more industry interaction.

Date: \_\_\_\_\_ Signature: Vishal

**Identified Curricular Gaps**

Based on the above analysis, the following curricular gaps were identified:

- Limited exposure to Emerging Technologies such as industry-oriented problem solving and real-life applications in certain theory courses.
- Inadequate coverage of Modern/advanced tools, simulation software, and emerging technologies in some laboratory courses.
- Need for enhanced focus on professional skills, including communication, teamwork, ethics, and project management.
- Limited interdisciplinary learning opportunities within the prescribed university curriculum.

S. No.	Current Courses in Curriculum	Identified Curriculum Gaps
1	<b>Design &amp; Manufacturing</b> <ul style="list-style-type: none"> <li>◦ Manufacturing Technology (MT)</li> <li>◦ Manufacturing Processes (MP)</li> <li>◦ Design of Machine Elements-I (DME-I)</li> <li>◦ Design of Machine Elements-II (DME-II)</li> <li>◦ Theory of Machines (TOM)</li> <li>◦ Additive Manufacturing (AM)</li> <li>◦ Measurement and Metrology (MM)</li> <li>◦ Mechanical Vibrations (VIB)</li> </ul>	<ul style="list-style-type: none"> <li>◦ Industry 4.0 &amp; Smart Manufacturing</li> <li>◦ Generative Design</li> <li>◦ Hybrid Manufacturing</li> <li>◦ Sustainable Manufacturing</li> </ul>
2	<b>Thermal &amp; Fluid Sciences</b> <ul style="list-style-type: none"> <li>◦ Heat Transfer (HT)</li> <li>◦ I.C. Engines</li> <li>◦ Power Generation Sources (PGS)</li> <li>◦ Fluid Mechanics (FM)</li> <li>◦ Refrigeration and Air Conditioning (RAC)</li> <li>◦ Automobile Engineering (AE)</li> </ul>	<ul style="list-style-type: none"> <li>◦ Renewable Energy Systems</li> <li>◦ Hydrogen &amp; Alternative Fuels</li> <li>◦ High-Efficiency Heat Exchangers</li> <li>◦ Modern Vehicle Mobility Systems</li> </ul>

3	<b>Mechatronics, Automation &amp; Emerging Areas</b> <ul style="list-style-type: none"> <li>◦ Mechatronic System (MS)</li> <li>◦ Computer Integrated Manufacturing Systems (CIMS)</li> <li>◦ Digital Electronics (DE)</li> <li>◦ Data Analytics (DA)</li> </ul>	<ul style="list-style-type: none"> <li>◦ Industrial IoT (IIoT)</li> <li>◦ Collaborative Robotics (Cobots)</li> <li>◦ Embedded AI in Mechatronics</li> </ul>
4	<b>Management &amp; Economics</b> <ul style="list-style-type: none"> <li>◦ Managerial Economics and Financial Accounting (MEFA)</li> <li>◦ Principles of Management (POM)</li> <li>◦ Quality Management (QM)</li> <li>◦ Maintenance Management (MM)</li> </ul>	<ul style="list-style-type: none"> <li>◦ Digital Project Management</li> <li>◦ Sustainability Economics</li> <li>◦ Predictive Maintenance Economics</li> </ul>
5	<b>Engineering Fundamentals</b> <ul style="list-style-type: none"> <li>◦ Engineering Mechanics (EM)</li> <li>◦ Engineering Thermodynamics (ET)</li> <li>◦ Material Science and Engineering (MSE)</li> <li>◦ Mechanics of Solids (MOS)</li> </ul>	<ul style="list-style-type: none"> <li>◦ Smart Materials</li> <li>◦ Lightweight Engineering</li> <li>◦ Nano-Engineering</li> </ul>



**Actions Initiated to Address Curricular Gaps**

Since the university curriculum is common across affiliated colleges, the department addressed the identified gaps through curriculum enrichment measures, including:

- Introduction of mini-projects, case studies, and problem-based learning beyond the syllabus.
- Incorporation of CAD/CAE/simulation tools, virtual laboratory experiments, and software-based assignments.
- Conduct of guest lectures, industry interaction sessions, workshops, and FDPs.
- Strengthening of internships, project work, seminars, and technical presentations.
- Implementation of value-added courses, certifications, and professional skill development programs.

S. No.	Identified Gaps	Relevant Subjects	Observations (Gap Description)	Actions / Suggestions Taken
1	Emerging Technologies	AM, DA, Mechatronics, CIMS, DE, RAC	Limited exposure to Industry 4.0, EVs, AI/IoT & smart manufacturing	Introduced expert talks, value-added courses, mini projects on latest technologies
2	Modern Tool Usage	MT, MP, DME-I/II, VIB, HT, CIMS, FM	Inadequate use of modern simulation/CAD/CAE tools in labs	Training on MATLAB, ANSYS, Creo; lab manuals updated with tool-based experiments
3	Interdisciplinary Learning	DA, MEFA, QM, AE, HT, FM, Mechatronics	Subjects exist but lack real-world interdisciplinary integration	Introduced multidisciplinary projects & case studies across departments
4	Lifelong Learning	Material Science, ET, MOS, FM, TOM, PGS	Need for self-learning, MOOCs & research exposure	NPTEL/SWAYAM courses made mandatory; research-based mini projects
5	Industry Integration	MT, MP, CIMS, RAC, AE, QM, MM	Limited industry visits & application-based teaching	MoUs with industries; internship-based assessment; expert sessions
6	Professional Development	PGS, TC, POM, QM, EM	Soft skills, ethics & managerial competencies need enhancement	Mock interviews, technical presentation training, ethics workshops

#### Program Outcomes

**PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

**PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

**PO3: Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

**PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8)

**PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

**PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

**PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

**PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

**PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

**PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

**PO11: Life-Long Learning:** Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

#### PSO-Program Specific outcomes

**PSO1:** Graduates will be able to design, analyze, and fabricate electric and hybrid vehicles using modern engineering tools and sustainable practices.

**PSO2:** Graduates will be able to apply design principles and computational techniques, including programming and data structures, to analyze and solve mechanical engineering problems.

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#### 1.2.4 State the Delivery Details of the Content beyond the Syllabus for the Attainment of Program Outcomes and Program Specific Outcomes (10)

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#### 1.3 PO, PSO and their Mapping with Courses (20)

## 1.3.1 POs and PSOs (5)

<b>PSO1</b>	Graduates will be able to design, analyze, and fabricate electric and hybrid vehicles using modern engineering tools and sustainable practices.
<b>PSO2</b>	Graduates will be able to apply design principles and computational techniques, including programming and data structures, to analyze and solve mechanical engineering problems.

## 1.3.2 Mapping between the Courses and POs/PSOs (10)

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PO:

<b>PO Number</b>	<b>List of Courses</b>
<b>PO1</b>	Basic Mechanical Engineering, Basic Electrical Engineering, Engineering Mathematics–I, Engineering Mathematics–II, Advanced Engineering Mathematics–I, Engineering Physics, Engineering Chemistry, Engineering Mechanics, Engineering Thermodynamics, Materials Science and Engineering, Fluid Mechanics and Fluid Machines, Digital Electronics, Heat Transfer, Mechanics of Solids, Theory of Machines, Design of Machine Elements–I, Design of Machine Elements–II, I.C. Engines, Refrigeration and Air Conditioning, Additive Manufacturing, Manufacturing Processes, Manufacturing Technology, Measurement and Metrology
<b>PO2</b>	Engineering Mathematics–I, Engineering Mathematics–II, Advanced Engineering Mathematics–I, Data Analytics, Engineering Mechanics, Engineering Thermodynamics, Mechanics of Solids, Fluid Mechanics and Fluid Machines, Heat Transfer, Theory of Machines, Mechanical Vibrations, I.C. Engines, Refrigeration and Air Conditioning
<b>PO3</b>	Computer Aided Engineering Graphics, Machine Drawing Practice, Theory of Machines, Design of Machine Elements–I, Design of Machine Elements–II, Automobile Engineering, Additive Manufacturing, Project, Machine Design Practice–I, Machine Design Practice–II
<b>PO4</b>	Engineering Physics Lab, Basic Electrical Engineering Lab, Engineering Chemistry Lab, Basic Civil Engineering Lab, Basic Mechanical Engineering Lab, Material Testing Lab, Digital Electronics Lab, Heat Transfer Lab, Fluid Mechanics Lab, Theory of Machines Lab, Thermal Engineering Lab–I, Thermal Engineering Lab–II, Production Engineering Lab, Metrology Lab, Vibration Lab, Finite Element Analysis Lab, Quality Control Lab
<b>PO5</b>	Programming for Problem Solving, Computer Programming Lab, Programming using MATLAB, Computer Aided Machine Drawing, Computer Integrated Manufacturing Systems (CIMS), Computer Integrated Manufacturing Systems (CIMS) Lab, Finite Element Analysis Lab, Mechatronics Lab, Production Practice Lab, Machine Design Practice–I, Machine Design Practice–II, Additive Manufacturing
<b>PO6</b>	Basic Civil Engineering, Quality Management, Power Generation Sources, Automobile Engineering, Human Values
<b>PO7</b>	Human Values, Human Values Activities, Principles of Management, Quality Management, Maintenance Management
<b>PO8</b>	Manufacturing Practices Workshop, Mechatronic Systems, Production Practice Lab, NCC/NSS, Sports
<b>PO9</b>	Communication Skills, Language Lab, Technical Communication, Programming for Problem Solving, Computer Aided Machine Drawing, Seminar, Project
<b>PO10</b>	Managerial Economics and Financial Accounting, Principles of Management, Industrial Engineering Lab, Quality Management, Maintenance Management, Industrial Training, Project
<b>PO11</b>	Human Values, Principles of Management, Industrial Training, Project

## 1.4 Course Outcomes and Course Articulation Matrix (30)





No. of Core Courses : 10	C2 : 4	C3 : 4	C4 : 2
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**Note : Number of Outcomes for a Course is expected to be around 6.**

Course Code :	3ME405	Semester :	3
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Course Outcome	Statements
3ME405.1	Explain the fundamental laws of thermodynamics and their applications in engineering systems.
3ME405.2	Apply thermodynamic relations to analyze cycles, processes, and systems.
3ME405.3	Analyze the performance of engines, refrigerators, and heat pumps.
3ME405.4	Determine properties of pure substances, mixtures, and gases under different conditions.
3ME405.5	Evaluate the efficiency and irreversibility of thermodynamic processes.
3ME405.6	Develop energy systems or cycles using thermodynamic principles.

Course Code :	3ME407	Semester :	3
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Course Outcome	Statements
3ME407.1	Explain stress, strain, and deformation in solids under various loading conditions.
3ME407.2	Apply concepts of axial, torsional, bending, and shear stresses in machine elements.
3ME407.3	Analyze deflection, slope, and stresses in beams and shafts using theoretical methods.
3ME407.4	Evaluate principal stresses, strain energy, and failure criteria in solids.
3ME407.5	Solve problems using energy methods and elastic constants in structures.
3ME407.6	Perform stress analysis of real-world mechanical components using analytical methods.

Course Code :	4ME405	Semester :	4
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Course Outcome	Statements
4ME405.1	Apply principles of fluid properties, fluid statics, and kinematics to solve engineering problems related to forces, pressures, and fluid motion.
4ME405.2	Analyze fluid flow in pipes, channels, and ducts under laminar and turbulent conditions to determine pressure drop, flow rate, and energy losses.
4ME405.3	Evaluate fluid system performance using fundamental equations of fluid flow, including continuity, momentum, and energy, and interpret results for engineering applications.
4ME405.4	Examine the working and performance characteristics of pumps, turbines, and compressors, and recommend theoretical improvements for enhanced efficiency.
4ME405.5	Design and interpret experimental models using similarity laws and scale ratios to simulate prototype behavior.
4ME405.6	Design fluid systems through appropriate selection and performance evaluation of fluid machinery for practical engineering applications.

Course Code :	4ME407	Semester :	4
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Course Outcome	Statements
4ME407.1	Understand kinematics of mechanisms and classify different types of mechanisms and their applications.
4ME407.2	Analyze velocity and acceleration in linkages and cams using graphical and analytical methods.
4ME407.3	Evaluate the dynamics of mechanisms including friction, gears, and flywheels.
4ME407.4	Apply the principles of balancing, governors, and vibration analysis to mechanical systems.
4ME407.5	Evaluate the performance and behaviour of machines and mechanisms under varying loading and operating conditions to ensure efficiency and reliability.
4ME407.6	Design mechanical systems and mechanisms for improved efficiency and performance.

Course Code :	5ME402	Semester :	5
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Course Outcome	Statements
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5ME402.1	Understand the fundamental principles and modes of heat transfer.
5ME402.2	Analyze steady-state and transient conduction in various geometries.
5ME402.3	Evaluate convective heat transfer in internal and external flows.
5ME402.4	Apply principles of radiation heat transfer to real-world problems.
5ME402.5	Analyze heat exchangers and thermal systems.
5ME402.6	Develop solutions for heat transfer applications in engineering

Course Code :	5ME404	Semester :	5
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Course Outcome	Statements
5ME404.1	Explain the objectives, scope, and fundamentals of machine design, and the role of material properties and IS coding in selecting suitable materials for components.
5ME404.2	Apply manufacturing considerations and BIS codes for design and assembly of machine elements.
5ME404.3	Analyze the strength and stiffness of machine elements under static, fatigue, and impact loading.
5ME404.4	Design machine members subjected to direct, bending, and torsional stresses.
5ME404.5	Designs for threaded fasteners, power screws, and couplings ensuring strength, efficiency, and reliability.
5ME404.6	Evaluate and design special components like curved members to achieve safe and economical machine design.

Course Code :	6ME301	Semester :	6
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Course Outcome	Statements
6ME301.1	Explain the fundamental concepts of measurement systems and different types of measurement errors.
6ME301.2	Describe and perform calibration procedures, evaluate repeatability and reproducibility, and understand interchangeability principles in measurement systems.
6ME301.3	Select and operate appropriate instruments for linear and angular measurements.
6ME301.4	Analyze form and surface characteristics by measuring suitable metrological instruments.
6ME301.5	Explain the working principles and applications of advanced measurement systems.
6ME301.6	Apply measurement systems for mechanical parameters using different devices.

Course Code :	6ME403	Semester :	6
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Course Outcome	Statements
6ME403.1	Explain the fundamental concepts of sound, noise, and vibration, including human response to sound.
6ME403.2	Analyze the behavior of undamped and damped single degree of freedom (SDOF) systems under various conditions.
6ME403.3	Evaluate forced vibration responses of single degree of freedom systems and assess vibration isolation and transmissibility in rotating and reciprocating systems.
6ME403.4	Examine multi-degree-of-freedom systems to determine natural frequencies, mode shapes, and design appropriate vibration absorbers for vibration control.
6ME403.5	Apply analytical and approximate methods to study multi-degree-of-freedom and continuous systems.
6ME403.6	Analyze vibration control solutions using analytical methods and modern tools for real-world engineering systems.

Course Code :	7ME511	Semester :	7
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Course Outcome	Statements
7ME511.1	Explain the classification, construction, and working principles of various types of internal combustion engines and their operating cycles.
7ME511.2	Analyze combustion processes, performance parameters, and efficiency characteristics of SI and CI engines.
7ME511.3	Apply knowledge of fuel systems, ignition systems, and lubrication methods to enhance engine performance and reduce losses.

7ME511.4	Evaluate engine testing methods, performance characteristics, and cooling techniques using standard procedures.
7ME511.5	Assess the use of alternative fuels, dual-fuel systems, and supercharging techniques in improving engine performance and emissions.
7ME511.6	Describe modern and special engine concepts such as rotary, stratified charge, and variable compression ratio engines.

Course Code :	8ME513	Semester :	8
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Course Outcome	Statements
8ME513.1	Describe the fundamental principles, history, and classifications of additive manufacturing processes.
8ME513.2	Explain different AM technologies, materials, and process parameters, and compare them with conventional manufacturing methods.
8ME513.3	Apply knowledge of AM processes to prepare CAD models, slicing, and pre-processing steps required for part fabrication.
8ME513.4	Analyze the influence of design considerations, material selection, and process parameters on the quality and performance of AM parts.
8ME513.5	Explain and differentiate between indirect and direct Rapid Tooling (RT) techniques, including their principles, materials, and applications in product development.
8ME513.6	Apply the concepts of Reverse Engineering (RE), and software tools for geometric reconstruction and analyze case studies.

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#### 1.4.2 Course Articulation Matrix (15)



## 1 . course name : C23ME405

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
3ME405.1	Explain the	3 ▾	2 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	2 ▾
3ME405.2	Apply them	3 ▾	3 ▾	2 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	2 ▾
3ME405.3	Analyze the	3 ▾	3 ▾	3 ▾	2 ▾	2 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	3 ▾
3ME405.4	Determine	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	3 ▾
3ME405.5	Evaluate th	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	3 ▾
3ME405.6	Develop en	3 ▾	3 ▾	3 ▾	2 ▾	2 ▾	2 ▾	1 ▾	1 ▾	1 ▾	1 ▾	3 ▾
<b>Average</b>		<b>0.00</b>										

## 2 . course name : C23ME407

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
3ME407.1	Explain stre	3 ▾	2 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	2 ▾
3ME407.2	Apply concr	3 ▾	3 ▾	2 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	2 ▾
3ME407.3	Analyze de	3 ▾	3 ▾	3 ▾	2 ▾	2 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	3 ▾
3ME407.4	Evaluate pr	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	3 ▾
3ME407.5	Solve probl	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	1 ▾	1 ▾	1 ▾	1 ▾	1 ▾	3 ▾
3ME407.6	Perform str	3 ▾	3 ▾	3 ▾	2 ▾	2 ▾	2 ▾	1 ▾	1 ▾	1 ▾	1 ▾	3 ▾
<b>Average</b>		<b>0.00</b>										

## 3 . course name : C24ME405

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
4ME405.1	Apply princ	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	1 ▾	1 ▾	1 ▾	2 ▾	1 ▾	2 ▾
4ME405.2	Analyze flui	3 ▾	3 ▾	2 ▾	3 ▾	3 ▾	1 ▾	1 ▾	2 ▾	2 ▾	2 ▾	2 ▾
4ME405.3	Evaluate flt	3 ▾	3 ▾	2 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	2 ▾	3 ▾
4ME405.4	Examine th	3 ▾	3 ▾	2 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	2 ▾	3 ▾
4ME405.5	Design and	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	2 ▾	3 ▾
4ME405.6	Design fluic	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	3 ▾	3 ▾
<b>Average</b>		<b>0.00</b>										

## 4 . course name : C24ME407

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
4ME407.1	Understand	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	1 ▾	1 ▾	1 ▾	2 ▾	1 ▾	2 ▾
4ME407.2	Analyze vel	3 ▾	3 ▾	2 ▾	3 ▾	3 ▾	1 ▾	1 ▾	2 ▾	2 ▾	2 ▾	2 ▾
4ME407.3	Evaluate th	3 ▾	3 ▾	2 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	2 ▾	3 ▾
4ME407.4	Apply the p	3 ▾	3 ▾	2 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	2 ▾	3 ▾
4ME407.5	Evaluate th	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	2 ▾	3 ▾
4ME407.6	Design mec	3 ▾	3 ▾	3 ▾	3 ▾	3 ▾	2 ▾	1 ▾	2 ▾	3 ▾	3 ▾	3 ▾
<b>Average</b>		<b>0.00</b>										

## 5 . course name : C35ME402

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
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5ME402.1	Understan	3	▼	3	▼	2	▼	1	▼	1	▼	1	▼	2	▼	1	▼	2	▼	1	▼		
5ME402.2	Analyze ste	3	▼	2	▼	3	▼	2	▼	1	▼	2	▼	1	▼	2	▼	2	▼	1	▼	2	▼
5ME402.3	Evaluate cc	3	▼	3	▼	3	▼	3	▼	2	▼	3	▼	1	▼	3	▼	2	▼	2	▼	2	▼
5ME402.4	Apply princ	2	▼	3	▼	3	▼	3	▼	2	▼	3	▼	2	▼	3	▼	2	▼	2	▼	3	▼
5ME402.5	Analyze he:	2	▼	3	▼	2	▼	3	▼	3	▼	3	▼	2	▼	3	▼	3	▼	3	▼	3	▼
5ME402.6	Develop so	2	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼
<b>Average</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	

## 6 . course name : C35ME404

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11											
5ME404.1	Explain the	3	▼	3	▼	2	▼	1	▼	1	▼	1	▼	2	▼	1	▼	2	▼	1	▼		
5ME404.2	Apply mant	3	▼	2	▼	3	▼	2	▼	1	▼	2	▼	1	▼	2	▼	2	▼	1	▼	2	▼
5ME404.3	Analyze the	3	▼	3	▼	3	▼	3	▼	2	▼	3	▼	1	▼	3	▼	2	▼	2	▼	2	▼
5ME404.4	Design mac	2	▼	3	▼	3	▼	3	▼	2	▼	3	▼	2	▼	3	▼	2	▼	2	▼	3	▼
5ME404.5	Designs for	2	▼	3	▼	2	▼	3	▼	3	▼	3	▼	2	▼	3	▼	3	▼	3	▼	3	▼
5ME404.6	Evaluate ar	2	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼	3	▼
<b>Average</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	

## 7 . course name : C36ME301

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11											
6ME301.1	Explain the	3	▼	2	▼	1	▼	1	▼	1	▼	1	▼	1	▼	1	▼	1	▼	1	▼	2	▼
6ME301.2	Describe ar	3	▼	3	▼	2	▼	2	▼	1	▼	1	▼	1	▼	1	▼	1	▼	1	▼	2	▼
6ME301.3	Select and	3	▼	3	▼	3	▼	2	▼	2	▼	1	▼	1	▼	1	▼	1	▼	1	▼	2	▼
6ME301.4	Analyze for	3	▼	3	▼	3	▼	3	▼	2	▼	1	▼	1	▼	1	▼	1	▼	1	▼	2	▼
6ME301.5	Explain the	3	▼	2	▼	2	▼	3	▼	3	▼	1	▼	1	▼	1	▼	1	▼	1	▼	2	▼
6ME301.6	Apply meas	3	▼	3	▼	3	▼	3	▼	3	▼	1	▼	1	▼	1	▼	1	▼	1	▼	2	▼
<b>Average</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	

## 8 . course name : C36ME403

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11											
6ME403.1	Explain the	3	▼	2	▼	1	▼	1	▼	2	▼	1	▼	1	▼	1	▼	1	▼	1	▼	2	▼
6ME403.2	Analyze the	3	▼	3	▼	3	▼	2	▼	2	▼	1	▼	1	▼	1	▼	1	▼	1	▼	2	▼
6ME403.3	Evaluate fo	3	▼	3	▼	3	▼	3	▼	3	▼	1	▼	1	▼	1	▼	2	▼	1	▼	2	▼
6ME403.4	Examine m	3	▼	3	▼	3	▼	3	▼	3	▼	1	▼	1	▼	2	▼	2	▼	1	▼	3	▼
6ME403.5	Apply analy	3	▼	3	▼	3	▼	3	▼	3	▼	1	▼	1	▼	2	▼	2	▼	1	▼	3	▼
6ME403.6	Analyze vib	3	▼	3	▼	3	▼	3	▼	3	▼	1	▼	1	▼	2	▼	3	▼	2	▼	3	▼
<b>Average</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	

## 9 . course name : C47ME511

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11											
7ME511.1	Explain the	3	▼	3	▼	3	▼	2	▼	2	▼	1	▼	1	▼	2	▼	2	▼	1	▼	1	▼
7ME511.2	Analyze coi	3	▼	3	▼	2	▼	2	▼	2	▼	2	▼	1	▼	2	▼	2	▼	2	▼	2	▼
7ME511.3	Apply know	3	▼	3	▼	2	▼	2	▼	2	▼	1	▼	1	▼	2	▼	2	▼	2	▼	1	▼
7ME511.4	Evaluate er	3	▼	2	▼	3	▼	3	▼	2	▼	2	▼	2	▼	3	▼	3	▼	2	▼	2	▼

7ME511.5	Assess the	3	▼	3	▼	3	▼	3	▼	2	▼	2	▼	2	▼	2	▼	2	▼	2	▼	2	▼	3	▼		
7ME511.6	Describe m	3	▼	2	▼	3	▼	2	▼	2	▼	1	▼	2	▼	2	▼	2	▼	2	▼	2	▼	2	▼	2	▼
<b>Average</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>			

## 10 . course name : C48ME513

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11													
8ME513.1	Describe th	3	▼	3	▼	2	▼	2	▼	2	▼	1	▼	1	▼	2	▼	2	▼	1	▼	1	▼	1	▼
8ME513.2	Explain diffi	3	▼	3	▼	3	▼	2	▼	2	▼	2	▼	1	▼	2	▼	2	▼	2	▼	2	▼	2	▼
8ME513.3	Apply know	3	▼	3	▼	3	▼	3	▼	2	▼	2	▼	2	▼	2	▼	2	▼	2	▼	2	▼	2	▼
8ME513.4	Analyze the	3	▼	3	▼	3	▼	3	▼	2	▼	2	▼	2	▼	2	▼	2	▼	2	▼	3	▼	2	▼
8ME513.5	Explainand	3	▼	3	▼	3	▼	3	▼	2	▼	2	▼	2	▼	3	▼	3	▼	2	▼	2	▼	2	▼
8ME513.6	Apply the c	3	▼	3	▼	3	▼	3	▼	2	▼	2	▼	2	▼	3	▼	3	▼	2	▼	2	▼	2	▼
<b>Average</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>		<b>0.00</b>	

**1 . Course Name : C23ME405**

Course	PSO1	PSO2
3ME405.1	2    ▾	3    ▾
3ME405.2	2    ▾	3    ▾
3ME405.3	2    ▾	3    ▾
3ME405.4	3    ▾	3    ▾
3ME405.5	2    ▾	3    ▾
3ME405.6	2    ▾	3    ▾
<b>Average</b>	<b>0.00</b>	<b>0.00</b>

**2 . Course Name : C23ME407**

Course	PSO1	PSO2
3ME407.1	2    ▾	3    ▾
3ME407.2	2    ▾	3    ▾
3ME407.3	2    ▾	3    ▾
3ME407.4	3    ▾	3    ▾
3ME407.5	2    ▾	3    ▾
3ME407.6	2    ▾	3    ▾
<b>Average</b>	<b>0.00</b>	<b>0.00</b>

**3 . Course Name : C24ME405**

Course	PSO1	PSO2
4ME405.1	1    ▾	2    ▾
4ME405.2	1    ▾	3    ▾
4ME405.3	2    ▾	3    ▾
4ME405.4	2    ▾	3    ▾
4ME405.5	2    ▾	3    ▾
4ME405.6	2    ▾	3    ▾
<b>Average</b>	<b>0.00</b>	<b>0.00</b>

**4 . Course Name : C24ME407**

Course	PSO1	PSO2
4ME407.1	1    ▾	2    ▾
4ME407.2	1    ▾	3    ▾
4ME407.3	2    ▾	3    ▾
4ME407.4	2    ▾	3    ▾
4ME407.5	2    ▾	3    ▾
4ME407.6	2    ▾	3    ▾
<b>Average</b>	<b>0.00</b>	<b>0.00</b>

**5 . Course Name : C35ME402**

Course	PSO1	PSO2
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5ME402.1	3	▼	2	▼
5ME402.2	3	▼	2	▼
5ME402.3	3	▼	3	▼
5ME402.4	3	▼	3	▼
5ME402.5	3	▼	3	▼
5ME402.6	3	▼	3	▼
<b>Average</b>	<b>0.00</b>		<b>0.00</b>	

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**6 . Course Name : C35ME404**

Course	PSO1		PSO2	
5ME404.1	3	▼	2	▼
5ME404.2	3	▼	2	▼
5ME404.3	3	▼	3	▼
5ME404.4	3	▼	3	▼
5ME404.5	3	▼	3	▼
5ME404.6	3	▼	3	▼
<b>Average</b>	<b>0.00</b>		<b>0.00</b>	

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**7 . Course Name : C36ME301**

Course	PSO1		PSO2	
6ME301.1	2	▼	2	▼
6ME301.2	2	▼	3	▼
6ME301.3	3	▼	3	▼
6ME301.4	3	▼	3	▼
6ME301.5	3	▼	3	▼
6ME301.6	3	▼	3	▼
<b>Average</b>	<b>0.00</b>		<b>0.00</b>	

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**8 . Course Name : C36ME403**

Course	PSO1		PSO2	
6ME403.1	2	▼	2	▼
6ME403.2	3	▼	3	▼
6ME403.3	3	▼	3	▼
6ME403.4	3	▼	3	▼
6ME403.5	3	▼	3	▼
6ME403.6	3	▼	3	▼
<b>Average</b>	<b>0.00</b>		<b>0.00</b>	

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**9 . Course Name : C47ME511**

Course	PSO1		PSO2	
7ME511.1	3	▼	3	▼
7ME511.2	3	▼	3	▼
7ME511.3	3	▼	2	▼
7ME511.4	3	▼	3	▼

7ME511.5	3	▼	2	▼
7ME511.6	3	▼	3	▼
<b>Average</b>	<b>0.00</b>		<b>0.00</b>	

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**10 . Course Name : C48ME513**

Course	PSO1		PSO2	
8ME513.1	2	▼	2	▼
8ME513.2	3	▼	3	▼
8ME513.3	3	▼	3	▼
8ME513.4	3	▼	3	▼
8ME513.5	3	▼	3	▼
8ME513.6	3	▼	3	▼
<b>Average</b>	<b>0.00</b>		<b>0.00</b>	

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**1.5 Program Articulation Matrix (5)**

**Program Articulation Matrix**

(10)



Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
3ME2-01	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME1-03	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME3-04	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME4-05	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME4-06	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME4-07	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME4-21	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME4-22	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME4-23	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME4-24	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
3ME7-30	3	2.83	2.5	2	2	1.17	1	1	1	1	2.67
4ME2-01	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME1-02	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME3-04	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME4-05	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME4-06	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME4-07	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME3-21	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME4-22	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME4-23	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
4ME4-24	3	2.83	2.17	2.83	3	1.67	1	1.83	2.67	2	2.67
5ME3-01	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME4-02	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME4-03	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME4-04	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME4-05	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME4-12	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME3-21	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME4-22	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME4-23	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME4-24	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
5ME7-30	2.5	2.83	2.67	2.5	2	2.5	1.67	2.67	2.17	2.17	2.33
6ME3-01	3	2.67	2.33	2.33	2.17	1	1	1	1	1	2
6ME4-02	3	3	2.83	2.83	2.83	1	1	1.83	1.83	1.17	2.5
6ME4-03	3	2.83	2.67	2.5	2.67	1	1	1.5	1.83	1.17	2.5
6ME4-04	3	3	3	2.83	2.5	1	1	1	1	1	2.5
6ME4-05	3	2.83	2.5	2.67	2.83	1.33	1.5	1.83	2.67	1.83	2.83
6ME5-11	3	2.83	2.67	2.83	2.83	1	1.33	1.5	2.17	1.17	2.5
6ME4-21	3	2.83	2.83	2.83	2.83	1	1	2	2.17	1.5	2.83
6ME4-22	3	2.83	2.83	2.5	2.5	1	1	1.83	1.83	1.17	2.5
6ME4-23	3	3	3	3	2.67	1	1	1.5	1.5	1.33	2.67
6ME4-24	3	2.83	2.83	2.83	2.83	1	1	2	1.67	1.33	2.5
7ME5-11	3	2.67	2.67	2.33	2	1.5	1.5	2.17	2.17	1.83	1.67

7EE6-60.2	3	2.67	2.67	2.33	2	1.5	1.5	2.17	2.17	1.83	1.67
7ME4-21	3	2.83	2.83	2.67	1.83	1.83	1.67	2.33	2.33	2	1.83
7ME4-22	3	3	2.83	2.67	2.33	2	1.83	2.33	2.33	2.17	2.17
7ME4-23	3	3	3	2.83	2.83	2.33	2.33	3	3	3	3
7ME7-30	3	3	2.83	2.67	2	1.83	1.67	2.33	2.33	2	1.83
7ME7-40	3	3	2.83	2.67	2	1.83	1.67	2.33	2.33	2	1.83
8ME5-13	3	3	2.83	2.67	2	1.83	1.67	2.33	2.33	2	1.83
8MI6-60.2	3	3	2.83	2.67	2	1.83	1.67	2.33	2.33	2	1.83
8ME4-21	3	3	2.83	2.67	2	1.83	1.67	2.33	2.33	2	1.83
8ME4-22	3	3	2.83	2.67	2	1.83	1.67	2.33	2.33	2	1.83
8ME7-50	3	3	3	3	3	3	3	3	3	3	3

Course Code	PSO1	PSO2
3ME1-03	2.17	3
3ME2-01	2.17	3
3ME3-04	2.17	3
3ME4-05	2.17	3
3ME4-06	2.17	3
3ME4-07	2.17	3
3ME4-21	2.17	3
3ME4-22	2.17	3
3ME4-23	2.17	3
3ME4-24	2.17	3
3ME7-30	2.17	3
4ME1-02	1.67	2.83
4ME2-01	1.67	2.83
4ME3-04	1.67	2.83
4ME3-21	1.67	2.83
4ME4-05	1.67	2.83
4ME4-06	1.67	2.83
4ME4-07	1.67	2.83
4ME4-22	1.67	2.83
4ME4-23	1.67	2.83
4ME4-24	1.67	2.83
5ME3-01	3	2.67
5ME3-21	3	2.67
5ME4-02	3	2.67
5ME4-03	3	2.67
5ME4-04	3	2.67
5ME4-05	3	2.67
5ME4-12	3	2.67
5ME4-22	3	2.67
5ME4-23	3	2.67
5ME4-24	3	2.67
5ME7-30	3	2.67

6ME3-01	2.67	2.83
6ME4-02	3	2.83
6ME4-03	2.83	2.83
6ME4-04	3	3
6ME4-05	2.83	2.83
6ME4-21	3	2.83
6ME4-22	2.83	2.83
6ME4-23	3	3
6ME4-24	3	2.83
6ME5-11	3	2.83
7EE6-60.2	3	2.67
7ME4-21	3	2.83
7ME4-22	2.83	2.83
7ME4-23	3	3
7ME5-11	3	2.67
7ME7-30	2.83	2.83
7ME7-40	2.83	2.83
8ME4-21	2.83	2.83
8ME4-22	2.83	2.83
8ME5-13	2.83	2.83
8ME7-50	3	3
8MI6-60.2	2.83	2.83

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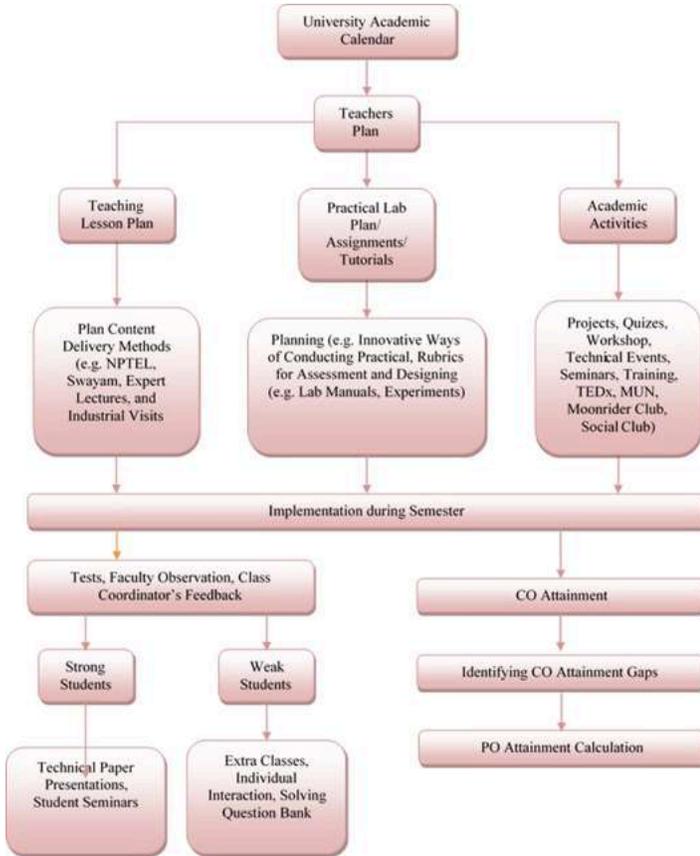
**2 OUTCOME-BASED TEACHING LEARNING (120)**

Total |

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



The Institution is affiliated to Rajasthan Technical University (RTU) adherence to Academic Calendar and it follows the curriculum as provided by the University. A structured academic framework is pivotal to ensuring the timely and effective delivery of the curriculum. The Institution, meticulously aligns its academic activities with the guide. The institute firmly follows the academic calendar prescribed by RTU, which outlines the overall academic schedule, examination timelines, and instructional periods for all affiliated. Based on the academic calendar issued by the university and considering the institution's own curriculum planning roadmap, an internal academic calendar is meticulously developed by each department.



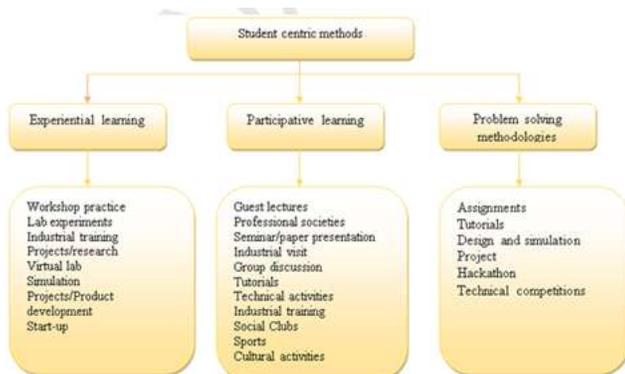
The focus of the curriculum on the below-mentioned issues needs well planned documents before it is delivered to the students and other stakeholders. Based on the discussions with the stakeholders and feedback received from the stakeholders, planning for the curriculum delivery is carried out based on the following:

1. Curriculum Delivery.
2. Content beyond syllabus.
3. Add-on/Certificate courses.
4. Cross-cutting issues related to professional ethics, human values, environment and sustainability.
5. Experiential learning through project work, internship, etc.
6. Extension and outreach program

**1. Academic Planning and Adherence to Academic Calendar**

- An academic calendar is prepared at the beginning of each semester, detailing timelines for syllabus completion, internal assessments, practical sessions, curricular and co-curricular activities, add-on courses, trainings and examinations.
- Faculty prepare course files including lesson plans, course outcomes (COs), mapping with program outcomes (POs), program specific outcomes (PSO's), faculty diaries and assessment strategies.
- Regular academic audits are conducted to ensure proper follow up of academic calendar, with emphasis on effective teaching practices, status of syllabus coverage.

**2. Effective Instructional and Pedagogical Methods**



- Faculty members employ diverse instructional methods such as:
- **Teaching-learning pedagogies:** Lecture-cum-discussion, case studies, problem-based learning, and flipped classroom techniques.
- **Centre of Excellence:** The Centre of Excellence (CoE) in Automation and electric vehicle is a specialized innovation hub focused on advancing technologies in the field of innovation, product development, and practical skill-building. It serves as a collaborative platform for students to encouraging knowledge sharing, collaborative problem solving, and interdisciplinary knowledge among participants through hands-on projects, workshops, and mentorship.
- **Virtual Laboratory:** The Institute collaborates with Virtual Labs team, Indian Institute of Technology Delhi (IIT Delhi) and initiative is in the Department of Mechanical Engineering at JECRC, Jaipur, is a forward-thinking pedagogical tool aimed at revolved experiments in a virtual environment, removing constraints related to physical infrastructure and accessibility. This initiative strengthens conceptual understanding, enhances technical knowledge, bridging the gap between theoretical learning.
- **PowerPoint Presentations:** The integration of student-led PowerPoint presentations promotes a learner-centric environment by presenting on emerging technologies building confidence and subject knowledge.
- **Case Studies:** Case-based learning encourages analytical thinking by allowing students to examine real-world issues in domains like automation and electric vehicle innovative solutions.
- **Digital Library Access:** The central digital library is a knowledge powerhouse offering a rich collection of reference materials specific to Mechanical Engineering. It includes access to learning materials.
- **MOOCs Integration:** The Institute has been a pioneer in integrating Massive Open Online Courses (MOOCs) from NPTEL, SWAYAM etc. into its teaching pedagogy, supplementing their formal curriculum and promoting lifelong learning.
- **Google Classroom & Digital Assignments:** Google Classroom acts as an efficient digital interface between faculty and students. Course materials, assignments, and laboratory manual platform ensures real-time feedback, streamlined content delivery, and continuous academic engagement.
- **Project-Based Learning (PBL):** PBL is a key component of the mechanical engineering program. Students undertake hands-on projects to demonstrate application of theoretical concepts learned in classrooms to practical applications.
- **Student-Driven Clubs:** Student driven technical clubs provide platforms for hands-on learning and interdisciplinary thinking.
- **Software Integration in Learning:** The Institution is heavily integrated with industry-relevant software tools such as MATLAB, ANSYS etc.
- **Faculty Diary:** To enhance transparency and academic rigor, faculty members maintain detailed Faculty Diaries that document lesson plans, delivery objectives, course outcomes.
- **Enrichment learning:** Regular guest lectures, workshops, and industry interactions supplement classroom teaching.
- **ICT based learning:** Department encourages use of ICT enabled tools, online resources for effective teaching and learning process. Further all ICT tools are visible to students and utilized through open access through [www.jecrcfoundation.com](http://www.jecrcfoundation.com) (<http://www.jecrcfoundation.com/>) and are also mapped with program outcomes as direct or indirect tool for assessment.

Subject Notes	View ( <a href="https://jecrcfoundation.com/videos/">https://jecrcfoundation.com/videos/</a> )
NPTEL	View ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/NPTEL-2025.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/NPTEL-2025.pdf</a> )
Swayam Prabha	View ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/Swyamprabha-and-Swyam-Online-Vedio-Link-2025.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/Swyamprabha-and-Swyam-Online-Vedio-Link-2025.pdf</a> )
Virtual Lab	View ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf</a> )

Department also provide all information regarding the teaching- learning process on institute Website.

**3. Laboratory and Practical Learning**

- Laboratories are equipped with instruments, software, and simulation tools.
- Experiments are align with theoretical concepts and course outcomes.
- Students are trained to:
  - Perform experiments in accordance with prescribed procedures and laboratory protocols.
  - Record the experimental data and calculate desired results.
  - Analyze the results systematically and interpret the outcomes.
- Continuous evaluation is done based on pre-laboratory understanding, experiment performance, report quality, and viva voce.

**4. Learner Centric Academic Support and Enrichment**

- Students are identified through academic assessments such as internal tests and lab performance. A robust mentorship framework is in place to support students with different level of academic progression.
- Performance of slow learning students is improved through
  - Remedial classes are conducted to revisit difficult concepts in subjects like thermodynamics, strength of material, design of machine elements, fluid mechanics, and mechatronics etc.
  - Additional academic aids like customized notes, CO based assignments, question bank are provided.
  - Class coordinators maintain active communication with parents in cases of poor attendance or academic distress.
  - Students receive targeted placement preparation assistance through mock interviews, resume-building workshops, and career counseling sessions.

High-performing students are encouraged:

- Outstanding academic performers are appreciated and awarded during the **Induction Program** and other academic events to motivate sustained excellence.
- **Enroll in MOOC/NPTEL courses** to gain in-depth knowledge beyond the prescribed curriculum
- Participate in **national-level competitions**, technical events, and activities organized by reputed professional bodies and institutional clubs.
- Leverage facilities such as the Centre of Excellence, incubation cell for start-up ideas and career development.
- To attend expert talks and industrial seminars for exposure to real-world practices.
  - To build mini-projects, internships, technical competitions, and technical communication.
  - To present papers and participate in other academic club related activities.

#### 5. Continuous Assessment and Feedback Mechanisms

- Formative assessments (class tests, assignments, quizzes, seminars) and summative assessments (mid- and end-semester exams) are conducted systematically.
- Student feedback on CO based course delivery and faculty performance is collected and analyzed. It is used for indirect attainment of course outcomes.
- Corrective measures and pedagogical improvements are implemented based on feedback and academic audits.

#### 6. Faculty Development and Quality Assurance

- Faculty members regularly attend FDPs, workshops, and conferences to update subject knowledge and teaching skills.
- Peer observation and departmental review meetings ensure reflective teaching practices.
- IQAC (Internal Quality Assurance Cell) monitors the implementation of quality initiatives and maintains documentation.

#### 7. Outcome-Based Education (OBE) Implementation

- Course outcomes (COs) and program outcomes (POs)/ program specific outcomes (PSOs) are clearly defined and mapped.
- Attainment of COs is analyzed after every semester and attainment of POs/PSOs is analyzed after every academic year using quantitative rubrics.
- Action plans are drawn for areas requiring improvement.

#### Impact Summary:

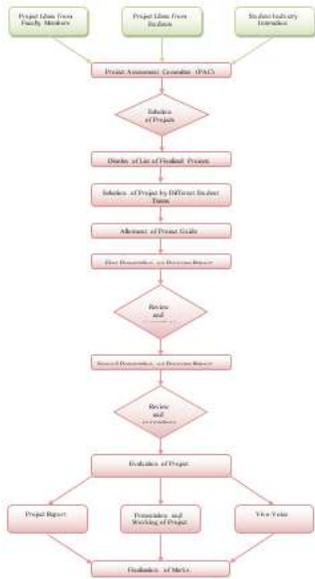
These initiatives ensure structured and timely curriculum delivery, systematic teaching practices, and strong academic accountability while fostering holistic learning through innovative pedagogy, experiential and collaborative approaches, digital tools, industry exposure, and hands-on projects. They strengthen students' practical competence, analytical abilities, and adherence to professional standards, support inclusive academic growth for diverse learner groups, and enable continuous improvement through timely evaluation, responsive feedback, faculty upskilling, and outcome-based quality assurance, resulting in measurable learning achievements.

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## 2.2 Quality of Student Capstone Project (25)



Capstone/Major Project work is a vital component of the Mechanical Engineering curriculum, designed to provide students with opportunities for practical problem-solving, innovation, and application of multidisciplinary knowledge. These projects enable students to integrate theoretical learning with real-world applications, fostering professional and lifelong learning attributes in line with Program Outcomes (POs) and Program Specific Outcomes (PSOs). To enable continuous monitoring and guidance of Capstone projects, a departmental Project Assessment Committee (PAC) has been formed. Below the flowchart explains the process of capstone project allotment and evaluation.



**Project Identification and Allocation**

1. Faculty Members specialization lists are shared with students before the semester begins.
2. Previous year projects, to avoid repetition and encourage enhancements of earlier works.
3. Students discuss project ideas with faculty members according to specialization.
4. The Project Coordinator circulates a list of proposed projects from faculties based on their specialization.
5. Project teams are formed considering student interests and strengths.
6. Project ideas are refined by faculty members and reviewed by the PAC to ensure alignment with COs, including Environment, Safety, Ethics, Cost, and Usefulness.
7. Finalized project lists are displayed on the notice board, along with faculty mentors.
8. Final project allocation along-with clearly identified objectives is done by PAC. Project teams submit the project registration form duly signed by their project supervisor.

**Basic criterion for the selection or rejection of project**

S#	Title of project	Evaluation (10)					Relevance with PO'S	Remarks
		Use fullness of the project (3)	Safety (2)	Ethics & Communication (2)	Project Management (3)	Total (10)	Relevance with PO'S	
1	X	1	2	2	1	8	PO1, PO2, PO3, PO6, PO8, PO9, PO11 PSO1, PO2	ACCEPT
2	Y	1	0	1	1	3	PO1, PO2, PO3, PO7	REJECT

**Project Assessment Committee Members: 2025-26**

S.no.	Faculty Name	Qualification	Designation	Role
1	Dr. M.P. Singh	B.E., M.Tech., Ph.D.	Professor	Chair
2	Dr. Fauzia Siddiqui	B.E., M.Tech., Ph.D.	Professor	Project Coordinator
3	Dr. Bhuvnesh Bhardwaj	B.E., M.Tech., Ph.D.	Professor	Member
4	Dr. Manoj Gupta	B.E., M.Tech., Ph.D.	Professor	Member

**Project Assessment Committees Members: 2024-25**

S.no.	Faculty Name	Qualification	Designation	Role
1	Dr. M.P. Singh	B.E., M.Tech., Ph.D.	Professor	Chair
2	Dr. Fauzia Siddiqui	B.E., M.Tech., Ph.D.	Professor	Project Coordinator
3	Dr. Bhuvnesh Bhardwaj	B.E., M.Tech., Ph.D.	Associate Professor	Member
4	Dr. Manoj Gupta	B.E., M.Tech., Ph.D.	Associate Professor	Member

**Continuous Monitoring**

1. Continuous Reporting and Assessment

Project teams meet regularly with their assigned faculty mentor to review progress against predefined objectives, timelines, and deliverables. Feedback is provided for improvement and correction. Project teams are req once a week with project mentor to update on status of their projects. Students submit periodic reports, activities update and status to project co-ordinator. These records help track individual contributions, ensure steady support transparent and fair assessment.

2. Assessment based on Rubrics:

Project progress is monitored through structured rubrics such as problem definition, literature review, design, implementation, and testing. Each project is evaluated using predefined rubrics.

3. PAC Reviews and Quality Checks: Progress report presentations followed by viva voce are conducted twice per semester before the PAC. Feedback are provided to project teams by PAC for timely submission and imprc committee also ensures project alignment with Course Outcomes (COs), including considerations of environment, safety, ethics, cost, and societal usefulness.

**Evaluation Process**

- Projects are evaluated through continuous internal assessment and semester-end external evaluation to ensure fair and comprehensive assessment of student performance.
- The internal assessment is done through continuous monitoring detailed above.
- For semester end external evaluation; a Project Evaluation Committee (PEC), comprising senior faculty members and external experts is formed.
- As per the prescribed date in Academic calendar; all project groups are required to submit their project along with final project report duly signed. In addition, the teams showcase their work before PEC through power point presentation and project demonstration.
- Students are required to write a research paper on their project and present it at the department’s annual national conference. Credits are awarded, and external experts provide evaluations.
- Conference proceedings are archived in the department and made accessible online.

**Project Evaluation Committee Members : 2025-26**

S.no.	Faculty Name	Qualification	Designation	Role
1	Dr. M.P. Singh	B.E., M.Tech., Ph.D.	Professor	Chair
2	Dr. Fauzia Siddiqui	B.E., M.Tech., Ph.D.	Professor	Project Coordinator
3	Dr. Bhuvnesh Bhardwaj	B.E., M.Tech., Ph.D.	Professor	Member
4	Dr. Manoj Gupta	B.E., M.Tech., Ph.D.	Professor	Member
5	Dr. Jinesh Jain	B.E., M.Tech., Ph.D.	Professor, MNIT	External Member

**Project Evaluation Committees Members: 2024-25**

S.no.	Faculty Name	Qualification	Designation	Role
1	Dr. M.P. Singh	B.E., M.Tech., Ph.D.	Professor	Chair
2	Dr. Fauzia Siddiqui	B.E., M.Tech., Ph.D.	Professor	Project Coordinator
3	Dr. Bhuvnesh Bhardwaj	B.E., M.Tech., Ph.D.	Associate Professor	Member
4	Dr. Manoj Gupta	B.E., M.Tech., Ph.D.	Associate Professor	Member
5	Dr. Jinesh Jain	B.E., M.Tech., Ph.D.	Professor, MNIT	External Member

**Sample of Capstone projects for Academic Year 2024-25**

Title of Project	Diagram
Design analysis of internal combustion Go Kart and its component	
To Measure hand Vibration with 7 semi b no005 9 dof accelerometer	
Analysis of Mirco-structure of MIG welded EN8 Sample after the tensile test using various welding parameters.	
Meeting the oxygen demand for sustainable development, a case study of liquid tree.	

<p>Design analysis of internal combustion Go Kart and its component</p>	
<p>Restore RC Car and changed the damaged part To Measure hand Vibration with 7 semi bno005 9dof accelerometer</p>	
<p>Solar Scare crow with Sound Sensing Analysis of Mirco-structure of MIG welded EN8 Sample after the tensile test using various welding parameters.</p>	
<p>Design of Low-Cost Refrigeration System using LPG</p>	
<p>3D Printed Prototype of Flapping Wing Mechanism</p>	

**List of Capstone Projects details and mapping with PO'S and PSO's: 2024-25**

Project Title	Relevance Area	Mapping with PO's / PSO's
Design analysis of internal combustion Go-Kart and its components	Mechanical Design & Automotive Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
To Measure Hand Vibration with 7 Semi BNO005 9DOF Accelerometer	Mechatronics & Instrumentation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Analysis of Microstructure of MIG Welded EN8 Sample after Tensile Test	Research on Material Science & Metallurgy	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Meeting the Oxygen Demand for Sustainable Development (Liquid Tree – Case Study)	Environmental & Sustainable Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Analysis of Microstructure of MIG Welded C-45 Sample after Charpy Impact Test	Research on Material Science & Metallurgy	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Restore RC Car and Change the Damaged Part	Maintenance & Mechatronics Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design and fabrication of Solar Scarecrow with Sound Sensing	Renewable Energy & Embedded Systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design of Low-Cost Refrigeration System using LPG	Thermal Engineering & Alternative Energy	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2

3D Printed Prototype of Flapping Wing Mechanism	Robotics & Additive Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
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**List of Capstone Projects details and mapping with PO'S and PSOs: 2023-24**

Project Title	Relevance Area	Mapping with PO's / PSO's
Design and fabrication of Embedded Systems and IoT	Embedded Systems & Automation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design of All-Terrain Vehicle (Transmission)	Automotive Engineering & Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of ATV (Designing: CAD & CAE)	CAD & CAE, Automotive Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Refurbishment of MORSE Test Apparatus	Maintenance & Instrumentation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Innovative Approaches to Landmine Detection: A Process-Oriented Study	Mechatronics & Defence Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design of Portable Air Conditioning	Thermal Engineering &HVAC	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Investigation on EN8 Specimen after Welding	Metallurgy & Strength of Materials	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of Solar Refrigeration System	Renewable Energy & Thermal Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design and fabrication of Electric Vehicle (Steering)	EV Design & Vehicle Dynamics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of Electric Go-Kart (BLDC Motor)	EV Powertrain & Electric Mobility	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Gearless Transmission using Elbow Mechanism	Design & Mechanical Kinematics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of Solar Wood Cutter	Renewable Energy and Automation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of Scramjet Comparison with Ramjet	Fluid Dynamics and Analysis	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
TIG Welding on Charpy Impact Sample	Manufacturing Processes	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design and fabrication of ATV (Steering)	Automotive Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2

**Impact**

The Capstone / Major Projects ensures students demonstrate comprehensive learning of POs and PSOs through application of technical knowledge, professional ethics, safety considerations, and societal relevance in real-world problem-solving scenarios. Continuous monitoring and expert feedback enhance innovation, research aptitude, and career readiness.

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**2.3 Internship/Industrial Training (10)**



- Industrial training or internship is a mandatory component of the Mechanical Engineering curriculum prescribed by RTU, Kota.
- It aims to bridge the gap between theoretical knowledge and industrial practices. Through internships, students gain practical exposure, professional ethics, teamwork, and problem-solving abilities aligned with Program Outcomes (POs) and Program Specific Outcomes (PSOs).
- Rajasthan Technical University provides minimum of 6 weeks of industrial training in the form of summer internship after their fourth and sixth semester and 15 days second semester during its 4-year curriculum.
- Students are also encouraged to participate in industrial orientation programme from time to time.

**The process of allotment of summer internships is as follows:**

- Initially Department issue a letter for summer internship for every student.
- Students will show this letter to respective company/organization from where they want to pursue their training programme.
- Company will acknowledge to college (department) letter of summer training.
- Once the company approval comes, department will take review on that particular company profile and if it is found appropriate for training then only students are allowed to pursue their training from that company.
- Subsequently the department issue approval letter for summer training.
- After successful completion of the training, the company provides a certificate or an evaluation letter.
- Students have to submit their Xerox copy of summer training certificate.
- A presentation followed by viva-voce is taken on their summer training in next semester on which they have to submit a report.
- Final evaluation will be done and marks will be given for summer internship programme.

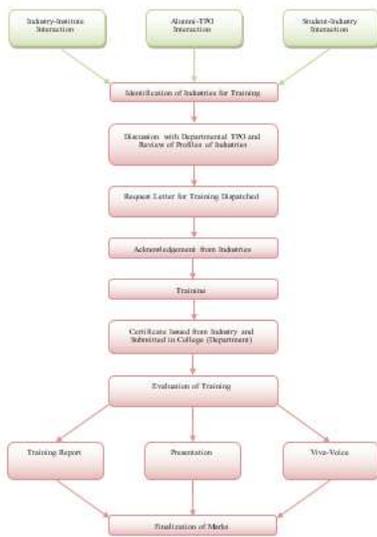


Fig:Flow chart showing process of Industrial Training

**List of Internship training/organization and mapping with PO'S and PSOs: 2024-25**

S. No.	Student Name	Industrial Training / Internship Organization	Technical Area / Sector	Mapping with PO's / PSO's
1	Aaditya Prajapat	Alka Engineering Works	Manufacturing / Electrical & Instrumentation/ fabrication-related company.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
2	Aditya Yadav	Hindustan Auto House (P) LTD	Automobile Engineering & sales industry.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
3	Aditya Khurana	Hindustan Automobile – The Research Center	Automotive Research & Design, innovation, investigation of problems.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2

4	Aditya Singh Mahur	CAD Centre	CAD / CAE / Design Simulation/ design: engineering software, communication of design, tool mastery, design development.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
5	Ajayraj Singh Tanwar	Hindustan Auto House (P) LTD	Automobile Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
6	Anan Jhalani	Ace Incorporation	Industrial Automation / Fabrication/ mechanical solutions, project management.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
7	Anshraj Mahaveer Sharma	Hindustan Auto House (P) LTD	Automobile Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
8	Anshul Garg	DS Group	Production / Operations Management	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
9	Anuj Khandelwal	Ace Incorporation	Industrial Automation / Fabrication	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
10	Apoorv Nandkeolyar	Cademate	CAD Design / Drafting/CAD-based design.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
11	Arman	RMC Switchgears Ltd.	Electrical & Manufacturing engineering knowledge.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
12	Arzoo Soni	Caddesk	CAD / Product Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
13	Gaurav Khandelwal	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
14	Gaurav Yadav	Mahindra Tech Pvt. Ltd.	Automobile / Mechatronics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2

15	Harsh Jain	Goyal Industries	Chemical / Industrial Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
16	Krishna Sharma	FCC RICO Ltd.	Automotive Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
17	Krishna Vyas	Hindustan Automobile	Automobile Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
18	Lakshydeep Singh Tanwar	Kia Motors	Automobile Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
19	Lokesh Bairwa	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
20	Manmohan Parashar	Rays Power Infra Limited	Renewable Energy (Solar Power)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
21	Moh. Sameer Mansoori	RMC Switchgears Ltd.	Electrical / Switchgear Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
22	Mohammad Aqib	Hindustan Automobile	Automobile Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
23	Nootendra Kushwah	Rays Power Infra Ltd. (Solar Power Plant EPC)	Renewable Energy (Solar Power)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
24	Prashant Agnihotri	Caddesk	CAD / Product Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
25	Praveen Kumar Regar	Alka Engineering	Manufacturing / Electrical Systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2

26	Prince Gupta	Equinox EPC Engineering Pvt. Ltd.	Energy / Project Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
27	Rahul Gahlawat	Alka Engineering	Manufacturing / Electrical Systems:	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
28	Ravi Gupta	Equinox EPC Engineering Pvt. Ltd.	Energy / Project Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
29	Rishabh Dewat	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
30	Vaibhav Avasthi	RMC Switchgears Ltd.	Electrical / Switchgear Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
31	Vaibhav Shrivastava	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
32	Deepak Kumar	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
33	Deshant Jain	CAD Desk	CAD / Product Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
34	Garvit Rathor	Pran Digital Design and Animation Institute	CAD / Product Modeling	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2

### 3. Nature of Training and Domains Covered

Domain	Internship work
Design & CAD	CAD/CAE/Design simulation
Automobile/Transport	Vehicle maintenance, engine testing, emission analysis
Renewable Energy	Solar energy and efficiency analysis of photovoltaic (PV) systems
Manufacturing Engineering	Production, Exposure to CNC machines, industrial quality checks, lean manufacturing

### Impact and Outcome

The internships has demonstrated a strong positive impact on student outcomes and industry alignment. Maximum participation of students gaining exposure to core mechanical engineering domains, participants develop practical, industry-relevant experience that bridges the gap between academic learning and real-world applications. Enhanced proficiency in engineering tools such as ANSYS, Creo, and latest technologies especially in automotive sector significantly strengthens students' technical competence and problem-solving abilities.

Improved employment readiness is reflected in higher placement success rates, indicating the program's effectiveness in preparing students for professional roles. Additionally, internships contribute to the development of essential soft skills, including communication, teamwork, and professional ethics, which are critical for long-term career growth. In several cases, internship experiences have further extended into final-year projects.

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#### **2.4 Seminar and Mini/Micro Projects (10)**



Seminar is conducted to enhance research orientation and technical communication skills. Students select latest and emerging topics in Mechanical Engineering in consultation with faculty members. The topic is approved to ensure relevance to core and advanced domains. Students carry out an extensive literature review from journals, conference papers, patents, and technical reports.

Each student is assigned a faculty mentor for continuous guidance. A structured report is prepared including introduction, literature review, technical discussion, applications, and future scope. Final presentation and viva-voce are conducted before a departmental evaluation committee using predefined rubrics.

**Outcomes:**

- Research paper reading and analytical skills
- Technical writing and oral communication
- Exposure to emerging trends and sustainability issues

**List of seminar topics with relevance of PO's & PSO's for academic year 2024-25**

Seminar Title	Relevance to Advanced Technology	Mapping with POs / PSOs
A study on design & optimization of vehicle component	CAD/CAE, Simulation & Automotive Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Future Scope of Solar Energy Systems: A case study	Renewable Energy & Sustainability	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study on Flapping Wings Mechanism: Recent Advancement and its Applications	Unmanned aerial vehicle (UAV) technologies, Robotics etc	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Design and Analysis of Vehicle Component: A case study	Vehicle dynamics & Mechanical Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Recent Advancements in 3D Printing Materials and Technologies	Additive Manufacturing & Prototyping	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Manufacturing of Lithium-Ion Battery: A study	EV Technology & Energy Storage	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Analysis of Six Sigma & Lean Manufacturing	Industrial Engineering & Quality Control	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study on advancement in Battery Technology	Energy storage systems, electrochemical engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study of Green Hydrogen: Production and Applications	Renewable energy systems & sustainable fuel technologies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study of MIG Welding and its applications	Manufacturing engineering & materials science	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Fabrication of Vibration Measuring Devices: A study	Mechanical instrumentation, sensors, and structural monitoring	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Recent Advancements in Energy Storage Systems	Energy Storage Systems (ESS) and integrate Renewable energy.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2

Study on Future Scope of Nuclear Energy	Nuclear engineering, energy systems, and sustainable power technologies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Future Scope of Electric Car: case study	Electric vehicles & renewable energy integration	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Recent Advancement in Refrigeration System	HVAC technology & Thermal Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Biological Waste and Solid Waste	Waste Management & Sustainability	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Bike Sensor System Design for Safety	Mechatronics, Automation & Safety Systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Advancements in Automotive Braking Technology	Automotive safety and vehicle performance optimization	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Future Scope of Solar Energy in India	Renewable Energy & Sustainability	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Sustainable Development of RE Power Sector	Renewable energy engineering, sustainable power systems and energy policy	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
A.I. in Future Electric Vehicle Technology	Automotive engineering, artificial intelligence, and smart mobility technologies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Solar Tracking System: An Overview	Renewable energy engineering and sustainable energy technologies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Study on performance and Design of Dehumidifier	Mechanical Engineering, thermal systems, and HVAC technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Review of E-Waste Management	Sustainable Technology & Recycling	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Advanced Welding Technology: a case study	Welding technology, fabrication processes, and industrial applications.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Study on Metal Matrix Composite	Metal Matrix Composite( MMC's) and high tech applications.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
TIG Welding: A case study	Manufacturing & Material Joining	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2

Advanced Driving Assistance System	Vehicle Safety & Sensors	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study of Wind Power Plant	Renewable Energy & Power Generation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Renewable Energy in India: Current & Future	Renewable energy engineering, sustainable development	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study of Suspension Systems of Vehicles	Automotive engineering, mechanical systems, and vehicle dynamics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Manufacturing Process of Billets	Production & Process Planning	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2

• List of Seminar title for academic year 2023-24

Seminar Title	Relevance to Advanced Technology	Mapping with PO's / PSO's
Study of wheeled mobile robot motion and control	Robotics & Control Systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study of ATV (Braking) and its application	Automotive Engineering & Safety	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study and design of e-kart (Controller)	EV Technology & Mechatronics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Design analysis and working of gearless transmission system	Mechanical Design & Mechanisms	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Analysis of Charpy Impact Test for TIG welded S1 tool steel at various gas flow rates	Materials science and welding technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study of recent advances in ATV Transmission System	Automotive engineering and power transmission technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
A study of Diesel Management Systems	Automotive Powertrain Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study of design aspects of ATV (CAD & CAE)	Automotive engineering, mechanical design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
A review on Scramjet: Challenges and Opportunities	Aerospace engineering, propulsion systems,	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2

Study of working of water-based air purifier	HVAC & Environmental Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
A review of air purifier and humidifier	Mechanical and electrical engineering, HVAC technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Solar Wood Cutter – Advantages, Disadvantages and Applications	Renewable Energy & Mechanism Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Application of Auto Electric Technology	Automotive Electronics & Sensors	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Design aspects of ATV (Steering) and its application	Vehicle Dynamics & Automotive	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Electric Vehicle (Steering)	EV Technology & Control Systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
A study of Hydroelectric power plants	Renewable Energy & Power Generation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Air purifier & humidifier: A case study	HVAC , Design & Application	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Process of Landmine Detection and its Applications	Défense Tech , Sensors & Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Study of factors for S1 tool steel specimen preparation	Materials science, metallurgical engineering, and mechanical testing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Analyzing the battery of e-kart: A case study	EV Technology & Energy Storage	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
ATV (Suspension System) and its area of innovation	Automotive Suspension & Dynamics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Comparative analysis of gearless vs gear-based transmission	Mechanisms & Design Studies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Advantages and Applications of Gearless Transmission	Automotive engineering, mechanical systems, and drivetrain technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Comparative analysis of solar panel and electric generator	Renewable energy systems, electrical engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2

Study of RC Car design and innovation	Mechanical engineering, automotive design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Latest development in ATV steering system	Automotive Steering Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Review on Embedded Systems and IoT	Embedded Systems & Smart Devices	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Effect on microstructure of metals after MIG welding	Metallurgy & Material Testing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Landmine Detection: Automation & Application: A case Study	Robotics, automation engineering, and defense technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Recent Trends in Refrigeration System	HVAC & Efficiency Improvement	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Effect on microstructure of metals after TIG welding	Metallurgy & Welding Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Design of Portable Air Conditioning	Thermal Engineering & Product Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Electric Go-kart (BLDC Motor)	Electric Powertrain & EV Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Embedded Systems and IoT – A case study	Embedded systems, IoT technologies and smart device applications.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Recent trends on Embedded Systems & IoT: A case study	Electronics engineering and IoT technologies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Investigating MIG Welding on Charpy Impact Sample	Material Testing & Process Optimization	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
TIG Welding analysis on Charpy Impact Sample	Metallurgical Testing & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Investigation on EN8 specimen after welding	Metallurgy & Welding Parameters Study	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2
Automation in Landmine Detection: A case study	Mechatronics & Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1and Some seminar titles are aligned with PSO2

ATV Braking and its application	Mechanical systems & vehicle safety technologies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Electric Vehicle (Designing & Advances)	EV technology and sustainable transportation.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Scramjet vs Ramjet and its application: A study	Aerospace engineering, propulsion systems and high-speed aerodynamics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Electric Vehicle (Braking – Analysis)	Automotive engineering, electric vehicle systems,	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Preparing specimen for Charpy Impact Test	Material's science and metallurgical testing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Advances in Electric Vehicle (Business Perspective)	Industry 4.0 & EV Market	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Comparison of Solar vs Vapour Compression Refrigeration	Thermal Systems & Efficiency	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Study of Cryogenic Refrigeration	Advanced Cooling Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Thermoacoustic Portable Air Conditioning	Mechanical engineering, thermal systems, and energy-efficient cooling technologies	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
Fabrication of Solar Refrigeration System	Renewable energy engineering, mechanical and thermal systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2
ATV Suspension System and Area of Innovation	Automotive engineering, mechanical systems, and vehicle dynamics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some seminar titles are aligned with PSO1 and Some seminar titles are aligned with PSO2

#### **Outcome of the seminar**

Overall, the seminar outcomes reflect the development of:

- Advanced technical knowledge in emerging engineering domains
- Research orientation and analytical thinking
- Awareness of sustainability, safety, and environmental responsibility
- Application of modern tools and interdisciplinary integration
- Improved communication and professional presentation skills

These outcomes significantly contribute to the attainment of POs related to engineering knowledge, problem analysis, investigation, modern tool usage, sustainability, ethics, communication, and lifelong learning, while strengthening domain-specific competencies aligned with PSOs.

#### **Mini/Micro Projects**

Mini/Micro projects are introduced in earlier semesters to provide practical exposure and prepare students for major projects. Small real-world problems related to core subjects are identified by faculty or proposed by students.

Students work individually or in small groups. They define objectives, perform basic design calculations or simulations, develop working models/experiments, and conduct testing. Projects are evaluated through report submission and demonstration before a faculty panel. Environmental awareness, safety considerations, cost estimation, innovation, and use of modern tools are encouraged to align with outcome-based education.

#### **Departmental Minor Project Details:**

Title of Minor project	Relevance/ Complexity	Mapping with PO's / PSO's
<b>Design of Machine Elements</b>		
Design and Fabrication of 3D lever	Demonstrates mechanical advantage, force transmission, stress	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design & Fabrication of 3D Crane hook	Safety-critical load-bearing design, stress concentration study	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design & Fabrication of 3D Screw fastening	Thread geometry, fastening mechanics, torque analysis	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design & Fabrication of 3D power screw	Rotary-to-linear motion conversion, efficiency, lifting devices	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design & Fabrication of 3D universal joint	Torque transmission between misaligned shafts	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design & Fabrication of 3D knuckle joint	Tensile load connection, joint design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design & Fabrication of 3D lead screw	Precision motion control, thread geometry, CNC relevance	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design & Fabrication of 3D C clamp	Work holding device, clamping force, utility furniture	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
<b>Mechatronics</b>		
Fabrication of Self Balancing Robot	Robotics, control systems, automation, mechatronics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design of Smart Traffic Light Control System	IoT, embedded systems, smart city applications	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2

Design of Contactless Accelerator Pedal Position Sensor	Automotive electronics, sensor design, safety	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design and Analysis of Automatic Braking System	Vehicle safety, control systems, automation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Development of Memory Matrix	AI, data storage, computational intelligence	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Design of Soul Intlect Mind System	Artificial intelligence, cognitive computing, futuristic innovation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
<b>MATLAB</b>		
Computation of Geometric view Factor between Two Rectangles	Heat transfer, radiation analysis, computational	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Estimating Response of Dynamic Systems	Vibration analysis, control systems, mechanical dynamics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Stability Analysis of a Rigid Body	Mechanics, equilibrium, aerospace/structural relevance	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Oscillation of Non-Linear System	Advanced vibration theory, non-linear dynamics, mathematical modeling	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Multiple Linear Regression of given dataset	Data analysis, statistics, predictive modeling	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Curve Fitting Analysis using Matlab	Numerical methods, optimization, computational mathematics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
<b>Production Engg.</b>		

Design and fabrication of "Bio- Composter Drum"	Waste management, sustainability, mechanical design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of sheet metal forming	Manufacturing processes, forming techniques	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Tool wear study & tool life curve (HSS VS Carbide)	Machining, material science, performance testing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and fabrication of "Paper Recycling Unit"	Sustainability, recycling, mechanical fabrication	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of "Magnetic vs Non-magnetic Waste Separator"	Material separation, sustainability, mechanical design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Manufacture weld Joint Design & performing the mechanical Test	Welding, mechanical testing, quality assurance	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Analysis of simple gear cutting and quality check (module, pitch & run out)	Gear manufacturing, precision measurement	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Small scale sheet metal forming and metal allowance study	Manufacturing, forming allowances, optimization	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Lean manufacturing 5S , kaizen in lean area	Productivity improvement, industrial management	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of "Hydraulic jack for vehicle for maintenance of mechanical Instruments	Automotive utility, mechanical design, safety	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
<b>Thermal Engineering Lab-II</b>		
Model of Thermal Power Plant	Demonstrates energy conversion, thermodynamics, large-scale power	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

Prototype of Steam Power Plant	Practical demonstration of Rankine cycle, steam generation & turbine operation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Representative Layout of Air Refrigeration System	Cooling cycle demonstration, thermodynamics of refrigeration	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Exemplary Prototype of Various Friction Tracks	Mechanics of friction, tribology, material behavior	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Explanatory Model of Absorption Refrigeration Cycle	Demonstrates eco-friendly refrigeration using heat energy	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Dummy Prototype of Gas Turbine	Demonstrates Brayton cycle, turbine operation, energy conversion	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Standard Model of Hydro Power Plant	Renewable energy demonstration, water-to-electricity conversion	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
<b>Machine Drawing Practice</b>		
Prepared Wall Paper of Shaper Tool Head Clapper Box	Visualization of tool head mechanism, understanding tool motion, academic demonstration	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Disassembly Drawing Lathe Tail Stock	Teaches assembly/disassembly, part identification, precision drawing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Layout of Various Parts of Swivel Machine Vice	Demonstrates clamping mechanism, part layout, mechanical utility	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Sketch of All Parts of Feed check Valve	Fluid mechanics component, valve design, assembly visualization	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Portrayal of Various Parts of Junction Valve	Pipe system component, flow control, mechanical drawing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2

<b>Industrial Training Lab</b>		
Product Layout of Bearing Manufacturing	Demonstrates sequential manufacturing of bearings, process optimization, quality	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Current Layout of Toyota Motomachi Plant	Case study of lean manufacturing, automation, and global best practices	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Brake Manufacturing Factory Layout	Automotive component production, safety-critical process design, workflow optimization	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Drawing of Line Layout Process	Visualization of assembly line, efficiency improvement, industrial engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Wall Paper of Hairpin Stator Process Layout	Electrical machine manufacturing, visualization of stator winding process, academic demonstration	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
<b>Managerial Economics and Financial Accounting (MEFA)</b>		
Understand the fundamental concepts of Managerial Economics and their application in business decision-making	Provides foundation for rational decision-making, resource allocation, and cost-benefit analysis	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Understand key concepts of managerial economics for business decision-making and the impact of macroeconomic variables (inflation, GDP, interest rates) on managerial decisions.	Helps managers adapt to external economic conditions affecting business performance	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Analyze demand and supply functions and apply techniques of demand forecasting for effective managerial decisions.	Enables accurate market predictions, production planning, and inventory control	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Apply pricing strategies under different market structures such as perfect competition, monopoly, and oligopoly.	Guides managers in setting competitive and profitable prices	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
Understand and apply the basic accounting principles, concepts, and standards in preparing financial statements.	Provides foundation for financial reporting, compliance, and transparency	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2

Use financial analysis tools for evaluating business performance and accounting insights in strategic planning.	Supports evaluation of profitability, liquidity, and long-term growth	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
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**Minor Projects**

**Club Moonriders Project Details: 2024-25**

S.No	Title	Relevance/ Complexity	Mapping with POs and PSOs
1	Design analysis of internal combustion Go Kart and its components	Hardware based & Environment friendly, Involves applying mechanical engineering principles, analyzing loads/stresses, using CAD/CAE tools, and validating the design.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
2	Design and development of Ackermann steering system for Go kart	Hardware based involving motion simulations, Requires kinematic analysis, geometric modelling, design optimization, and teamwork during fabrication and testing.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
3	Vehicle Dynamics and Performance Analysis of Go kart	Software based focusing on virtual testing and simulation modelling, focuses on suspension, traction, handling, and performance testing using simulation tools and data analysis.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
4	Design and development of powertrain system for Go kart	Hardware based integrating different mechanical components, Includes drivetrain design, torque analysis, material selection, efficiency testing, and project cost estimation.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
5	Design and Analysis of Electrical System of Internal Combustion Go kart	Hardware based with embedded systems involving sensors and controllers, Covers electrical wiring, sensors, starter system, and battery integration using electrical CAD tools.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
6	Development of hydraulic (Disc) braking system of Go Kart	Hardware based involving design and testing, Entails designing brake mechanisms, analyzing braking forces, testing, and collaborative fabrication.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2

**Club Xananoids Project Details: 2024-25**

S.No	Title	Relevance/ Complexity	Mapping with POs and PSOs
1	Design and Development of a High Torque Embedded Spider Robot for Rugged Terrain Navigation	Hardware with Embedded System Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
2	Autonomous Line Following Robot Based on Embedded System with Sensor Integration	Hardware & Software Embedded	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2

3	Design and Fabrication of a 3D Printed Robotic Arm with Multi-Degree Freedom and Precision Control	Hardware with computer vision	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
4	Design and Development of a Radio-Controlled (RC) Airplane with Precision Flight Control	Aero Modelling & Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
5	Development of a 3D Printed Humanoid Robot with Servo Motor Actuation for Precise Movement Control	3D Printed & Embedded System Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2
6	Design and Control of a High-Torque Motor-Driven Hexapod Robot for Enhanced Stability and Mobility	Embedded System Design and Hardware Assembly	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1 and Some Minor Projects are aligned with PSO2

#### Outcomes of Mini Project

The mini and minor project activities conducted effectively strengthened experiential and outcome-based learning across all years of the Mechanical Engineering program. Through hands-on design, fabrication, simulation, and analysis-based projects, students successfully applied core engineering principles to solve practical, industry-relevant, and socially meaningful problems. The projects fostered creativity, innovation, sustainability awareness, and eco-friendly practices through extensive use of recycled materials and real-world utility models.

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## 2.5 Case Studies and Real-Life Examples (10)



The Mechanical Engineering Department integrates case studies and real-life examples to enhance application-based learning and bridge the gap between theory and real-world practice . These are mapped to appropriate Program Outcomes (POs) and Program Specific Outcomes (PSOs) and cover a range of complexity from fundamental applications to multidisciplinary engineering systems.

**Case Study 1 : Reflects on Departmental Minor Project Details of 1<sup>st</sup> Year Students:**

**Preamble:**

Case study Projects of 1<sup>st</sup> year students in Mechanical Engineering are designed to strengthen student's foundational and competencies by providing in-depth exposure to engineering concepts. Through these projects, students engage in rigorous problem identification, analytical and experimentation to real-world mechanical engineering applications. Emphasis is placed on applying theoretical principles learned in core subjects to practical engineering problems, supported by the use of modern engineering tools, standards, and professional practices. The following areas are as follows

1. **Application of Core Concepts:** Effectively translating theoretical knowledge from core subjects into practical, implementable solutions.
2. **Design and Validation Balance:** Achieving accurate design and modelling while ensuring results are validated through experimentation or realistic assumptions.
3. **Resource and Time Constraints:** Managing limited laboratory resources, fabrication facilities, and time while maintaining technical rigor.
4. **Quality of Documentation:** Producing professional-grade technical reports, prepare documentation, and presentations aligned with engineering standards.
5. **Team Coordination and Project Management:** Ensuring effective collaboration, task distribution, and adherence to project timelines and deliverables.

Title of Minor project	Relevance/ Complexity	Mapping with PO's / PSO's
Fabrication of Wooden Lamp	Sustainability, Creativity	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and fabrication Epoxy Table	Artistic Resin Work, Creativity, Craftsmanship	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Robot Using Waste Material by Welding	Artistic Welding, Recycling	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Wooden Clock	Sustainability, Creativity	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Turtle Sculpture Crafted with Waste Bolts and Nuts	Mechanical Design, Symbolic Art	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Scrap Welding Horse	Sustainability, utility, Fabrication	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Formation of Welding Art Using Scrap	Academic Utility, weldability	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and fabrication of Metallic Hand	Mechanical Design, Symbolic Art Creativity	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of MPWS Lab Board	Branding, Creativity	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

Fabrication of Coffee Table	Sustainability, Creativity	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Seed Plant	Craft, Creativity	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of JECRC Wooden Logo	Creativity, Sustainability	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Resin Art Buddha	Artistic Resin Work	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and fabrication Beach Chair	Utility, Space-saving	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Decorative Epoxy Resin Plate	Mechanical Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Resin Mushroom Jar	Artistic Recycling, Resin Work	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Glowing Lamp (Bright Minds Bright Lights)	Ergonomics, Utility & Lighting	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Hexagonal Wooden Table Lamp	Furniture, utility and Lighting	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Foldable Wall Mount Cloth Dying Stand	Utility, Space-saving	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Chess Board and chess stool	Ergonomics, Utility	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Beach Chair	Mechanical Fabrication	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

Decorative Epoxy Resin Plate	Artistic Resin Work , Creativity	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Gear Clock	Creativity and Utility	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Aransupin - A Balancing Metal Art and Swinging Sculptures	Cutting, and assembly of metallic components into artistic forms, Creativity	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Foldable Wooden Chair	Furniture and Lighting	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Pipe Bending Machine	Mechanical fabrication, welding, machining, and assembly.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Adjustable Jack Stand	Utility, Space-saving,	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Recycled Metallic Floral Sculpture	Mechanical Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Adjustable Jack Stand	Mechanical Fabrication and assembly	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Hexagonal Wooden Table Lamp	Mechanical Utility	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Foldable Wall Mount Cloth Stand	Artistic Recycling	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Foldable Wooden Chair	Mechanical Fabrication	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Pipe Bending Machine	Mechanical fabrication, welding, machining, and assembly.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

Recycled Metallic Floral Sculpture	Creativity-driven fabrication project that blends artistic design with sustainability principles	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of String Art	Useful in interior decoration, product design,	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

**Case Study 2: JECRC Automobile Club (Moonriders) & its Project Details:**

**Preamble:**

The Institution Automobile Club named as Moonriders provides a structured, experiential learning platform that enables mechanical engineering students to apply theoretical knowledge to the real-world design, development, and validation of a Go Kart system. The club promotes project-based and team-driven learning by engaging students in end-to-end engineering activities, including conceptual design, analysis, simulation, fabrication, testing, and performance evaluation.

Through hardware- and software-intensive projects, students integrate core mechanical engineering principles such as mechanics, thermodynamics, kinematics, vehicle dynamics, and manufacturing processes, while also developing proficiency in modern engineering tools like CAD, CAE, and simulation software. The initiatives emphasize environmentally responsible design, system optimization, safety, and cost effectiveness, thereby aligning academic learning with industry practices and professional standards. Participation in automobile club activities fosters technical competence, innovation, teamwork, project management, and problem-solving skills.

**The following areas of projects as follows:**

1. Multidisciplinary System Integration: Integrating mechanical, electrical, and embedded subsystems within a compact Go Kart platform while ensuring functional compatibility, safety, and performance.
2. Design Optimization under Constraints: Balancing performance, cost, weight, manufacturability, and environmental considerations within limited resources and time constraints.
3. Application of Theoretical Knowledge: Translating classroom concepts such as stress analysis, kinematics, vehicle dynamics, and thermodynamics into practical, testable engineering designs.
4. Tool Proficiency and Validation: Effectively using CAD/CAE and simulation tools for design validation, followed by correlating simulation results with physical testing outcomes.
5. Fabrication and Testing Limitations: Managing challenges related to material availability, fabrication accuracy, assembly tolerances, and iterative testing during prototype development.
6. Team Coordination and Project Management: Ensuring effective teamwork, task allocation, documentation, and timely completion of project milestones.
7. Safety and Reliability Assurance: Designing and validating steering, braking, powertrain, and electrical systems to meet safety standards and ensure reliable operation.

Project Title	Relevance	Mapping with PO'S and PSO's
Design analysis of internal combustion Go Kart and its components	Hardware based & Environment friendly, Involves applying mechanical engineering principles, analyzing loads/stresses, using CAD/CAE tools, and validating the design.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and development of Ackermann steering system for Go kart	Hardware based involving motion simulations, Requires kinematic analysis, geometric modelling, design optimization, and teamwork during fabrication and testing.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Vehicle Dynamics and Performance Analysis of Go kart	Software based focusing on virtual testing and simulation modelling, focuses on suspension, traction, handling, and performance testing using simulation tools and data analysis.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and development of powertrain system for Go kart	Hardware based integrating different mechanical components, Includes drivetrain design, torque analysis, material selection, efficiency testing, and project cost estimation.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and Analysis of Electrical System of Internal Combustion Go kart	Hardware based with embedded systems involving sensors and controllers, covers electrical wiring, sensors, starter system, and battery integration using electrical CAD tools.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Development of hydraulic (Disc) braking system of Go Kart	Hardware based involving design and testing, Entails designing brake mechanisms, analyzing braking forces, testing, and collaborative fabrication.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

**Case Study 3: JECRC Robotic club (Xananoids) and its Project Details**

**Preamble**

The Institution Robotic club is commonly known as Xananoids is a student-driven technical innovation platform that promotes experiential learning, research orientation, and multidisciplinary problem solving among engineering students. The club focuses on emerging technologies, robotics, automation, intelligent systems, and application-oriented product development, enabling students to translate theoretical knowledge into practical, real-world solutions.

Through structured mini, minor, and major projects, students engage in the complete engineering lifecycle problem identification, conceptualization, design, modeling, simulation, prototyping, testing, and validation. The projects emphasize the integration of mechanical, electronics, control systems, programming, and data analysis, while encouraging innovation, sustainability, and societal relevance. Participation in robotic club projects strengthens students' competence in modern engineering tools, teamwork, project management, and professional communication.

**Some of the areas which covers the projects are:**

1. Multidisciplinary Integration: Integrating mechanical design, electronics, sensors, control systems, and software into cohesive and functional intelligent systems.
2. Rapid Technology Evolution: Keeping pace with fast-changing technologies in robotics, automation, AI, and embedded systems while ensuring academic rigor and feasibility.
3. Design and Optimization Constraints: Developing efficient, reliable, and scalable solutions within constraints related to cost, resources, component availability, and time.
4. Tool and Platform Proficiency: Achieving effective utilization of CAD tools, simulation software, microcontrollers, and programming platforms, and validating digital models through physical prototypes.
5. Testing, Debugging, and Validation: Addressing challenges in system testing, troubleshooting hardware–software integration issues, and ensuring functional reliability under real-world conditions.
6. Teamwork and Project Management: Coordinating interdisciplinary teams, managing task dependencies, documentation, and meeting project milestones in a collaborative environment.
7. Safety, Ethics, and Sustainability Considerations: Ensuring safe operation of automated systems, ethical use of technology, and consideration of energy efficiency and environmental impact.

Project Title	Relevance	Mapping with PO's / PSO's
Design and Development of a High Torque Embedded Spider Robot for Rugged Terrain Navigation	Hardware with Embedded System Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Autonomous Line Following Robot Based on Embedded System with Sensor Integration	Hardware & Software Embedded	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and Fabrication of a 3D Printed Robotic Arm with Multi-Degree Freedom and Precision Control	Hardware with computer vision	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
"Design and Development of a Radio-Controlled (RC) Airplane with Precision Flight Control	Aero Modelling & Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Development of a 3D Printed Humanoid Robot with Servo Motor Actuation for Precise Movement Control	3D Printed & Embedded System Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and Control of a High-Torque Motor-Driven Hexapod Robot for Enhanced Stability and Mobility	Embedded System Design and Hardware Assembly	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Design and Development of a Quadcopter Drone for Autonomous Flight and Precision Control	Aero Modelling & Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

**Case Study 4: JECRC Spiritual Research Cell and its Project Details**

**Preamble**

The Spiritual Research Cell (SRC) was established on 6 October 2016 in collaboration with the Education Wing of Rajyoga Education and Research Foundation. There is growing recognition that education should not only address intellect and technical skills, but also emotional and spiritual development. Institutions that integrate inner development as part of their mission provide students with tools to deal with stress, find meaning, manage emotions, and live more balanced lives. The Spiritual Research Cell of the Institution is one such initiative, aiming to bridge the gap between the external and the internal, and to foster holistic well-being among students and staff.

**Some areas under which SRC work are as follows:**

1. Measuring effectiveness / data: While the cell has many workshops and sessions, measuring long-term changes (emotional well-being, reductions in anxiety/stress, improved focus, etc.) requires systematic assessment.

- 2. Sustained engagement: Getting students to attend regularly, maintain practices (meditation, contemplation) over time is hard, especially with academic pressures.
- 3. Integration with curriculum: Ensuring that spiritual-emotional development is not sidelined, but integrated into overall educational culture, so it supports rather than competes with academic demands.

Project Title	Relevance	Mapping with PO'S and PSO's
Memory Matrix: Memory test laid over a matrix of possibilities	Cognitive, Memory Recall & Problem Solving	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
SIM: Sanskar's intellect and mind	Analytical, Behavioural & Ethical	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Mind Changer: Chane your mind and change your soul CHARGER Design	Engineering Design, Innovation & Sustainability	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Sankalp Mahayagya: The fire of transformation	Ethical, Social Transformation & Reflective Thinking	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
I am twister: The game of balance	Coordination, Balance & Team Dynamics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Hell to Heaven: The game of balance	Psychological Balance, Decision-Making	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Maze Of Meditation	Reflective, Emotional Intelligence & Focus on meditation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
Fabrication of Karma Court	Ethical, Logical Reasoning & Argumentation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

**Case Study 5: JECRC Incubation Centre (JIC) and its Funding Details: 2024-25**

**Preamble**

In today's knowledge economy, transforming ideas into viable businesses is essential not only for economic growth but also for societal development. Universities have a unique role in fostering innovation because they house young talent, research capabilities, and often under-utilized infrastructure. Incubation centres inside universities serve as crucial bridges connecting raw ideas to markets, providing mentorship, funding, resources, and risk mitigation. Institution Incubation Centre (JIC) exemplifies such an effort in the state of Rajasthan, India.

**The Institution JIC covers the following major areas:**

- Scaling & Sustainability: As support and number of startups grow, maintaining quality mentoring, resources, infrastructure will be challenging.
- Follow-through on commercial viability: Helping startups not just survive but scale and become profitable / sustainable.
- Resource constraints: Seed funding amount is limited; startups beyond initial stage may need more investment or external partnerships.
- Student awareness & engagement: Ensuring all students know about opportunities; overcoming risk aversion, fear of failure.
- Monitoring & Metrics: Need more data on long-term impact: survival rates of incubated startups, revenue generated, jobs created etc.
- Hybrid support: Both offline/onsite incubation and virtual programs widen reach and flexibility.
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Startup Details	Seed Funding Details	Mapping with PO'S and PSO's
Cab Service for Emergency Services	Sevak, Seed Funding of ₹20000	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some startup are aligned with PSO1and Some startup are aligned with PSO2

We transform your old fuel-based automobile to electric	E-Bharat Vehicle, Funding of ₹40000	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, some startup are aligned with PSO1and Some startup are aligned with PSO2
Daily doorstep car grooming service making it accessible for all.	CarDho, Seed Funding of ₹2000000	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2
Smart-tech based solutions for solving problems like Pet-tie (smartwatch for pets) and women's safety gloves	A Square Technologies, Incubation support	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2
Tobotics is a robotics innovation startup focused on developing tech-toys. We design and sell DIY tech-toy kits for students and enthusiasts, helping them learn hands-on electronics and robotics. Our team also engages in exhibitions, competitions, and outreach programs to inspire young minds and promote robotics education.	Tobotics, Incubation support	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2
An app through you can hire furniture, appliances, electronic items, fitness instruments, study material at an affordable price	Leaseit, Incubation support	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2
Roomzy is a student housing marketplace revolutionizing the way students find off-campus housing by offering verified listings, no hidden fees, and direct owner connections.	Roomzy, Incubation support	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2
Maakhana is a startup revolutionizing tiffin services with its unique promise of <b>"Maa Ka Khaana Maa Se Door."</b> We deliver healthy, hygienic, and home-cooked meals in insulated, safe tiffin boxes, offering flexible daily, weekly, and monthly subscription plans at affordable prices. Catering to both B2B and B2C clients, Maakhana ensures the warmth of home-cooked food reaches every doorstep.	Maakhana, Seed Funding of ₹10000	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2
A unified platform for the developers to build profile, join communities, connect & learn.	DevsCon, Seed Funding of ₹10000	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2
DocTunes is an AI-powered app that converts PDFs and text into customizable audio, supporting multiple languages and voice styles. With over 500 premium voices and advanced translation features, it turns documents into immersive listening experiences.	Doctunes, Seed Funding of ₹10000	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2

**Consolidated Case study table showing Impact of 2024-25 and 2023-24**

Case Study	2024-25	2023-24	Mapping with PO's and PSO'S
Minor Project Details	55	45	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
JECRC Automobile club ( Moonrider ) Project	6	4	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2

JECRC Robotics Club (Xananoids) Project	7	5	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
JECRC Spiritual Research Cell, SRC Projects	8	5	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Minor Projects are aligned with PSO1and Some Minor Projects are aligned with PSO2
JECRC Incubation Centre (JIC) funding details	11	4	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some startup are aligned with PSO1and Some startup are aligned with PSO2

Impact of case studies are as follows

- Improved **analytical and design skills** among students.
- Enhanced ability to **apply theoretical knowledge to real-world problems**.
- Strengthened attainment of **POs and PSOs**, particularly in problem solving, design, sustainability, and professional practices.
- Positive feedback from **industry experts and alumni**.

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## 2.6 SWAYAM/NPTEL/MOOC/Self Learning (10)



In alignment with outcome-based education and the evolving demands of industry and society, the department strongly promotes self-learning through nationally recognized digital platforms such as **SWAYAM, NPTEL, MOOCs, and Virtual Laboratories**. These initiatives complement the formal curriculum by enabling students to learn at their own pace, update their technical competencies, and gain exposure to advanced and interdisciplinary areas beyond classroom instruction. Participation in online certification courses, software proficiency training, project-based learning, and internships enhances students' analytical ability, problem-solving skills, design competence, and lifelong learning attitude.

Through structured encouragement and academic recognition, students actively enroll in NPTEL/SWAYAM courses, engage in virtual lab experiments, acquire industry-relevant software skills, and participate in project-based learning and internships. These self-learning activities directly contribute to the attainment of **Program Outcomes (POs)** such as engineering knowledge, problem analysis, modern tool usage, design and development of solutions, ethics, teamwork, and lifelong learning, as well as **Program Specific Outcomes (PSOs)** related to mechanical system design, manufacturing processes, and thermal and energy systems. The increasing student participation across academic years reflects a strong culture of independent learning, professional development, and readiness for higher studies, research, and industry careers.

Self-Learning	2025-26	2024-25	2023-24
NPTEL (National Programme on Technology Enhanced Learning)	25	7	7
Virtual Laboratory	296	296	296
Software Certifications (Matlab, AutoCAD, Ansys etc.)	32	28	18
Project Based Learning (PBL)	93	31	32
Internships	85	88	109

Year (2024-25)

S. No.	Name of Add on /Certificate programs offered	Course Code (if any)	Year of offering	Duration of course	Number of Students registered for the course in the year
1	Business Fundamentals for Entrepreneurs	noc25_mg13	2024_25	12 Week	1
2	Engineering Thermodynamics	noc24-me146	2024_25	12 Week	1
3	Introduction to Fluid Mechanics	noc25_me41	2024_25	12 Week	6
4	Kinematics of Mechanisms and Machines	noc25-me46	2024_25	8 Week	1
5	Matlab Programming for Numerical Computation	noc25-ch29	2024_25	12 Week	2
6	Finite Element Method	noc24-ce13	2024_25	12 Week	1
7	Programming, Data Structures and Algorithms Using Python	noc22-cs26	2024_25	12 Week	1

Year (2023-24)

S. No.	Name of Add on /Certificate programs offered	Course Code (if any)	Year of offering	Duration of course	Number of Students completing the course in the year
1	Principles of Casting Technology	noc23-me48	2023_24	8 Week	1
2	Developing Soft Skills and Personality	noc23-hs116	2023_24	8 Week	1
3	Engineering Thermodynamics in Hindi	noc24-me01	2023_24	12 Week	1
4	Laser Based Manufacturing	noc23-me108	2023_24	8 Week	1
5	Nature and Properties of Materials	noc24-me52	2023_24	8 Week	2

6	Problem Solving Through Programming in C	noc23-cs121	2023_24	12 Week	1
7	Soli Mechanics	noc23-me70	2023_24	12 Week	1

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**2.7 Solving Complex Engineering Problems Incorporating Sustainability Goals (20)**



The Mechanical Engineering Department integrates sustainability-focused problem-solving into its core teaching, project work, and experiential learning activities. These efforts are aligned with relevant United Nations Sustainable Development Goals (UN-SDGs) such as SDG 3 (Good Health and well Being), SDG 4(Quality Education), SDG5 (Gender Equality), SDG 7 (Affordable and Clean Energy) and SDG 9 (Industry, Innovation and Infrastructure). The Institute , through its various clubs, societies, and NSS Unit, has carried out a wide range of activities that align with the Sustainable Development Goals (SDGs) established by the United Nations. These activities reflect the institute’s commitment to community engagement, environmental sustainability, innovation, and holistic education. Students have undertaken various research and mini-projects that directly or indirectly contribute to the United Nations’ Sustainable Development Goals.

Student engagement with the Sustainable Development Goals (SDGs) is systematically integrated into academics, projects, and co-curricular activities. Sustainability is embedded in the curriculum through project-based learning in core courses, early-stage mini projects, and final-year capstone projects that emphasize multidisciplinary design, cost–benefit analysis, environmental impact assessment, and sustainable material selection.

Beyond the classroom, students actively contribute to SDGs through hackathons, workshops, entrepreneurship initiatives, and clubs such as NSS, Green club named as Fruitful JECRC (FFJ), and social club. Technical, cultural, and outreach activities—including JECRC MUN, Techno cultural fest (Renaissance), development programs, and environmental awareness —further strengthen leadership, innovation, and social responsibility, ensuring holistic student development.

**1. Core Courses with Project-Based and Problem-Based Learning (PBL)**

Several core courses incorporate project/problem-based assignments focused on sustainability:

Course	Sustainability Focus	Learning Outcome
Thermal Engineering	Design of energy-efficient heat exchangers	Energy conservation (SDG 7, 13)
Refrigeration & Air Conditioning	Use of eco-friendly refrigerants and low-energy systems	Climate-conscious design (SDG 12, 13)
Manufacturing Technology	Optimization of material usage and waste reduction in machining	Sustainable production (SDG 9, 12)
Fluid Mechanics	Design of low-friction piping systems for fluid transport	Energy-efficient systems (SDG 9, 11)

Students work on real-world scenarios where they must consider constraints like cost, environmental impact, energy usage, and social implications.

**2. Mini Projects and Lab-Integrated Projects**

- Mini Projects are introduced from the First year, second and third year as part of laboratory courses.
- Sample Mini projects examples as follows:

Mini Projects	Supported SDGs	Justification
Design of folding chair with ladder	SDG 7 (Affordable & Clean Energy)	Promotes efficient design and resource optimization, potentially reducing material and energy use in production.
Fabrication of wood cutting machine	SDG 6 (Clean Water & Sanitation), SDG 9 (Industry, Innovation & Infrastructure)	Supports sustainable practices in woodworking (reducing waste, efficient use of resources) and contributes to industrial innovation.
Fabrication of Epoxy tray and lamp	SDG 12 (Responsible Consumption & Production)	Encourages creative reuse of materials and sustainable product design.
Fabrication of Motorcycle chain welding Artwork	SDG 11 (Sustainable Cities & Communities), SDG 12 (Responsible Consumption & Production)	Promotes recycling of industrial scrap into art, enhancing cultural sustainability and responsible material use.
Fabrication of Epoxy resin wall clock	SDG 12 (Responsible Consumption & Production)	Focuses on sustainable product creation and mindful consumption through innovative design.

These minor projects encourage students to apply fundamental engineering concepts to solve localized sustainability problems.

**3. Capstone Projects / Final Year Projects (FYP)**

Capstone projects are a mandatory part of the curriculum and are structured to address real-world complex problems. Many final-year projects explicitly focus on sustainable development:

**Project Details and Project Mapping with SDGs , Mapping with PO'S & PSO'S: 2024-25**

**The Relevance SDG's below the project a follows: SDG3,SDG4,SDG7, SDG9 & SDG11**

Project Title	Relevance of (POs) & (PSOs)
Design analysis of internal combustion Go-Kart and its components	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
To Measure Hand Vibration with 7 Semi BNO005 9DOF Accelerometer	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Analysis of Microstructure of MIG Welded EN8 Sample after Tensile Test	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Meeting the Oxygen Demand for Sustainable Development (Liquid Tree – Case Study)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2

Analysis of Microstructure of MIG Welded C-45 Sample after Charpy Impact Test	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Restore RC Car and Change the Damaged Part	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2

4. Minor Projects

**(A) Club Moonriders Project Details**

S.No.	Title	Relevance/ Complexity	Related SDGs
1	Design analysis of internal combustion Go Kart and its components	Hardware based & Environment friendly, Involves applying mechanical engineering principles, analyzing loads/stresses, using CAD/CAE tools, and validating the design.	SDG 9
2	Design and development of Ackermann steering system for Go kart	Hardware based involving motion simulations, Requires kinematic analysis, geometric modelling, design optimization, and teamwork during fabrication and testing.	SDG 9, SDG 4
3	Vehicle Dynamics and Performance Analysis of Go kart	Software based focusing on virtual testing and simulation modelling, focuses on suspension, traction, handling, and performance testing using simulation tools and data analysis.	SDG 9
4	Design and development of powertrain system for Go kart	Hardware based integrating different mechanical components, Includes drivetrain design, torque analysis, material selection, efficiency testing, and project cost estimation.	SDG 7, SDG 9
5	Design and Analysis of Electrical System of Internal Combustion Go kart	Hardware based with embedded systems involving sensors and controllers, Covers electrical wiring, sensors, starter system, and battery integration using electrical CAD tools.	SDG 7, SDG 9
6	Development of hydraulic (Disc) braking system of Go Kart	Hardware based involving design and testing, Entails designing brake mechanisms, analyzing braking forces, testing, and collaborative fabrication.	SDG 3, SDG 9

**(B) Club Xananoids Project Details**

S.No.	Title	Relevance/ Complexity	Related SDGs
1	Design and Development of a High Torque Embedded Spider Robot for Rugged Terrain Navigation	Hardware with Embedded System Design	SDG 9
2	Autonomous Line Following Robot Based on Embedded System with Sensor Integration	Hardware & Software Embedded	SDG 9, SDG 4
3	Design and Fabrication of a 3D Printed Robotic Arm with Multi-Degree Freedom and Precision Control	Hardware with computer vision	SDG 9
4	*Design and Development of a Radio-Controlled (RC) Airplane with Precision Flight Control	Aero Modelling & Design	SDG 9, SDG 4
5	Development of a 3D Printed Humanoid Robot with Servo Motor Actuation for Precise Movement Control	3D Printed & Embedded System Design	SDG 4, SDG 9
6	Design and Control of a High-Torque Motor-Driven Hexapod Robot for Enhanced Stability and Mobility	Embedded System Design and Hardware Assembly	SDG 9

5. Student Activities and Clubs

Active involvement of students through clubs, events, and outreach activities:

Activity / Club	SDG Linked	Description / Evidence
<b>Green Club / NSS</b>	SDG 13, 15	Tree plantation drives, environmental awareness campaigns, e-waste collection.
<b>Energy Conservation Week</b>	SDG 7	Energy audit of campus laboratories conducted by students.
<b>Rural Outreach under Unnat Bharat Abhiyan (UBA)</b>	SDG 3, 6, 11	Students implemented low-cost sanitation and water filtration projects in adopted villages.

Techno-Social Hackathons	Multiple SDGs	Problem statements aligned with SDGs (water management, clean energy, health monitoring).
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#### 6. Participation in Hackathons, Ideathon and Competitions

Students are actively encouraged and supported to participate in hackathons and contests that focus on **innovation and sustainability**:

- **Institute- Level Smart India Hackathon (SIH):**
  - Projects included: Low-cost air quality monitoring devices, rural transport optimization, zero-energy cooling systems.
- **SAE BAJA / Go-Kart Design Challenge:**
  - Teams work on improving fuel efficiency, reducing emissions, and using biodegradable materials in vehicle construction.
- **Ideathon at Department level:**
  - Themes often aligned with SDGs such as energy, environment, healthcare, and smart mobility.

#### 7. Workshops and Value-Added Courses

Special training programs and short courses aligned with sustainability are offered, such as:

- Life Cycle Assessment (LCA) of Products
- Green Building Concepts
- Electric vehicle Internship
- Renewable Energy Systems

#### 8. Entrepreneurship and Innovation Cell Support

The Mechanical department works closely with the Institutes **Innovation and Incubation Cell** to support students converting sustainable ideas into startups. Several sustainability-oriented student startups have emerged, dealing with: By encouraging youth participation in **entrepreneurship and environmental initiatives**, it nurtures responsible leadership and practical problem-solving. These efforts are closely aligned with the **Sustainable Development Goals—SDG 8 (Decent Work & Economic Growth), SDG 9 (Industry, Innovation & Infrastructure), and SDG 11 (Sustainable Cities & Communities)**—ensuring students contribute meaningfully to building a progressive, inclusive, and sustainable future.

#### 9. Curricular and Co-Curricular Activities

Curricular and co-curricular activities together ensure the holistic grooming of students by blending academic excellence with personal growth, creativity, and social responsibility. While curricular activities such as classroom learning, laboratory work, research projects, and seminars strengthen intellectual and professional skills, co-curricular activities like cultural clubs, technical societies, sports, NSS activities, and Abhyudaya (the social arm of Institute) etc. provide platforms for leadership, teamwork, and community engagement. Through participation in these diverse opportunities, students not only gain subject knowledge but also develop confidence, organizational abilities, empathy, and a balanced personality, preparing them to excel both in their careers and as responsible citizens.

1. **NSS JECRC: Conducted** blood donation camps, cleanliness drives, tree plantation campaigns, and awareness programs on health and hygiene. Organized “Swachh Bharat Abhiyan” and “Plastic-Free Campus” initiatives. Carried out special camps in nearby villages for promoting education, women empowerment, and health check-ups.  
Aligned SDGs: SDG 3 (Good Health & Well-Being), SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 13 (Climate Action).
2. **Social Arm of JECRC:** Works with underprivileged communities through education, health, and sanitation initiatives. Conducts blood donation camps, menstrual hygiene awareness campaigns, and old age home visits. The blood donation and awareness on health issues done under club named “Aashayein”. The life Saviors, sub-club conducts orphanage and rural education programs. The club works on women empowerment as “Suhasini” is dedicatedly working to make a better place for girl, also teaching under privileged students (Zarurat) working in the direction to provide elementary education free of cost to the underprivileged children living in the nearby slum areas of JECRC, Jaipur, Aligned SDGs: SDG 3(Good Health & Well-Being), SDG 4(Quality Education), SDG 5 (Gender Equality).
3. **JECRC MUN Society:** organizes an annual Model United Nations conference that provides students with a platform to engage in diplomacy, debate, and collaborative problem-solving. By simulating global discussions, it nurtures leadership, critical thinking, and negotiation skills while fostering awareness of international issues. The society’s initiatives are closely aligned with the Sustainable Development Goals (SDG 4: Quality Education and SDG 17: Partnerships for the Goals), empowering students to become responsible global citizens committed to dialogue, justice, and cooperation.
4. **Technical and Cultural Clubs:** The institution fosters holistic student development through a vibrant mix of technical and cultural clubs, departmental technical clubs such as Automobile club, Robotic club, and coding club (Marvel-cart) provide platforms for innovation, coding competitions, and knowledge-sharing. The Artists’ Community (Atrangi Club) nurtures creativity and artistic expression, while the Photography Club (Fotogra Freaks) captures moments with skill and imagination. Music enthusiasts find their rhythm in (Avyaan club ), and dance lovers showcase their talent through groups like Enigma Crew, Khalas Bhangra, and Face “n” Footlight. Sports activities are promoted through the sports festival termed as “Athlon”, encouraging fitness, discipline, and teamwork. Together, these clubs organize cultural fests, competitions, and collaborative events that enrich hobbies, enhance leadership, and inspire creativity. Their initiatives align with the Sustainable Development Goals as SDG 4 (Quality Education), SDG 5 (Gender Equality), and SDG 8: Decent Work & Economic Growth), ensuring students grow into well-rounded individuals prepared for both professional success and social responsibility.
5. The institution promotes **innovation, culture, and sustainability** through dynamic student-led projects, exhibitions, and performances that foster creativity and collaboration.
6. **Renaissance (Annual Techno-Cultural Fest):** Renaissance is a vibrant three-day Techno-Cultural Fest that celebrates creativity, innovation, and youthful energy. It brings together exceptional talent across diverse disciplines including music, dance, drama, thrilling games, and more. Designed and orchestrated by students, for students, under the thoughtful guidance of the management team and student council, Renaissance is more than just a festival—it is a platform that inspires, empowers, and nurtures the spirit of collaboration and excellence among the youth. Aligned SDGs: SDG 4 (Quality Education), SDG 8(Decent Work & Economic Growth), SDG 11(Sustainable Cities & Communities).

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#### 2.8 Steps Taken for Enhancing Industry Institute Partnerships (15)



**Objective:** To strengthen collaboration between academia and industry for enhancing students’ technical competence, employability, and innovation through exposure to real-world practices, technologies, and industrial culture.

**1. Partial Delivery of Courses by Industry Experts**

- Professionals from reputed industries such as BABA Automobile, JSW MG Motors, Tech Matrix, and CADD Centre , TCS were invited to deliver expert talks to students.
- The sessions covered topics including Industrial Safety, 3D Design and Parametric Modelling, Solid Works, Product Design, and Quality Control Systems.
- These interactions ensured curriculum relevance and strengthened students’ practical orientation in alignment with current industrial standards and professional practices

**2. Establishment of Industry-Supported Laboratories**

To strengthen the synergy between industry and academia, the Mechanical Engineering Department has undertaken several initiatives. These are aimed at enriching the curriculum, enhancing practical exposure, and ensuring students acquire industry-relevant skills. The educational reform of linking technical education with industry is one of the important educational innovations emerging in this country. Interaction between institute and industry is now widely recognized as an essential requirement to train and develop the right kind of manpower necessary to sustain and promote industrial and economic growth. To strengthen interaction with industries and to keep our students updated with the latest trends in mechanical engineering, the department has implemented following initiatives:

1. Department has two Industry supported laboratories viz. Automobile laboratory (Equipments are provided by the Baba Automobile Pvt. Limited) and design software laboratory (related software are provided by CAD (<https://jecrcfoundation.com/jecrc-foundation-mou-with-industry>))
2. Various training and activities are carried out through these laboratories for skill enhancement for students.
3. These laboratories are also utilized by the students during their project work and for analysis purpose for writing conference papers.
4. Students also visit various industries after the end of second, fourth and Sixth semester for mandatory industrial training of fifteen and forty-five days is also serving as industry institute interaction.
5. Various industries do visit for campus recruitment for mechanical engineering students and also provide feedbacks to the department on various issues.
6. Some of the industrial visits and technical talks are the outcome of industry -institute relationship and are included as content beyond syllabus for knowledge enhancement.
7. The Institute signed a Memorandum of Understanding (MoU) with Bharatiya Skill University to provide training on advanced machines.
8. Department collects the feedback from the students and necessary actions are taken.
9. Skill enhancement of the students is also carried out through Fiat Technologies and it is mandatory for all pre final year students for cracking campus placements and interviews.

**3. Add on courses mapped with RTU curriculum:**

- Department conducted addon courses like CAEV: Connected, Autonomous, Electric Vehicle Courses, “AutoCAD and Solid works Certification,” and “Green Manufacturing Practices”, Catia, Electric Vehicle, Introduction to Solid works, ‘Introduction to ANSYS’ & Engineering Simulations with ANSYS, 3D Design and Parametric Modelling using solid works,
- Organized under institutional collaboration with CADD Centre Jaipur, MG Motors Indian Pvt. Ltd etc.

S. No.	ADD on courses under RTU curriculum
1	“Introduction to SOLIDWORKS”
2	“Introduction to ANSYS”
3	“3D Design and Parametric Modelling using SOLIDWORKS”
4	“CAEV: Connected, Autonomous, Electric Vehicle Course”
5	“Engineering Simulations with ANSYS”
6	Engineering Thermodynamics
7	Programming, Data Structures and Algorithms Using Python
8	Finite Element Method
9	Kinematics of Mechanisms and Machines
10	Introduction to Fluid Mechanics
11	Matlab Programming for Numerical Computation
12	Business Fundamentals for Entrepreneurs

**4. Add on courses mapped as per Industry requirement:**

- Department conducted add-on courses like Programming with C++, Applied Object-Oriented, Workplace Readiness: Aptitude, Reasoning and Language Proficiency, Data Structures using Python, From Campus to Corporate: Skills for Success, oorganized under institutional collaboration with FIAT Consultancy Services, IGBC etc.

S.No.	ADD under as per Industry Requirement
1	Programming, Data Structures and Algorithms Using Python
2	“Applied Object-Oriented Programming with C++”
3	Workplace Readiness: Aptitude, Reasoning and Language Proficiency

4	"Data Structures using Python"
5	From Campus to Corporate: Skills for Success
6	Business Fundamentals for Entrepreneurs

#### 5. Guest lectures and Expert talks

- Regular expert talks were organized by industry professionals on diverse topics including beginner-level machine learning for Research and Technology Transfer, Green Building Concepts (IGBC), Financial Statement Analysis, additive Manufacturing, Vehicle Gear Power Transmission Systems, Sustainable Manufacturing, and Industry 4.0.
- These sessions were facilitated by the Joint Industry Cell (JIC), Institution's Innovation Council (IIC), and the Alumni Association, fostering industry-academia interaction and enhancing students' exposure to contemporary industrial and technological trends.

#### 6. Industrial Visits and On-Site Learning

Industrial visits were conducted to provide students with direct exposure to real working environments in reputed organizations. These visits helped students understand how large-scale industries operate, observe professional work practices, and gain practical insights into organizational functioning, thereby enhancing their overall industry awareness and experiential learning.

- Organized industrial visits to renowned organizations such as RCAT (Rajiv Gandhi Centre of Advanced Technology), Ashok Leyland, Havells, Parle-G, and Hitachi.
- These visits enabled students to gain first hand exposure to production lines, manufacturing processes, quality control testing, and real-time supply chain management systems.

#### 7. Internships

Students undergo **short-term industry internships of 4-6 weeks** designed to bridge the gap between academic learning and real-world applications. These internships provide practical exposure to **industrial operations, production processes, quality assurance, maintenance practices, and research & development activities**, enabling students to develop technical skills, professional competence, and industry readiness.

Students undergo internships in reputed industries like:

- Baba Automobile
- Tata Motors
- Jaipur Metro
- Mahindra automobile & Hindustan automobile
- Hero Motors
- CADMATE & Matrix Computers

Internships are typically 4-6 weeks long and focus on production, quality, maintenance, and R&D.

#### 8. Memorandum of Understanding (MoU's) with Industries

The department has established strong industry-institute collaborations through multiple MoUs to support student training, skill development, and research activities. These partnerships facilitate access to industry-supported laboratories, internships, add-on training programs, workshops, seminars, and certification courses, particularly in emerging and applied technology areas. Students utilize these facilities for project work, practical analysis, and research paper preparation. Mandatory industrial training, industry visits, and technical talks further strengthen experiential learning and professional exposure. The collaborations are continuously monitored through periodic review meetings to ensure effective implementation and sustained outcomes during the academic years 2023-24, 2024-25, and 2025-26.

- Institute signed a MoU with one Industry supported laboratory viz. Baba Automobile Research Laboratory (Equipment worth rupees 2.5 Lakh is provided by the Baba Automobile Pvt. Limited).

Institute signed a MoU with MG motors, that provide the internship, add on training, workshops and seminars in the area of Electric Vehicles.

- Institute also signed MOU with Exact Tech fleeters Pvt. Ltd. for training on embedded system, python etc. Training and activities are carried out through these laboratories for skill enhancement. These laboratories are utilized by the students during their project work and for analysis purpose for writing research papers.
- Skill enhancement of the students is also carried out through FACE academy and it is mandatory for all pre final year students. Student's also visit various industries after the end of fourth and Sixth semester for mandatory industrial training of 30 and 45 days is also serving as industry institute interaction.
- Some of the industrial visits and technical talks are the outcome of industry-institute relationship and are included as content beyond syllabus for knowledge enhancement. In the academic year 2023-24, 2024-25 and 2025-26
- Signed MoU's with **CADD Centre, JSW-MG motors, and BABA Automobiles** for training, joint research, and certification programs.
- Periodic review meetings conducted to ensure effective implementation.

#### 9. Industry-Sponsored Student Competitions

- Students participated in **SAE BAJA, Go-Kart Design Challenge, Ideathon and SIH (Smart India Hackathon)** with partial industry sponsorship.
- Industry mentors guided design, fabrication, and testing stages.

S. No.	Organisation with which MoU is signed	Name of Activity under the signed MOU	Department
1	JSW-Morris Garages Pvt. Ltd.	Centre of Excellence	Institute Level
2	Baba Automobiles Pvt.Ltd.	Industrial visit, projects & Training Placement activities	Institute Level
3	CADD Centre Training Services, Raja Park, Jaipur	Industrial Visit to R-CAT Centre	Institute Level
4	Ratna and BM Ranveer Foundation	Publication activities of national conferences	Institute Level
5	Fiat Technologies	Add on courses in the area of Aptitude , communication skills and logical reasoning	Institute level

6	Fiat Technologies	Add on courses in the area of Coding skills,DSA an OOPs	Institute level
7	Made Easy Education Pvt. Ltd., Jaipur	Guest Lectures	Institute Level
8	Igen Edu Solutions Pvt. Ltd., India	Patents Publication Activities	Institute Level

#### 10. Innovation Support through Industry Mentors-JIC

Students developed comprehensive knowledge of startup ecosystems and entrepreneurial terminology and gained practical experience in digital marketing and personal branding through consistent content creation. A strong foundation in business concepts was established through daily research and content development activities, students became familiar with complex business strategies, funding mechanisms, and market analysis techniques also advanced understanding of content marketing, audience engagement, and community building was developed. Guidance provided for prototyping, funding, and commercialization.

S.No	Name and Start-up Details	Seed Funding/Support
1	Sevak - Cab Service for emergency services	₹2000
2	E-Bharat Vehicle - We transform your old fuel-based automobile to electric	₹40000
3	CarDho - Daily doorstep car grooming service making it accessible for all.	₹2000000
4	A Square Techno - Smart-tech based solutions for solving problems like Pet-tie (smartwatch for pets) and women's safety gloves	Incubation support
5	Tobotics - Tobotics is a robotics innovation startup focused on developing tech-toys. We design and sell DIY tech-toy kits for students and enthusiasts, helping them learn hands-on electronics and robotics. Our	Incubation support
6	Leaseit - An app through you can hire furniture, appliances, electronic items, fitness instruments, study material at an affordable price.	Incubation support
7	Roomzy - Roomzy is a student housing marketplace revolutionizing the way students find off-campus housing by offering verified listings, no hidden fees, and direct owner connections.	Incubation support
8	Maakhana - Maakhana is a startup revolutionizing tiffin services with its unique promise of "Maa Ka Khaana Maa Se Door." We deliver healthy, hygienic, and home-cooked meals in insulated, safe tiffin boxes, offering flexible daily, weekly, and monthly subscription plans at affordable prices. Catering to both B2B and B2C clients.	Incubation support
9	DevsCon - A unified platform for the developers to build profile, join communities, connect & learn.	₹10000
10	Doctunes - Doc Tunes is an AI-powered app that converts PDFs and text into customizable audio, supporting multiple languages and voice styles.	₹500000

#### 11. Alumni in Industry as Mentors

Alumni working in reputed industries regularly engage with students through alumni talks like Aspiration to Achievement: Preparing for GATE, and Government Careers, Mentorship programs, and placement guidance sessions.

S. No	Name	Title	No. of students
1	Mr. Sourabh Saxena, Assistant Manager , Pune	Alumni talk on "Vehicle Gear power Transmission System"	22
2	Mr. Vijay Goutam Sharma Assistant Manager Honda Motorcycles & Scooters	Challenges and Opportunities in E-Vehicles	30
3	Mr. Abhishek Shukla - Head of Operations, Axestrack Software Solutions Pvt Ltd (2007 - ME)	Strong focus on essential Entrepreneurial skills	23
4	Mr. Anshul Jain - Head of Marketing, SK Finance Ltd (2007 - ME)	Strong focus on essential Technology-driven finance skills	37
5	Mr. Harsh Babel - Deputy General Manager, Bharat Seats Ltd (2010 - ME)	Building key soft skills	28
6	Mr. Major Gaurav Tak - Senior Program & Risk Management Leader, RBI (2010 - ME)	Emphasizing core Civil Services Aspirations	39

7	Mr. Tushar Harchandani - Area Manager, Maruti Suzuki (2010 - ME)	Strengthening core life skills	22
8	Mr. Parag Vijayvargia - CO Project Manager, Valeo (2012 - ME)	key soft-skill development	18
9	Mr. Shivam Joshi - Deputy superintendent, DySP Rajasthan Police (Kota) (2012 - ME)	Emphasizing core Public Services Aspirations	37
10	Mr. Akshay veer singh chundawat - Deputy manager, RAS (2013 - ME)	Mentorship program emphasizing public service career aspirations	34
11	Mr. Amit Rajagopalan - Manager, Deloitte UK (2013 - ME)	Structured mentorship dedicated to holistic life-skills development	20
12	Mr. Shivendra Singh Rathore - Tahsildar, Govt of Rajasthan (2013 - ME)	Emphasizing careers in the civil services	22
13	Mr. Yogesh Kumar Gupta - Deputy manager, Honda Cars India (2013 - ME)	Strengthening key human skills	22

#### Summary of Outcomes

The combined impact of expert talks, industry-linked initiatives, industrial visits, and collaborations has significantly strengthened students' practical skills, technical knowledge, and industry readiness. These activities bridged the gap between theory and practice by providing hands-on exposure to industry-relevant tools, design methodologies, manufacturing processes, quality standards, safety practices, and Industry 4.0 concepts. Students developed enhanced awareness of emerging technologies, sustainable engineering practices, research methodologies, innovation, and technology transfer, while also improving analytical, communication, teamwork, creativity, and professional competencies. Skill development programs, industrial training, and partnerships with industries and Bharatiya Skill University improved employability, preparedness for campus placements, and capability to address advanced engineering challenges. Additionally, faculty benefited through exposure to modern tools and practices, enhancing teaching effectiveness, while strengthened academic-industry collaboration fostered continuous skill upgrading, innovation, entrepreneurship, and real-world learning opportunities for current students.

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### 3 OUTCOME-BASED ASSESSMENT (120)

Total

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



The Institution adherence to the academic calendar of affiliated university and it follows the assessment schedule as provided by the University. A structured academic framework is pivotal to ensuring the timely conduct of Mid Term Test and other continuous assessment activities. Continuous assessment is implemented to ensure systematic monitoring of students learning, performance, and attainment of Course Outcomes (COs). The process emphasizes transparency, objectivity, and constructive alignment with Program Outcomes (POs) and Program Specific Outcomes (PSOs).

#### Internal Evaluation and Quality Assurance

- Internal semester question papers are prepared strictly as per RTU norms and are divided into appropriate sections.
- While framing question papers, previous RTU university examination papers, as well as questions from GATE, IES, PSU, and other competitive examinations, are referred to ensure relevance and academic rigor.
- Questions are designed based on Course Outcomes (COs) and ensuring an appropriate balance of difficulty levels .
- A Moderation and Scrutinizing Committee has been constituted to ensure the quality of internal question papers, solution schemes, and evaluation processes.

Moderation and Scrutinizing Committee (2024–25)

S#	Faculty	Qualification	Designation	Role
1	Dr. M.P. Singh	B.E, M.Tech, Ph.D	HOD	Chair
2	Dr.Fauzia Siddiqui	B.Tech, M.Tech, Ph.D	Professor	Member
3	Dr. Bhuvnesh Bhardwaj	B.E, M.Tech, Ph.D	Associate Professor	Member
4	Dr. Manoj Gupta	B.E, M.Tech, Ph.D	Associate Professor	Member
5	External Examiner	Ph.D	Associate professor/professor	Member

- The committee reviews and finalizes all internal question papers to maintain uniformity, quality, syllabus coverage, and CO mapping.
- In addition, external subject experts from reputed institutions are invited to scrutinize selected question papers, ensuring the quality of question papers.

#### Evaluation and Feedback

- After each internal examination, answer scripts are evaluated within define time period using a CO-wise marking scheme.
- Evaluated answer scripts are shown to students, and key concepts and common mistakes are discussed in class.
- Grievance redressal is facilitated through a formal mechanism where students may apply for re-evaluation, and necessary actions are taken promptly.

#### CO-Based Analysis and Student Support

- Internal assessment results are analyzed CO-wise to identify weak learners (students scoring below 50% in specific Cos), Average (students scoring between 50% to 70% in specific Cos) and strong (students scoring above 70% in specific Cos)
- Remedial measures such as additional tutorials, CO-aligned assignments, quizzes, viva-voce, presentations, and retests are provided to slow learners.
- Strong learners are encouraged through advanced problem sets derived from GATE, IES, PSU, and university-level questions.
- Faculty members mentor guide weak learners through small group interactions to improve conceptual understanding and CO attainment.

#### Continuous Assessment Methods

- Regular assignments, tutorials, quizzes, viva-voce, class interactions, and in-session oral assessments are conducted to reinforce continuous learning and assess analytical and problem-solving skills.
- Faculty members provide assignments and question banks consisting of problems from previous university exams and competitive examinations to promote self-learning and outcome attainment.
- 

#### Consolidation of Internal Marks

- After completion of all evaluations (MTT-1, MTT-2, assignments, quizzes, presentations, and retests), faculty members consolidate final internal marks and discuss with students
- The consolidated marks are submitted to the Examination Cell, which uploads them to the RTU portal in accordance with university regulations.

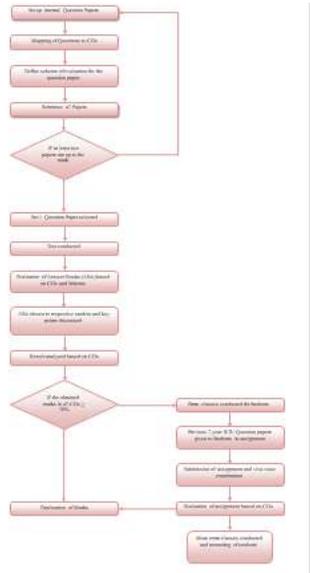
#### CO Attainment Weightage

- Course Outcome (CO) attainment is evaluated based on both internal assessment and end-semester university examination.
- Internal assessment contributes 30%, while end-term university examination contributes 70% toward total CO attainment.

Total: 100% ( 30% internal and Remaining 70% is End-term university examination).

#### Internal Evaluation Components(30Marks)

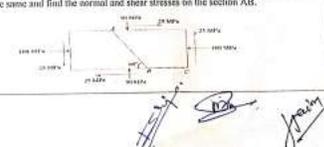
S. No.	Component	Nature of Assessment	Weightage
1	MTT-I	Written exam	10
2	MTT-II	Written exam	10
4	Assignments / Tutorials Quiz / Viva/presentation	Problem-based / GATE-style	10



MTT Sample paper


**JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE**  
 JECRC Campus, Shri Ram Ki Nagar, Via-Vaithan, Jaipur

MTT - II			
Academic Year 2025-26 (3rd Semester)		SET - A	
Course	B. Tech.	Date	29-10-2025
Semester/Section	III-A	Time Duration	1:30 Hrs.
Subject & Subject Code	Mechanics of Solids (JME4-01)	Max. Marks	60
<b>Course Outcomes</b>			
CO4 Evaluate principal stresses, strain energy, and failure criteria in solids.			
CO5 Solve problems using energy methods and elastic constants in advanced structures.			
CO6 Design or optimize solid structures using advanced concepts.			
Q. No.	CO	Questions	Marks
<b>PART-A: Attempt All Questions (6 x 3 = 18 Marks)</b>			
1.	4	Discuss principal stresses.	3
2.	4	List any three failure theory name with suitable material.	3
3.	5	Distinguish between Euler's & Rankine's column theory.	3
4.	5	Mention any two unique features hollow shaft.	3
5.	6	Differentiate hoop stress and longitudinal stress.	3
6.	6	Differentiate column and strut.	3
<b>PART-B: Analytical / Problem Solving questions Attempt All Questions (3 x 4 = 12 Marks)</b>			
1.	4	Derive the complete torsion equation.	4
2.	5	A steel rod 5m long & 40 mm diameter is used as a column, with one end fixed and the other free. Determine the crippling load by Euler's formula. Take E as 200 GPa.	4
3.	6	Analyze the longitudinal and circumferential stresses in a thin cylindrical shell of length (L), radius (R) and thickness (t), subjected to an internal pressure (p).	4
<b>PART-C: Descriptive / Analytical / Problem Solving / Design questions Attempt All Questions (3 x 10 = 30 Marks)</b>			
1.	4	A point in a strained material is subjected to the stresses as shown in figure. Draw Mohr's circle for the same and find the normal and shear stresses on the section AB.	10



**JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE**  
 JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

Final Torque Equation:

$$T\theta = \tau R = G\theta L$$

Where:

- T = Applied Torque
- J =  $\pi d^4/32$  = Polar moment of inertia for solid shaft
- $\tau$  = Shear stress
- R = Outer radius
- G = Modulus of rigidity
- $\theta$  = Angle of twist
- L = Length of shaft

Q2:- Euler's Cripping Load for a Steel Column

Given:

- Length, L = 5 m = 5000 mm
- Diameter, d = 40 mm
- One end fixed, other free  $\Rightarrow$  Effective length,  $L_e = 2L = 10\text{ m} = 10,000\text{ mm}$
- E = 200 GPa = 200 x 10<sup>9</sup> N/m<sup>2</sup>

Formula (Euler's for long column):

$$P_{cr} = \frac{\pi^2 EI_c}{L_e^2}$$

For a circular cross-section:

$$I = \frac{\pi d^4}{64}$$

$$I = \frac{\pi (40)^4}{64} = \frac{3.1416 \times 2.56 \times 10^8}{64} = 125,664 \text{ mm}^4$$

$$P_{cr} = \frac{\pi^2 \times 200 \times 10^9 \times 125,664}{(10,000)^2}$$

$$P_{cr} = \frac{(9.8696) (200 \times 10^9) (125,664)}{10^8}$$

$$P_{cr} = \frac{2.48 \times 10^{11}}{10^8} = 2480 \text{ N}$$

Crippling Load,  $P_{cr} = 2.48 \text{ kN}$

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 JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

From geometry of deformation (see figure, 2 draw):

$$\frac{\theta}{L} = \frac{\tan \phi}{R}$$

Also, from the relationship between shear stress and twist:

$$\frac{\theta}{L} = \frac{\tau}{rG}$$

Comparing:

$$\frac{\tau}{r} = \frac{G\theta}{L}$$

Now, total torque on the shaft is obtained by summing the moments of shear stresses over the area:

$$T = \int r dF \cdot r$$

$$T = \int_0^R r \cdot 2\pi r^2 dr$$

Substitute  $\tau = \frac{r\theta}{L}$ , we get:

$$T = \frac{G\theta}{L} \int_0^R 2\pi r^3 dr$$

$$T = \frac{G\theta}{L} \left( \frac{\pi R^4}{2} \right)$$

$$J = \frac{\pi R^4}{2}$$



EXAMINATION ANSWER BOOK

(To be filled in by the candidates)

Name of the Candidate Akhil Mali  
 Course (YEAR/SEMESTER) : B.Tech 3<sup>rd</sup> year 5<sup>th</sup> Sem  
 Roll No. MF-02  
 Subject & Paper Design of Machine Elements - I  
 Day & Date Tuesday 29/10/25  
 Academic Session 2025-26  
 Supplementary Used (Nos.) \_\_\_\_\_  
 Signature of Candidate Akhil Mali  
 Signature of Invigilator's (i) \_\_\_\_\_ (ii) \_\_\_\_\_

For The Use of Examiner	
Q.No.	Marks
1.	6
2.	4
3.	10
4.	
5.	
6.	
7.	
8.	90
Total	120

N.B. Candidates Should fill in the above particulars before they begin to write their answers.

Use blank space below for starting your answer.

Examiner's Signature

Part-A

Ans 1 In shaft design, the function of a key is to facilitate an rotational motion of a shaft to the hub or spindle by locking them together tightly. A key is placed between the shaft and the hub or spindle.

Ans 2 In machine design, it is important to consider the factor of safety to compensate for the varying range of loads applied on the body and to produce optimum results at

Problem 1

A cantilever of length 2m is fixed at one end and carries a uniformly distributed load of 10kN/m over the whole length and a point load of 20kN at a distance of 0.5m from the free end. Draw the SFD and BMD for the cantilever.

Solution

Given: Length = 2m, UDL = 10kN/m, Point Load = 20kN, Distance from free end = 0.5m.

Since the cantilever is fixed at one end, the reaction forces at the fixed end are:

Vertical reaction force  $R_v = 10 \times 2 + 20 = 40$  kN (upwards)

Horizontal reaction force  $R_h = 0$  (no horizontal loads)

Reaction moment  $M_r = 10 \times 2 \times \frac{2}{2} + 20 \times 0.5 = 20 + 10 = 30$  kNm (counter-clockwise)

The shear force diagram (SFD) is shown below. It starts at 40 kN at the fixed end and decreases linearly to 0 kN at the free end. The point load of 20 kN causes a vertical jump of 20 kN at the free end.

The bending moment diagram (BMD) is shown below. It starts at 30 kNm at the fixed end and decreases parabolically to 0 kNm at the free end. The point load of 20 kN causes a linear increase in the bending moment at the free end.

Problem 2

A simply supported beam of length 10m carries a uniformly distributed load of 10kN/m over the whole length and a point load of 20kN at a distance of 3m from the left support. Draw the SFD and BMD for the beam.

Solution

Given: Length = 10m, UDL = 10kN/m, Point Load = 20kN, Distance from left support = 3m.

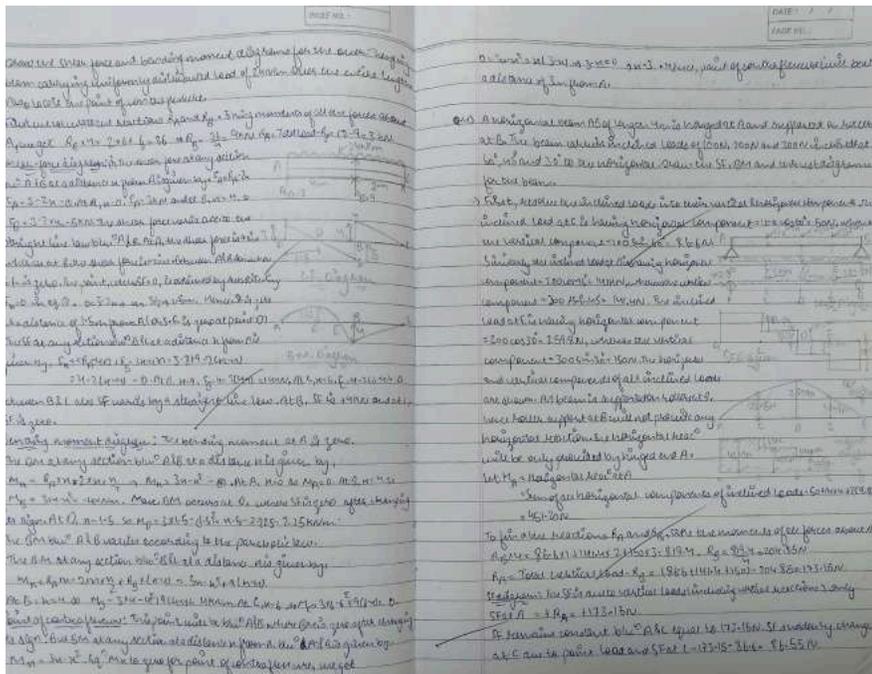
Reactions at the supports:

Left support:  $R_L = 10 \times 10 + 20 = 120$  kN (upwards)

Right support:  $R_R = 10 \times 10 + 20 = 120$  kN (upwards)

The shear force diagram (SFD) is shown below. It starts at 120 kN at the left support, decreases linearly to 0 kN at 3m, then jumps to 100 kN due to the point load, and then decreases linearly to 0 kN at the right support.

The bending moment diagram (BMD) is shown below. It starts at 0 kNm at the left support, increases parabolically to 150 kNm at 3m, then increases linearly to 1200 kNm at the right support.



ROLL NO.	NAME	Mechanical Vibration										external marks (70)
		internal (30)	MTT(20)	Assignment (10)	MTT-1	MTT-2	CO1(7.5)	CO2(7.5)	CO3(7.5)	CO4(7.5)	Total(100)	
EJME	AKASH SHARMA	28	19	9	10	9	7.25	7.25	7.25	6.25	73	45
EJME	AYAN ADIL	26	17	9	9	8	6.25	7.25	7.25	5.25	42	16
EJME	CHANDRASHEKHAR DADHICH	25	16	9	9	7	7.25	6.25	7.25	4.25	77	52
EJME	DEVRAJ SINGH JAIN	25	15	10	8	7	7.5	5.5	7.5	4.5	39	14
EJME	DHEERAJ KUMAR SUKHEJA	27	17	10	9	8	7.5	6.5	7.5	5.5	45	18
EJME	JAY KUMAWAT	25	15	10	8	7	7.5	5.5	7.5	4.5	82	57
EJME	KAUSHAL PAREEK	29	19	10	10	9	7.5	7.5	7.5	6.5	84	55
EJME	MOHAMMAD KASIM	25	16	9	9	7	7.25	6.25	4.25	7.25	70	45
EJME	MOHIT GARG	20	12	8	7	5	7	4	4	5	34	14
EJME	MIRADUL KRISHNA BHARDWAJ	29	19	10	10	9	7.5	7.5	7.5	6.5	95	66
EJME	NAKUL	18	10	10	4	4	4.5	4.5	4.5	4.5	27	9
EJME	NILAY MATHUR	29	19	10	10	9	7.25	7.5	7.5	6.5	80	51
EJME	PIYUSH BHATI	29	19	10	10	9	7.5	7.5	7.5	6.5	90	61
EJME	PRIYANSHU BHARDWAJ	28	18	10	9	9	7.5	6.5	7.5	6.5	75	47
EJME	REHAN BULAND KHAN	28	19	9	10	9	7.25	7.25	6.25	7.25	62	34
EJME	REHAN KHAN	25	16	9	10	6	7.25	7.25	4.25	5.25	48	23
EJME	RISHABH JAIN	29	19	10	10	9	7.5	7.5	7.5	6.5	87	58
EJME	SHANKAR LAL CHOUDHARY	27	17	10	10	7	7.5	7.5	7.5	4.5	83	56
EJME	SOURAV SINGH	26	17	9	7	10	4.25	7.25	7.25	7.25	77	51
EJME	VINAY TANWAR	29	19	10	10	9	7.5	7.5	7.5	6.5	85	56
EJME	MAMITA KANWAR	23	19	10	10	9	7.5	7.5	6.5	7.5	97	68
EJME	PRASHANT SINGH TANWAR	29	19	10	10	9	7.5	7.5	7.5	6.5	75	48

42.818182

Internal

	CO1	CO2	CO3	CO4
40% >= 50%	0	0	0	0
50% >= 70%	2	2	4	8
> 70%	20	20	18	14
	97%	97%	94%	88%

External

42.818182		
avg >= avg+10%	42.8 - 47	4
vg+10% >= avg+20%	47 - 51.28	2
n > avg+20%	more than 51.2	9

42.818182  
so attainment 53%  
(4\*1+2\*2+9\*3)/100/66 = 53%



0.97	0.97	0.94	0.88
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3.2 Evaluation of the Semester End Exam (SEE) Question Paper (10)

1. Process of Setting of SEE Question Paper

- At Rajasthan Technical University (RTU), the Semester End Examination (SEE) is conducted as per the academic regulations to ensure uniformity and quality across all affiliated institutions. The process of question paper setting and evaluation is designed to maintain academic rigor, transparency, and constructive alignment .
- [https://rtu.ac.in/home/wp-content/uploads/2015/06/Examination\\_regulations\\_rtu\\_3.pdf](https://rtu.ac.in/home/wp-content/uploads/2015/06/Examination_regulations_rtu_3.pdf) (https://rtu.ac.in/home/wp-content/uploads/2015/06/Examination\_regulations\_rtu\_3.pdf)

a) Question Paper Setting Process:

- RTU appoints external paper setters from the approved panel of subject experts.
- Paper setters receive detailed syllabus, and sample question patterns well in advance.
- Each question paper is designed in alignment with the RTU prescribed structure, ensuring balanced coverage of the entire syllabus.
- Questions are framed to represent various testing knowledge, understanding, application, analysis, evaluation, and creativity.
- The paper includes compulsory and choice-based questions to assess depth of student learning.

b) Moderation: The question paper undergoes moderation by an internal committee of Rajasthan Technical University to ensure:

- Relevance to syllabus
- Proper difficulty level (easy, moderate, difficult ratio)
- Elimination of ambiguity or errors
- Proper language and marking scheme clarity

2. Evaluation Process of SEE Answer Scripts

- The evaluation of SEE answer books is conducted in a centralized, confidential valuation center under RTU supervision.
- Double valuation or moderation is carried out wherever discrepancies are found beyond the permissible range.
- The scheme of evaluation (key) prepared by the paper setter ensures uniformity and fairness.
- The evaluation focuses on students ability to apply theoretical knowledge to practical and analytical problems .
- Statistical analysis (mean, standard deviation, pass percentage) is performed at the University level to monitor paper quality and performance trends.

Allignment with CO

Rajasthan Technical University does not provide a CO-wise breakup of the final (SEE) examination; therefore, for attainment calculation and OBE compliance, the department distributes the end-semester examination marks uniformly across all Course Outcomes. This approach ensures balanced consideration of all COs in the absence of an official CO-wise mark distribution.

ROLL NO	NAME	Mechanical Vibration										external marks (70)
		Internal (30)	MTT(20)	Assignment (10)	MTT-1	MTT-2	CO1(7.5)	CO2(7.5)	CO3(7.5)	CO4(7.5)	Total(100)	
EJCME	AKASH SHARMA	28	19	9	10	9	7.25	7.25	7.25	6.25	73	45
EJCME	AYAN ADIL	26	17	9	9	8	6.25	7.25	7.25	5.25	42	18
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EJCME	JAY KUMAWAT	25	15	10	8	7	7.5	5.5	7.5	4.5	82	57
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EJCME	MIRADUL KRISHMA BHARDWAJ	29	19	10	10	9	7.5	7.5	7.5	6.5	95	68
EJCME	NAKUL	18	10	10	4	4	4.5	4.5	4.5	4.5	27	9
EJCME	NILAY MATHUR	29	19	10	10	9	7.25	7.5	7.5	6.5	80	51
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EJCME	PRIYANSHU BHARDWAJ	28	18	10	9	9	7.5	6.5	7.5	6.5	75	47
EJCME	REHAN BULAND KHAN	28	19	9	10	9	7.25	7.25	6.25	7.25	62	34
EJCME	REHAN KHAN	25	16	9	10	6	7.25	7.25	4.25	5.25	48	23
EJCME	RISHABH JAIN	29	19	10	10	9	7.5	7.5	7.5	6.5	87	58
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EJCME	MAMTA KANWAR	29	19	10	10	9	7.5	7.5	6.5	7.5	97	68
EJCME	PRASHANT SINGH TANWAR	29	19	10	10	9	7.5	7.5	7.5	6.5	75	46

42.81818182

Internal

	CO1	CO2	CO3	CO4
40% > x ≥ 50%	0	0	0	0
50% > x ≥ 70%	2	2	4	8
> 70%	20	20	18	14
	97%	97%	94%	88%

External

42.81818182	
avg > x ≥ avg+10%	42.8 - 47
vg+10% > x ≥ avg+20%	47 - 51.28
x > avg+20%	more than 51.2

42.81818182  
co attainment 53%  
(4\*1+2\*2+9\*3)\*100/66 = 53%

0.97	0.97	0.94	0.88
------	------	------	------

3.3 Evaluation of Laboratory Work and Workshop (Continuous and SEE) (10)



Laboratory and workshop courses constitute an integral component of the Mechanical Engineering curriculum. These courses are designed to develop hands-on technical competence, experimental skills, teamwork, safety awareness, and professional ethics among students.

The department follows a structured evaluation mechanism comprising continuous internal assessment throughout the semester and Semester End Evaluation (SEE), strictly in accordance with Rajasthan Technical University (RTU) guidelines. All assessment components are mapped to Course Outcomes (COs) and aligned with Program Outcomes (POs) and Program Specific Outcomes (PSOs) to ensure constructive alignment

**Evaluation Components**

S. No.	Component	Mode of Assessment	Weightage (%)	Frequency / Stage
1	Continuous Evaluation (Internal)	Experiment performance & record work.	40	Every laboratory session
2	Lab Test / Viva	Oral and hands-on test	10	Mid / end of semester
3	Mini Project /Presentation/certification	Continuous	10	Throughout
4	Semester End Evaluation (External Exam)	Practical exam conducted by RTU / external examiner	40	End of semester

**V. Rubrics for Continuous Assessment**

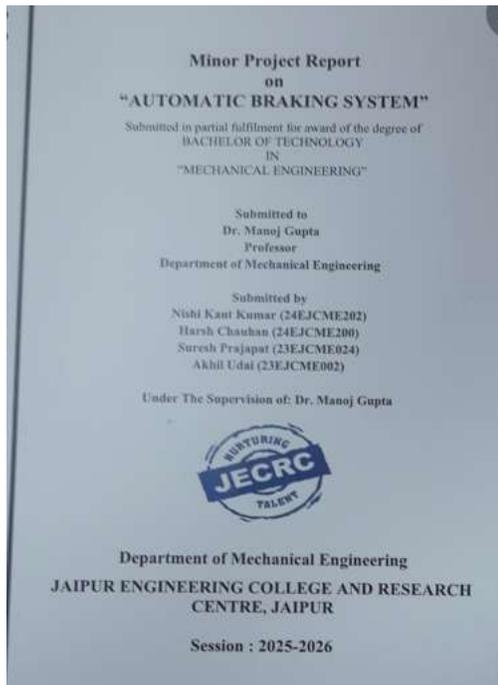
- o Each laboratory session is continuously assessed by the faculty member.
- o Students are evaluated using well-defined rubrics that measure performance against the expected learning outcomes.
- o Each experiment is mapped to a specific Course Outcome (CO).
- o The marks are awarded based on performance, understanding of procedure, analysis, and documentation.
- o Faculty members use clearly defined rubrics to evaluate student performance in every experiment. Each experiment is graded on a 5-point scale (Excellent = 5 → Poor = 1) as per the following indicators:

**Code of Conduct for Practicals**

General		Rubrics	Weight (%)	Excellent (5)	Good (4)	Average (3)	Poor (2)
Understanding	Understand the design of experiment, equipment and the set up.						
Experiment setup	Setup the experiment carefully with stipulated procedure, obtaining readings appropriate to the investigation at hand.						
Testing	Analyze/testing and interpret data independently using appropriate theory..						
Execution	Extract and present insightful results ,the observations, calculations, analysis and results/ conclusion in a neat, well-organized and logical manner.						
Presentation	Use appropriate figures and graphs with titles, captions and labeling etc. This will make the write up easy to comprehend.						
Lab Usage	Ensure proper usage of equipment. Observe lab safety precautions.						
Professionalism	Maintain decorum. Be professional and submit the report within time.						
<b>Rubrics for Written Report</b>		Preparation / Experiment setup	20	Thorough conceptual clarity and procedure knowledge	Minor doubt areas	Partial preparation	Incomplete understanding
Objective	Objective of the experiment should be stated clearly.	Conduct of Experiment /Execution	20	Executes independently and accurately	Minor faculty support	Frequent assistance	Unable to complete without help
Principle	Should be complete and well-written. Provide all necessary background principles for the experiment.	Observation & Data Recording/Testing	20	Accurate data, proper units	Few minor errors	Partially recorded	Incomplete
Experimental procedure	Should be well-written in paragraph format. Should cover all details.	File record and presentation	20	Accurate computation and analysis	Minor mistakes	Conceptually correct but poor presentation	Major errors
Observation table, figures, graphs, etc.	Observation table should be correctly drawn. All figures, graphs should be numbered and contain titles/captions.	Viva / on time submission	20	Clear, confident, and application-oriented answers	Minor gaps	Basic understanding	Incomplete answers
Results and Discussion	Results should be interpreted correctly and discussed properly.						
Conclusions/Outcomes	All important conclusions should be clearly made.						
Language	Language should be correct and the write up very well-written.						
Appearance and formatting	All sections should be in order, well-formatted and well readable.						

## Fluid Mechanics Lab [4ME4-22]

Class: B. Tech. IV Sem.		Evaluation
Branch: ME Schedule: 3 hrs per week		Credit: 1.5 Maximum Marks: 100 [IA: 60, ETE: 40] Examination Time: 3 Hours
S.N.	NAME OF EXPERIMENT	CO Mapping
1	Determination of Meta-centric height of a given body.	CO 1
2	Determination of $C_d$ , $C_v$ and $C_c$ , for given orifice.	CO 3
3	Calibration of contracted Rectangular Notch and Triangular notch and determination of flow rate.	CO 1 & 3
4	Determination of velocity of water by Pitot tube	CO 1 & 3
5	Verification of Bernoulli's theorem.	CO 1 & 2
6	Calibration and flow rate determination using Venturimeter, Orifice meter and Nozzle meter.	CO 2 & 3
7	Determination of head loss in given length of pipe.	CO 1 & 4
8	Determination of the Reynold's number for laminar, turbulent and transient flow in pipe.	CO 1 & 6
9	Determination of Coefficient for minor losses in pipes.	CO 4
10	To study the velocity distribution in a pipe and also to compute the discharge by integrating the velocity profile.	CO 3 & 6
11	To study the boundary layer velocity profile over a flat plate and to determine boundary layer thickness.	CO 1 & 6
12	Conducting experiments and drawing the characteristics curves of centrifugal pump/submergible pump.	CO 5
13	Conducting experiments and drawing the characteristics curves of reciprocating pump.	CO 5
14	Conducting experiments and drawing the characteristics curves of Pelton wheel turbine.	CO 5
15	Conducting experiments and drawing the characteristics curves of Francis turbine.	CO 5
16	Conducting experiments and drawing the characteristics curves of Kaplan turbine.	CO 5



  
**JAYPEE ENGINEERING COLLEGE AND RESEARCH CENTRE**  
 Session: 2025-26

Name of the Lab: Machine Design Practice-I LAB.  
 Name of the Student: Tushar Gupth  
 College/RTU Roll No.: 22EJCME025  
 Batch: Mechanical Engineering

**Continuous Evaluation**

Sr. No.	Name of Experiment	Date of Performance	Date of Evaluation	Experiment Setup [1]	Execution [4]	Presentation /Analysis [2]	On Time Submission [1]	Total [10]	Faculty Signatures
1	Selection of material in pressure vessel	3/09/25	26/09/25	2	3	2	2	9	OK
2	Selection of material in design of shaft	26/09/25	3/10/25	2	3	2	2	9	OK
3	Construction of shaft-hub assembly	3/10/25	10/10/25	2	3	2	2	9	OK
4	Manufacture of shaft-hub assembly	10/10/25	24/10/25	2	2	2	2	8	OK
5	Numerical coupling	24/10/25	03/11/25	2	3	1	2	8	OK
6	Numerical joints	03/11/25	15/11/25	2	3	1	2	8	OK
7	Numerical shaft	15/11/25	28/11/25	2	3	2	2	9	OK

**Heat Transfer Laboratory SME4-22**

INTERNAL CO ATTAINMENT					EXTERNAL CO ATTAINMENT				
	co1	co2	co3	co4		co1	co2	co3	co4
40% > x ≥ 50%	0	0	0	0	40% > x ≥ 50%	0	0	0	0
50% > x ≥ 70%	0	0	0	3	50% > x ≥ 70%	0	0	0	0
x > 70%	22	22	22	19	x > 70%	22	22	22	22
Here, x is the marks percentage					Here, x is the marks percentage				
<b>CO attainment</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0.954545</b>	<b>CO attainment</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>

**Overall CO attainment**

CO	Internal	External	Direct Co attainment	Indirect	Co Attainment
CO1	1	1	1	0.84	0.968
CO2	1	1	1	0.85	0.97
CO3	1	1	1	0.89	0.978
CO4	0.954	1	0.9862	0.83	0.95496

**NOTE:**  
 Direct CO attainment=0.6\*Internal co attainment+0.4 \*external CO attainment  
 Indirect CO attainment=on the basis of CO based feedback  
 Overall CO attainment=0.8\*direct co attainment+0.2 \*Indirect CO attainment

**V. Rubrics for Workshop Practice**

Criterion	Weight (%)
Job Preparation / Planning	20
Accuracy of Dimensions / Testing	20
Tool Handling & Safety/Execution	20
File record /presentation	20
Viva / on time submission	20

- Manufacturing Practices Workshop (MPWS) as prescribed by Rajasthan Technical University is an introductory laboratory-oriented course designed to provide first-year engineering students with fundamental hands-on exposure to basic manufacturing and workshop processes. Students are evaluated based on job preparation, dimensional accuracy, finishing quality, attendance, viva-voce, and record maintenance

**V. Semester End Evaluation (External Exam)**

- Conducted according to RTU guidelines by an external examiner.
- External examiner assesses record book, viva, and practical performance using the same rubric parameters.
- Evaluation sheets signed by internal and external examiners.
- The department ensures constructive alignment by mapping evaluated parameters with COs and calculating CO attainment using a combination of continuous internal assessment (60%) and external assessment (40%) scores.

**3.4 Evaluation of Industrial Training/ Internship (Continuous and SEE) (10)**



Industrial Training / Internship is a mandatory component of the Mechanical Engineering curriculum prescribed by Rajasthan Technical University (RTU), Kota. The primary objective of the internship is to bridge the gap between theoretical knowledge and industrial practices, enabling students to gain practical exposure, professional ethics, teamwork, communication skills, and problem-solving abilities in alignment with Program Outcomes (POs) and Program Specific Outcomes (PSOs).

The department follows a well-defined and documented process for the allotment, monitoring, evaluation, and assessment of internships to ensure quality, relevance, and attainment of targeted learning outcomes.

Duration of Industrial Training (as per RTU Curriculum)

- 15 days after Second Semester
- 45 days after Fourth Semester
- 45 days after Sixth Semester
- Students are also encouraged to participate in additional industrial training programs during vacations for enhanced industrial exposure.

Process of Allotment and Approval of Internship

1. The department issues an official internship request letter to each eligible student.
2. Students approach suitable industries/organizations using the department letter.
3. The concerned company/organization provides an acceptance/acknowledgement letter to the department.
4. The department issues an approval letter for the internship.
5. After completion, the industry issues a training completion certificate and/or evaluation letter.
6. Students submit a self-attested copy of the training certificate to the department.
7. Students prepare and submit a detailed internship report.
8. A presentation followed by viva-voce is conducted.
9. Final evaluation is carried out and marks are awarded as per the approved evaluation scheme.

#### Evaluation Process

Stage	Activity / Component	Evaluator	Weightage (%)	Description
1. Continuous Evaluation	Regular supervision	Faculty Mentor / Industry Guide	40	Evaluates regularity, technical involvement, discipline, and initiative.
2. Internship Report	Evaluation of report quality, documentation, and learning outcomes	Faculty/guide	20	Assesses report content, analysis, and reflection of learning.
3. Presentation and Viva-Voce (Final Evaluation)	Presentation before external/internal expert panel	Internal & External Examiners	40	Evaluates communication skills, understanding of industrial processes, and application of knowledge.

#### Rubrics for Evaluation of Internship

##### Internal Assessment (60)

Rubrics component	Weightage	Excellent (5)	Good (4)	Average (3)	Below Avg. (2)	Poor (1)
Structure & Organization	10	Logical flow, all sections (objectives, methodology, observations, conclusions) well presented	Minor errors in clarity	Moderate presentation	Limited clarity	Unclear or disorganized
Attendance & Punctuality	10	100% attendance, proactive	High attendance, reliable	Regular but occasional lapses	Frequent absences	Very less attendance

Technical Knowledge Gained	20	Demonstrates deep technical understanding, applies theory to practice	Sound technical understanding	Moderate understanding	Partial understanding	Minimal understanding
Communication & Presentation Skills	10	Clear, confident, structured communication and report writing	Minor errors in clarity	Moderate presentation	Limited clarity	Unclear or disorganized
Innovation / Initiative	10	Shows creativity and initiative beyond assigned tasks	Often contributes ideas	Occasionally takes initiative	Rarely proactive	Passive

External Assessment (40)

Rubric Component	Weightage	Excellent (5)	Good (4)	Average (3)	Below Average (2)	Poor (1)
Presentation Structure	10	Well-organized, logical sequence; engaging slides with (charts, diagrams); excellent timing	Clear structure with good visuals; minor gaps	Basic flow; slides overcrowded or visuals inadequate	Disorganized structure; very few visuals	No visual aids or very poor-quality slides
Content & Technical Depth (Internship Outcomes & Learning)	10	Detailed analysis of projects; clear explanation of tools used strong linkage to mechanical engineering curriculum and real-world applications	Good coverage of outcomes and tools; relevant to program objectives with good technical understanding	General overview of internship work; lacks specific details; basic technical understanding	Vague or inaccurate description of work; weak technical depth	No clarity on internship work; no connection to program learning objectives
Delivery & Communication (Presentation Skills)	10	Confident delivery; excellent eye contact; clear articulation; strong audience engagement throughout	Clear delivery with good pace; adequate engagement	Readable presentation; somewhat hesitant; moderate engagement	Poor audibility; reads from slides; minimal audience interaction	Very poor delivery; ineffective communication
Response to Questions (Q&A)	10	Answers all questions confidently; provides additional insights; handles difficult questions effectively	Answers most questions correctly and clearly	Answers basic questions but struggles with complex ones	Unable to answer several questions; responses lack clarity	Provides incorrect or irrelevant answers

percentage of courses that include experiential learning through Project Work/Field Work/Industrial Training/Interns				
ME Final Year 7th Sem.-2024-25				
Sl. No.	Course Name	Course Code	Project Work/Field Work/Industrial Training/Interns	Link to the course document
1	Industrial Training	21EJCE04	ADITYA PRAJAPAT	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
2	Industrial Training	21EJCE04	ADITYA YADAV	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
3	Industrial Training	21EJCE04	ADITYA KHURANA	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
4	Industrial Training	21EJCE04	ADITYA SINGH MAHUR	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
5	Industrial Training	21EJCE04	AJAYRAJ SINGH TANWAR	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
6	Industrial Training	21EJCE04	ANANT JHALANI	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
7	Industrial Training	21EJCE04	ANSHRAJ MAHAVEER SH	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
8	Industrial Training	21EJCE04	ANSHUL GARG	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
9	Industrial Training	21EJCE04	ANJU KHANDELWAL	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
10	Industrial Training	21EJCE04	APOORV NANDKEOLYAR	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
11	Industrial Training	21EJCE04	ARMAN	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
12	Industrial Training	21EJCE04	AROO SONI	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
13	Industrial Training	21EJCE04	GAURAV KHANDELWAL	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
14	Industrial Training	21EJCE04	GAURAV YADAV	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
15	Industrial Training	21EJCE04	HARSH JAIN	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
16	Industrial Training	21EJCE04	KRISHNA SHARMA	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
17	Industrial Training	21EJCE04	KRISHNA VYAS	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
18	Industrial Training	21EJCE04	LAKSHYDEEP SINGH TANI	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
19	Industrial Training	21EJCE04	LOKESH BAIRWA	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
20	Industrial Training	21EJCE04	MANMOHAN PARASHAR	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
21	Industrial Training	21EJCE04	MOH SAMEER MANSOOR	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
22	Industrial Training	21EJCE04	MOHAMMAD ARIB	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
23	Industrial Training	21EJCE04	MOOTENDRA KUSHWAH	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
24	Industrial Training	21EJCE04	PRAASHANT AGNIHOTRI	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
25	Industrial Training	21EJCE04	PRAASHANT AGNIHOTRI	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
26	Industrial Training	21EJCE04	PRINCE GUPTA	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
27	Industrial Training	21EJCE04	RAHUL GAHLAWAT	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
28	Industrial Training	21EJCE04	RAVI GUPTA	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
29	Industrial Training	21EJCE04	RISHUBH DEWAT	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
30	Industrial Training	21EJCE04	VAIBHAV AVASTHI	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
31	Industrial Training	21EJCE04	VAIBHAV SHRIVASTAVA	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
32	Industrial Training	22EJCE02	DEEPAK KUMAR	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
33	Industrial Training	22EJCE02	DESHAMT JAIN	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>
34	Industrial Training	22EJCE02	GARVIT RATHOR	<a href="https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing">https://drive.google.com/file/d/1H1U3Tvt0Uv467Mf6C4T3kx4d8d4a4a/view?usp=sharing</a>

List of Internship training/organization and mapping with PO'S and PSO'S

S. No.	Student Name	Industrial Training Internship Organization	Technical Area / Sector	Mapping with PO's / PSO's
1	Aaditya Prajapat	Alka Engineering Works	Manufacturing / Electrical & Instrumentation/ fabrication-related company.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
2	Aditya Yadav	Hindustan Auto House (P) LTD	Automobile Engineering & sales industry.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
3	Aditya Khurana	Hindustan Automobile – The Research Center	Automotive Research & Design, innovation, investigation of problems.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
4	Aditya Singh Mahur	CAD Centre	CAD / CAE / Design Simulation/ design: engineering software, communication of design, tool mastery, design development.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
5	Ajayraj Singh Tanwar	Hindustan Auto House (P) LTD	Automobile Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
6	Anant Jhalani	Ace Incorporation	Industrial Automation / Fabrication/ mechanical solutions, project management.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
7	Anshraj Mahaveer Sharma	Hindustan Auto House (P) LTD	Automobile Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2

8	Anshul Garg	DS Group	Production / Operations Management	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
9	Anuj Khandelwal	Ace Incorporation	Industrial Automation / Fabrication	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
10	Apoorv Nandkeolyar	Cadmate	CAD Design / Drafting/CAD-based design.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
11	Arman	RMC Switchgears Ltd.	Electrical & Manufacturing engineering knowledge.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
12	Arzoo Soni	Caddesk	CAD / Product Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
13	Gaurav Khandelwal	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
14	Gaurav Yadav	Mahindra Tech Pvt. Ltd.	Automobile / Mechatronics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
15	Harsh Jain	Goyal Industries	Chemical / Industrial Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
16	Krishna Sharma	FCC RICO Ltd.	Automotive Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
17	Krishna Vyas	Hindustan Automobile	Automobile Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
18	Lakshydeep Singh Tanwar	Kia Motors	Automobile Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
19	Lokesh Bairwa	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2

20	Manmohan Parashar	Rays Power Infra Limited	Renewable Energy (Solar Power)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
21	Moh. Sameer Mansoori	RMC Switchgears Ltd.	Electrical / Switchgear Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
22	Mohammad Aqib	Hindustan Automobile	Automobile Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
23	Nootendra Kushwah	Rays Power Infra Ltd. (Solar Power Plant EPC)	Renewable Energy (Solar Power)	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
24	Prashant Agnihotri	Caddesk	CAD / Product Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
25	Praveen Kumar Regar	Alka Engineering	Manufacturing / Electrical Systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
26	Prince Gupta	Equinox EPC Engineering Pvt. Ltd.	Energy / Project Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
27	Rahul Gahlawat	Alka Engineering	Manufacturing / Electrical Systems:	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
28	Ravi Gupta	Equinox EPC Engineering Pvt. Ltd.	Energy / Project Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
29	Rishubh Dewat	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
30	Vaibhav Avasthi	RMC Switchgears Ltd.	Electrical / Switchgear Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2
31	Vaibhav Shrivastava	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1and Some Internship training is aligned with PSO2

32	Deepak Kumar	CAD Centre	CAD / CAE / Design Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
33	Deshant Jain	CAD Desk	CAD / Product Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2
34	Garvit Rathor	Pran Digital Design and Animation Institute	CAD / Product Modeling	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Internship training is aligned with PSO1 and Some Internship training is aligned with PSO2

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### 3.5 Evaluation of Projects (20)



Project work is an essential component of the Mechanical Engineering curriculum under Rajasthan Technical University (RTU), designed to provide students with opportunities for practical problem-solving, innovation, and application of multidisciplinary knowledge. Projects enable students to integrate theoretical learning with real-world applications, fostering professional and lifelong learning attributes in line with Program Outcomes (POs) and Program Specific Outcomes (PSOs).

- The evaluation process for projects includes both continuous assessment (internal) and semester-end evaluation (external) to ensure a fair and comprehensive assessment of student performance.
- To ensure the quality and monitoring of projects, department analyze continuous evaluation and progress through Project assessment Committee. The committee comprises of senior faculty members in the department. Based on the rubrics student projects are evaluated and continuous monitoring is done by the concerned faculty mentor of the project.

**Project Identification**

- Project coordinator issues a circular to all faculty members to provide the list of five projects to be given to the students.
- Students are also encouraged to submit the idea of their own for doing the project.
- The list of previous year projects is also displayed at notice board which ensures no repetition of project work and also encourages students to enhance the previous works.
- The project ideas received from the students and faculty members are filtered by the Project assessment committee on the basis Environment, sustainability, Cost, Ethics, Safety, and Usefulness of the project.
- If the student or group of students submit the own project idea, then careful examination according to CO’s has been carried out by Project Assessment Committee. If the project idea submitted by the student/ group of students fulfills the basic requirements, then it will be allotted to that student/ group of students. If it does not fulfill the basic requirements, then a new project idea is allotted to that student/group of students from the list of finalized projects. The basic criterion for the acceptance and rejection is given table. If the marks are more than 5 then project is accepted otherwise rejected.

**Basic criterion for the selection or rejection of project**

S#	Title of project	Evaluation (10)					Relevance with PO'S	Remarks
		Use fullness of the project (3)	Safety (2)	Ethics & Communication (2)	Project Management (3)	Total (10)	Relevance with PO'S	
1	X	1	2	2	1	8	PO1, PO2, PO3, PO6, PO8, PO9, PO11, <b>PSO1</b>	ACCEPT
2	Y	1	0	1	1	3	PO1, PO2, PO3, PO7	REJECT

**Project Allotment**

- Student’s teams are formed considering their interest and capability.
- A faculty member is appointed as a project guide to each group as per faculty's expertise field.
- List of finalized projects along with project guide/mentor is made and display on notice board
- The student/team fills the project registration form and submit to the project coordinator after approval of their guide or mentor.
- Final list of allotted project after approval of Project assessment committee is displayed.

**Project Continuous Monitoring**

- Project coordinator displays the deadline on notice board for the progress report presentations and final submission of the project report.
- Each group has to submit progress report to the respective guide.
- Progress report presentation followed by viva-voce has been carried out twice in a semester in front of Project assessment committee, then Project assessment committee review the progress and gives suggestions.

Stage	Component	Evaluator	Weightage (%)	Purpose / Skill Evaluated
1. Continuous Evaluation (Internal)	Periodic reviews, project planning, documentation, progress reports	Project Guide / Departmental Committee	40	Regularity, understanding, and technical contribution
2. Mid-Term Review / Seminar	Presentation of progress, design implementation, and challenges	Departmental Review Committee	20	Technical depth, teamwork, and problem-solving ability
3. Final Evaluation (External)	Final project demonstration, viva-voce, and report assessment	Internal & External Examiners (RTU)	40	Application, innovation, results, and communication

**Rubrics for Project Evaluation**

Criterion	Weight (%)	Excellent (5)	Good (4)	Average (3)	Below Avg. (2)	Poor (1)
Problem Identification & Objective Clarity	10	Clearly defined, innovative, and realistic objectives	Clear objectives	Moderately defined	Vague	Unclear
Literature Review & Methodology	10	Comprehensive and well-structured	Adequate review	Moderate	Partial	Minimal
Design / Experimentation / Fabrication	25	Efficient design with appropriate tools	Good implementation	Partial execution	Limited data	Not attempted
Result Analysis & Discussion	15	Analytical and justified results	Logical interpretation	Partial analysis	Limited data	No interpretation
Innovation / Creativity	10	High originality and innovation	Some innovation	Moderate	Slight novelty	None
Teamwork & Project Management	10	Excellent coordination and time management	Good team effort	Moderate	Poor coordination	No teamwork
Documentation & Report Quality	10	Clear, detailed, and technically accurate	Good documentation	Adequate	Incomplete	Poorly written
Presentation & Communication Skills	10	Confident, clear, and professional	Minor gaps	Average	Weak	Ineffective

- o Also, All the students are mandatory to write a research paper on their project and present the same during the national conference of the department organized every year. External experts are invited during the presentation for expert comments.
- o All the papers in the form of conference proceeding is also maintained in the department .
- o All the project titles are mapped with all the Program outcomes (POs) and Program specific outcomes (PSOs) for evaluation of POs and PSOs attainment as per rubric.

**JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE**  
 JECRC Campus, Shri Ram Ki Nangal, Via-Vatika  
 Tonk Road, Jaipur

**Project Planning Calendar**  
 Session: 2024-25

S No.	Activity	Planned Date
1	Collection of Project Topics and specialization from faculties	7/12/2024
2	Formation of Project Assessment Committee and Project Coordinators	21/12/2024
3	Project Group Formation and Guide allotment	13/1/2025
4	Presentation of Projects Finalization	31/1/2025
5	Presentation of Rejected Projects	7/2/2025
6	Final Project List with Approval of Project Assessment Committee	21/2/2025
7	Submission of project registration form	1/3/2025
8	Literature Review submission	11/3/2025
9	Project Progress Presentation	28/03/2025
10	Project Progress Presentation	13/04/2025
11	Major Project Presentation-I	22/4/2025
12	Major Project Presentation-II	9/5/2025

Project Coordinator

HoD

**Jaipur Engineering College and Research Centre, Jaipur**  
**Department of Mechanical Engineering**

Date: -07/12/2024

**Notice**

It is informed to all B.Tech VIII semester students that they have to submit their Major project Title to their project coordinator before 13 December 2024. Students can take maximum four students in their group. Students can select their guide in different specialization or area of interest in the mechanical department. List of all faculty members with their specialization given in the table

  
 Dr. Fauzia Siddique  
 (Project Coordinator)

  
 Dr. M P Singh  
 (HOD)

**Notice**

It is informed to all B.Tech VIII semester students that they make their major projects under the supervision of their respective Guide. To ensure the quality of projects, department has drafted a committee named as **Project assessment Committee**. The following members will be the part of this Committee for the year 2024-2025.

S.NO.	Faculty name	Qualification	Designation	Role
1	Dr. M P Singh	B.E., M.Tech., Ph.D.	Professor	Chair
2	Dr. Fauzia Siddique	B.E., M.Tech., Ph.D.	Professor	Project coordinator
3	Dr. Bhuvnesh Bhardwaz	B.Tech., M.Tech.	Associate Professor	Project coordinator

The **Project assessment Committee** has decided the Project Marks distribution as per the given format

Presentation 1			Presentation 2			Paper Presentation (20)	Total
Content (1)	Communication Skills	Status (Progress)	Content (2)	Communication Skills	Status (Progress)		
10	15	15	10	15	15	20	100

- Content (1) includes Literature Review and Methodology
- Content (2) includes experiment/testing/case study and analysis

  
 Dr. Fauzia Siddique  
 (Project Coordinator)

  
 Dr. Bhuvnesh Bhardwaz  
 (Project Coordinator)

  
 Dr. M P Singh  
 (HOD)

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**MOJOR PROJECT REGISTRATION FORM**  
 SESSION 2024-2025

1. Team members:

Roll No.	Name of student	Signature
21	Lakshydeep Singh Tanwar	
22	Lokesh Bawra	
05	Ajayraj Singh Tanwar	
(MEMBER)	ADITY YADAV	

2. Title of project:  
Cro-Kart (Edgeline Championship)  
Design And Analysis of Internal Combustion Bio-Road Vehicle

3. Type of Project: Fabrication/ Design/ Experimental/ Theoretical/ Industrial/ Industrial case-study/ Industrial-Survey/ Industrial-Management/ Productivity/ Robotics/ Software and Other (specify) -

4. Date of commencement:

5. Planned Duration:

6. Brief Summary of Project: (attach extra sheet if required)  
The objective of this project is to design and develop a bio-kart car that is safe, efficient, and fun to drive.

7. Expected benefits:

8. Name of supervisor: Mr. Manoj Gupta  
 I agree to be supervisor of the projects  
  
 (Signature of the Supervisor)

Project coordinator

Date: -26/03/2025

**Notice**

It is to inform all B.Tech VIII semester students that they have to present their Major project presentation for their internal assessment. In this presentation you have to present the following

1. Presentation of project in a given format (PPT) (already sent)
2. Fabricated or Design Project
3. Project report in soft copy (in a given format, already sent)

Presentation of your project work by PPT only. **Kindly ensure to bring your project and project progress sheet duly signed by project supervisor at the time of presentation.**

Group Number	Date	Venue	Timing
A1 to A9	28-03-2025	CAD LAB	9:00-11.45 AM

Dr. Fauzia Siddique  
 (Project Coordinator)

Dr. M P Singh  
 (HOD)



Meeting the Oxygen Demand for Sustainable Development (Liquid Tree – Case Study)	Environmental & Sustainable Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
Analysis of Microstructure of MIG Welded C-45 Sample after Charpy Impact Test	Research on Material Science & Metallurgy	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
Restore RC Car and Change the Damaged Part	Maintenance & Mechatronics Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
Design and fabrication of Solar Scarecrow with Sound Sensing	Renewable Energy & Embedded Systems	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
Design of Low-Cost Refrigeration System using LPG	Thermal Engineering & Alternative Energy	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
3D Printed Prototype of Flapping Wing Mechanism	Robotics & Additive Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
<b>Project Title</b>	<b>Relevance Area</b>	<b>Mapping with PO's / PSO's</b>
Design and fabrication of Embedded Systems and IoT	Embedded Systems & Automation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
Design of All-Terrain Vehicle (Transmission)	Automotive Engineering & Design	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
Fabrication of ATV (Designing: CAD & CAE)	CAD & CAE, Automotive Simulation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2
Refurbishment of MORSE Test Apparatus	Maintenance & Instrumentation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1 and Some Projects are aligned with PSO2

Innovative Approaches to Landmine Detection: A Process-Oriented Study	Mechatronics & Defence Technology	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design of Portable Air Conditioning	Thermal Engineering &HVAC	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Investigation on EN8 Specimen after Welding	Metallurgy & Strength of Materials	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of Solar Refrigeration System	Renewable Energy & Thermal Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design and fabrication of Electric Vehicle (Steering)	EV Design & Vehicle Dynamics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of Electric Go-Kart (BLDC Motor)	EV Powertrain & Electric Mobility	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Gearless Transmission using Elbow Mechanism	Design & Mechanical Kinematics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of Solar Wood Cutter	Renewable Energy and Automation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Fabrication of Scramjet Comparison with Ramjet	Fluid Dynamics and Analysis	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
TIG Welding on Charpy Impact Sample	Manufacturing Processes	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2
Design and fabrication of ATV (Steering)	Automotive Engineering	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10 PO11, PO12, Some Projects are aligned with PSO1and Some Projects are aligned with PSO2

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**3.6 Evidence of Addressing Sustainable Development Goals (SDG) (10)**



The Institution has continuously contributed toward achieving the United Nations Sustainable Development Goals (SDGs) through structured extension activities, projects, community engagement, innovation, startup support, and social initiatives. Activities are planned annually and aligned with specific SDGs such as Good Health and Well-Being, Quality Education, Clean Water & Sanitation, Affordable and Clean Energy, Climate Action, Gender Equality, Industry Innovation.

**SDG 3: Good Health and Well-Being**

Major initiatives include the Mega Blood Donation Camp, CPR and Basic Life Support Training, menstrual hygiene awareness programs, and mental health workshops. These activities align with ensuring healthy lives and promoting well-being for all ages.

**SDG 4: Quality Education**

This is the institution’s strongest SDG focus area. Activities include skill development workshops, Faculty Development Programs (FDPs), technical training sessions, awareness seminars on meditation and mental well-being programs. These initiatives demonstrate commitment to inclusive and equitable quality education and lifelong learning opportunities for all.

**SDG 5: Gender Equality**

Notable programs include Womens Day Celebration, National Girl Child Day, women empowerment workshops, legal awareness sessions for women, and self-empowerment meditation programs. These initiatives support gender equality and empower women and girls.

**SDG 7: Affordable and Clean Energy**

Activities include energy saving drives, solar power plant, electricity conservation campaigns, and renewable energy awareness sessions, promoting the transition toward clean and sustainable energy sources.

**SDG 9: Industry, Innovation and Infrastructure**

A strong technical foundation is reflected through centre of excellence in area of Electrical vehicles and Design software(CAD Centre) ,IEEE Day ,Coding Competitions, hackathons, workshops and innovation-based student projects.

**SDG-Linked Project Output**

- Final Year Projects aligned to SDGs
- Mini/Major Projects

**Major Projects:**

**Academic Year 2024–25**

S. No.	Project Title	Relevance / Domain	Related SDGs
1	Design analysis of internal combustion Go-Kart and its components	Mechanical Design / Automotive Engineering	SDG 9
2	To Measure Hand Vibration with 7 Semi BNO005 9DOF Accelerometer	Mechatronics / Biomedical / Instrumentation	SDG 3
3	Analysis of Microstructure of MIG Welded EN8 Sample after Tensile Test	Material Science	SDG 9
4	Meeting the Oxygen Demand for Sustainable Development (Liquid Tree – Case Study)	Environmental / Sustainable Technology	SDG 7
5	Analysis of Microstructure of MIG Welded C-45 Sample after Charpy Test	Material Science	SDG 9
6	Design and fabrication of Solar Scarecrow with Sound Sensing	Renewable Energy / Embedded Systems	SDG 7
7	Design of Low-Cost Refrigeration System using LPG	Thermal Engineering / Alternative Energy	SDG 7
8	3D Printed Prototype of Flapping Wing Mechanism	Robotics / Additive Manufacturing	SDG 9

**Academic Year 2023–24**

S. No.	Project Title	Relevance / Domain	Related SDGs
1	Design and fabrication of Embedded Systems and IoT	IoT / Automation	SDG 9
2	Design of All-Terrain Vehicle (Transmission)	Automotive Engineering	SDG 9
3	Fabrication of ATV (Designing: CAD & CAE)	CAD / CAE / Simulation	SDG 9
4	Design of Portable Air Conditioning	HVAC / Thermal Engineering	SDG 7
5	Investigation on EN8 Specimen after Welding	Materials & Testing	SDG 9
6	Fabrication of Solar Refrigeration System	Renewable Energy	SDG 7
7	Design and fabrication of Electric Vehicle (Steering)	EV Design	SDG 7

8	Fabrication of Electric Go-Kart (BLDC Motor)	Electric Mobility	SDG 7
9	Gearless Transmission using Elbow Mechanism	Kinematics	SDG 9
10	Fabrication of Solar Wood Cutter	Renewable Energy / Automation	SDG 7
11	Fabrication of Scramjet Comparison with Ramjet	Aerospace / Fluid Dynamics	SDG 9
12	TIG Welding on Charpy Impact Sample	Manufacturing Testing	SDG 9
13	Design and fabrication of ATV (Steering)	Automotive / Ergonomics	SDG 4

**Minor Projects: Club Moonriders Project Details: 2024-25**

S.No.	Title	Relevance/ Complexity	Related SDGs
1	Design analysis of internal combustion Go Kart and its components	Hardware based & Environment friendly, Involves applying mechanical engineering principles, analyzing loads/stresses, using CAD/CAE tools, and validating the design.	SDG 9
2	Design and development of Ackermann steering system for Go kart	Hardware based involving motion simulations, Requires kinematic analysis, geometric modelling, design optimization, and teamwork during fabrication and testing.	SDG 9, SDG 4
3	Vehicle Dynamics and Performance Analysis of Go kart	Software based focusing on virtual testing and simulation modelling, focuses on suspension, traction, handling, and performance testing using simulation tools and data analysis.	SDG 9
4	Design and development of powertrain system for Go kart	Hardware based integrating different mechanical components, Includes drivetrain design, torque analysis, material selection, efficiency testing, and project cost estimation.	SDG 7, SDG 9
5	Design and Analysis of Electrical System of Internal Combustion Go kart	Hardware based with embedded systems involving sensors and controllers, Covers electrical wiring, sensors, starter system, and battery integration using electrical CAD tools.	SDG 7, SDG 9
6	Development of hydraulic (Disc) braking system of Go Kart	Hardware based involving design and testing, Entails designing brake mechanisms, analyzing braking forces, testing, and collaborative fabrication.	SDG 3, SDG 9

**Club Xananoids Project Details: 2024-25**

S.No.	Title	Relevance/ Complexity	Related SDGs
1	Design and Development of a High Torque Embedded Spider Robot for Rugged Terrain Navigation	Hardware with Embedded System Design	SDG 9
2	Autonomous Line Following Robot Based on Embedded System with Sensor Integration	Hardware & Software Embedded	SDG 9, SDG 4
3	Design and Fabrication of a 3D Printed Robotic Arm with Multi-Degree Freedom and Precision Control	Hardware with computer vision	SDG 9
4	Design and Development of a Radio-Controlled (RC) Airplane with Precision Flight Control	Aero Modelling & Design	SDG 9, SDG 4
5	Development of a 3D Printed Humanoid Robot with Servo Motor Actuation for Precise Movement Control	3D Printed & Embedded System Design	SDG 4, SDG 9
6	Design and Control of a High-Torque Motor-Driven Hexapod Robot for Enhanced Stability and Mobility	Embedded System Design and Hardware Assembly	SDG 9

**SDG-Based social Activities**

UN SDG	Focus Area	Club/Cell/ Responsible	Major Activities Conducted
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<b>SDG 3: Good Health &amp; Well-Being</b>	Health, hygiene, mental wellness	National Service Scheme (NSS) Unit JECRC, Aashayein- The Life Saviours, JECRC, Suhasini, SRC, CPR club.	Blood Donation Drives, International Yoga Day, Health Check-up Camps, SDP Donations as per requirement , Training CPR techniques
<b>SDG 4: Quality Education</b>	Literacy, academic empowerment, skill building	Unnat Bharat Abhiyan (UBA) Cell, Toastmasters, Marvel Cart Club , IEEE Student Chapter, MUN, IIT Bombay Nodal Centre for Virtual labs ,Departmental Technical clubs	Expert talks sessions and workshops ,Coding competitions,Debate and group discussions on latest issues, Technical activities carried by each department.
<b>SDG 5: Gender Equality</b>	Women empowerment, safety & rights	Women cell , NSS activities, Suhasini for women empowerment,	Self Defense Training, Menstrual Hygiene Program, Women Leaders Talks, womens day celebration, Nukkad natak , Vist to old age home etc.
<b>SDG 7: Affordable &amp; Clean Energy</b>	Renewable energy, sustainable tech	Institution's Innovation Council (IIC), Robotics & Automation Club, IEEE Society	Promoting environmental awarness, AI workshops, National and International Conferences in the area of sustainability
<b>SDG 9: Industry, Innovation &amp; Infrastructure</b>	Engineering innovation & research	JIC activities, Alumni activities, Spritual Research Cell, Department Technical Clubs (Mechanical, Civil, IT,EE, CE, CSAI,CSE etc.)	Start up talks,workshops and various startups are sponsored by the Institute,Smart India Hackathon, Ideathon, Technical, sustainable and Spritual Project exhibitions.

**Impact Summary**

- Maximum participation of Student meeting different SDGs Goal
- SDGs mapped to curriculum, activities, and innovation practices

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**3.7 Attainment of Course Outcomes (25)**

**3.7.1. Describe the Assessment Tools and Processes Used to Gather the Data for the Evaluation of Course Outcome (5)**

A systematic assessment strategy is adopted to measure student learning and to ensure accurate evaluation of Course Outcomes (COs). The following tools and processes are used to gather data:

#### . Mid-Semester / Internal Tests

- Two internal exams are conducted as formative assessments.
- Question papers are CO-wise mapped and evaluated using structured rubrics.
- Comparative analysis of performance helps in tracking progressive learning and identifying weak areas.

#### 2. Semester-End Examinations (SEE)

- The Institute is affiliated to Rajasthan Technical University (RTU), the Semester End Examination (SEE) is conducted as per the academic regulations to ensure uniformity and quality across all affiliated institutions. The process of question paper setting and evaluation is designed to maintain academic rigor, transparency, and constructive alignment
- The marks obtained by students are analyzed to calculate CO attainment.

#### 3. Laboratory / Practical Examinations

- Practical tasks and viva-voce are evaluated using predefined rubrics.
- Parameters include experiment execution, observation recording, analysis, and interpretation.
- Each experiment is mapped to specific COs ensuring experiential learning assessment.

#### 4. Assignments / Tutorials

- Problem-solving and analytical assignments are mapped to individual COs.
- Rubric-based evaluation assesses understanding, application, and presentation of concepts.
- Helps in measuring higher-order thinking skills (analysis/design/application).

#### 5. Continuous Assessment through Class Participation

- Includes quizzes, group discussions, online tests, and attendance.
- Provides real-time classroom feedback and contributes to the overall CO attainment.

#### 6. Determination of CO Attainment

- Direct Assessment: Internal exams, SEE, lab exams, assignments/quizzes/viva/ presentation.
- Indirect Assessment: Student course exit survey.
- Attainment levels are calculated using predefined thresholds and attainment formulas.
- Results are analyzed to identify improvement strategies.

To ensure accurate and effective evaluation of Course Outcomes (COs), a systematic approach is followed using both direct and indirect assessment tools. Each tool is mapped to specific COs, and attainment levels are calculated as per predefined rubrics and thresholds.

#### A. Direct Assessment Tools

Assessment Tool	Purpose & Process	Evaluation Method
Semester-End Examination (SEE)	Evaluates comprehensive understanding of entire syllabus	Question paper and marks analysis
Mid-Semester Tests (MST)/Internal Exams	Measures progressive learning during course delivery	Rubric-based evaluation; CO-tagged questions
Laboratory/Practical Exams	Assesses experimental skills & application of concepts	Viva + performance-based assessment using rubrics
Assignments / Tutorials	Evaluates analytical & problem-solving skills	Rubrics based (clarity, accuracy, innovation)
Quizzes / Class Tests	Quick check of conceptual understanding	Online/offline immediate evaluation
Project / Mini Project (if applicable)	Measures problem-solving & design ability	Presentation + report evaluation with rubrics

#### B. Indirect Assessment Tools

Assessment Tool	Purpose	CO Mapping	Usage
Course Exit Survey	Collects student perception of CO attainment	All COs	Indirect attainment calculation

#### C. CO Attainment Calculation Process (Theory)

1. All assessment tools are mapped to specific COs using a CO-PO matrix.
2. Direct Assessment (weightage typically 80%):
  - SEE, Internal Tests, Lab Exams, Assignments, Quizzes/presentation/viva
3. Indirect Assessment (weightage typically 20%):

4. Course Exit Survey.
5. Attainment Levels are determined using predefined thresholds.
6. Final CO attainment = Weighted sum of direct & indirect assessments.

CO Attainment Calculation Formula:

Final CO Attainment = Direct Attainment × (80 %) + Indirect Attainment × (20%)

- Direct Assessment = 80%( 70% End Sem Exam+30%Internal Assessment)
- Indirect Assessment = 20%

D CO Attainment Calculation Process (Practical )

1. All assessment tools are mapped to specific COs using a CO-PO matrix.
2. Direct Assessment (weightage typically 80%):
  - SEE, Internal Tests, Lab Exams, Assignments, Quizzes/presentation/viva
3. Indirect Assessment (weightage typically 20%):
4. Course Exit Survey.
5. Attainment Levels are determined using predefined thresholds.
6. Final CO attainment = Weighted sum of direct & indirect assessments.

CO Attainment Calculation Formula:

Final CO Attainment = Direct Attainment × (80 %) + Indirect Attainment × (20%)

- Direct Assessment = 80%( 40% End Sem Exam+60%Internal Assessment)
- Indirect Assessment = 20%

ROLL NO.	NAME	Mechanical Vibration										externalmarks/701
		Internal (30)	MTT(20)	Assignment (10)	MTT-1	MTT-2	CO1(7.5)	CO2(7.5)	CO3(7.5)	CO4(7.5)	Total(100)	
2EJ0ME0	AKASH SHARMA	25	19	9	10	9	7.25	7.25	7.25	6.25	73	45
2EJ0ME0	AYAN ADIL	26	17	9	9	8	6.25	7.25	7.25	5.25	42	16
2EJ0ME0	CHANDRASHMEKHAR DADHICH	25	16	9	9	7	7.25	6.25	7.25	4.25	77	52
2EJ0ME0	DEYRAJ SINGH JAIN	25	15	10	8	7	7.5	5.5	7.5	4.5	29	14
2EJ0ME0	DHEERAJ KUMAR SUKHEJA	27	17	10	9	8	7.5	6.5	7.5	5.5	46	18
2EJ0ME0	JAY KUMAR WAT	25	15	10	8	7	7.5	5.5	7.5	4.5	62	57
2EJ0ME0	KAUSHAL PAREEK	29	19	10	10	9	7.5	7.5	7.5	6.5	84	58
2EJ0ME0	MOHAMMAD KASIM	25	16	9	9	7	7.25	6.25	4.25	7.25	70	45
2EJ0ME0	MOHIT GARG	20	12	8	7	5	7	4	4	5	24	14
2EJ0ME0	MHADOL KRISHNA BHARDWAJ	29	19	10	10	9	7.5	7.5	7.5	6.5	95	64
2EJ0ME0	NAKUL	15	10	10	4	4	4.5	4.5	4.5	4.5	27	9
2EJ0ME0	NILAY MATHUR	29	19	10	10	9	7.25	7.5	7.5	6.5	80	54
2EJ0ME0	PIYUSH BHATI	29	19	10	10	9	7.5	7.5	7.5	6.5	90	64
2EJ0ME0	PRIYANSHU BHARDWAJ	25	18	10	9	9	7.5	6.5	7.5	6.5	75	47
2EJ0ME0	REHAN BULAND KHAN	25	19	9	10	9	7.25	7.25	6.25	7.25	62	24
2EJ0ME0	REHAKHAN	25	16	9	10	6	7.25	7.25	4.25	5.25	40	23
2EJ0ME0	RISHABH JAIN	29	19	10	10	9	7.5	7.5	7.5	6.5	87	58
2EJ0ME0	SHANKAR LAL CHOUDHARY	27	17	10	10	7	7.5	7.5	7.5	4.5	63	56
2EJ0ME0	SOURAV SINGH	26	17	9	7	10	4.25	7.25	7.25	7.25	77	54
2EJ0ME0	WINAY TANWAR	29	19	10	10	9	7.5	7.5	7.5	6.5	85	56
2EJ0ME0	HAHTA KANWAR	29	19	10	10	9	7.5	7.5	6.5	7.5	97	63
2EJ0ME0	PRAASHANT SINGH TANWAR	29	19	10	10	9	7.5	7.5	7.5	6.5	75	56

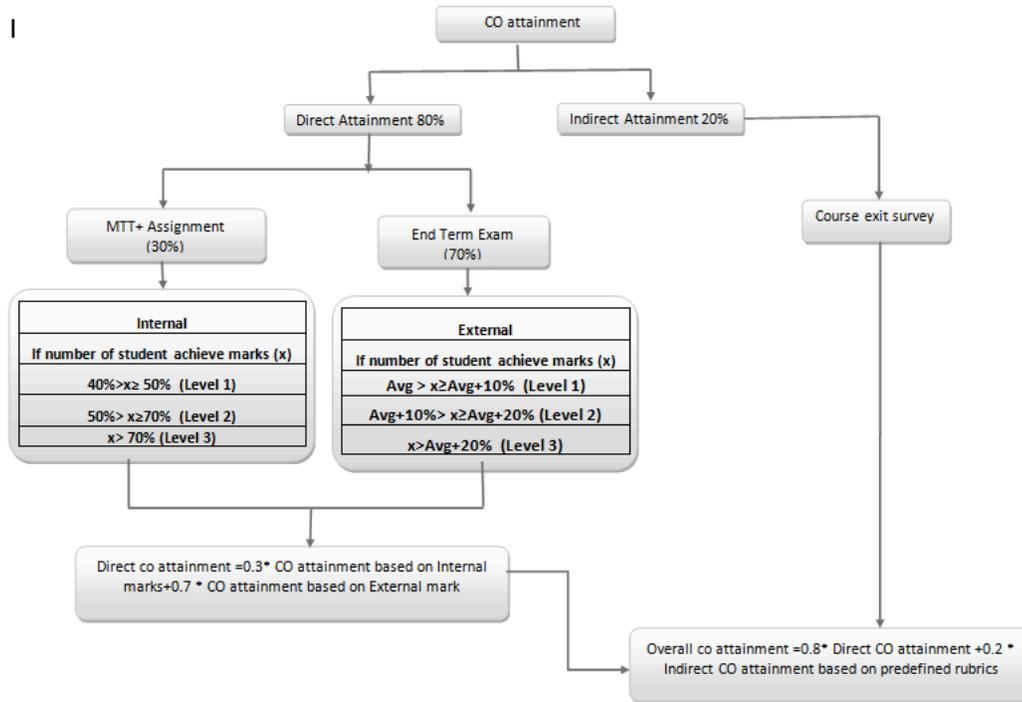
		42.81818182			
Internal		CO1	CO2	CO3	CO4
	40% >= 50%	0	0	0	0
	50% >= 70%	2	2	4	3
	> 70%	20	20	10	14
		97%	97%	94%	88%

		42.81818182	
avg >= avg = 10%	42		
avg = 10% >= avg = 20%	47		
> avg = 20%	ore. ti		
		42.81818182	
		co attainment 53%	

3.7.2 Record the Attainment of Course Outcomes of all Courses with Respect to Set Attainment Levels (20)

The program has clearly defined Course Outcomes (COs) for every course. COs are framed in alignment with Program Outcomes (POs) and Program Specific Outcomes (PSOs). For each course, CO-wise attainment targets are set at the beginning of the semester and approved by the Departmental Committee.

The attainment target is defined as the percentage of students scoring a predefined threshold value in assessment components mapped to the respective CO.



**CO Attainment Calculation Process**

1. **Direct Assessment** (weightage typically 80%):
  - o SEE, Internal Tests, Lab Exams, Assignments, Quizzes/presentation/viva
2. **Indirect Assessment** (weightage typically 20%):
3. Course Exit Survey.
4. **Attainment Levels** are determined using predefined thresholds.
5. **Final CO attainment = Weighted sum of direct & indirect assessments.**

**CO Attainment Levels**

1. **Direct Assessment** (weightage typically 80%):
  - o SEE, Internal Tests, Lab Exams, Assignments, Quizzes/presentation/viva

**A: (Internal Semester Exam, Theory)**

The program has established the following attainment levels for uniform evaluation across all courses:

Attainment Level	Criteria
Level 3	≥ 70% of students score
Level 2	50% – 69% of students score
Level 1	40% – 49% of students score
Level 0	< 40% of students score

**B: (End semester Exam, Theory)**

Attainment Level	Criteria
Level 1	avg > marks > avg+10%
Level 2	avg+10% > marks > avg+20%
Level 3	Marks > avg+20%

1. **Indirect Assessment** (weightage typically 20%):
  - o Course Exit Survey.

**Assessment Tools Used for CO Attainment**

Direct CO attainment is measured using both **Continuous Internal Evaluation (CIE)** and **Semester End Examination (SEE)**.

- **CIE (30% weightage)** includes:
  - Mid-Semester Tests (Test–1 and Test–2)
  - Assignments
  - Quizzes
  - Mini projects
  - Seminars / Presentations / Reports
- **SEE (70% weightage)** includes:
- University Semester End Examination

**CO Attainment Calculation Formula:**

**Final CO Attainment = Direct Attainment × (80 %) + Indirect Attainment × (20%)**

- Direct Assessment = 80%( 70% ESE+30%Internal Assessment)
- Indirect Assessment = 20%

**Assessment of Practical Courses**

For practical courses, the evaluation consists of:

1. **Direct Assessment** (weightage typically 80%):
  - SEE, Internal Tests, Lab Exams, Assignments, Quizzes/presentation/viva
2. **Indirect Assessment** (weightage typically 20%):
  - Course Exit Survey.

**Internal Exam (Sessional): 60%**

**External Exam (Practical): 40%**

**Internal Assessment Components (60%)**

The internal assessment for practical courses involves a systematic process of continuous evaluation to ensure comprehensive monitoring of student performance. This process includes regular assessments conducted throughout the duration of the course, rather than relying solely on a single examination. Key components include:

Mid-Term Exam I: Conducting experiments and viva-voce.

Mid-Term Exam II: Conducting experiments and viva-voce.

Performance in Conducting Laboratory Experiments during the semester. Quality of laboratory records. Attendance and punctuality in submitting laboratory records.

**Internal CO Attainment for Practical Courses**

The threshold for the course is defined as the minimum percentage of marks that students must achieve. The department has set the threshold for calculating attainment levels.

The attainment percentage is calculated as the ratio of students scoring equal to or above the threshold to the total number of students appearing for that particular CO.

**A: (Internal Semester Exam, Theory)**

The program has established the following attainment levels for uniform evaluation across all courses:

Attainment Level	Criteria
Level 3	≥ 70% of students score
Level 2	50% – 69% of students score
Level 1	40% – 49% of students score
Level 0	< 40% of students score

**External Examination Components (40%)**

Includes conducting experiments, quizzes, and viva-voce.

**B: (End semester Exam ,Theory)**

Attainment Level	Criteria
Level 1	avg> marks>avg+10%
Level 2	avg+10%> marks>avg+20%
Level 3	Marks >avg+20%

1. Direct Attainment: (weightage 80%)

The final calculation of direct CO attainment for practical courses consists of: **40%** for the external examination and **60%** for the internal examination (as per the RTU scheme).

CO attainment Formula :

Final CO Attainment=0.4x+0.6y

Where:

x = External examination attainment

y = Internal examination attainment

2. Indirect Assessment (weightage typically 20%):

- o Course Exit Survey.

CO Attainment Calculation Formula:

Final CO Attainment = Direct Attainment × (80 %) + Indirect Attainment × (20%)

- Direct Assessment = 80% ( 40% ESE+60%Internal Assessment)
- Indirect Assessment = 20%

ROLL NO	NAME	Mechanical Vibration										externalmarks/20
		Internal (20)	MIT(20)	Assessment (8)	MIT-1	MIT-2	CO1(7.5)	CO2(7.5)	CO3(7.5)	CO4(7.5)	Total(100)	
2EJ0ME0	AKASH SHARMA	25	19	9	10	9	7.25	7.25	7.25	6.25	73	45
2EJ0ME0	AVANADIL	24	17	9	9	8	6.25	7.25	7.25	5.25	42	46
2EJ0ME0	CHANDRASHEKHAR DADHICH	25	16	9	9	7	7.25	6.25	7.25	4.25	77	52
2EJ0ME0	DEVRAJ SINGH JAIN	25	15	10	8	7	7.5	5.5	7.5	4.5	29	14
2EJ0ME0	DHEERAJ KUMAR SUKHEJA	27	17	10	9	8	7.5	6.5	7.5	5.5	45	18
2EJ0ME0	JAYKUMAR WAT	25	15	10	8	7	7.5	5.5	7.5	4.5	32	57
2EJ0ME0	KAUSHAL PAREEK	29	19	10	10	9	7.5	7.5	7.5	6.5	84	85
2EJ0ME0	MOHAMMAD KASIM	25	16	9	9	7	7.25	6.25	4.25	7.25	70	45
2EJ0ME0	MOHIT GARG	20	12	8	7	5	7	4	4	5	34	14
2EJ0ME0	MRADUL KRISHNA BHARDWAJ	29	19	10	10	9	7.5	7.5	7.5	6.5	95	68
2EJ0ME0	NARUL	19	10	10	4	4	4.5	4.5	4.5	4.5	27	9
2EJ0ME0	NILAJI MATHUR	29	19	10	10	9	7.25	7.5	7.5	6.5	50	54
2EJ0ME0	PIYUSH BHATI	29	19	10	10	9	7.5	7.5	7.5	6.5	90	64
2EJ0ME0	PRIVANSHU BHARDWAJ	24	18	10	9	9	7.5	6.5	7.5	6.5	75	47
2EJ0ME0	REHAN BULAND KHAN	24	19	9	10	9	7.25	7.25	6.25	7.25	62	34
2EJ0ME0	REHAN KHAN	25	16	9	10	6	7.25	7.25	4.25	5.25	40	23
2EJ0ME0	RISHABH JAIN	29	19	10	10	9	7.5	7.5	7.5	6.5	87	58
2EJ0ME0	SHANKAR LAL CHOUDHARY	27	17	10	10	7	7.5	7.5	7.5	4.5	32	56
2EJ0ME0	SOURAV SINGH	24	17	9	7	10	4.25	7.25	7.25	7.25	77	54
2EJ0ME0	VINAY TANWAR	29	19	10	10	9	7.5	7.5	7.5	6.5	85	58
2EJ0ME0	MAHATAKANWAR	29	19	10	10	9	7.5	7.5	6.5	7.5	97	68
2EJ0ME0	PRASHANT SINGH TANWAR	29	19	10	10	9	7.5	7.5	7.5	6.5	75	46

		42.81818182			
		42.81818182			
Internal	40% >= 50%	0	0	0	0
	50% >= 70%	2	2	4	8
	> 70%	20	20	18	14
		97%	97%	94%	88%
External	avg > x >= avg+10%	42			
	avg+10% > x >= avg+20%	47			
	x >= avg+20%	ore ti			
		42.81818182			
		co attainment 53%			

3.8 Attainment of Program Outcomes and Program Specific Outcomes (25)





## PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
8ME5-13	1.990	1.994	1.999	1.999	1.999	1.994	1.994	1.994	1.996	1.998	1.994	1.996
8MI6-60.2	1.579	1.580	1.570	1.563	1.542	1.542	1.542	1.580	1.542	1.542	1.528	1.559
8ME4-21	2.888	2.888	2.888	2.888	2.886	2.888	2.888	2.888	2.888	2.888	2.886	2.886
8ME4-22	2.915	2.915	2.915	2.915	2.915	2.914	2.914	2.914	2.914	2.914	2.914	2.914
8ME7-50	2.892	2.893	2.892	2.893	2.894	2.884	2.884	2.878	2.882	2.884	2.885	2.888
7ME5-11	1.641	1.643	1.633	1.639	1.635	1.641	1.637	1.641	1.639	1.693	1.631	1.635
7EE6-60.2	1.680	1.640	1.624	1.624	1.659	1.680	1.680	1.680	1.644	1.645	1.644	1.659
7ME4-21	2.855	2.853	2.854	2.850	2.862	2.858	2.858	2.858	2.858	2.858	2.856	2.857
7ME4-22	2.931	2.930	2.932	2.930	2.932	2.931	2.930	2.931	2.931	2.932	2.932	2.931
7ME4-23	2.804	2.804	2.805	2.805	2.804	2.804	2.804	2.804	2.804	2.804	2.804	2.804
7ME7-30	2.859	2.870	2.867	2.868	2.868	2.862	2.865	2.860	2.870	2.871	2.865	2.865
7ME7-40	2.640	2.640	2.637	2.640	2.634	2.630	2.633	2.634	2.629	2.640	2.634	2.634
6ME3-01	1.992	1.986	1.980	1.983	1.980	1.988	1.988	1.988	1.988	1.984	1.988	1.980
6ME4-02	1.838	1.840	1.839	1.840	1.838	1.836	1.835	1.838	1.840	1.838	1.839	1.838
6ME4-03	2.060	2.057	2.053	2.051	2.053	2.056	2.051	2.060	2.051	2.051	2.051	2.051
6ME4-04	1.673	1.683	1.665	1.697	1.697	1.673	1.673	1.673	1.673	1.673	1.673	1.673
6ME4-05	1.680	1.676	1.670	1.674	1.669	1.678	1.678	1.678	1.678	1.678	1.678	1.678
6ME5-11	2.267	2.267	2.241	2.257	2.255	2.266	2.266	2.267	2.267	2.248	2.248	2.248
6ME4-21	2.694	2.689	2.688	2.694	2.691	2.693	2.693	2.693	2.687	2.684	2.696	2.688
6ME4-22	2.896	2.893	2.890	2.891	2.891	2.894	2.894	2.894	2.891	2.893	2.891	2.893
6ME4-23	2.714	2.714	2.713	2.716	2.712	2.714	2.714	2.714	2.714	2.711	2.714	2.714
6ME4-24	2.681	2.681	2.679	2.684	2.680	2.680	2.682	2.680	2.676	2.676	2.680	2.684
5ME3-01	1.861	1.854	1.849	1.847	1.861	1.819	1.825	1.861	1.806	1.841	1.818	1.854
5ME4-02	1.941	1.940	1.936	1.932	1.932	1.941	1.935	1.941	1.935	1.935	1.935	1.934
5ME4-03	1.913	1.908	1.909	1.909	1.914	1.905	1.905	1.905	1.905	1.907	1.899	1.908
5ME4-04	1.684	1.683	1.681	1.676	1.684	1.685	1.685	1.684	1.684	1.684	1.684	1.684
5ME4-05	1.313	1.318	1.316	1.316	1.316	1.316	1.1315	1.314	1.318	1.316	1.316	1.315
5ME4-12	1.562	1.560	1.562	1.564	1.559	1.562	1.565	1.562	1.562	1.564	1.562	1.565
5ME3-21	2.842	2.839	2.841	2.823	2.831	2.831	2.836	2.822	2.831	2.844	2.844	2.844
5ME4-22	2.895	2.894	2.899	2.894	2.900	2.903	2.903	2.895	2.903	2.895	2.903	2.899
5ME4-23	2.861	2.865	2.850	2.854	2.859	2.861	2.855	2.858	2.862	2.858	2.858	2.858
5ME4-24	2.694	2.703	2.680	2.699	2.687	2.694	2.694	2.694	2.694	2.694	2.694	2.677
5ME7-30	2.811	2.802	2.804	2.804	2.804	2.808	2.807	2.809	2.802	2.803	2.807	2.807
4ME2-01	2.333	2.333	2.326	2.326	2.333	2.333	2.333	2.322	2.323	2.333	2.327	2.333
4ME-102	1.791	1.791	1.770	1.771	1.756	1.771	1.771	1.772	1.783	1.771	1.756	1.756
4ME3-04	1.688	1.688	1.701	1.701	1.688	1.689	1.689	1.688	1.688	1.688	1.688	1.688
4ME4-05	1.835	1.828	1.828	1.828	1.828	1.814	1.835	1.835	1.824	1.835	1.835	1.815
4ME4-06	2.370	2.370	2.370	2.370	2.370	2.365	2.365	2.370	2.370	2.370	2.370	2.367
4ME4-07	1.747	1.745	1.745	1.736	1.736	1.744	1.747	1.747	1.744	1.747	1.747	1.745
4ME3-21	2.879	2.879	2.879	2.879	2.879	2.879	2.879	2.879	2.876	2.879	2.879	2.878
4ME4-22	2.858	2.854	2.854	2.841	2.847	2.840	2.858	2.858	2.840	2.840	2.840	2.847
4ME4-23	2.333	2.332	2.337	2.329	2.337	2.325	2.322	2.322	2.328	2.331	2.331	2.332

4ME424	2.840	2.837	2.837	2.830	2.834	2.819	2.840	2.840	2.819	2.831	2.831	2.834
3ME2-01	1.995	1.995	1.995	1.994	1.994	1.995	1.995	1.995	1.995	1.995	1.988	1.990
3ME1-03	1.745	1.745	1.742	1.736	1.736	1.745	1.745	1.745	1.730	1.736	1.734	1.736
3ME3-04	1.806	1.803	1.793	1.792	1.783	1.806	1.806	1.806	1.806	1.806	1.806	1.806
3ME4-05	1.890	1.900	1.896	1.899	1.897	1.900	1.898	1.898	1.898	1.898	1.898	1.901
3ME4-06	2.005	2.005	2.048	2.053	2.045	2.055	2.065	2.055	2.055	2.055	2.046	2.046
3ME4-07	2.107	2.107	2.199	2.192	2.083	2.092	2.107	2.107	2.107	2.107	2.107	2.085
3ME4-21	2.885	2.881	2.879	2.879	2.879	2.876	2.882	2.882	2.882	2.882	2.882	2.882
3ME4-22	2.528	2.525	2.527	2.529	2.524	2.525	2.528	2.530	2.530	2.528	2.528	2.526
3ME4-23	2.893	2.892	2.890	2.891	2.891	2.892	2.893	2.891	2.891	2.893	2.893	2.893
3ME4-24	2.884	2.882	2.876	2.876	2.884	2.876	2.884	2.876	2.874	2.870	2.878	2.884
3ME7-30	2.806	2.805	2.805	2.805	2.805	2.807	2.809	2.806	2.805	2.805	2.807	2.806

**PO Attainment Indirect**

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
COURSE EX	2.82	2.70	2.88	2.7	2.7	2.4	2.52	2.22	2.73	2.58	2.52	2.7
PROGRAM E	2.4	2.4	2.55	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PLACEMENT	3	3	3	3	3	3	3	3	3	3	3	3
Co-Curricular	3	3	3	3	3	3	3	3	3	3	3	3
Alumni Surve	2.6	2.6	2.47	2.67	2.61	2.72	2.6	2.61	2.65	2.65	2.67	2.46

**PO Attainment Level**

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

Define the Weightage for Indirect Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31	2.31
InDirect Attainment	2.76	2.74	2.78	2.75	2.74	2.70	2.70	2.65	2.76	2.73	2.72	2.71
Overall Attainment	2.40	2.39	2.41	2.39	2.39	2.37	2.38	2.36	2.39	2.38	2.38	2.39

**PSO Attainment**

Course	PSO1	PSO2
8ME513	1.993	1.996
8MI6602	1.579	1.570
8ME421	2.888	2.888
8ME422	2.914	2.916
8ME750	2.891	2.890
7ME511	1.636	1.639
7EE6602	1.659	1.660
7ME421	2.859	2.856
7ME4222	2.930	2.930
7ME423	2.804	2.805
7ME730	2.864	2.865
7ME740	2.637	2.634
6ME301	1.988	1.980
6ME402	1.838	1.839

6ME403	2.060	2.056
6ME404	1.673	1.673
6ME405	1.673	1.680
6ME511	2.267	2.267
6ME421	2.695	2.690
6ME422	2.894	2.893
6ME423	2.714	2.714
6ME424	2.680	2.682
5ME301	1.861	1.854
5ME402	1.941	1.934
5ME403	1.913	1.914
5ME404	1.684	1.680
5ME405	1.315	1.318
5ME412	1.562	1.564
5ME321	2.839	2.833
5ME422	2.895	2.895
5ME423	2.858	2.850
5ME424	2.694	2.685
5ME730	2.807	2.804
4ME201	2.327	2.333
4ME102	1.771	1.754
4ME304	1.688	1.688
4ME405	1.828	1.824
4ME406	2.373	2.375
4ME407	1.747	1.728
4ME321	2.879	2.879
4ME422	2.854	2.852
4ME423	2.333	2.346
4ME424	2.843	2.828
3ME201	2.000	1.992
3ME103	1.739	1.736
3ME304	1.806	1.783
3ME405	1.897	1.899
3ME406	2.051	2.055
3ME407	2.107	1.082
3ME421	2.887	2.882
3ME422	2.525	2.526
3ME423	2.892	2.897
3ME424	2.874	2.884
3ME730	2.807	2.807

## PSO Attainment Indirect

Survey	PSO1	PSO2
COURSE EXIT	2.7	3
PROGRAM EXIT	2.4	2.4
PLACEMENT	3	3
Co-Curricular Activities	3	3

Alumni Survey	2.51	2.67
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**PSO Attainment Level**

Course	PSO1	PSO2
Direct Attainment	2.31	2.29
InDirect Attainment	2.72	2.81
Overall Attainment	2.39	2.39

4 STUDENTS' PERFORMANCE (120)

Total |





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

<b>Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)</b>	<b>2025-26 (CAY)</b>	<b>2024-25 (CAYm1)</b>	<b>2023-24 (CAYm2)</b>	<b>2022-23 (CAYm3)</b>	<b>2021-22 (CAYm4)</b>	<b>2020-21 (CAYm5)</b>	<b>2019-20 (CAYm6)</b>
N=Sanctioned intake of the program (as per AICTE /Competent authority)	30	30	30	60	120	120	120
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	31	31	29	20	31	52	73
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	3	2	3	3	8
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	31	31	32	22	34	55	81

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

	Item (No. of students admitted/exited through multiple entry and exit points) in the respective batch	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (LYG)	2020-21 (LYGm1)	2019-20 (LYGm2)
N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N5=N52+N53+N54	N5=N52+N53+N54	0	0	0	0	0	0	0
N61=No. of students exits after 1st year via multiple entry and exit points in same batch	N61=No. of students exits after 1st year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N62=No. of students exit after 2nd year via multiple entry and exit points	N62=No. of students exit after 2nd year via multiple entry and exit points	0	0	0	0	0	0	0
N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N6=N61+N62+N63	N6=N61+N62+N63	0	0	0	0	0	0	0

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

Year of entry	Total no. of students (N1 + N2 + N3+ N4 + N5 - N6 as defined above)	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
2025-26 (CAY)	31				
2024-25 (CAYm1)	31	31			
2023-24 (CAYm2)	32	29	32		
2022-23 (CAYm3)	22	20	22	22	
2021-22 (LYG)	34	31	34	34	34
2020-21 (LYGm1)	55	52	55	54	53
2019-20 (LYGm2)	81	73	81	79	71

## 4.1 Enrolment Ratio (20)

Instit

[Get Details from Table 4.1](#)

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

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2025-26 (CAY)	31	31	0	100.00
2024-25 (CAYm1)	31	31	0	100.00
2023-24 (CAYm2)	32	29	0	90.62

Average [ (ER1 + ER2 + ER3) / 3 ] = 96.87  $\cong$  20.00

Assessment : 20.00

## 4.2 Success Rate of the Students in the Stipulated Period of the Program (15)

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

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	34.00	55.00	81.00
B=No. of students who graduated from the program in the stipulated course duration	34.00	53.00	71.00
Success Rate (SR)= (B/A) * 100	100.00	96.36	87.65

Average SR of three batches ((SR\_1+ SR\_2+ SR\_3)/3): 94.67

SR Points : 14.20

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

#### 4.3 Academic Performance of the First-Year Students of the Program (10)

Inst

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

Academic Performance	CAYm1( 2024-25 )	CAYm2( 2023-24 )	CAYm3 ( 2022-23 )
Mean of CGPA or mean percentage of all successful students(X)	7.28	6.29	5.31
Y=Total no. of successful students	31.00	29.00	23.00
Z=Total no. of students appeared in the examination	31.00	29.00	23.00
API [X*(Y/Z)]	7.07	6.29	5.31

Average API[ (AP1+AP2+AP3)/3 ] : 6.22

Assessment = Average API : 6.22

#### 4.4 Academic Performance of the Second Year Students of the Program (10)

Inst

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

Academic Performance	CAYm1 ( 2024-25 )	CAYm2 ( 2023-24 )	CAYm3 ( 2022-23 )
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	7.47	7.60	7.66
Y=Total no. of successful students	32.00	22.00	34.00
Z=Total no. of students appeared in the examination	32.00	22.00	34.00
API [ X * (Y/Z) ]	7.47	7.60	7.66

Average API [ (AP1 + AP2 + AP3)/3 ] : 7.58

Assessment [ AverageAPI ] : 7.58

#### 4.5 Academic Performance of the Third Year Students of the Program (10)

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	8.09	8.30	7.33
Y=Total no. of successful students	22.00	34.00	54.00
Z=Total no. of students appeared in the examination	22.00	34.00	55.00
API [ X*(Y/Z) ]:	8.09	8.30	7.20

Average API [ (AP1 + AP2 + AP3)/3 ] : 7.86

Assessment [1.5 \* AverageAPI] : 7.86

#### 4.6 Placement, Higher Studies and Entrepreneurship (30)

Instit

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

Item	LYG (2021-22)	LYGm1(2020-21)	LYGm2(2019-20)
FS*=Total no. of final year students	34.00	55.00	81.00
X=No. of students placed	32.00	46.00	61.00
Y=No. of students admitted to higher studies	1.00	3.00	0.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = $\frac{(X + Y + Z)}{FS} * 100$ :	97.06	89.09	75.31

Average Placement Index =  $\frac{(P_1 + P_2 + P_3)}{3}$ : 87.15

Placement Index Points: 26.15

#### 4.7 Professional Activities (25)

## 4.7.1 Professional Societies/ Bodies, Chapters, Clubs, and Professional Engineering Events Organized (5)

Inst

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

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs
1	SAE-Moonriders (Automobile club)
2	Xananoids(Robotics club)
3	Indian Green Building Council (IGBC)
4	Model United Nations (MUN)
5	National Service Scheme(NSS)
6	JECRC Incubation Center (JIC)

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

(CAYm1) 2024-25

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	SAE-Moonriders (Automobile club)	IKRC-2024	National	09/10/2024
2	Xananoids (Robotics club)	Robo-Soccer	National	17/02/2025
3	National Service Scheme (NSS)	Cleanliness Drive and Trek	National	02/09/2024
4	Indian Green Building Council (IGBC)	STC ON Clean and Green technologies	National	31/01/2025
5	Indian Green Building Council (IGBC)	STC on green manufacturing	National	28/02/2025
6	Indian Green Building Council (IGBC)	poster making competition	National	22/03/2025
7	Model United Nations (MUN)	Vichar Vimarsh	National	17/12/2024

(CAYm2) 2023-24

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	SAE-Moonriders (Automobile club)	BAJA-SAE INDIA	National	05/09/2023
2	Xananoids (Robotics club)	Formula Zero	National	08/04/2024
3	National Service Scheme (NSS)	CPR Basic Life Support Training	National	21/09/2023
4	Model United Nations (MUN)	Zero Hour Summit	National	10/11/2023
5	JECRC Incubation Center (JIC)	Artificial Intelligence Masterclass	National	12/04/2024
6	SAE-Moonriders (Automobile club)	Infi League Motorsports ATV Championship, Pune	National	24/03/2024

(CAYm3) 2022-23

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	SAE-Moonriders (Automobile club)	ATVC	National	01/03/2023
2	Xananoids (Robotics club)	Robo War Pro	National	11/05/2023
3	Model United Nations (MUN)	MUN-12th Edition	National	13/05/2023
4	JECRC Incubation Center (JIC)	STARTUP CONCLAVE	National	07/12/2022

## 4.7.2 Student's Participations in Professional Events (10)

Instit



**Table No. 4.7.2.1: List of students participated in professional events.****(CAYm1) 2024-25**

S.No	Name of the Student	Name of the Event	State /State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Alfez Mohammed	MATLAB Onramp	National	28/08/2025	NO
2	Devendra Singh	Workshop on Graphics Designing	National	12/11/2024	NO
3	Yash Yadav	Athlon	National	04/12/2024	NO
4	Akhil Udai	EDGE LINE CHAMPIONSHIP	National	09/02/2025	NO
5	Nakshatra Sharma	Career Essentials in Generative AI	National	14/07/2025	NO
6	Devesh Sharma	DBMS & SQL	National	03/04/2025	NO
7	Hari Om Dabbas	Annual Design Exhibition	National	09/02/2025	NO
8	Himanshu Yadav	Graphic Design Quiz Competition	National	18/01/2025	NO
9	Keshav Daddhich	Software Engineering Job Simulation	National	27/04/2025	NO
10	Md. Ayan	AMDA-2025	National	07/03/2025	NO
11	Nakshatra Sharma	Zero Hour Summit	National	27/11/2024	NO
12	Nakshatra Sharma	Start Up Weekend Jaipur-2024	National	06/10/2024	NO
13	Nakshatra Sharma	Life Unscripted	National	16/01/2025	NO
14	Navdeep Singh	DBMS & SQL	National	03/04/2025	NO
15	Priyanshu Soni	AMDA-2025	National	07/03/2025	NO
16	Saurabh Dubey	Webinar by NAMTECH	National	14/05/2025	NO
17	Vaibhav Sharma	Didital Marketing Workshop	National	06/06/2025	NO
18	Vaibhav Sharma	SIH, 2024	National	15/12/2024	NO
19	Vinit Kumar	BGMI LAN Tournament	National	25/09/2024	NO
20	Yunush	Foundation Course in CAD	National	31/07/2024	NO

**(CAYm2) 2023-24**

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Devendra Singh	MPWS Project Exhibition	National	22/05/2024	NO
2	Lavesh Kuntal	Road Safety BLS and CPR Training	National	13/04/2024	NO
3	Mohammed Ayan	Road Safety BLS and CPR Training	National	13/04/2024	NO
4	Nakshatra Sharma	Life Unscripted	National	07/02/2024	NO
5	Navdeep Singh	Blood Donation Camp	National	03/11/2023	NO
6	Yunush	Talk by ISRO Alumni	National	05/03/2024	NO
7	Nakshatra Sharma	Zero Hour Summit	National	09/12/2023	NO
8	Nakshatra Sharma	Gen AI Workshop	National	16/03/2024	NO
9	Neeraj Verma	NEC 2024 Advance Track	National	31/03/2024	NO
10	Manish Solanki	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
11	Saurabh Kumar	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
12	Gajendra Dayma	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
13	SHANTANU SINGH YADAV	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
14	VAIBHAV SONI	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
15	APOORV NANDKEOLYAR	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
16	ADITYA YADAV	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
17	AJAY RAJ SINGH	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
18	HINMANSHU SAXENA	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
19	VIRENDRA SINGH	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
20	DEVRAJ SINGH JAIN	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
21	AKHILESH BARNALA	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
22	NISCHAY SHARMA	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
23	KRISHANKANT SHARMA	BAJA SAE-INDIA 2024, Indore	National	15/01/2024	NO
24	MANISH SOLANKI	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
25	SAURABH KUMAR	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
26	GAJENDRA DAYMA	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
27	SHANTANU SINGH YADAV	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
28	VAIBHAV SONI	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
29	APOORV NANDKEOLYAR	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
30	ADITYA YADAV	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
31	AJAY RAJ SINGH	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
32	ANSHRAJ MAHAVEER SHARMA	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
33	VIRENDRA SINGH	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
34	AKHILESH BARNALA	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO
35	DEVRAJ SINGH JAIN	Infi League Motorsports ATV Championship, Pune	National	24/04/2024	NO

(CAYm3) 2022-23

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Abhay Kumar Jeenger	MATLAB Simulink	National	25/06/2022	NO
2	Yash Mishra	JAVA Programming and DSA Course	National	22/07/2022	NO
3	Somendra Sharma	Workshop On EV	National	04/07/2022	NO
4	Akash Kumar Verma	Auto CAD by CAD CAM Tutorials	National	05/09/2022	NO
5	Aman Dadhich	EV AND I.C. Engine Project based learning	National	15/06/2022	NO
6	Aman Kumawat	C++ by Udemey	National	22/08/2022	NO
7	Amit Purohit	EV AND I.C. Engine Project based learning	National	30/07/2022	NO
8	Amit Thakur	Robotics and Automation	National	31/01/2023	NO
9	Ankur Gupta	Auto Cad in Mechanical 2D and 3D	National	12/09/2022	NO
10	Anubhav Choudhary	Technology used in BMW Bike	National	31/07/2022	NO
11	Atharv Sharma	EV AND I.C. Engine Project based learning	National	30/07/2022	NO
12	Chirag Meena	Graphics Animation Internship	National	15/10/2022	NO
13	Dhurv Goyal	Industrial Training From Bajaj Auto LTD	National	16/08/2022	NO
14	Divyansh Agarwal	Intensive Training From HONDA	National	15/08/2022	NO
15	Gajendra Yadav	Industrial Training From Bajaj Auto LTD	National	16/08/2022	NO
16	Harsh Jain	Manufacturing of Solar Panel	National	07/11/2022	NO
17	Himanshu Sharma	EV AND I.C. Engine Project based learning	National	30/07/2022	NO
18	KK Sidharth	Graphics Designing by FATYN	National	01/09/2022	NO
19	Lakhan Mishra	Robotics and Automation	National	31/01/2023	NO
20	Md. Amir Khokhar	Project Management Foundations	National	05/08/2022	NO
21	Utkarsh Natu	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO
22	Shubham Tiwari	Infi League MInfi League Motorsports ATV Championship, Pune Puneotorsports ATV Chamiponship, Pune	National	05/03/2023	NO
23	Gajendra Dayma	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO
24	Harsh Bansal	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO
25	Apporv Nandkeolyar	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO
26	Ajayraj Singh Tanwar	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO
27	Anuj Khandelwal	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO
28	Anshul Garg	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO
29	Shantanu Singh Yadav	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO
30	Saurabh Kumar	Infi League Motorsports ATV Championship, Pune	National	05/03/2023	NO

#### 4.7.3 Publication of Journals, Magazines, Newsletters, etc. in the Department (5)

Inst

**Table No. 4.7.3.1: List of students involved in publication of journals, magazines, and newsletters, etc. in the Department.****(CAYm1) 2024-25**

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	Magnet 5.0	Yogesh Dubey	Nakshatra Sharma	3	2	Hard Copy
2	E- MECHZINE	Yogesh Dubey	Mr. Kaushal Pareek, Mr. Devansh Sharma	5	18	Hard Copy

**(CAYm2) 2023-24**

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	E- MECHZINE	Yogesh Dubey	PRINCE GUPTA, KAUSHAL PAREEK	6	16	Hard Copy

**(CAYm3) 2022-23**

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	E- MECHZINE	Yogesh Dubey	Shivangi Acharya, Prince Gupta	6	13	Hard Copy

**4.7.4 Student Publications (5)**

Inst



**Table No. 4.7.4.1: List of student publications.  
(CAYm1) 2024-25**

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Prince Gupta, Garvit Rathor, Rahul Gahlawat, Praveen kumar	8	Pratibodh	NCFTME	5	2	NO
2	Arman.Md. Sameer Mansoori, Aditya Prajapat, Vaibhav Avasthi	8	Pratibodh	NCFTME	3	2025	NO
3	Lakshydeep Singh, Lokesh Bairwa, Aditya Yadav, Ajay Raj Singh	8	Pratibodh	NCFTME	3	2025	NO
4	Apoorv Nandkeolyar, Anuj Khandelwal, Krishna Vyas, Ravi Gupta	8	Pratibodh	NCFTME	3	2025	NO
5	Anshul Garg, Arzoo Soni, Nootendra Kushwah, Rishubh Dewat,	8	Pratibodh	NCFTME	3	2025	NO
6	Gaurav Yadav, Harsh jain, Krishna Sharma,	8	Pratibodh	NCFTME	3	2025	NO
7	Gaurav Khandelwal, Prashant Agnihotri, Deshant Jain, Deepak Kumar	8	Pratibodh	NCFTME	3	2025	NO
8	Aditya Singh Mahur, Manmohan Parashar, Mohammed Aqib, Aditya Khurana	8	Pratibodh	NCFTME	3	2025	NO

**(CAYm2) 2023-24**

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Manoj Mangal, Nishkarsh Gujral, Parth Dadhich, Pradeep Mahawar	8	Pratibodh	NCFTME	2	2024	NO
2	Jyoti Prakash Sharma, Naman Gupta, Shaksham Gouttam, Ritk Hada	8	Pratibodh	NCFTME	2	2024	NO
3	Devanshu Sharma, Krishankant Sharma, Shivam Sharma , Shamsuddin Siddiqui	8	Pratibodh	NCFTME	4	2	NO
4	Akash Singh Bhadoria, Kshitiz Mathur, Krishna Pal	8	Pratibodh	NCFTME	2	2024	NO
5	Gautam Vijay, Shivangi Acharya	8	Pratibodh	NCFTME	2	2024	NO
6	Mohammad Julkhar, Rahul Meena, Rohit Tiwari, Sushil Thapa	8	Pratibodh	NCFTME	2	2024	NO
7	Jitendra Singh Meena, Gourang Sharma, Harsh Bansal	8	Pratibodh	NCFTME	2	2024	NO
8	Sambhav Jain, Aashish Kumar, Muskan Soni, Jitendra Vaishnav, Abhishek Kumar	8	Pratibodh	NCFTME	2	2024	NO
9	Lakshya R Saadh, Harsh Kumar Yadav	8	Pratibodh	NCFTME	4	2	NO
10	Dhruv Boola, Aditya Hada, Ilham Jamil	8	Pratibodh	NCFTME	2	2024	NO
11	Naman Agarwal, Apurv Jain, Vipin Pareek, Yash Kumawat	8	Pratibodh	NCFTME	2	2024	NO
12	Naveen Kumar Burdak , Yugdeep Singh Hada , Akshay Choudhary	8	Pratibodh	NCFTME	2	2024	NO

**(CAYm3) 2022-23**

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Abhay Jeengar, Rijul Katewa, Parth Kaushik, Vedank Singhal	8	Pratibodh	NCFTME	1	2023	NO
2	Pulkit rathore, Sahil khan, Nitesh guriya	8	Pratibodh	NCFTME	1	2023	NO
3	Ronak Soni, Rahul Jangid, Parmendra Singh, Harshvardhan Singh	8	Pratibodh	NCFTME	1	2023	NO
4	Pawan Kumar Sharma, Rohit Jangid, Nand Kishor Yadav, Rohit Bhatt	8	Pratibodh	NCFTME	1	2023	NO
5	Abhijeet Ranjan, Divyansh Agarwal, Dhruv Goyal, Anubhav Choudhary	8	Pratibodh	NCFTME	1	2023	NO
6	ShubhamTiwari, Shivanshu Goswami, Utkarsh Natu, Snehil Kumar	8	Pratibodh	NCFTME	1	2023	NO
7	Kunal Kumar, Aman Sharma, Naleen Kumar Somani, Neeraj Gautam	8	Pratibodh	NCFTME	1	2023	NO
8	Ankur Gupta, Aman Dadhich, Pratham Srivastava, Prince Raj, Akash Kumar Verma	8	Pratibodh	NCFTME	1	2023	NO
9	Naman Goyal, Nishant Kumawat, Vishnu Sharma, Yaman Mathur	8	Pratibodh	NCFTME	1	2023	NO
10	Aman Kumawat, Rishikesh Sahani, Aditya Saini, Amit Thakur	8	Pratibodh	NCFTME	1	2023	NO

5 FACULTY INFORMATION (100)

Tota





Sr.No	Name of the Faculty	PAN No.	APAAR faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Associati (Regular/ Contract/ Ad hoc)
1	Dr. Mahendra Pratap Singh	AOPPS5028F	NA	Ph.D	Jagannath university,Jaipur	Manufacturing system	19/08/2016	9.4	Professor	Professor	19/08/2016	Regular
2	Dr. Fauzia Siddiqui	BHAPS1199C	NA	Ph.D	GGSIJU, DELHI	Industrial & Production Engineering	01/08/2018	7.5	Professor	Professor	01/08/2018	Regular
3	Dr. Bhuvnesh Bhardwaj	AONPB5285K	NA	Ph.D	SLIET Longowal Punjab	Manufacturing Engineering	14/07/2015	10.5	Associate Professor	Professor	01/01/2025	Regular
4	Dr. Manmohan Siddh	BNPPS2864D	NA	Ph.D	MNIT Jaipur	Industrial Engineering	02/01/2017	9	Associate Professor	Professor	01/01/2025	Regular
5	Mr. Lalit Kumar Sharma	BQSPS3044K	NA	M.Tech	MNIT Jaipur	Manufacturing Engineering	13/08/2007	18.4	Assistant Professor	Associate Professor	09/06/2023	Regular
6	Mr. Dayal Singh Rathore	ARZPR1164L	NA	M.Tech	Jagannath University Jaipur	Production Engineering	23/07/2012	13.5	Assistant Professor	Assistant Professor		Regular
7	Mr. Hukam Chand	AXAPC7807L	NA	M.Tech	Jagannath University Jaipur	Thermal Engineering	23/07/2012	13.5	Assistant Professor	Assistant Professor		Regular
8	Mr. Abhishek Kumar	BVBPK2936A	NA	M.Tech	Jagannath University Jaipur	Manufacturing Engineering	10/08/2013	12.4	Assistant Professor	Assistant Professor		Regular
9	Mr. Satyaprakash Saini	BJQPS8962K	NA	M.Tech	MNIT Jaipur	Materials Engineering	20/01/2016	9.11	Assistant Professor	Assistant Professor		Regular
10	Mr. Akhilesh Paliwal	CPSP3593N	NA	M.Tech	NIT Jamshedpur	Industrial Engineering	03/01/2017	9	Assistant Professor	Assistant Professor		Regular
11	Mr. Yogesh Dubey	AVGPD6643R	NA	M.Tech	Jagannath University Jaipur	Manufacturing Engineering	08/02/2017	8.10	Assistant Professor	Assistant Professor		Regular
12	Mr.Nitin Chhabra	AUEPC0203F	NA	M.Tech	RTU, Kota	Production Engineering	31/01/2014	11.11		Assistant Professor		Regular
13	Mr.Dilip Prajapati	AZBPP5053C	NA	M.Tech	RTU, Kota	Production Engineering	06/09/2013	12.3	Assistant Professor	Assistant Professor		Regular
14	Dr. Manoj Gupta	ARCPG5114G	NA	Ph.D	MNIT Jaipur	Design Engineering	01/04/2021	4.9	Associate Professor	Professor	01/01/2025	Regular
15	Mr. Vaibhav Singh	DDCPS9819F	NA	M.Tech	RTU, Kota	Production Engineering	03/06/2025	0.6	Assistant Professor	Assistant Professor		Regular
16	Mr. Jatin Samra	CFBPS5920K	NA	M.Tech	MNIT Jaipur	Materials Engineering	03/07/2025	0.6	Assistant Professor	Assistant Professor		Regular
17	Ms. Pinki Mourya	AUQPM1087M	NA	M.Tech	RTU, Kota	Production Engineering	04/07/2025	0.5	Assistant Professor	Assistant Professor		Regular
18	Mr. Amit Kumar Sharma	CAPPS1358Q	NA	M.Tech	RTU, Kota	Manufacturing Engineering	04/06/2025	0.6	Assistant Professor	Assistant Professor		Regular
19	Mr. Hemant Bansal	APGPB2872J	NA	M.Tech	RTU, Kota	Production Engineering	02/01/2017	8.5	Assistant Professor	Assistant Professor		Regular
20	Mr. Kuldeep Sharma	BKOPS5002H	NA	M.Tech	MJRPU Jaipur	Mechanical	25/08/2006	19.4	Assistant Professor	Assistant Professor		Regular
21	Mr. Rajendra Kumar Gupta	AGVPG7205J	NA	M.Tech	Jagannath University Jaipur	Manufacturing Engineering	17/09/2007	16.9	Assistant Professor	Assistant Professor		Regular

22	Mr. Akhil Vijay	AHJPV3272D	NA	M.Tech	Jagannath University Jaipur	Production Engineering	24/07/2012	11.11	Assistant Professor	Assistant Professor		Regular
23	Mrs. Palak Jindal	AMHPN6656J	NA	M.Tech	Kurushetra University, Kurushetra, Haryana	Industrial & Production Engineering	02/01/2017	7.7	Assistant Professor	Assistant Professor		Regular
24	Mr. Ravi Yadav	CFUPR3176R	NA	M.Tech	RTU, Kota	Production Engineering	27/07/2012	12.9	Assistant Professor	Assistant Professor		Regular
25	Mr. Jitendra Gupta	BEDPG1771G	NA	M.Tech	RTU, Kota	Production Engineering	25/03/2014	11.5	Assistant Professor	Assistant Professor		Regular
26	Mr. Utpal Chakarvarty	AAHPC5325R	NA	M.Tech	NIMS University Jaipur	Industrial Engineering	04/01/2007	18	Assistant Professor	Assistant Professor		Regular
27	Dr Manish Shrivastava	ARUPS7035A	NA	Ph.D	Jiwaji University Gwalior	Industrial Engineering	21/07/2014	11.5	Associate Professor	Associate Professor		Regular
28	Mr. Manish Jain	AANPJ7357E	NA	M.Tech	MNIT Jaipur	Manufacturing Engineering	07/08/2001	24.5	Associate Professor	Associate Professor		Regular

#### 5.1 Student-Faculty Ratio (SFR) (30)





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

UG1=1st UG program

UGn=nth UG program

**B**= No. of Students in UG 2nd year (ST)

**C**= No. of Students in UG 3rd year (ST)

**D**= No. of Students in UG 4th year (ST)

No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):

PG1=1st PG program.

PGm=mth PG program

**A**= No. of Students in PG 1st year

**B**= No. of Students in PG 2nd year

Student Faculty Ratio (**SFR**) = S/F

S= No. of students of all programs in the Department including all students of allied departments/clusters.

**No. of students (ST)**=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)

Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.

**F**=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

## UG

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

Mechanical Engineering						
Year of Study	CAY		CAYm1		CAYm2	
	(2025-26)		(2024-25)		(2023-24)	
	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	30	2	30	3	60	2
3rd Year	30	3	60	2	120	3
4th Year	60	2	120	3	120	3
<b>Sub-Total</b>	<b>120</b>	<b>7</b>	<b>210</b>	<b>8</b>	<b>300</b>	<b>8</b>
<b>Total</b>	<b>127</b>		<b>218</b>		<b>308</b>	
Grand Total	<input type="text" value="127"/>		<input type="text" value="218"/>		<input type="text" value="308"/>	

## PG

No. of PG Programs in the Department

Grand Total	<input type="text"/>	<input type="text"/>	<input type="text"/>
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## SFR

No. of UG Programs in the Department

No. of PG Programs in the Department

Mechanical Engineering

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	32	33	62
UG1.C	33	62	123
UG1.D	62	123	123
<b>UG1: Mechanical Engineering</b>	<b>127</b>	<b>218</b>	<b>308</b>
DS=Total no. of students in all UG and PG programs in the Department	127	218	308
AS=Total no. of students of all UG and PG programs in allied departments	0	0	0
S=Total no. of students in the Department (DS) and allied departments (AS)	<b>S1= 127</b>	<b>S2= 218</b>	<b>S3= 308</b>
DF=Total no. of faculty members in the Department	21	20	24
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	<b>F1= 21</b>	<b>F2= 20</b>	<b>F3= 24</b>
FF=The faculty members in F who have a 100% teaching load in the first-year courses	8	6	4
Student Faculty Ratio (SFR)=S/(F-FF)	<b>SFR1= 9.77</b>	<b>SFR2= 15.57</b>	<b>SFR3= 15.40</b>
Average SFR for 3 years	<b>SFR= 13.58</b>		

Average SFR for three assessment years : 13.58

Assessment SFR : 30

**5.2 Faculty Qualification (25)**

Instit

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF ]
2025-26(CAY)	6	15	6.00	50.00
2024-25(CAYm1)	6	14	10.00	29.00
2023-24(CAYm2)	6	18	15.00	22.00

Average Assessment : 33.67

**5.3 Faculty Cadre Proportion (25)**

Instit

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2025-26)	1.00	5.00	1.00	1.00	4.00	15.00
CAYm1(2024-25)	1.00	2.00	2.00	4.00	7.00	14.00
CAYm2(2023-24)	1.00	2.00	3.00	4.00	10.00	18.00
Average Numbers	1.00	3.00	2.00	3.00	7.00	15.67

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

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

**Table No. 5.4.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.  
(CAYm1) 2024-25**

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	RITIK CHAUDHARY	visiting faculty	Fiat Consultancy Services	Quantitative Aptitude and Logical Reasoning	18.00
2	HARSH JAIN	visiting faculty	Fiat Consultancy Services	C++, DSA Programming	12.00
3	NITESH RAI	visiting faculty	Fiat Consultancy Services	Verbal and Written Communication	12.00
4	Reeta Bisht	visiting faculty	Fiat Consultancy Services	Public Speaking and Effective Communication	6.00
5	Sumit Shukla	visiting faculty	Fiat Consultancy Services	Quantitative Aptitude and Logical Reasoning	12.00
6	Suchit Godara	visiting faculty	Fiat Consultancy Services	Motivational and Confidence Building Session	3.00
7	Sharad Gupta	visiting faculty	Galgotias University, Greater Noida	Faculty Development Program	8.00
8	Sheeshpal Choudhary	visiting faculty	Aryan Informatrix Pvt Ltd.	Programming Languages	8.00
9	Rahul Khandelwal	visiting faculty	Fiat Consultancy Services	Quantitative Aptitude and Logical Reasoning	8.00
10	Sachin Bhosale	visiting faculty	Fiat Consultancy Services	Quantitative Aptitude and Logical Reasoning	10.00

**(CAYm2) 2023-24**

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	HARSH JAIN	visiting faculty	Fiat Consultancy Services	C++, DSA Programming	12.00
2	NITESH RAI	visiting faculty	Fiat Consultancy Services	Verbal and Written Communication	12.00
3	Sumit Shukla	visiting faculty	Fiat Consultancy Services	Quantitative Aptitude and Logical Reasoning	12.00
4	Suchit Godara	visiting faculty	Fiat Consultancy Services	Motivational and Confidence Building Session	3.00
5	Sheeshpal Choudhary	visiting faculty	Aryan Informatrix Pvt Ltd.	Programming Languages	8.00
6	Mr. Jitendra Singh	visiting faculty	Aryan Informatrix Pvt Ltd.	Competitive Programming and DBMS	6.00

**(CAYm3) 2022-23**

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	RITIK CHAUDHARY	visiting faculty	Fiat Consultancy Services	Quantitative Aptitude and Logical Reasoning	18.00
2	Suchit Godara	visiting faculty	Fiat Consultancy Services	Motivational and Confidence Building Session	3.00
3	Sharad Gupta	visiting faculty	Galgotias University, Greater Noida	Faculty Development Program	8.00
4	Rahul Khandelwal	visiting faculty	Fiat Consultancy Services	Quantitative Aptitude and Logical Reasoning	8.00
5	Sheeshpal Choudhary	visiting faculty	Aryan Informatrix Pvt Ltd.	Programming Languages	15.00

### 5.5 Faculty Retention (10)

Instit

Description	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section 5.1 of SAR; (RF=S/20).	10	15	21
AF=The no. of available faculty members in the Department including allied Departments	20	24	29
A= The no. of faculty members at the current institute with less than 1 year of experience (A in AF)	0	0	0
B= The no. of faculty members at the current institute with more than 1 year and less than 2 years of experience (B in AF)	0	0	1
C= The no. of faculty members at the current institute with more than 2 years and less than 3 years of experience (C in AF)	0	0	0
D= The no. of faculty members at the current institute with more than 3 years and less than 4 years of experience (D in AF)	0	0	0
E= The no. of faculty members at the current institute with more than 4 years of experience (E in AF)	20	24	28
$FR = ((A*0) + (B*1) + (C*2) + (D*3) + (E*4)) / RF) * 2.50$ (points limited to 10)	10	10	10

Average : 10.00

Assessment Marks : 10.00

6 FACULTY CONTRIBUTIONS (120)

Total |

**6.1 Professional Development Activities (60)**

**6.1.1 Memberships in Profession Societies at National/International Levels (5)****Table No. 6.1.1.1: List of faculty members and their memberships.**

S.No	Name of the Faculty	Name of the Professional Society /Body at National and International Level	Name of the Grade/ Level/Position
1	Dr. Mahendra Pratap Singh	Indian Society for Technical Education	Life Member
2	Dr. Mahendra Pratap Singh	International Association of Engineers	Life Member
3	Dr. Mahendra Pratap Singh	Society of Automotive Engineers India	Member-Faculty
4	Dr. Fauzia Siddiqui	International Association of Engineers	Life Member
5	Dr. Bhuvnesh Bhardwaj	International Association of Engineers	Life Member
6	Dr. Man Mohan Siddh	Indian Institution of Industrial Engineering	Life Member
7	Dr. Manish Shrivastava	International Association of Engineers	Life Member
8	Dr. Manoj Gupta	Indian Society of Theoretical and Applied Mechanics	Life Member
9	Dr. Manoj Gupta	Indian Society for Technical Education	Life Member
10	Dr. Manoj Gupta	Society of Automotive Engineers India	Member-Faculty
11	Dr. Manoj Gupta	International Association of Engineers	Life Member
12	Mr. Manish Jain	International Association of Engineers	Life Member
13	Mr. Lalit Kumar Sharma	International Association of Engineers	Life Member
14	Mr. Yogesh Dubey	International Association of Engineers	Life Member
15	Mr. Dayal Singh Rathore	International Association of Engineers	Life Member
16	Mr. Abhishek Kumar	International Association of Engineers	Life Member
17	Mr. Hukam Chand Nagar	International Association of Engineers	Life Member
18	Mr. SatyaPrakash Saini	International Association of Engineers	Life Member
19	Mr. Akhilesh Paliwal	International Association of Engineers	Life Member
20	Mr. Nitin Chhabra	International Association of Engineers	Life Member
21	Mr. Dilip Prajapati	International Association of Engineers	Life Member
22	Mr. Amit Sharma	International Association of Engineers	Life Member
23	Mr. Vaibhav Singh	International Association of Engineers	Life Member
24	Mr. Jatin Samra	International Association of Engineers	Life Member
25	Ms. Pinky Mourya	International Association of Engineers	Life Member
26	Ms. Pinky Mourya	Indian Society for Technical Education	Life Member
27	Dr Fauzia Siddiqui	Indian Society for Technical Education	Life Member

**6.1.2 Faculty as Resource Persons or Participants in STTPs/FDPs (15)****6.1.2.1 Faculty as Resource Persons in STTPs/FDPs (5)**

**Table No. 6.1.2.1: List of faculty members as resource person in STTP/FDP events.****(CAYm1) 2024-25**

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. Mahendra Pratap Singh	Challenges and opportunities of Industry 4.0	07/01/2025	Jaipur	IIC, Jagannath University, Jaipur
2	Dr. Fauzia Siddiqui	Emerging Technologies & Smart Engineering Solutions	31/01/2025	Jaipur	Arya College of Engineering, Jaipur
3	Dr. Bhuvnesh Bhardwaj	Exploring Metallurgy for Mechanical Innovation	17/09/2024	Jaipur	Arya College of Engineering, Jaipur

**(CAYm2) 2023-24**

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. Fauzia Siddiqui	International Conference on Recent Development in Engineering and Technology	22/05/2024	Jaipur	Anand ICE, Jaipur
2	Dr. Manoj Gupta	From Concept to Validation: Role of Simulation Software in Vehicle Development	02/09/2023	Jaipur	Jagannath University, Jaipur

**(CAYm3) 2022-23**

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. Mahendra Pratap Singh	Mechanical Engineering Beyond Conventional Roles: New Domains and Skill Requirements	02/12/2022	Jaipur	Jagannath University, Jaipur
2	Dr. Bhuvnesh Bhardwaj	International Conference on Recent Development in Engineering and Technology	08/07/2022	Jaipur	Anand ICE, Jaipur
3	Dr. Manmohan Siddh	Robotics & Automation	04/01/2023	Jaipur	Yagyavalkya Institute of Technology, Jaipur
4	Dr. Mahendra Pratap Singh	International Conference (Hybrid Mode) on New Vistas of Development in Aerospace Engineering and So	08/04/2023	Jaipur	Aerospace Engineering Division Board, IEI, Rajasthan State Centre, Jaipur

**6.1.2.2 Faculty Members' Participation in STTPs/FDPs (10)**

Insti

Name of the faculty	Max 5 Per Faculty		
	2024-25(CAYm1)	2023-24(CAYm2)	2022-23(CAYm3)
Dr. Mahendra Pratap Singh	5.00	5.00	5.00
Dr Fauzia Siddiqui	5.00	5.00	5.00
Dr Bhuvnesh Bhardwaj	5.00	3.00	5.00
Dr Manoj Gupta	3.00	3.00	5.00
Dr Manmohan Siddh	5.00	3.00	0.00
Mr.Lalit Kumar Sharma	5.00	5.00	0.00
Mr Yogesh Dubey	5.00	3.00	3.00
Mr. Abhishek Kumar	5.00	5.00	5.00
Mr. Nitin Chhabra	5.00	3.00	5.00
Mr. Hukam Chand Nagar	5.00	5.00	5.00
Mr Dayal Singh Rathore	0.00	3.00	5.00
Mr.Satya Prakash Saini	5.00	5.00	5.00
Mr.Dilip Kumar Prajapati	5.00	3.00	3.00
Sum	58.00	51.00	51.00
RDF = Number of faculty required to comply with the 20:1 student - faculty ratio in the Department alone, as per section 5.1 of SAR(RDF= DS / 20).	6.35	10.90	15.40
Assessment Points (AP)= 2 * (Sum/(0.5* RDF)) (Points limited to 5 for each assessment year)	10.00	10.00	10.00

Average assessment over 3 years: 10.00

6.1.3 Faculty Certification of MOOCs through SWAYAM, etc. (10)

Instit

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

S.No	Name of the Faculty	Name of Course Passed	Course Offered by (agency)	Grade obtained if any
1	Dr. Fauzia Siddiqui	Experimental Robotics	NPTEL-SWAYAM	75%
2	Dr. Fauzia Siddiqui	Mechatronics	NPTEL-SWAYAM	53%
3	Dr. Fauzia Siddiqui	Developing Soft Skills and Personality	NPTEL-SWAYAM	72%
4	Dr. Manmohan Siddh	Brand Management	NPTEL-SWAYAM	54%
5	Dr. Manmohan Siddh	Economics of Innovation	NPTEL-SWAYAM	73%
6	Dr. Manoj Gupta	Mechatronics	NPTEL-SWAYAM	71%
7	Dr. Manoj Gupta	Experimental Robotics	NPTEL-SWAYAM	90%
8	Dr. Manoj Gupta	Matlab Programming for Numerical Computation	NPTEL-SWAYAM	82%
9	Mr. Yogesh Dubey	Google Ads for Begineers	CourseEra	NA
10	Mr. Yogesh Dubey	Preparation for Job Interviews	CourseEra	NA
11	Mr. Abhishek Kumar	Advanced Machining Process Analysis	CourseEra	NA
12	Mr. Abhishek Kumar	Material Processing	CourseEra	NA
13	Dr. Mahendra Pratap Singh	Refrigeration and Air Conditioning	NPTEL-SWAYAM	NA
14	Dr. Fauzia Siddiqui	Product Design and Development	NPTEL-SWAYAM	71%
15	Dr. Manmohan Siddh	Developing Soft Skills and Personality	NPTEL-SWAYAM	56%
16	Dr. Manoj Gupta	Advanced Algorithmic Trading and Portfolio Management	NPTEL-SWAYAM	53%
17	Dr. Mahendra Pratap Singh	IC Engines and Gas Turbines	NPTEL-SWAYAM	NA
18	Dr. Manoj Gupta	Electric Vehicles- Part I	NPTEL-SWAYAM	73%
19	Dr. Manoj Gupta	Data Analytics with Python	NPTEL-SWAYAM	90%
20	Dr. Mahendra Pratap Singh	Execution Management Consulting Program for Students	Celonis Academy	NA
21	Dr. Mahendra Pratap Singh	Identify and Drive Opportunities	Celonis Academy	NA
22	Dr. Mahendra Pratap Singh	Academic Process Mining Fundamentals	Celonis Academy	NA
23	Dr. Mahendra Pratap Singh	Review and Interpret Analyses	Celonis Academy	NA
24	Dr. Mahendra Pratap Singh	Process Automation Bootcamp	Celonis Academy	NA
25	Dr. Mahendra Pratap Singh	Manage Implementation Projects	Celonis Academy	NA
26	Dr. Mahendra Pratap Singh	Manage Change and Scale Implementation	Celonis Academy	NA

**6.1.4 FDP/STTP Organized by the Department (10)**

Inst

**Table No. 6.1.5.1: List of FDPs/STPs organized by Department for the past 3 years.****(CAYm1) 2024-25**

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Ergonomic Product Design	09/09/2024	5 days	Dr. N P Singh, Professor NIT Jalandhar	24
2	Clean And Green Technologies	27/01/2025	5 days	Dr. Poonam Sayal, Professor, NITTTR Chandigarh	17
3	Green Manufacturing	24/02/2025	5 days	Dr. Sanjeev Mishra, Professor, RTU Kota	22

**(CAYm2) 2023-24**

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Presentation Skills for Effective Curriculum Implmentation	10/06/2024	5 days	Dr. B R Gurjar, Dr. P K Singla; Professo, NITTTR, Chandigarh	20

**(CAYm3) 2022-23**

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Outcome Based Education	19/02/2023	5 days	Dr. B R Gurjar, Dr. P K Singla; Professo, NITTTR, Chandigarh	30

**6.1.5 Faculty Support in Student Innovative Projects (10)**

Inst

**Table No. 6.1.6.1: List of faculty members involved in student innovative projects.  
(CAYm1) 2024-25**

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr. Mahendra Pratap Singh	Neokrishi JECRC Hackquest 8.0	29/09/2025	Jaipur	<a href="https://drive.google.com/file/d/1vy_d8iu0VPfX5zUDKm94euZRHN3CXASI/view?usp=sharing">https://drive.google.com/file/d/1vy_d8iu0VPfX5zUDKm94euZRHN3CXASI/view?usp=sharing</a>
2	Dr. Manoj Gupta	Nextgen JECRC Hackquest 8.0	29/09/2025	Jaipur	<a href="https://drive.google.com/file/d/1L4c8nZQRT5j8fBggjzYUcxrHLFCT-UzX/view?usp=sharing">https://drive.google.com/file/d/1L4c8nZQRT5j8fBggjzYUcxrHLFCT-UzX/view?usp=sharing</a>
3	Dr. Fauzia Siddiqui	Carbon crew JECRC Hackquest 8.0	29/09/2025	Jaipur	<a href="https://drive.google.com/file/d/1EFEvGEvBhtooN-iXp5KQPTG2T1tZgrzh/view?usp=sharing">https://drive.google.com/file/d/1EFEvGEvBhtooN-iXp5KQPTG2T1tZgrzh/view?usp=sharing</a>
4	Mr. Hukam Chand Nagar	Visionary vortex JECRC Hackquest 8.0	29/09/2025	Jaipur	<a href="https://drive.google.com/file/d/1sY-Dh6WnFKIhENh4NN8zsjb8RlyDzSRL/view?usp=sharing">https://drive.google.com/file/d/1sY-Dh6WnFKIhENh4NN8zsjb8RlyDzSRL/view?usp=sharing</a>
5	Mr. Abshishek Kumar	Bio spark JECRC Hackquest 8.0	29/09/2025	Jaipur	<a href="https://drive.google.com/file/d/1XEpuo-M_CY5v95X_7E7qY-7fh_Cj5kDM/view?usp=sharing">https://drive.google.com/file/d/1XEpuo-M_CY5v95X_7E7qY-7fh_Cj5kDM/view?usp=sharing</a>
6	Dr. Bhuvnesh Bhardwaj	Debug thugs JECRC Hackquest 8.0	29/09/2025	Jaipur	<a href="https://drive.google.com/file/d/1DAIE-kEsLmbx7sfqZ0lgSdv9mYGxx2fr/view?usp=sharing">https://drive.google.com/file/d/1DAIE-kEsLmbx7sfqZ0lgSdv9mYGxx2fr/view?usp=sharing</a>
7	Mr. Lalit Kumar Sharma	Jeevan JECRC Hackquest 8.0	29/09/2025	Jaipur	<a href="https://drive.google.com/file/d/1DAIE-kEsLmbx7sfqZ0lgSdv9mYGxx2fr/view?usp=sharing">https://drive.google.com/file/d/1DAIE-kEsLmbx7sfqZ0lgSdv9mYGxx2fr/view?usp=sharing</a>

**(CAYm2) 2023-24**

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr. Fauzia Siddiqui	JECRC Hackquest 7.0 (Prelim of Smart India Hackathon, 2024)	22/09/2024	Jaipur	<a href="https://drive.google.com/file/d/1BJsD8Teb7kmAOJ47EAIQU7V7J9wVvAmQ/view?usp=sharing">https://drive.google.com/file/d/1BJsD8Teb7kmAOJ47EAIQU7V7J9wVvAmQ/view?usp=sharing</a>

**(CAYm3) 2022-23**

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	NA	NA	NA	NA	NA

**6.1.6 Faculty Internship/Training/Collaboration with Industry (10)**

Instit

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

S.No	Name of the Faculty	Name of the Internship/ Training/ Collaboration	Name of the Company & Place	Duration	Outcomes of Internship/ Training/ Collaboration
1	Dr Mahendra Pratap Singh	Electrical Vehicles and their Design-Analysis	Baba Automobile Pvt. Ltd.	15 DAYS	Training program and Addon courses for students. Further Consultancy Work with the company
2	Dr Manoj Gupta	Training on Design & Analysis Softwares	JSW M G MOTORS	30 Days	Training program and Addon courses for students. Guided students on performing CAE analysis for ATVs
3	Dr Bhuvnesh Bhardwaj	Composites- Fabrication and Design	PI Technologies	30 days	Mini and Capstone Projects based on Resin and Composites. Further Consultancy Work with the company.

**6.2 Research and Development Activities (60)**

## 6.2.1 Academic Research (15)

Table No. 6.2.1.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	7	7	11
2	No. of peer reviewed conference papers published	22	13	7
3	No. of books/book chapters published	1	3	2

## 6.2.2 Development Activities (10)

Inst

S. No.	Session	Inventor/s Name	Patent Application No.	Patent Published Date / Granted Date
1	Dr. Mahendra Pratap Singh	Brake Drum Manufacturing Device	202211041413 A	05-03-2025
2	Dr. Fauzia Siddiqui	Customized Cake Cutting Device	202211036232 A	01-12-2024
3	Dr. Mahendra Pratap Singh	Quilt Manufacturing Device	202211041410 A	04-04-2024
4	Dr. Bhuvnesh Bhardwaj	Steering Simulation Training System	202211036231 A	21-03-2024
5	Dr Manish Srivastava	Rider Safety System For Two-Wheeler	202211041414 A	20-02-2024
6	Dr. Manmohan Siddh	Block chain Based Payment System for Instant and Secure Transactions	202311061804 A	15-12-2023
7	Dr. Manmohan Siddh	A Solar and Wind Powered Hybrid Power Charging Station	202311069014 A	24-11-2023
8	Mr. Manish Jain	Cordless Handle Drill Machine	376209-001	02-07-2023
9	Dr. Manoj Gupta	Fluid Pipeline Leakage Detection And Repairing System	202311060301 A	10-06-2023
10	Mr. Lalit Kumar Sharma	Popcorn Making Device	376212-001	03-06-2023
11	Mr. Abhishek Kumar	Chain Cleaner	376214-001	03-06-2023
12	Dr. Mahendra Pratap Singh	Foot Controlled Driving System In Vehicles	202211076404 A	01-06-2023
13	Dr.Fauzia Siddiqui	Modular Cleaning Device For Utensils	202211076405 A	01-06-2023
14	Dr. Manoj Gupta	Thickness Measuring Device	376212-002	02-03-2023
15	Dr. Bhuvnesh Bhardwaj	Leaf Blowing Machine	376215-001	02-03-2023
16	Mr. Nitin Chhabra	Pesticide Spraying Device	376211-001	24-02-2023
17	Mr. Jitendra Gupta	Orbital Sander	376216-001	23-02-2023
18	Dr. Bhuvnesh Bhardwaj	Exercise Bicycle	376210-001	02-01-2023
19	Dr. Mahendra Pratap Singh	High Pressure Car Washer	367999-001	16-12-2022
20	Dr. Mahendra Pratap Singh	ICE Candy Preparation Device	202211052223 A	16-09-2022
21	Mr. Lalit Kumar Sharma	See-Saw Amusement Device	202211052222 A	16-09-2022
22	Dr. Fauzia Siddiqui	Assistive Device For Passage Of Vehicles On Uneven Roads	202211052219 A	16-09-2022
23	Dr. Mahendra Pratap Singh	Automated Object Designing Device	202211052220 A	16-09-2022
24	Mr. Manish Jain	Hydrotherapy Rehabilitation Device	202211052213 A	16-09-2022
25	Dr. Fauzia Siddiqui	Thigh Workout Training Device	202211052210 A	16-09-2022
26	Dr. Fauzia Siddiqui	Squat Exercise Training Device	202211052215 A	16-09-2022
27	Mr. Yogesh Dubey	Quilt Manufacturing Device	202211041410 A	22-07-2022
28	Dr Bhuvnesh Bhardwaj	Rider Safety System For Two-Wheeler	202211041414 A	22-07-2022
29	Dr. Mahendra Pratap Singh	Brake Drum Manufacturing Device	202211041413 A	22-07-2022

## 6.2.3 Sponsored Research Project (15)

## 2024-25 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Shruti Kalra	Dr. Mahendra Pratap Singh, Mr. Manish Jain, Mr. Mukesh Agarwal,	MECHANICAL ENGINEERING	Up-Skilling and Logic Learning for the Youth of Jaipur Rural Area: An Endeavour to Enhance Learning through Scientific Convention	National Council for Science and Technology Communication (NCSTC), DST, GOI	ONE YEAR	21.34
						Amount received (Rs.):21.34

## 2023-24 (CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Shruti Kalra	Mr. Manish Jain, Mr. Mukesh Agarwal, Dr. Dr. Mahendra Pratap Singh		Up-Skilling and Logic Learning for the Youth of Jaipur Rural Area: An Endeavour to Enhance Learning through Scientific Convention	National Council for Science and Technology Communication (NCSTC), DST, GOI	One Year	21.34
						Amount received (Rs.):21.34

## 2022-23 (CAYm3)

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

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

Note\*:

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

## 6.2.4 Consultancy Work (15)

**2024-25 (CAYm1)**

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Fauzia Siddiqui	NA	Mechanical Engineering	Industry 4.0 in Cargo Business	DBC Oceanic-Maritime Business	2 Years	2.00
Mr. Lalit Kumar Sharma	Dr. S K Singh, Mr Yogesh Dubey	Mechanical Engineering	Modern Tools in Injection Moulding	Bliss PET, Jaipur	2 Years	4.50
						Amount received (Rs.):6.50

**2023-24 (CAYm2)**

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Bhuvnesh Bhardwaj	NA	Mechanical Engineering	Material and Manufacturing	PI Technology	2 Years	1.43
Dr. Manoj Gupta	Dr. S K Singh	Electrical & Mechanical Engineering	Application of Softwares in Jewellery Design and Manufacturing	Jitesh Gems & Jewellers	1 Year	1.00
						Amount received (Rs.):2.43

**2022-23 (CAYm3)**

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Mahendra Pratap Singh	NA	Mechanical Engineering	Component Level Analysis of Electric Vehicles	BABA Automobile Pvt. Ltd. Jaipur	2 Years	0.60
						Amount received (Rs.):0.60

**Total amount (Lacs) received for the past 3 years: 9.53**

**Note\*:**

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

**6.2.5 Institution Seed Money or Internal Research Grant to its Faculty for Research Work(5)****6.2.5 A Amount received (3)**

Inst

**2024-25 (CAYm1)**

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Mahendra Pratap Singh	Brake Drum Manufacturing Device	6 months	0.40	0.40	Patent Published
Dr. Manoj Gupta	Car design, testing	6 months	2.00	2.00	designed car
			Amount received (Rs.): 2.40		

**2023-24 (CAYm2)**

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Mahendra Pratap Singh	Quilt Manufacturing Device	6 months	0.45	0.45	Patent Published
Dr. Manmohan Siddh	Patent Related research and development	6 months	0.44	0.44	Patent Published
Dr. Bhuvnesh Bhardwaj	Steering Simulation Training System	6 months	0.20	0.20	Patent Published
Dr Manish Srivastava	Rider Safety System For Two-Wheeler	6 months	0.22	0.22	Patent Published
Dr. Manoj Gupta	Fluid Pipeline Leakage Detection And Repairing System	6 months	0.20	0.20	Patent Published
Dr. Manoj Gupta	Car designe and manufacturing	6 months	2.00	1.51	design and working model
			Amount received (Rs.): 3.51		

**2022-23 (CAYm3)**

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Mahendra Pratap Singh	Patent related research and development	1 year	0.83	0.83	4 patent published
Dr. Bhuvnesh Bhardwaj	Patent related research and development	1 year	0.45	0.45	2 patent published
Dr. Fauzia Siddiqui	Patent related research and development	1 year	1.24	1.24	3 patents published
Mr. Lalit Kumar Sharma	Patent related research and development	1 year	0.60	0.60	2 patent published
Mr Yogesh Dubey	Patent related research and development	1 year	0.24	0.24	patent published
Mr. Manish Jain	Patent related research and development	1 year	0.22	0.22	patent published
Dr, Manoj Gupta	Patent related research and development	1 year	0.20	0.20	patent published
Mr. Abhishek Kumar	Patent related research and development	1 year	0.20	0.20	patent published
Mr. Nitin Chhabra	Patent related research and development	1 year	0.22	0.22	patent published
Dr. Manoj Gupta	car design and implementation	6 months	2.00	2.00	on road car testing
			Amount received (Rs.): 6.20		

**Total amount (Lacs) received for the past 3 years : 12.11**

**6.2.5 B Amount utilized (2)**

Inst

The internal seed money grant during CAYm1, CAYm2, and CAYm3 was judiciously utilized to strengthen patent-oriented and publication-driven research initiatives undertaken by faculty members. The sanctioned funds supported activities such as concept validation, prior art search, patentability assessment, prototype design and fabrication, experimental trials, and performance validation. Financial assistance was also provided for patent drafting, documentation, filing charges, and other statutory expenses. Necessary research consumables and minor tools required for experimentation and prototype development were procured as per approved institutional norms, and all expenditures were made in compliance with established financial procedures.

The effective utilization of the seed money resulted in tangible outcomes in the form of patent filings, development of working models and functional prototypes. The support facilitated innovation-driven thinking, strengthened the institution's intellectual property portfolio, and enhanced overall productivity among faculty members during the assessment period.

## 7 FACILITIES AND TECHNICAL SUPPORT (100)

Tota

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

Instit

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	Machine Drawi	15	• Drawing t	6	Mr. Lokesh Sh	Senior Lab Te	Diploma in Mec
2	Material Testin	15	• Crystal St	6	Mr. Lokesh Sh	Senior Lab Tec	Diploma in Mec
3	Basic Mechanic	15	• Bicycle •	6	Mr. Hanuman F	Senior Lab Tec	ITI in Fitter
4	Programming L	15	• MATLAB :	6	Mr. Bir Singh	Senior Lab Te	MCA
5	Digital Electron	15	• Scientific	6	Mr. Sitaram Sa	Lab Instructor	Diploma in Ele
6	Fluid Mechanic	15	• Meta- Cer	6	Mr. Pawan Kur	Lab Tech	Diploma in Mec
7	Production Pr	15	• Lathe Ma	6	Mr. Rajendra S	Senior Lab Te	ITI in Fitter
8	Theory of Macl	15	• Four Bar t	6	Mr. Narendra S	Senior Lab Te	Diploma in Mec
9	Mechatronics L	15	• MAT LAB	4	Mr. Bir Singh	Senior Lab Te	MCA
10	Heat Transfer L	15	• Thermal c	4	Mr. Lokesh Sh	Senior Lab Te	Diploma in Mec
11	Production En	15	• Various M	4	Mr. Narendra S	Senior Lab Te	Diploma in Mec
12	CIMS Laboratc	15	• SSCNC S	6	Mr. Bir Singh	Senior Lab Te	MCA
13	Vibration Labor	15	• Simple Pe	6	Mr. Pawan kur	Lab Tech	Diploma in Mec
14	Thermal Engg	15	• Model Foi	6	Mr. Hanuman F	Senior Lab Tec	ITI in Fitter
15	FEA Laborator	15	• MAT Lab •	6	Mr. Bir Singh	Senior Lab Te	MCA
16	Thermal Engg	15	• Four Strol	6	Mr. Ashish Gal	Lab Tech	Diploma in Mec
17	Quality Control	15	• Charts. •	4	Mr. Hemant Ne	Senior Lab Te	ITI in Fitter
18	Industrial Engir	15	• Stop Watc	4	Mr. Hemant Ne	Senior Lab Te	ITI in Fitter
19	Metrology Labc	15	• Various M	4	Mr. Narendra S	Senior Lab Te	Diploma in Mec
20	Computer Aide	15	• Drawing t	36	Mr. Bir Singh	Senior Lab Tec	MCA
21	Manufacturing	15	• Lathe Ma	36	Mr. Narendra S	Senior Lab	Diploma in Mec

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

Sr. No	Name of the Facility	Details	Purpose for creating facility	Utilization	Relevance to POs/PSOs
1	Virtual Laboratory	Online Virtual Laboratory	It focuses on providing remote access to simulation-based laboratories in various disciplines of Science and Engineering for students at all levels, from undergraduate onwards, using a wide range of learning tools including additional web resources, video lectures, animated demonstrations, self-evaluation modules, and the sharing of costly equipment and resources.	For Faculty and students	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
2	Automobile club (SAE Moon Rider)	ATV, e-Kart design and fabrication, Add-course/ Value-Added Hands-on Training	A Real-time, practical learning environment for automotive design and fabrication.	For students	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
3	3D Printing laboratory	3D printer CAD modelling software (solid works)	Used for prototype development, mini projects, design validation, and research activities	For Students	PO1, PO2, PO3, PO5, PO9, Some are aligned with PSO1 and Some are aligned with PSO2
4	Simulation Software	ANSYS, SolidWorks Simulation, and AutoCAD installed on high-performance systems	To enable virtual testing and validation of designs before 3D printing and manufacturing	For students	PO1, PO2, PO3, PO4, PO5, Some are aligned with PSO1 and Some are aligned with PSO2
5	Robotics club	Drones, sensors, motors	Model understand to robotic concepts	For students	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
6	ICT facility	E- Learning Materials	To support blended learning, digital teaching, virtual labs, and online assessments	For students	PO1, PO4, PO5, PO9, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
7	Computer Centre	Computer Centre with modern facilities	For campus recruitment Training opportunities & guidance opportunities, online classes, Expert Lectures, Workshops, Industry experts, Alumni talk, Placement Related activity	For Students and faculties	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
8	Lab facility for extended hours	For experimentation purpose	For improving quality of learning	For Faculty, Staff and students	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
9	E-learning	Digital library (e-books), Faculty Lecture, Notes & Videos, NPTEL & Swayam portal	To enhance Teaching and Learning of faculties and Students	For Students and faculties	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO9, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
10	Smart classroom	Fully equipped Projection system, Smart Board, Audio-video facility with recording, internet with high bandwidth	To enhance Teaching and Learning	For faculties and students	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
11	Knowledge Gateway	The institute has membership of DELNET (Developing Library Network). Students can access Reports and Journals through DELNET	For project activities and to gain knowledge about recent trends in the Mechanical Engineering field.	For Students and faculties	PO1, PO2, PO3, PO4, PO5, PO9, PO10, PO11, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2
12	Mini Project	Dedicated workspace with basic mechanical tools, electronics kits, computers with CAD software 3D printer access, and internet facility	To encourage experiential learning, innovation, teamwork, and application of engineering fundamentals through small-scale projects	For Students	PO1, PO2, PO3, PO5, PO9, PO10, PO11, Some are aligned with PSO1 and Some are aligned with PSO2

**7.3 Maintenance of laboratories and overall ambiance (10)**



**Maintenance of academic infrastructure and facilities (10)**

The Department of Mechanical Engineering ensures effective operation and systematic maintenance of its academic infrastructure and facilities to support quality teaching–learning processes.

- The department is supported by full-time, skilled technical staff responsible for the operation, upkeep, and routine maintenance of laboratories, and equipments.
- The technical staff is competent and adequately trained to maintain laboratory equipment, instruments, accessories, and utilities, ensuring minimal downtime and safe operation.
- All laboratories are equipped with whiteboards/blackboards to facilitate experimental explanation and discussion during practical sessions.
- Laboratories are maintained with a clean, well-organized, and student-friendly ambience, with equipment arranged properly to ensure ease of operation, safety, and effective learning.
- Safety norms are strictly followed, and informative notice boards displaying safety instructions and Do's & Don'ts are prominently displayed in all laboratories.
- Minor repairs and preventive maintenance activities are carried by the technical staff as per requirements.
- Major repairs and specialized maintenance are outsourced as per requirements.
- The department maintains updated stock registers for all equipment, tools, and instruments procured, ensuring proper traceability.
- A laboratory audit is conducted annually to assess the condition, functionality, and utilization of infrastructure and equipment, and corrective actions are implemented wherever required.

**Code of conduct for the Laboratories:**

To ensure safety, discipline, and effective utilization of laboratory facilities, the Department of Mechanical Engineering has established the following laboratory code of conduct:

- All students must wear their valid institutional ID cards while attending laboratory sessions.
- Students are required to come well-prepared for the scheduled experiments as per the prescribed laboratory cycle and instructions.
- Regularity and punctuality in attending laboratory sessions shall be strictly maintained.
- Students must carry the completed laboratory record for every laboratory session.
- Attendance in all laboratory sessions and internal practical examinations is mandatory as per institutional and university norms.
- Laboratory equipment and instruments shall be handled strictly in accordance with the given operating instructions, and students are expected to actively contribute to maintaining a clean, safe, and orderly laboratory environment.
- Any form of misuse, tampering, or unauthorized handling of laboratory equipment, systems, or configurations will attract strict disciplinary action.

**Procedure for Laboratory Maintenance and Laboratory Repair**

- Laboratory technician inspects equipment regularly.
- If equipment is found defective, the technician reports the issue to the Faculty member/Lab In-charge.
- The Lab In-charge prepares quotations
- Quotations are discussed with the Head of the Department (HOD).
- After approval from the HOD and higher authorities, the supplier is intimated.
- The supplier deputs a technician to carry out the repair work.
- After completion, the equipment is entered in the **repair/maintenance register**, a maintenance report is submitted, and the bill is forwarded for payment through proper administrative channels.

**The Laboratory maintenance schedule in Department of Mechanical Engineering is as below**

Sr. No	Task	Frequency Daily/Weekly /Monthly/yearly	Performed under supervision of
1	Laboratory cleaning	Daily	Supervisor
2	Checking, repairing and maintenance of measuring devices and equipments	Monthly (or as per requirement)	Lab Technician
3	Alignment, Winding and brush repairing of machines	Half Yearly	Lab Technician
4	Testing and repairing of computer and accessories	Monthly	Lab Technician

5	Projectors and other Software facility maintenance	Monthly	Lab Technician
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**The officer and staff deployment for maintenance repair and services are given below**

Sr. No.	Items	Name of officers	Role and Responsibilities
1.	Land, Building Blocks and furniture maintenance	Mr. Yogendra Sharma	To prepare, update and maintain all land documentation, land maps and lease record, re modelling and renovation work.  To maintain the physical College building block structure in a condition of operating excellence, water supply, and general fire safety
2.	Building Blocks - Basic requirements and cleanliness	Mr. Vijay Sharma & Mr. Vedprakash Sharma (Block In charge)	To maintain the physical College facilities in a condition of operating excellence & supervise the cleanliness of blocks.
3.	Electrical (Power Supply, AC) Maintenance	Mr. Rajesh Sharma	To monitoring and maintenance of electrical systems, repair the electrical circuits, services, powered fixtures and fittings, regular periodic inspection or calibration is recorded and up to date and promote a culture of safe working practices across the College
4.	Transportation	Mr. Ravi Bhatnagar	To Schedule, coordinate and dispatch buses for bus routes, field trips and extracurricular events, bus stop conditions and student safety issues
5.	Computer & Networking	Mr. Sunil Bhardwaj	To advance student success, provides reliable, relevant and secure IT services, support and resources for academic, administrative and student support services throughout college
6.	Laboratory Equipment	Laboratory Attendants	To clean laboratory and to keep Laboratory materials including apparatus and equipment's in proper place, physical stock verification
7.	Other Resource Management	Dr. R. K. Mangal	Facilitate a supportive work environment and an engaged workforce consistent with the college mission, core values, and culture

**Overall ambience**

- All Laboratories are equipped with all equipment to meet the requirements of the curriculum.
- Laboratory manuals are prepared and are available in soft and hard copy.
- All laboratories are well equipped and overall ambience of the laboratories is good and best suited for the study and practical work.
- Laboratories are flexible and available for practical activities as and when required after permission from higher authority.
- All laboratories have enough natural light, good ventilation, tube lights, and fan arrangement.
- Any deficit of equipment/ test kit is noted and efforts are taken to procure the same before the semester.
- Some components which are obsolete are disposed from time to time.

- The overall ambience is good enough for the students to excel in their practical applications. The well-resourced laboratory in department motivates the students to be more innovative.







### **Laboratory Audit**

The Laboratory Audit is conducted periodically by faculty members, the laboratory in-charge, laboratory technicians and external committee members.

#### **Infrastructure Adequacy and Upgradation**

- Regular assessment of the availability, condition, and functionality of laboratory equipment in line with the academic requirements.
- Timely procurement, replacement, and up gradation of instruments, tools, and software to address evolving academic needs.
- Alignment of laboratory facilities to promote skill-based learning and enhance student employability.

#### **Laboratory Manuals**

- Availability of updated, well-structured, and student-friendly laboratory manuals for all courses.
- Strict adherence to ensure uniformity, safety, and quality in laboratory practices.
- Proper documentation of experimental procedures, observations, and outcomes to support learning and assessment.

#### **Equipment Maintenance**

- Implementation of preventive and corrective maintenance schedules for laboratory equipment.
- Maintenance activities monitored and recorded through maintenance register to ensure equipment reliability.

#### **Safety**

- Adequate availability of safety equipment, including fire extinguishers, first-aid kits, safety signage, and clearly defined emergency procedures.

### **Procedure of Lab audit**

**JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE  
DEPARTMENT OF MECHANICAL ENGINEERING**

**NOTICE**

Date: 07-August-2024

**Subject: Lab Audit**

Lab audit in reference to stock will be conducted from 08-08-2024 to 14-08-2024. As per the below list all are requested to update and verify their respective lab stock registers in accordance with available machines and equipments.

Sr. No.	Name of Laboratory	Schedule	Lab Incharge
1	Workshop I & II	08 - 08 - 2024	Dr. Man Mohan Singh / Mr. Rajendra Singh Naruka, Mr. Haman Prasad Saini, Mr. Narendra Singh and Mr. Hemant Neiwai
2	Production Practice Lab	08 - 08 - 2024	Mr. Hukum Chand Nagar / Mr. Rajendra Singh Naruka
3	Materials Testing Lab	09 - 08 - 2024	Mr. Hukum Chand Nagar / Mr. Haman Prasad Saini
4	Theory of Machines Lab	09 - 08 - 2024	Mr. Abhishek Kumar / Mr. Narendra Singh
5	Vibration Lab	10 - 08 - 2024	Dr. Bhuvnesh Bhardwaj / Mr. Rajendra Singh Naruka
6	Basic Mechanical Engineering Lab	10 - 08 - 2024	Mr. Abhishek Kumar / Mr. Hemant Neiwai
7	Quality Control Lab	14 - 08 - 2024	Mr. Ravi Yadav / Mr. Hemant Neiwai
8	Heat Transfer Lab	12 - 08 - 2024	Dr. Bhuvnesh Bhardwaj / Mr. Ashish Gaur
9	Welding Engineering Lab	12 - 08 - 2024	Mr. Yogesh Dubey / Mr. Ashish Gaur
10	Fluid Mechanics Lab	12 - 08 - 2024	Mr. Satyaprakash Saini / Haman Prasad Saini
11	Production Engineering Lab / Metrology Lab	13 - 08 - 2024	Dr. Man Mohan Singh / Mr. Narendra Singh
12	Machine Drawing	13 - 08 - 2024	Mr. Yogesh Dubey / Mr. Ashish Gaur
13	CIMs Lab	13 - 08 - 2024	Mr. Lalit Sharma / Mr. Bir Singh
14	MAT Lab	14 - 08 - 2024	Dr. Manoj Gupta / Mr. Bir Singh
15	FLS Lab	14 - 08 - 2024	Mr. Nitin Chhabra / Mr. Bir Singh
17	Industrial Engineering Lab	14 - 08 - 2024	Mr. Nitin Chhabra / Mr. Hemant Neiwai

**Head of the Department  
Mechanical Engineering  
JECRC, Jaipur**

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE  
**JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE**  
 JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

**Department of Mechanical Engineering**

**Lab Audit Report**

**Name of Laboratory:** Manufacturing Practices Workshop (Welding Lab)  
**Lab Incharge:** A. Man Mohan Singh  
**Lab Technician:** Ms. Narendra Singh  
**Audit Date:** 2/5/2024 **Session:** 2024-25  
**Audit member:** A. Man Mohan Singh

Sr. No.	Comments	Lab In charge (Signature)
1	More hand screen required <u>Purchased 20/1/24 Bill no. KKK/5296/24-25</u>	} <u>MS</u>
2	Chipping hammer required <u>Purchased 20/1/24</u>	
3	Routine maintenance of welding <u>OK done</u>	
4	Welding <u>OK</u> wheel required <u>Purchased 20/1/24</u>	
5		
6		
7		
8		
9		
10		

**Audit members (Signature)** [Signature]

**Head of Department (Signature)** [Signature]  
 Head of Department  
 Mechanical Engineering  
 JECRC, Jaipur

7.4 Safety measures in laboratories (10)







Sr. No	Laboratory Name	Safety Measures
1	Manufacturing Practices Workshop	Laboratory rules and safety regulations displayed; Do's & Dont's boards; First Aid box; Fire extinguisher for fires; Fire buckets/sand buckets, Proper earthing of machines; MCBs in control panels, Insulated wiring and switchboards, Safe distance maintained from rotating parts, Machine guards on rotating parts, Emergency stop switches, Protective covers for belts, gears and couplings, Safety goggles/face shields, Apron, Hand Gloves ( leather/heat resistant).
2	Computer Aided Engineering Graphics Lab	Proper earthing of systems; Restricted access to power panels; Clean and organized workspace; Fire extinguisher available; Do's & Dont's boards
3	Computer Aided Machine Drawing Lab	Proper earthing of systems; Restricted access to power panels; Clean and organized workspace; Fire extinguisher available; Do's & Dont's boards
4	Machine Drawing Practice Lab	Safe handling instructions for drawing tools; Adequate lighting and ventilation; Do's & Dont's boards
5	Basic Mechanical Engineering Lab	Safety instructions displayed; Adequate lighting and ventilation; Do's & Dont's boards; First Aid box
6	Material Testing Lab	Safety instructions displayed; Emergency shutdown procedure; Fire extinguisher, Load application only under supervision; Do's & Dont's boards
7	Programming using MATLAB Lab	Proper earthing of systems; Restricted access to power panels; Clean and organized workspace; Fire extinguisher available; Do's & Dont's boards
8	Digital Electronics Lab	Insulated wiring; Proper earthing; Fire extinguisher for electrical fire; Do's & Dont's boards
9	Fluid Mechanics Lab	Non-slip flooring around experimental setups, Secure pipe fittings to prevent leakage , Electrical panels isolated from wet areas; Do's & Dont's boards
10	Production Practice Lab	Laboratory rules and safety regulations displayed; Do's & Dont's boards; First Aid box; Fire extinguisher for fires; Fire buckets/sand buckets, Proper earthing of machines; MCBs in control panels, Insulated wiring and switchboards, Safe distance maintained from rotating parts, Machine guards on rotating parts, Emergency stop switches, Protective covers for belts, gears and couplings, Safety goggles/face shields, Apron, Hand Gloves ( leather/heat resistant).
11	Theory of Machines Lab	Guarding of moving components; Safety instruction display, Controlled speed operation; Do's & Dont's boards
12	Mechatronics Lab	Insulated wiring; Proper earthing; Fire extinguisher for electrical fire; Do's & Dont's boards
13	Heat Transfer Lab	Insulated hot surfaces; Fire extinguisher and emergency shutdown provision; Do's & Dont's boards
14	Machine Design Practice Lab I & II	Adequate lighting and ventilation; Do's & Dont's boards

15	Production Engineering Lab	Laboratory rules and safety regulations displayed; Do's & Dont's boards; First Aid box; Fire extinguisher for fires; Fire buckets/sand buckets, Proper earthing of machines; MCBs in control panels, Insulated wiring and switchboards, Safe distance maintained from rotating parts, Machine guards on rotating parts, Emergency stop switches, Protective covers for belts, gears and couplings, Safety goggles/face shields, Apron, Hand Gloves ( leather/heat resistant).
16	Computer Integrated Manufacturing Systems Lab	Proper earthing of systems; Restricted access to power panels; Clean and organized workspace; Fire extinguisher available; Do's & Dont's boards
17	Vibration Lab	Secure mounting of test rigs; Adequate lighting and ventilation; Guarding of moving components; Do's & Dont's boards
18	Thermal Engineering Lab I & II	Safe distance maintained from rotating parts, Fire extinguisher; Do's & Dont's boards
19	Finite Element Analysis Lab	Proper earthing of systems; Restricted access to power panels; Clean and organized workspace; Fire extinguisher available; Do's & Dont's boards
20	Quality Control Lab	Safe handling of precision instruments; Clean workspace; Do's & Dont's boards
21	Industrial Engineering Lab	Ergonomic safety guidelines; Do's & Dont's boards
22	Metrology Lab	Safe handling of precision instruments; Clean workspace; Do's & Dont's boards

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



**7.5 Project laboratory/ research laboratory**

The Department of Mechanical Engineering extends the utilization of its extended learning laboratories beyond regular curriculum delivery to actively support student projects, innovation initiatives, Centres of Excellence (CoE), industry collaboration, and entrepreneurial development. These facilities provide an enabling ecosystem for hands-on problem solving, design innovation, and industry-aligned skill development.

**Centre of Excellence – CAD Centre**

The Centre of Excellence (CoE) – CAD Centre serves as a dedicated facility for design, modeling, simulation, and analysis activities. The centre is extensively used for:

- Final-year and interdisciplinary student design projects
- Research-oriented work involving CAD/CAE-based validation
- Training on industry-standard design and analysis tools
- Prototype design and optimization prior to fabrication
- Supporting innovation challenges and design competitions

The CAD Centre bridges the gap between theoretical knowledge and industry- design practices, enhancing students’ employability and industry readiness.

**Industry-Supported Training**

**JSW -MG Motors – Industry Collaboration Support**

Through collaboration with **JSW-MG Motors**, the department facilitates industry-oriented project work in areas such as:

- Automotive systems and subsystems
- Vehicle design concepts and performance analysis
- Exposure to real-world automotive engineering problems

Students undertake industry-oriented training, enabling them to understand current automotive technologies and professional engineering practices.

**Baba Automobile – Practical Exposure and Innovation Support**

The association with Baba Automobile supports application-oriented projects and innovation activities, particularly in:

- Vehicle maintenance, diagnostics, and modifications
- Component-level analysis and redesign
- Entrepreneurial ideas related to the automotive service sector

This collaboration strengthens **practice-based learning** and nurtures startup-oriented thinking among students.

**3D Printing Laboratory**

The 3D Printing Laboratory acts as a key enabler for innovation, prototyping, and startup incubation activities. The laboratory supports:

- Rapid prototyping of student project models
- Fabrication of functional and conceptual prototypes
- Design validation for research and product development

The facility significantly reduces design-to-prototype cycle time, encouraging creativity, experimentation, and entrepreneurial initiatives.

**JECRC Incubation Center (JIC)**

**JIC** is the startup & innovation hub of the Institute ecosystem. It supports students, faculty, and external innovators to convert ideas into startups through mentoring, funding access, and industry linkage.

**Key Focus Areas**

- Startup incubation & pre-incubation programs
- Prototype & product development support
- Investor connects, demo days & pitching sessions
- Workshops on entrepreneurship & innovation

**Facilities & Support**

- Co-working & innovation space
- Technical mentoring from industry experts
- Networking with founders & alumni entrepreneurs

**Table No. 7.5.1: List of project laboratory/centre of Excellence**

S. N.	Name of the Laboratory	Name of Equipment/software
1.	Centre of excellence (CADD) / Simulation Laboratory	1. MATLAB Simulink 2. Solid Works 3. ANSYS 4. SSCNC 5. MG Motor (Electrical vehicle) 6. Auto CAD
2.	Centre of Excellence (BABA Automobile/ EHV Laboratory)	1. Prototype Model of Electric & Hybrid vehicle 2. Battery Bank 3. Controller Circuit 4. Inverter

3.	3D Printing Lab	<ol style="list-style-type: none"> <li>3D Scanner</li> <li>CAD modelling Software (Solid Works)</li> </ol>
4.	Automobile Clubs (Moon Riders Lab)	<ol style="list-style-type: none"> <li>Go-Kart Chassis frame</li> <li>Go-Kart Engine and Transmission Assembly</li> <li>Steering and Suspension Setup</li> <li>Brake testing Rig</li> <li>Safety Gear (helmet, Seatbelt, Harness etc.)</li> </ol>

## Project Details: 2024-25

JECRC					
ME Department					
Session 2024-2025					
Details of Project Category					
Group No	RTU Roll No	Name of student	Title of project	Project Guide	Type
A1	22EJCME005	LAKSHYA DEEP SINGH TANWAR	Design analysis of internal combustion Go Kart and its component	Dr. Manoj Gupta	Hardware based & Environment friendly
	22EJCME022	LOKESH BAIRWA			
	21EJCME005	AJAYRAJ SINGH TANWAR			
	21EJCME002	ADITY YADAV			
A2	21EJCME009	ANSHUL GARG	To Measure hand Vibration with 7 semi bno005 9dof accelerometer	Mr. Lalit Kumar Sharma	Software & Hardware Based
	21EJCME013	ARZOO SONI			
	21EJCME026	NOOTENDRA KUSHWAH			
	21EJCME032	RISHUBH DEWAT			
A3	22EJCME200	DEEPAK KUMAR	Analysis of Microstructure of MIG welded ENS8 Sample after the tensile test using various welding parameters.	Mr. Yogesh Dubey	Social & Hardware Based
	22EJCME201	DESHANT JAIN			
	21EJCME027	PRASHANT AGNIHOTRI			
	21EJCME014	GAURAV KHANDELWAL			
A4	21EJCME029	PRINCE GUPTA	Meeting the oxygen demand for sustainable development , a case study of liquid tree.	Dr. M. P. Singh	Hardware & Software Based
	22EJCME202	GARVIT RATHOR			
	21EJCME030	RAHUL GAHLAWAT			
	21EJCME028	PRAVEEN KUMAR			
A5	21EJCME019	KRISHNA SHARMA	Analysis of Microstructure of MIG welded C-45 Sample after the charpy impact test using various welding parameters.	Mr. Ravi Yadav	Analytical & Hardware Based
	21EJCME016	HARSH JAIN			
	21EJCME015	GAURAV KUMAR YADAV			
A6	21EJCME008	ANSHRAJ SHARMA	Restore RC Car and changed the damaged part	Mr. Nitin Chhabra	Analytical Software Based
	21EJCME007	ANANT JHALANI			
	22EJCME035	VAIBHAV SHRIVASTAVA			

A7		AADITYA PRAJAPAT	Solar Scarecrow with Sound Sensing	Dr. M.P. Singh	Hardware & Analytical Based
		ARMAN			
		MOHD SAMEER MANSOORI			
		VAIBHAV SHRIVASTAVA			
A8	21EJCME010	ANUJ KHANDELWAL	Design of Low-Cost Refrigeration System using LPG	Dr. Bhuvnesh Bhardwaj	Hardware & Software Based
	21EJCME011	APOORV NANDKEOLYAR			
	21EJCME020	KRISHNA VYAS			
	21EJCME031	RAVI GUPTA			
A9	21EJCME004	ADITYA SINGH MAHUR	3D Printed Prototype of Flapping Wing Mechanism	Mr. Abhishek Kumar	Analytical & Hardware Based
	21EJCME025	MOHAMMAD AQIB			
	21EJCME023	MANMOHAN PARASHAR			
	18EJCEE046	MOHIT SONI			
	18EJCEE063	RAHUL BAIRWA			
	18EJCEE088	VISHVESH SHARMA			
	18EJCEE090	YUVRAJ SINGH SHAKTAWAT			

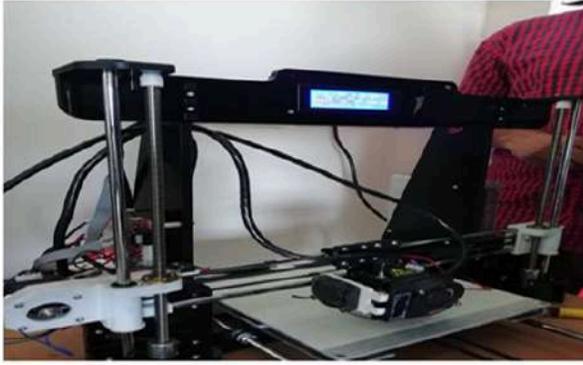
**1. Centre of Excellence**



**2. Automobile Laboratory (BABA Automobile/ EHV Laboratory)**



### 3. 3D Printing Laboratory



### 4. Automobile Club (SAE Moon-Rider)



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8 CONTINUOUS IMPROVEMENT (80)

Tota

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

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

The attainment of Course Outcomes (COs) is evaluated systematically using direct assessment tools (internal assessments, end-semester examinations, laboratory performance, projects) and indirect assessment tools (course exit survey). Based on the analysis of CO attainment data for the assessment year CAYm-1, specific areas of weakness were identified, and targeted corrective and preventive actions were implemented to improve CO attainment levels.

#### Identified Weaknesses and Actions Taken

Identified Weakness (from CO Analysis)	Action Taken in CAYm-1
Lower attainment in numerical/problem-solving COs in core subjects	Additional problem-solving sessions and tutorial classes conducted
Difficulty in understanding fundamental concepts	Concept clarification classes using real-life examples, animations, and demonstrations
Low CO attainment in application-oriented questions	Introduction of case studies and real-world problems in assignments and exams
Poor performance in design-based COs	Increased use of CAD/CAE tools and mini design projects
Inadequate attainment of higher-order COs (analysis & synthesis)	Question papers redesigned to include Bloom's Level questions
Lower CO attainment among slow learners	Remedial classes, assignments, viva-voce and mentoring by faculty members
Insufficient industry exposure impacting applied COs	Industry talks, workshops, and expert lectures organized, Industry visits
Limited self-learning skills affecting indirect COs	Encouragement of MOOCs, NPTEL courses, virtual labs and study materials

#### Curriculum Interventions

The institute adheres to the curriculum prescribed by its affiliating university; therefore, direct curriculum intervention is not feasible. However, the department undertakes the following initiatives to enrich and supplement the existing curriculum for enhanced academic effectiveness and industry relevance.

- Mapping of assessment questions strictly to defined COs
- Conducted different Addon courses .
- Encourage the students to participated in NPTEL,SWAYAM,MOOCS etc.
- Introduction of mini-projects
- organised more guest lecture,workshops,industry visit etc. for advanced topics.
- Inclusion of application-oriented and design-based questions in internal assessments
- Review of CO statements to ensure clarity, measurability, and alignment with POs/PSOs

#### Pedagogical Initiatives Implemented

- Adoption of **active learning methods** such as flipped classroom approaches ,problem-based learning, and mini projects approaches
- Use of **ICT tools**, simulations, virtual labs and video demonstrations to enhance conceptual understanding
- Conduct of remedial classes, revision and mentoring sessions prior to internal and end-semester examinations
- Integration of analytical questions in question paper setting and assignment design

#### Student Support System Improvements

- Structured remedial classes for students with low attainment
- Faculty mentoring and academic counseling for identified students
- Access to additional learning resources and tutorial materials
- Encouragement of participation in technical clubs, competitions, and innovation activities

#### Outcomes and Impact

- Improvement observed in average CO attainment levels in subsequent internal assessments
- Enhanced student engagement and confidence in problem-solving and design tasks
- Better alignment between teaching, assessment, and expected learning outcomes

#### 1. Conducted add-on course and MOOC/NPTEL courses:

Delivered NPTEL lectures on Programming, Data Structures and Algorithms Using Python, Finite Element Method, Kinematics of Mechanisms and Machines, Introduction to Fluid Mechanics, Matlab Programming for Numerical Computation, **Engineering Thermodynamics**. Conducted Add-on course on SOLIDWORKS, ANSYS, data analysis, simulation tools and CAEV: Connected, Autonomous, Electric Vehicle Course.

S.No.	Name Of ADD ON Conducting Activity
1	ADD ON --"Introduction to SOLIDWORKS"
2	ADD ON --"Introduction to ANSYS"
3	ADD ON --"3D Design and Parametric Modelling using SOLIDWORKS"
4	ADD ON --"CAEV: Connected, Autonomous, Electric Vehicle Course"
5	ADD ON --"Engineering Simulations with ANSYS"
6	NPTEL-Engineering Thermodynamics
7	NPTEL-Programming, Data Structures And Algorithms Using Python
8	NPTEL-Finite Element Method
9	ADD ON --"Applied Object-Oriented Programming with C++"
10	ADD ON -Workplace Readiness: Aptitude, Reasoning and Language Proficiency
11	ADD ON --"Data Structures using Python"
12	NPTEL-Kinematics of Mechanisms and Machines
13	Add on - From Campus to Corporate: Skills for Success
14	NPTEL-Introduction to Fluid Mechanics
15	NPTEL-Matlab Programming for Numerical Computation
16	NPTEL-Business Fundamentals for Entrepreneurs

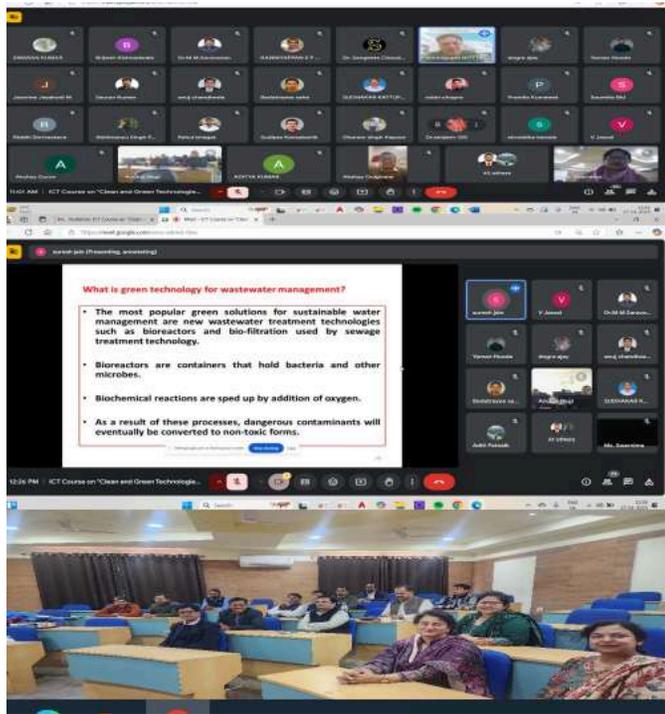
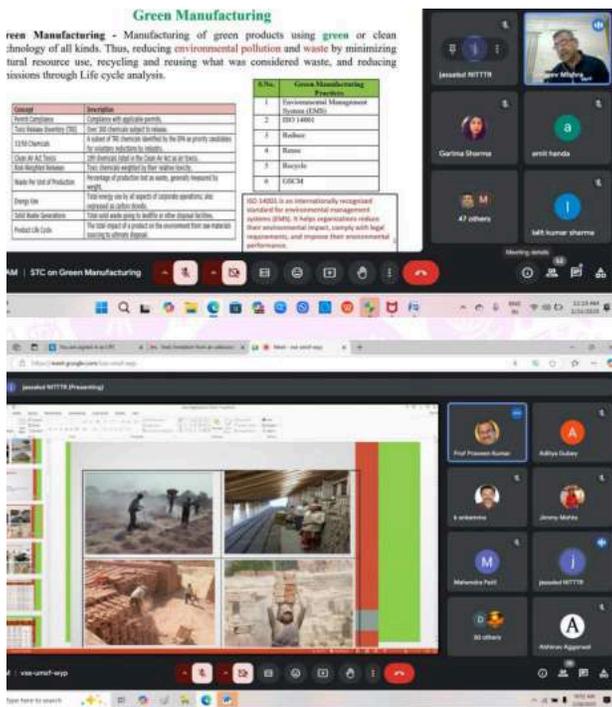




## 2. Conducted Technical seminars, Workshop and Guest Lecture :-

Organized targeted workshops focusing on analytical techniques, design thinking, and engineering problem-solving skills. Organized a workshop on 3D Printing and Reverse Engineering of Gears and Ball Bearings to motivate students to increase industry interactions.

S.No.	Name Of Conducting Activity	Resource Person
1	<b>Guest Lecture</b> - Sustainable Mfg.	Mr. Tejendra Singh (Mechanical Engg. Deppt., MNIT, Jaipur)
2	<b>Guest Lecture</b> - Vehicle Gear Power Transmission System	Mr. Sourabh Saxena, Assistant Manager in FEB India, Pune.
3	<b>Workshop</b> - Beginner Level Machine Learning for Research and Technology Transfer	Dr. Paramjeet
4	A Workshop on "Reverse Engineering of Gears and Ball Bearings"	Mr. Manikanta Darimadugu Revenue Growth Manager, CADD Centre Training Services, Rajapark, Jaipur
5	<b>Guest Lecture</b> - Financial Statement Analysis	Dr. Harsh Pratap Singh, Professor, Nirma University
6	<b>Workshop</b> - 3D Printing	Mr. Rahul
7	Guest Lecture - Additive Manufacturing: Trends and Outlook	Dr. Ashish Mogra, Faculty, NMIMS Chandigarh
8	<b>Guest Lecture</b> - The Impact of AI on the Advancement of Mechanical Engineering	Mr. Tanay Vijay, MRI Software, Pune
9	<b>Guest Lecture</b> - Strategic Leadership and Engineering Innovation	Mr. Rahul Mahawar, Akash Institute, Jaipur
10	<b>Guest Lecture</b> - Sustainability Challenges using Recycled Material in Flexible Packaging	Prof. Mel Diona, Ingenia Polymers



**3. Organized industry expert lectures, industrial visits and industry-oriented assignments:-**

Industry Interaction: Increased industry expert sessions and industrial visits to Rajiv Gandhi Centre of Advance Technology (R-CAT), Jaipur, Ashok Leyland, Havells, Parle-G and Hitachi to expose students to real-time problem-solving environments. Increased industry interactions through expert talks and mentorship to motivate students to increase industry interactions. Introduced more project-based assignments and activities like Project exhibitions, Campus kart clash and Technical Paper Presentation ,within core subjects to encourage students to apply research techniques to solve real-world problems.

S.No.	Name Of Conducting Activity
1	3D Mania industry oriented Event - Ravi Kumar Swami, Director & Founder, Cademate Training and Technical Services Pvt. Ltd.
2	<b>Industrial Visit</b> - Akshay Patra Temple Hare Krishna Movement
3	<b>Industrial Visit</b> - Rajiv Gandhi Centre of Advance Technology (R-CAT)

4	Resin-O-Clock
5	<b>Industrial Visit - Ashok Leyland</b>
6	<b>Industrial Visit – Havells</b>
7	<b>Industrial Visit - Parle G</b>
8	<b>Industrial Visit – Hitachi</b>
9	Campus Kart Clash
10	Brain Quest
11	Technical Paper Presentation
12	MPWS Project Exhibition



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**8.1.2 Actions Taken Based on the Results of Evaluation of the POs/PSOs Attainment (20)**

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The attainment of Program Outcomes (POs) and Program Specific Outcomes (PSOs) in the Department of Mechanical Engineering, JECRC, is evaluated using a structured process involving direct assessment tools (CO–PO/PSO mapping, internal and end-semester examinations, laboratory performance, projects, internships) and indirect assessment tools (program exit survey, alumni feedback, employer feedback).

Based on the analysis of PO/PSO attainment levels over the last two academic years, specific areas of weakness were identified. Targeted corrective and preventive actions were implemented through curriculum interventions, pedagogical reforms, industry interaction, and student support mechanisms

**Identified Weaknesses and Actions Taken (Last Two Years)**

Identified Weakness (PO/PSO)	Action Taken
PO1 & PO2 (Engineering Knowledge & Problem Analysis)	Increased problem-solving sessions, tutorials, and concept reinforcement classes
PO3 (Design/Development of Solutions)	Introduction of mini-design projects and CAD/CAE-based assignments
PO4 (Investigations & experimentation skills)	Inclusion of virtual laboratory experiments and experimental analysis tasks
PO5 (Modern Tool Usage)	Training on CAD, CAE, FEA, simulation tools, and software-based labs
PO6 & PO7 (Societal & Environmental awareness)	Increase Participation in Social groups activities ,Case studies on sustainability, energy efficiency, and social impact activities.
PO8 (Ethics)	Sessions organized by spiritual cell regularly on meditations and professional ethics.
PO9 (Individual & Team Work)	Participation in national level event, Team-based projects, group assignments, and technical competitions
PO10 (Communication)	Seminars, paper presentations, report writing, and viva-voce components
PO11 (Project Management & Finance)	Projects,(capstone project, mini project, social/technical clubs activities management,
PO12 (Lifelong Learning)	Promotion of MOOCs, NPTEL courses, add-on courses and self-learning activities
PSO1 & PSO2 (Mechanical system analysis & applications)	Industry-oriented training, internships, and CoE-based activities

**Curriculum Interventions Implemented**

The institute adheres to the curriculum prescribed by its affiliating university; therefore, direct curriculum intervention is not feasible. However, the department undertakes the following initiatives to enrich and supplement the existing curriculum for enhanced academic effectiveness and industry relevance.

- Introduction of Add-on courses, workshops, and certification programs
- Strengthening of industry-linked curriculum components through expert lectures and MoUs
- Review and refinement of CO–PO–PSO mapping to ensure relevance and clarity
- Integration of emerging technologies (EVs, automation, advanced manufacturing)

**Pedagogical Initiatives**

- Adoption of active learning techniques (problem-based learning, case studies, flipped classrooms)
- Increased use of ICT tools, simulations, and virtual labs
- Emphasis on Bloom’s Taxonomy in teaching and assessment
- Continuous faculty development through FDPs and technical training

**Industry Interaction and Experiential Learning**

- Industry-supported training, internships, and industry visits
- Establishment and utilization of Centres of Excellence (CAD Centre, BABA Automobile)
- Participation in national-level competitions, hackathons, and innovation challenges
- Expert talks by industry professionals and alumni

**Student Support System Improvements**

- Structured mentoring and academic counseling
- Professional and motivational mentoring
- Remedial classes for slow learners and advanced tasks for fast learners
- Enhanced access to laboratories beyond regular hours
- Support for startups, innovation club, and technical activities

**Action Taken Based on Evaluation of PO Attainment (2024-25)**

**Program Outcomes(PO):**

PO1: Engineering Knowledge	
PO 1	Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified respectively to develop to the solution of complex engineering problems.

<p>Action Taken:1. Remedial Classes: Special remedial classes and core courses were organized to strengthen the core engineering knowledge base like Machine design, Strength of material, Fluid Mechanics, Heat Transfer, Production Engineering and machine design and concepts.</p> <p>2. Peer Learning Initiatives: A structured peer-to-peer learning program was introduced in various activities organized by automobile Moonrider club, where higher-performing students mentor their peers in different applications .</p> <p>3. Increased Focus on Practical Learning: Additional lab sessions beyond the time table is scheduled and mini-projects in Centre of Excellence, were integrated to improve the practical application of theoretical concepts.</p> <p>4. Workshops and Seminars: Organized targeted workshops focusing on analytical techniques, design thinking, and engineering problem-solving skills. Organized a workshop on Beginner Level Machine Learning for Research and Technology Transfer, Reverse Engineering of Gears and Ball Bearings, 3D Printing.</p> <p>6. Increased industry interactions through expert talks and mentorship. Organized guest lecture on Sustainable Manufacturing, Vehicle Gear Power Transmission System, Additive Manufacturing: Trends and Outlook, The Impact of technologies on the Advancement of Mechanical Engineering to motivate students to increase industry interactions.</p> <p>7. Delivered NPTEL lectures on <b>Engineering Thermodynamics, Programming, Data Structures And Algorithms Using Python, Kinematics of Mechanisms and Machines, Introduction to Fluid Mechanics, Matlab Programming for Numerical Computation.</b></p>	
<p><b>PO 2 : Problem Analysis</b></p>	
<p>PO 2</p>	<p>Problem Analysis:Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development.</p>
<p>Action Taken:1. Enhanced Practical Exposure: Increased the number of problem-based learning (PBL) sessions and case study analyses within core courses.</p> <p>2. Workshops and Seminars: Organized targeted workshops focusing on analytical techniques, design thinking, and engineering problem-solving skills.</p> <p>3. Mentorship Programs: Initiated peer-to-peer mentoring and faculty-guided mini and major projects to encourage deeper understanding and application of complex concepts.</p> <p>4. Continuous Assessment: Strengthened formative assessments like quizzes like , brain quest, technical paper presentation, assignments, and tutorials focused on analytical problem-solving to provide timely feedback.</p> <p>5. Industry Interaction: Increased industry expert sessions and industrial visits to Ashok Leyland, Havells Ltd., Parle-G, and Hitachi to expose students to real-time problem-solving environments.</p> <p>6. Delivered NPTEL lectures on Engineering Thermodynamics, Programming Data Structures And Algorithms Using Python, Kinematics of Mechanisms and Machines, Introduction to Fluid Mechanics, Matlab Programming for Numerical Computation.</p> <p>7. Increased industry interactions through expert talks and mentorship. Organized guest lecture on Vehicle Gear Power Transmission System, Additive Manufacturing: Trends and Outlook, The Impact of technologies on the Advancement of Mechanical Engineering to motivate students to increase industry interactions</p> <p>8. Project-Based Learning (PBL): Introduced more project-based assignments and activities like Project exhibitions, Campus kart clash within core subjects to encourage students to apply research techniques to solve real-world problems.</p> <p>9. Workshops and Seminars: Organized targeted workshops focusing on analytical techniques, design thinking, and engineering problem-solving skills. Organized a workshop on Beginner Level Machine Learning for Research and Technology Transfer, Reverse Engineering of Gears and Ball Bearings.</p>	
<p><b>PO 3 : Design/Development of Solution</b></p>	
<p>PO 3</p>	<p>Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)</p>

Action Taken:1 Introduced mini-projects in Moonrider club and design-based assignments in lecture and lab classes.

2. Conducted workshops and events like E-Vehicles,hybrid vehicles Designing Tools, CNC machines, value engineering, 3D mania on design tools and design thinking.

3. Increased industry interactions through expert talks and mentorship. Organized Expert Talks on Sustainable Manufacturing, Vehicle Gear Power Transmission System, Additive Manufacturing: Trends and Outlook, Sustainability Challenges using Recycled Material in Flexible Packaging to motivate students to increase industry interactions.

4.Promoted peer-to-peer learning via JECRC-SIH 2024 and project exhibition organized by technical Club.

5. Revised evaluation rubrics to emphasize innovation and sustainability.

6. Delivered NPTEL lectures on Finite Element Method, Engineering Thermodynamics, Kinematics of Mechanisms and Machines, Introduction to Fluid Mechanics.

7.Industry Interaction: Increased industry expert sessions and industrial visits to. Akshay Patra Temple Hare Krishna Movement, Rajiv Gandhi Centre of Advance Technology (R-CAT),Ashok Leyland, Havells, Parle G ,Hitachi to expose students to real-time problem-solving environments.

8. Extracurricular Engagement: Students were encouraged to participate in technical clubs (Moonriders) and inter-collegiate competitions (like Skid Pad and Autocross: An Go-Kart Event, ATVC national level competition, BAJA SAEINDIA 2024 National Competition to further enhance teamwork experience.

**PO4: Conduct Investigations of Complex Problems**

PO 4	Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions.
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Action Taken: 1. **Workshops and Seminars:** Organized hands-on workshops on Beginner Level Machine Learning for Research and Technology Transfer, Reverse Engineering of Gears and Ball Bearings",3D Printing.

2. **Project-Based Learning (PBL):** Introduced more project-based assignments and activities like Resin-O-Clock, MPWS Project Exhibition ,Technical Paper Presentation, Brain Quest within core subjects to encourage students to apply research techniques to solve real-world problems.

3. **Collaboration with Industry:** Facilitated industrial internships and collaborative projects with R&D organizations to give students real-world investigative exposure.

4. **Faculty Development:** Conducted training sessions for faculty members to incorporate inquiry-based and project-based teaching methodologies. Organized Faculty development programme on Green Manufacturing . Clean and Green Technologies and Short Term Course on "Ergonomic Product Design". Organized conference on ICETESS - 2025,NCFTME – 2025.

5. Delivered NPTEL lectures on Engineering Thermodynamics, Programming, Data Structures And Algorithms Using Python, Finite Element Method, Kinematics of Mechanisms and Machines, Introduction to Fluid Mechanics, Matlab Programming for Numerical Computation.

6. Industry Interaction: Increased industry interactions through expert talks and mentorship. Organized Expert Talks on Vehicle Gear Power Transmission System, Additive Manufacturing: Trends and Outlook, Reverse Engineering of Gears and Ball Bearings", Beginner Level Machine Learning for Research and Technology Transfer to motivate students to increase industry interactions.Organized industrial visits to Ashok Leyland, Havells, Parle G, Hitachi to expose students to real-time problem-solving environments.

**PO5:Engineering Tool Usage**

PO 5	Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems.
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**Action Taken:**1. Organized additional hands-on workshops and training sessions on designing tools, Solid Works Hands On Modelling , 3D mania ,Software-Based Analysis of E-Vehicles

2. Project-Based Learning:  
Integrated more mini-projects and hardware-based assignments into the curriculum to encourage practical application of modern tools.

3. Industry Interaction: Increased industry expert sessions and industrial visits to R-CAT Jaipur and CIPET Sitapura to expose students to real-time problem-solving environments.

4. Certification Programs:  
Motivated students to enroll in online certification programs (like NPTEL, Coursera) related to design tools to strengthen technical exposure.

5. Peer Learning Initiatives:  
Formed student-driven technical groups to promote peer-to-peer learning, where students can collaboratively explore and practice with advanced tools.

6. Delivered NPTEL lectures on Programming, Data Structures And Algorithms Using Python, Finite Element Method, Kinematics of Mechanisms and Machines, Introduction to Fluid Mechanics, Matlab Programming for Numerical Computation.

7. Extracurricular Engagement: Students were encouraged to participate in inter-collegiate competitions (like Skid Pad and Autocross: An Go-Kart Event, ATVC national level competition, BAJA SAEINDIA 2024 National Competition to further enhance teamwork experience.

8. Continuous Assessment: Strengthened formative assessments like quizzes like brain quest, assignments, and tutorials focused on analytical problem-solving to provide timely feedback.

9. Industry Interaction: Increased industry interactions through expert talks and mentorship. Organized Expert Talks on Sustainable Manufacturing , Vehicle Gear Power Transmission System, Additive Manufacturing: Trends and Outlook, The Impact of AI on the Advancement of Mechanical Engineering, Sustainability Challenges using Recycled Material in Flexible Packaging to motivate students to increase industry interactions.Organized industrial visits to Akshay Patra Temple Hare Krishna Movement, Rajiv Gandhi Centre of Advance Technology (R-CAT),Ashok Leyland, Havells, Parle G, Hitachi to expose students to real-time problem-solving environments.

**PO6/7: The Engineer and the world**

PO 6/7	Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).
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**Action Taken:** 1. Students are motivated to participate in social activities such as Soch,Suhasini, Zarurat, Aashayein, NSS, etc. These experiences will empower them to understand and tackle different societal issues, ultimately enriching their education and building a more compassion at community.

2. Active participation of students in different technical, non-technical and extra-curricular activities organized by Moonrider Club of students.

3. Industry Interaction: Increased industry interactions through expert talks and mentorship. Organized Expert Talks on Sustainable Manufacturing, Additive Manufacturing: Trends and Outlook, The Impact of AI on the Advancement of Mechanical Engineering, Sustainability Challenges using Recycled Material in Flexible Packaging to motivate students to increase industry interactions.

5. Increased emphasis on environment-related case studies and examples during lectures and tutorials by Fruitful JECRC Team regularly.

6. Incorporated sustainability-focused mini-projects and assignments in core and elective subjects. (Like Wind Energy, Electric Vehicles and Solar Energy).

7. Encouraged participation in environment-related technical competitions (, Project Exhibition etc.)

8. **Workshops:** Organised workshop on “CAEV: Connected , Autonomous, Electric Vehicle course” to offer students practical insights and exposure to real-world applications of EV technology.

9. Faculty Development: Conducted Faculty development program and conference for faculty members to incorporate inquiry-based and project-based teaching methodologies. Organized Faculty development program on clean and green technologies, green manufacturing.

**PO8: Ethics**

PO 8	Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)
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Action Taken:1. Curriculum Integration: Enhanced the emphasis on ethical practices by including dedicated modules and case studies related to professional ethics in core and elective courses.

2. Awareness Programs: Conducted seminars and expert sessions on engineering ethics (by JECRC-Spiritual Research Cell) , intellectual property rights (IPR) (by JIC), and the social responsibilities of engineers (by Zarurat, Suhasini, Soch Aashayen, NSS).

Organizing the delivery related to ethics through the human values courses in their curriculum and during the mentoring session of the students.

3. Project Evaluation Criteria: Included ethical considerations explicitly in the assessment rubrics for final-year projects.

4. Workshops and Training: Organized workshops on ethical decision-making, conflict resolution, and responsible innovation to sensitize students to real-world ethical dilemmas. (JECRC-MUN, Toastmasters)

5. **Faculty Development:** Conducted training sessions for faculty members to incorporate inquiry-based and project-based teaching methodologies. Organized Faculty development programme on Green Manufacturing , Clean and Green Technologies and conference on NCFME – 2025.

**PO9:Individual and Collaborative Team Work**

PO9	Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.
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Action Taken:1. Curriculum Integration: Group activities, team-based assignment, and collaborative projects were emphasized across various courses to nurture team-building skills in CoE and Moonriders club.

2. Skill Development Initiatives: Conducted workshops and training sessions on leadership skills, conflict management, and effective team communication in JECRC MUN and JECRC Toastmasters.

3. Project Structuring: Capstone projects and mini-projects were restructured to include clearly defined team roles, responsibilities, and regular peer evaluations in Moonriders club.

4. Extracurricular Engagement: Students were encouraged to participate in technical clubs (Moonriders) and inter-collegiate competitions (like campus kart clash, Resin O clock ,3D mania event, MPWS project exhibition) to further enhance teamwork experience.

5. Continuous Monitoring: Mentors and project guides provided structured feedback on teamwork effectiveness and individual contributions during Major project evaluations.

6. Industry Interaction: Increased industry interactions through expert talks and mentorship. Organized workshop on Strategic Leadership and Engineering Innovationand CAEV: Connected , Autonomous, Electric Vehicle course” and Workplace Readiness: Aptitude, Reasoning and Language Proficiency to motivate students to increase industry interactions.Organized industrial visits to Akshay Patra Temple Hare Krishna Movement, Rajiv Gandhi Centre of Advance Technology (R-CAT), Ashok Leyland, Havells, Parle G, Hitachi to expose students to real-time problem-solving environments.

7. **Faculty Development:** Conducted training sessions for faculty members to incorporate inquiry-based and project-based teaching methodologies. Organized conference on ICETESS-2025.

**PO10: Communication**

PO10	Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences.
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<p>Action Taken: 1. Curriculum Integration: Integrated communication skill development modules into core subjects and laboratory courses (Viva and blackboard presentations) technical presentations, and documentation.</p> <p>2. Workshops and Training: Conducted dedicated workshops and training programs on Group discussion, Mock Interviews and Resume writing in Campus Recruitment Training CRT.</p> <p>3. Project Work Enhancement: Emphasized structured and formal communication during project presentations and viva-voce sessions, with detailed rubrics for assessing oral and written communication.</p> <p>4. Student Activities: Encouraged active participation in paper presentation contests, technical debates (MUN, Toastmasters), group discussions, and JECRC-Model United Nations (MUNs) to sharpen verbal and non-verbal communication skills.</p> <p>5. Delivered NPTEL lectures on <b>Programming, Data Structures And Algorithms Using Python and Business Fundamentals for Entrepreneurs.</b></p> <p>6. Organized Guest Lecture on Vehicle Gear Power Transmission System, Financial Statement Analysis, and The Impact of AI on the Advancement of Mechanical Engineering, Strategic Leadership and Engineering Innovation.</p> <p>7. Industry Interaction: Organized workshop on Design and Parametric Modelling using SOLIDWORKS, Applied Object-Oriented Programming with C++”, and Workplace Readiness: Aptitude, Reasoning and Language Proficiency to motivate students to increase industry interactions.</p> <p>8. Faculty Development: Conducted training sessions for faculty members to incorporate inquiry-based and project-based teaching methodologies. Organized Faculty development program on short term course on ergonomic product design and conference on ICETESS-2025 and NCFIME – 2025.</p>	
<p><b>PO11: Project Management and Finance</b></p>	
<p>PO 11</p>	<p>Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one’s own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.</p>
<p>Action Taken: 1. Curriculum Strengthening: In MEFA Subject (II year) and Integrated project management and financial planning topics into mini-projects and major project guidelines.</p> <p>2. Organized Guest Lecture on Financial Statement Analysis and Strategic Leadership and Engineering Innovation.</p> <p>3. Hands-on Practice: Encouraged the use of project management tools (MS Project) during project documentation and execution.</p> <p>4. Motivating students to actively participate in placement drives hosted by the institute, opening doors to valuable opportunities.</p> <p>5. Delivered NPTEL lectures on Business Fundamentals for Entrepreneurs.</p> <p>6. Extracurricular Engagement: Students were encouraged to participate inter-collegiate competitions campus kart clash, 3D mania event) to further enhance teamwork experience.</p>	
<p><b>PO12: Life-long Learning-</b></p>	
<p>PO 12</p>	<p>Recognize the need for, and have the preparation and ability for</p> <ul style="list-style-type: none"> <li>i. independent and life-long learning</li> <li>ii. inadaptability to new and emerging technologies and</li> <li>iii. critical thinking in the broadest context of technological change. (WK8)</li> </ul>

Action Taken:	<ol style="list-style-type: none"> <li>1. Curriculum Enrichment: Integrated self-learning components such as open-ended assignments, research-based learning activities, and use of Massive Open Online Courses (MOOCs) through platforms like NPTEL, Coursera.</li> <li>2. Skill Building Workshops: Conducted sessions on emerging technologies (Moonrider club, 3D printing workshops) to encourage students to pursue additional learning beyond the curriculum.</li> <li>3. Awareness Programs: Organized seminars on career planning, higher education opportunities, certifications, and skill-up gradation programs to the importance of lifelong learning.</li> <li>4. Mentorship Initiative: Strengthened faculty mentoring to guide students in identifying their individual learning paths and setting personal development goals.</li> <li>5. Delivered NPTEL lectures on Business Fundamentals for Entrepreneurs ,Matlab Programming for Numerical Computation.</li> <li>6. Organized Guest Lecture on Sustainable Manufacturing, Vehicle Gear Power Transmission System, Financial Statement Analysis, The Impact of AI on the Advancement of Mechanical Engineering ,Strategic Leadership and Engineering Innovation, Sustainability Challenges using Recycled Material in Flexible Packaging.</li> <li>7. Workshop on Hands-On Learning to Increased the focus on laboratory sessions and project-based learning where students are exposed to design principles and computational techniques, including programming and data structures, such as courses on Applied Object-Oriented Programming with C++, Engineering Simulations with ANSYS, 3D Design and Parametric Modelling, Introduction to ANSYS, Introduction to SOLIDWORKS and Data Structures using Python.</li> <li>8. Industry Interaction: Increased industry expert sessions and industrial visits to. Akshay Patra Temple Hare Krishna Movement, Rajiv Gandhi Centre of Advance Technology (R-CAT),Ashok Leyland, Havells, Parle G ,Hitachi to expose students to real-time problem-solving environments.</li> <li>9. Faculty Development: Conducted Faculty development program and conference for faculty members to incorporate inquiry-based and project-based teaching methodologies. Organized Faculty development program on clean and green technologies, green manufacturing and short term course on ergonomic product design and organized conference on NCFTME -2025.</li> </ol>
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Program Specific Outcomes (PSO)

PSO 1	<p>Action Taken:</p> <ol style="list-style-type: none"> <li>1. <b>Industry Collaboration:</b> Established collaborations with MG Motors in the EV sector to offer students practical insights and exposure to real-world applications of EV technology. Guest lectures and internships with EV manufacturers have been encouraged.</li> <li>2. Collaborations with Industry: Established partnerships with BABA AUTOMOBILE to facilitate internships and project work focused on automobile systems, offering students exposure to real-world applications.</li> <li>3. Organized Guest Lecture on Sustainable Manufacturing, vehicle Gear Power transmission system.</li> <li>4. <b>Workshops:</b> Organised workshop on “CAEV: Connected, Autonomous, Electric Vehicle course” to offer students practical insights and exposure to real-world applications of EV technology..</li> <li>5. Extracurricular Engagement: Students were encouraged to participate inter-collegiate competitions, campus kart clash, to further enhance teamwork experience.</li> <li>6. <b>Faculty Development:</b> Conducted Faculty development program and conference for faculty members to incorporate inquiry-based and project-based teaching methodologies. Organized Faculty development program on clean and green technologies, green manufacturing and short term course on ergonomic product design and organized conference on NCFTME -2025.</li> </ol>
PSO 2	

<p>Action Taken:</p> <ol style="list-style-type: none"> <li>1. Hands-On Learning: Increased the focus on laboratory sessions and project-based learning where students are exposed to design principles and computational techniques, including programming and data structures, such as courses on Applied Object-Oriented Programming with C++, Engineering Simulations with ANSYS, 3D Design and Parametric Modelling, Introduction to ANSYS, Introduction to SOLIDWORKS and Data Structures using Python.</li> <li>2. Guest Lectures: Conducted Guest Lectures with industry experts on Designing software in industry, programming languages in industry, solidworks in automotive design</li> <li>3. Workshops: Conducted workshops on 3 D printing.</li> <li>4. Delivered NPTEL lectures on Programming, Data Structures And Algorithms Using Python, Matlab Programming for Numerical Computation.</li> <li>5. Extracurricular Engagement: Students were encouraged to participate inter-collegiate competitions 3D mania event to further enhance teamwork experience.</li> <li>6. Faculty Development: Conducted Faculty development program and conference for faculty members to incorporate inquiry-based and project-based teaching methodologies. Organized Faculty development program on clean and green technologies, green manufacturing and short term course on ergonomic product design and organized conference on NCFTME -2025 and ICETESS-2025.</li> </ol>
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**Action Taken Based on Evaluation of PO Attainment (2023-24)**

**Program Outcomes(PO):**

POs	Target Level	Attainment Level	Observations
<b>PO1: Engineering Knowledge</b>			
PO 1	Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified respectively to develop to the solution of complex engineering problems.		
<p>Action Taken:1. Remedial Classes: Special remedial classes and core courses were organized to strengthen the core engineering knowledge base like Machine design, Strength of material, Fluid Mechanics, Heat Transfer, Production Engineering and machine design and concepts.</p> <p>2. Peer Learning Initiatives: A structured peer-to-peer learning program was introduced in various activities organized by automobile Moonrider club, where higher-performing students mentor their peers in practical application.</p> <p>3. Increased Focus on Practical Learning: Additional lab sessions beyond the time table schedule and mini-projects in Centre of Excellence, were integrated to improve the practical application of theoretical concepts.</p> <p>4. Workshops and Seminars: Organized targeted workshops focusing on analytical techniques, design thinking, and engineering problem-solving skills. Organized a workshop on IC engine, EVs&amp; hybrid vehicles.</p> <p>6 Increased industry interactions through expert talks and mentorship. Organized Expert Talks on "programming languages in industry" to motivate students to increase industry interactions.</p> <p>7. Delivered NPTEL lectures on soft skills and personality, Programming in C, Solid Mechanics, Laser Based Manufacturing, casting Technology, Nature and properties of materials, Engineering Thermodynamics.</p>			
<b>PO 2 : Problem Analysis</b>			
PO 2	Problem Analysis:Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development.		

Action Taken:1. Enhanced Practical Exposure: Increased the number of problem-based learning (PBL) sessions and case study analyses within core courses.

2. Workshops and Seminars: Organized targeted workshops focusing on analytical techniques, design thinking, and engineering problem-solving skills.

3. Mentorship Programs: Initiated peer-to-peer mentoring and faculty-guided mini and major projects to encourage deeper understanding and application of complex concepts.

4. Continuous Assessment: Strengthened formative assessments like quizzes like brain quest, assignments, and tutorials focused on analytical problem-solving to provide timely feedback.

5. Industry Interaction: Increased industry expert sessions and industrial visits to CIPET Sitapura to expose students to real-time problem-solving environments.

6. Delivered NPTEL lectures on soft skills and personality, Programming in C, Solid Mechanics, casting Technology, Nature and properties of materials, Engineering Thermodynamics.

7. Extracurricular Engagement: Students were encouraged to participate in technical clubs (Moonriders) and inter-collegiate competitions (like Skid Pad and Autocross: An Go-Kart Event, ATVC national level competition, BAJA SAEINDIA 2024 National Competition to further enhance teamwork experience.

8. Project-Based Learning (PBL): Introduced more project-based assignments and activities like Project exhibitions, Campus kart clash within core subjects to encourage students to apply research techniques to solve real-world problems.

**PO 3 : Design/Development of Solution**

PO 3	Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required.
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Action Taken: 1 Introduced mini-projects in automobile Moonrider club and design-based assignments in lecture and lab classes.

2. Conducted workshops and events like E-Vehicles, hybrid vehicles , Designing Tools, value engineering, 3D mania on design tools and design thinking.

3. Increased industry interactions through expert talks and mentorship. Organized Expert Talks on "smart manufacturing", solidworks and Value Engineering", to motivate students to increase industry interactions.

4. Promoted peer-to-peer learning via JECRC-Smart India Hackathon and project exhibition organized by IEEE and Xananoids Club.

5. Revised evaluation rubrics to emphasize innovation and sustainability.

6. Delivered NPTEL lectures on Laser Based Manufacturing, Solid Mechanics, casting Technology, Nature and properties of materials, Engineering Thermodynamics.

7. Industry Interaction: Increased industry expert sessions and industrial visits to R-CAT Jaipur and CIPET Sitapura to expose students to real-time problem-solving environments.

8. Extracurricular Engagement: Students were encouraged to participate in technical clubs (Moonriders) and inter-collegiate competitions (like Skid Pad and Autocross: An Go-Kart Event, ATVC national level competition, BAJA SAEINDIA 2024 National Competition to further enhance teamwork experience.

**PO4: Conduct Investigations of Complex Problems**

PO 4	Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions.
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Action Taken: 1. Workshops and Seminars: Organized hands-on workshops on solid works, data analysis tools (such as MATLAB, Python, etc.).

2. Project-Based Learning (PBL): Introduced more project-based assignments and activities like Project exhibitions, Campus kart clash within core subjects to encourage students to apply research techniques to solve real-world problems.

3. Collaboration with Industry: Facilitated industrial internships and collaborative projects with R&D organizations to give students real-world investigative exposure.

4. Faculty Development: Conducted training sessions for faculty members to incorporate inquiry-based and project-based teaching methodologies.

5. Delivered NPTEL lectures on Programming in C, Solid Mechanics, Laser Based Manufacturing, casting Technology, Engineering Thermodynamics.

6. Conducted workshops and events like E-Vehicles, hybrid vehicles Designing Tools, 3D printing, Designing software, value engineering, 3D mania, resin- O'clock on design tools and design thinking.

**PO5:Engineering Tool Usage**

PO 5	Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems.
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**Action Taken:** 1. Organized additional hands-on workshops and training sessions on CNC Machines, designing tools, Solid Works Hands On Modelling , 3D mania ,Software-Based Analysis of E-Vehicles

2. Project-Based Learning:  
Integrated more mini-projects and hardware-based assignments into the curriculum to encourage practical application of modern tools.

3. Industry Interaction: Increased industry expert sessions and industrial visits to R-CAT Jaipur and CIPET Sitapura to expose students to real-time problem-solving environments.

4. Certification Programs:Motivated students to enroll in online certification programs (like NPTEL, Coursera) related to design tools to strengthen technical exposure.

5. Peer Learning Initiatives: Formed student-driven technical groups to promote peer-to-peer learning, where students can collaboratively explore and practice with advanced tools.

6. Delivered NPTEL lectures on Programming in C ,Solid Mechanics, Laser Based Manufacturing, casting Technology, Engineering Thermodynamics

7. Extracurricular Engagement: Students were encouraged to participate in inter-collegiate competitions (like Skid Pad and Autocross: An Go-Kart Event, ATVC national level competition, BAJA SAEINDIA 2024 National Competition to further enhance teamwork experience.

8. Continuous Assessment: Strengthened formative assessments like quizzes like brain quest, assignments, and tutorials focused on analytical problem-solving to provide timely feedback.

**PO6/7: The Engineer and the world**

PO 6/7	The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment.
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Action Taken: 1. Students are motivated to participate in social activities such as Soch, Suhasini, Zarurat, Aashayein, NSS, etc. These experiences will empower them to understand and tackle different societal issues, ultimately enriching their education and building a more compassion at community.

2. Active participation of students in different technical, non-technical and extra-curricular activities organized by Moonrider Club of students.

3. Delivered NPTEL lectures Laser Based Manufacturing.

4. Organised Guest Lecture on "Futuristic trends in automobile Engg. value engineering, challenges and opportunities in E-vehicles and smart manufacturing

5. Increased emphasis on environment-related case studies and examples during lectures and tutorials by Fruitful JECRC Team regularly.

6. Incorporated sustainability-focused mini-projects and assignments in core and elective subjects. (Like Wind Energy, Electric Vehicles and Solar Energy).

7. Encouraged participation in environment-related technical competitions (, Project Exhibition etc.)

8. Organized additional hands-on workshops and training sessions on designing tools, IC engine ,Hybrid vehicle ,Power Train component ,Solid Works Hands On Modelling ,Software-Based Analysis of E-Vehicles

9. Planned to introduce a certificate course or seminar series on "Sustainable Technologies" in the next academic session.

**PO8: Ethics**

PO 8	Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws.
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Action Taken: 1. Curriculum Integration: Enhanced the emphasis on ethical practices by including dedicated modules and case studies related to professional ethics in core and elective courses.

2. Awareness Programs: Conducted seminars and expert sessions on engineering ethics (by JECRC-Spiritual Research Cell) , intellectual property rights (IPR) (by JIC), and the social responsibilities of engineers (by Zarurat, Suhasini, Soch Aashayen, NSS).

Organizing the delivery related to ethics through the human values courses in their curriculum and during the mentoring session of the students.

3. Project Evaluation Criteria: Included ethical considerations explicitly in the assessment rubrics for final-year projects.

4. Workshops and Training: Organized workshops on ethical decision-making, conflict resolution, and responsible innovation to sensitize students to real-world ethical dilemmas. (JECRC-MUN, Toastmasters)

**PO9: Individual and Collaborative Team Work**

PO 9	Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.
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Action Taken:1. Curriculum Integration: Group activities, team-based assignment, and collaborative projects were emphasized across various courses to nurture team-building skills in CoE and Moonriders club.

2. Skill Development Initiatives: Conducted workshops and training sessions on leadership skills, conflict management, and effective team communication in JECRC MUN and JECRC Toastmasters.

3. Project Structuring: Capstone projects and mini-projects were restructured to include clearly defined team roles, responsibilities, and regular peer evaluations in Moonriders club.

4. Extracurricular Engagement: Students were encouraged to participate in technical clubs (Moonriders) and inter-collegiate competitions (like Skid Pad and Autocross: An Go-Kart Event, campus kart clash, 3D mania event, ATVC) to further enhance teamwork experience.

5. Continuous Monitoring: Mentors and project guides provided structured feedback on teamwork effectiveness and individual contributions during Major project evaluations.

6. Organised Guest Lecture on "career goal planning, developing soft skills and personality and expert talk by Balkesh Chahar to motivate students to increase industry interactions.

**PO10: Communication**

PO 10	Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences.
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Action Taken: 1. Curriculum Integration: Integrated communication skill development modules into core subjects and laboratory courses (Viva and blackboard presentations) technical presentations, and documentation.

2. Workshops and Training: Conducted dedicated workshops and training programs on Group discussion, Mock Interviews and Resume writing in Campus Recruitment Training CRT.

3. Project Work Enhancement: Emphasized structured and formal communication during project presentations and viva-voce sessions, with detailed rubrics for assessing oral and written communication.

4. Student Activities: Encouraged active participation in paper presentation contests, technical debates (MUN, Toastmasters), group discussions, and JECRC-Model United Nations (MUNs) to sharpen verbal and non-verbal communication skills.

5. Delivered NPTEL lectures on **Programming in C and developing soft skills and personality.**

6. Organised Guest Lecture on "designing and programming software in industry, career goal planning, Solid Works in automotive design and expert talk by Balkesh Chahar to motivate students to increase industry interactions.

**PO11:Project Management and Finance**

PO 11	Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.
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Action Taken:1. Curriculum Strengthening: In MEFA Subject (II year) and Integrated project management and financial planning topics into mini-projects and major project guidelines.

2. Increased industry interactions through expert talks and mentorship. Organized Expert Talks on "career goal planning and Value Engineering", to motivate students to increase industry interactions and expert talk by Balkesh Chahar to motivate students to increase industry interactions.

3. Hands-on Practice: Encouraged the use of project management tools (MS Project) during project documentation and execution.

4. Motivating students to actively participate in placement drives hosted by the institute, opening doors to valuable opportunities.

5. Delivered NPTEL lectures on **developing soft skills and personality**.

6. Extracurricular Engagement: Students were encouraged to participate inter-collegiate competitions (like Skid Pad and Autocross: An Go-Kart Event, campus kart clash, 3D mania event, ATVC) to further enhance teamwork experience.

**PO12: Life-long Learning-**

PO 12	Life-Long Learning: Recognize the need for, and have the preparation and ability for i)independent and life-long learning ii) adaptability to new and emerging technologies iii) critical thinking in the broadest context of technological change.
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Action Taken:1. Curriculum Enrichment: Integrated self-learning components such as open-ended assignments, research-based learning activities, and use of Massive Open Online Courses (MOOCs) through platforms like NPTEL, Coursera.

2. Skill Building Workshops: Conducted sessions on emerging technologies (Moonrider club, 3D printing workshops) to encourage students to pursue additional learning beyond the curriculum.

3. Awareness Programs: Organized seminars on career planning, higher education opportunities, certifications, and skill-up gradation programs to the importance of lifelong learning.

4. Mentorship Initiative: Strengthened faculty mentoring to guide students in identifying their individual learning paths and setting personal development goals.

5. Delivered NPTEL lectures on developing soft skills and personality, Solid Mechanics, Laser Based Manufacturing, casting Technology.

6. Organised Guest Lecture on "designing and programming software in industry, career goal planning, Solid Works in automotive design, Futuristic trends in automobile Engineering ,value engineering, challenges and opportunities in E-vehicles and smart manufacturing and expert talk by Balkesh Chahar to motivate students to increase industry interactions.

7. Organized additional hands-on workshops and training sessions on designing tools, Solid Works Hands On Modeling , 3D mania ,Software-Based Analysis of E-Vehicle, EV challenges and opportunities ,power train component of EVs and hybrid vehicle .

8. Industry Interaction: Increased industry expert sessions and industrial visits to R-CAT Jaipur and CIPET Sitapura to expose students to real-time problem-solving environments.

Program specific outcomes (PSO)

PSO 1	
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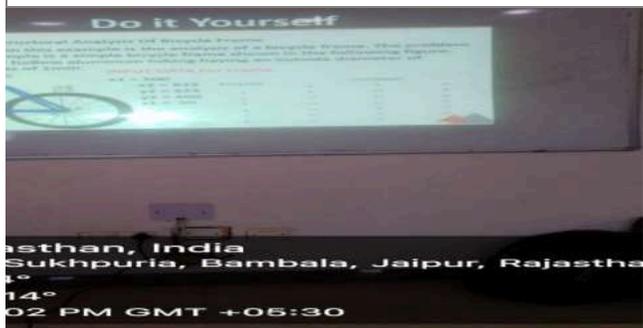
Action Taken:

1. Industry Collaboration: Established collaborations with MG Motors in the EV sector to offer students practical insights and exposure to real-world applications of EV technology. Guest lectures and internships with EV manufacturers have been encouraged.
2. Collaborations with Industry: Established partnerships with BABA AUTOMOBILE to facilitate internships and project work focused on automobile systems, offering students exposure to real-world applications.
3. Organized Guest Lecture on "designing and programming software in industry, Solid Works in automotive design, Futuristic trends in automobile Engineering.
4. Workshops and Seminars: Conducted workshops and seminars with industry experts on the software based analysis of EV's, Hybrid vehicle, power train components of EVs, component and working of EVs, challenges and opportunities in E-vehicles. CNC machine.
5. Extracurricular Engagement: Students were encouraged to participate inter-collegiate competitions (like Skid Pad and Autocross: An Go-Kart Event, campus kart clash, BAJA SAEINDIA 2024 National Competition, ATVC) to further enhance teamwork experience.

PSO 2

Action Taken:

1. Hands-On Learning: Increased the focus on laboratory sessions and project-based learning where students are exposed to EV-related components and technologies, such as electric motors, charging stations, and battery management systems.
2. Guest Lectures: Conducted Guest Lectures with industry experts on Designing software in industry, programming languages in industry, solidworks in automotive design
3. Workshops and Seminars: Conducted workshops and seminars with industry experts on the software based analysis of EV's, CNC machine, designing tool, solid works hands on.
4. Delivered NPTEL lectures on Programming in C .
5. Extracurricular Engagement: Students were encouraged to participate inter-collegiate competitions **3D mania event** to further enhance teamwork experience.



### Alumni Talk



Jaipur, Rajasthan, India  
 QRJ9+JJK, Sukhpuria, Bambala, Jaipur, Rajasthan 302029, India  
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 Long 76.819057°  
 30/08/24 09:57 AM GMT +05:30



### CAEV\_MGMotors



### Industrial Visit





**Outcomes and Impact**

- improvement in overall PO and PSO attainment levels over two years
- Improved readiness for industry,

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



**ACADEMIC AUDIT**

The Institute has established a structured Academic Audit process to ensure quality assurance, accountability, and continuous improvement in teaching & learning processes. The audit mechanism evaluates academic planning, delivery, assessment, attainment, and corrective actions in alignment with Outcome-Based Education (OBE) and institutional quality. The Academic Audit is a systematic quality assurance process conducted to evaluate and enhance academic practices, teaching-learning processes, and infrastructure effectiveness. It includes internal audit, external audit, and laboratory audit components.

**1. Internal Academic Audit:**

Conducted within the institution to review academic planning, syllabus coverage, CO-PO mapping, lesson plans, internal assessments, faculty performance, and student progression. It ensures adherence to the academic calendar, proper documentation, and implementation of quality teaching practices. Corrective actions are suggested for continuous improvement.

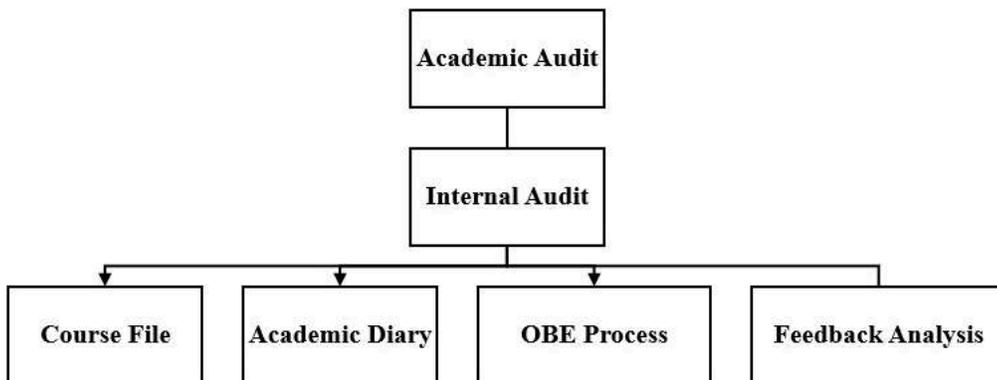
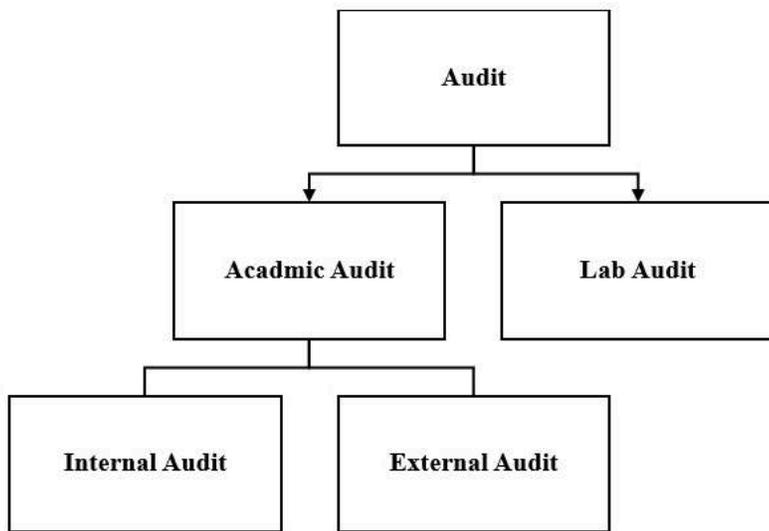
**2. External Academic Audit:**

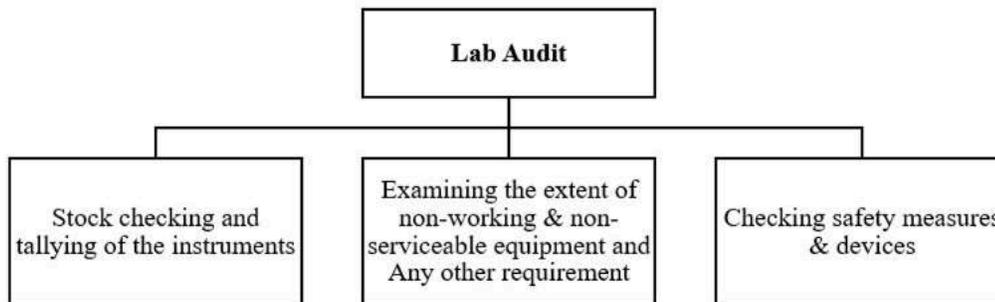
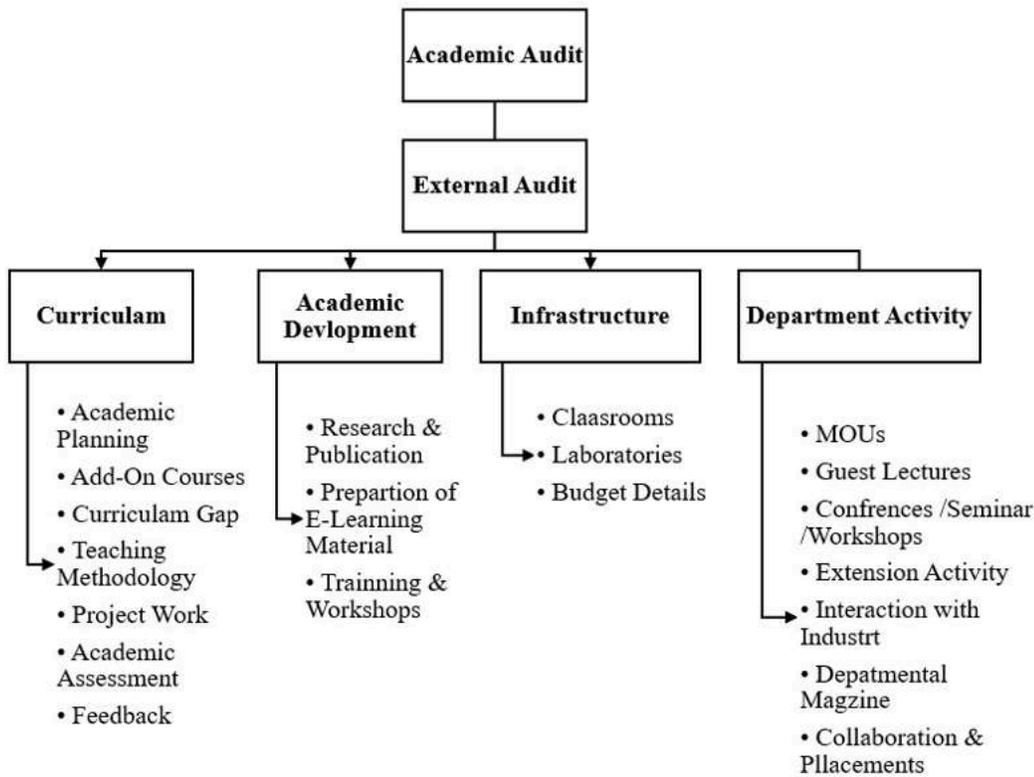
Conducted by external experts to objectively evaluate curriculum delivery, assessment methods, research activities, industry interaction, student outcomes, and governance practices. It provides independent feedback, benchmarking with standards, and recommendations for academic enhancement.

**3. Laboratory Audit:**

Focuses on laboratory infrastructure, equipment adequacy, maintenance, safety compliance, experiment records, and alignment of practical work with course outcomes. It ensures effective hands-on learning, proper utilization of resources, and adherence to safety norms.

The flowcharts shown below outline the comprehensive audit mechanism implemented at the departmental level





Academic audits play a critical role in evaluating departmental effectiveness by assessing alignment between program educational objectives, graduate attributes, and expected learning outcomes.

The audit committee will consist of at least three and no more than six members for internal audit, external audit & lab audit.

- Program coordinator
- Sr. Faculty Members
- Industry Person
- Academician from Reputed Institute
- IQAC members
- Management Representative

The audit team evaluates departments based on the following criteria:

#### 1. Academic Plan & its Compliance

- Mapping of CO-PO-PSO
- Curriculum gap analysis and enrichment activities
- Inclusion of value-added courses, add-on courses
- Stakeholder Feedback system

#### 2. Teaching-Learning Process

- Academic calendar adherence
- Course files (lesson plan, attendance, assignments)
- ICT-enabled teaching
- Experiential learning (projects, internships, laboratory)

- Slow/advanced learner support
- Remedial classes & mentoring
- Continuous Internal Evaluation
- PO attainment calculation

### 3 Faculty Competency Enhancement

- Faculty qualification (Ph.D., M. Tech., etc.)
- Faculty-student ratio
- Research publications
- FDPs/STTPs/MOOCs organized/attended
- Patents Published
- Industrial Interaction, Consultancy and Research Projects.
- Performance appraisal system

### 4. Student Progression

- Pass percentage & result analysis
- Placement statistics
- Internship records
- Participation in technical events
- Student publications
- Alumni engagement

### 5. Infrastructure and Facilities

- Classrooms (smart classrooms, ICT facilities)
- Laboratories (equipment adequacy, maintenance)
- Library resources (books, journals, e-resources)
- Computing facilities and software tools
- Budget Sufficiency
- Safety measures and compliance

### 6. Activities Conducted by Department

- Add-on courses
- Technical workshops
- Guest lectures
- Industrial visits
- Skill development programs
- Student competitions
- Social outreach activities
- Professional body activities

#### Action Taken:

##### 1. Academic Planning

The department ensured implementation of the Academic Calendar with continuous monitoring by the Head of Department. Monthly reviews were conducted to verify syllabus progress, CO-PO mapping implementation, and execution of planned academic activities. Any deviation was corrected through additional classes and academic adjustments.

##### 2. Add-on Courses

Based on audit suggestions, the department initiated planning for add-on courses such as ANSYS, Solid Works, Python programming, Electric Vehicles, and Soft Skills.

##### 3. Curriculum Content & Gap Identification

To address identified curriculum gaps, expert lectures and value-added sessions beyond the RTU syllabus were organized. Faculty members incorporated advanced numerical problems, case studies, and design-oriented assignments to strengthen analytical and practical understanding among students.

##### 4. Teaching Methods & MOOC Enrollment

Faculty members actively motivate students to enroll in SWAYAM/NPTEL/MOOC platforms and motivate to complete at least one certification course per year. Progress tracking mechanisms were introduced; Course completion certificates are documented for academic records.

##### 5. Faculty Diary Maintenance

Faculty members have been instructed to regularly update their academic diaries, including lesson plans, attendance, assignments, and assessment details. Periodic verification by the HoD ensures transparency and accountability in course delivery.

##### 6. E-Learning Modules

Departments strengthened digital learning by creating structured repositories of lecture videos, PPTs, lab demonstrations, and study materials. Faculty members also shared curated NPTEL/SWAYAM links aligned with course outcomes to enhance blended learning practices.

##### 7. Project Work Enhancement

To improve the quality of student projects, faculty mentors guide students toward industry-based problem statements. Students are encouraged to publish project work in conferences/journals and apply for patents under institutional support.

##### 8. Internal Assessment Quality Improvement

Question papers are reviewed internally and by external expert to ensure alignment with Bloom's Taxonomy and COs

##### 9. Interdisciplinary Activities

Interdisciplinary expert lectures in emerging areas such as Electric Vehicles, hybrid systems, and engine-to-EV conversion technologies are being conducted. Collaborative projects and activities involving students from allied branches are encouraged to promote multidisciplinary exposure.

##### 10. Conferences & Seminars Participation

Faculty members are encouraged to present papers in national and international conferences. They are also advised to deliver expert lectures, act as session chairs, and serve as external examiners. Opportunities are shared regularly, and institutional support is provided as per policy.

11. FDP/STTP Participation

Faculty participation in FDPs and STTPs has been increased in emerging domains. Records are maintained for performance appraisal purposes.

12. Student Participation in Activities

Students are motivated through mentoring sessions to participate in at least one co-curricular or extracurricular activity in a year. Participation records are maintained to ensure holistic development.

13. Industrial Visits & Guest Lectures

The department organizes structured industrial visits and expert talks every semester. Feedback from students is collected to improve the relevance and quality of such programs.

14. MoUs & Industry Interaction

The department is in the process of signing additional MoUs with industries to enhance internship, training, and consultancy opportunities. Industry-supported labs and joint certification programs are being expanded.

15. Extension & Social Activities

Faculty and students are encouraged to participate in social responsibility initiatives such as tree plantation, blood donation drives, and awareness campaigns. Participation is documented.

16. Newsletter & Student Magazine

The department continues publishing newsletters highlighting achievements and activities. Planning has been initiated to launch a student-led technical magazine to promote creativity and technical writing skills.

17. Placement Improvement

The department works closely with the Training & Placement Cell to support both advanced and slow learners. Special skill-development sessions and mock interviews are conducted to improve employability and salary packages.

Impact on Continuous Improvement

The academic and laboratory audit process resulted in:

- Improved CO, PO, and PSO attainment levels.
- Enhanced student academic performance and satisfaction.
- Better alignment of teaching & learning and assessment practices.
- Strengthened academic documentation and quality culture.

8.3 Improvement in Faculty Qualification/Contribution (15)

Instit

Academic Performance	CAYm1 ( 2024-25 )	CAYm2 ( 2023-24 )	CAYm3 ( 2022-23 )
No. of faculty members with Ph.D. degree	6.00	6.00	6.00
No. of publications in peer reviewed journals	7.00	7.00	11.00
No. of publications in conferences	22.00	13.00	7.00

8.4 Improvement in Academic Performance (10)

Instit

Academic Performance	CAYm1 ( 2024-25 )	CAYm2 ( 2023-24 )	CAYm3 ( 2022-23 )
Academic Performance Index (API) of the First-Year Students in the Program (Refer to section 4.3)	7.07	6.29	5.31
Academic Performance Index (API) of the Second-Year Students in the Program (Refer to section 4.4)	7.47	7.60	7.66
Academic Performance Index (API) of the Third-Year Students in the Program (Refer to section 4.5)	8.09	8.30	7.33

9 STUDENT SUPPORT AND GOVERNANCE (120)

Total

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





Please provide First year faculty information considering load

Name of the faculty member	PAN No.	Qualification	From Engineering Courses	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
Umesh Kumar	AGHPP4837F	Ph.D	No	01/03/2008	Mathematics	Professor	16/07/2003	Yes	Regular	
Yaghvendra Ku	APKPK8239A	Ph.D	No	27/09/2011	Mathematics	Associate Professor	18/01/2024	Yes	Regular	
Sunil Kumar Sr	BPSPS0006J	Ph.D	No	01/03/2010	Mathematics	Professor	05/01/2016	Yes	Regular	
Tripati Gupta	AHPPG4947A	Ph.D	No	31/08/2010	Mathematics	Professor	02/01/2017	Yes	Regular	
Vishal Saxena	BJQPS6740B	Ph.D	No	24/04/2012	Mathematics	Professor	09/09/2017	Yes	Regular	
Kashish Parwa	AWKPP3733F	Ph.D	No	28/02/2015	Mathematics	Professor	10/08/2018	Yes	Regular	
Sanjay Kumar	AOPPM9479L	Ph.D	No	23/03/2012	Mathematics	Professor	09/07/2024	Yes	Regular	
Dinesh Kumar	ADHPV6297J	Ph.D	No	01/12/2013	Mathematics	Professor	08/05/2024	Yes	Regular	
Manmohan Sin	BABPC5393Q	Ph.D	No	11/11/2024	Mathematics	Assistant Professor	23/07/2024	Yes	Regular	
SONALI THAK	FYWPS9305B	Ph.D	No	26/07/2024	Mathematics	Associate Professor	09/06/2025	Yes	Regular	
MANVENDRA	BQLPM8671H	Ph.D	No	29/12/2022	Mathematics	Associate Professor	26/07/2025	Yes	Regular	
Geeta Chowdh	CFTPC5527A	Ph.D	No	19/01/2026	mATHEMATICS	Assistant Professor	01/09/2025	Yes	Regular	
Rekha Mithal	BCEPM3790G	Ph.D	No	31/01/2008	Chemistry	Professor	26/02/2010	Yes	Regular	
Shalini Kulshre	AIGPK2859R	Ph.D	No	31/08/2003	Chemistry	Professor	18/01/2024	Yes	Regular	
Manoj Pathak	AZXPP0888K	Ph.D	No	17/12/2022	PHYSICS	Associate Professor	04/04/2013	Yes	Regular	
POONAM PAR	ATYPG0718Q	Ph.D	No	03/10/2007	Chemistry	Professor	01/08/2024	Yes	Regular	
BARKHA SHRI	BWPPS1303G	Ph.D	No	07/10/2017	Chemistry	Professor	11/09/2006	Yes	Regular	
SANTOSH KUI	AIEPA8710F	Ph.D	No	12/12/2007	Chemistry	Associate Professor	24/06/2025	Yes	Regular	
ANITA JAIN	AIHPJ0122H	Ph.D	No	17/08/2014	English Humanities	Professor	18/10/2004	Yes	Regular	
KAMLESH MA	AMVPM2110J	Ph.D	No	20/02/2020	English Humanities	Associate Professor	07/07/2003	Yes	Regular	
SAGUNA CHA	AFHPC3165N	M.Phil	No	31/07/1990	English Humanities	Associate Professor	21/05/2015	Yes	Regular	
SONIA KHUBC	GHAPK6917B	Ph.D	No	30/10/2021	English Humanities	Associate Professor	19/08/2019	Yes	Regular	
SHIBU JOY	AFYPJ5494G	MBA	No	31/07/2007	English Humanities	Assistant Professor	20/12/2022	Yes	Regular	
SHRIDHAR KL	BYXPP5934J	MA	No	15/02/2019	English Humanities	Assistant Professor	17/12/2022	Yes	Regular	
RAMESH SINC	AIQPR7416P	MBA	No	31/07/2016	English Humanities	Assistant Professor	25/11/2020	Yes	Regular	
TARUN SARA	CTQPS6068D	MBA	No	26/06/2014	English Humanities	Assistant Professor	15/02/2021	Yes	Regular	
PRANSHU SH	EYSPS1461K	MBA	No	10/01/2021	English Humanities	Assistant Professor	28/10/2020	Yes	Regular	
PRIYANKA SH	FOLPS2692L	MBA	No	21/02/2014	English Humanities	Assistant Professor	25/11/2020	Yes	Regular	
DILIP KUMAR	FPYPS6815D	MA	No	16/02/2022	English Humanities	Assistant Professor	01/03/2025	Yes	Regular	
RAJESH KUM,	BDBPS1973B	Ph.D	No	20/09/2011	Sports	Professor	28/11/2006	Yes	Regular	

Seema Bansal	AKMPG1385J	Ph.D	No	31/05/2019	Physics	Associate Professor	25/03/2021	Yes	Regular	
Sarita Garg	AFNPG7291R	Ph.D	No	28/02/1998	Physics	Professor	15/07/2023	Yes	Regular	
Pradeep Kuma	AZZPK7939A	Ph.D	No	13/12/2011	Physics	Associate Professor	14/04/2023	Yes	Regular	
SUDHIR KUMAR	AFGPD6201H	Ph.D	No	31/08/1994	Physics	Professor	10/11/2000	Yes	Regular	
Mr Neeraj Kum	BSSPK1804K	M.Tech	Yes	26/04/2013	Electrical Engineering	Assistant Professor	14/01/2024	Yes	Regular	
Dilip Prajapati	AZBPP5053C	M.Tech	Yes	27/09/2019	Mechanical Engineering	Assistant Professor	06/09/2013	Yes	Regular	
Akhilesh Paliwal	CPSP3593N	M.Tech	Yes	07/10/2014	Mechanical Engineering	Assistant Professor	03/01/2017	Yes	Regular	
Satya Prakesh	BJQPS8962K	M.Tech	Yes	11/12/2015	Mechanical Engineering	Assistant Professor	20/01/2016	Yes	Regular	
Mr. Vaibhav Sir	DDCPS9819F	M.Tech	Yes	29/01/2022	Mechanical Engineering	Assistant Professor	03/06/2025	Yes	Regular	
Mr. Jatin Samra	CFBPS5920K	M.Tech	Yes	11/12/2015	Mechanical Engineering	Assistant Professor	03/07/2025	Yes	Regular	
Ms. Pinki Mour	AUQPM1087M	M.Tech	Yes	14/12/2020	Mechanical Engineering	Assistant Professor	04/07/2025	Yes	Regular	
Ashish Boraida	AUGPB8419E	M.Tech	Yes	23/03/2017	CIVIL	Assistant Professor	02/01/2017	Yes	Regular	
Sumit Saini	DIOPS5034K	M.Tech	Yes	22/01/2021	CIVIL	Assistant Professor	23/09/2013	Yes	Regular	
Mr. Gajendra S	BLQPS5891H	M.Tech	Yes	22/01/2021	Computer Science	Assistant Professor	06/10/2006	Yes	Regular	
Mr. Daulat Ran	DNIPB4571F	MCA	Yes	07/11/2019	Computer Science	Assistant Professor	05/02/2024	Yes	Regular	
Dr. Purnima Sr	ANPPS4422E	Ph.D	Yes	02/10/2015	Computer Science	Professor	12/02/2025	Yes	Regular	
Ms. Pooja Saini	FFHPS7987M	M.Tech	Yes	30/05/2025	Computer Science	Assistant Professor	21/07/2025	Yes	Regular	
Kuldeep Sharm	BKOPS5002H	M.Tech	Yes	05/03/2014	Mechanical Engineering	Assistant Professor	25/08/2006	Yes	Regular	
Mr. Brij Kishore	AGKPC1478D	M.Tech	Yes	31/07/2011	Computer Science	Assistant Professor	27/01/2025	Yes	Regular	
Yogita Punjabi	BIPPP2666H	M.Tech	Yes	10/04/2013	Computer Science	Assistant Professor	08/01/2011	Yes	Regular	
Ruchi Sharma	BRQPS9012J	M.Tech and Ph.D.	Yes	22/03/2018	Computer Science	Professor	10/07/2023	Yes	Regular	
Monika Yadav	BDGPY6763A	M.Sc	No	30/11/2022	Mathematics	Assistant Professor	16/08/2024	Yes	Regular	
Neha Sharma	LPZPS6596C	Ph.D	No	13/12/2025	Physics	Assistant Professor	01/07/2025	Yes	Regular	
Krishna Kumar	CJFPS0681D	MA	No	21/03/2015	English Humanities	Assistant Professor	16/01/2023	No	Regular	15/10/2025
Amit Sharma	CAPPS1358Q	M.Tech	Yes	05/02/2015	Mechanical Engineering	Assistant Professor	04/06/2025	Yes	Regular	
Ashok Kumar	EIXPK1981H	Ph.D	No	02/12/2023	Physics	Assistant Professor	29/08/2024	Yes	Regular	
Swarnima	GDAPS1683A	M.Tech	Yes	02/07/2019	Civil Engineering	Assistant Professor	10/12/2020	Yes	Regular	
Yogendra Kum	AOQPS5689R	B.Tech	Yes	01/07/1992	Civil Engineering	Assistant Professor	30/03/2021	Yes	Regular	
Ashok Singh S	ASSPS8571J	Ph.D	No	22/08/2008	Mathematics	Professor	10/08/2018	No	Regular	16/08/2024

Avani Pareek	AUJPP4760F	M.Sc. and PhD	No	20/10/2020	Chemistry	Associate Professor	08/04/2021	No	Regular	27/06/2024
Sarita Poonia	BFEP2131M	Ph.D	No	14/08/2015	Mathematics	Associate Professor	29/08/2010	No	Regular	19/03/2024
Jitesh Kumar J	BDAPK2004G	B.Tech	Yes	01/07/2008	Civil Engineering	Assistant Professor	04/01/2016	Yes	Regular	
Ruchi Rathore	CCTPR6601R	M.Tech	Yes	14/12/2020	Civil Engineering	Assistant Professor	05/06/2023	Yes	Regular	
Praveen Goyal	AWIPG6475H	B.Tech	Yes	12/12/2013	Electrical Engineering	Assistant Professor	13/07/2016	Yes	Regular	
Manish Yadav	AJBPY2630E	M.Tech	Yes	23/08/2013	Electrical Engineering	Assistant Professor	30/01/2026	Yes	Regular	
Ravi Yadav	ABIPY0989K	M.Tech	Yes	14/12/2020	Mechanical Engineering	Assistant Professor	26/07/2012	No	Regular	01/05/2025
Krishan Chopra	BXYPC6206J	M.Tech	Yes	01/07/2019	Electrical Engineering	Assistant Professor	17/02/2026	Yes	Regular	
Suresh Gurjar	EBWPS2540L	B.Tech	Yes	19/03/2016	Electrical Engineering	Assistant Professor	10/09/2020	No	Regular	13/12/2025
MEDHAVI JAIN	AITPJ9399Q	Ph.D	No	21/03/2015	English Humanities	Assistant Professor	01/11/2022	No	Regular	30/06/2025
Jitendra Kumar	BEDPG1771G	M.Tech	Yes	14/12/2020	Mechanical Engineering	Assistant Professor	25/03/2014	No	Regular	30/08/2025
PUNIT KUMAR	AVZPY9375N	M.Sc	No	27/11/2024	Mathematics	Assistant Professor	20/07/2025	Yes	Regular	
Abhishek	CKZPA9205N	M.Sc	No	12/04/2023	Mathematics	Assistant Professor	16/08/2024	Yes	Regular	
NEHA VIJAY	CMNPV5921Q	M.Sc	No	16/03/2024	Mathematics	Assistant Professor	14/07/2025	Yes	Regular	
MADHU CHOL	BGYPC0442F	M.Tech	Yes	29/01/2022	Computer Science	Assistant Professor	21/03/2022	No	Regular	02/08/2024
Hemant Bansa	APGPB2872J	M.Tech	Yes	21/09/2015	Mechanical Engineering	Assistant Professor	02/01/2017	No	Regular	30/06/2025
RAMJASH	DQLPR7381P	M.Sc	No	31/01/2023	Mathematics	Assistant Professor	05/08/2025	Yes	Regular	
SHUBHAM SH	JTZPS0804K	M.Sc	No	11/11/2022	Chemistry	Assistant Professor	13/08/2024	Yes	Regular	
NIHARIKA SHI	BUAPS9146L	M.Sc	No	14/02/2017	Chemistry	Assistant Professor	04/08/2025	Yes	Regular	
REKHA VIJAY	AQJPV4495K	M.Sc	No	01/07/2004	Chemistry	Assistant Professor	25/08/2012	Yes	Regular	
HANSINI	AMFPH5505G	MA	No	09/01/2017	English Humanities	Assistant Professor	07/07/2025	Yes	Regular	
NEHA VERMA	BEZPV1047N	MA	No	19/11/2016	English Humanities	Assistant Professor	08/07/2025	Yes	Regular	
RUCHIKA CHC	BIBPC1586M	M.Phil	No	06/01/2007	English and Humanities	Assistant Professor	22/08/2025	No	Regular	31/01/2026
PREETY SING	DCSPS4784N	MBA	No	30/09/2021	English Humanities	Assistant Professor	10/07/2025	Yes	Regular	
CHITRA KHAN	EDDPK6437B	M.Sc	No	14/08/2013	Humanities	Assistant Professor	26/10/2015	Yes	Regular	
RAHUL MUKH	CKSPM0894A	MBA	No	18/10/2021	English Humanities	Assistant Professor	14/07/2025	Yes	Regular	
YUKTI SONI	QKTPS5753K	MBA	No	15/10/2024	English and Humanities	Assistant Professor	13/08/2025	Yes	Regular	
SHIVANI BHAF	BSAPB4656E	MA	No	18/04/2021	English Humanities	Assistant Professor	11/08/2025	Yes	Regular	

SHUBHRA MU	HHNPM8221G	MBA	No	23/08/2025	English Humanities	Assistant Professor	25/08/2025	Yes	Regular	
Vishnu Dutt Sh	EDIPS5407N	M.Tech	Yes	12/12/2023	Electrical Engineering	Assistant Professor	04/01/2012	No	Regular	02/06/2025
Ram Kishan M	ALZPM8190P	Ph.D	No	30/01/2006	Physics	Professor	31/07/2013	Yes	Regular	
Shvangi Jaisw	CTQPJ8679D	Ph.D	No	20/11/2019	Chemistry	Assistant Professor	24/08/2024	Yes	Regular	
Vishal Rohela	AMLPR5928B	M.Tech	Yes	23/02/2022	Electrical Engineering	Assistant Professor	21/10/2024	No	Regular	08/11/2025
Ajay Gupta	BZFPG1097J	M.Tech	Yes	01/07/2022	Mechanical Engineering	Assistant Professor	22/09/2021	Yes	Regular	
Vishal Sharma	AWRPS4184J	M.Tech	Yes	07/12/2011	Electrical Engineering	Assistant Professor	21/09/2016	Yes	Regular	
Mukul Suiwal	GLPPS1072C	M.Tech	Yes	07/07/2025	Computer Science	Assistant Professor	08/07/2025	Yes	Regular	
ABHISHEK GE	AJFPG9729G	Ph.D	No	09/09/2023	Chemistry	Professor	04/08/2025	Yes	Regular	
KRISHAN KUN	AMNPY8161H	M.Sc	No	07/01/2019	Mathematics	Assistant Professor	14/07/2025	Yes	Regular	
AISHWARYA F	FPEPP9319K	MA	No	04/02/2024	English and Humanities	Assistant Professor	09/02/2026	Yes	Regular	
Mansi Malik	BHLPS6410H	Ph.D	No	07/09/2016	English and Humanities	Associate Professor	18/02/2026	Yes	Regular	
Ruchi Mathur	AOPPM9479L	Ph.D	No	19/02/2015	Mathematics	Professor	19/07/2004	Yes	Regular	
Ram Singh	BQDPS6091P	M.Tech	Yes	30/06/2022	Electrical Engineering	Assistant Professor	28/07/2010	Yes	Regular	

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage ((NS1*0.8)+(NS2*0.2)) required Percentage +(NS2*0.2)
2023-24(CAYm2)	990	50	31	23	59
2024-25(CAYm1)	1290	64	40	24	58
2025-26(CAY)	1590	80	56	27	63
<b>Average Percentage</b>					59.68

### 9.2 Mentoring system (5)

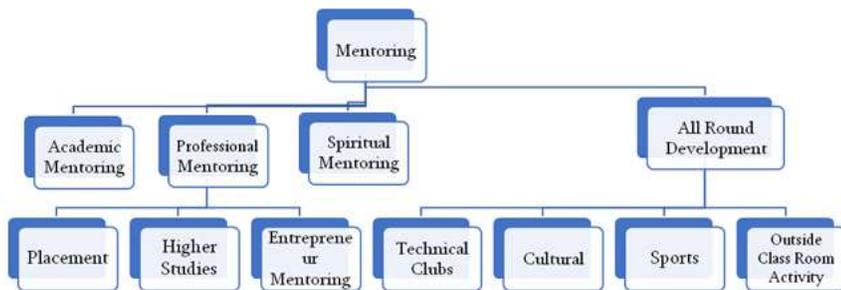


Mentoring of students is an essential feature to render equitable service to all our students having varied background and to solve or address personal/psychological problems of students. The mentor is a model, a guide by the side, a motivator, a trainer and a counselor to the student. Mentoring entails informal communication, usually face-to-face and during a sustained period of time, where faculty mentors serve as a resource who will respond to encourage students to actively participate in academic, professional, career, personal growth, etc., for necessary advice/guidance/help.

**Mentor’s Responsibilities:**

- Keep the records of student’s profile in the prescribed format.
- Maintains the records of absentees, problems/ issues.
- Explain to students the academic rules and regulations.
- Communicates with parents of students to discuss student’s performance, any attendance issues and future plan.
- Gives guidance and information to plan for career advancement and industry internship.
- Gives guidance to students for selecting project topic, project guide, counsel them on back papers and debarred courses.
- Evaluate student progress and performance in tests.
- Informing students about the profile of companies coming for recruitment as per information obtained from placement department.
- Engage the student beyond the classroom especially for communication practices and emphasize the importance of communication for sure success.
- Keep the department / panel members informed, if any student is not taking his/her sessions seriously.
- Guide students for technical interview, Group discussion and Personal Interviews for companies in campus recruitment training program.
- Guide students for skill enhancements activities and all-around developments.

**Mentoring Diagram**



**Fig 9.2 (a): Professional Guidance/Career Advancement**

**Academic Mentoring**

- Based on academic records , students with good performance are encouraged to achieve next higher level of performance and slow learners are motivated and guided to improve the performance.
- The mentors counsel the students for their low attendance, low performance in examination (with the emphasis on the reason(s) of low attendance and performance).
- Information of academic schedules and e-learning resources are shared to enhance their knowledge.
- Counsel irregular students to laboratory classes to attend regularly and complete backlog experiments during specified extra hours.
- Faculty members encourage students to do project-based learning.

An effective student mentoring system has already been implemented in the college to mentor throughout activities, performance and overall development of students.

S.No.	Type of Mentoring	Name of In-charge
1	Professional Mentoring	Mr. P. K. Tiwari(Retd.IPS)
		Mr. Mukut Bihari&Dr. S. N. Gupta
2	Entrepreneur Mentoring	Mr. TarunSaraswat
3	Spiritual Mentoring	Mr. Mukesh Agarwal
4	Higher Studies Mentoring	Ms.Priyanka Shukla
5.	Student Development Officer	Mr. Pranshu Sharma
		Ms. Mohak Khanduja

**Professional Mentoring**

- The students are encouraged and guided to register themselves in the professional bodies to create awareness and enhance the knowledge about the various activities.
- Industry based training is offered to students to improve their chances of employability.
- Students are encouraged to develop their oral and written communication skills by writing articles and presenting in national and international conferences.
- The projects are designed based on real time scenarios to apprise students about the working culture of industry and industry expectation.

We have Training & Development cell , senior advisor and many senior dignitaries who guide students for their career and placement.

Different interactive sessions for students with Mr. P.K.Tiwari, Dr. S. N.Gupta (senior advisor), Mr. Mukut Bihari and other senior member are organized to motivate and guide them for enhancing career and placement.

- Orientation of the students prior to Placement session.
- Aptitude Training.
- Mock online aptitude practice test.

- o Technical training through labs.
- o Mock online technical practice test.
- o One to one career counselling and guidance to all the students.
- o Mock Group Discussion practice.
- o Personality development activities.
- o Life skill trainings.
- o Verbal and written communication trainings.
- o Company specific trainings.
- o Mock face to face interviews.
- o Industry visits.
- o Internship opportunities.
- o Participation in Hackathon and other coding challenge contests.



**Fig. 9.2 (b) Pre Placement training Program**



**Fig. 9.2 (c) Pre Placement training Program by ALUMNI**

**Entrepreneur Mentoring**

JIC cell was established for encouraging and inspiring students for startups and entrepreneur. Various interactive sessions for students with alumni and startup representative are organized to know the importance of being an entrepreneur and ways to get financial assistance to become an entrepreneur.

JIC Cell is responsible for:

1. Initiative and Development of Startups/Incubations
2. Initiative towards center of excellence
3. Relationship with companies
4. Motivate students, guide and help them in the same direction.

Institute has success stories for every pass out year as a result of incubation center.

S.No.	Activity Name	Session	Link
1	Antim - 25	2025-26	
2	Parichay Day 1: Setting the Tone for the Academic Year	2025-26	
3	Empowering Futures: Highlights from Day 2 of Parichay Orientation Program	2025-26	
4	A Transformative Day at Parichay 2025: Insights, Innovation, and Connections	2025-26	
5	JIC x Eureka Pitching Competition	2025-26	
6	The Art of Content Creation	2025-26	

7	100 Day Startup Challenge	2024-25	
8	National Entrepreneurship Challenge (NEC) participation	2024-25	
9	JECRC's Parichay 2024	2024-25	
10	JIC x AWS Collaboration ( <a href="https://www.instagram.com/p/DAGfTOhEe_/">https://www.instagram.com/p/DAGfTOhEe_/</a> ) Workshop	2024-25	
11	Induction Ceremony 2025	2024-25	
12	Code Up Show Podcast	2024-25	
13	Startup Pathshala	2024-25	
14	Creative Dhamaka 2.0 [TASI (The Animation Society of India) and JIC (JECRC Incubation Centre)]	2024-25	
15	National Entrepreneurship Challenge (NEC) Finals 2024	2024-25	
16	JEC (JECRC Entrepreneurship Challenge)	2024-25	
17	Women in Tech Conf (WITConf) Jaipur 2025	2024-25	
18	JIOGames Bootcamp	2024-25	

19	Beyond The Pitch	2023-24	
20	D2d Jaipur Meet Up	2023-24	
21	Navigating The Engineering Journey (Workshop)	2023-24	
22	Data Structures and Algorithms	2023-24	
23	Full Stack Web Development Event (Web Development Workshop by Yash Arora)	2023-24	
24	Internet Of Things Masterclass	2023-24	
25	Ui &Ux Design Masterclass	2023-24	
26	Salesforce Masterclass	2023-24	
27	Artificial Intelligence Masterclass	2023-24	
28	Microsoft Azure X JIC	2023-24	
29	Women In Tech Conference 2024	2023-24	
30	Energy Taskmaster Hackathon	2023-24	
31	Aws Cloud Tour 2024	2023-24	
32	National Startup Day	2023-24	
33	PR And Leadership Skill	2023-24	
34	Uniquiz	2023-24	
35	Jugaad	2023-24	
36	Startup Charades	2023-24	
37	Entreprethon	2023-24	<a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/CR-2/1/JECRC%20Incubation%20Centre%20(JIC)%20Report%2023-24.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/CR-</a>
38	Guest Session- Ravi Nandan Sinha	2023-24	<a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/CR-2/1/JECRC%20Incubation%20Centre%20(JIC)%20Report%2023-24.pdf">2/1/JECRC%20Incubation%20Centre%20(JIC)%20Report%2023-24.pdf</a> ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/CR-2/1/JECRC%20Incubation%20Centre%20(JIC)%20Report%2023-24.pdf">https://jecrcfoundation.com/jf-</a>
39	Guest Session- Anirudh Kala	2023-24	<a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/CR-2/1/JECRC%20Incubation%20Centre%20(JIC)%20Report%2023-24.pdf">data/AQAR2023-24/CR-</a>
40	Guest Session- Indrajeet Singh	2023-24	<a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/CR-2/1/JECRC%20Incubation%20Centre%20(JIC)%20Report%2023-24.pdf">2/1/JECRC%20Incubation%20Centre%20(JIC)%20Report%2023-24.pdf</a> )
41	Scavenger Hunt	2023-24	
42	Coworking Space Inauguration	2023-24	
43	Brand Battle	2023-24	
44	Startup School Launch	2023-24	
45	Interactive Session with IAS Officers	2023-24	
46	Orientation 23- Varun And Ghazal Alagh	2023-24	
47	Orientation 23- Amit Jain	2023-24	
48	Orientation 23- Yash Kalra	2023-24	
49	Orientation 23- Love Babbar	2023-24	
50	Orientation 23- The Grand Celebration	2023-24	
51	Vijay Shekhar Sharma Visit	2023-24	
52	Unbiased Basics	2023-24	
53	Frontend Fusion	2023-24	
54	AI Simplified	2023-24	
55	Droid Sync	2023-24	
56	Dsa Programming	2023-24	
57	Badal (Cloudandsalesforce)	2023-24	
58	Graduation Ceremony with Arpit Sir	2023-24	
59	G20 Roadshow	2023-24	



**Fig. 9.2 (d) Entrepreneur Mentoring Glimpse**

#### Career Mentoring /Higher studies

- Students are supported to take up online certification courses offered by MOOC/NPTEL/SWAYAM to strengthen the qualification for their academic progression. This also helps them to achieve higher career paths in the applied areas of their specializations.
- Career guidance and counseling is provided by senior faculty members and placement Co-coordinators
- Value added training programs are arranged to enhance their placement opportunities as well as to support their research in industry. Students are also encouraged to take up international professional certification. This helps the students to improve their profiles for future.



**Fig. 9.2 (e) Career Mentoring /Higher Studies Sessions Glimpse**

#### Spiritual Mentoring

A special initiative has been taken by our institute in the form of Spritual Research Cell (SRC). The cell was established on 6<sup>th</sup> October, 2016. The inauguration was done by the auspicious presence of the Executive Secretary, Brahmakumaris & Vice Chairman, Rajyoga Education & Research Foundation, Rajyogi Mruthyunjaya Ji, Dr. U.S Agarwal, Principal, SMS Medical College, Jaipur and Meditation Expert, B K Sushma Ji. This cell motivates students mentally and builds up their confidence.



Fig. 9.2 (f) Spiritual Mentoring Glimpse

S. No.	Activity Name	Session	Link
1	Thought Cafe	2024-25	Report TC ( <a href="https://docs.google.com/document/d/1IH9-o45Ab4Vp3iVOHEgIppqOvliNNU7Xcu7VdOejmq5k/edit?tab=t.0">https://docs.google.com/document/d/1IH9-o45Ab4Vp3iVOHEgIppqOvliNNU7Xcu7VdOejmq5k/edit?tab=t.0</a> )
2	Anubhuti 24	2024-25	Report ( <a href="https://docs.google.com/document/d/1z3aruBZi_v2cK5kb4kteFPJkfrSSWxzLD0__yAjE4io/edit?tab=t.0">https://docs.google.com/document/d/1z3aruBZi_v2cK5kb4kteFPJkfrSSWxzLD0__yAjE4io/edit?tab=t.0</a> )
3	Meditation for Inner Harmony	2024-25	Report MIH ( <a href="https://docs.google.com/document/d/17il-xIOJ-B2weZSotvAHa3YQs-wR0x1-nDRYOXZjzA/edit?tab=t.0">https://docs.google.com/document/d/17il-xIOJ-B2weZSotvAHa3YQs-wR0x1-nDRYOXZjzA/edit?tab=t.0</a> )
4	Diverse Dialogues - 4	2024-25	Report ( <a href="https://docs.google.com/document/d/1gLgVnXBjV9nAoi22DgWq05R5x_BxJpT29j31FBWM17A/edit?usp=sharing">https://docs.google.com/document/d/1gLgVnXBjV9nAoi22DgWq05R5x_BxJpT29j31FBWM17A/edit?usp=sharing</a> )
5	Diverse Dialogues - 5	2024-25	Report ( <a href="https://docs.google.com/document/d/1om6kDGKsgbq8boXVGNoFoSL5-21w-Vj6q75K-89LEG0/edit?usp=sharing">https://docs.google.com/document/d/1om6kDGKsgbq8boXVGNoFoSL5-21w-Vj6q75K-89LEG0/edit?usp=sharing</a> )
6	Diverse Dialogues - 6	2024-25	Report ( <a href="https://docs.google.com/document/d/1fTxc2ZOPV21AgnNUNK9w2bDu2gHVFL9_7MKQq72Uik/edit?usp=sharing">https://docs.google.com/document/d/1fTxc2ZOPV21AgnNUNK9w2bDu2gHVFL9_7MKQq72Uik/edit?usp=sharing</a> )
7	Diverse Dialogues - 7	2024-25	Report ( <a href="https://docs.google.com/document/d/1pbUV5TbWo5ZZ456nWtE2XPvFO5z0rI-Dzw-r5CdPrhs/edit?usp=sharing">https://docs.google.com/document/d/1pbUV5TbWo5ZZ456nWtE2XPvFO5z0rI-Dzw-r5CdPrhs/edit?usp=sharing</a> )
8	Diverse Dialogues - 8	2024-25	Report ( <a href="https://docs.google.com/document/d/1SaPcTna7zKbUYRTNXLog7P7fjk4ZCXi69AqDBJF2GNs/edit?usp=sharing">https://docs.google.com/document/d/1SaPcTna7zKbUYRTNXLog7P7fjk4ZCXi69AqDBJF2GNs/edit?usp=sharing</a> )
9	Diverse Dialogues - 9	2024-25	Report ( <a href="https://docs.google.com/document/d/1sAw3DL1oYGUaOX0ZonRwL2yOGhyOCwu5OS2XWjIUsS8/edit?usp=sharing">https://docs.google.com/document/d/1sAw3DL1oYGUaOX0ZonRwL2yOGhyOCwu5OS2XWjIUsS8/edit?usp=sharing</a> )
10	Diverse Dialogues - 10	2024-25	Report ( <a href="https://docs.google.com/document/d/1aEo--MJuyA8DnALB4F4Yuz7KKmxcOmo8PY1wUbSDdM/edit?usp=sharing">https://docs.google.com/document/d/1aEo--MJuyA8DnALB4F4Yuz7KKmxcOmo8PY1wUbSDdM/edit?usp=sharing</a> )
11	Aarambh	2024-25	Report Aarambh ( <a href="https://docs.google.com/document/d/1W-DiUOaXmnd-KMVFZfxqfiEtC3Z6mWwuvqvimz5igQ/edit?tab=t.0">https://docs.google.com/document/d/1W-DiUOaXmnd-KMVFZfxqfiEtC3Z6mWwuvqvimz5igQ/edit?tab=t.0</a> )
12	Aarambh 2.0	2024-25	Report Aarambh 2.0 ( <a href="https://docs.google.com/document/d/1M5pPs_ViR9HVtedhfXcloQ51z5VR2mpFDF1f_JEPqW0/edit?tab=t.0">https://docs.google.com/document/d/1M5pPs_ViR9HVtedhfXcloQ51z5VR2mpFDF1f_JEPqW0/edit?tab=t.0</a> )
13	Vertical Meetup	2024-25	Report V.M ( <a href="https://docs.google.com/document/d/165NSAXCvuPM0AyNSwvzQxS_IMJa4nEm817a_KrNQVk/edit?usp=sharing">https://docs.google.com/document/d/165NSAXCvuPM0AyNSwvzQxS_IMJa4nEm817a_KrNQVk/edit?usp=sharing</a> )
14	Get Together	2024-25	Report GT ( <a href="https://docs.google.com/document/d/1TYr9Wo33O7Bp7E8C4lw5CS1m7eyum44gO6t_P_pIK28/edit?tab=t.0">https://docs.google.com/document/d/1TYr9Wo33O7Bp7E8C4lw5CS1m7eyum44gO6t_P_pIK28/edit?tab=t.0</a> )
15	Graphics Workshop	2024-25	Report GW ( <a href="https://docs.google.com/document/d/1HqgDLUm9ZsvgBWoF2-rY263AATHUfBfs-pEsKdm2BIU/edit?tab=t.0">https://docs.google.com/document/d/1HqgDLUm9ZsvgBWoF2-rY263AATHUfBfs-pEsKdm2BIU/edit?tab=t.0</a> )
16	Report Writing Workshop	2024-25	Report RW ( <a href="https://docs.google.com/document/d/1QWEI584ZHs5Zf2fpdE7aY_kqVtBcj8T8q07P6vauDag/edit?usp=sharing">https://docs.google.com/document/d/1QWEI584ZHs5Zf2fpdE7aY_kqVtBcj8T8q07P6vauDag/edit?usp=sharing</a> )

17	Social Media Workshop	2024-25	Report SM ( <a href="https://docs.google.com/document/d/18pqgNy097v5EYHg_VNiQAnMDuDd51_BtZBo35MKBsqa/edit?tab=t.0">https://docs.google.com/document/d/18pqgNy097v5EYHg_VNiQAnMDuDd51_BtZBo35MKBsqa/edit?tab=t.0</a> )
18	Diverse Dialogues - 11	2024-25	Report ( <a href="https://docs.google.com/document/d/1oxiH90Dr3NVlrcFITtF8vbgDwJB06kzumhHlVXtr6xM/edit?usp=sharing">https://docs.google.com/document/d/1oxiH90Dr3NVlrcFITtF8vbgDwJB06kzumhHlVXtr6xM/edit?usp=sharing</a> )
19	ENLIGHTENMENT 8.0	2024-25	Report E8 ( <a href="https://docs.google.com/document/d/1i-up8CiX4uUVkYRBVtw6NahIwvqODDBowXY6sL7E_aM/edit?usp=sharing">https://docs.google.com/document/d/1i-up8CiX4uUVkYRBVtw6NahIwvqODDBowXY6sL7E_aM/edit?usp=sharing</a> )
20	One Week Meditation Course	2024-25	Med Course Jan ( <a href="https://docs.google.com/document/d/1jSVv39QhC8yH3N5XWIS9gXVJAaneSB927WUZRITLIE/edit?usp=sharing">https://docs.google.com/document/d/1jSVv39QhC8yH3N5XWIS9gXVJAaneSB927WUZRITLIE/edit?usp=sharing</a> )
21	Winter Carnival	2024-25	Report Winter Carnival ( <a href="https://docs.google.com/document/d/1NenV7S71fR6JDj0O4IC68bh-6Za_-bs/edit">https://docs.google.com/document/d/1NenV7S71fR6JDj0O4IC68bh-6Za_-bs/edit</a> )
22	Aarambh 3.0	2024-25	Report Aarambh 3.0 ( <a href="https://docs.google.com/document/d/1GB9BWFUyFEF0FODI_TzjKRtjstVWYfUYrvONTis1Rgs/edit?tab=t.0">https://docs.google.com/document/d/1GB9BWFUyFEF0FODI_TzjKRtjstVWYfUYrvONTis1Rgs/edit?tab=t.0</a> )
23	Diverse Dialogues - 12	2024-25	Report ( <a href="https://docs.google.com/document/d/1uqozwUFRL98FWWOUyeZGuXF8dMbf-J975hUkPkpl-V8/edit?usp=sharing">https://docs.google.com/document/d/1uqozwUFRL98FWWOUyeZGuXF8dMbf-J975hUkPkpl-V8/edit?usp=sharing</a> )
24	Techno-Spiritual Expo	2024-25	Report TSE ( <a href="https://docs.google.com/document/d/1u9jUovHTyFVBhuev70x7kufuDHWO7eRwERYwC-fNss/edit?tab=t.0">https://docs.google.com/document/d/1u9jUovHTyFVBhuev70x7kufuDHWO7eRwERYwC-fNss/edit?tab=t.0</a> )
25	Diverse Dialogues - 13	2024-25	Report ( <a href="https://docs.google.com/document/d/1u6VpBSaFG7-00s6itKXCp7mDODhaPPAleiksQjYqyl/edit?tab=t.0#heading=h.gjdgxs">https://docs.google.com/document/d/1u6VpBSaFG7-00s6itKXCp7mDODhaPPAleiksQjYqyl/edit?tab=t.0#heading=h.gjdgxs</a> )
26	Diverse Dialogue - 14	2024-25	Report ( <a href="https://docs.google.com/document/d/1PguS7XU2WYQBUJk2ua-iNjc8uZ0EAW09Rf8qmOg89M/edit?tab=t.0#heading=h.gjdgxs">https://docs.google.com/document/d/1PguS7XU2WYQBUJk2ua-iNjc8uZ0EAW09Rf8qmOg89M/edit?tab=t.0#heading=h.gjdgxs</a> )
27	Thought Cafe 2.0	2024-25	Report ( <a href="https://docs.google.com/document/d/1aIH_Rb2f0NdxRk2absh4F7-nwb7vDMN1roZVRn6qumQ/edit?tab=t.0">https://docs.google.com/document/d/1aIH_Rb2f0NdxRk2absh4F7-nwb7vDMN1roZVRn6qumQ/edit?tab=t.0</a> )
28	Jaipur Military Station Visit	2024-25	Report JMSV ( <a href="https://docs.google.com/document/d/1D6WC7PKrNvYe50QryulSckd5s6g_kyqRv0t9-Asb9bE/edit?tab=t.0">https://docs.google.com/document/d/1D6WC7PKrNvYe50QryulSckd5s6g_kyqRv0t9-Asb9bE/edit?tab=t.0</a> )
29	Study Techniques for Mental Wellbeing	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/1.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/1.pdf</a> )
30	Mastering the Mind	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/2.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/2.pdf</a> )
31	Self Empowerment through Meditation - I	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/3.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/3.pdf</a> )
32	ATAL FDP	2023-24	link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/4.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/4.pdf</a> )
33	Self Empowerment through Meditation - II	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/5.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/5.pdf</a> )
34	Workshop on Social media know how	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/6.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/6.pdf</a> )
35	Prasang 24	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/7.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/7.pdf</a> )
36	Diverse Dialogue 1	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/8.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/8.pdf</a> )
37	SRC 7 years celebration	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/9.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/9.pdf</a> )
38	Enlightenment 7.0	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/10.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/10.pdf</a> )
39	Online Meditation Course	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/11.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/11.pdf</a> )
40	New Year Celebration	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/12.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/12.pdf</a> )
41	Living values Workshop	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/13.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/13.pdf</a> )
42	Diverse Dialogue 2	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/14.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/14.pdf</a> )

43	Diverse Dialogue 3	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/15.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/15.pdf</a> )
44	Gamathon Workshop IT	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/16.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/16.pdf</a> )
45	Gamathon Workshop CSE	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/17.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/17.pdf</a> )
46	Gamathon Workshop CSAI	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/18.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/18.pdf</a> )
47	Gamathon Workshop EE	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/19.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/19.pdf</a> )
48	Meditation for Stress Free life	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/20.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/20.pdf</a> )
49	SRC Alumni meet	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/21.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/21.pdf</a> )
50	Self-Empowerment through Meditation III	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/22.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/22.pdf</a> )
51	Gamathon	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/23.pdf</a> )
52	Sem 4	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/24.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/24.pdf</a> )
53	Role of Meditation in Overcoming Overthinking	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/25.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/25.pdf</a> )
54	Workshop on Smart Learning Strategies	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/26.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/26.pdf</a> )
55	Jigyasa (Values and Life Skills Session)-1	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/27.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/27.pdf</a> )
56	Debugging your Mind	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/28.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/28.pdf</a> )
57	Jigyasa (Values and Life Skills Session)-2	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/29.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/29.pdf</a> )
58	Jigyasa (Values and Life Skills Session)-3	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/30.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/30.pdf</a> )
59	Jigyasa (Values and Life Skills Session)-4	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/31.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/31.pdf</a> )
60	Jigyasa (Values and Life Skills Session)-5	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/32.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/32.pdf</a> )
61	Jigyasa (Values and Life Skills Session)-6	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/33.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/33.pdf</a> )
62	Jigyasa (Values and Life Skills Session)-7	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/34.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/34.pdf</a> )
63	Jigyasa (Values and Life Skills Session)-8	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/35.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/35.pdf</a> )
64	Jigyasa (Values and Life Skills Session)-9	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/36.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/36.pdf</a> )
65	Jigyasa (Values and Life Skills Session)-10	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/37.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/37.pdf</a> )
66	Jigyasa (Values and Life Skills Session)-11	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/38.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/38.pdf</a> )
67	Jigyasa (Values and Life Skills Session)-12	2023-24	Link ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/39.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/39.pdf</a> )

68	Jigyasa (Values and Life Skills Session)-13	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/40.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/40.pdf</a> )
69	Jigyasa (Values and Life Skills Session)-14	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/41.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/41.pdf</a> )
70	Jigyasa (Values and Life Skills Session)-15	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/42.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/42.pdf</a> )
71	Jigyasa (Values and Life Skills Session)-16	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/43.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/43.pdf</a> )
72	Jigyasa (Values and Life Skills Session)-17	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/44.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/44.pdf</a> )
73	Jigyasa (Values and Life Skills Session)-18	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/45.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/45.pdf</a> )
74	Jigyasa (Values and Life Skills Session)-19	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/46.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/46.pdf</a> )
75	Jigyasa (Values and Life Skills Session)-20	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/47.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/47.pdf</a> )
76	Jigyasa (Values and Life Skills Session)-21	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/48.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/48.pdf</a> )
77	Jigyasa (Values and Life Skills Session)-22	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/49.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/49.pdf</a> )
78	Jigyasa (Values and Life Skills Session)-23	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/50.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/50.pdf</a> )
79	Jigyasa (Values and Life Skills Session)-24	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/51.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/51.pdf</a> )
80	Jigyasa (Values and Life Skills Session)-25	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/52.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/52.pdf</a> )
81	Jigyasa (Values and Life Skills Session)-26	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/53.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/53.pdf</a> )
82	Jigyasa (Values and Life Skills Session)-27	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/54.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/54.pdf</a> )
83	UMANG (Faculty Get Together)1.1	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/55.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/55.pdf</a> )
84	Jigyasa (Values and Life Skills Session)-28	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/56.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/56.pdf</a> )
85	UMANG (Faculty Get Together)1.2	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/57.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/57.pdf</a> )
86	Jigyasa (Values and Life Skills Session)-29	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/58.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/58.pdf</a> )
87	Jigyasa (Values and Life Skills Session)-30	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/59.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/59.pdf</a> )
88	Jigyasa (Values and Life Skills Session)-31	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/60.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/60.pdf</a> )
89	Jigyasa (Values and Life Skills Session)-32	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/61.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/61.pdf</a> )
90	Jigyasa (Values and Life Skills Session)-33	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/62.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/62.pdf</a> )

91	Jigyasa (Values and Life Skills Session)-34	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/63.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/63.pdf</a> )
92	UMANG (Faculty Get Together)1.3	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/64.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/64.pdf</a> )
93	Jigyasa (Values and Life Skills Session)-35	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/65.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/65.pdf</a> )
94	Jigyasa (Values and Life Skills Session)-36	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/66.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/66.pdf</a> )
95	Jigyasa (Values and Life Skills Session)-37	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/67.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/67.pdf</a> )
96	International Yoga Day	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/68.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/68.pdf</a> )
97	Jigyasa (Values and Life Skills Session)-38	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/69.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/69.pdf</a> )
98	Jigyasa (Values and Life Skills Session)-39	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/70.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/70.pdf</a> )
99	Jigyasa (Values and Life Skills Session)-40	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/71.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/71.pdf</a> )
100	Jigyasa (Values and Life Skills Session)-41	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/72.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/72.pdf</a> )
101	Jigyasa (Values and Life Skills Session)-42	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/73.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/73.pdf</a> )
102	Jigyasa (Values and Life Skills Session)-43	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/74.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/74.pdf</a> )
103	Jigyasa (Values and Life Skills Session)-44	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/75.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/75.pdf</a> )
104	Jigyasa (Values and Life Skills Session)-45	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/76.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/76.pdf</a> )
105	Jigyasa (Values and Life Skills Session)-46	2023-24	Link ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/77.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/31/CR-3-REPORTS/SRC/77.pdf</a> )

**Projects developed under the Guidance of SRC:**

<https://jeecrfoundation.com/jf-data/AQAR2023-24/Criteria-4/SRC-Project.pdf> (<https://jeecrfoundation.com/jf-data/AQAR2023-24/Criteria-4/SRC-Project.pdf>)

**Projects Details 2024-25**

S. No.	Title of Project	Type	Photograph
1	MEMORY MATRIX -Memory Test Laid Over a Matrix of Possibilities	Hardware	
2	SIM SANSKARS, INTELLECT & MIND	Hardware	
3	MIND CHARGER - Charge Your Mind, Charge Your Soul!	Hardware	
4	SANKALP MAHAYAGYA - The fire of transformation	Hardware	

5	I AM TWISTER - THE GAME OF BALANCE	Hardware	
6	Hell to Heaven - A Journey of Balance	Hardware	
7	Maze Of Meditation	Hardware	
8	Karma Court	Hardware	

o **All Round Development Mentoring**

In all departments of the Institution, mentoring is a continuous process where faculty mentors serve as a resource who will respond to many questions that meets their needs and interests; encourage students to actively participate in different activities realistic in scope; and counsel the students on any other academic, professional, personal growth, etc., for necessary advice/guidance/help. Skill based mentoring. Different clubs:

S. No	Technical Club	S.No	Non-Technical Club	S.No	Social Club	S.No	COE
1	Xananoinds Club.	8	Student Development Officer Club	15	Zarurat Club	20	JECRC CoE Science and Spirituality.
2	Moonrider Club	9	Green campus Club. (IGBC)	16	Soch Club.	21	JECRC CoE E-VehicleAutomation.
3	OSA (Optical Society).	10	NSS Club.	17	Aashayein Club	22	JECRC CoEMG Motors
4	IEEE Club	11	Sports Club.	18	Suhasni Club	23	JIC
5	Marvel Cart	12	Cultural Club	19	Atrangi Club		
6	Makers Space.	13	Alumni Cell.				
7	Toastmasters Club.	14	Fruitful JECRC Club.				

These activities are not meant just for fun and frolic. They are in fact catalysts that develop qualities like leadership, team work, time management and stress handling in our students from the very beginning. One of the many reasons why our students have done wonderfully well year after year in their campus placements is that they are not just sound technically but are also ready to face the challenges of the world brimming with confidence. The role of the faculty as a mentor is one of nurturing support for a student during the transition period in academic, professional as well as personal growth.

Student Development Officer is responsible for the overall development of student. His responsibility is to encourage students to participate in different co-curricular and extracurricular activities.

- Planning, developing and delivering a variety of student services and activities (co-curricular and extracurricular activities)
- Motivate and engage students also oversee students activity on campus
- Handles promotions of college events manual and e-promotions
- Encourage students to participated in different Cultural and sports activities.

**Mentor-Mentee:**

<https://jecrcfoundation.com/naacdata/Mentor-Mentee.pdf> (<https://jecrcfoundation.com/naacdata/Mentor-Mentee.pdf>)

Number of students per mentor: 20

Frequency of Meetings: Fortnightly (and need based)

For Furter Information, Kindly Visit - <https://jecrcfoundation.com/>

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**9.3 Feedback Analysis (10)**

**9.3.1 Feedback on Teaching and Learning Process and Corrective Measures Taken, if any (10)**

The Institute has a structured and systematic mechanism for collecting and analysing feedback on the teaching-learning process to support continuous academic improvement. Student feedback is collected at the end of each academic year through a standardized questionnaire, ensuring voluntary participation. The feedback captures students' overall learning experience, including clarity of instruction, effectiveness of teaching methods, course coverage, learning assessment practices, and academic support provided during the semester. On an average, 85-90% of students participate in the feedback process, ensuring that the data collected is reliable and representative.

The compiled feedback is analysed at the departmental level to identify strengths and areas for improvement in the teaching-learning process. Based on the analysis, appropriate corrective and enhancement measures are implemented, such as the adoption of interactive teaching approaches, use of real-life examples and case studies, strengthening of practical and experiential learning. The effectiveness of these measures is reviewed in subsequent academic cycles, ensuring a continuous feedback loop and continuous improvement in the learning environment.

**Feedback collection process:**

The Institute designs a structured feedback form and circulates it to all departments, who then share it with students and other stakeholders to collect responses in a systematic manner. Students Feedback is taken once every year as one of the key aspects of the teaching learning process adopted by the faculty members.

The feedback collected from students is first analyzed by internal quality assessment committee (IQAC), headed by the HOD.

1. The process commences with a communication to all the departments regarding nomination of faculty coordinators. The faculty coordinators involved in the feedback process are responsible for data collection. Collect parameters specified in feedback form.
2. Estimation of mean for all the parameters. All the students are informed via e-mail / SMS / WhatsApp regarding corresponding instructions. Feedbacks are taken for all theory, laboratories, and project work etc.
3. The feedbacks are analyzed based on a set of questionnaires defined by the Institute. The evaluation is graded based on the scale of one to five.

**Scale of feedback system is as follows:**

Excellent:(5) Very Good:(4) Good:(3) Satisfactory:(2) Needs improvement: (1)

**Feedback analysis process:**

The feedbacks are analyzed based on a set of questionnaires defined by the Institute. All theory courses/laboratories/projects are evaluated based on a set of questionnaires. Each of these questionnaires is graded on a scale of one to five.

**Faculty reward is given based on the following factors:**

Based on the consolidated feedback and faculty self-appraisal reports, the faculty members are appraised about their performance. Some of the faculty members are appreciated and awarded, in recognition of their exemplary efforts.

- Resourcefulness
- Innovations in bringing about the change
- Dependability in their work
- Expertise used and developed in academics, research and patenting

Necessary corrective actions taken for the faculty members whose feedback score is less than the Institution standard, are as given below.

- Head of the Department chairing the senior faculty members advise the faculty member suitably with regard to clarity in explanation.
- Promoting and encouraging faculty to attend the faculty development programs (FDP), short term training programme (STTP), Conferences, MOOC'S, Guest lectures, industry visit.
- Enhancing their academic skill set with the peer support within a stipulated time period.

The performance is reviewed regularly.

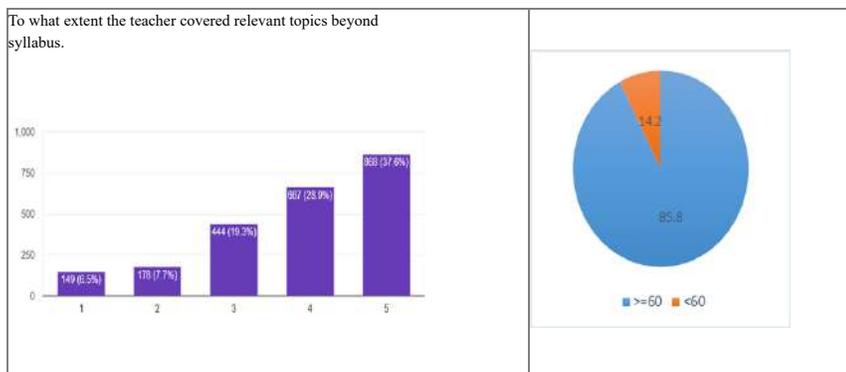
**Feedback form, Response and Analysis Report 2024-25**

S. No	Particular	Form	Analysis	Action Taken
1	Student feedback on teaching learning 2024-25	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/F1/Student-feedback-on-teaching-learning-2024-25.pdf">https://jecrcfoundation.com/naacdata/Feedback/F1/Student-feedback-on-teaching-learning-2024-25.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/Student%20Teaching%20Learning%20Feedback%20analysis.pdf">https://jecrcfoundation.com/naacdata/Feedback/Student%20Teaching%20Learning%20Feedback%20analysis.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Action%20Taken%20TeachingLearning.pdf">https://jecrcfoundation.com/naacdata/Action%20Taken%20TeachingLearning.pdf</a> )
2	Student Curriculum Feedback 2024-2025	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/F1/Student-Curriculum-Feedback-2024-2025.pdf">https://jecrcfoundation.com/naacdata/Feedback/F1/Student-Curriculum-Feedback-2024-2025.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/Student%20Curriculum%20Feedback%20analysis.pdf">https://jecrcfoundation.com/naacdata/Feedback/Student%20Curriculum%20Feedback%20analysis.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Action%20Taken%20CurriculumFeedback.pdf">https://jecrcfoundation.com/naacdata/Action%20Taken%20CurriculumFeedback.pdf</a> )

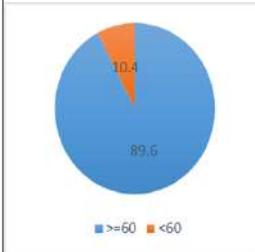
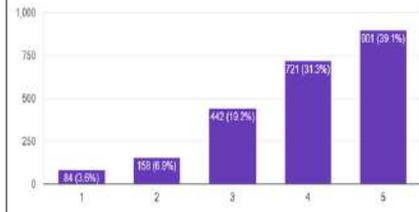
**Feedback Forms and Analysis:**

<https://jecrcfoundation.com/iqac/feedback-forms> (<https://jecrcfoundation.com/iqac/feedback-forms>)

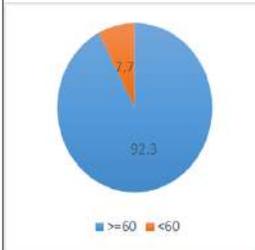
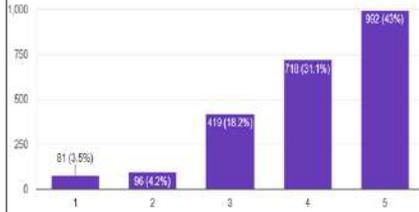
**Student Teaching Learning Feedback Form Analysis Report Academic Year 2024-25**



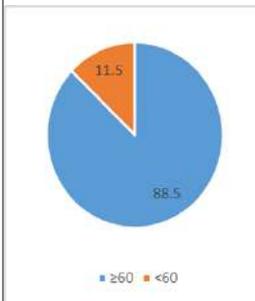
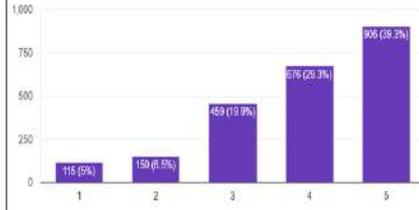
To what extent do you agree with the effectiveness of teacher in terms of technical content/ course content?



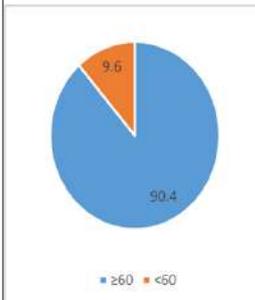
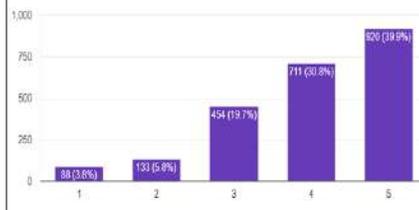
To what extent do you agree with the effectiveness of teacher in terms of Communication Skills?

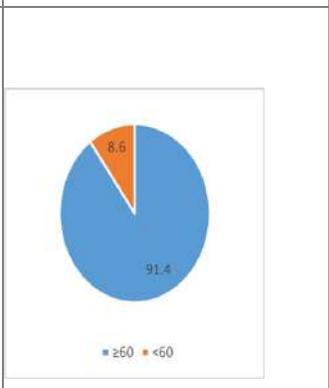
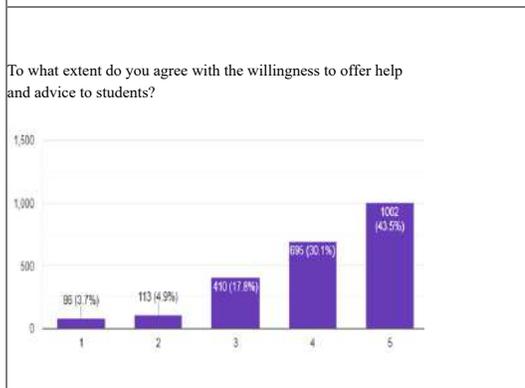
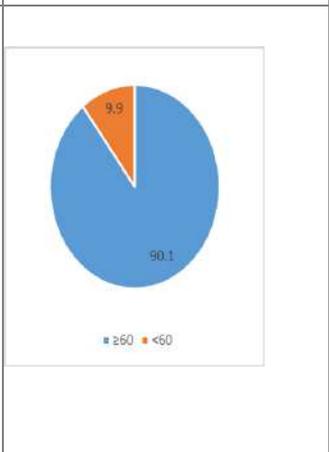
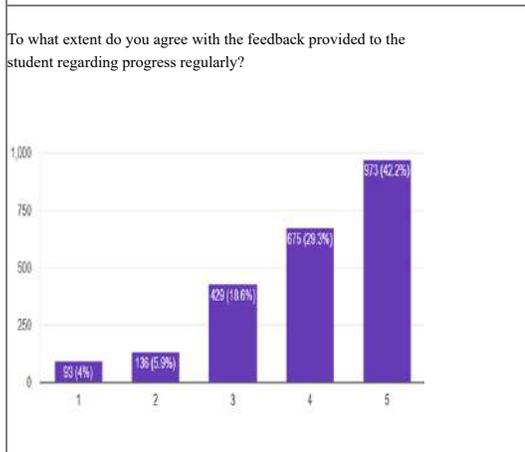
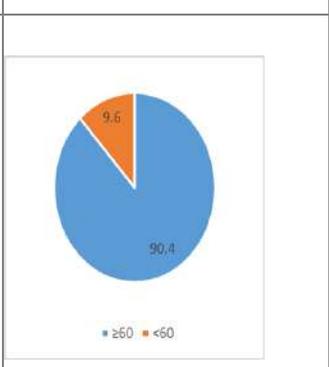
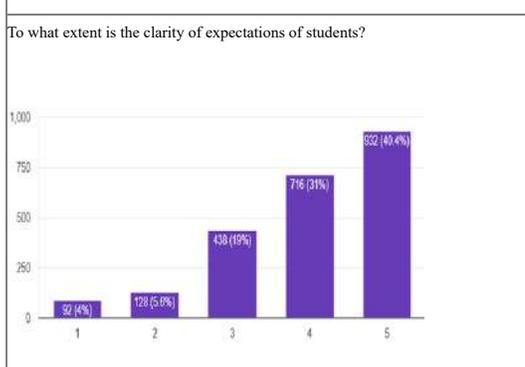
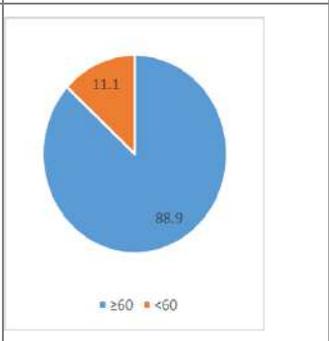
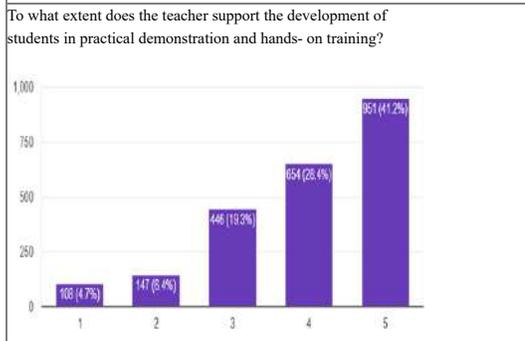
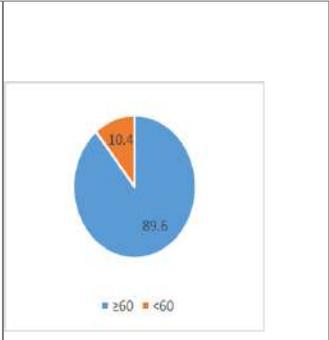
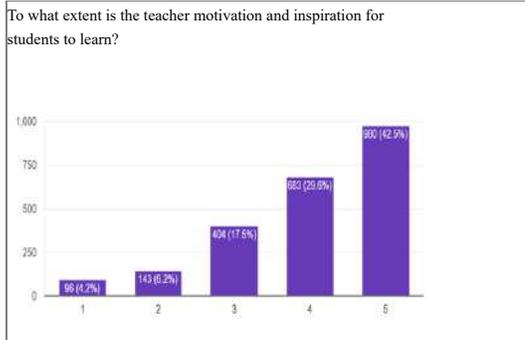


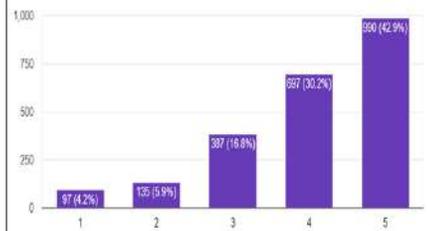
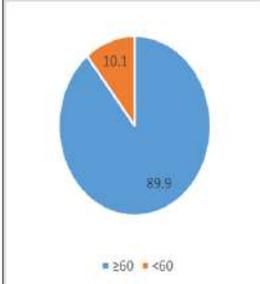
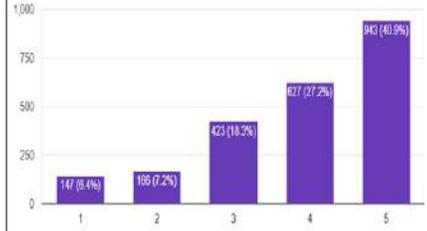
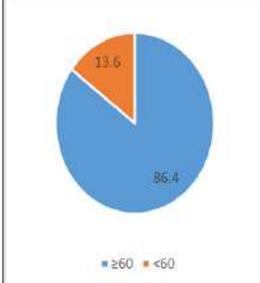
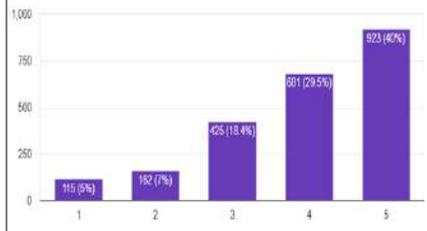
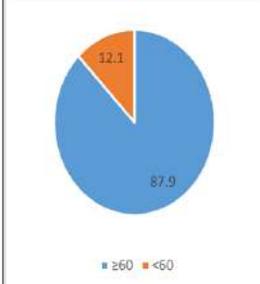
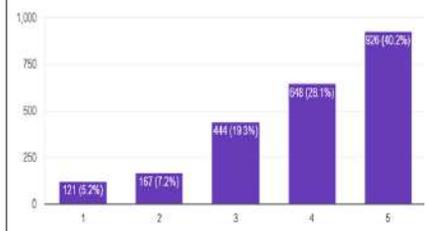
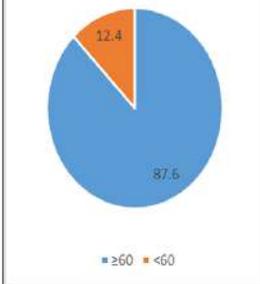
To what extent do you agree with the effectiveness of teacher in terms of use of teaching aids/E-content?



To what extent do you rate the pace on which contents were covered?

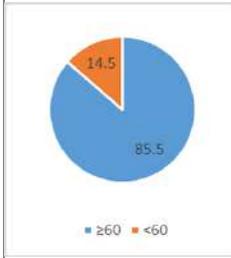
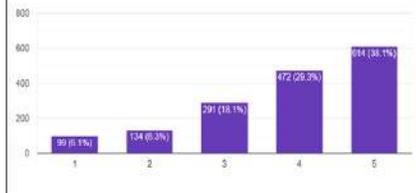




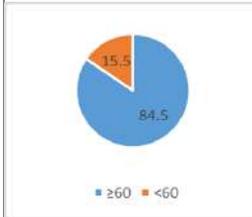
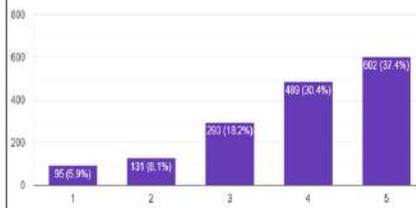
<p>To what extent does the teacher motivate students to participate in extracurricular activities?</p>  <table border="1"> <thead> <tr> <th>Rating</th> <th>Count</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>97</td> <td>4.2%</td> </tr> <tr> <td>2</td> <td>135</td> <td>5.9%</td> </tr> <tr> <td>3</td> <td>337</td> <td>16.8%</td> </tr> <tr> <td>4</td> <td>697</td> <td>30.2%</td> </tr> <tr> <td>5</td> <td>950</td> <td>42.9%</td> </tr> </tbody> </table>	Rating	Count	Percentage	1	97	4.2%	2	135	5.9%	3	337	16.8%	4	697	30.2%	5	950	42.9%	 <table border="1"> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>≥60</td> <td>89.9%</td> </tr> <tr> <td>&lt;60</td> <td>10.1%</td> </tr> </tbody> </table>	Category	Percentage	≥60	89.9%	<60	10.1%
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<p>To what extent does the teacher use modern teaching aids, handouts, suitable references, PowerPoint presentations, web resource, etc?</p>  <table border="1"> <thead> <tr> <th>Rating</th> <th>Count</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>147</td> <td>8.4%</td> </tr> <tr> <td>2</td> <td>195</td> <td>7.2%</td> </tr> <tr> <td>3</td> <td>423</td> <td>18.3%</td> </tr> <tr> <td>4</td> <td>627</td> <td>27.2%</td> </tr> <tr> <td>5</td> <td>943</td> <td>40.9%</td> </tr> </tbody> </table>	Rating	Count	Percentage	1	147	8.4%	2	195	7.2%	3	423	18.3%	4	627	27.2%	5	943	40.9%	 <table border="1"> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>≥60</td> <td>86.4%</td> </tr> <tr> <td>&lt;60</td> <td>13.6%</td> </tr> </tbody> </table>	Category	Percentage	≥60	86.4%	<60	13.6%
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Student Curriculum Feedback Form Analysis Report Academic Year 2024-25

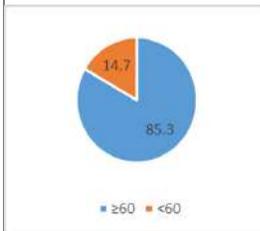
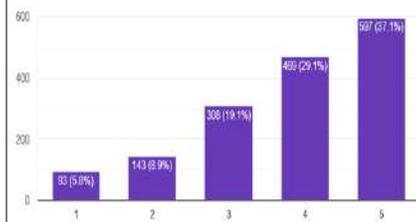
To what extent do you agree the curriculum provided by RTU is satisfactory?



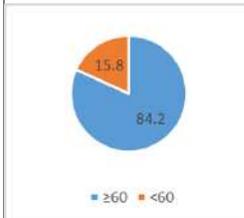
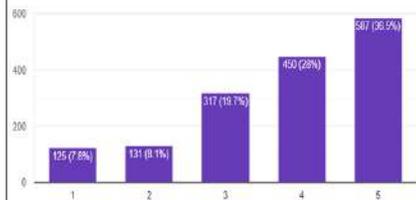
To what extent do you agree on the curriculum in encouraging Industry-Academic Interactions?



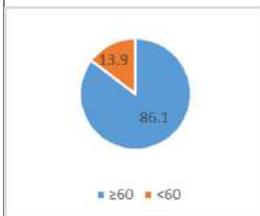
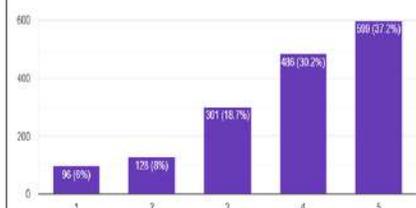
To what extent do you agree the curriculum helps in understanding real-time problems and solutions?

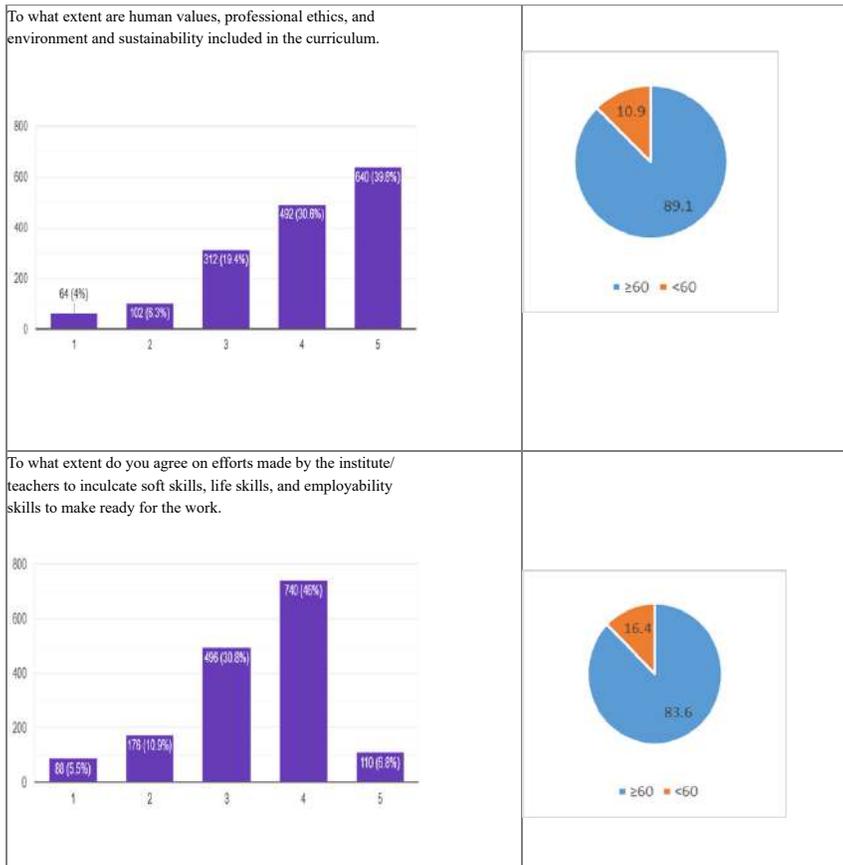


To what extent do you agree the curriculum will help to compete at the global level?



To what extent the curriculum will help in preparing for higher education.





**Action Taken:**

<https://jecrcfoundation.com/naacdata/Action-taken/Action%20Taken%20Teaching%20Learning.pdf> (<https://jecrcfoundation.com/naacdata/Action-taken/Action%20Taken%20Teaching%20Learning.pdf>)

<https://jecrcfoundation.com/naacdata/Action-taken/Action%20Taken%20Curriculum.pdf> (<https://jecrcfoundation.com/naacdata/Action-taken/Action%20Taken%20Curriculum.pdf>)

**Corrective measures:**

Faculty member performance is evaluated through a comprehensive appraisal system based on consolidated faculty self-appraisal reports. Faculty member performance is reviewed periodically through documented monitoring mechanisms to ensure sustained improvement and alignment with Institutional quality standards.

- Faculty members demonstrating exemplary performance are formally recognized through appreciation letters.
- Financial incentives are awarded to outstanding performers.
- Sponsorship support is provided for participation in conferences, seminars, workshops, and other academic activities to encourage professional growth.
- The Institute extends financial assistance and complete administrative support for patent filing, publications, and grant processes, thereby fostering innovation and intellectual property development.

From the academic year 2020–21 to 2024–25, annual increments were linked with the Academic performance Indicator (API). As per the amendment implemented from the academic year 2025–26, the increment is no longer linked with API, and benefits are now admissible as mentioned above.

On the basis of Feedback received, for cases of non-satisfactory performance, structured corrective measures are implemented to ensure continuous improvement:

- Advisory support and constructive guidance are provided.
- Classes are monitored by senior faculty members to enhance teaching effectiveness, clarity, and pedagogical quality.
- Faculty members are encouraged to participate in FDP/STTP.
- Participation in NPTEL, AICTE, ATAL, and other certification programs is encouraged to strengthen subject expertise and teaching competencies.

**9.3.2 Feedback on Academic Facilities (10)**

The Institute also collects student feedback on facilities, infrastructure, and learning resources, including classrooms, laboratories, library resources, computing facilities, transport, and other support services. The feedback is an IQAC and relevant committees to identify strengths and areas requiring improvement.

Based on the analysis, actions such as up gradation and maintenance of laboratory equipment, enhancement of library and e-resources, improvement of ICT-enabled classrooms, strengthening of computing facilities, and address concerns related to safety and cleanliness are undertaken. The actions taken are documented and communicated to stakeholders.

Overall, the Institute follows a continuous improvement cycle of Feedback Collection → Analysis → Action → Review, ensuring effective utilization of feedback for enhancement of teaching quality, learning outcomes, and ins performance.

Institute regularly collect and analyze feedback from students and other stakeholders on various issues. After analyzing the feedbacks corrective actions are taken. Action taken reports are shared with the stakeholders.

S. No	Particular Form	Form	Analysis
1	Student's Facility Feedback Form 2024-2025	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/F1/Student_s%20Facility%20Feedba ck%20Form%202024-25.pdf">https://jecrcfoundation.com/naacdata/Feedback/F1/Student_s%20Facility%20Feedba ck%20Form%202024-25.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/Student%20Facility%20Feedback%20a nalysis.pdf">https://jecrcfoundation.com/naacdata/Feedback/Student%20Facility%20Feedback%20a nalysis.pdf</a> )
2	Student feedback form Infrastructure 2024-2025	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/F1/Student-feedback-Form- Infrastructure-2024-2025.pdf">https://jecrcfoundation.com/naacdata/Feedback/F1/Student-feedback-Form- Infrastructure-2024-2025.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/Student%20Infrastructure%20Feedbac k%20%20analysis.pdf">https://jecrcfoundation.com/naacdata/Feedback/Student%20Infrastructure%20Feedbac k%20%20analysis.pdf</a> )
3	Alumni Feedback Form 2024-2025	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/F1/Alumni-Feedback-Form- 2024-2025.pdf">https://jecrcfoundation.com/naacdata/Feedback/F1/Alumni-Feedback-Form- 2024-2025.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/Alumni%20Feedback%20analysis.pdf">https://jecrcfoundation.com/naacdata/Feedback/Alumni%20Feedback%20analysis.pdf</a> )
4	Parent's feedback Form 2024-2025	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/F1/Parent_s-Feedback-Form- 2024-25.pdf">https://jecrcfoundation.com/naacdata/Feedback/F1/Parent_s-Feedback-Form- 2024-25.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/Parents%20Feedback%20Form%20An alysis%20.pdf">https://jecrcfoundation.com/naacdata/Feedback/Parents%20Feedback%20Form%20An alysis%20.pdf</a> )
5	Employee feedback form 2024-2025	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/F1/Employee-Feedback-Form- 2024-25.pdf">https://jecrcfoundation.com/naacdata/Feedback/F1/Employee-Feedback-Form- 2024-25.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/Employee%20Feedback%20analysis.p df">https://jecrcfoundation.com/naacdata/Feedback/Employee%20Feedback%20analysis.p df</a> )
6	Employer feedback form 2024-2025	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/F1/Employer-feed-back-form- 2024-25.pdf">https://jecrcfoundation.com/naacdata/Feedback/F1/Employer-feed-back-form- 2024-25.pdf</a> )	View ( <a href="https://jecrcfoundation.com/naacdata/Feedback/Employer.pdf">https://jecrcfoundation.com/naacdata/Feedback/Employer.pdf</a> )

**Feedback forms and analysis:**

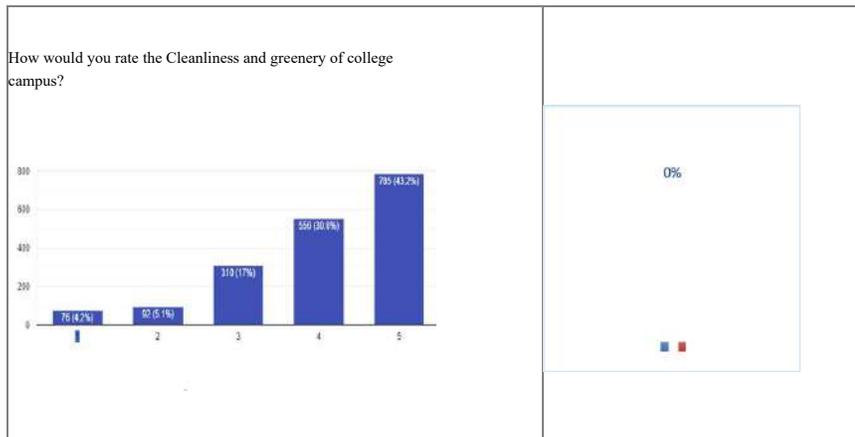
<https://jecrcfoundation.com/iqac/feedback-forms> (<https://jecrcfoundation.com/iqac/feedback-forms>)

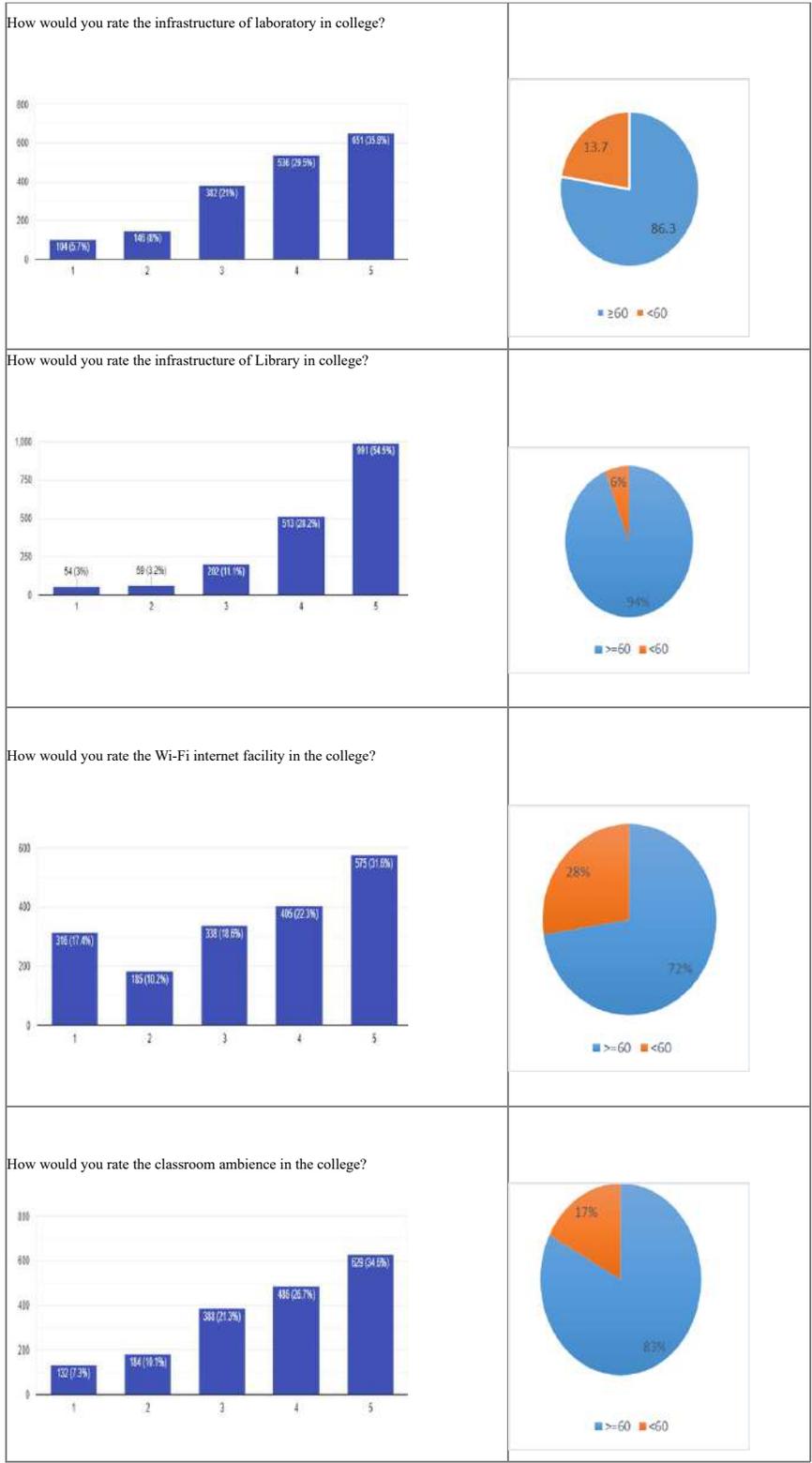
**Action Taken:**

<https://jecrcfoundation.com/naacdata/Action-taken/Action%20Taken%20Student%20Facility.pdf> (<https://jecrcfoundation.com/naacdata/Action-taken/Action%20Taken%20Student%20Facility.pdf>)

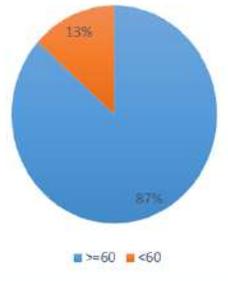
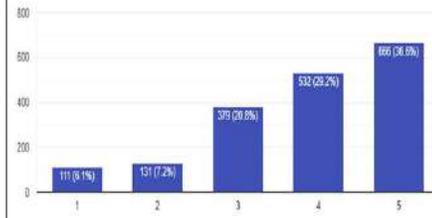
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**Student Feedback Form Analysis Report Academic Year 2024-25**

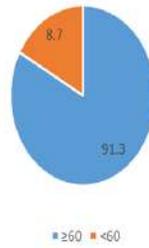
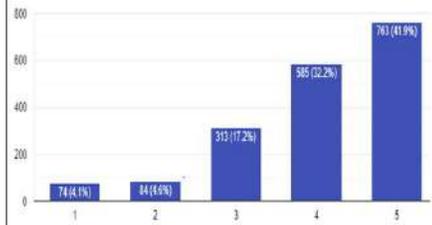




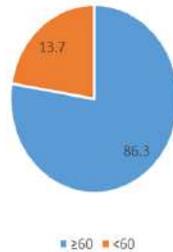
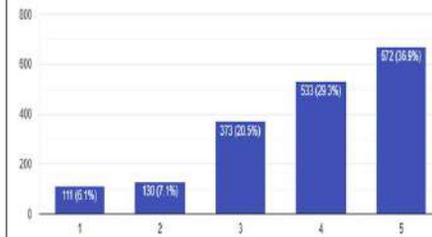
How would you rate the canteen facility?



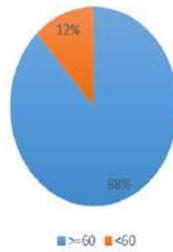
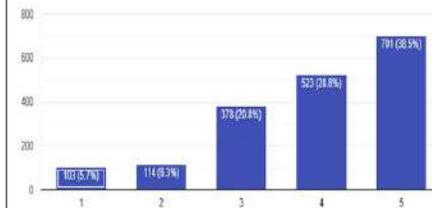
To what extent you agree that hostel surroundings are secure?



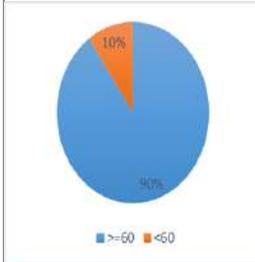
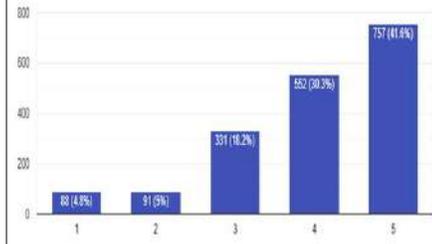
To what extent the cleanliness of kitchen and dining space are properly taken care of.



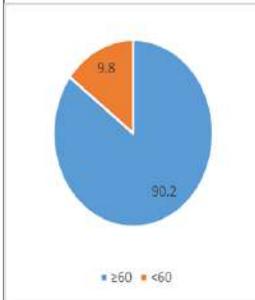
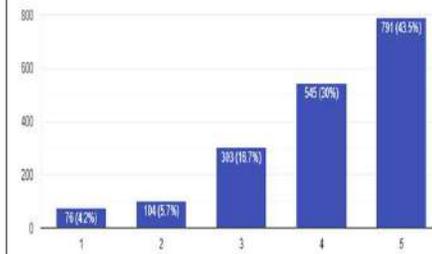
How would you rate the cooperativeness and accessibility of hostel staff?



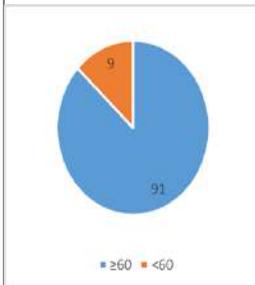
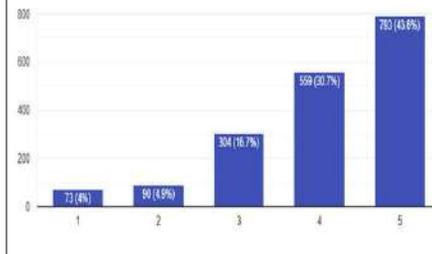
To what extent bus drivers demonstrates safe and preventive driving skills.



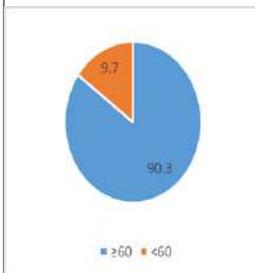
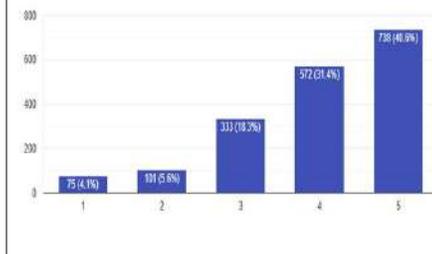
To what extent transport facility at JECRC is dependable and punctual.



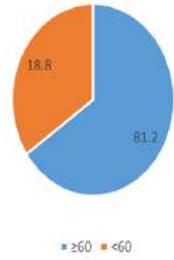
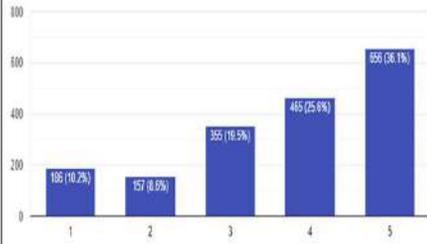
How would you rate the spiritual cell facility for counselling?



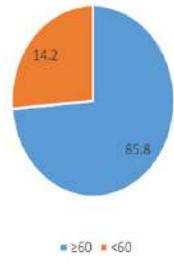
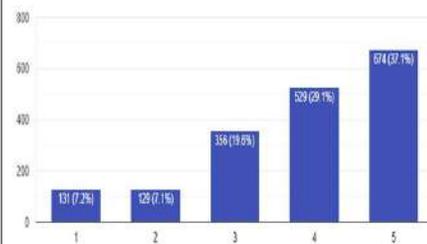
How would you rate the ICT facilities?



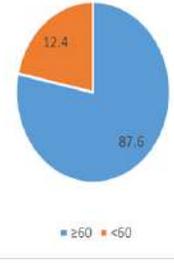
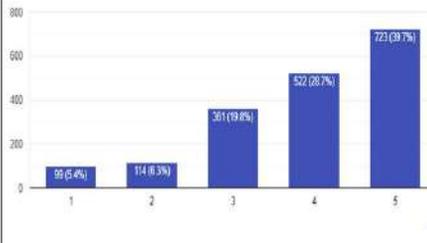
How would you rate sports facility in the college?



How would you rate First Aid facility in college?

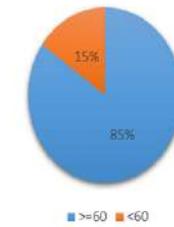
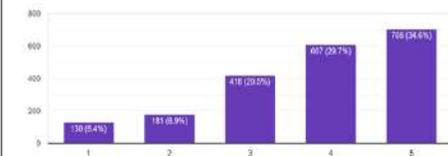


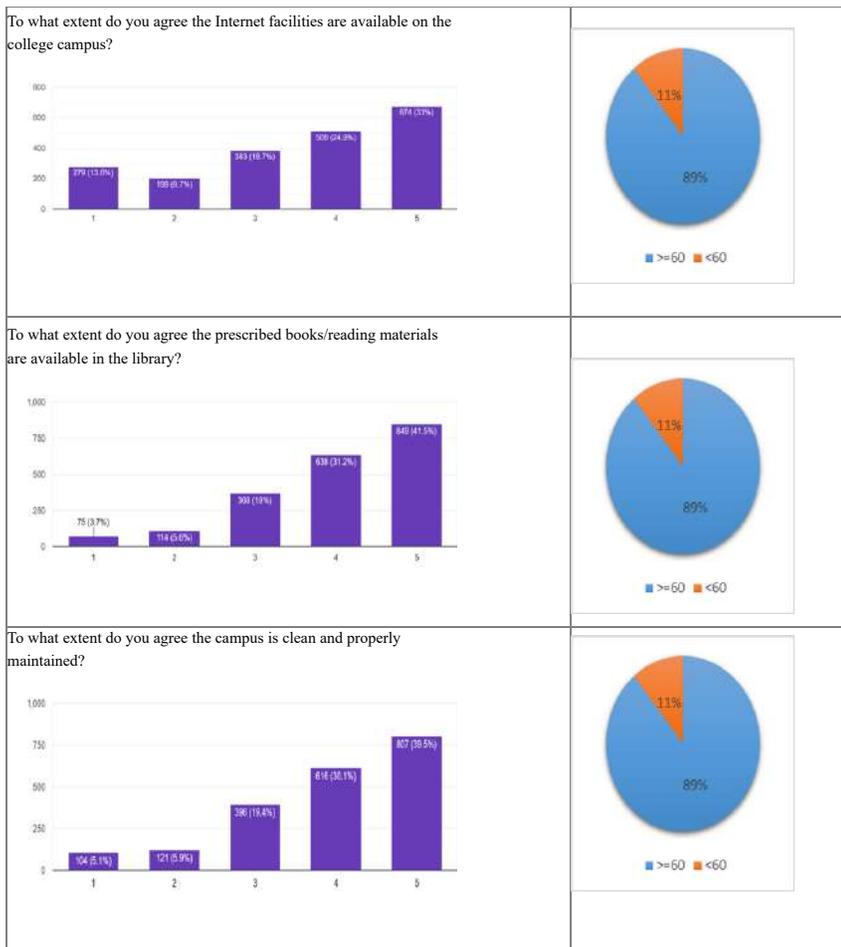
How would you rate the grievances regarding facility?



**Student Infrastructure Feedback Form Analysis Academic Year 2024-25**

To what extent do you agree the equipment /hardware / software in the lab(s) is in working condition?





S.No	Facility	How feedback is taken	Type of Record	Action Taken
1	Hostel Sh.V.K. Singhal (CAO /Chief warden)	Entry in the register / discussion with warden / written application / Grievance cell/ Feedback form	About Stay in the hostel	Sharing of room changed from 4 to 3
			About Food	Student committee and warden
			About Timing	Boys and girls timings are fixed but on demand as per requirement permission is provided.
			Maintenance	Entry in register and corrective action
			Medical Exigency	Ambulance register
2	Transport Sh. Ravi Bhatnagar (Bus Incharge)	Feedback form/ Written application with Bus In charge	Route	Recorded with bus in charge and appropriate action is taken
			Fees	
			Flexibility / Maintenance of buses	
3	Library Dr. Anita Jain (Chief Librarian)	Feedback Form	Timing	Appropriate action taken by Library incharge
			Books	
			Publication	
4	Sports Dr. Rajesh Sharma (Sports Incharge)	Feedback taken by sports incharge	Ground	Sports incharge takes appropriation decision
			Participation	
5	Over all maintenance Sh. Yogendra Sharma	Feedback from Block Incharges	About maintenance & Safety	

**Corrective Measures:**

The Institution has sanctioned and allocated an appropriate budget for the maintenance and upgradation of various facilities to ensure continuous quality improvement. The key initiatives undertaken are as follows:

- Upgradation and regular maintenance of academic and administrative buildings.
- Procurement and maintenance of laboratory equipment, along with adequate consumables.
- Strengthening of software resources and technical support systems.
- Development of smart classrooms with modern teaching aids.
- Enhancement of smart library facilities with digital resources.
- Installation and maintenance of RO-based safe drinking water facilities.
- Initiatives for maintaining a green and eco-friendly campus.
- Provision and maintenance of air-conditioned transportation (buses).
- Upgradation of air-conditioned hostel facilities for students.
- Improvement of air-conditioned mess facilities.
- Establishment and promotion of meditation and wellness facilities.
- Enhancement of cultural and co-curricular activity infrastructure.
- Upgradation of canteen facilities for better hygiene and service.
- Introduction and strengthening of add-on courses for skill development.
- Upgradation of sports facilities to promote physical fitness and extracurricular engagement.
- Provision of financial support to students for participation in academic, cultural, and sports events outside the Institution.

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#### 9.4 Training and Placement Support (10)



The Institution has a dedicated Training and Placement Cell, headed by the Director (HR – Placement & Training), to bridge the gap between academics and industry and to facilitate on-campus and off-campus placements.

- The cell provides continuous technical and behavioural skill development aligned with industry requirements.
- A structured 300-hour pre-final year program covers aptitude, reasoning, communication skills, group discussion, personality development, attitude, and interview preparedness.
- An online training and placement portal supports student registration, access to learning resources, self-assessment tests, and company-specific question banks.
- Certified trainers conduct sessions to strengthen verbal, written, listening, and business communication skills.
- Regular mock interviews and group discussions are organized to prepare pre-final and final-year students for recruitment.
- The cell coordinates on-campus and off-campus recruitment drives.
- Departments supplement placement training with domain-specific technical programs in areas such as Data Structures, Java, C, C++, Python, E-Vehicles, Robotics, and Automation.

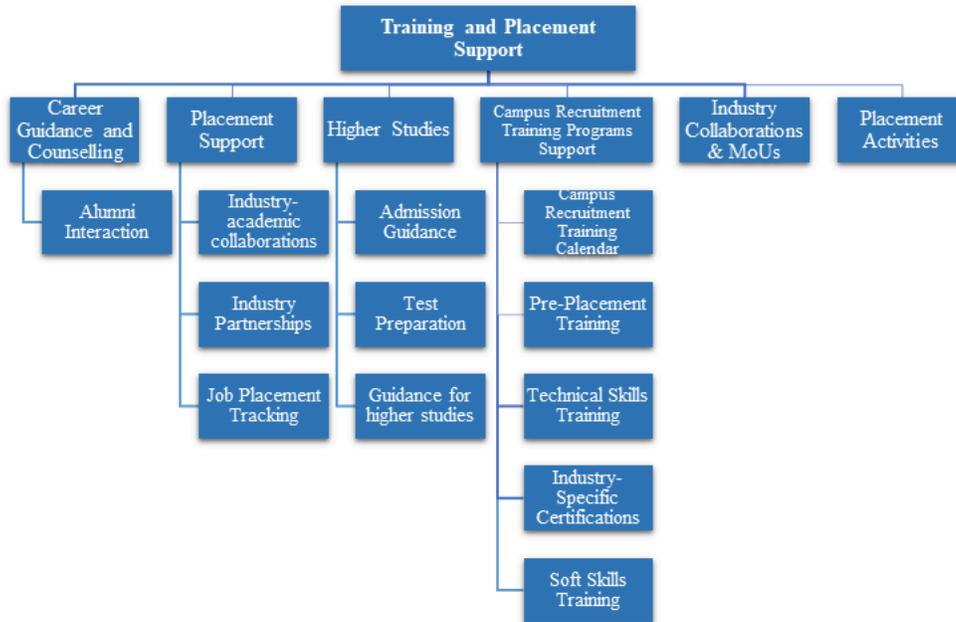


Fig. 9.4(a): Training & Placement Support System

9.4.1: Career Guidance and Counselling

A dedicated **Career Guidance and Counselling** Cell support students in informed career planning through structured **Alumni Interaction** and **Mentorship Programs**. These sessions provide insights into industry expectations and career progression. All interactions and counselling programs are uploaded on the institute’s official YouTube channel for continuous student benefit.

JECRC Alumni Cell: alumni | JECRC Foundation (<https://jecrcfoundation.com/?s=alumni>)

Table 9.4(a): Alumni Interaction and Mentorship Programs

S. No	Name of activity	Date of Activity	Supporting documents
1	Alumni Unplugged Session: Ramandeep Singh	13th Sept. 2024	 <a href="https://www.youtube.com/watch?v=2gZOOaEp8">https://www.youtube.com/watch?v=2gZOOaEp8</a> <a href="https://www.youtube.com/watch?v=2gZOOaEp8">https://www.youtube.com/watch?v=2gZOOaEp8</a>
2	Alumni Unplugged Session: Anant Katyayni	10th Oct. 2024	<a href="https://www.youtube.com/watch?v=sPTy2e7dJpA">https://www.youtube.com/watch?v=sPTy2e7dJpA</a> <a href="https://www.youtube.com/watch?v=sPTy2e7dJpA">https://www.youtube.com/watch?v=sPTy2e7dJpA</a> 
3	Induction Ceremony for the new recruits	16th Oct. 2024	

4	Meet and Greet Session- Devesh Sharma	19th Nov. 2024	
5	Alumni Unplugged Session: Devesh Sharma	7th Dec 2024	<p><a href="https://www.youtube.com/watch?v=QnXS5QkM68">https://www.youtube.com/watch?v=QnXS5QkM68</a> (<a href="https://www.youtube.com/watch?v=QnXS5QkM68">https://www.youtube.com/watch?v=QnXS5QkM68</a>)</p> 
6	JECRC's brightest Alumni to a host of career centric initiatives.	31st Dec. 2024	
7	Meet and Greet Session- Manoj Kumar	15th Feb. 2025	
8	Beyond JECRC- Podcast series Ep 3- Anirudh Kala	19th Feb. 2025	
9	Alumni Unplugged Session: Manoj Kumar Singh,	24th Feb. 2025	<p><a href="https://www.youtube.com/watch?v=BAmF18AHaT8">https://www.youtube.com/watch?v=BAmF18AHaT8</a> (<a href="https://www.youtube.com/watch?v=BAmF18AHaT8">https://www.youtube.com/watch?v=BAmF18AHaT8</a>)</p> 
10	Beyond JECRC- Podcast series Ep 4- Bharat Matta	6th Mar. 2025	
11	Beyond JECRC- Podcast series Ep 5- Ardhendu Bhatia	17th Mar. 2025	
12	Beyond JECRC- Podcast series Ep 6- Artika Jain	28th Mar. 2025	
13	Beyond JECRC- Podcast series Ep 7- Ankit Chhajjer	7th April 2025	

Table 9.4(b): Events for Career Guidance of students conducted by the Institution during 2024-25

S. No.	Department	Name of Activity	Area	Date	No. of Participants
1	ME	Guest Lecture – Financial Statement Analysis	Industry Readiness	09.12.2024	97

2	ME	Guest Lecture – Additive Manufacturing: Trends and Outlook	Industry Exposure	04.01.2025	83
3	ME	Guest Lecture – Impact of AI on Mechanical Engineering	Emerging Technology & Career Trends	07.03.2025	23
4	ME	ADD ON – Workplace Readiness: Aptitude, Reasoning & Language Proficiency	Employability & Skill Development	17.03.2025 – 22.03.2025	18
5	ME	ADD ON – From Campus to Corporate: Skills for Success	Industry Readiness	24.03.2025 – 29.03.2025	18
6	ME	ADD ON – Applied Object-Oriented Programming (C++)	Technical Skill Enhancement	03.03.2025 – 08.03.2025	18
7	AI&DS	Expert Talk – Campus to Corporate	Industry Readiness	19.11.2024	71
8	AI&DS	Add-on Course – Advanced JAVA	Technical Skill Enhancement	03.02.2025 – 13.02.2025	14
9	AI&DS	Add-on Course – Service Now Module	Industry Tool Exposure	20.01.2025 – 30.01.2025	6
10	AI&DS	FDP – Introduction to IoT, AI & its applications	Emerging Technology Orientation	10.02.2025 – 14.02.2025	40
11	CSE	Infosys SB Expert Sessions – Industry Readiness Program	Industry Readiness	05.08.2024 – 09.08.2024	69
12	CSE	ICT-85 – Data Science Using Python	Technical Skill Enhancement	20.01.2025 – 24.01.2025	49
13	CSE	Workshop – How to Write a Research Paper	Higher Studies & Research Guidance	02.04.2025	163
14	CSE	National Conference (NCICT 2025)	Research & Academic Advancement	23.04.2025	272
15	CE	Expert Talk – Essential Concepts for GATE & JE	Competitive Examination Guidance	24.09.2024	43
16	CE	Expert Talk – How to Crack GATE, ESE & PSUs	Competitive Examination Guidance	23.11.2024	56
17	CE	Expert Lecture on Career Guidance	Career Awareness	29.11.2024	37
18	CE	Expert Talk – Autocad Software	Industry Tool Exposure	28.02.2025	52
19	ECE	Alumni Talk (Career & Industry Insights)	Career Awareness & Industry Insights	11.11.2024	197
20	ECE	FDP – Research Methodologies	Higher Studies & Research	19.08.2024	35
21	ECE	FDP – Introduction to IoT, AI & Applications	Emerging Technology Orientation	10.02.2025 – 14.02.2025	45
22	EE	Alumni Talk – Career Growth in IT Sector	Career Awareness & Industry Exposure	29.07.2024	30
23	EE	Alumni Talk – Career Opportunities in Cyber Security	Career Awareness	08.10.2024	40
24	EE	Expert Talk – Career Paths Overview	Career Awareness	20.11.2024	52
25	EE	Add-on Course – Employ Ability Program	Employability Enhancement	14.02.2025 – 21.02.2025	29
26	EE	Expert Talk – GATE, IES & PSU Preparation	Competitive Examination Guidance	01.03.2025	27
27	CSAI	Workshop – AWS Cloud with Artificial Intelligence	Industry Readiness	11.01.2025	110
28	CSAI	Workshop – MongoDB	Industry Tool Exposure	25.02.2025 – 04.03.2025	14
29	CSAI	Workshop – Understanding Companies & Product Release (Satkaam)	Entrepreneurship & Industry Orientation	20.03.2025	29
30	CSAI	Mastering Linear Regression	Technical Skill Enhancement	23.04.2025	60+
31	CSAI	Research Horizon	Higher Studies & Research Guidance	08.04.2025	30
32	IT	Expert Talk on Career Guidance	Career Awareness	05.02.2025	77
33	IT	Workshop – AWS Cloud with AI	Industry Readiness	25.02.2025	140
34	IT	Workshop – Technical Paper Writing	Higher Studies & Research Guidance	01.05.2025	27
35	IT	Expert Talk – Research & Publication Ethics	Research Ethics & Academic Growth	03.05.2025	67

36	First Year	Scientific Research Writing: Evolution & Expansion	Research Skill Development	18.02.2025 – 15.04.2025	50
37	First Year	Expert Talk – Application of Fourier Series in Signals & Systems	Academic & Technical Career Foundation	22.12.2024	331

#### 9.4.2 Placement Support:

Students of the Institution have secured internships through the Internshala platform, demonstrating strong academic preparation and industry readiness. These internships provide practical exposure to real-world projects, enhance technical, communication, and problem-solving skills, and bridge the gap between theory and practice. The outcomes reflect the effectiveness of the Institution's training and placement initiatives in improving student employability.

Table 9.4(c): Details of Students Selected for Internships During the Academic Year 2025–26

Name of the Student	Degree (stream)	Year of graduation	Organization Name	Placement type	Salary/Stipend	Date of selection
Yash Joshi	B. Tech (NA)	2026	Inamigos Foundation	Internship	₹2000-3500/month	30/01/2026
Komal Sharma	Bachelor of Technology (B. Tech) (computer science)	2021	Coding Junior	Internship	₹15000/month	30/01/2026
Anuva Mangal	B. Tech (Computer Science & Engineering)	2029	Inamigos Foundation	Internship	₹4500-6500/month	20/01/2026
Avani Jain	Bachelor of Commerce (B. Com) (NA)	2026	Inamigos Foundation	Internship	₹3000-5500/month	12/01/2026
Yash Joshi	B. Tech (NA)	2026	Inamigos Foundation	Internship	₹4000-6000/month	30/01/2026

#### 9.4.3 Higher Studies:

Students of the Institute participated in an event organized under the International Development Program for motivating students for higher studies.

S. No.	Activity	Date	No. of Students Participated
1	IDP event for education fair- Hotel Radisson Khasa Kothi	31.01.2025	55
2	IDP event for education fair- Hotel Radisson Khasa Kothi	22.08.2025	60
3	IDP event for education fair- Hotel Radisson Khasa Kothi	31.01.2026	75

Institute students who have been placed in foreign universities as listed below:

S. No	Roll No	Name of Student	University Name	Country	Course
1	20EJCME017	Harshita Chawrani	Udayton Global	USA	Engineering Management
2	14EJCCS105	Paresh Rajvanshi	San Jose State University (SJSU)	USA	Engineering MS
3	14EUDME019	Bhanu Pratap Kumawat	University of NewCastel	Australia	MBA
4	19EJCME057	Rijul Katewa	Griffith University	Australia	Master of Engineering Management
5	13EJCEE094	Sandeep Mishra	Clarkson University	USA	Engineering MS
6	20EJCEC142	Sarthak Saxena	Tufts University	USA	Master of Science in Engineering Management
7	13EJCEC303	Dilkhush Yadav	Humber University	Canada	Web Development
8	18EJCCE058	Mohammed Nofil	University of NewCastel	Australia	MBA
9	08EJCEC095	Raghav Gupta	University of Canberra	Australia	Masters of Data Science

#### 9.4.3 Soft Skills Training Programs Support

A variety of training programs are organized throughout the academic year to enhance the employability of students. These programs are tailored to meet the dynamic needs of the job market, ensuring that students acquire both technical and soft skills required by industry leaders.

The Institute has created infrastructure facilities to conduct training program listed below:

Table 9.4 (c): List of facilities at Institute and their uses

Facilities	Uses
Computer Centers	Online Tests
Auditorium	Sessions
Seminar hall	Guest Lectures
Rooms	Group Discussions
Interview Rooms	Interview Practices

#### 1. Soft Skills Training Calendar:

- **Semester-based schedule** for technical and non-technical training.
- **Pre-placement period:** Typically held during the final year to maximize recruitment opportunities.
- **Career Development Workshops:** Organized on a quarterly basis, covering topics such as entrepreneurship, career planning.

**Table 9.4(d): Institute Soft Skill Training 2025 (15 Feb - 18 July 25)**

S. No.	Phase	Description	Date
1	Soft Skills Training-Planning	Feedback	29-Jan-25
		Infra and HR Req.	10-Feb-25
		Roadmap Presentation	11-Feb-25
2	Soft Skills Training-CRT (Kickstart)	Registration	15-17 Feb 25
		Orientation Program-I	24-Feb-25
		DAT-I	28-Feb-25
3	Soft Skills Training-CRT-I	FoP (15)	17 March - 10 April
		OOPS (15)	
		DSA (30)	
		CBT (20)	
		DAT-II	11-Apr-25
4	Soft Skills Training-CRT-II	Orientation Program-II	26-May-25
		Problem Solving	27 May - 15 June
		Communication Skills	
		CBT (18)	
		CV Review	17-Jun-25
		DAT-III	
		Generative AI	
5	Soft Skills Training-CRT-III	Trainspire (PDP)	4-5 June 25
		Orientation Program-III	17-Jun-25
		Aptitude (36)	19 June - 2 July
		Tech Classes (12)	
		PI Tech (4)	
		PI HR (4)	
		GD & Extempore (4)	
		CBT (24)	04-Jul-25
DAT-IV			
6	Soft Skills Training - CRT-IV	Ad. DSA	6 - 13 July 25
		Psychometric Analysis	09-Jul-25
		PI-Tech by Alumni	7 - 13 July 25
		PI-HR by Alumni	
		GD by Expert	
7	Soft Skills Training- CRT-V	Mock Drive (378)	14 - 15 July 25
		Employability Test	16-18 July 25
8	Soft Skills Training-CRT-VI	Comp.-1	Date-1
		Comp.-2	Date-2
		Comp.-3	Date-3

**2. Scheduled Trainings Include:**

- **Pre-Placement Training:** This involves personality development, communication skills, resume building, mock interviews, and group discussions to prepare students for the recruitment process.
- **Technical Skills Training:** Workshops and sessions focused on improving students proficiency in key technical domains, including programming languages, data analysis, AI, machine learning, and other relevant industry tools.
- **Industry-Specific Certifications:** Tie-ups with leading technology providers to help students gain certifications that are recognized and valued by employers.
- **Soft Skills Training:** Leadership, team-building, conflict management, and time management training to help students succeed in any professional environment.

**Table 9.4(e): Summary Table of Pre-placement Training**

Year	Name of event	Object of event	No. of students participated	Date of event
------	---------------	-----------------	------------------------------	---------------

2024-25	Pre placement training	Bridging gap between academics & Industry	854	24/02/2025 to 04/07/2025
2023-24	Pre placement training	Bridging gap between academics & Industry	659	24/7/2023 to 09/8/2023
2022-23	Pre placement training	Bridging gap between academics & Industry	602	05/07/2022 to 21/07/2022

3. Soft Skills Training (CRT) Road Map:

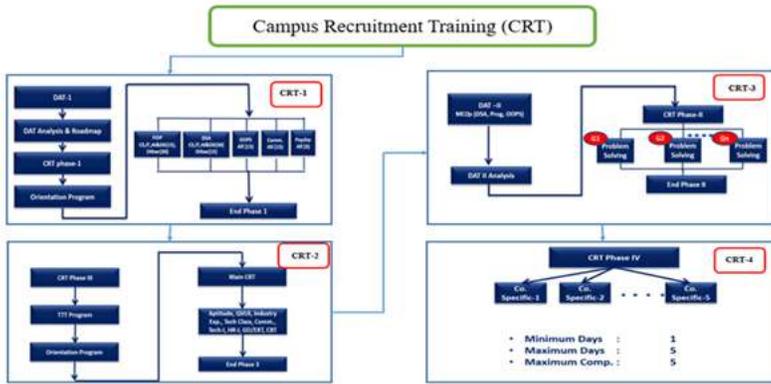


Fig.9.4 (b): Campus Recruitment Training Road Map

4. Soft Skills Training: Timetable on Problem Solving

JECRC CRT-II (27 May - 15 June)														
Auditorium (A-Block)					C-401					C-501				
Date	8:30-10:00	10:10-11:40	11:50-1:20	1:30-3:00	Date	8:30-10:00	10:10-11:40	11:50-1:20	1:30-3:00	Date	8:30-10:00	10:10-11:40	11:50-1:20	1:30-3:00
	Respective Managers HR	HR	HR	HR		Respective Managers HR	HR	HR	HR		Respective Coaches DC	DC	DC	DC
26-May	NT	NT	NT	NT	27-May	SC	SC	SC	SC	27-May	RB	RB	RB	RB
27-May	NT	NT	NT	NT	28-May	SC	SC	SC	SC	28-May	RB	RB	RB	RB
28-May	NT	NT	NT	NT	29-May	SC	SC	SC	SC	29-May	RB	RB	RB	RB
29-May	NT	NT	NT	NT	30-May	SC	SC	SC	SC	30-May	RB	RB	RB	RB
30-May	NT	NT	NT	NT	31-May	SC	SC	SC	SC	31-May	RB	RB	RB	RB
31-May	NT	NT	NT	NT	02-Jun	NT	NT	NT	NT	02-Jun	JS	JS	JS	JS
02-Jun	MG	MG	MG	MG	03-Jun	NT	NT	NT	NT	03-Jun	JS	JS	JS	JS
03-Jun	MG	MG	MG	MG	04-Jun	SC	SC	SC	SC	04-Jun	JS	JS	JS	JS
04-Jun	MG	MG	MG	MG	05-Jun	SC	SC	SC	SC	05-Jun	JS	JS	JS	JS
05-Jun	MG	MG	MG	MG	06-Jun	NT	NT	NT	NT	06-Jun	JS	JS	JS	JS
06-Jun	MG	MG	MG	MG	07-Jun	NT	NT	NT	NT	07-Jun	JS	JS	JS	JS
07-Jun	MG	MG	MG	MG	08-Jun	NT	NT	NT	NT	08-Jun	JS	JS	JS	JS
08-Jun	MG	MG	MG	MG	09-Jun	SC	SC	SC	SC	09-Jun	JS	JS	JS	JS
09-Jun	MG	MG	MG	MG	10-Jun	SC	SC	SC	SC	10-Jun	JS	JS	JS	JS
10-Jun	MG	MG	MG	MG	11-Jun	SC	SC	SC	SC	11-Jun	JS	JS	JS	JS
11-Jun	MG	MG	MG	MG	12-Jun	SC	SC	SC	SC	12-Jun	JS	JS	JS	JS
12-Jun	MG	MG	MG	MG	13-Jun	SC	SC	SC	SC	13-Jun	JS	JS	JS	JS
13-Jun	MG	MG	MG	MG	14-Jun	SC	SC	SC	SC	14-Jun	JS	JS	JS	JS
14-Jun	MG	MG	MG	MG	15-Jun	SC	SC	SC	SC	15-Jun	JS	JS	JS	JS
15-Jun	MG	MG	MG	MG										

Fig. 9.4(c): Sample of Soft Skills Training Time table

Table 9.4 (f): Overall Performance of Students on Scale Basis: Round-1

Marks Wise									
(Category0: No of students having marks between 0-3, Category1: No of students having marks between 4-7, Category2: No of students having marks between 8-10)									
Round-1									
(19th June 25 to 21st June 25)									
Branch	Tech			HR			GD/EXT		
	Category0	Category1	Category2	Category0	Category1	Category2	Category0	Category1	Category2
CSE	12%	66%	22%	12%	63%	19%	4%	79%	16%
ECE	19%	79%	0%	10%	76%	14%	5%	66%	13%
IT	28%	66%	6%	16%	70%	15%	11%	74%	16%
AI&DS	42%	56%	2%	16%	65%	19%	0%	64%	36%
CE	0%	83%	17%	33%	67%	0%	0%	100%	0%
ME	67%	33%	0%	7%	67%	27%	0%	73%	13%
EE	0%	96%	4%	10%	75%	15%	0%	86%	0%
CSAI	9%	67%	23%	2%	66%	33%	23%	62%	15%
Overall	21%	68%	11%	12%	68%	18%	7%	73%	17%

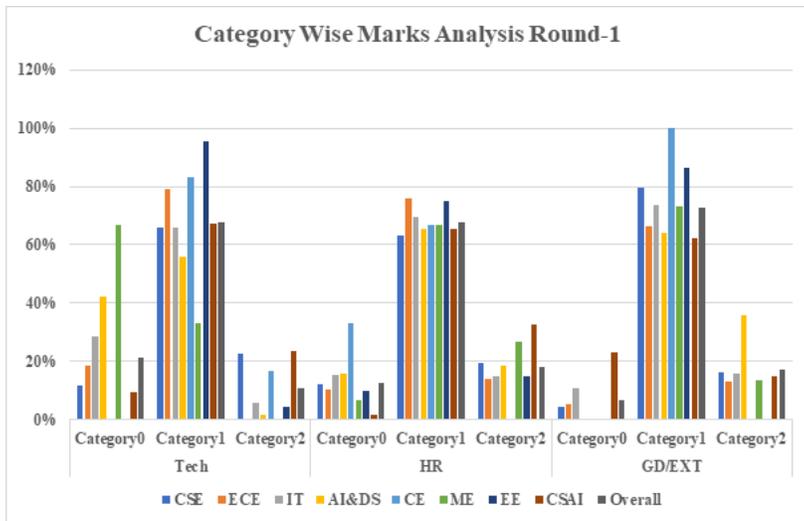


Fig. (d): Category Wise Marks Analysis Round - 1

Table 9.4 (g): Overall Performance of Students on Scale Basis: Round - 2

Marks Wise									
(Category0: No of students having marks between 0-3, Category1: No of students having marks between 4-7, Category2: No of students having marks between 8-10)									
Round-2									
(23 <sup>rd</sup> June 25 to 25th June 25)									
Branch	Tech			HR			GD/EXT		
	Category0	Category1	Category2	Category0	Category1	Category2	Category0	Category1	Category2
CSE	6%	63%	31%	2%	69%	29%	2%	73%	25%
ECE	5%	91%	4%	4%	76%	20%	1%	62%	36%

IT	11%	77%	11%	12%	76%	12%	7%	77%	17%
AI&DS	39%	51%	10%	14%	71%	15%	6%	51%	43%
CE	9%	82%	9%	40%	20%	40%	0%	100%	0%
ME	50%	50%	0%	0%	76%	24%	0%	94%	6%
EE	0%	90%	10%	5%	70%	25%	0%	100%	0%
CSAI	3%	76%	21%	2%	57%	42%	9%	68%	23%
Overall	10%	73%	17%	7%	71%	22%	4%	70%	26%

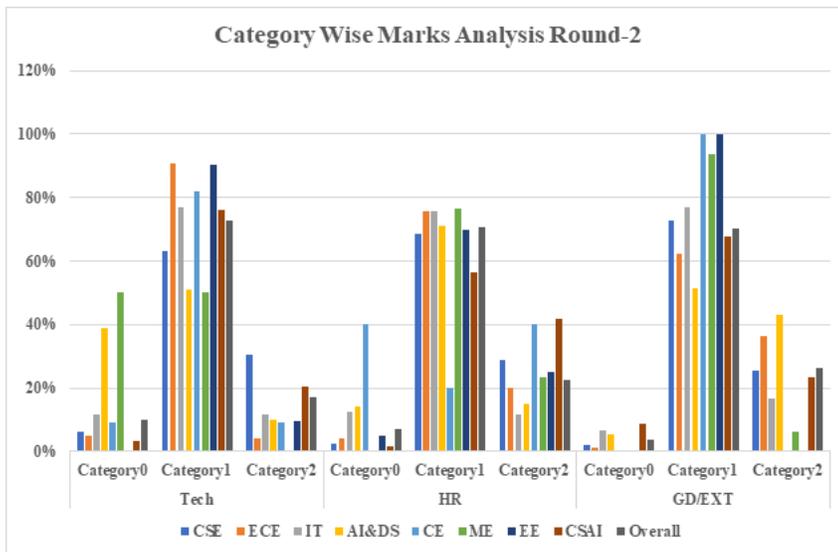


Fig. (e): Category Wise Marks Analysis Round - 2

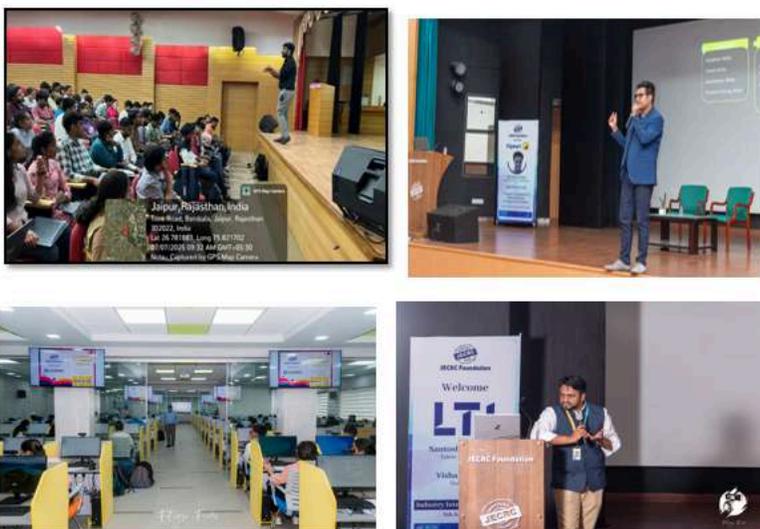


Fig. 9.4(h): Glimpse of some Technical Sessions, Test & Mentoring Sessions in Soft Skills Training

9.4.4 Industry Collaborations & MoUs

The Institute has signed Memorandums of Understanding (MoU's) with leading IT and consulting firms to strengthen student employability MoUs with Industry | JECRC Foundation (<https://jecrcfoundation.com/mous-with-industry/>)

- TCS (Tata Consultancy Services) – Provides campus recruitment, training, and industry exposure.
- Capgemini – Offers placement opportunities and skill development programs.
- Other Recruiters via MoUs – Service Now, Google cloud, Infosys, TESCA Technologies Pvt. Ltd, Centre of Excellence AI, Hewlett Packard Enterprise, Morris Garages, Fiat Technologies, Baba Automobiles Pvt. Ltd, Snowflakes, Microsoft Azure, Cloudera, InfoEdge, and more regularly visit the campus for placements.

**Table 9.4(j):** Number of functional MoUs with industries, corporate houses etc. 2024-25

S. No.	Organisation with which MoU is signed	Name of Activity under the signed MOU	Department
1	Hewlett Packard Enterprise	Placement activities	Institute Level
2	TCS	Placement	Institute Level
3	Capgemini	Placement activity	Institute Level
4	Service Now	Placement	Institute Level
5	IBM India Pvt. Ltd.	Placement Activities	Institute Level
6	Baba Automobiles Pvt.Ltd.	Placement activities	Institute Level
7	Tesca Technologies	Placement activities	Institute Level
8	JSW Morris Garages Pvt Ltd.	Centre of Excellence	Institute Level

• **Academic and Industry Collaboration**

JECRC has signed Memorandums of Understanding (MoU's) with industry for training and collaboration to strengthen student employability.

Signed MoU's are listed below:

**Table 9.4(k):** No. of functional MoUs with national and international institutions, universities, industries, corporate houses etc. 2024-25

S. No.	Organisation with which MoU is signed	Name of Activity under the signed MOU	Department
1	Santosh Satrtups Forum, Ghaziabad	Collaborative Innovation: Empowering Healthcare and Engineering Start-ups	JIC
2	Innovher Startup Accelerator Pvt. Ltd., Jaipur	Innovative Startup Acceleration	JIC
3	Entrepreneurship Cell, IIT Kharagpur	Local StartUp Meet	JIC
4	Suslence Research	National Conference	Institute Level
5	Live Wire	Industrial Visit	Institute Level
6	CADD Centre Training Services, Raja Park, Jaipur	Industrial Visit to R-CAT Centre	Institute Level
7	Exackt Techfleeters Pvt Ltd, Jaipur	Workshop on Fundamental course on Embedded System	Institute Level
8	Upflairs Pvt. Ltd.	Front End Web Development	Institute Level
9	Google Cloud	Add on courses	Institute Level
10	Ultratech Cement Limited, Noida	Project On Ultratech Pervious Concrete RMC Plant	Institute Level
11	Adhock Networks Infotech Pvt. Ltd.	Expert Talk on Embedded System and Robotics	Institute Level
12	Bhartiya Skill Development University	Industrial Visit	Institute Level
13	IBM India Pvt. Ltd.	Placement Activities	Institute Level
14	XRC Studios Private Limited	Local StartUp Meet	JIC
15	E- Cel IIT Roorkee	Startup activities	JIC
16	Car Club	Startup activities	JIC
17	SM Business Venture	Startup activities	JIC
18	Tecmatrix	Startup activities	Institute Level
19	Cloud Club	Startup activities	Institute Level

20	Ratna and BM Ranveer Foundation	Publication activities of national conferences	Institute Level
21	Saraswati College Of Engg. (SCOE)	Research and Development Activities	Institute Level
22	Gulf University	Collaboration in International conference	Institute Level
23	GR Foundation	Involvement of International publication	Institute level
24	Centre of Excellence AI	Add on courses	Institute Level
25	Coding Ninja	Add on courses	Institute Level
26	Celonis	Add on courses	Institute Level
27	Snow Flake	Add on courses	Institute level
28	Fiat Technologies	Add on courses in the area of Aptitude , communication skills and logical reasoning	Institute level
29	Fiat Technologies	Add on courses in the area of Coding skills,DSA & OOPS	Institute level
30	Made Easy Education Pvt. Ltd., Jaipur	Expert Lectures	Institute Level
31	Nextgen Life Science Pvt. Ltd.	Women Entrepreneurship Panel Discussion at Induction Program	Institute Level
32	Amritsar Group of Colleges, Amritsar	Expert Talk on issues on education system	Institute Level
33	S.S.G. Pareek P.G. College, Jaipur	Expert talk	Institute Level
34	C.V. Raman Global University	Expert talk	Institute Level
35	Acropolis Institute of Technology	Expert Talk	Institute Level
36	Takshila Institute of Education	Expert Talk	Institute Level
37	Kishkinda University	Expert talk and Involvement of International conferences organisation	Institute Level
38	IES College	Involvement of International conferences organisation	Institute Level
39	Scape Recycler Private Ltd.	Expert Talk in the Area of Sustainability	Institute Level
40	Microsoft Azure	Expert lecture in the area of recent applications in education and sustainability	Institute level
41	Amity Incubation Incubator	Expert talk	JIC
42	63SATS	Expert talk	Institute Level
43	Rajasthan Network Solutions, Jaipur	Industrial Visit	Institute Level
44	TASMAC Global Education Pvt. Ltd.	Industrial Visit	Institute Level
45	DoIT &, Communication, Government of Rajasthan	Industrial Visit	Institute Level
47	Igen Edu Solutions Pvt. Ltd., India	Patents Publication Activities	Institute Level
48	RUIDP	Industrial Visit	Institute Level

Table 9.4(i): No. of functional MoUs with national and international institutions, universities, industries, corporate houses etc. with Mechanical Engineering 2024-25

S. No.	Organisation with which MoU is signed	Name of Activity under the signed MOU	Department
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1	JSW-Morris Garages Pvt. Ltd.	Centre of Excellence	Institute Level
2	Baba Automobiles Pvt.Ltd.	Industrial visit, projects & Training Placement activities	Institute Level
3	CADD Centre Training Services, Raja Park, Jaipur	Industrial Visit to R-CAT Centre	Institute Level
4	Ratna and BM Ranveer Foundation	Publication activities of national conferences	Institute Level
5	Fiat Technologies	Add on courses in the area of Aptitude , communication skills and logical reasoning	Institute level
6	Fiat Technologies	Add on courses in the area of Coding skills,DSA an OOPs	Institute level
7	Made Easy Education Pvt. Ltd., Jaipur	Guest Lectures	Institute Level
8	Igen Edu Solutions Pvt. Ltd., India	Patents Publication Activities	Institute Level

9.4.5 Placement Activities

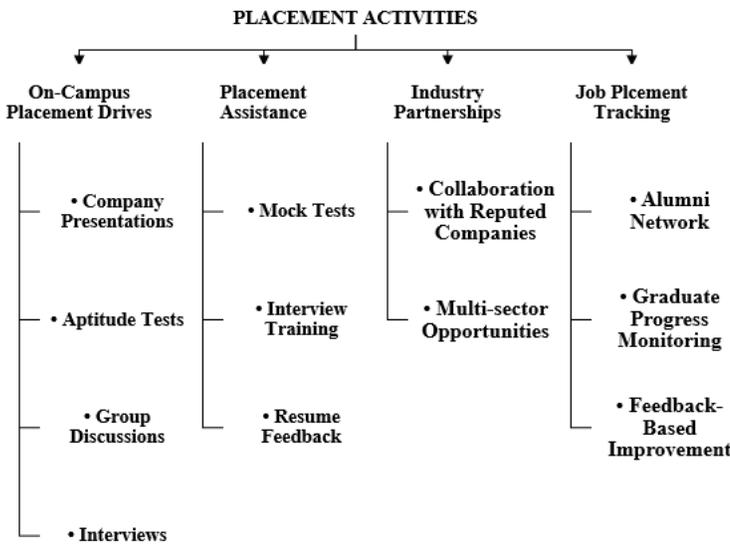


Fig. 9.4(i): Placement Activities

- **On-Campus Placement Drives:** The placement cell actively collaborates with top-tier companies to organize recruitment drives. The placement process includes company presentations, aptitude tests, group discussions, and interviews.
- **Placement Assistance:** Comprehensive assistance is provided in preparing students for the recruitment process, including mock tests, interview training, and personalized resume feedback.
- **Industry Partnerships:** Long-standing relationships with reputed companies enable students to access a wide range of placement opportunities across various sectors.
- **Job Placement Tracking:** The placement cell maintains strong relationships with alumni to track the progress of graduates and continuously improve the placement process based on feedback.

Table 9.4(m): Pre-Placement Talk - In Campus Activities [2024]

S. No.	Activity Name	Date
1	Placement Session by Info object	Wednesday, January 10, 2024
2	LTI Miindtree campus engagement event	Friday, January 12, 2024
3	Placement Session by Hashdin	Wednesday, January 24, 2024
4	Placement Session by Pinnacle	Thursday, January 25, 2024
5	Placement Session by Ascedion	Wednesday, January 31, 2024
6	Placement Session by Kumori Technologies	Saturday, February 3, 2024
7	Placement Session by Brudite	Monday, February 12, 2024
8	Collabera-Pre Placement talk	Wednesday, February 21, 2024
9	Coding Ninja's-Pre Placement talk	Friday, March 1, 2024
10	Placement Session by Solvfore	Sunday, March 17, 2024
11	Pre-Placement Talk by TCS	Thursday, April 4, 2024

12	Ashiana Housing-Pre Placement Talk	Tuesday, April 16, 2024
13	FuturesFirst - Pre Placement talk	Thursday, May 2, 2024
14	Placement Session by HCL	Tuesday, May 7, 2024
15	TechMatrix - Pre Placement Talk	Saturday, May 18, 2024
16	Metacube-Pre Placement talk	Friday, May 24, 2024
17	Pre-Placement Talk by RP Sanjiv Goenka Group	Monday, May 27, 2024
18	TCS	Sunday, June 16, 2024
19	Placement Session by PaisaBuddy	Friday, July 5, 2024
20	Session By TCS for Upcoming NQT	Friday, September 6, 2024
21	Placement Session by Wayspire	Sunday, September 8, 2024
22	Placement Session by ACADMORE	Saturday, October 5, 2024
23	Placement Session by KNACK TECH	Tuesday, October 8, 2024
24	Placement Session by UBUY TECHNOLOGIES	Tuesday, October 15, 2024
25	Placement Session by CORIZO	Thursday, October 24, 2024
26	Placement Session by ASCENDION	Wednesday, November 13, 2024
27	Placement Session by PROGRAMMERS IO	Tuesday, November 19, 2024
28	Placement Session by PIXEL O MEDIA	Monday, December 2, 2024
29	Placement Session by Realty Assistant	Tuesday, December 10, 2024
30	Carrear Mantra-Placement Talk	Wednesday, December 11, 2024
31	Student Interaction Session by Mr. Prahlad Choudhary Head HR Jindal Steel	Thursday, December 12, 2024

Table 9.4(n): Pre-Placement Talk - In Campus Activities [2023]

S. No.	Activity Name	Date
1	Webkul-Pre Placement Talk	Friday, January 13, 2023
2	Pre Placement Session by Perrota Group	Monday, January 30, 2023
3	Industry Interaction Session by Palo Alto	Thursday, April 27, 2023
4	Talk Session by Technical Expert from Adobe by Nidhi Sharma from Adobe	Monday, May 8, 2023
5	Key Note Session by Mr. Joshua David India Campus lead Mphasis	Wednesday, May 24, 2023
6	Key Note Session by Mr. Arsh Goyal from Samsung - YouTube Speaker	Saturday, May 27, 2023
7	Key Note session by Mr. Sumit Premi Associate Director HR at Flipkart	Monday, June 5, 2023
8	Session By Santosh Abraham and Vishal Trivedi from LTI	Thursday, June 8, 2023
9	Key Note session by MR. Rajat Mathur MD Morgan Steanly	Saturday, June 10, 2023
10	HR expert talk by MR. Achal Kataria Vice president & Country Head Cognizant   Topic: Today & Tomorrow A deep dive into the landscape of Gen-z Recruitment	Tuesday, June 13, 2023
11	Service now industry interaction Program	Wednesday, July 19, 2023
12	Placement Talk Session by Accenture	Thursday, July 20, 2023
13	Meet the Accenture (Student Interaction Program)	Thursday, July 20, 2023
14	Hero MotoCorp R&D Center interaction with student	Sunday, July 30, 2023
15	App Perfect-Pre Placement Talk	Friday, September 22, 2023
16	Pre Placement Talk by Learn and Build	Wednesday, September 27, 2023
17	Meet the Accenture (Student Interaction Program)	Thursday, October 26, 2023
18	Pre Placement Talk by NewGen	Thursday, October 26, 2023
19	Pre Placement Talk by SSTPL	Friday, November 3, 2023
20	Agumentik - Pre Placement Talk	Tuesday, November 7, 2023
21	Design 2 Occupancy Recruitment Drive	Thursday, November 23, 2023
22	Pre Placement Talk by D2O	Thursday, November 23, 2023
23	Placement Session by Kohler	Friday, November 24, 2023
24	Kohler-Pre Placement Session	Friday, November 24, 2023

25	Talk Session by Infosys	Wednesday, November 29, 2023
26	Infosys Student Interaction Session	Wednesday, November 29, 2023
27	Student Interaction Session by Mr. Braj Bhardwaj & Ms. Dimple Bhasin from Infosys	Wednesday, November 29, 2023
28	Placement Fiesta 2023	Thursday, November 30, 2023
29	MTX Campus Recruitment Drive	Thursday, December 7, 2023
30	Pre-Placement Talk by MTX	Thursday, December 7, 2023
31	Design 2 Occupancy-Student Session and Test	Saturday, December 9, 2023
32	Aelum Consulting-Pre Placement Talk	Saturday, December 9, 2023
33	Commvault-Placement talk	Thursday, December 14, 2023
34	Session By Mr. Krishna Chaturvedi from Autodesk Topic- Expert Opinion: Emerging Technologies & Current Market Dynamics	Friday, December 22, 2023
35	Student Interaction Session by Krishna Chaturvedi on Emerging Technologies	Friday, December 22, 2023

**Table 9.4(o):** Pre-Placement Talk - In Campus Activities [2022]

S.No.	Activity Name	Date
1	Pre Placement Session by Continental Engine	Friday, March 11, 2022
2	Pre placement Session by Samsung	Monday, March 21, 2022
3	Indus Tower Placement Session	Tuesday, March 29, 2022
4	First American Placement Talk	Friday, May 27, 2022
5	Session by Bill desk	Friday, September 2, 2022
6	Key Cloud Pre Placement Session	Wednesday, September 7, 2022
7	Pre placement By Thrillophilia	Sunday, September 11, 2022
8	Consultadd Pre Placement Session	Friday, September 16, 2022
9	PPT by Genus Power	Wednesday, September 21, 2022
10	Placement Fiesta Fastest 500 Offers	Tuesday, September 27, 2022
11	Learning Routes	Thursday, September 29, 2022
12	Pre Placement Session by Qburst	Thursday, October 13, 2022
13	Pre Placement Session by Newzen	Sunday, October 16, 2022
14	Celebration of first 1000 Offers	Saturday, November 12, 2022
15	Placement Fiesta Fastest 1000 Offers	Saturday, November 12, 2022
16	Hero Campus Challenge - Campus Charcha	Thursday, November 17, 2022
17	Pre Placement Session by Collabera	Wednesday, November 30, 2022
18	Pre Placement Session by Tech Matrix	Monday, December 19, 2022

**Table 9.4(p):** Pre-Placement Talk Activities in Mechanical Engineering Department

Pre-Placement Talk Activities [2024-25]		
S.No.	Activity Name	Date
1	Placement Session by Pinnacle	Thursday, January 25, 2024
2	Coding Ninja's-Pre Placement talk	Friday, March 1, 2024
3	Pre-Placement Talk by TCS	Thursday, April 4, 2024
4	Placement Session by Wayspire	Sunday, September 8, 2024
5	Student Interaction Session by Mr. Prahlad Choudhary Head HR Jindal Steel	Thursday, December 12, 2024
6	Flipkart	Sunday, August 3, 2024
7	Accenture	Wednesday, July 23, 2024
8	LTI Mindtree	Saturday, September 6, 2024
9	Polycab	Saturday, January 17, 2025
10	Tata Power	Wednesday, October 22, 2024
Pre-Placement Talk Activities [2023-24]		
S.No.	Activity Name	Date
1	Tata Power	Tuesday, December 13, 2024
2	Movidu Technologies	Saturday, January 27, 2024

3	TCS NQT	Tuesday, April 2, 2024
4	RNF Technologies	Wednesday, November 1,2023
5	Accenture	Monday, July 24, 2023
<b>Pre-Placement Talk Activities [2022-23]</b>		
<b>S.No.</b>	<b>Activity Name</b>	<b>Date</b>
1	Placement Fiesta Fastest 500 Offers	Tuesday, September 27, 2022
2	Pre Placement Session by Newzen	Sunday, October 16, 2022
3	Celebration of first 1000 Offers	Saturday, November 12, 2022
4	Placement Fiesta Fastest 1000 Offers	Saturday, November 12, 2022
5	Hero Campus Challenge - Campus Charcha	Thursday, November 17, 2022
6	Consultadd Pre Placement Session	Thursday, December 8, 2022
7	Perrotta Group S.r.l	Monday, January 30,2023
8	Tata Power	Thursday, November 3,2022
9	TCS NQT	July 15,2022
10	Pinnacle	October 14,2022
11	Pinnacle	October 15,2022

**Table 9.4(q):** Placement Statics at Institute Level

Year	Batch Size	Total Offers	AVG Package	Highest Package
2024-25	801	966	5.29 LPA	33 LPA
2023-24	978	871	4.8 LPA	51 LPA
2022-23	942	826	4.6 LPA	44.14 LPA
2021-22	856	841	4.75 LPA	44.14 LPA

**Table 9.4(r):** Placement Statics of Mechanical Engineering Departmental of last 3 years

Year	Batch Size	Total Offers	AVG Package	Highest Package
2024-25	34	31	4 LPA	7.5 LPA
2023-24	55	46	3.8 LPA	13 LPA
2022-23	81	56	3.6 LPA	5 LPA

- o **Placement Details:**

**2024-25:** View ([https://jyecrfoundation.com/naacdata/SV/5.2.1SelfAttested\\_list\\_of\\_Students\\_placed\\_list%20\(1\).pdf](https://jyecrfoundation.com/naacdata/SV/5.2.1SelfAttested_list_of_Students_placed_list%20(1).pdf))

**2023-24:** View (<https://jyecrfoundation.com/jf-data/AQAR2023-24/Placed%20student%20list%202023-24%20self%20attested.pdf>)

**2022-23:** View (<https://jyecrfoundation.com/jf-data/AQAR2023-24/Criteria-5/5.2-List-of-placed-Student-Attested.pdf>)

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**9.5 Start-up and Entrepreneurship Activities (5)**



At Institution , initiatives and facilities aimed at encouraging students toward innovation, entrepreneurship, incubation, and start-ups are essential components of their academic ecosystem. Following Table shows the startups incubated and activities of Startup and Entrepreneurship Cell known as JECRC Incubation Centre (JIC)

### Details of Startups incubated under JIC at Institute

Below table contain the details of the startups incubated under JECRC Incubation Centre, few of the startups are funded by the Institute (Internal corpus fund) and few incubations are mentored and guided by mentors for starting the startups of last three year till 2025 as given below.

S.NO.	Name	Details	Funding
1	Sevak	Cab service for emergency services	Seed Funding of ₹20000
2	लोकFolk - Reliving cultural traditions!	Its basically YouTube for all the regional, cultural & traditional info. and Amazon for all regional, cultural & traditional products.	Seed Funding of ₹20000
3	Biddu	We provide all details of facilities near education institute and coaching for students Like- rent room/pg, gym, library, tiffin services etc. By - website	Seed Funding of ₹10000
4	Qurable	We offer online therapy, counselling and parenting guidance.	Seed Funding of ₹10000
5	Second Mind	Second Mind is an cross platform application that convert our thoughts into text, assembles and categories in the form of bucket.	Seed Funding of ₹17500
6	The Darji	We aim at bringing all tailors on one online platform forming a large congregation of immensely diverse tailors with a star-based rating system and different criteria's to choose your favorite tailor with zillion styles of clothing and customization options to choose from to solve all your tailoring needs. In a nutshell, we are one stop solution for all your tailoring needs.	Seed Funding of ₹15000
7	LokFolk	LokFolk is an awareness and educational app to promote culture and traditions.	Seed Funding of ₹10000
8	SkyllZylla	An online educational platform for counseling and learning.	Seed Funding of ₹10000
9	Bazarpur	Bazarpur is a hyperlocal ecommerce platform for a city where service providers can introduce their services to the audience of the city and the audience can get the detailed overview of the city market and get quality products at effective cost from their own market within a few hours. <a href="http://www.bazarpur.com">www.bazarpur.com</a> ( <a href="http://www.bazarpur.com/">http://www.bazarpur.com/</a> )	Seed Funding of ₹10000
10	Decarbz	Decarbz - Provide services related to Carbon offsetting , Carbon Footprinting & Neutrality	Seed Funding of ₹10000
11	7colors	7colors is a full services digital marketing and design agency that aims to scale up your business with every colorful ladder.	Seed Funding of ₹12500
12	E-Bharat Vehicle	We transform your old fuel based automobile to electric	₹40000 in seed funding
13	Doctunes	DocTunes is an AI-powered app that converts PDFs and text into customizable audio, supporting multiple languages and voice styles. With over 500 premium voices and advanced translation features, it turns documents into immersive listening experiences.	₹500000
14	DevsCon	A unified platform for the developers to build profile, join communities, connect & learn.	Seed Funding of ₹10000
15	CarDho	Daily doorstep car grooming service making it accessible for all.	Seed Funding of ₹200000
16	Maakhana	Maakhana is a startup revolutionizing tiffin services with its unique promise of <b>"Maa Ka Khaana Maa Se Door."</b> <b>We deliver healthy, hygienic, and home-cooked meals in insulated, safe tiffin boxes, offering flexible daily, weekly, and monthly subscription plans</b> at affordable prices. <b>Catering to both B2B and B2C clients</b> , Maakhana ensures the warmth of home-cooked food reaches every doorstep.	Seed Funding of ₹100000, + additional ₹200000 for expansion
17	A Square Technologies	Smart-tech based solutions for solving problems like Pet-tie (smartwatch for pets) and women's safety glove.	Incubation support
18	Vouchsafe	A website where people can donate or sell (in lowest price) products and medicines which they usually left unused till the expiration of the same.	Incubation support

19	Leascit	An app through you can hire furniture, appliances, electronic items, fitness instruments, study material at an affordable price	Incubation support
20	Roomzy	Roomzy is a student housing marketplace revolutionizing the way students find off-campus housing by offering verified listings, no hidden fees, and direct owner connections.	Incubation support
21	AssureX	One stop solution for all and everything related to shares, stocks trading and investing.	Incubation support
22	iRaa	Here at eira we will handle all your wedding hustle, from selecting the venue to managing the social media, we cover it all.	Incubation support
23	Thriftorizz	Thriftorizz is a treasure trove where sustainable style meets affordable fashion, offering unique, carefully curated finds that help shoppers embrace eco-friendly choices while discovering hidden gems for every occasion.	Incubation support
24	HERitage	Women lead startup for sustainable gifting solutions all round.	Incubation support
25	Knot Just Cute	We are an aesthetic based artistic crochet brand that sells home grown crafts.	Incubation support
26	Glimora	We make handmade, customised, affordable jewellery for GenZ.	Incubation support
27	NIVA	NIVA combines AI-powered learning with student management, helping teachers track progress while students learn in their own style.	Incubation support
28	Miss Gifts	MissGift is where creativity meets emotion - every handmade piece is a reflection of love, turning simple moments into unforgettable memories you can hold forever.	Incubation support
29	Tobotics	Tobotics is a robotics innovation startup focused on developing tech-toys. We design and sell DIY tech-toy kits for students and enthusiasts, helping them learn hands-on electronics and robotics. Our team also engages in exhibitions, competitions, and outreach programs to inspire young minds and promote robotics education.	Incubation support
30	Vivah	A digital wedding platform that helps couples plan their dream wedding with ease	Incubation support
31	NitiPravh	Making policies simple, support accessible, and opportunities within everyone's reach.	Incubation Support
32	Nexisio	Turning lean budgets into lasting brands through ads, storytelling, and strategy that truly scale.	Incubation Support

Total Funding received from Institution (Internal Corpus Fund):Rs 555000/- (Five lakh fifty-five thousand only).

**Details of activities conducted under JIC at Institution**

S.No	Details Of Activity Conducted	Name Of Chief Guest/Coordinator	Numbers of Students
1	The Magnate Edition 5.0 Launch	Ms.Aarushi Gupta & Mr. Sumit Singh	150
2	Land Reviver Campaign	Mr.Shivansh Agarwal & Ms. Abhilasha Jha	120
3	100 Days Startup Challenge	Mr. Aman Singh & Mr. Aditya Singh	70
4	Beyond The Pitch	Ms.Shelly Bulchandani, Mr. Nitin Jain & Mr. Radhesh Agrahari	400
5	D2d Jaipur Meet-Up	Ms.Unnati Chhabra, Ms. Yashika Chaugh, Mr. Arya Soni & Mr. Ayush Kumar	90
6	Navigating The Engineering Journey	Ms . Vishakha Mulani	50
7	Data Structure And Algorithm Masterclass	Mr . Mankesh Dhanawat	60

8	Full Stack Web Development Masterclass	Mr. Yash Arora	58
9	Internet Of Things Masterclass	Mr . Aman Singh & Mr . Aditya Singh	65
10	Ui & Ux Design Masterclass	Mr . Khush Goyal & Mr . Yash Soni	59
11	Salesforce Masterclass	Ms . Manisha Gehlot	50
12	Artificial Intelligence And Machine Learning Masterclass	Mr . Aman Singh & Mr . Aditya Singh	65
13	Microsoft Azure X Jic - How Ai Is Reshaping Startup And World	Mr . Abhinav Sharma & Mr . Stanford Dsouza	150
14	Women In Tech Conference	Mr. Aditya Soni, Mr . Rahul Gautam, Ms. Vilsa Jain, Mr. Abhinav Sharma, Ms. Tiya Bansal	400
15	Energy Taskmaster Hackthon	Prof. Monica Sharma, Prof. Amar Patnaik, Dr. Vivekanand, & Dr. Sanjay Gaur	110
16	Founders Talk Decoding Startup Journey	Mr. Yajan Dua & Ms. Ayushi Mathur	60
17	Team Jic X Team Azure Meet-Up	Foreign Delegation From Azure	48
18	Aws Cloud Tour 2024	Kristine Howard , Jen Looper , Aditi Swahney & Ridhima Kapoor	200
19	National Startup Day-workshop	Mr Arpit Agrawal & Mr . Dheemant Agrawal	150
20	Pr And Leadership Skills Masterclass	Mr . Shivansh Agrawal & Ms . Aditi	65
21	Content Writing And Research Skills Masterclass	Ms . Tejasvi Ola , Mr . Harshwardhan, Ms. Mansi Soni, Ms. Kanishka & Mr Devansh	70
22	Graphic Skills Masterclass	Mr. Khush Goyal & Mr . Harshit Bhatnagar	68
23	Video Editing Skills Masterclass	Mr . Yash Soni , Mr . Nomaan Ali , Mr Dipanshu Jain & Mr Mansavi Garg	65
24	Linkedin Masterclass	Mr . Aayush Mathur , Mr Divyansh , Mr Tanishq , Ms . Rashika Goyal	56
25	Panel Discussion	Mr . Sushil Sharma , Mr Sumit Srivastaw , Mr . Munesh Jadoun Mr . Rajendra Lora & Dr . Sheenu Jhwar	80
26	Pitching Session	Mr . Sushil Sharma , Mr Sumit Srivastaw , Mr . Vivek Lodha Mr . Rajendra Lora & Dr . Shweta Chaudhary	98
27	Jic X Mnit Meetup	Delegates From Mnit	68
28	Uni Quiz	JIC Volunteers	80
29	Jugaad	JIC Volunteers	60
30	Start-Up Charades	JIC Volunteers	68
31	Entreprethon	JIC Volunteers	60
32	Guest Session	Mr . Ravi Nandan Sinha	329
33	Guest Session	Mr . Anirudh Kala	380
34	Guest Session	Mr . Inderjeet Singh	368
35	Scavenger Hunt	JIC Volunteers	80
36	Coworking Space Inaugration	JIC Volunteers	150
37	Brand Battle Competition	JIC Volunteers	120
38	Startup School Launch	Mr Shantanu Naidu	200
39	Interactive Session With Ias Officers	Ias Pari Bishnoi & Ias Anant Jain	380

40	Orientation 23	Mr Varun Alagh & Mrs . Ghazal Alagh	170
41	Orientation 23	Mr Amit Jain	210
42	Orientation 23	Mr Yash Kalra	205
43	Orientation 23	Mr Love Babbar	390
44	The Grand Orient 23	JIC Volunteers	1200
45	Special Visit – Motivational talk by special guest: Paytm owner	Mr Vijay Shekhar Sharma	590
46	Unbiased Basics	Mr Naman Mathur , Mr Prateek Singh , Mr Jay Bhavsar	80
47	Frontend Fusion	Ms Khushi Garg Mr Khush Goyal Mr Yash Soni	79
48	Ai Amplified – Motivational talk	Mr. Khushagra Gupta Mr Bilal Sheikh	70
49	Droid Sync	Mr Naman Mathur , Mr Prateek Singh , Mr Priyank Mehta	69
50	Dsa Programming	JIC Volunteers	65
51	Baadal Cloud And Salesforce	Ms Manisha Gehlot & Ms Mananya Gaur	70
52	Graduation Ceremony – Felicitation of students	Mr Arpit Agrawal- Director JECRC	72
53	National Roadshow	Students from JECRC	600
54	Workshop On LinkedIn	JIC Volunteers	60
55	Workshop On Content Creation	JIC Volunteers	65
56	Workshop On Graphic Designing	JIC Volunteers	62
57	Workshop On Pr Skills & Relationship Building	JIC Volunteers	67
58	Workshop On Video Editing	JIC Volunteers	70
59	Graduation Ceremony	JIC Volunteers	72
60	National Startup Day 23	JIC Volunteers	380
61	Startup Conclave	JIC Volunteers	500
62	Plant Adoption Ceremony	JIC Volunteers	80
63	Valedictory Ceremony	JIC Volunteers	200
64	Passion & Entrepreneurial Mindset	Mr Rajneesh Singh	300
65	Khoj Startup Yatra Program	JIC Volunteers	180
66	Khoj Startup Yatra Program	JIC Volunteers	210
67	Aarambh : An Introductory talk	JIC Volunteers	170

At Institution, initiatives and facilities aimed at encouraging students toward innovation, entrepreneurship, incubation, and start-ups are essential components of their academic ecosystem. The key initiatives, facilities, and their effectiveness in fostering innovation and entrepreneurship are as follows:

#### 1. JIC: JECRC Incubation Centre as Institute Innovation Cell (IIC)

**Initiative:** The IIC at Institution is designed to nurture the entrepreneurial spirit among students. It organizes various workshops, seminars, and guest lectures by industry experts, which help students understand the nuances of entrepreneurship. The cell also encourages students to develop their own start-ups. Institution's Innovation and Incubation Centre (JIC) is focused on providing students with a platform to work on their innovative ideas and transform them into viable start-ups. The centre offers a range of services including mentoring, prototyping facilities, and initial seed funding.

**Facilities:** The cell offers resources such as mentorship, funding opportunities and networking platforms for students to connect with entrepreneurs and investors.

State-of-the-art labs and workshops for prototyping and product development.

\* Access to industry mentors and experienced entrepreneurs.

\* Support for business planning and financial advice.

\* Networking events and pitching sessions to help students connect with investors.

**Effectiveness:** The IIC has helped students kick start their entrepreneurial journeys by offering practical exposure, guidance, and initial funding. It plays a crucial role in transforming ideas into executable business models. The IIC has contributed to the successful launch of several student-led start-ups. It fosters a culture of experimentation and risk-taking, empowering students to take their entrepreneurial ideas forward.

## 2. Start-up Awareness Programs and Collaborations

**Initiative:** Institution JIC organizes start-up awareness programs and hackathons, which encourage students to think critically, collaborate, and come up with innovative solutions. These programs are designed to enhance problem-solving abilities, teamwork, and entrepreneurial thinking. JIC has established strong partnerships with industry leaders, angel investors, and academic institutions to provide resources for students interested in entrepreneurship. These collaborations help in organizing industry exposure programs, workshops, and mentorship.

### Facilities:

- \* Hackathons and start up challenges.
- \* Collaboration with industry and academic experts.
- \* Industry-academia collaboration for funding and mentoring.
- \* Regular industry visits, internships, and workshops.

**Effectiveness:** These programs engage students in real-world problems, making them more innovative and entrepreneurial. Many successful student projects have originated from these events. These collaborations help bridge the gap between academia and the real-world industry, giving students a better understanding of market demands, and enabling them to create products that have commercial viability.

## 3. Networking and Mentorship Opportunities

**Initiative:** JIC actively connects students with alumni, successful entrepreneurs, and industry experts through mentorship programs, events, and networking sessions. This exposure helps students refine their business ideas and gain valuable insights.

### Facilities:

- \* Alumni mentorship.
- \* Industry networking events and start-up summits.

**Effectiveness:** These opportunities allow students to learn from the experiences of successful entrepreneurs, and many students have gained valuable advice that has helped shape their ventures.

### List of Beneficiaries for Institute Initiatives:

The beneficiaries of Institute's initiatives related to entrepreneurship and innovation include:

#### 1. Students:

Those enrolled at Institute who wish to pursue entrepreneurship or engage in innovative projects.

#### 2. Alumni Entrepreneurs:

Graduates who have benefited from the institution's support system in launching and growing their own start-ups.

#### 3. Faculty Members:

Faculty who collaborates with students guiding them in terms of both technical expertise and business development.

#### 4. Local Entrepreneurs and Start-ups:

Local start-ups and entrepreneurs who collaborate with Institute for networking, mentoring, and resources.

#### 5. Industry Partners:

Industries that partner with Institute for mentoring, funding, or collaboration on student start-up projects.

### Effectiveness of the Initiatives

- Increased awareness among students about **entrepreneurship as a career option**.
- Improvement in **innovation, leadership, communication, and problem-solving skills**.
- Several students have developed **business ideas**, participated in start-up competitions, and enrolled in entrepreneurship-related programs.
- Enhanced interaction with industry and exposure to real-life entrepreneurial challenges.

### Outcomes of the Initiatives

The Institution's consistent efforts in promoting entrepreneurship and start-up activities have created a **positive ecosystem for innovation**, enabling students to develop entrepreneurial mindsets and prepare for self-employment and start-up ventures. Builds entrepreneurial mindset through training and mentoring, leading to improved business awareness and student-led start-up initiatives. Supports innovation with mentoring, prototyping, and funding, enabling idea-to-startup conversion and strengthening the innovation ecosystem. Promotes problem-solving and teamwork, resulting in innovative projects and start-up-ready ideas. Provides expert guidance, enhancing leadership skills and scalability of student start-ups.

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## 9.6 Governance and Transparency (25)

**9.6.1 Governing Body, Administrative Setup, Functions of Various Bodies, Service Rules, Recruitment procedures and Promotion Policies (10)**

Institute Marks : 10.00

**Statutory Administrative Committees:**

The Institute has constituted various statutory and administrative committees in compliance with statutory requirements and regulatory guidelines to ensure effective governance, transparency, and smooth administrative functioning. The major statutory committees include Governing Body, Internal Quality Assurance Cell (IQAC), Grievance Redressal Committee, Anti-Ragging Committee, Internal Complaints Committee (ICC) and SC/ST Cell. These committees have clearly defined roles and responsibilities, and their constitution is approved by the competent authority. Meetings of these committees are conducted at least twice in an academic year, and the decisions taken are documented through Minutes of Meetings (MoM) and implemented in a time-bound manner. The functioning of these committees supports participative decision-making, statutory compliance, and continuous improvement in academic and administrative processes of the Institute.

**Statutory Administrative Committees**

These committees are **constituted as per regulatory authority norms** and are mandatory are:

1. Governing Body / Board of Governors
2. Internal Quality Assurance Cell (IQAC)
3. Grievance Redressal Committee
4. Anti-Ragging Committee & Squad
5. Internal Complaints Committee (ICC)
6. SC/ST Cell

**Non-Statutory Administrative Committees:**

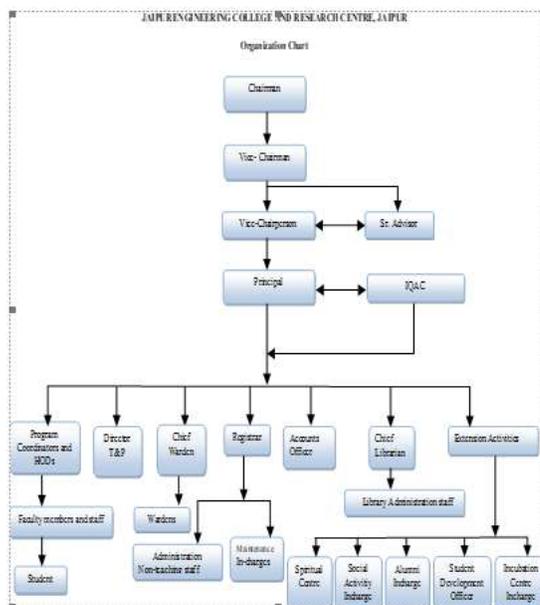
In addition to statutory committees, the Institute has constituted various non-statutory administrative committees to support effective planning, coordination, and day-to-day administrative and academic activities. These committees include the Examination Committee, student council, Hostel Committee, Industry Interaction Committee, Women cell Committee, Sexual Harassment Committee.

The roles and responsibilities of these committees are clearly defined and aligned with institutional objectives. Meetings of these committees are conducted **at least twice in an academic year**, and Minutes of Meetings (MoM) are recorded and appropriate corrective measures are taken as per rule. The functioning of these non-statutory committees promotes decentralization of responsibilities, participative management, and efficient execution of institutional activities.

**Non-Statutory Administrative Committees (Supportive)**

Common non-statutory committees include:

1. Examination Committee
2. Student council
3. Hostel Committee
4. Industry Interaction Committee
5. Women Cell Committee
6. Sexual Harassment Committee

**Details of Statutory Administrative Committees****NSERD (National Society for Engineering Research and Development Jaipur):**

The National Society for Engineering Research and Development (NSERD) is the **sponsoring and governing body** of Jaipur Engineering College & Research Centre (JECRC) and plays a key role in the overall institutional governance and strategic development. Registered in Jaipur in 1999, NSERD comprises the Chairman, Vice Chairman, Secretary, advisor as an invitee member and it meets **as per the need** to review institutional performance, approve financial implementations, provide guidance on policy matters and long-term development plans.

**Board of Governance:**

The Board of Governance (BoG) is the apex decision-making body of the Institute, responsible for overseeing overall institutional strategy, policy formulation, and compliance with statutory and regulatory requirements. It comprises eminent members including the Chairman and Vice-Chairman of NSERD, the Principal of JECRC, senior academicians, and industry experts. The BoG meets at least twice in an academic year to review academic and administrative performance, approve budgetary allocations, and advise long-term development plans of the Institute. Its functioning ensures transparency, accountability, and participative decision-making, thereby enabling continuous improvement in academic quality, infrastructure development, and governance processes.

**Internal Quality Assurance Cell (IQAC):**

The Internal Quality Assurance Cell (IQAC) is a statutory body of the Institute established to monitor and enhance the quality of academic processes. It comprises the Principal as Chairperson, senior faculty members from all departments, administrative officers, and student representatives. The IQAC meets at least twice in an academic year to review academic performance, assess feedback from students, faculty, and alumni, and suggest corrective actions for continuous improvement. Key functions include coordinating internal academic audits, promoting research activities, and ensuring the implementation of best practices across departments. The IQAC's initiatives have resulted in better outcome-based teaching practices, timely feedback implementation, and enhanced documentation for NBA and NAAC compliance.

**IQAC VISION**

To monitor, advise and ensure, initiatives taken by the institute to improve quality in education and administrative setup by doing periodic monitoring & evaluation and achieving new benchmarks.

**IQAC MISSION:**

1. To establish outcome-based learning environment that includes value-based system.
2. To encourage all the departments to outreach and build relationships with the institutes and industries of repute at global level.
3. To develop a system that consistently monitors and advises the initiatives taken by the institute and encourages improvement upon best practices.
4. To develop universal rules and rubrics for all sections.

**Grievance Redressal Committee:**

The **Grievance Redressal Committee (GRC)** is a statutory committee constituted to address and resolve complaints from students, faculty, and staff in a fair and transparent manner. The committee comprises the Principal as Chairperson, senior faculty members, administrative representatives, and student representatives, meetings happen to review grievances, ensure timely resolution, and recommend preventive measures to avoid recurrence. Key functions include receiving complaints related to academic, administrative, or personal matters, investigating issues impartially, and reporting resolutions to the Institute's higher authorities. The functioning of the GRC has strengthened institutional accountability, improved stakeholder satisfaction, and ensured a safe and supportive academic environment.

**Anti-Ragging and Squad Committee:**

The **Anti-Ragging and Squad Committee** is a statutory body constituted to ensure a ragging-free and safe campus environment for all students. The committee includes the Principal as Chairperson, senior faculty members, student representatives, and administrative staff. It is responsible for implementing the provisions of the Anti-Ragging Regulations, conducting awareness programs, monitoring student activities, and taking immediate action on reported cases. Its functioning has successfully created a secure and disciplined campus, strengthened student awareness about anti-ragging policies, and established a prompt response mechanism for any untoward incidents.

**Internal Complaint Committee:**

The **Internal Complaints Committee (ICC)** is a statutory committee established to address complaints related to sexual harassment, workplace misconduct, and gender-based issues within the Institute, in accordance with the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. The committee comprises a senior female faculty member as Chairperson, members from faculty and administration, and an external expert as mandated by law. The ICC meets to examine complaints, conduct investigations, and recommend appropriate actions to the competent authority. Its functioning has strengthened institutional accountability, ensured a safe and respectful campus environment, and promoted awareness about rights, responsibilities, and grievance redressal mechanisms among students and staff.

**SC/ST Cell:**

The **SC/ST Cell** is a statutory committee constituted to ensure the welfare, rights, and equal opportunities of students belonging to Scheduled Castes (SC) and Scheduled Tribes (ST). The committee comprises senior faculty members, administrative representatives, and student representatives from SC/ST categories, with the principal as the approving authority. It meets to review the implementation of reservation policies, monitor academic support programs, address grievances, and facilitate scholarships or special assistance for SC/ST students. The functioning of the SC/ST Cell has enhanced inclusivity, ensured equitable access to academic and extracurricular resources, and strengthened institutional mechanisms for protecting the rights and welfare of underrepresented groups.

S. No.	Committees	Composition & MOM (2022-23)	Composition & MOM (2023-24)	Composition & MOM (2024-25)
1	NSERD	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/NSERD%20and%20MOM%202022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/NSERD%20and%20MOM%202022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/NSERD%20and%20MOM%202023-24.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/NSERD%20and%20MOM%202023-24.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/NSERD%20MOM%202024-25.pdf">https://jecrcfoundation.com/naacdata/NSERD%20MOM%202024-25.pdf</a> )
2	Board of Governors	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/BOG%20Committee%202022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/BOG%20Committee%202022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/Composition-of-Board-of-Governors-2023-24.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/Composition-of-Board-of-Governors-2023-24.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/BOG_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/BOG_2024-25_N.pdf</a> )
3	IQAC Committee	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/IQAC-Composition-MOM%202022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/IQAC-Composition-MOM%202022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/IQAC%20MOM%20Final.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/IQAC%20MOM%20Final.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/com/IQAC_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/com/IQAC_2024-25_N.pdf</a> )
4	Grievance Redressal Committee	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Grievance-Redressal-Committee-2022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Grievance-Redressal-Committee-2022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/3-GRIEVANCE-REDRESSAL-COMMITTEE-2023-24.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/3-GRIEVANCE-REDRESSAL-COMMITTEE-2023-24.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/com/Grievance-Redressal_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/com/Grievance-Redressal_2024-25_N.pdf</a> )
5	Anti-Ragging Cell	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Anti-Ragging-MOM-2022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Anti-Ragging-MOM-2022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/Anti%20Ragging%20Committee%20and%20MOM.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/Anti%20Ragging%20Committee%20and%20MOM.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/com/Anti-Ragging_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/com/Anti-Ragging_2024-25_N.pdf</a> )
6	Anti-Ragging Squad Committee	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Anti-Ragging-MOM-2022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Anti-Ragging-MOM-2022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/Anti%20Ragging%20Committee%20and%20MOM.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/Anti%20Ragging%20Committee%20and%20MOM.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/com/Anti-Ragging_Squad_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/com/Anti-Ragging_Squad_2024-25_N.pdf</a> )
7	Sexual Harassment Committee/Internal Complaint Committee			LINK ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/Internal-Complaint-Committee-2024-25.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/Internal-Complaint-Committee-2024-25.pdf</a> )
8	Schedule Cast & Schedule Tribes Committee	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/SC-ST-Composition-MOM-2022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/SC-ST-Composition-MOM-2022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/5-SC-ST-Committee-2023-24.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/5-SC-ST-Committee-2023-24.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/com/SC-ST_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/com/SC-ST_2024-25_N.pdf</a> )

**Details of Non-Statutory Administrative Committees:**

**Examination Committee:**

The **Examination Committee** is a non-statutory committee constituted to plan, coordinate, and monitor all academic examinations in the Institute. The committee comprises the Controller of Examinations as Chairperson, senior faculty members, departmental representatives, and administrative staff. Key functions include preparation of exam timetables, supervision of evaluation and result compilation, and implementation of examination-related policies. The functioning of the Examination Committee has enhanced transparency, timely conduct of examinations, accurate evaluation processes, and ensured adherence to academic regulations.

**Student Disciplinary Committee:**

The **Student Disciplinary Committee** is a non-statutory committee constituted to maintain discipline and ensure adherence to the Institute’s code of conduct among students. The committee comprises senior faculty members, administrative staff, and student representatives, with the principal or a senior faculty member as the Chairperson. The committee meets to review cases of misconduct, investigate reported incidents, and recommend appropriate actions to the competent authority. Key functions include monitoring student behaviour, addressing complaints related to indiscipline, and enforcing disciplinary measures as per Institute policies. The functioning of the Student Disciplinary Committee has strengthened campus discipline, ensured a safe and respectful learning environment, and promoted a culture of accountability and ethical conduct among students.

**Hostel Committee:**

The **Hostel Committee** is a non-statutory committee constituted to oversee the management, welfare, and smooth functioning of hostel facilities provided to students. The committee comprises senior faculty members, administrative staff, hostel wardens, and student representatives. The meeting conducted to review hostel facilities, ensure proper maintenance, monitor safety and security measures, and address grievances or suggestions from hostel residents. Key functions include allocation of rooms, monitoring cleanliness, implementing safety protocols, organizing hostel events, and facilitating a supportive residential environment. The functioning of the Hostel Committee has improved student satisfaction, enhanced safety and hygiene standards, and strengthened a sense of community among hostel residents.

**Industry Interaction Committee:**

The **Industry Interaction Committee** is a non-statutory committee constituted to strengthen collaboration between the Institute and industry partners, thereby enhancing students’ employability, practical exposure, and research opportunities. The committee comprises senior faculty members, the Training & Placement Officer, department coordinators, and industry representatives. It meets to plan industrial visits, internships, guest lectures, and collaborative projects. Key functions include identifying industry engagement opportunities, coordinating with companies for skill development programs, facilitating internships and live projects, and gathering feedback from industry partners to improve curriculum relevance. The functioning of the Industry Interaction Committee has enhanced industry-institute linkages, provided students with hands-on exposure, and ensured that academic programs remain aligned with evolving industry requirements.

**Women Cell:**

The **Women Cell** is a non-statutory committee established to promote gender equality, ensure the safety and welfare of female students and staff, and create a supportive campus environment. The committee comprises senior female faculty members, administrative representatives, and student members, with the principal as the approving authority. It meets to plan awareness programs, workshops, and counselling sessions focused on women’s safety, career guidance, and empowerment. Key functions include addressing gender-related concerns, facilitating mentorship programs, conducting sensitization sessions, and coordinating with statutory bodies such as the Internal Complaints Committee (ICC) when required. The functioning of the Women Cell has strengthened gender awareness, enhanced campus safety, and promoted an inclusive and supportive environment for female students and staff.

S. No.	Committees	Composition & MOM (2022-23)	Composition & MOM (2023-24)	Composition & MOM (2024-25)
1	Examination Committee			
2	Student Disciplinary Committee	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Student-Disciplinary-Composition-and-MOM-2022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Student-Disciplinary-Composition-and-MOM-2022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/Student%20Disciplinary%20Committee%20and%20MOM%202023-24.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/Student%20Disciplinary%20Committee%20and%20MOM%202023-24.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/com/Student_Disciplinary_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/com/Student_Disciplinary_2024-25_N.pdf</a> )
3	Hostel Committee			
4	Industry Interaction Committee			
5	Women Cell Committee	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Women-Cell-Composition-MOM-2022-23.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/1/Women-Cell-Composition-MOM-2022-23.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/Women%20Cell%20MOM.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/Women%20Cell%20MOM.pdf</a> )	LINK ( <a href="https://jecrcfoundation.com/naacdata/com/Women_Cell_2024-2025_N.pdf">https://jecrcfoundation.com/naacdata/com/Women_Cell_2024-2025_N.pdf</a> )

**Service Rule:**

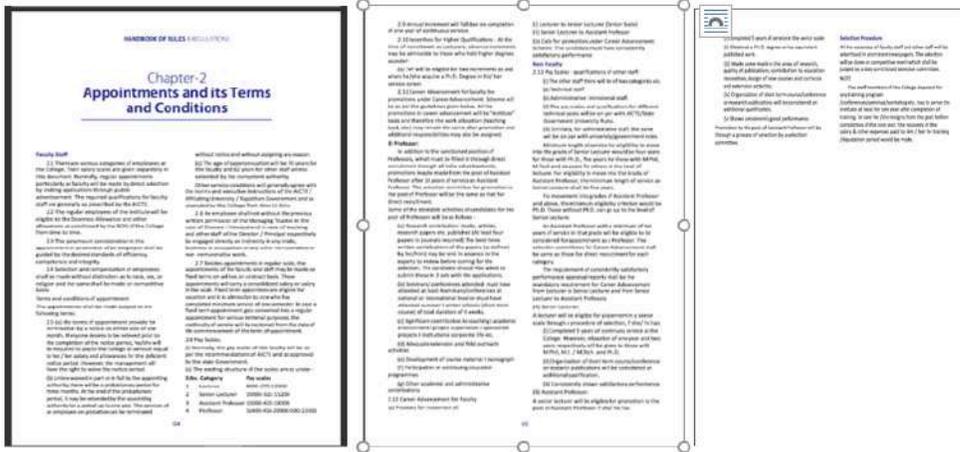
The Institute has well-defined **Service Rules** for teaching and non-teaching staff, which are framed and implemented by the institute management to ensure smooth and effective administrative and academic functioning. These service rules clearly specify policies related to **recruitment, appointment, probation, confirmation, promotion, pay structure, leave, performance appraisal, code of conduct, and disciplinary procedures**. Recruitment of faculty and staff is carried out through a **transparent and merit-based selection process** in accordance with the **norms of AICTE and the affiliating university**. Provisions for promotion and career advancement are based on **qualifications, experience, performance, and institutional requirements**. The service rules also emphasize **professional ethics, accountability, and discipline**, thereby creating a conducive work environment and supporting continuous improvement in academic quality. **The link to the detailed Service Rules document, uploaded on the institute website, is provided below for reference.**

<https://jecrcfoundation.com/wp-content/uploads/2026/01/Handbook.pdf> (<https://jecrcfoundation.com/wp-content/uploads/2026/01/Handbook.pdf>)

**Recruitment Procedure:**

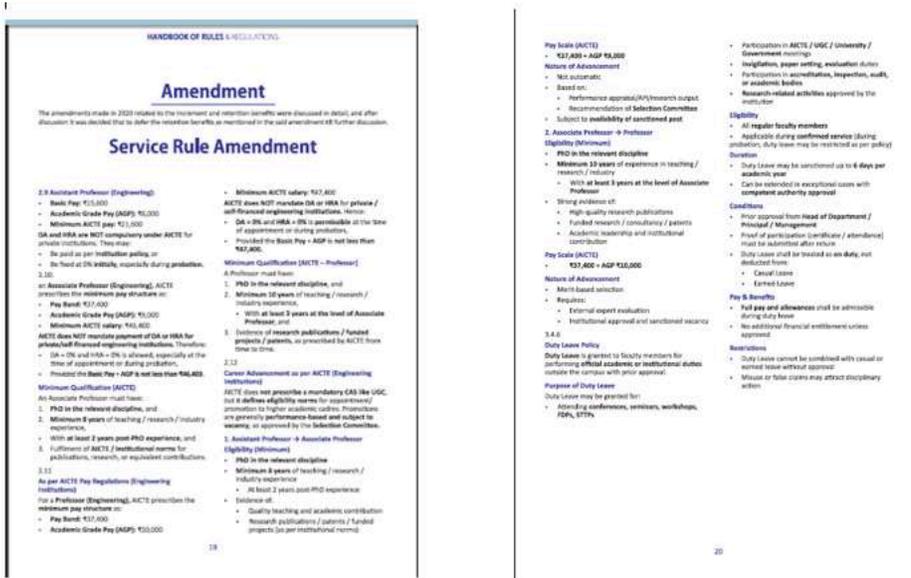
As per the Service Rules of Institute, the **recruitment procedure** for teaching and non-teaching staff is carried out through a **systematic, transparent, and merit-based process**. Vacancies are identified and approved by the institute management based on academic and administrative requirements. Positions are advertised through appropriate modes such as the institute website, newspapers, or other recognized platforms to ensure wide outreach. Biodata received are screened based on **eligibility criteria, qualifications, experience, and domain expertise** as prescribed by **AICTE and the affiliating university**. Eligible candidates are called for **interviews, presentations, and/or skill assessments**

conducted by the experts duly constituted as selection committee. Final selection is made based on the recommendations of the selection committee and approval of the competent authority, ensuring fairness, transparency, and compliance with regulatory norms. Though appointments are done on regular basis throughout the year.



Promotion Policies:

As per the Service Rules of the Institute, the promotion policy for teaching and non-teaching staff is structured to promote academic excellence, professional growth, and institutional development. Promotions for teaching staff are carried out in accordance with AICTE/UGC norms and are based on eligibility criteria such as minimum qualifications, years of service, performance appraisal, and academic contributions. A committee collects the application of eligible candidates for promotion to next level and takes necessary decision based on the rules stated by AICTE for promotion and recommendation. The evaluation process includes assessment through Performance Based Appraisal System (PBAS) covering parameters like teaching effectiveness, research publications, professional development activities, and institutional responsibilities. For non-teaching staff, promotions are based on experience, performance record, skill upgradation, and availability of sanctioned posts. All promotion decisions are made through a transparent and committee-based evaluation process with approval of the competent authority, ensuring fairness and compliance with regulatory requirements.



For Further Information, Kindly Visit the Website - https://jecrcfoundation.com/

9.6.2 Transparency (5)

Institute Marks : 5.00

The Institution ensures transparency and effective governance by making comprehensive information related to institutional policies, service rules, academic and administrative processes, delegation of financial powers, and provisions for faculty and students available on the Institute's official website. Important statutory documents, including the agendas and minutes of meetings of the Governing Body, Academic Council, and Senate, are regularly uploaded to facilitate informed decision-making and accountability. The institute adopts multiple mechanisms such as official circulars, notices, website updates, emails, and orientation programs to disseminate this information to all stakeholders. As a result, there is a high level of awareness among faculty, staff, students, and other stakeholders regarding institutional policies, governance structure, and decision-making processes, contributing to a transparent, participative, and well-informed academic environment.

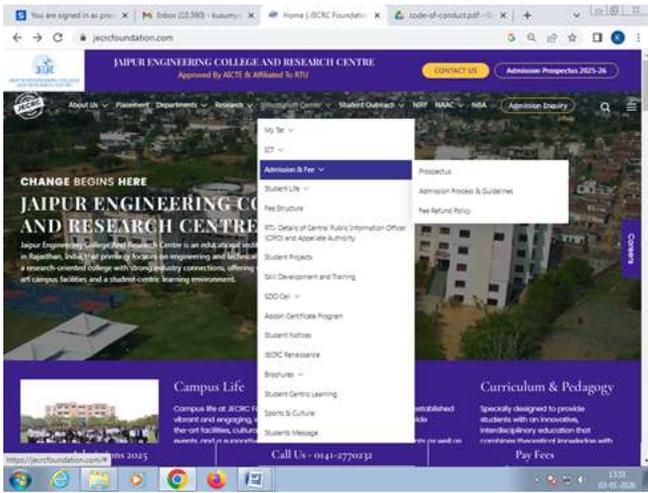
The Institution ensures transparency and dissemination of institutional information through its website.

S. No	Title	Link of Website
1	Mandatory Disclosures	
2	JECRC Policy	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/04/Policy-Booklet.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/04/Policy-Booklet.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/04/Policy-Booklet.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/04/Policy-Booklet.pdf</a> )
3	Handbook of Rules and Regulation	<a href="https://jecrcfoundation.com/wp-content/uploads/2026/01/Handbook.pdf">https://jecrcfoundation.com/wp-content/uploads/2026/01/Handbook.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2026/01/Handbook.pdf">https://jecrcfoundation.com/wp-content/uploads/2026/01/Handbook.pdf</a> )
4	Guidelines of statutory/regulatory bodies	<a href="https://jecrcfoundation.com/wp-content/uploads/2023/04/5.1.51.pdf">https://jecrcfoundation.com/wp-content/uploads/2023/04/5.1.51.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2023/04/5.1.51.pdf">https://jecrcfoundation.com/wp-content/uploads/2023/04/5.1.51.pdf</a> )
5	Pollices with Zero tolerance	<a href="https://jecrcfoundation.com/wp-content/uploads/2023/04/5.1.5.2.pdf">https://jecrcfoundation.com/wp-content/uploads/2023/04/5.1.5.2.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2023/04/5.1.5.2.pdf">https://jecrcfoundation.com/wp-content/uploads/2023/04/5.1.5.2.pdf</a> )
6	JECRC Strategic Planning	<a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/Criteria-6/Strategic-Planning%2023-28.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/Criteria-6/Strategic-Planning%2023-28.pdf</a> ( <a href="https://jecrcfoundation.com/jf-data/AQAR2023-24/Criteria-6/Strategic-Planning%2023-28.pdf">https://jecrcfoundation.com/jf-data/AQAR2023-24/Criteria-6/Strategic-Planning%2023-28.pdf</a> )
7	Institutional Committees	<a href="https://jecrcfoundation.com/institutional-committees/">https://jecrcfoundation.com/institutional-committees/</a> ( <a href="https://jecrcfoundation.com/institutional-committees/">https://jecrcfoundation.com/institutional-committees/</a> )
8	Student List	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/04/Student-List-I-Year-II-Year-III-Year-IV-Year-2024-25.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/04/Student-List-I-Year-II-Year-III-Year-IV-Year-2024-25.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/04/Student-List-I-Year-II-Year-III-Year-IV-Year-2024-25.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/04/Student-List-I-Year-II-Year-III-Year-IV-Year-2024-25.pdf</a> )
9	Fee Refund Policy	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/Fee-Refund-Policy-of-Jaipur-Engineering-College-and-Research-Centre-Jaipur.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/Fee-Refund-Policy-of-Jaipur-Engineering-College-and-Research-Centre-Jaipur.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/Fee-Refund-Policy-of-Jaipur-Engineering-College-and-Research-Centre-Jaipur.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/Fee-Refund-Policy-of-Jaipur-Engineering-College-and-Research-Centre-Jaipur.pdf</a> )
10	Student Notices	<a href="https://jecrcfoundation.com/student-notices/">https://jecrcfoundation.com/student-notices/</a> ( <a href="https://jecrcfoundation.com/student-notices/">https://jecrcfoundation.com/student-notices/</a> )
11	Internal Complaint Committee	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/Internal-Complaint-Committee-2024-25.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/Internal-Complaint-Committee-2024-25.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/Internal-Complaint-Committee-2024-25.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/Internal-Complaint-Committee-2024-25.pdf</a> )
12	Details of Student Grievance Redressal Committee (SGRC) and Ombudperson	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/09/Student-Grievance-Redressal-Committee-2025-26.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/09/Student-Grievance-Redressal-Committee-2025-26.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/09/Student-Grievance-Redressal-Committee-2025-26.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/09/Student-Grievance-Redressal-Committee-2025-26.pdf</a> )
13	Anti-Ragging Cell	<a href="https://jecrcfoundation.com/naacdata/com/Anti-Ragging_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/com/Anti-Ragging_2024-25_N.pdf</a> ( <a href="https://jecrcfoundation.com/naacdata/com/Anti-Ragging_2024-25_N.pdf">https://jecrcfoundation.com/naacdata/com/Anti-Ragging_2024-25_N.pdf</a> )
14	Fees Details 20225-26	<a href="https://jecrcfoundation.com/fee-structure/">https://jecrcfoundation.com/fee-structure/</a> ( <a href="https://jecrcfoundation.com/fee-structure/">https://jecrcfoundation.com/fee-structure/</a> )
15	Admission Brochure	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/04/Final-Brochure-compressed.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/04/Final-Brochure-compressed.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/04/Final-Brochure-compressed.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/04/Final-Brochure-compressed.pdf</a> )
16	Placement Brochure	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/Placement-Brochure-2025-.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/Placement-Brochure-2025-.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/Placement-Brochure-2025-.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/Placement-Brochure-2025-.pdf</a> )

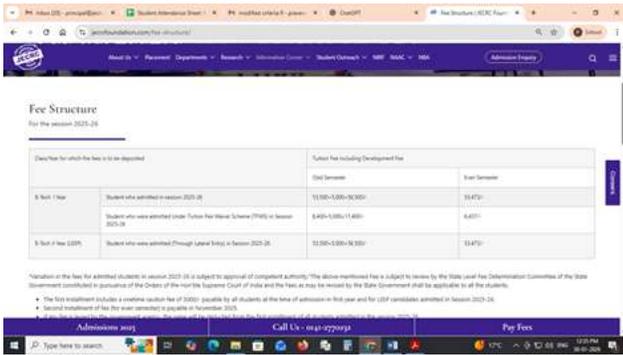
**Sample and Important Proof on the website:**

**1. JECRC Policy:**

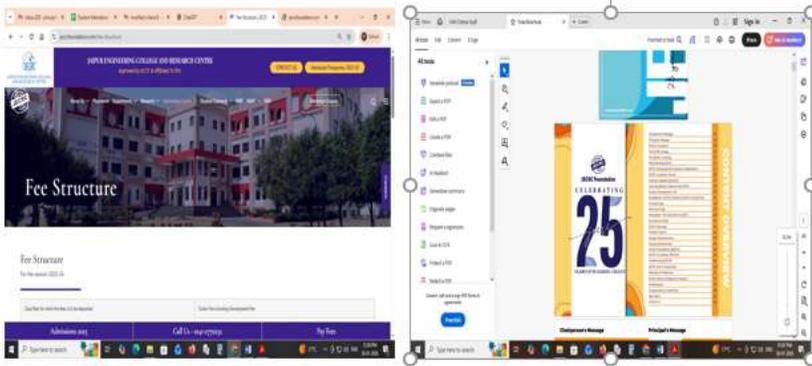




**6. Fees Details 2025-26:**



**7. Admission Brochure:**



**8. Placement Brochure:**



**Delegation of Financial Power and other Roles and Responsibilities:**

Position	Functions

Chairman Governing Body	<ul style="list-style-type: none"> <li>Chairman is the Chief Mentor of the Institution, and heads the Governing Body (GB).</li> <li>He is the final authority to approve all policy matters on expansions, collaborations, financial outlays, budgetary allocations and admin related decision.</li> <li>He approves the recruitment of senior management staff.</li> </ul>
Principal	<ul style="list-style-type: none"> <li>As Head of the Institution, he shall exercise his authority for institution building. He will act as Competent Authority for all Faculty Members and Officer staff and be responsible for overall human resource management their appointment, utilization, retrenchment, termination, disciplinary action. etc. He will exercise signing powers as Competent Authority.</li> <li>He will act as superintendent and guide for all items of work related to AICTE RTU (Affiliating University), UGC, MHRD, Technical Education Department GOR, State Level Fees. Determination Committee, and other regulatory or higher bodies.</li> <li>Establish a climate in which faculty members and the students can develop self-discipline, and promote research.</li> <li>To formulate the Budget and assess the infrastructural and other requirements well in advance and get the same approved from the Secretary, NSERD before execution.</li> <li>Impress amount of Rs. 1,00,000/- (Rs One Lakh Only) is also delegated for routine exercise.</li> </ul>
Registrar	<ul style="list-style-type: none"> <li>He shall act Competent Authority for all office and sub-staff, and exercise signing powers as competent authority for their appointment, utilization, retrenchment, termination, disciplinary action. etc.</li> <li>He shall act as Compliance Officer to fulfill the regulatory guidelines etc. of AICTE. Will (Affiliating University), UGC, MHRD, Technical Education Department GOR, State Level Fees Determination Committee, and other regulatory or higher bodies. He shall act as signing authority in all such matters.</li> <li>The Registrar shall be the custodian of records and property of the college, and be directly responsible to the Director/Principal of the College for the proper discharge of his duties and functions, and exercise such other powers and perform such other duties as may be assigned to him by the Director/Principal.</li> <li>In the absence of Director / Principal, all powers shall vest in Registrar and he shall exercise the authority and signing powers of the Principal including Competent Authority for Faculty Members, etc.</li> </ul>
Head of Department	<p>The Head of departments is responsible for:</p> <ul style="list-style-type: none"> <li>Administration of the department in respect of regularity, punctuality, distribution of teaching work and laboratory work among the staff.</li> <li>The HOD should be well informed about the activities and programs of other professional colleges and institutions. HOD should keep good contacts with the faculty of IITs, other Universities and colleges in the country and to the extent possible, Universities abroad.</li> <li>Preparation of class-wise timetables.</li> <li>Maintain laboratory-wise stock registers</li> <li>Organizing special lectures by experts, technical staff, seminars &amp; conferences and refresher courses.</li> <li>Encourage the faculty and staff to improve their academic qualifications without effecting normal curriculum.</li> <li>Encourage students to develop communication skills, report writing, debating and group discussions etc.</li> <li>Extend all possible help to students of the department for training/project work/professional employment.</li> <li>Impress amount of Rs. 10,000/- (Rs Ten Thousand Only) is also delegated for routine exercise.</li> </ul>
Accounts and Admin	<ul style="list-style-type: none"> <li>Recording and reporting the cash flows.</li> <li>Accounts receivable &amp;Accounts payable</li> <li>Payroll &amp; Financial controls</li> </ul>
Industry Institute Interaction Cell	<ul style="list-style-type: none"> <li>To create a platform for industry institute interaction.</li> <li>To establish inter-relationship between Institute &amp; Industry through know-how and MOU's.</li> <li>To facilitate student/faculty internships at industries.</li> <li>To organize industrial visits for the students.</li> <li>To organize technical talks for the students from the industry experts.</li> </ul>
Entrepreneurship Development Cell	<ul style="list-style-type: none"> <li>To nurture the student ideas and to develop innovative products.</li> <li>To support the student projects with funding.</li> <li>To establish &amp; maintain incubation centre.</li> <li>To create entrepreneurs echo system for students.</li> <li>To maintain data relevant to entrepreneurship programmes.</li> <li>To encourage &amp; establish start-up companies.</li> </ul>

Maintenance Head	<ul style="list-style-type: none"> <li>To ensure proper maintenance of all institute infrastructure, including classrooms, laboratories, workshops, office spaces, and common areas.</li> <li>To supervise maintenance staff and contractors for smooth functioning of facilities.</li> <li>To ensure preventive and corrective maintenance of electrical, plumbing, HVAC, and other systems.</li> <li>To maintain records of all maintenance activities, schedules, and consumables.</li> <li>To coordinate with other departments for timely repair, renovation, and facility upgrades.</li> <li>To implement and monitor safety, cleanliness, and security protocols across the campus.</li> <li>To manage maintenance budgets and ensure optimal utilization of resources.</li> <li>To review and recommend procurement of tools, equipment, and maintenance services.</li> <li>Impress amount of Rs. 1,00,000/- (Rs One Lakh Only) is also delegated for routine exercise.</li> </ul>
Student Development Officer (SDO)	<ul style="list-style-type: none"> <li>To <b>plan, organize, and execute all student cultural programs</b> on campus.</li> <li>To <b>coordinate with faculty, departments, and student committees</b> for smooth execution of cultural events.</li> <li>To <b>manage logistics, resources, and event-related budgets</b> effectively.</li> <li>To <b>maintain records of cultural events</b>, including participation, feedback, and outcomes.</li> <li>To <b>ensure high student engagement and participation</b> in all cultural activities.</li> <li>Impress amount of Rs. 25,000/- (Rs Twenty Five Thousand Only) is also delegated for routine exercise.</li> </ul>
Director Placement	<ul style="list-style-type: none"> <li>To <b>plan, strategize, and oversee all campus placement activities</b> for students.</li> <li>To <b>develop and maintain relationships with industry partners, corporate recruiters, and alumni</b> to maximize placement opportunities.</li> <li>To <b>coordinate pre-placement training, mock interviews, and career guidance programs</b> to prepare students for recruitment.</li> <li>To <b>maintain a database of student profiles, placement statistics, and recruiter feedback</b> for continuous improvement.</li> <li>To <b>monitor and track placement drives, internships, and on-campus/off-campus recruitment</b> processes.</li> <li>To <b>ensure effective communication with faculty and students</b> regarding upcoming placement opportunities and eligibility criteria.</li> <li>To <b>organize placement-related events and industry interactions</b> to enhance employability.</li> <li>To <b>approve placement-related expenditure</b> within sanctioned financial limits Rs. 50,000/- (Rs Fifty Thousand Only)</li> </ul>
Head Alumni	<ul style="list-style-type: none"> <li>To <b>maintain and strengthen relationships with alumni</b> to foster long-term engagement and support for the institute.</li> <li>To <b>plan, coordinate, and execute alumni events</b>, including reunions, networking sessions, and guest lectures.</li> <li>To <b>collect and maintain accurate data of alumni</b>, including contact details, career progression, achievements, and professional affiliations.</li> <li>To <b>manage alumni communications</b> through newsletters, emails, social media, and website updates.</li> <li>To <b>track and report alumni contributions, feedback, and engagement</b> metrics for continuous improvement.</li> <li>To <b>approve alumni-related activities and expenditure</b> within the sanctioned financial limit 10,000/- (Ten Thousand Only)</li> </ul>

For more Information, Kindly Visit the website - <https://jecrefoundation.com/>

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## 9.7 Budget Allocation, Utilization, and Public Accounting at Institute Level (12)





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 2025-2026**

Total Income 381694248.00				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
381694248.00	0	0	0	29,56,01,935.6	5091	58063.63

**Table 2 - CFYm1 2024-2025**

Total Income 367485366.00				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
367485366.00	0	0	0	52,76,04,210.2	4195	125769.78

**Table 3 - CFYm2 2023-2024**

Total Income 199500324.00				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
199500324.00	0	0	0	35,22,94,124.5	3780	93199.50

**Table 4 - CFYm3 2022-2023**

Total Income 290799585.00				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
290799585.00	0	0	0	37,87,27,913.6	3639	104074.72

Items	Budgeted in 2025-2026	Actual Expenses in 2025-2026 till	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till
Infrastructure Built-Up	200000C	2131336	900000C	9247655	200000C	2697721	100000C	1705485
Library	300000.1	314885.1	380000C	3876797	600000.1	675381.1	400000.1	409519.1
Laboratory equipment	180000C	1889949	100000C	1030976	950000C	9764906	500000C	5202514
Teaching and non-teaching sta	200000C	1615723	160000C	1782869	150000C	1538096	120000C	1296994
Outreach Programs	200000C	2013625	620000C	6486846	370000C	3795272	320000C	3514606
R&D	165000C	1860376	150000C	1524106	160000C	1708670	210000C	1818399
Training, Placement and Indust	420000C	4400257	400000C	4122256	260000C	2794448	180000C	1873957
SDGs	750000C	7803057	700000C	7195149	400000.1	456287.1	120000C	1383425
Entrepreneurship	700000.1	707188.1	400000.1	435367.1	300000.1	373677.1	70000.0	75169.0
Others, specify	150000C	9372684	200000C	2228904	150000C	1519386	210000C	217696C
<b>Total</b>	<b>388150000.00</b>	<b>295601935.66</b>	<b>482900000.00</b>	<b>527604210.25</b>	<b>338700000.00</b>	<b>352294124.51</b>	<b>353770000.00</b>	<b>378727913.63</b>

### 9.8 Program Specific Budget Allocation, Utilization (8)

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 2025-2026**

Total Budget 1780000		Actual expenditure (till...): 1627999		Total No. Of Students 84
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
1780000	1780000	1627999	91.4	19380.94

**Table 2 :: CFYm1 2024-2025**

Total Budget 1530000		Actual expenditure (till...): 1423713		Total No. Of Students 98
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
1530000	1530000	1423713	93.4	14527.68

**Table 3 :: CFYm2 2023-2024**

Total Budget 1230000		Actual expenditure (till...): 690125		Total No. Of Students 110
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
1230000	1230000	690125	56.2	6273.86

**Table 4 :: CFYm3 2022-2023**

Total Budget 1150000		Actual expenditure (till...): 870000		Total No. Of Students 166
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
1150000	1150000	870000	75	5240.96

Items	Budgeted in 2025-2026	Actual Expenses in 2025-2026 till	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till
Laboratory equipment	300000	257000	200000	132987	200000	110000	200000	125000
Software	500000	629999	500000	599888	200000	0	100000	0
SDGs	50000	45000	50000	52000	50000	18000	50000	0
Support for faculty developmen	50000	50000	50000	48000	50000	30000	50000	30000
R & D	700000	500000	500000	403938	500000	341000	500000	467000
Industrial Training, Industry exp	100000	99000	150000	142900	150000	135125	180000	180000
Miscellaneous Expenses*	80000	47000	80000	44000	80000	56000	80000	68000
<b>Total</b>	<b>1780000</b>	<b>1627999</b>	<b>1530000</b>	<b>1423713</b>	<b>1230000</b>	<b>690125</b>	<b>1160000</b>	<b>870000</b>

### 9.9 Quality of Learning Resources (Hard/Soft) (5)



The Institution provides adequate learning resources to support effective teaching–learning processes. These include a well-equipped library with textbooks, reference books, and access to e-resources such as e-books, e-journals, and online databases, which are made accessible to students through institutional facilities. In addition, students are supported for self-learning through digital platforms, online courses, faculty mentoring, and access to ICT infrastructure, encouraging independent and continuous learning.

• **Support for Self-Learning Activities**

The Institute actively encourages self-learning through:

Self-Learning Activity	Platform	Web Link
<b>Web-Based Learning</b>	NPTEL / SWAYAM	SWAYAM: <a href="https://swayam.gov.in/">https://swayam.gov.in/</a> ( <a href="https://swayam.gov.in/">https://swayam.gov.in/</a> )
		NPTEL: <a href="https://onlinecourses.nptel.ac.in/">https://onlinecourses.nptel.ac.in/</a> ( <a href="https://onlinecourses.nptel.ac.in/">https://onlinecourses.nptel.ac.in/</a> )
<b>E-Resources</b>  (Information available on Institute Library Portal: <a href="https://jecrcfoundation.com/library/">https://jecrcfoundation.com/library/</a> ( <a href="https://jecrcfoundation.com/library/">https://jecrcfoundation.com/library/</a> )	NDLI	<a href="https://ndl.iitkgp.ac.in/">https://ndl.iitkgp.ac.in/</a> ( <a href="https://ndl.iitkgp.ac.in/">https://ndl.iitkgp.ac.in/</a> )
	DELNET	<a href="https://discovery1.delnet.in/">https://discovery1.delnet.in/</a> ( <a href="https://discovery1.delnet.in/">https://discovery1.delnet.in/</a> )
	E-Journals (EBSCO)	<a href="https://search.ebscohost.com/">https://search.ebscohost.com/</a> ( <a href="https://search.ebscohost.com/">https://search.ebscohost.com/</a> )
	E-Books	<a href="https://jecrcfoundation.com/library/">https://jecrcfoundation.com/library/</a> ( <a href="https://jecrcfoundation.com/library/">https://jecrcfoundation.com/library/</a> )
<b>Virtual Labs</b>	Virtual Lab Platforms	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf</a> )
<b>Project-Based Learning</b>	Hackathons/Ideathons etc.	I.T Hackathon   JECRC Foundation ( <a href="https://jecrcfoundation.com/i-t-hackathon/">https://jecrcfoundation.com/i-t-hackathon/</a> )  Ideathon   JECRC Foundation ( <a href="https://jecrcfoundation.com/ideathon/">https://jecrcfoundation.com/ideathon/</a> )
	Project Exhibitions	J-TECHTRIX   JECRC Foundation ( <a href="https://jecrcfoundation.com/j-techtrix/">https://jecrcfoundation.com/j-techtrix/</a> )
<b>Curriculum Enrichment</b>	Digital Learning Materials	<a href="https://jecrcfoundation.com/videos/">https://jecrcfoundation.com/videos/</a> ( <a href="https://jecrcfoundation.com/videos/">https://jecrcfoundation.com/videos/</a> )
	Add-On Course / Certificate Courses	Addon Certificate Program   JECRC Foundation ( <a href="https://jecrcfoundation.com/addon-certificate-program/">https://jecrcfoundation.com/addon-certificate-program/</a> )
<b>Internships</b>	Industry / Organization-Based Internships	Internship opportunities facilitated through Institute, Industry MoUs, and Career Development Cell  MoUs with Industry   JECRC Foundation ( <a href="https://jecrcfoundation.com/mous-with-industry/">https://jecrcfoundation.com/mous-with-industry/</a> )
<b>Conferences / Workshops</b>	National & International Conferences, FDPs	JECRC Conference ( <a href="https://jecrcconference.in/">https://jecrcconference.in/</a> )  Conference Reports   JECRC Foundation ( <a href="https://jecrcfoundation.com/conference-reports/">https://jecrcfoundation.com/conference-reports/</a> )

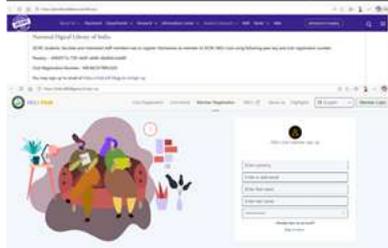


Fig. 1 NDLI Portal



Fig.2: DELNET Portal



Fig.3: EBSCO Portal



Fig.4: Swayam/NPTEL Local Chapter

• **Accessibility of Learning Resources**

1. Students and Faculty members are provided login credentials for accessing e-resources.

2. The library is fully automated using KOHA & RFID ((Radio Frequency Identification) for:

- o Book search and circulation
- o Online renewal
- o Access to digital content

3. Adequate reading rooms and digital access terminals are available for students.

**Table 9.9(b): Learning Resources and Accessibility**

Category	Details of Resources	Accessibility & Support for Learning
Library (Physical)	Books, reference titles, standards, textbooks, handbooks No. of Title: 11,715 No. of Volume: 37,932	Accessible to all students and faculty; Open: 8:00 AM – 6:00 PM; Membership through institutional ID; Book issue/return as per library policy; Reference guidance by librarian; Quiet reading zones; Course-wise book recommendation lists
E-Books	E-Kumbh E-Books: 8,122	Unlimited access for registered users via library portal; Remote access through login credentials; Subject-wise digital reading resources; Orientation and training on e-book usage
Print Journals	Titles: 67 (International & National)	Available in library during working hours; Access to selected high-impact journals supporting research and advanced learning
E-Journals	EBSCO Database	Round-the-clock (24x7) access through campus network and Wi-Fi; Off-campus access via credentials; Literature search support and research alerts
Online Databases / Digital Libraries	NDLI, DELNET	Accessible using institute credentials; Workshops on database search strategies; Supports research and project work
Open Educational Resources (OER)	NPTEL, SWAYAM	Links shared through institute portal; Self-enrollment anytime; Guided courses aligned with curriculum promoting self-paced and lifelong learning
Library Automation	KOHA / RFID system	Access via library login and RFID-enabled services; Easy search, issue/return tracking, and efficient utilization of resources

**Table 9.9(c): Online MOOC'S Registration**

S. No	Name of Student	MOOCs Platform	Certificate Link
1	Pranjal Sharma	ServiceNow	<a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> ( <a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> )
2	KhushveerGurjar	ServiceNow	<a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> ( <a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> )
3	AkshiMaheshwari	ServiceNow	<a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> ( <a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> )
4	Sakshi Jain	ServiceNow	<a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> ( <a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> )
5	RohitPareek	ServiceNow	<a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> ( <a href="https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy">https://drive.google.com/drive/u/0/folders/1lr22povus5i0_P454GZwLK_VuCmvQMMMy</a> )
6	AkshatGoyal	Course era	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> )
7	Saurav Singh	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/17n06jUD1ki87sAjxLmKT5PX9zowVliAK0n0eIx9o11imn01Xlpt2HYeUN2MX3fDdxYNFcCPB">https://drive.google.com/drive/u/0/folders/17n06jUD1ki87sAjxLmKT5PX9zowVliAK0n0eIx9o11imn01Xlpt2HYeUN2MX3fDdxYNFcCPB</a> ( <a href="https://drive.google.com/drive/u/0/folders/17n06jUD1ki87sAjxLmKT5PX9zowVliAK0n0eIx9o11imn01Xlpt2HYeUN2MX3fDdxYNFcCPB">https://drive.google.com/drive/u/0/folders/17n06jUD1ki87sAjxLmKT5PX9zowVliAK0n0eIx9o11imn01Xlpt2HYeUN2MX3fDdxYNFcCPB</a> )
8	GUDDU MAHAWAR	Infosys Springboard	<a href="https://drive.google.com/file/d/1XudO-Jsh05BDROiww10I5ITFqBiy3GtK/view">https://drive.google.com/file/d/1XudO-Jsh05BDROiww10I5ITFqBiy3GtK/view</a> ( <a href="https://drive.google.com/file/d/1XudO-Jsh05BDROiww10I5ITFqBiy3GtK/view">https://drive.google.com/file/d/1XudO-Jsh05BDROiww10I5ITFqBiy3GtK/view</a> )
9	SamridhiSisodia	Great learning	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
10	Nitin kumawat	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
11	Vansh Sharma	Infosys Springboard	<a href="https://drive.google.com/drive/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
12	Pankhuri Jain	Infosys Springboard	<a href="https://drive.google.com/drive/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )

13	Sankalapvijayvergiya	Great learning	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
14	Mitul Chhajer	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
15	Pankhuri Jain	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
16	Tanishgupta	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
17	Sonakshi Gupta	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
18	Mohit Garg	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
19	TanushkaJangid	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
20	Akshjtjain	Udemy	<a href="https://drive.google.com/file/d/1HXAJUGy_i2Frg-00mrgrewX4UAZQn0V1/view">https://drive.google.com/file/d/1HXAJUGy_i2Frg-00mrgrewX4UAZQn0V1/view</a> ( <a href="https://drive.google.com/file/d/1HXAJUGy_i2Frg-00mrgrewX4UAZQn0V1/view">https://drive.google.com/file/d/1HXAJUGy_i2Frg-00mrgrewX4UAZQn0V1/view</a> )
21	AkshatShrimal	CPP buzz	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
22	kalash Sharma	Great learning	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
23	HIMANSHU VYAS	CPP buzz	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
24	dheerajgarg	CPP buzz	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
25	Devangpareek	IIITAllahabad	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
26	AkshiMaheshwari	CPP buzz	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
27	Jatin Agrawal	CPP buzz	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
28	Mriduldve	Udemy	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
29	Khushaljangid	CPP buzz	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
30	HARSH SHARMA	Great learning	<a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> ( <a href="https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM">https://drive.google.com/drive/folders/1EdlgCwbv91L5CSj4D_4GfCJgWk2cuTXM</a> )
31	Akshat Goyal	Course era	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> )
32	Akshat Goyal	Course era	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> )
33	Akshat Goyal	Course era	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> )
34	Akshat Goyal	Course era	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> )
35	Akshat Goyal	Course era	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> )
36	Akshat Goyal	Course era	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTew/view?usp=sharing</a> )
37	PunitTyagi	Infosys Springboard	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
38	Raghav Bansal	Apna college	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
39	Tanish Gupta	Sclær	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )

40	Somya Mittal	Great learning	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
41	Mansi Yadav	Sclaer	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
42	Akshat Goyal	NPTEL	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> )
43	Akshat Goyal	NPTEL	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> )
44	Akshat Goyal	NPTEL	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> )
45	Akshita Garg	NPTEL	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> )
46	Akshi Maheshwari	NPTEL	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> )
47	Akshi Maheshwari	NPTEL	<a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> ( <a href="https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing">https://drive.google.com/file/d/1mHli2-zmRdInJg7cetv-M0pCACXvvTcw/view?usp=sharing</a> )
48	Pallavamaheswari	Sclaer	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
49	pankajjarwal	Sclaer	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
50	Saurav Singh	Great learning	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
51	Pradyumn Kumar Shukla	Infosys Springboard	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
52	ravijoshi	DATA Flair	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
53	prateekpanjwak	Infosys Springboard	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
54	Sankalp Vijayvargiya	Great learning	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
55	saurabhkumaratoliya	Great learning	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
56	lip khatri	Sclaer	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
57	samidhisisodia	Testdome	<a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> ( <a href="https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL">https://drive.google.com/drive/folders/1OkRfZdq0HyhGT_6jy7Kf0NLiBlIlg03FL</a> )
58	PallavMaheshwari	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
59	Soumya Mittal	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
60	sakshambansal	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
61	punittyagi	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
62	TanushkaJangid	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
63	Vansh Sharma	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
64	Raghav Bansal	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
65	Saurav Singh	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )

66	TusharJangid	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
67	Prateek Singh Rajawat	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
68	Pradyumn Kumar Shukla	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
69	Kinjal Jain	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
70	Prateek Singh Rajawat	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
71	mayankved	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
72	PallavMaheshwari	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
73	Soumya Mittal	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
74	sakshambansal	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
75	punittyagi	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
76	TanushkaJangid	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
77	Vansh Sharma	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
78	Raghav Bansal	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
79	Saurav Singh	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
80	TusharJangid	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
81	Prateek Singh Rajawat	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
82	Pradyumn Kumar Shukla	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )
83	Kinjal Jain	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kJAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZuMsz5IN12Ma_dBN</a> )

84	Prateek Singh Rajawat	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )
85	mayankved	Infosys Springboard	<a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> ( <a href="https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN">https://drive.google.com/drive/u/0/folders/1EtcPKzdP74kAiJ1Wbc-8INpqEO2uDrK_eOoFizPu4iDOuf7ike5rqvZumSz5IN12Ma_dBN</a> )

Table 9.9(D): Students Completed NPTEL Certification

S. No.	Name	Course Name	Session
1	Ajay Choudhary	Python for Data Science	July-Oct. 2025
2	Aryan Choudhary	Python for data science	July-Oct. 2025
3	Asmii Bhati	Database Management System	July-Oct. 2025
4	Bhavya Paliwal	Data Structures and Algorithm	July-Oct. 2025
5	Chetan Paliwal	Python programming	July-Oct. 2025
6	Chetan Paliwal	Python for data science	July-Oct. 2025
7	Deep	Python for data science	July-Oct. 2025
8	Galav Bhatt	Python for data science	July-Oct. 2025
9	Ishaant	Introduction to Machine learning	July-Oct. 2025
10	Lakshay	Generative AI	July-Oct. 2025
11	Navkar Gupta	Python for data science	July-Oct. 2025
12	Rahul Raj	Python for Data Science	July-Oct. 2025
13	Rashmi Kumari	Python for data science	July-Oct. 2025
14	Rudresh Singhal	Machine Learning (ML)	July-Oct. 2025
15	Samrat Nagar	Python for Data science	July-Oct. 2025
16	Shweta Pathak	Python for data science	July-Oct. 2025
17	Sourabh Choubey	Python for Machine Learning	July-Oct. 2025
18	Tanmay Gupta	Python For Data Science	July-Oct. 2025
19	Tanmay Gupta	Introduction to Programming in C	July-Oct. 2025
20	Vansh Verma	Introduction to Machine learning	July-Oct. 2025
21	Yash Kumawat	Introduction to Machine Learning	July-Oct. 2025
22	Vansh Tolani	Programming, Data Structures and Algorithms using Python	July-Oct. 2025
23	Roshani Lalwani	Programming, Data Structures and Algorithms using Python	July-Oct. 2025
24	Tanisha Daryanani	Programming, Data Structures and Algorithms using Python	July-Oct. 2025
25	Mahima Keelka	German	July-Oct. 2025
26	Ishan Sharma	German-I	July-Oct. 2025
27	Kavya Sharma	Corporate Social Responsibility	July-Oct. 2025
28	Lokendra Singh	Python for data science	July-Oct. 2025
29	Yash Narang	German-I	July-Oct. 2025
30	Raghav Dharwal	Artificial Intelligence (AI) for Investments	July-Oct. 2025
31	Saniya Khanam	Advance course in social psychology	July-Oct. 2025
32	Yadav Alok Vijaykumar	(1) Introduction to Machine Learning (IITKGP) and (2) Database and Management System (IITKGP)	July-Oct. 2025
33	Utkarsh Tripathi	1)Foundation of Cloud IoT Edge ML 2) Linear Programming and its Application to computer science 3)Cloud Computing 4) Software Testing 5) Cybersecurity And Privacy	July-Oct. 2025
34	Satyam Tiwari	Artificial Intelligence (AI) for Investments	July-Oct. 2025
35	Ruchika Sharma	Programming in Java	July-Oct. 2025
36	Ayush	German-I	July-Oct. 2025
37	Chirag Dadheech	German-I	July-Oct. 2025
38	Deepesh Singh Shekhawat	German-I	July-Oct. 2025
39	Jaidev	German-I	July-Oct. 2025
40	Manan Saxena	German-I	July-Oct. 2025
41	Manjeet Singh	German-I	July-Oct. 2025

42	Md Irshad Ali	German-I	July-Oct. 2025
43	Pawan	German-I	July-Oct. 2025
44	Mehul	German-I	July-Oct. 2025
45	Pratyaksh Jodawat	German-I	July-Oct. 2025
46	Prince Bajiya	German-I	July-Oct. 2025
47	Rudresh Kumar Rathore	German-I	July-Oct. 2025
48	Vinay Jangir	German-I	July-Oct. 2025
49	Yash Yadav	German-I	July-Oct. 2025
50	Akhil Udai	German-I	July-Oct. 2025
51	Neeraj Varma	German-I	July-Oct. 2025
52	Mradul Krishana Bhardwaj	Industrial engineering and Operations Research	July-Oct. 2025
53	Mradul Krishana Bhardwaj	Production and operations management theory and applications	July-Oct. 2025
54	Sunny Shirowal	Public speaking	July-Oct. 2025
55	Harsh Kumar	German	July-Oct. 2025
56	Krishna Rawal	German	July-Oct. 2025
57	Lakshya Rawal	German	July-Oct. 2025
58	Mahimn Vyas	German	July-Oct. 2025
59	Mayank Joshi	German	July-Oct. 2025
60	Pihu Sharma	German	July-Oct. 2025
61	Pramil Gahlot	German	July-Oct. 2025
62	Aaditi Naruka	German- I	July-Oct. 2025
63	Aakash Yadav	German-I	July-Oct. 2025
64	Aashish Diwakar	German	July-Oct. 2025
65	Aastha Khandelwal	German	July-Oct. 2025
66	Abhimanyu Singh	German	July-Oct. 2025
67	Abhishek Meena	German	July-Oct. 2025
68	Aditya Chaudhary	German	July-Oct. 2025
69	Aditya Singh Jakhar	German	July-Oct. 2025
70	Aditya Soni	German-I	July-Oct. 2025
71	Akmal Khan	1. German 1 2.Data structure and Algorithm design	July-Oct. 2025
72	Ansh Aggarwal	German	July-Oct. 2025
73	Arnav Lokesh Sharma	German-I	July-Oct. 2025
74	Dhruv Saini	German - 1	July-Oct. 2025
75	Diksha Garg	German -1	July-Oct. 2025
76	Garima Jain	Corporate Social Responsibility	July-Oct. 2025
77	Garvit Saini	German-I	July-Oct. 2025
78	Harsha Soni	German-I	July-Oct. 2025
79	Jiya Aalwani	German - 1	July-Oct. 2025
80	Kavya Gupta	Geramn - 1	July-Oct. 2025
81	Keshav Khandelwal	Geramn - 1	July-Oct. 2025
82	Lakshya Choudhary	Japanese Text and Grammar -1	July-Oct. 2025
83	Rohit Soni	German	July-Oct. 2025
84	Ronak Jangid	German	July-Oct. 2025
85	Avi Maheshwari	Introduction to Object Oriented programming	July-Oct. 2025
86	Abhinav Mishra	Machine learning for core engineering disciplines	July-Oct. 2025
87	Achuki Bansal	German	July-Oct. 2025
88	Charvi Gupta	German -1	July-Oct. 2025
89	Chetna Kumari Garg	German -1	July-Oct. 2025
90	Mahi Bansal	Foundation Course in Managerial Economics	Jan-April 2025
91	Surya Pratap Singh Shekhawat	Soft Skill Development	Jan-April 2025
92	Mrinal Yadav	Services Marketing: A Practical Approach	Jan-April 2025

93	Uttam Saini	Data Base Management System	Jan-April 2025
94	Shivani Johari	Design and Engineering of Computer Systems	Jan-April 2025
95	Akhil Udai	Programming, Data Structures And Algorithms Using Python	Jan-April 2025
96	Akshat Sharma	Data Science for Engineers	Jan-April 2025
97	Atiksh Gidwani	Engineering/Architectural Graphics - Part II - Isometric and Axonometric Drawings	Jan-April 2025
98	Akshat Sharma	Fundamental Algorithms: Design and Analysis	Jan-April 2025
99	Atiksh Gidwani	Fundamental Algorithms: Design and Analysis	Jan-April 2025
100	Mohit Garg	Machine Learning, ML	Jan-April 2025
101	Krishna Rawal	Data Science for Engineers	Jan-April 2025
102	Lakshaya Pant	Machine Learning, ML	Jan-April 2025
103	Aakash Kumar Gupta	Programming in Java	July-Oct 2024
104	Aarchi Bansal	Soft Skills	July-Oct 2024
105	Aayushmaan Singh Chundawat	Wild Life Ecology	July-Oct 2024
106	Abhay Chaturvedi	Wild Life Ecology	July-Oct 2024
107	Abhimanyu Singh	Soft Skills	July-Oct 2024
108	Adit Kaushik	Public Speaking	July-Oct 2024
109	Aditya Jain	Soft Skills	July-Oct 2024
110	Ajay Choudhary	Basic Environmental Engineering and Pollution Abatement	July-Oct 2024
111	Akanksha Singh	Human Resource Development	July-Oct 2024
112	Akshat Sharma	Computer Architecture	July-Oct 2024
113	Akshita Garg	Cloud Computing	July-Oct 2024
114	Akshita Garg	Introduction to Machine Learning	July-Oct 2024
115	Aman Dadhich	Computer Architecture	July-Oct 2024
116	Amulya Jef	Soft Skills	July-Oct 2024
117	Ankit Kaushik	The Joy of Computing using Python	July-Oct 2024
118	Arjun Singh Saluja	Soft Skills	July-Oct 2024
119	Arnavee Mohanty	Training of Trainers	July-Oct 2024
120	Arushi Lath	Advance Course in Social Psychology	July-Oct 2024
121	Ashish Kulshrestha	Stress Management	July-Oct 2024
122	Atiksh Gidwani	Soft Skills	July-Oct 2024
123	Ayush Goyal	Programming in Java	July-Oct 2024
124	Ayush Goyal	Operating System Fundamentals	July-Oct 2024
125	Chetan Gupta	Introduction to Internet of Things	July-Oct 2024
126	Chetan Jain	Soft Skills	July-Oct 2024
127	Chirag Joshi	Multi-Core Computer Architecture	July-Oct 2024
128	Deepak Panwar	Organizational Behaviour - II	July-Oct 2024
129	Deepak Sharma	Organizational Behaviour - II	July-Oct 2024
130	Deepak Sharma	Programming in Java	July-Oct 2024
131	Dhruvil Gautam	Soft Skills	July-Oct 2024
132	Dhwani Shah	Management Information System	July-Oct 2024
133	Divy Jain	Public Speaking	July-Oct 2024
134	Drashti Verma	Training of Trainers	July-Oct 2024
135	Drishiti Sharma	Environmental Science	July-Oct 2024
136	Geetanjali Sikarwar	Soft Skills	July-Oct 2024
137	Gouranshi Singh	HR Analytics	July-Oct 2024
138	Gourav Panwar	Developing Soft Skills and Personality	July-Oct 2024
139	Gungun Soni	E-Business	July-Oct 2024
140	Hardik Khadria	International Trade - Theory and Empirics	July-Oct 2024
141	Harsh Kumar	Google Cloud Computing Foundations	July-Oct 2024
142	Hemendra Pal Singh	Public Speaking	July-Oct 2024
143	Himanshu Verma	Programming in Java	July-Oct 2024

144	Hitarth Jain	Soft Skills	July-Oct 2024
145	Hitin Dagur	Animal Physiology	July-Oct 2024
146	Ishpriya Chaturvedi	Animal Physiology	July-Oct 2024
147	Keshav Sharma	Soft Skills	July-Oct 2024
148	Ketan Sharma	Introduction to Internet of Things	July-Oct 2024
149	Kriti Jain	Soft Skills	July-Oct 2024
150	Kumar Anshaj	Practical Cyber Security for Cyber Security Practitioners	July-Oct 2024
151	Kumar Anshaj	Ethical Hacking	July-Oct 2024
152	Kunj Paliwal	Data Structure and Algorithms using Java	July-Oct 2024
153	Lakshika Goyal	Entrepreneurship	July-Oct 2024
154	Lakshya Choudhary	Soft Skills	July-Oct 2024
155	Lalit Meena	Product and Brand Management	July-Oct 2024
156	Medhansh Singhal	Machine Learning and Deep Learning - Fundamentals and Applications	July-Oct 2024
157	Medhansh Singhal	Project Management for Managers	July-Oct 2024
158	Michael Paul	Soft Skills	July-Oct 2024
159	Mohammed Aadil	Data Structure and Algorithms using Java	July-Oct 2024
160	Mohit Kumar Meena	Organizational Behaviour	July-Oct 2024
161	Mradul Krishna Bhardwaj	Fundamentals of Conduction and Radiation	July-Oct 2024
162	Nakshatra Sharma	Understanding Incubation and Entrepreneurship	July-Oct 2024
163	Neeraj Singh Rajawat	Soft Skills	July-Oct 2024
164	Nidhi Jain	The Joy of Computing using Python	July-Oct 2024
165	Nitin Sharma	Soft Skills	July-Oct 2024
166	Om Sharma	Research for Marketing Decisions	July-Oct 2024
167	Om Sharma	Soft Skills	July-Oct 2024
168	Paramveer Singh Chauhan	Soft Skills	July-Oct 2024
169	Parul Tyagi	Stress Management	July-Oct 2024
170	Prabal Singh	Environment and Development	July-Oct 2024
171	Pradhyuman Singh	Soft Skills	July-Oct 2024
172	Pratibha Kanwar	Training of Trainers	July-Oct 2024
173	Pulkit Govil	Business to Business Marketing (B2B)	July-Oct 2024
174	Purva Dadhich	Data Structure and Algorithms using Java	July-Oct 2024
175	Purva Dadhich	Programming in Java	July-Oct 2024
176	Rahul Jangid	Wild Life Ecology	July-Oct 2024
177	Ravi Shankar	Sustainable Transportation Systems	July-Oct 2024
178	Ravi Shankar	Environmental Science	July-Oct 2024
179	Renjith K K	Organizational Behaviour	July-Oct 2024
180	Renjith K K	Training of Trainers	July-Oct 2024
181	Renjith K K	Organizational Behaviour - II	July-Oct 2024
182	Reyansh Parashar	Soft Skills	July-Oct 2024
183	Rimjhim Agrawal	Natural Resources Management	July-Oct 2024
184	Ritesh Jangid	Introduction to Internet of Things	July-Oct 2024
185	Riya	Training of Trainers	July-Oct 2024
186	Riya Sharma	Programming in Modern C++	July-Oct 2024
187	Riya Shekhawat	Public Speaking	July-Oct 2024
188	Sachin Sharma	Big Data Computing	July-Oct 2024
189	Sahil Vinay Joseph	Developing Soft Skills and Personality	July-Oct 2024
190	Sajal Bansal	Data Structure and Algorithms using Java	July-Oct 2024
191	Samarth Agarwal	Psychology of Learning	July-Oct 2024
192	Saniya Khanam	Psychology of Learning	July-Oct 2024

193	Sanjeev Kumar Mishra	Entrepreneurship	July-Oct 2024
194	Shalini Singh	Human Resource Development	July-Oct 2024
195	Shefali Chopra	Organizational Behaviour - II	July-Oct 2024
196	Shishir Karn	Soft Skills	July-Oct 2024
197	Shrishti Bisht	Entrepreneurship	July-Oct 2024
198	Sujal Gupta	Soft Skills	July-Oct 2024
199	Surya Pratap Singh Shekhawat	Psychology of Learning	July-Oct 2024
200	Tanisha Agarwal	Soft Skills	July-Oct 2024
201	Tanishk Kaushik	Technical English for Engineers	July-Oct 2024
202	Tanishq Singh	Big Data Computing	July-Oct 2024
203	Utsav Gupta	Soft Skills	July-Oct 2024
204	Uttam Saini	Introduction To Algorithms and Analysis	July-Oct 2024
205	Vaibhav Sharma	Product and Brand Management	July-Oct 2024
206	Vaibhav Sharma	Management Accounting	July-Oct 2024
207	Vinay Pal Singh	Soft Skills	July-Oct 2024

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**9.10 E-Governance (5)**



E-Governance Initiatives, Sustainable Practices, and Computing Resources are as in Table 9.10(A)

Table 9.10 (A)

Area of E-Governance	Initiatives Implemented	Digital Platform & Access Details	Support to Academic & Professional Activities	LINK
<b>Student Admission</b>	Online application, merit list, admission confirmation	Admission Portal accessible to students and administrators through a web-based system during the admission cycle (24x7)	Transparent and efficient admission process	
<b>Finance &amp; Accounts</b>	Online fee payment, salary processing	Tally ERP Prime Gold and Banking Gateway accessible to students and accounts staff through a secure digital platform.	Cashless, transparent financial operations	
<b>Library Management</b>	Automated issue/return, access to e-resources	KOHA/RFID-based Library Management System with round-the-clock access to e-resources for students and faculty within campus	Easy and continuous access to learning materials	Library   JECRC Foundation ( <a href="https://jecrcfoundation.com/library/">https://jecrcfoundation.com/library/</a> )
<b>Grievance Redressal</b>	Online grievance submission & tracking	Institutional portal accessible anytime (24x7) to students and staff for grievance submission and monitoring	Faster and effective resolution of issues	Student Grievance Mechanism   JECRC Foundation ( <a href="https://jecrcfoundation.com/student-grievance-mechanism/">https://jecrcfoundation.com/student-grievance-mechanism/</a> )
<b>Faculty Face Attendance Monitoring system</b>	Biometric-based attendance system	Biometric attendance system (Real Time T304F) accessible to faculty and administration within campus during working hours	Ensures punctuality, accountability, and effective academic planning	
<b>Paperless Teaching</b>	ICT-based notes, PPTs, assignments, Online quizzes, assignments	Institute portal used by students and faculty for uploading and downloading academic content, Google Classroom platform accessible to students and faculty	Reduced paper usage and Faster evaluation eco-friendly practices	Videos   JECRC Foundation ( <a href="https://jecrcfoundation.com/videos/">https://jecrcfoundation.com/videos/</a> )
<b>Blended Learning</b>	NPTEL, SWAYAM, MOOCs	National MOOC platforms integrated into the curriculum and accessible to students	Promotes self-paced, flexible, and lifelong learning	<a href="https://jecrcfoundation.com/npTEL/">https://jecrcfoundation.com/npTEL/</a> ( <a href="https://jecrcfoundation.com/npTEL/">https://jecrcfoundation.com/npTEL/</a> )
<b>Virtual Lab</b>	Simulation based practical learning	Virtual laboratory platforms accessible to students	Enhanced practical understanding with reduced physical resource usage	<a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf</a> ( <a href="https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf">https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf</a> )

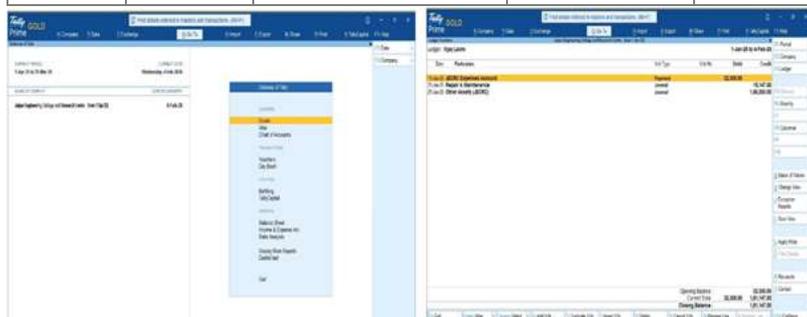
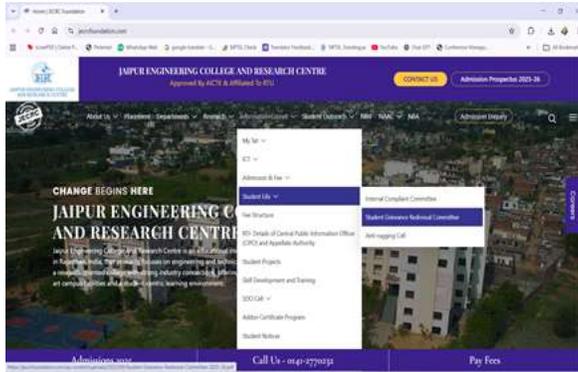


Fig.1: Finance & Accounts System



a) Kiosk Machine (RFID System)      b) Entry system (Issue/Return Screen)  
**Fig.2: Library Management System**

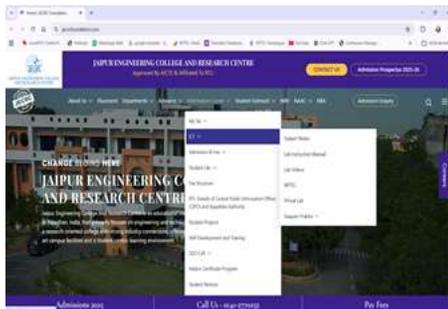


**Fig.3: Grievance Redressal Screenshot from college web page**



a) Real Time T304F Machine      b) Monitoring Window

**Fig.4: Faculty Attendance Monitoring System**



**Fig.5: ICT based Notes & Video on Institute Portal**



**Fig.6: Solar Panel**

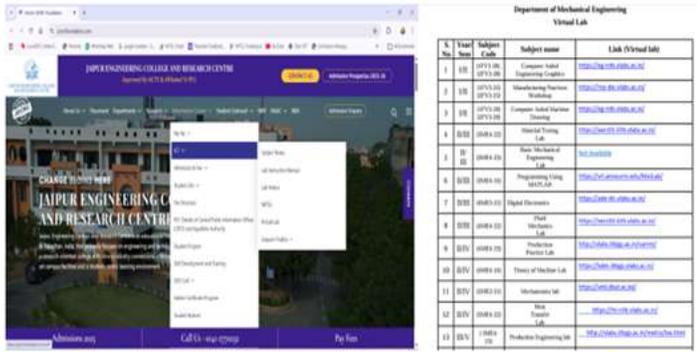


Fig.7: Virtual Lab on Institute panel

Table 9.10 (B) Campus-Wide Computing Resources

Resource Type	Details	Quantity / Capacity	Users
Computer Labs	Departmental & computer labs	1302 systems	Students & Faculty
Smart Classrooms	Interactive Boards	11 classrooms	Faculty, Students
Central Server & Data Center	Academic server	1 (with backup)	All users
Licensed Software	MATLAB, ANSYS etc.	As per requirement	Students, Faculty
Internet Bandwidth	High-speed leased line	1000 Mbps	Campus-wide
Wi-Fi Facility	Campus-wide Wi-Fi	101 Wi-Fi facilities are available in whole campus	Students, Faculty
Security Arrangement	Campus-wide CCTV Cameras	300 CCTV Cameras are available in whole campus for security purpose	Students, Faculty



Fig.8: Smart Classroom/ICT Based Classroom



Fig.9: Computer Lab

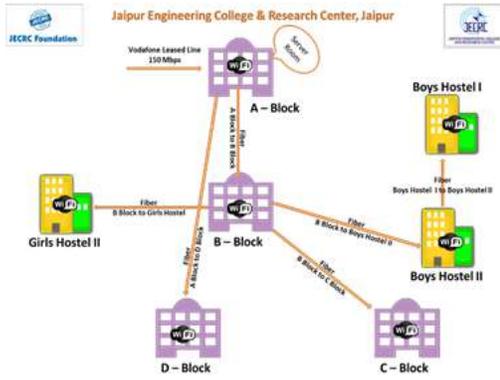


Fig.10: Network Diagram



Fig.11: CCTV System

9.11 Initiatives and Implementation of Sustainable Development Goals (SDGs) (10)



The Institute is committed to promoting **sustainability, environmental responsibility, and social accountability** through comprehensive institutional policies and initiatives aligned with the **United Nations Sustainable Development Goals (SDGs)**. The Institute implements a **holistic approach** encompassing **waste management, water conservation, renewable energy, green campus development, reuse and recycling, and quality education**. The Institute mostly follows the SDG 3,4,5,9 and 11

Key initiatives include:

- A **125 KLD Sewage Treatment Plant (STP)** and composting practices for effective liquid and solid waste management.
- **Rooftop solar power plants** achieving energy self-sufficiency and contributing to national renewable energy targets.
- **Rainwater harvesting and groundwater recharge systems** to conserve water and enhance campus water sustainability.
- Progressive efforts towards a **Net Zero campus**, including energy efficiency, green cover enhancement, and integration of sustainability concepts into academics.
- Policies to promote **reuse and recycling of resources**, reduce environmental footprint, and instill environmental ethics among students and staff.
- Provision of **outcome-based quality education**, industry collaborations, and active promotion of research, innovation, and entrepreneurship.

Through these initiatives, Institute ensures **responsible resource management, environmental stewardship, and community-oriented growth**, demonstrating its commitment to the holistic development of students.

The various policies for implementation of Sustainable Development Goals (SDGs) are as follows:

**a) Waste Management policy**

The Institute has installed a fully functional Sewage Treatment Plant (STP) of capacity 125 KLD within the campus. The plant has been established as part of the Institute’s commitment to environmental sustainability, efficient water management, and compliance with statutory norms related to wastewater treatment.

The stringent waste management policy of Institute is based on environmental care and institute’s motto is to “Let’s go green and keep our campus clean”. To fulfill this, the institution manages all the waste which is produced from kitchen, hostels, laboratories and debris material. Institute’s essential operations have very less impact on the environment as the institute is very conscious of generating less waste and recycling waste by passing it through a system that enables the used material to be reused ensuring that less natural resources are consumed. To enhance the knowledge about waste management in the students and to motivate them for proper management of solid and liquid waste, department of civil engineering guide the students of the final year to develop projects in areas of solid, liquid waste management. The liquid wastes generated in the campus include Sewage, hostel academic blocks and canteen waste. The above waste is treated through a sewage treatment plant (STP) set up in the campus which is used for management of liquid waste in the institution. The treated water is used for watering the gardens. The Sewage treatment plants (STP) are available in the campus. The sludge settled in the STP is removed and dried for use as manure in the gardens. Composting method is used for biodegradable waste available in the campus.

**Sewage Treatment Plant**



**Solid Waste Management**



**b) Green Campus Institute Policy**

In view of the paramount importance of the power generation from the new and renewable sources the Govt. of India has set a target of installation of 100 GW solar power projects in the country. As Rajasthan state receives maximum solar radiation intensity in India with very low average rain fall. Therefore, Rajasthan is emerging as the global hub for solar power in the county. Our vision is to meet the global commitment and to achieve the National target of 100

GW capacity of solar energy in order to reduce the dependence on conventional sources of energy by promoting the development of non-conventional energy sources like solar energy, thereby enabling the Institute in attaining self-sufficiency in its energy needs.

Our aim is also to create an enabling environment for harnessing maximum potential of solar energy. Rajasthan is favorable place to become a largest provider of solar energy among all sources of energy in India at a competitive cost and to achieve new heights in solar power generation.

In first phase JECRC installed 400 KW capacity rooftop solar power plants in its campus. This plant was operative from 15<sup>th</sup> September 2017 and connected to JVVNL Pratap Nagar Grid on date 31/03/2018.

The Institute Rooftop Solar Power Plant is on grid type plant in which net metering is provided so that at the time of no use hours the whole power generation is given to the JVVNL Grid Pratap Nagar to balance the fluctuation in demand and supply.

By providing this rooftop solar power plant institute have reduced their electricity bill by 90%. We are the only institution in the Rajasthan which is self-sufficiency in the field of solar power energy.

**Institute Rooftop Solar Power Plant:**



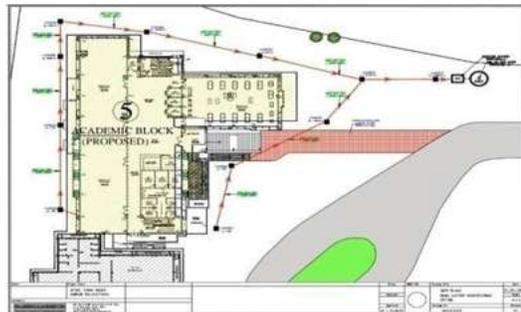
**C) Preserving Water Policy:**

**Campus rain water harvesting**

The Institute has developed a systematic rainwater harvesting and groundwater recharge system across the campus. The initiative aims to conserve water, reduce dependence on external water sources, and improve the groundwater table, particularly in view of the semi-arid climatic conditions of Jaipur.

The rainwater harvesting system captures roof-top and surface runoff from academic blocks, hostels, and other built-up areas. Collected rainwater is directed through a network of gutters, pipes, and channels to recharge structures, filtration chambers, bore wells, and open wells, thereby ensuring safe percolation into the subsurface.

**Rain water Harvesting**



**Bore well recharge and open wells**

Dedicated recharge pits and bore wells have been constructed and integrated with the rainwater harvesting network to facilitate direct groundwater recharge. These structures are designed with appropriate layers of gravel, sand, and filter media to improve water quality before it percolates into the aquifer.

Existing open wells within the campus have been rejuvenated and connected to the rainwater collection system wherever feasible. This has helped in sustaining water levels in these wells and in enhancing the resilience of the campus water supply during dry periods.

**Bore well**



**Open well**



**D) Net Zero Policy:**

The Institute is committed to gradually transforming its campus into a low-carbon, net zero-oriented institution. Net zero in this context refers to reducing greenhouse gas emissions from campus operations as far as possible and balancing the remaining emissions through carbon sinks and other mitigation measures.

The Institution promotes the transition towards green energy by tree plantation and efficient energy use through on-campus measures such as solar power deployment (rooftop or ground-mounted where available), LED lighting, energy-efficient fans and air-conditioning, and optimized operation of laboratory and computing facilities.

To embed net zero and sustainability concepts into academics, students are encouraged to take up projects, internships, and research work on topics such as renewable energy systems, energy auditing, waste-to-wealth technologies, water and wastewater management, and smart, green campus solutions.

**Landscaping with Tress and Plants:**



**Wheeling to Grid**



**Use of LED Light**



**SENSOR BASED DEVICES**



**SELF ISSUE RETURN MACHINE (USED IN LIBRARY)**



**RFID TAGS MACHINE FOR BOOKS (USED IN LIBRARY)**



**GATE ANTENNA SYSTEM ( USED IN LIBRARY )**

**e) Quality Education Policy.**

The Institute offers outcome-based education with clearly defined Program Outcomes (POs), Program Specific Outcomes (PSOs), and Course Outcomes (COs) that are aligned with national regulatory requirements and industry expectations. Teaching-learning processes integrate theory with practical exposure through well-equipped laboratories, project-based learning, internships, industrial visits, and expert lectures by industry and academic professionals.

Institute promotes quality education through active encouragement of research, innovation, and entrepreneurship among students and faculty. Innovation and incubation facilities support student start-ups, prototypes, and industry-driven projects, while MOUs with industries and organizations facilitate internships, expert talks, joint projects, and value-added training programs.

Faculty members are involved in research publications, funded projects, consultancy, and participation in conferences and FDPs, ensuring that classroom teaching is enriched with current knowledge and real-world perspectives. Students are encouraged to participate in hackathons, technical competitions, paper presentations, and national-level events, which further sharpen their technical and professional competencies.

**f) Gender Equality**

Every year we conduct gender audit to identify the gender issues and to solve them. Institute is dedicated to fostering a campus environment where gender equity is not just a policy, but a lived reality for every student and staff member. Through constant endeavour, the institute strives to maintain industry-driven education while ensuring a safe, balanced, and inclusive atmosphere.

**Demographic Growth and Representation**

The college has seen a positive trend in gender representation across both its academic and professional spheres:

- **Faculty Diversity:** The number of female faculty members increased from 88 in the 2023-24 session to 110 in the 2024-25 session, reflecting a growing female presence in academic leadership.
- **Student Enrollment:** Female student participation continues to grow, with 303 female students enrolled in the 2024-25 batch compared to 226 in the previous year.

At Institute, gender equality is a core component of our professional judgment and institutional mission. We continue to implement appropriate audit procedures and evidence-based actions to ensure that every member of our college has an equitable platform to exhibit their talents and achieve their professional goals.

**g) Reuse and Recycle Policy**

The Institute is committed to environmental sustainability and responsible resource management in accordance with Institutional Values and Social Responsibilities. The institution adopts structured policies on Reuse and Recycle as part of its Green Campus Initiatives.

**Objectives of the Policy**

- To promote efficient utilization of resources through reuse and recycling practices
- To minimize waste generation and reduce environmental footprint
- To inculcate environmental ethics among students, faculty, and staff.

**1. Policy on Reuse**

The Institution promotes reuse as a primary strategy for sustainable resource management.

- Reuse of paper through double-sided printing, reuse of envelopes, and draft papers.
- Repair, refurbishment, and reuse of furniture, laboratory equipment, and ICT resources before replacement.
- Reuse of laboratory glassware and teaching aids, ensuring safety standards.
- Promotion of reusable alternatives such as cloth bags, steel bottles, and refillable stationery.
- Redistribution and reuse of books, furniture, and equipment among departments.

These practices support Responsible Consumption and institutional sustainability values.

**2. Policy on Recycling**

The Institute has established a systematic recycling mechanism across the campus.

- Segregation of waste at source into biodegradable, recyclable, and non-recyclable waste.
- Installation of color-coded bins at strategic locations.
- Recycling of paper, plastic, metal, and glass through authorized vendors.
- Composting of biodegradable waste from canteen and garden areas.
- Periodic waste reduction and recycling awareness drives.

Sr. No.	File Description	Link
1.	Alternate Source of Energy.	View Document ( <a href="https://jecrcfoundation.com/naacdata/SS/Alternate_source_of_energy_2024-25.pdf">https://jecrcfoundation.com/naacdata/SS/Alternate_source_of_energy_2024-25.pdf</a> )
2.	Waste Management.	View Document ( <a href="https://jecrcfoundation.com/naacdata/SS/Waste_Management_2024-25.pdf">https://jecrcfoundation.com/naacdata/SS/Waste_Management_2024-25.pdf</a> )
3.	Water Conservation.	View Document ( <a href="https://jecrcfoundation.com/naacdata/SS/Water_conservation_facilities_2024-25.pdf">https://jecrcfoundation.com/naacdata/SS/Water_conservation_facilities_2024-25.pdf</a> )
4.	Energy Audit Report 2024-25.	View Document ( <a href="https://jecrcfoundation.com/naacdata/MP/Energy_Audit_Report_2024-25.pdf">https://jecrcfoundation.com/naacdata/MP/Energy_Audit_Report_2024-25.pdf</a> )
5.	Environment Audit Report 2024-25.	View Document ( <a href="https://jecrcfoundation.com/naacdata/MP/Environment_Audit_Report_2024-25.pdf">https://jecrcfoundation.com/naacdata/MP/Environment_Audit_Report_2024-25.pdf</a> )
6.	Green Audit Report 2024-25.	View Document ( <a href="https://jecrcfoundation.com/naacdata/MP/Green_Audit_Report_2024-25.pdf">https://jecrcfoundation.com/naacdata/MP/Green_Audit_Report_2024-25.pdf</a> )
7.	Green Energy Environment Audit Certificates 2024-25.	View Document ( <a href="https://jecrcfoundation.com/naacdata/MP/Green_energy_environment_audit_certificates_2024-25.pdf">https://jecrcfoundation.com/naacdata/MP/Green_energy_environment_audit_certificates_2024-25.pdf</a> )
8.	Green Ranking Award 2024-25.	View Document ( <a href="https://jecrcfoundation.com/naacdata/MP/Green_Ranking_award_2025.pdf">https://jecrcfoundation.com/naacdata/MP/Green_Ranking_award_2025.pdf</a> )
9.	Policies 2024-25 a. Sustainable Water Management Policy b. Net Zero Energy Policy c. Reuse and Recycling Policy d. Quality Education Policy e. Sustainability Report	View Document ( <a href="https://jecrcfoundation.com/naacdata/MP/sustainable_net_zero_reuse_recycle_quality_education_Policy.pdf">https://jecrcfoundation.com/naacdata/MP/sustainable_net_zero_reuse_recycle_quality_education_Policy.pdf</a> )
10	IGBC Chapter and its activities	View Document ( <a href="https://jecrcfoundation.com/naacdata/5/Indian-Green-Building.pdf">https://jecrcfoundation.com/naacdata/5/Indian-Green-Building.pdf</a> )

11	Fruit Full Jaipur activities	View Document ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/Criteria-7/7.1.9_FFJ_17_Feb.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/Criteria-7/7.1.9_FFJ_17_Feb.pdf</a> ) View Document ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/Criteria-7/7.1.9_FFJ_12_Dec_2023.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/Criteria-7/7.1.9_FFJ_12_Dec_2023.pdf</a> ) View Document ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/Criteria-7/7.1.9_FFJ_6_Aug_23.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/Criteria-7/7.1.9_FFJ_6_Aug_23.pdf</a> )
12	Gender Audit 2023-24	View Document ( <a href="https://jeecrfoundation.com/jf-data/AQAR2023-24/Gender_audit_2023-24.pdf">https://jeecrfoundation.com/jf-data/AQAR2023-24/Gender_audit_2023-24.pdf</a> )

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**9.12 Innovative Educational Initiatives and Implementation (5)**



The Institution has adopted a student-centric approach, inclusive and outcome-oriented educational framework aligned with National Education Policy (NEP) 2020 to promote academic flexibility, holistic development.

**Table 9.12(a): Innovative Educational Initiatives**

S. No.	Component	Initiative Implemented	Expected Outcome
1	Faculty members Lectures(Online)	Recorded faculty lectures made accessible through the college website for anytime learning	Flexible, self-paced learning; revision support; wider knowledge access; and continuous academic engagement
2	ICT Enable facilities	Smart classrooms, smart boards etc.	Improved learning experience and digital competency
3	Virtual laboratory	Access to online simulation tools and remote laboratory experiments	Practical exposure beyond physical laboratory limitations
4	Student Projects /Exhibitions	Project-based learning, annual project expo, prototype demonstrations,Hackathons and Ideathons etc.	Experiential learning and innovation showcase
5	Students Participation	Multidisciplinary electives, internships, MOOCs, etc	Skill enhancement and industry readiness
6	Academic Bank of Credits	ABC registration and digital credit storage	Multiple entry-exit and lifelong learning
7	Holistic Education	Human values, ethics, NSS/NCC, yoga, sports, Green campus activities	Overall personality and ethical development
8	Multidisciplinary Approach	Open electives, interdisciplinary projects	Innovation and critical thinking
9	Focus on Slow Learners and Its Implementation	Mentoring, remedial classes, customized assignments, tutorial sheets, Diagnostic Assessment Test (DAT)	Improved academic performance, enhanced confidence, and better course outcome attainment

1. Faculty Lecture (online): <https://jecrcfoundation.com/videos/> (<https://jecrcfoundation.com/videos/>)



Fig. 9.12(a): Website screenshot of faculty members lectures (online)

2. ICT Enable

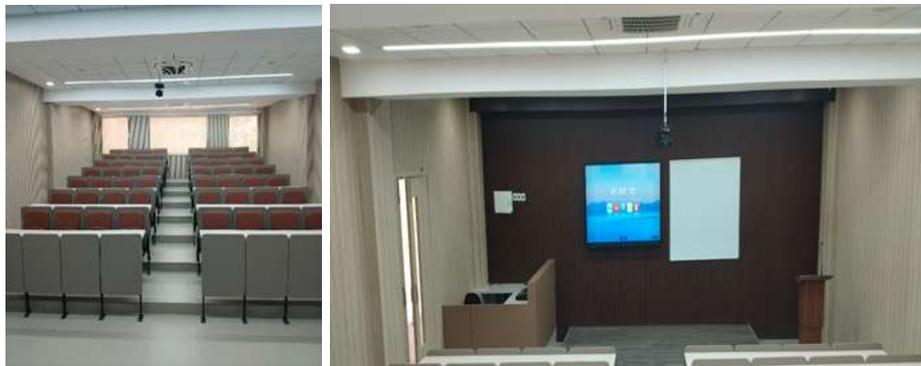


Fig. 9.12(b): Smart Classrooms

3. Virtual Laboratory

Our institution has established a Virtual Laboratory tie-up with Indian Institute of Technology Delhi, ranked 2<sup>nd</sup> among Engineering Institutes in India. Through this collaboration, students gain access to advanced online laboratory simulations and remote experimentation facilities.

Virtual Lab Platforms: <https://www.vlab.co.in/participating-institute-iit-delhi> (<https://www.vlab.co.in/participating-institute-iit-delhi>)

Links on college website: <https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf> (<https://jecrcfoundation.com/wp-content/uploads/2025/11/link.pdf>)



Fig. 9.12(c): Appreciation Letter for securing 2<sup>nd</sup> Position

**4. Student Projects/Exhibition**

The Institution organizes Student Project Exhibitions showcasing innovative work across multiple domains. These include Hackathons, Ideathons, MPWS projects, J-Tectrix technology exhibits, physics-based experiments, civil engineering project demonstrations and minor projects in all departments. The exhibitions & projects provide students a platform to display creativity, practical skills, and problem-solving abilities while fostering interdisciplinary learning and innovation. The institution encourages interdisciplinary final-year projects and skill-based value-added courses beyond syllabus.



Fig 9.12(d): Sample of Project Based Learning

**5. Students Participation**

The Institution motivates students to experience mobility through academics, industry exposure, campus life and different platforms, preparing them for diverse career paths and personal growth. Participation of students as member of Administrative bodies, student council, sports council etc.

- **Student Involvement in Beyond-Campus Activities:**

Students actively participate in inter-college, university, and national-level technical, cultural, and sports activities, enhancing leadership, teamwork, and professional exposure. The institution provides necessary mentoring and support to encourage such external engagement and holistic development.

Table 9.12(b): Sample of Outside Activity Participation

S. No	Name of the Award/ Medal	Category	Sports/ Cultural	Date of Event
1	Badminton (RTU Kota)	National	Sports	12-16 Nov2024
2	Table Tennis (RTU Kota)	National	Sports	25-27 Nov 2024
3	Table Tennis (RTU Kota)	National	Sports	29-31 Dec 2025
4	Badminton (RTU Kota)	National	Sports	09-1 Nov 2024
5	Basket Ball (RTU Kota)	National	Sports	26-30 Nov 2024
6	Basket Ball (RTU Kota)	National	Sports	15-21 Nov2024
7	Badminton 3 <sup>rd</sup> Position (SKIT)	National	Sports	15-17 Feb2025
8	Table Tennis 1 <sup>st</sup> Position (SKIT)	National	Sports	15-17Feb 2025
9	Badminton Single Girls 1st Position (SKIT)	National	Sports	15-17 Feb2025
10	Table Tennis 1 <sup>st</sup> Position (JIM)	National	Sports	28 Feb to 3 March 2025
11	Table Tennis 2nd Position (JIM)	National	Sports	28 Feb to 3 March 2025
12	Table Tennis 1 <sup>st</sup> Position (JIM)	National	Sports	28 Feb to 3 March 2025
13	Decathlon 22 <sup>nd</sup> 5km run	National	Sports	22Sept 2024
14	RTU Intercollege Table Tennis	National	Sports	10 April 24
15	IIT Roorkee FEST	National	Technical	14 Sept 2024
16	VGU, Secured 2 <sup>nd</sup> Exhibition	National	Technical	13 Sept 2024

17	SIH	National	Technical	20 Sept 2024
18	Runner up at IIT Roorkee, Tomso24	National	Cultural	10 May2024
19	Smart India hackathon	National	Technical	22Sept 2024
20	Gen AI Meets branding with AWS Group	National	Technical	29 Sept 2024
21	Smart India Hackathon	National	Technical	21 Sept 2024
22	Badminton	National	Sports	2-4, Oct 2024
23	Badminton	National	Sports	2-4, Oct 2024
24	Basketball	National	Sports	2-4, Dec 2024
25	Tug of war	National	Sports	2-4, Dec 2024
26	IEEE YESIST12 Hackathon	National	Technical	6-8th March 2025
27	Codekaze24	National	Technical	6-8th March 2025
28	Robo soccer Coordinator	National	Cultural	6-8th March 2025
29	Logical reasoning	National	Technical	6-8th March 2025
30	Clash of Coders	National	Technical	6-8th March 2025
31	Smart India hackathon	National	Technical	21-22 Sept2024
33	Smart India Hackathon	National	Technical	21-22 Sept2024



Secured 1st position at mood Indigo at IIT Bombay zonals in 2025

Fig.9.12(f): Glimpse of Students Outside Participation

• MOOCs on SWAYAM/NPTEL:

Students are encouraged to enroll in MOOCs offered through SWAYAM and NPTEL to enhance domain knowledge and acquire industry-relevant skills beyond the prescribed curriculum. Credits earned through approved courses are considered as per university norms, promoting academic flexibility and lifelong learning.

Table 9.12(c): MOOCs on Swayam/NPTEL Participation (2024-25)

S. No.	Name	Course Name	Department	Session
1	Ajay Choudhary	Python for Data Science	AIDS	July-Oct. 2025
2	Aryan Choudhary	Python for data science	AIDS	July-Oct. 2025
3	Asmii Bhati	Database Management System	AIDS	July-Oct. 2025
4	Bhavya Paliwal	Data Structures and Algorithm	AIDS	July-Oct. 2025
5	Chetan Paliwal	Python programming	AIDS	July-Oct. 2025
6	Chetan Paliwal	Python for data science	AIDS	July-Oct. 2025
7	Deep	Python for data science	AIDS	July-Oct. 2025
8	Galav Bhatt	Python for data science	AIDS	July-Oct. 2025
9	Ishaant	Introduction to Machine learning	AIDS	July-Oct. 2025
10	Lakshay	Generative AI	AIDS	July-Oct. 2025
11	Navkar Gupta	Python for data science	AIDS	July-Oct. 2025
12	Rahul Raj	Python for Data Science	AIDS	July-Oct. 2025
13	Rashmi Kumari	Python for data science	AIDS	July-Oct. 2025
14	Rudresh Singhal	Machine Learning (ML)	AIDS	July-Oct. 2025
15	Samrat Nagar	Python for Data science	AIDS	July-Oct. 2025

16	Shweta Pathak	Python for data science	AIDS	July-Oct. 2025
17	Sourabh Choubey	Python for Machine Learning	AIDS	July-Oct. 2025
18	Tanmay Gupta	Python For Data Science	AIDS	July-Oct. 2025
19	Tanmay Gupta	Introduction to Programming in C	AIDS	July-Oct. 2025
20	Vansh Verma	Introduction to Machine learning	AIDS	July-Oct. 2025
21	Yash Kumawat	Introduction to Machine Learning	AIDS	July-Oct. 2025
22	Vansh Tolani	Programming, Data Structures and Algorithms using Python	AIDS	July-Oct. 2025
23	Roshani Lalwani	Programming, Data Structures and Algorithms using Python	AIDS	July-Oct. 2025
24	Tanisha Daryanani	Programming, Data Structures and Algorithms using Python	AIDS	July-Oct. 2025
25	Mahima Keelka	German	AIDS	July-Oct. 2025
26	Ishan Sharma	German-I	CSAI	July-Oct. 2025
27	Kavya Sharma	Corporate Social Responsibility	CSAI	July-Oct. 2025
28	Lokendra Singh	Python for data science	CSAI	July-Oct. 2025
29	Yash Narang	German-I	CSAI	July-Oct. 2025
30	Raghav Dharwal	Artificial Intelligence (AI) for Investments	CSAI	July-Oct. 2025
31	Saniya Khanam	Advance course in social psychology	CSAI	July-Oct. 2025
32	Yadav Alok Vijaykumar	(1) Introduction to Machine Learning (IITKGP) and (2) Database and Management System (IITKGP)	CSAI	July-Oct. 2025
33	Utkarsh Tripathi	1)Foundation of Cloud IoT Edge ML 2) Linear Programming and its Application to computer science 3) Cloud Computing 4) Software Testing 5) Cybersecurity And Privacy	CSAI	July-Oct. 2025
34	Satyam Tiwari	Artificial Intelligence (AI) for Investments	CSAI	July-Oct. 2025
35	Ruchika Sharma	Programming in Java	CSAI	July-Oct. 2025
36	Ayush	German-I	ME	July-Oct. 2025
37	Chirag Dadheech	German-I	ME	July-Oct. 2025
38	Deepesh Singh Shekhawat	German-I	ME	July-Oct. 2025
39	Jaidev	German-I	ME	July-Oct. 2025
40	Manan Saxena	German-I	ME	July-Oct. 2025
41	Manjeet Singh	German-I	ME	July-Oct. 2025
42	Md Irshad Ali	German-I	ME	July-Oct. 2025
43	Pawan	German-I	ME	July-Oct. 2025
44	Mehul	German-I	ME	July-Oct. 2025
45	Pratyaksh Jodawat	German-I	ME	July-Oct. 2025
46	Prince Bajjiya	German-I	ME	July-Oct. 2025
47	Rudresh Kumar Rathore	German-I	ME	July-Oct. 2025
48	Vinay Jangir	German-I	ME	July-Oct. 2025
49	Yash Yadav	German-I	ME	July-Oct. 2025
50	Akhil Udai	German-I	ME	July-Oct. 2025
51	Neeraj Varma	German-I	ME	July-Oct. 2025
52	Mradul Krishana Bhardwaj	Industrial engineering and Operations Research	ME	July-Oct. 2025
53	Mradul Krishana Bhardwaj	Production and operations management theory and applications	ME	July-Oct. 2025
54	Sunny Shirowal	Public speaking	CE	July-Oct. 2025
55	Harsh Kumar	German	IT	July-Oct. 2025
56	Krishna Rawal	German	IT	July-Oct. 2025
57	Lakshya Rawal	German	IT	July-Oct. 2025
58	Mahimn Vyas	German	IT	July-Oct. 2025
59	Mayank Joshi	German	IT	July-Oct. 2025
60	Pihu Sharma	German	IT	July-Oct. 2025
61	Pramil Gahlot	German	IT	July-Oct. 2025
62	Aaditi Naruka	German- I	CSE	July-Oct. 2025

63	Aakash Yadav	German-1	CSE	July-Oct. 2025
64	Aashish Diwakar	German	CSE	July-Oct. 2025
65	Aastha Khandelwal	German	CSE	July-Oct. 2025
66	Abhimanyu Singh	German	CSE	July-Oct. 2025
67	Abhishek Meena	German	CSE	July-Oct. 2025
68	Aditya Chaudhary	German	CSE	July-Oct. 2025
69	Aditya Singh Jakhar	German	CSE	July-Oct. 2025
70	Aditya Soni	German-1	CSE	July-Oct. 2025
71	Akmal Khan	1. German 1 2.Data structure and Algorithm design	CSE	July-Oct. 2025
72	Ansh Aggarwal	German	CSE	July-Oct. 2025
73	Arnav Lokesh Sharma	German-1	CSE	July-Oct. 2025
74	Dhruv Saini	German - 1	CSE	July-Oct. 2025
75	Diksha Garg	German -1	CSE	July-Oct. 2025
76	Garima Jain	Corporate Social Responsibility	CSE	July-Oct. 2025
77	Garvit Saini	German-1	CSE	July-Oct. 2025
78	Harsha Soni	German-1	CSE	July-Oct. 2025
79	Jiya Aalwani	German - 1	CSE	July-Oct. 2025
80	Kavya Gupta	German - 1	CSE	July-Oct. 2025
81	Keshav Khandelwal	German - 1	CSE	July-Oct. 2025
82	Lakshya Choudhary	Japanese Text and Grammar -1	CSE	July-Oct. 2025
83	Rohit Soni	German	CSE	July-Oct. 2025
84	Ronak Jangid	German	CSE	July-Oct. 2025
85	Avi Maheshwari	Introduction to Object Oriented programming	CSE	July-Oct. 2025
86	Abhinav Mishra	Machine learning for core engineering disciplines	CSE	July-Oct. 2025
87	Achuki Bansal	German	CSE	July-Oct. 2025
88	Charvi Gupta	German -1	CSE	July-Oct. 2025
89	Chetna Kumari Garg	German -1	CSE	July-Oct. 2025
90	Mahi Bansal	Foundation Course in Managerial Economics	business administration	Jan-April 2025
91	Surya Pratap Singh Shekhawat	Soft Skill Development	CE	Jan-April 2025
92	Mrinal Yadav	Services Marketing: A Practical Approach	commerce	Jan-April 2025
93	Uttam Saini	Data Base Management System	IT	Jan-April 2025
94	Shivani Johari	Design and Engineering of Computer Systems	other	Jan-April 2025
95	Akhil Udai	Programming, Data Structures And Algorithms Using Python	ME	Jan-April 2025
96	Akshat Sharma	Data Science for Engineers	ECE	Jan-April 2025
97	Atiksh Gidwani	Engineering/Architectural Graphics - Part II - Isometric and Axonometric Drawings	CSE	Jan-April 2025
98	Akshat Sharma	Fundamental Algorithms: Design and Analysis	ECE	Jan-April 2025
99	Atiksh Gidwani	Fundamental Algorithms: Design and Analysis	CSE	Jan-April 2025
100	Mohit Garg	Machine Learning, ML	IT	Jan-April 2025
101	Krishna Rawal	Data Science for Engineers	IT	Jan-April 2025
102	Lakshaya Pant	Machine Learning, ML	CSE	Jan-April 2025
103	Aakash Kumar Gupta	Programming in Java	CSE	July-Oct 2024
104	Aarchi Bansal	Soft Skills	CSE	July-Oct 2024
105	Aayushmaan Singh Chundawat	Wild Life Ecology	CSE	July-Oct 2024
106	Abhay Chaturvedi	Wild Life Ecology	CSE	July-Oct 2024
107	Abhimanyu Singh	Soft Skills	CSE	July-Oct 2024
108	Adit Kaushik	Public Speaking	CSE	July-Oct 2024
109	Aditya Jain	Soft Skills	CSE	July-Oct 2024

110	Ajay Choudhary	Basic Environmental Engineering and Pollution Abatement	CSE	July-Oct 2024
111	Akanksha Singh	Human Resource Development	business administration	July-Oct 2024
112	Akshat Sharma	Computer Architecture	ECE	July-Oct 2024
113	Akshita Garg	Cloud Computing	other	July-Oct 2024
114	Akshita Garg	Introduction to Machine Learning	other	July-Oct 2024
115	Aman Dadhich	Computer Architecture	CSE	July-Oct 2024
116	Amulya Jef	Soft Skills	CSE	July-Oct 2024
117	Ankit Kaushik	The Joy of Computing using Python	other	July-Oct 2024
118	Arjun Singh Saluja	Soft Skills	CSE	July-Oct 2024
119	Arnavee Mohanty	Training of Trainers	CSE	July-Oct 2024
120	Arushi Lath	Advance Course in Social Psychology	CSE	July-Oct 2024
121	Ashish Kulshrestha	Stress Management	ECE	July-Oct 2024
122	Atiksh Gidwani	Soft Skills	CSE	July-Oct 2024
123	Ayush Goyal	Programming in Java	other	July-Oct 2024
124	Ayush Goyal	Operating System Fundamentals	other	July-Oct 2024
125	Chetan Gupta	Introduction to Internet of Things	ECE	July-Oct 2024
126	Chetan Jain	Soft Skills	CSE	July-Oct 2024
127	Chirag Joshi	Multi-Core Computer Architecture	CSE	July-Oct 2024
128	Deepak Panwar	Organizational Behaviour - II	CSE	July-Oct 2024
129	Deepak Sharma	Organizational Behaviour - II	CSE	July-Oct 2024
130	Deepak Sharma	Programming in Java	CSE	July-Oct 2024
131	Dhruvil Gautam	Soft Skills	CSE	July-Oct 2024
132	Dhwani Shah	Management Information System	CSE	July-Oct 2024
133	Divy Jain	Public Speaking	CSE	July-Oct 2024
134	Drashti Verma	Training of Trainers	CSE	July-Oct 2024
135	Drishiti Sharma	Environmental Science	CSE	July-Oct 2024
136	Geetanjali Sikarwar	Soft Skills	CSE	July-Oct 2024
137	Gouranishi Singh	HR Analytics	other	July-Oct 2024
138	Gourav Panwar	Developing Soft Skills and Personality	other	July-Oct 2024
139	Gungun Soni	E-Business	CSE	July-Oct 2024
140	Hardik Khadria	International Trade - Theory and Empirics	business administration	July-Oct 2024
141	Harsh Kumar	Google Cloud Computing Foundations	CSE	July-Oct 2024
142	Hemendra Pal Singh	Public Speaking	CSE	July-Oct 2024
143	Himanshu Verma	Programming in Java	CSE	July-Oct 2024
144	Hitarth Jain	Soft Skills	CSE	July-Oct 2024
145	Hitin Dagur	Animal Physiology	microbiology	July-Oct 2024
146	Ishpriya Chaturvedi	Animal Physiology	microbiology	July-Oct 2024
147	Keshav Sharma	Soft Skills	CSE	July-Oct 2024
148	Ketan Sharma	Introduction to Internet of Things	EE	July-Oct 2024
149	Kriti Jain	Soft Skills	CSE	July-Oct 2024
150	Kumar Anshaj	Practical Cyber Security for Cyber Security Practitioners	IT	July-Oct 2024
151	Kumar Anshaj	Ethical Hacking	IT	July-Oct 2024
152	Kunj Paliwal	Data Structure and Algorithms using Java	computer science	July-Oct 2024
153	Lakshika Goyal	Entrepreneurship	CSE	July-Oct 2024
154	Lakshya Choudhary	Soft Skills	CSE	July-Oct 2024
155	Lalit Meena	Product and Brand Management	business administration	July-Oct 2024
156	Medhansh Singhal	Machine Learning and Deep Learning - Fundamentals and Applications	ECE	July-Oct 2024
157	Medhansh Singhal	Project Management for Managers	ECE	July-Oct 2024

158	Michael Paul	Soft Skills	CSE	July-Oct 2024
159	Mohammed Aadil	Data Structure and Algorithms using Java	CSE	July-Oct 2024
160	Mohit Kumar Meena	Organizational Behaviour	CSE	July-Oct 2024
161	Mradul Krishna Bhardwaj	Fundamentals of Conduction and Radiation	ME	July-Oct 2024
162	Nakshatra Sharma	Understanding Incubation and Entrepreneurship	ME	July-Oct 2024
163	Neeraj Singh Rajawat	Soft Skills	CSE	July-Oct 2024
164	Nidhi Jain	The Joy of Computing using Python	other	July-Oct 2024
165	Nitin Sharma	Soft Skills	CSE	July-Oct 2024
166	Om Sharma	Research for Marketing Decisions	CSE	July-Oct 2024
167	Om Sharma	Soft Skills	CSE	July-Oct 2024
168	Paramveer Singh Chauhan	Soft Skills	CSE	July-Oct 2024
169	Parul Tyagi	Stress Management	ECE	July-Oct 2024
170	Prabal Singh	Environment and Development	CSE	July-Oct 2024
171	Pradhyuman Singh	Soft Skills	CSE	July-Oct 2024
172	Pratibha Kanwar	Training of Trainers	CSE	July-Oct 2024
173	Pulkit Govil	Business to Business Marketing (B2B)	CSE	July-Oct 2024
174	Purva Dadhich	Data Structure and Algorithms using Java	IT	July-Oct 2024
175	Purva Dadhich	Programming in Java	IT	July-Oct 2024
176	Rahul Jangid	Wild Life Ecology	CSE	July-Oct 2024
177	Ravi Shankar	Sustainable Transportation Systems	CSE	July-Oct 2024
178	Ravi Shankar	Environmental Science	CSE	July-Oct 2024
179	Renjith K K	Organizational Behaviour	other	July-Oct 2024
180	Renjith K K	Training of Trainers	other	July-Oct 2024
181	Renjith K K	Organizational Behaviour - II	other	July-Oct 2024
182	Reyansh Parashar	Soft Skills	other	July-Oct 2024
183	Rimjhim Agrawal	Natural Resources Management	CSE	July-Oct 2024
184	Ritesh Jangid	Introduction to Internet of Things	other	July-Oct 2024
185	Riya	Training of Trainers	CSE	July-Oct 2024
186	Riya Sharma	Programming in Modern C++	CSE	July-Oct 2024
187	Riya Shekhawat	Public Speaking	CSE	July-Oct 2024
188	Sachin Sharma	Big Data Computing	CSE	July-Oct 2024
189	Sahil Vinay Joseph	Developing Soft Skills and Personality	other	July-Oct 2024
190	Sajal Bansal	Data Structure and Algorithms using Java	CSE	July-Oct 2024
191	Samarth Agarwal	Psychology of Learning	CSE	July-Oct 2024
192	Saniya Khanam	Psychology of Learning	CSE	July-Oct 2024
193	Sanjeev Kumar Mishra	Entrepreneurship	CSE	July-Oct 2024
194	Shalini Singh	Human Resource Development	other	July-Oct 2024
195	Shefali Chopra	Organizational Behaviour - II	CSE	July-Oct 2024
196	Shishir Karn	Soft Skills	CSE	July-Oct 2024
197	Shrishti Bisht	Entrepreneurship	CSE	July-Oct 2024
198	Sujal Gupta	Soft Skills	CSE	July-Oct 2024
199	Surya Pratap Singh Shekhawat	Psychology of Learning	CE	July-Oct 2024
200	Tanisha Agarwal	Soft Skills	CSE	July-Oct 2024
201	Tanishk Kaushik	Technical English for Engineers	CSE	July-Oct 2024
202	Tanishq Singh	Big Data Computing	CSE	July-Oct 2024
203	Utsav Gupta	Soft Skills	CSE	July-Oct 2024
204	Uttam Saini	Introduction To Algorithms and Analysis	IT	July-Oct 2024
205	Vaibhav Sharma	Product and Brand Management	accounting and finance	July-Oct 2024

206	Vaibhav Sharma	Management Accounting	accounting and finance	July-Oct 2024
207	Vinay Pal Singh	Soft Skills	CSE	July-Oct 2024

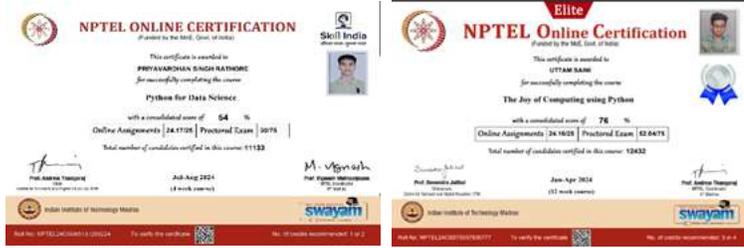


Fig. 9.12(g): MOOC Courses Certificates

• **Online Certification Courses:**

Students are encouraged to pursue approved online certification courses from recognized platforms to strengthen technical competencies and industry readiness. These certifications supplement the curriculum and are considered as value-added learning in alignment.



Fig. 9.12(h): Sample of Online Certification Courses

• **Industrial Training:**

Industrial training is conducted as per university guidelines to provide students with practical exposure to real-world engineering practices and industry operations. This enhances technical skills, professional ethics, and understanding of industrial standards and work culture.

Table 9.12(d): Sample of Industrial Training Certification of Mechanical Department (2024-25)

S.No.	Roll No.	Name	Training Period	Industry Name
1	21EJCME001	Aaditya Prajapat	45 Days	Alka engineering works
2	21EJCME002	Aditya Yadav	45 Days	Hindustan AutoHouse (P) LTD
3	21EJCME003	Aditya Khurana	45 Days	Hindustan automobile the research center
4	21EJCME004	Aditya Singh Mahur	45 Days	SolidWorks and ANSYS- CAD CENTRE
5	21EJCME005	Ajayraj Singh Tanwar	45 Days	Hindustan AutoHouse (P) LTD
6	21EJCME007	Anant Jhalani	45 Days	Ace Incorporation
7	21EJCME008	Anshraj Mahaveer Sharma	45 Days	Hindustan AutoHouse (P) LTD
8	21EJCME009	Anshul Garg	45 Days	DS GROUP - SUPPLY CHAIN MANAGEMENT
9	21EJCME010	Anuj Khandelwal	45 Days	Ace Incorporation
10	21EJCME011	Apoorv Nandkeolyar	45 Days	AutoCAD Training- CADEMATE
11	21EJCME012	Arman	45 Days	RMC SWITCHGEARS LTD.
12	21EJCME013	Arzoo Soni	45 Days	CATIA - Caddesk
13	21EJCME014	Gaurav Khandelwal	45 Days	SolidWorks and ANSYS- CAD CENTRE
14	21EJCME015	Gaurav Yadav	45 Days	Mahindra Tech Pvt ltd
15	21EJCME016	Harsh Jain	45 Days	Goyal Industries / hot melt adhesive & wet Lamination adhesive
16	21EJCME019	Krishna Sharma	45 Days	FCC RICO Ltd. - assembly of clutch
17	21EJCME020	Krishna Vyas	45 Days	Hindustan automobile
18	21EJCME021	Lakshydeep Singh Tanwar	45 Days	Kia Motors

19	21EJCME022	Lokesh Bairwa	45 Days	SolidWorks and ANSYS- CAD CENTRE
20	21EJCME023	Manmohan Parashar	45 Days	Rays Power Infra Limited
21	21EJCME024	Moh Sameer Mansoori	45 Days	RMC SWITCHGEARS LTD.
22	21EJCME025	Mohammad Aqib	45 Days	Hindustan Automobile
23	21EJCME026	Nootendra Kushwah	45 Days	Rays power infra ltd. (Solar power plant EPC)

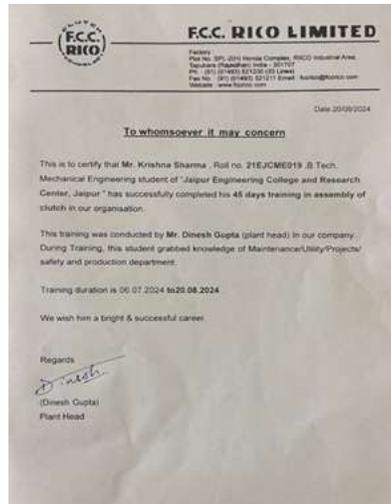


Fig. 9.12(i): Sample of Industrial Training Certification

• Add-On Courses:

Add-on courses are offered beyond the prescribed curriculum to enhance students' technical proficiency and employability skills in emerging areas. These value-added programs bridge the gap between academic learning and industry requirements.

Table 9.12(e): ADD-ON Course Program (2024-25)

S. No	Branch	Name of Add on	Duration	Participants
1	ME	Applied Object-Oriented Programming with C++	3 Mar 2025 to 8 Mar 2025	18
2	ME	3D Design and Parametric Modelling using SolidWorks	9 Sept 2024 to 14 Sept 2024	28
3	ME	From Campus to Corporate: Skills for Success	24 Mar 2025 to 29 Mar 2025	18
4	ME	Engineering Simulations with ANSYS	23 Sept 2024 to 28 Sept 2024	28
5	ME	CAEV: Connected, Autonomous, Electric Vehicle Course	17 Sept 2024 to 19 Apr 2025	22
5	ME	Data Structures using Python	17 Mar 2025 to 22 Mar 2025	18
5	ME	Introduction to ANSYS	27 Aug 2024 to 2 Sept 2024	28
5	ME	Workplace Readiness: Aptitude, Reasoning and Language Proficiency	17 Mar 2025 to 22 Mar 2025	18
5	ME	Introduction to SOLIDWORKS	5 Aug 2024 to 10 Aug 2024	28
5	ME	Business Fundamentals for Entrepreneurs	4-May-25	1
6	ME	Engineering Thermodynamics	3-Nov-24	1
7	ME	Introduction to Fluid Mechanics	27-Apr-25	6
8	ME	Kinematics of Mechanisms and Machines	27-Mar-25	1
9	ME	Matlab Programming for Numerical	3-May-25	2
10	ME	Finite Element Method	Jan-Apr 2025	1
11	ME	Data Structures and Algorithms Using Python	Jan-Apr 2025	1
12	CE	Ground Improvement	17 Oct. to 6 Dec. 2024	30
13	CE	Advanced Concrete Technology	2 Sept. to 23 Oct. 2024	30
14	CE	Problem Solving	27 May 2025 to 15 June 2025	14
15	CE	Algorithmic Thinking	28 March 2025 to 11 April 2025	14

16	CE	Programming Unlocked	17 March 2025 to 27 March 2025	14
22	AI&DS	Data Structure Using JAVA	25-Aug-24	60
23	AI&DS	Python for Data Science	Jul-Aug 2024	5
24	AI&DS	Introduction to Programming in C	Jan-Mar 2024	1
25	AI&DS	Advanced JAVA	3 Feb 2025 to 13 Feb 2025	14
26	AI&DS	Design & Analysis of Algorithms DAA		134
27	AI&DS	Data Science for Engineers	Jul-Sept 2024	1
28	AI&DS	Data Science using Python	Jul-Oct 2024	1
29	AI&DS	Cloud Computing	Jul-Oct 2024	1
30	AI&DS	Algorithmic Thinking	28 Mar 2025 to 10 Apr 2025	137
31	AI&DS	Programming Unlocked	17 Mar 2025 to 27 Mar 2025	137
32	I Year	Business Ethics	Jan-Apr 2025	1
33	I Year	Cloud Computing	Jan-Apr 2025	1
34	I Year	Business Forecasting	Feb-Apr 2025	1
35	I Year	A Mathematical Workshop And Test-Phase I	10 Feb 2025 to 14 Feb 2025	80
36	I Year	A Mathematical Workshop And Test-Phase II	1 Apr 2025 to 5 Apr 2025	134
37	I Year	Scientific Research Writing: Evolution & Expansion-Phase-I	21 Oct 2024 to 15 Dec 2024	100
38	I Year	Scientific Research Writing: Evolution & Expansion-Phase-2	18 Feb 2025 to 15 Apr 2025	100
39	IT	Add-on Course on ServiceNow Administration Fundamentals	20 Jan 2025 to 25 Jan 2025	70
40	IT	Add-on Course on Scripting in ServiceNow Fundamentals	27 Jan 2025 to 01 Feb 2025	70
41	IT	Add-on Course on Application Development Fundamentals	02 Feb 2025 to 07 Feb 2025	70
42	IT	Add On Courses on (BCOLA-138 Business Communication)	14-Dec-24	1
43	IT	Add On Course on (Introduction to Algorithms and Analysis)	July to Oct 2024	1
44	IT	Add On Course on (The Joy of Computing using Python)	Jan to Apr 2025	1
45	IT	Add On Course on- (Soft Skill Development)	Jul to Sept 2024	1
46	IT	Add On Course: (Introduction to Operating Systems)	July to Sept 2024	2
47	IT	Add On Course: (Demystifying Networking)	Jul to Aug 2024	1
48	IT	Artificial Intelligence (AI) for Investments	20-01-2025 to 17-04-2025	1
49	IT	Business Analytics for Management Decision	20-01-2025 to 16-04-2025	1
50	IT	BCOC-132: Business Organisation and Management	01-01-2025 to 30-04-2025	1
51	IT	Data Base Management System	20-01-2025 to 23-03-2025	1
52	IT	Ethical Hacking	22-07-2024 to 16-10-2024	1
53	IT	CEC25-CM09: Fundamental of Investments	13-01-2025 to 30-04-2025	5
54	IT	CIT-001: Fundamentals of Computer System	01-01-2025 to 30-04-2025	1
55	IT	Introduction to Graphic Design	17-02-2025 to 30-04-2025	1
56	IT	Practical Cyber Security for Cyber Security Practitioners	22-07-2024 to 21-10-2024	1
57	IT	Principles And Practices of Managerial Economics	22-07-2024 to 11-10-2024	1
58	IT	Programming in Java	22-07-2024 to 11-10-2024	1
59	IT	Theory of Computation	20-01-2025 to 27-04-2025	1

60	ECE	Programming Unlock	17 March 2025 to 27 March 2025	151
61	ECE	Algorithmic Thinking	28 March 2025 to 11 April 2025	153
62	ECE	Ansys for Beginners: simulation, Modeling, and Analysis	07 October 2024 to 19 October 2024	150
63	ECE	IoT and Future Wireless Networks	18 October 2024 to 29 October 2024	150
64	ECE	AI for Signal and Image Processing	16 November 2024 to 27 November 2024	150
65	ECE	Fundamental of CAEV	17/09/24 to 19/12/2024	182
66	ECE	Advanced of CAEV	02/02/25 to 19/04/25	182
67	ECE	Real Time embedded System	05/03/2025 to 22/03/2025	105
68	ECE	Security and Surveillance System with raspberry Pi	27/09/2024 to 15/10/2024	112
69	ECE	Software defined radio	08/11/2024 to 25/11/2024	108
70	ECE	Sensor Interfacing with Arduino	02/09/2024 to 18/09/2024	110
71	ECE	Sensory Technology	14/02/2025 to 25/02/2025	100
72	ECE	Computer Architecture	July 2024 to October 2024	1
73	ECE	Data Science for Engineers	Jan to March 2025	1
74	ECE	Data Base Management System	July to Sep 2024	1
75	ECE	Fundamental Algorithms: Design and Analysis	Jan to Feb 2025	1
76	ECE	Python for Data Science	July to Aug 2024	1
77	ECE	Embedded Sensing, Actuation and Interfacing Systems	Jan to April 2024	1
78	ECE	System Design Through Verilog	July to Sep 2024	1
79	ECE	Introduction to Internet of Things	July to Oct 2024	1
80	ECE	Understanding Incubation and Entrepreneurship	July to Oct 2024	1
81	ECE	Microprocessors and Microcontrollers	Jan to April 2025	1
82	ECE	Introduction to Large Language Models (LLMs)	Jan to April 2025	1
83	ECE	Machine Learning and Deep Learning – Fundamentals and Applications	July to Oct 2025	1
84	ECE	Project Management for Managers	July to Oct 2024	1
85	EE	Fundamental Course on PV Systems	7 Aug 2024 to 28 Aug 2024	40
86	EE	Advanced CAEV	17 Jan 2025 to 1 Apr 2025	29
87	EE	Fundamentals CAEV	17 Sept 2024 to 5 Dec 2024	29
88	EE	Programming Unlocked	17 Mar 2025 to 27 Mar 2025	27
89	EE	Data Structure and Algorithms	28 March 2025 to 11 April 2025	27
90	CSE	Python Programming	1 July 2024 to 17 August 2024	1
91	CSE	Data Base Management System	22 Jul 2024 to 13 Sep 2024	3
92	CSE	Computer Graphics	22 Jul 2024 to 13 Sep 2024	1
93	CSE	Introduction to Operating Systems	22 Jul 2024 to 13 Sep 2024	1
94	CSE	Big Data Computing	27 Aug 2024 to 11 Oct 2024	2
95	CSE	Devops & Cloud Computing- Upflairs	1 July 2024 to 17 August 2024	25
96	CSE	Data Science with Machine Learning & Artificial Intelligence	1 July 2024 to 17 August 2024	63
97	CSE	Ethical Hacking	1 July 2024 to 17 August 2024	5
98	CSE	Data Analytics	1 July 2024 to 17 August 2024	37
99	CSE	MongoDB	25 Feb 2025 to 4 March 2025	175
100	CSE	Multi-Core Computer Architecture	1 Jul 2024 to 18 August 2024	1
101	CSE	Scripting in service now fundamentals	27 Jan 2025 to 1 Feb 2025	35
102	CSE	Application Development Fundamentals	2 Feb 2025 to 7 Feb 2025	35

103	CSE	Service now Administration fundamentals	20 Jan 2025 to 25 Jan 2025	35
104	CSE	Fundamentals of object-oriented programming	Jan to Apr 2025	1
105	CSE	Computing foundations: Cloud computing fundamentals	18 oct to 24 oct 2024	1
106	CSE	Computing foundations: Infrastructure in google cloud	25 oct to 31 oct 2024	1
107	CSE	Computing foundations: Networking and security in google cloud	1 Nov 2024 to 7 Nov 2024	1
108	CSE	Computing foundations: Data,ML and AI in google cloud	8 Nov 2024 to 14 Nov 2024	1
109	CSE	Implement load balancing on compute engine	15 Nov 2024 to 21 Nov 2024	1
110	CSE	Set up an APP dev environment on google cloud	22 Nov 2024 to 28 Nov 2024	1
111	CSE	Build a secure google cloud network	29 Nov 2024 to 5 Dec 2024	1
112	CSE	Prepare data for MI APS on google cloud	6 Dec 2024 to 12 Dec 2024	1
113	CSE	Programming Unlocked	17 March 2025 to 27 March 2025	265
114	CSE	Algorithmic Thinking	28 March 2025 to 10 April 2025	265
115	CSE(AI)	Design And Analysis of Algorithm	July to Sept 2024	1
116	CSE(AI)	Problem Solving through Programming In C	Jan to Apr 2024	1
117	CSE(AI)	Programming in Modern C++	Jul to Oct 2024	1
118	CSE(AI)	Brief Introduction to Psychology	July to Aug 2024	1
119	CSE(AI)	Add-on Course on Algorithmic Thinking	28 March 2025 to 10 April 2025	64
120	CSE(AI)	Add-on Course on Programming Unlocked	17 March 2025 to 27 March 2025	64
121	CSE(AI)	Add on course on Problem Solving	27 May 2025 to 14 June 2025	64
122	CSE(AI)	Add on course on Communication Skill	27 May 2025 to 14 June 2025	64
123	CSE(AI)	Add on course on Advance DSA	4 July 2025 to 17 July 2025	64

#### 6. mplementation of Academic Bank of Credits (ABC):

The Institution has implemented the Academic Bank of Credits (ABC) as per UGC guidelines. Students are registered on the ABC portal, enabling accumulation, transfer, and redemption of credits earned through recognized platforms. Students are encouraged and guided to create ABC IDs and transfer credits earned through, ABC Credit transfer mechanisms and flexible academic pathways enable students to gain diverse learning experiences.

**Table 9.12(f): Academic Bank of Credits (ABC) Detail of Mechanical Department Students (2024-25)**

S. No.	Roll No.	Student Name	Father Name	Mother Name	ABC-ID
1	24EJCME001	Abhay Singh Rathore	Puran Singh Rathore	Hemlata Kanwar	101400000000
2	24EJCME002	Aftab Khan	Zaheer Abbas Khan	Nusrat	825300000000
3	24EJCME003	Amar Sharma	Jai Prakash Sharma	Renu Sharma	273400000000
4	24EJCME004	Ayush	Suresh Kumar	Sarita Devi	861500000000
5	24EJCME005	Bhumika Agrawal	Trilok Chand Agrawal	Seema Devi	606500000000
6	24EJCME006	Chirag Dadheech	Manoj Kumar Dadheech	Savitri Dadheech	774400000000
7	24EJCME007	Deepesh Singh Shekhawat	Narendra Singh Shekhawat	Sushila Kanwar	731500000000
8	24EJCME008	Devansh Sharma	Ved Pal Sharma	Meena Sharma	527400000000
9	24EJCME009	Hemant Kumar	Ravindra Kumar Suman	Anju Devi	941200000000
10	24EJCME010	Jaidev	Surender	Poonam	165900000000
11	24EJCME011	Kamal Jangir	Jagdish Parsad	Sita Devi	827700000000
12	24EJCME012	Krishna Khandelwal	Mahesh Kumar Badaya	Rita Khandelwal	813300000000
13	24EJCME013	Manan Saxena	Ved Prakash Saxena	Garima Saxena	116600000000
14	24EJCME014	Manjeet Singh	Kaptan Singh	Supita Devi	792500000000
15	24EJCME015	Md Irshad Ali	Mohammad Sahabazad Ali	Amirun Nesha	318900000000
16	24EJCME016	Mehul	Shiv Kumar	Shaila	838400000000
17	24EJCME018	Nishant Garg	Sanjay Garg	Neetu Garg	507700000000
18	24EJCME019	Nishchay Saini	Rajesh Saini	Priyanka	312600000000
19	24EJCME020	Pawan	Raj Sngh	Sanju Devi	317300000000
20	24EJCME021	Pratham	Sunil Kumar	Shallu	761300000000
21	24EJCME022	Pratyaksh Jodawat	Neemesh Jodawat	Meenakshi Jodawat	848900000000
22	24EJCME023	Prince Bajiya	Gopal Singh	Santosh	405600000000
23	24EJCME024	Rachit Kumar Singh	Rajnish Kumar	Amrita Singh	268100000000
24	24EJCME025	Raj Gupta	Vijay Ram Gupta	Premalata Gupta	147500000000
25	24EJCME026	Rakshit Baghel	Devendra Singh	Kusum Devi	808600000000
26	24EJCME027	Rohit Kumar	Shankar Lal	Leela	764600000000
27	24EJCME028	Rudresh Kumar Rathore	Shivcharan Rathore	Saroj Rathore	517500000000

28	24EJCME029	Sourabh Nagal	Shyam Sunder Nagal	Saroj	983800000000
29	24EJCME030	Vinay Jangir	Subhash Chandra Jangir	Santosh Jangir	739200000000
30	24EJCME031	Yaman Harsolia	Rajesh Harsolia	Premlata	204800000000
31	24EJCME032	Yash Yadav	Naveen Kumar Yadav	Sharmila Yadav	574900000000
32	24EJCME200	Harsh Chauhan	Basant Kumar	Rama Saini	875100000000
33	24EJCME201	Nikhil Gupta	Rajesh Gupta	Kirti Gupta	920800000000
34	24EJCME202	Nishi Kant Kumar	Niranjan Prasad Chourasia	Sangita Devi	743900000000

#### 7. Holistic Education

Holistic development is ensured through curricular and co-curricular initiatives focusing on human values, ethics, environmental consciousness, and social responsibility, including:

- Courses on Professional Ethics, Environmental Studies, and Universal Human Values
- Yoga, meditation, NSS, NCC, blood donation drives, and community outreach programs
- Celebrations of national festivals and constitutional values

**Table 9.12(g): Activities under Universal Human Values Course in session 2024-25**

S. No	Activity Name	No. of Participation
1	Converting Waste into Fuel	5
2	Cleaning Oceans and Reef	5
3	Social media	5
4	Alimony - A Support or Struggle	5
5	Human Value in the Age of Technology	5
6	Terrorism	5
7	Old Age Homes and Joint Family System	5
8	Save Electricity for Sustainable and Brighter Future	5
9	Save Trees	5
10	Save Trees for the Society Benefits	5
11	Save Water	5
12	Save Electricity	5
13	Mental Health Awareness	5
14	Girls Education Values	5
15	Security Devices for Society	5
16	Importance Of Integrity	5
17	Sustainable Development: Engineering A Greener Future	5
18	Save Trees and Save Lives	5
19	Save Trees	5
20	Nobel Work for Human Values: Visiting an Old Age Home	5
21	Cleaning And Planting	5
22	Empowering Education: The Case for Mandatory Social Projects	5
23	Youth Caring for Elders	5
24	Investing In Our Future: Social Projects for Children	5
25	Social Project Initiative: Empowering Students, Strengthening	5
26	Inclusive Physical Education	5
27	Education For Children in Needy/Weaker Sections	5
28	Education For Children in Needy/Weaker Sections	5
29	Empowering Futures	5
30	Child Development	5
31	Renewable Energy Sources	5
32	Protect Our Planet: Reduce, Reuse, Recycle	5
33	Ludo Of Life: A Game of Choices and Consequences	5
34	Human Values Model on Awareness of Core Human Values	5
35	The Water Cycle -Natures Eternal Flow	5
36	Model on 3D Fundamental Human Values	5
37	Core Human Values Social and Ethical Values Spiritual and Personal Growth Professional Growth	5

38	Significance Of Ethics and Human Values	5
39	Human Values Tree	5
40	Stop Road Trash	5
41	Core Values of an Ideal Student	4
42	Religion Unity	5
43	Sustainable Development	5
44	Meditation and Its Types	4
45	Sustainable Development	5
46	Game of Ethics	5
47	Soul as Solar System	4
48	Soul Tree	5
49	Four Orders of Nature	5
50	7 Qualities of Soul	4
51	7 Qualities of Soul	5
52	Save Electricity	4
53	Energy Conservation and Save Electricity	5
54	Apno Rajasthan	5
55	Yoaga, Meditation or Physical Exercises	5
56	Waste Management Awareness	4
57	Rain Sensor	5
58	Activities For the Restoration of Art and Culture	4
59	Mental Health Awareness	5
60	Save Electricity and Water	4
61	Design A Poster Which Includes Varities of Animals in Campus	5
62	Literacy Programs	5
63	Core Values of an Ideal Student	5
64	Stop Paper Wastage - Save Trees	4
65	Meditation	4
66	Stop Road Trash	4
67	Give Food to Poor People	4
68	Artistic And Educational Representation Through 3d- Design	4
69	Stop Paper Waste - Save Trees	4
70	Save Water and Electricity	5
71	Varities Of Fruits in Our Campus	4
72	Stop Throwing Garbage on Road	4
73	Herbal Plants in The Campus	5
74	Animals In the Campus	5
75	Give Food to Poor People	5
76	Yogic Asanas and Exercises	5
77	Holding Sessions for Yoga, Meditation or Physical Exercise	5
78	Animals In the Campus	4
79	Poster Includes Various Herbal Plants Available in Campus	4
80	Poster Includes Various Herbal Plants Available in Campus	4
81	Clean Your Surroundings	5
82	Save Water, Save Electricity	5
83	Gender Inequality	5
84	Wheel of Values	4
85	Spin The Wheel	4
86	The Battle Within	4
87	Ludo	4
88	Heaven And Hell	5
89	Snake & Ladder (Value Game)	5

90	Good Mental Health V/S Bad Mental Health	5
91	Water Contamination in India	5
92	7 Element of Soul	5
93	Blood Donation Camp	5
94	Balance Within	4
95	7 Qualities of Soul	4
96	Building The Foundation for A Harmonious Life	4
97	Eco Friendly Festival	5
98	Four Orders of Nature	5
99	Deforestation: Understanding the Global Challenge	5
100	Sustainable Development of Plastic Road	5
101	Mediation	5
102	Impact Of Traffic Regulations During VVIP Arrival	5
103	Black Bird	5
104	Smart Rain: Tech-Enabled Water Harvesting for Rural India	5



Fig. 9.12(j): Glimpse of UHV Activities

Table 9.12(h): Activities under Professional ethics & Environmental Studies (2024-25)

S. No	Activity Name	No. of Participation
1	Zero Hour summit (MUN)	300
2	Vichar Vimarsh 1.0 a Debating Initiative (MUN)	40
3	Vichar Vimarsh 2.0 a Debating initiative (MUN)	50
4	Vichar Vimarsh 3.0 a Debating initiative (MUN)	35
5	Vichar Vimarsh 4.0 a Debating initiative (in house JECRC) (MUN)	56
6	MUN 14th Edition (MUN)	450
7	Toastmasters Meeting Theme 'Cartoon Character (Toastmasters)	20
8	Toastmasters Meeting Theme 'School Days' (Toastmasters)	9
9	Toastmasters Meeting Theme 'Manifestation' (Toastmasters)	10
10	Toastmasters Meeting Theme 'Festival' (Toastmasters)	22
11	Toastmasters Meeting Theme 'Fun with English' (Toastmasters)	12
12	Toastmasters Meeting Theme Best Friend (Toastmasters)	14
13	Toastmasters Meeting Theme RTU Exams' (Toastmasters)	7
14	Toastmasters Meeting Theme Celebrating Festivities (Toastmasters)	10
15	Toastmasters Meeting Theme Tesla Code (Toastmasters)	9
16	Toastmasters Meeting Theme School Days (Toastmasters)	16
17	Toastmasters Meeting Theme Cultural Diversity (Toastmasters)	14
18	Toastmasters Meeting Theme Clock Blocking (Toastmasters)	15
19	Toastmasters Meeting Theme Time Management (Toastmasters)	10
20	Toastmasters Meeting Theme Unexpected Twists (Toastmasters)	12
21	Toastmasters Meeting Theme Nutrition 101 (Toastmasters)	15
22	Toastmasters Meeting Theme Bull in a China Shop (Toastmasters)	11
23	Toastmasters Meeting Theme Colours of Life (Toastmasters)	8
24	Toastmasters Meeting Theme Searching for Truth (Toastmasters)	12
25	Evolve 2025 Event (Toastmasters)	60

26	Division Contest (Toastmasters)	50
27	Area Contest- Convergence (Toastmasters)	70
28	Toastmasters Meeting Theme Carnival of Words (Toastmasters)	15
29	FDP-NITTTR Clean and Green Technologies (IGBC)	21
30	FDP-NITTTR Green Manufacturing (IGBC)	26
31	Poster Making Competition on World Forestry Day (IGBC)	15
32	World environment day	21
33	Herbal garden	60
34	Global fertilizer day	37



**Fig. 9.12(k):** Glimpse of activities

**Table 9.12(i):** Activities under Yoga, Meditation, NSS, Blood Donation Drives, And Community Outreach Programs (2024-25)

S. No	Activity Name	No. of Participation
1	Thought Cafe	12
2	Anubhuti 24	46
3	Meditation for Inner Harmony	196
4	Aarambh	95
5	Aarambh 2.0	11
6	Vertical Meetup	60
7	Get Together	38
8	Graphics Workshop	20
9	Report Writing Workshop	16
10	Social Media Workshop	11
11	ENLIGHTENMENT 8.0	182
12	One week Meditation Course	141
13	Winter Carnival	400
14	Techno-spiritual Expo	1800
15	Diverse Dialogues - 4	1051
16	Diverse Dialogues - 5	1051
17	Diverse Dialogues - 6	1118
18	Diverse Dialogues - 7	1118
19	Diverse Dialogues - 8	40
20	Diverse Dialogues - 9	40
21	Diverse Dialogues - 10	497
22	Diverse Dialogues - 11	511
23	Diverse Dialogues - 12	26
24	Diverse Dialogues - 13	25
25	Diverse Dialogues - 14	13
26	Arambh 3.0	7
27	Thought Café 2.0	35
28	Jaipur Military Visit	30
29	Awareness session on hemophilia	50
30	Old Age home visit	7
31	Felicitation Day	15
32	Thalassaemia Seminar	450
33	Blood Group Check-up Camp	1105
34	Mega Blood Donation Camp	598

35	Circus Carnival	78
36	Celebrating Innocence	93
37	Holi Celebration	57
38	Sports Day	78
39	Science Park Visit	93
40	Dental & BMI Checkup	82
41	Self Defense	55
42	Paper Bag Making Activity	64
43	Bhangra Workshop	81
44	Science Exhibition	85
45	Goodies Distribution	92
46	Founders Day	58
47	Christmas Celebration	65
48	T shirt Distribution	91
49	Baal Bhojan	89
50	Soch- Vastra Samman (cloth donation drive)	150
51	Old Age Home Visit	55
52	Awareness Session on PMS	58
53	National Girl Child Day Celebration	120
54	Village Visit	15
55	Womens day celebration	10
56	Roadshow	150
57	Nukkad Natak	150
58	Expert talk on Menstrual Hygiene	180
59	Expert talk on personality development	180
60	Treasure Hunt	78
61	Tug of War	50
62	Cleanliness Trek	65
63	Debate Competition	70
64	Poster making Competition	15
65	NSS Recruitments	45
66	Jai Mahal Trek	74
67	CPR and BLS Training Session on 5Aug2024	56
68	CPR and BLS Training Session on 22Nov2024	21
69	CPR and BLS Training Session on 23Nov2024	23
70	CPR and BLS Training Session on 26Nov2024	23
71	CPR and BLS Training Session on 28Nov2024	17
72	CPR and BLS Training Session on 29Nov2024	15
73	CPR and BLS Training Session on 9Jan2025	48
74	CPR and BLS Training Session on 19Feb2025	40
75	CPR and BLS Training Session on 21Feb2025	19
76	CPR and BLS Training Session on 27Feb2025	15
77	CPR and BLS Training Session on 3Sep2025	19
78	CPR and BLS Training Session on 12Sep2025	21
79	CPR and BLS Training Session on 5Dec2025	14
80	CPR and BLS Training Session on 6Dec2025	26
81	CPR and BLS Training Session on 5Aug2024	56
82	CPR and BLS Training Session on 22Nov2024	21
83	CPR and BLS Training Session on 23Nov2024	23
84	CPR and BLS Training Session on 26Nov2024	23
85	CPR and BLS Training Session on 28Nov2024	17



Fig. 9.12(l): Glimpse of Activities



Fig. 9.12(m): Glimpse of Constitution Celebration Activities

**8. Multidisciplinary Learning;**

RTU scheme permits professional electives and open electives across emerging areas such as AI, Data Science, Renewable Energy, IoT, etc.

The Institute encourages interdisciplinary learning through open electives and project-based learning across domains.

• **Foundation Course**

Foundation courses play a vital role in building strong conceptual understanding and academic preparedness among students at the entry level. Foundation courses contribute significantly to Outcome-Based Education (OBE) by strengthening Program Outcomes and lifelong learning competencies.



**RAJASTHAN TECHNICAL UNIVERSITY**

No.: RTU/Acad./F/1704/2024/1276-21      Date: 25.04.2024

**NOTIFICATION**

As per resolution of 33<sup>rd</sup> meeting of Faculty of Engineering & Architecture (FOEA) vide agenda no. 33.2 and notification no. RTU/Acad./F/1704/23/583-88, dtd. 31.08.2023, the foundation courses were introduced for the students of B.Tech. courses admitted in academic session 2023-24 and onwards.

Subsequently, as per resolution of 35<sup>th</sup> meeting of Faculty of Engineering & Architecture vide agenda no. 35.1, the additional foundation courses with guidelines and syllabus were approved. The students have to opt one foundation course in each semester.

The guidelines and syllabuses for the same are attached herewith.

Encl.:A/a

C.C.to:

1. PS to HVC
2. Dean, Faculty of Engg. & Architecture
3. Dean, Faculty Affairs
4. Controller of Examinations
5. Principal/Director, All Affiliated Colleges
6. Webmaster
7. Guard File

*Sd/-*  
**(Prof. D.K. Palwalia)**  
 Dean, Academic Affairs

*Sd/-*  
**(S.K. Laddha)**  
 Asstt., Registrar, A/A



**Rajasthan Technical University, Kota**  
 Foundational Courses - 2024/25  
 www.rtu.ac.in

**Syllabus for Foundation Courses**  
 Teaching and Examination Scheme

Teaching and Examination Scheme	Credit	Hours/Week			Exam Duration (hrs)		Marks
		L	T	P	Theory	Practical	
FE04	0.5						100

S.No.	Subject Code	Name of Foundation Course	Remarks
1	FE01	English	For year specific
2	FE02	Maths-I	
3	FE03	Maths-II	
4	FE04	Physical Education, Health and Sports	Self-paced self-learning based program
5	FE05	Computer Social Responsibility	
6	FE06	Financial Literacy	
7	FE07	Professional Communication	
8	FE08	Professional Communication	
9	FE09	Psychology for Emerging Leaders	
10	FE10	French	Student opt for foundation course under this category should also obtain completion certificate from MOU/University
11	FE11	Introduction to Chemistry	
12	FE12	Introduction to Chemistry	
13	FE13	German	
14	FE14	Spanish	
15	FE15	Lighting Technology	
16	FE16	Business Communication and Presentation Skills	To be conducted through PTP-Cell
17	FE17	Public Speaking	
18	FE18	Entrepreneurship Development	To be conducted through SEP-Cell, e-portal GAT, e-portal RTU
19	FE19	Thinking & Elements of Design	
20	FE20	Planning, Social Responsibility and Community Engagement	To be conducted through social responsibility cell
21	FE21	Reading & Academic Writing	To be conducted through student activity center (SAC)
22	FE22	Threats	
23	FE23	English	
24	FE24	English	
25	FE25	Digital Film Making	
26	FE26	Music	
27	FE27	Art of Papermaking	
28	FE28	SAT/Exam Preparation from Campus to Computer Life	The respective faculty coordinator will run the program as per guidelines given by SET/MAAB Foundation

Fig. 9.12(n): RTU Office Order and option for Foundation Course

• **Open Electives Courses:**

As per RTU scheme, Open Elective courses are offered across disciplines to provide multidisciplinary exposure and broaden students' technical and professional competencies.



**RAJASTHAN TECHNICAL UNIVERSITY, KOTA**  
Scheme & Syllabus  
IV Year- VII & VIII Semester: B. Tech. (Information Technology)

List of Open Electives for Information Technology			
Subject Code	Title	Subject Code	Title
<b>Open Elective - I</b>		<b>Open Elective - II</b>	
7AG6-60.1	Human Engineering and Safety	8AG6-60.1	Energy Management
7AG6-60.2	Environmental Engineering and Disaster Management	8AG6-60.2	Waste and By-product Utilization
7AN6-60.1	Aircraft Avionic System	8AN6-60.1	Finite Element Methods
7AN6-60.2	Non-Destructive Testing	8AN6-60.2	Factor of Human Interactions
7CH6-60.1	Optimization Techniques	8CH6-60.1	Refinery Engineering Design
7CH6-60.2	Sustainable Engineering	8CH6-60.2	Fertilizer Technology
7CR6-60.1	Introduction to Ceramic Science & Technology	8CR6-60.1	Electrical and Electronic Ceramics
7CR6-60.2	Plant, Equipment and Furnace Design	8CR6-60.2	Biomaterials
7CE6-60.1	Environmental Impact Analysis	8CE6-60.1	Composite Materials
7CE6-60.2	Disaster Management	8CE6-60.2	Fire and Safety Engineering
7EE6-60.1	Electrical Machines and Drives	8EE6-60.1	Energy Audit and Demand side Management
7EE6-60.2	Power Generation Sources	8EE6-60.2	Soft Computing
7EC6-60.1	Principle of Electronic communication	8EC6-60.1	Industrial and Biomedical applications of RF Energy
7EC6-60.2	Micro and Smart System Technology	8EC6-60.2	Robotics and control
7ME6-60.1	Finite Element Analysis	8ME6-60.1	Operations Research
7ME6-60.2	Quality Management	8ME6-60.2	Simulation Modeling and Analysis
7MI6-60.1	Rock Engineering	8MI6-60.1	Experimental Stress Analysis
7MI6-60.2	Mineral Processing	8MI6-60.2	Maintenance Management
7PE6-60.1	Pipeline Engineering	8PE6-60.1	Unconventional Hydrocarbon Resources
7PE6-60.2	Water Pollution control Engineering	8PE6-60.2	Energy Management & Policy
7TT6-60.1	Technical Textiles	8TT6-60.1	Material and Human Resource Management
7TT6-60.2	Garment Manufacturing Technology	8TT6-60.2	Disaster Management

Office of Dean Academic Affairs  
Rajasthan Technical University, Kota

Scheme & Syllabus of 4<sup>th</sup> Year B. Tech. (IT) for students admitted in Session 2017-18 onwards Page 4

Fig 9.12(o): Sample of Electives Courses under RTU Schemes

9. Slow Learners and Its Implementation

• Remedial Classes:

Remedial classes are conducted to support slow learners and academically weak students by providing additional academic assistance and personalized guidance. These sessions help bridge learning gaps, improve subject understanding, and enhance overall academic performance in alignment with Outcome-Based Education practices.

Department of Computer Science & Engineering Time Table 2025-26							
4 CSF BS-06	8:30-9:30	9:30-10:30	10:30-11:30	11:30-12:30	12:30-1:30	1:30-2:30	2:30-3:30
Mon	DBMS KS	DCCN BT-16	TOC DJ BT-16	B R E A K	DBMS Lab-CP6-KS-Batch F1		Remedial Class (DBMS)
Tue	TOC DJ	TC KK	MP Dr.S.S.M BT-16		JAVA Lab-D1-IBM-F2		Remedial Class (DMS) BT-16
Wed	DBMS KS BT-14	Foundation Course KRB	DMS Dr.ST BT-14		DBMS Lab-CP6-KS-Batch F2		Remedial Class (TC)
Thu	LINUX LAB-RSJ-CP1-Batch F1	MI LAB-IB BLOCK BS-05-Dr.SSM-F2	DCCN BT-16		TC KK	DMS Dr.ST	Remedial Class (DCCN) BT-16
Fri	LINUX LAB-RSJ-CP1-Batch F2	AN LAB-IB BLOCK BS-04-VB-F1	DBMS KS BT-14		DCCN BT-16	MP Dr.S.S.M	Remedial Class (TOC) BT-16
Sat	DMS Dr.ST BS-08	TOC DJ BS-08	MP Dr.S.S.M BS-12		Remedial Class (MP) BS-12	MENTOR-MENTEE	Library

Fig. 9.12(p): Sample of Time Table of Remedial Classes

Mentor-Mentee System:

The mentor-mentee system ensures continuous academic and personal guidance through regular interactions between faculty mentors and assigned students. It promotes holistic development, monitors progress, addresses concerns proactively, and strengthens student engagement and well-being. The Institute identifies slow learners through continuous assessment and provides structured academic support. Number of students per mentor: 20, frequency of meetings: Fortnightly (and whenever needed)

Mentor Mentee File: <https://jecrcfoundation.com/naacdata/Mentor-Mentee.pdf> (<https://jecrcfoundation.com/naacdata/Mentor-Mentee.pdf>)

Assignments:

- **Unit-wise Assignments:** Regular unit-wise assignments are given to ensure continuous learning and concept reinforcement.
- **Identification and Customized Support for Slow Learners:** Students are identified through internal assessments and classroom performance, and are provided specially designed assignments based on their learning needs.
- **Tutorial Sheets:** Additional tutorial sheets are given for practice and problem-solving improvement.
- **Question Bank:** A structured question bank covering RTU, GATE, and Government exam-oriented questions is provided to enhance academic performance and competitive readiness.

**Diagnostic Assessment Test (DAT):** A Diagnostic Assessment Test (DAT-1) is conducted to evaluate students' understanding based on predefined performance criteria. Based on the analysis of results, students are categorized into different performance levels, and targeted academic interventions are planned accordingly. Structured training programs are then provided to address identified gaps and enhance readiness for placements and competitive

opportunities. The advance learner are distributed in sections AA-1, BB-1 & CC-1 and slow learner are distributed in sections DD-1, EE-1 & FF-1. A subsequent DAT-2 is conducted for the same cohort to measure improvement, and a significant enhancement in student performance is observed after the intervention.

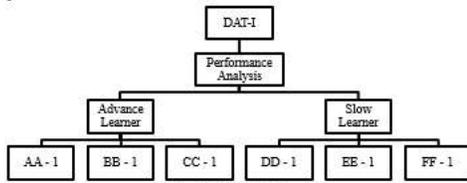


Fig. 9.12(q): DAT Chart

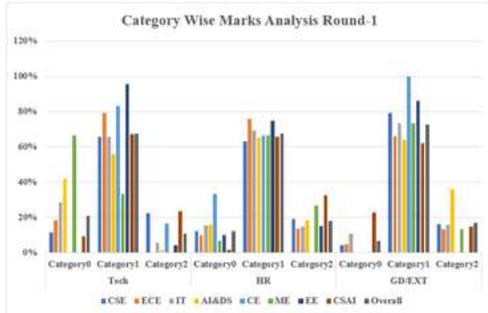


Fig. 9.12(r): Analysis Chart

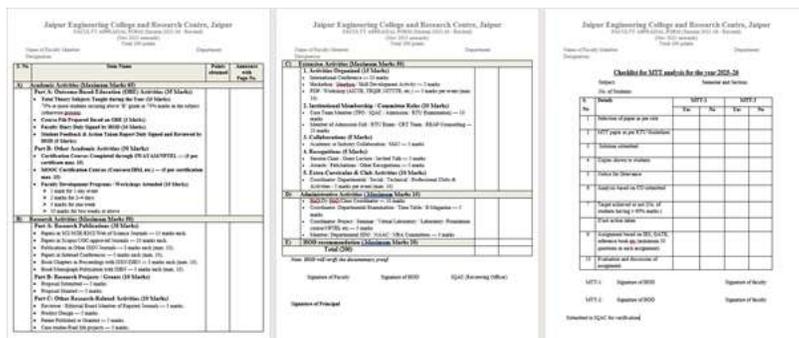


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**9.13 Faculty Performance Appraisal and Development System (FPADS (10)**



The Institute has well established **Faculty Performance Appraisal** to systematically assess, monitor, and enhance faculty performance in alignment with institutional goals. The system evaluates faculty contributions across **teaching-learning processes, outcome-based education, research and innovation, professional development, extension activities, and administrative responsibilities**. This ensures transparency, accountability, and continuous improvement by linking performance evaluation with faculty development initiatives, thereby strengthening overall academic and institutional effectiveness. The Institute have Faculty Performance and appraisal form.



The form contains total 200 points. These points are divided into following area:

- Academic Activities (Outcome-Based Education & Teaching Effectiveness)
- Professional Development & Other Academic Contributions
- Research Publications & Scholarly Activities
- Research Projects, Innovations & Patents
- Extension, Outreach & Institutional Engagement
- Administrative & Academic Leadership Roles
- Collaborations, Recognitions & Memberships
- Overall Performance & HOD Recommendation

**Process For Verification of Self-Appraisal**

1. Each Faculty member is required to submit a self-appraisal report annually on the basis of the parameters mentioned above in the table within the given deadline.
2. Review of the performance appraisal is made by the HOD of the Department and then forwarded to IQAC / Principal.
3. Re-review of the performance appraisal is made by the panel of HOD, IQAC Coordinator under the supervision of the principal and then committee is responsible for rechecking the points scored based on the annexure/ document attached in terms of Validation, time frame, authenticity and relevance of the supported documents submitted by the faculty.
4. Appreciation is awarded to the faculty for achieving the highest faculty performance score in the month.

Higher Educational Institutions perform variety of task under this review complies of 32 points on the basis of this faculty member evaluate by IQAC and based on their performance appraisal given to them.

Sr. No.	Item Name	M. Marks	Outcome
A)	<b>Academic Activities</b>	65	
	<p><b>Part A: Outcome-Based Education (OBE) Activities (35 Marks)</b></p> <ul style="list-style-type: none"> <li>• <b>Total Theory Subjects Taught during the Year (15 Marks)</b></li> </ul> <p>70% or more students securing above 'B' grade or 70% marks in the subject (otherwise prorata).</p> <ul style="list-style-type: none"> <li>• <b>Course File Prepared Based on OBE (5 Marks)</b></li> <li>• <b>Faculty Diary Duly Signed by HOD (10 Marks)</b></li> <li>• <b>Student Feedback &amp; Action Taken Report Duly Signed and Reviewed by HOD (5 Marks)</b></li> </ul> <p><b>Part B: Other Academic Activities (30 Marks)</b></p> <ol style="list-style-type: none"> <li>1. <b>Certification Courses Completed through SWAYAM/NPTEL — (5 per certificate max. 10)</b></li> <li>2. <b>MOOC Certification Courses (Coursera/IBM, etc.) — (5 per certification max. 10)</b></li> <li>3. <b>Faculty Development Programs / Workshops Attended (10 Marks)</b></li> </ol> <ul style="list-style-type: none"> <li>o 1 mark for 1-day event</li> <li>o 2 marks for 2-4 days</li> <li>o 5 marks for one week</li> </ul>		<p>Implementation of Outcome-Based Education ensured effective attainment of Course Outcomes aligned with Program Outcomes. Structured academic documentation and monitoring improved teaching-learning quality and student performance. Student feedback with action taken supported continuous improvement. Faculty upskilling through MOOCs, NPTEL, and FDPs strengthened pedagogical and professional competence.</p>
B)	<b>Research Activities</b>	50	

	<p><b>Part A: Research Publications (30 Marks)</b></p> <ul style="list-style-type: none"> <li>• Papers in SCI/SCIE/ESCI/Web of Science Journals — 15 marks each.</li> <li>• Papers in Scopus/UGC-approved Journals — 10 marks each.</li> <li>• Publications in Other ISSN Journals — 5 marks each (max. 10).</li> <li>• Papers in Indexed Conferences — 5 marks each (max. 10).</li> <li>• Book Chapters in Proceedings with ISSN/ISBN — 5 marks each (max. 10).</li> <li>• Book/Monograph Publication with ISBN — 5 marks each (max. 10).</li> </ul> <p><b>Part B: Research Projects / Grants (10 Marks)</b></p> <ul style="list-style-type: none"> <li>• Proposal Submitted — 5 marks.</li> <li>• Proposal Granted — 5 marks.</li> </ul> <p><b>Part C: Other Research-Related Activities (10 Marks)</b></p> <ul style="list-style-type: none"> <li>• Reviewer / Editorial Board Member of Reputed Journals — 5 marks.</li> <li>• Product Design — 5 marks.</li> <li>• Patent Published or Granted — 5 marks.</li> <li>• Case studies/Real life projects — 5 marks.</li> </ul>		<p>Research publications in indexed journals and conferences enhanced the quality, visibility, and impact of scholarly work. Preparation and submission of research proposals strengthened research planning and funding orientation. Engagement in book chapters, patents, product design, and case studies promoted applied and interdisciplinary research. Participation as reviewer/editorial board member improved research ethics and academic rigor.</p>
	<p><b>Extension Activities</b></p>	<p>50</p>	
	<p><b>I. Activities Organized (15 Marks)</b></p> <ul style="list-style-type: none"> <li>• International Conference — 10 marks</li> <li>• Hackathon / Ideathon / Skill Development Activity — 5 marks</li> <li>• FDP / Workshop (AICTE, TEQIP, NITTTR, etc.) — 5 marks per event (max. 10)</li> </ul> <p><b>2. Institutional Membership / Committee Roles (20 Marks)</b></p> <ul style="list-style-type: none"> <li>• Core Team Member (TPO / IQAC / Admission / RTU Examination) — 10 marks</li> <li>• Member of Admission Cell / RTU Exam / CRT Team / REAP Counselling — 10 marks</li> </ul> <p><b>3. Collaborations (5 Marks)</b></p> <ul style="list-style-type: none"> <li>• Academic or Industry Collaboration / MoU — 5 marks</li> </ul> <p><b>4. Recognitions (5 Marks)</b></p> <ul style="list-style-type: none"> <li>• Session Chair / Guest Lecture / Invited Talk — 5 marks</li> <li>• Awards / Felicitations / Other Recognitions — 5 marks</li> </ul> <p><b>5. Extra-Curricular &amp; Club Activities (10 Marks)</b></p> <p>Coordinator: Departmental / Social / Technical / Professional Clubs &amp; Activities - 5 marks per event (max. 10)</p>		<p>Organization of conferences, FDPs, workshops, and skill-based activities strengthened academic outreach and professional engagement. Active participation in institutional committees enhanced governance, quality assurance, and administrative effectiveness. Academic and industry collaborations promoted experiential learning and stakeholder interaction. Invited talks, session chair roles, and recognitions improved institutional visibility and professional standing. Coordination of extra-curricular and club activities supported holistic student development, leadership skills, and societal engagement.</p>
<p>D)</p>	<p><b>Administrative Activities</b></p>	<p>15</p>	
	<ul style="list-style-type: none"> <li>• HoD/Dy HoD/Class Coordinator — 10 marks</li> <li>• Coordinator: Departmental Examination / Time Table / E-Magazine — 5 marks</li> <li>• Coordinator: Project / Seminar / Virtual Laboratory / Laboratory / Foundation course/NPTEL etc.— 5 marks</li> </ul> <p>Member: Departmental SDO / NAAC / NBA Committees — 5 marks</p>		<p>Leadership roles as HoD/Dy HoD/Class Coordinator ensured effective academic planning, coordination, and policy implementation. Coordination of examinations, timetables, projects, laboratories, and academic initiatives strengthened operational efficiency and compliance. Active membership in departmental, NAAC, and NBA committees supported quality assurance and accreditation preparedness. These administrative responsibilities enhanced institutional governance, accountability, and continuous improvement in academic processes.</p>

E)	<b>HOD recommendation</b>	20	HOD of the Department and then forwarded to IQAC / Principal
	<b>Total</b>	200	

#### Faculty Members Roles and Responsibilities in Institute

Role	Description	Expected Outcomes
<b>Teaching / Instructions</b>	Deliver effective lectures, facilitate learning, mentor students	Improved student learning outcomes, course completion, student satisfaction
<b>Research &amp; Innovations</b>	Conduct research, publish papers, explore innovative ideas	Knowledge creation, publications, patents, academic recognition
<b>Professional Development</b>	Update knowledge and skills, learn new technologies	Enhanced teaching quality, updated curriculum delivery
<b>Curriculum Implementation</b>	Design and implement courses, achieve program outcomes	Alignment with program objectives, improved student competency
<b>Industry &amp; Community Engagement</b>	Collaborate with industry, provide consultancy, address real-world problems	Practical learning for students, industry collaborations, societal impact
<b>Administrative Responsibilities</b>	Participate in committees, planning, coordination	Efficient institutional operations, smooth governance
<b>Collaborations &amp; Teamwork</b>	Work with faculty, HODs, and institute leadership	Cohesive work environment, improved institutional performance

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#### 9.14 Outreach Activities (5)



The Institute promotes community engagement through well-planned outreach initiatives led by its social and technical clubs, enabling students to develop social responsibility and a strong commitment to societal contribution.

• Objectives of Outreach Activities:

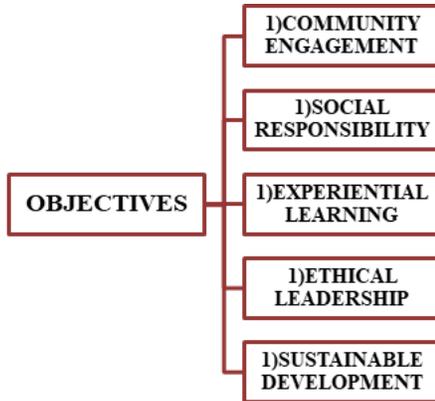


Fig. 9.14(a): Objectives of Outreach Activities



Fig. 9.14(b): Glimpse of Outreach Activities

• The Institution major Initiatives Undertaken as below:

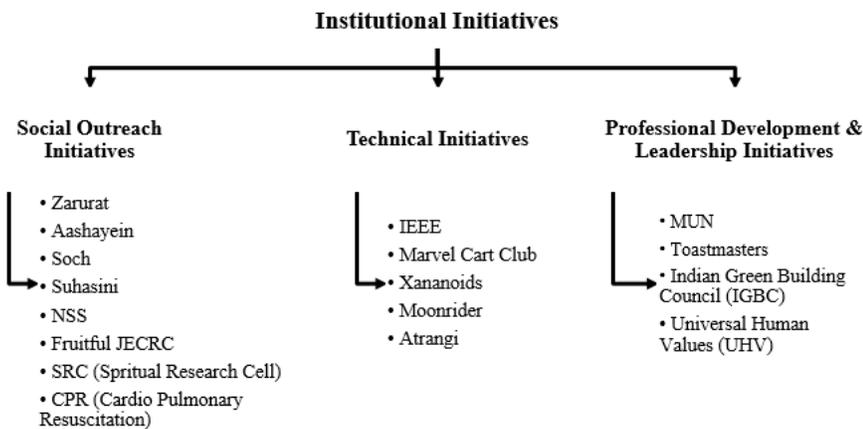


Fig. 9.14(c): Institutional Initiatives

A. Social Outreach Initiatives:

Social Outreach Initiatives are structured programs designed to promote community engagement, social responsibility, and inclusive development.

a). Teaching under privileged students & Community Care Initiative: ZARURAT

ZARURAT is a student-run social initiative dedicated to supporting underprivileged children in nearby communities through free primary education, skill development sessions, and recreational activities. Volunteers conduct regular classes, sports, art & craft sessions, and community celebration events to promote confidence, cultural harmony, and equality among children.

Table 9.14(a): Activities under Zarurat in session 2024-25

S. No	Activity Name	No. of Participation
1	Circus Carnival	78

2	Celebrating Innocence	93
3	Holi Celebration	57
4	Sports Day	78
5	Science Park Visit	93
6	Dental & BMI Checkup	82
7	Self Defense	55
8	Paper Bag Making Activity	64
9	Bhangra Workshop	81
10	Science Exhibition	85
11	Goodies Distribution	92
12	Founders Day	58
13	Christmas Celebration	65
14	T shirt Distribution	91
15	Baal Bhojan	89



Fig. 9.14(d): Glimpse of Zarurat Activities

**b. Hope, Health & Social Welfare Initiative: AASHAYEIN**

AASHAYEIN is a social club dedicated to **blood donation and emergency medical support**, the team organizes **mega blood donation camps, SDP Donation, blood group check-up drives, awareness campaigns on blood donation myths** and regular outreach to orphanages and old age homes.

Table 9.14(b): Activities under Aashayein in session 2024-25

S. No	Activity Name	No. of Participation
1	Awareness session on hemophilia	50
2	Old Age home visit	7
3	Felicitation Day	15
4	Thalaseemia Seminar	450
5	Blood Group Check-up Camp	1105
6	Mega Blood Donation Camp	598



Fig. 9.14(e): Glimpse of Aashayein Activities

**c). Social Thought Initiative: SOCH**

SOCH encourages students to translate academic learning into meaningful community service and humanitarian action. Through initiatives such as donation drives, institutional visits, mental health awareness programs, and environmental campaigns. It fosters empathy, leadership, and a strong sense of civic responsibility among students.

Table 9.14(c): Activities under Soch in session 2024-25

S. No	Activity Name	No. of Participation
1	Soch- Vastra Samman (cloth donation drive)	150

2	Farewell 2024-25	60
3	Old Age Home Visit	55
4	Awareness Session on PMS	58



Fig. 9.14(f): Glimpse of Soch Activities

#### d. Women Empowerment & Gender Equity Movement: **SUHASINI**

SUHASINI is a dedicated initiative focused on empowering the girl child through education, awareness, and capacity-building programs. Through health seminars, gender equality campaigns in villages and government schools, it promotes social inclusion while fostering students' commitment to sustainable social change.

Table 9.14(d): Activities under Suhasini in session 2024-25

S. No	Activity Name	No. of Participation
1	National Girl Child Day Celebration	120
2	Village Visit	15
3	Womens day celebration	10
4	Roadshow	150
5	Nukkad Natak	150
6	Expert talk on Menstrual Hygiene	180
7	Expert talk on personality development	180



Fig. 9.14(g): Glimpse of Suhasini Activities

#### e. Community Service & Nation-Building Volunteer Program Initiative: **NSS**

This initiative fosters social responsibility, community engagement, and nation-building through structured extension activities. By participating in students develop leadership, teamwork, and civic consciousness while strengthening institution–community collaboration.

Table 9.14(e): Activities under NSS in session 2024-25

S. No	Activity Name	No. of Participation
1	Treasure Hunt	78
2	Tug of War	50
3	Cleanliness Trek	65
4	Debate Competition	70
5	Poster making Competition	15
6	NSS Recruitments	45
7	Jal Mahal Trek	74



Fig. 9.14(h): Glimpse of NSS Activities

**f. Sustainable Environment & Green Responsibility Initiative: FRUITFUL JECRC**

This initiative promotes environmental sustainability and ecological awareness through tree plantation drives, waste management, and water conservation campaigns. By integrating green practices into campus and community outreach, it fosters environmental responsibility and alignment with sustainable development goals.

Table 9.14(f): Activities under Fruitfull JECRC in session 2024-25

S. No	Activity Name	No. of Participation
1	World environment day	21
2	Herbal garden	60
3	Global fertilizer day	37



Fig. 9.14(i): Glimpse of NSS Activities

**g. Spiritual, Ethical & Value Enrichment Initiative: SRC**

The SRC initiative promotes holistic development by fostering moral values, mindfulness, and emotional well-being among students. Through meditation sessions, value-based talks, and stress management programs, it nurtures resilience, ethical living, and a balanced campus environment alongside academic growth.

Table 9.14(j): Activities under SRC in session 2024-25

S. No	Activity Name	No. of Participation
1	Thought Cafe	12
2	Anubhuti 24	46
3	Meditation for Inner Harmony	196
4	Aarambh	95
5	Aarambh 2.0	11
6	Vertical Meetup	60
7	Get Together	38
8	Graphics Workshop	20
9	Report Writing Workshop	16
10	Social Media Workshop	11
11	ENLIGHTENMENT 8.0	182
12	One week Meditation Course	141
13	Winter Carnival	400
14	Techno-spiritual Expo	1800
15	Diverse Dialogues - 4	1051
16	Diverse Dialogues - 5	1051
17	Diverse Dialogues - 6	1118
18	Diverse Dialogues - 7	1118
19	Diverse Dialogues - 8	40
20	Diverse Dialogues - 9	40
21	Diverse Dialogues - 10	497

22	Diverse Dialogues - 11	511
23	Diverse Dialogues - 12	26
24	Diverse Dialogues - 13	25
25	Diverse Dialogues - 14	13
26	Arambh 3.0	7
27	Though Café 2.0	35
28	Jaipur Military Visit	30



Fig. 9.14(j): Glimpse of SRC Activities

#### ***h. Cardio Pulmonary Resuscitation (CPR) at JECRC***

The **CPR Club** is dedicated to promoting awareness and hands-on training in Cardio Pulmonary Resuscitation and basic life support techniques. The club regularly conducts workshops and demonstrations to equip students and staff with essential life-saving skills and emergency response techniques. The program enhances practical awareness, preparedness, and community health consciousness within the campus.

S. No	Activity Name	No. of Participation
1	CPR and BLS Training Session on 5Aug2024	56
2	CPR and BLS Training Session on 22Nov2024	21
3	CPR and BLS Training Session on 23Nov2024	23
4	CPR and BLS Training Session on 26Nov2024	23
5	CPR and BLS Training Session on 28Nov2024	17
6	CPR and BLS Training Session on 29Nov2024	15
7	CPR and BLS Training Session on 9Jan2025	48
8	CPR and BLS Training Session on 19Feb2025	40
9	CPR and BLS Training Session on 21Feb2025	19
10	CPR and BLS Training Session on 27Feb2025	15
11	CPR and BLS Training Session on 3Sep2025	19
12	CPR and BLS Training Session on 12Sep2025	21
13	CPR and BLS Training Session on 5Dec2025	14
14	CPR and BLS Training Session on 6Dec2025	26
15	CPR and BLS Training Session on 5Aug2024	56
16	CPR and BLS Training Session on 22Nov2024	21
17	CPR and BLS Training Session on 23Nov2024	23
18	CPR and BLS Training Session on 26Nov2024	23
19	CPR and BLS Training Session on 28Nov2024	17



Fig. 9.14(k): Glimpse of CPR Activities

**B. Technical Outreach Initiative:**

The Institute also encourages outreach through **technical and innovation-centric student communities**, which connect with broader academic and professional ecosystems:

**a) Technical Societies: IEEE**

IEEE and similar technical communities conduct workshops, seminars and industry connect events, nurturing student expertise in **emerging technologies, professional networking and ethical engineering practices**.

Table 9.14(j): Activities under IEEE in session 2024-25

S. No	Activity Name	No. of Participation
1	Anti Ragging Day ( <a href="https://events.vtools.ieee.org/m/433713">https://events.vtools.ieee.org/m/433713</a> )	73
2	JECRC Parichay Orientation - Change the Narrative ( <a href="https://events.vtools.ieee.org/m/433718">https://events.vtools.ieee.org/m/433718</a> )	412
3	Expert Talk by Lt. Col Rohit Mishra	412
4	Industrial Visit ( <a href="https://events.vtools.ieee.org/m/436194">https://events.vtools.ieee.org/m/436194</a> )	78
5	IEEE Day Celebration: Coding Competition 2024 ( <a href="https://events.vtools.ieee.org/m/434837">https://events.vtools.ieee.org/m/434837</a> )	21
6	IEEE Day Celebration: E-Gaming 2024 ( <a href="https://events.vtools.ieee.org/m/438811">https://events.vtools.ieee.org/m/438811</a> )	49
7	IEEE Day: E-Poster making competition 2024 ( <a href="https://events.vtools.ieee.org/m/438814">https://events.vtools.ieee.org/m/438814</a> )	18
8	Inauguration of IEEE WIE Affinity Group ( <a href="https://events.vtools.ieee.org/m/440661">https://events.vtools.ieee.org/m/440661</a> )	188
9	Expert Talk by Devesh	200
10	National Project Exhibition	26
11	National Chess Tournament 3.0	136
12	Gemathon	42
13	Manthan: Debate Competition	24



Fig. 9.14(l): Glimpse of IEEE Activities

**b) Coding Club: Marvel Cart**

The Marvel Cart Club, formed to **equip students with hands-on engineering and design experience**, facilitates **project building, competitions and technical showcase events**, fostering creativity and real-world skill application among students.

Table 9.14(k): Activities under Marvel Cart in session 2024-25

S. No	Activity Name	No. of Participation
1	Visit to Bhamashah Techno Hub	100
2	Full Stack Web Development Session	68

3	Clash of Coder Phase-I	547
4	Clash of Coder Phase-I, Felicitation Ceremony	250
5	Orientation Day	68
6	Data Science Workshop	40



Fig. 9.14(m): Glimpse of Marvel Cart Activities

**C. Robotics Community: XANANOIDS**

XANANOIDS is a dedicated robotics and automation club, where students develop innovative robotic platforms, engage in regional and national competitions (such as RoboSoccer, RoboRace and more), and contribute to technology-enabled problem solving. This group enhances technical competence, teamwork, and interdisciplinary learning.

Table 9.14(l): Activities under Xananoids in session 2024-25

S. No	Activity Name	No. of Participation
1	ROBO Tug of War	51
2	Formula Zero	39
3	Game of Drones	24
4	Xan Expo	34
5	Robo Soccer	51



Fig. 9.14(n): Glimpse of Xananoids Activities

**d. Society of Automotive Engineering: MOONRIDER**

MOONRIDER is a student-driven technical initiative focused on innovation, design, and advanced engineering development in the mobility sector. It provides a platform for students to apply theoretical knowledge into real-world automotive and mobility solutions, fostering teamwork, problem-solving skills, and research-oriented thinking.

Table 9.14(m): Activities under Moonrider in session 2024-25

S. No	Activity Name	No. of Participation
1	A Workshop on "Introduction to SOLIDWORKS"	28
2	A Workshop on "Introduction to ANSYS"	28
3	A Workshop on "3D Design and Parametric Modelling using SOLIDWORKS"	28
4	A Workshop on "Engineering Simulations with ANSYS"	28



Fig. 9.14(o): Glimpse of Moonrider Activities

**e. Design and Innovation Club: ATRANGI**

ATRANGI initiative promotes creativity, design thinking, and innovation by encouraging students to develop out-of-the-box solutions.

**Table 9.14(n):** Activities under Atrangi in session 2024-25

S. No	Activity Name	No. of Participation
1	Chaupal 3.0	73
2	Halloween - Moonlight Mystery	72
3	Atrangi Chowk 2.0	80
4	Kavya Ras	10



**Fig. 9.14(p):** Glimpse of Atrangi Activities

**C. Professional and Leadership Initiatives**

Professional and Leadership Initiatives aim to develop managerial competence, ethical leadership, and industry readiness among students. Through structured activities and project learning, they strengthen decision-making, communication, and organizational skills essential for professional success.

**a. Global Diplomacy & Policy Simulation Forum: Model United Nations – MUN**

MUN initiative provides students with a platform to engage in diplomatic simulations, policy discussions, and international relations debates through Model United Nations conferences. Participants represent different countries, deliberate on global issues, draft resolutions, and develop negotiation and public speaking skills.

**Table 9.14(o):** Activities under MUN in session 2024-25

S. No	Activity Name	No. of Participation
1	Recruitments	50
2	Zero Hour summit	300
3	Vichar Vimarsh 1.0 a Debating Initiative for the in house JECRC	40
4	Vichar Vimarsh 2.0 a Debating initiative for the in house JECRC	50
5	Vichar Vimarsh 3.0 a Debating initiative for the in house JECRC	35
6	Vichar Vimarsh 4.0 a Debating initiative for the in house JECRC	56
7	MUN 14th Edition	450



**Fig. 9.14(q):** Glimpse of MUN Activities

**b. Public Speaking & Leadership Development Forum: Toastmasters**

**Table 9.14(p):** Activities under Toastmaster in session 2024-25

S. No	Activity Name	No. of Participation
1	Toastmasters Meeting Theme 'Cartoon Character'	20
2	Toastmasters Meeting Theme 'School Days'	9
3	Toastmasters Meeting Theme 'Manifestation'	10
4	Toastmasters Meeting Theme 'Festival'	22
5	Toastmasters Meeting Theme 'Fun with English'	12
6	Toastmasters Meeting Theme Best Friend	14

7	Toastmasters Meeting Theme RTU Exams	7
8	Toastmasters Meeting Theme Celebrating Festivities	10
9	Toastmasters Meeting Theme Tesla Code	9
10	Toastmasters Meeting Theme School Days	16
11	Toastmasters Meeting Theme Cultural Diversity	14
12	Toastmasters Meeting Theme Clock Blocking	15
13	Toastmasters Meeting Theme Time Management	10
14	Toastmasters Meeting Theme Unexpected Twists	12
15	Toastmasters Meeting Theme Nutrition 101	15
16	Toastmasters Meeting Theme Bull in a China Shop	11
17	Toastmasters Meeting Theme Colours of Life	8
18	Toastmasters Meeting Theme Searching for Truth	12
19	Evolve 2025 Event	60
20	Division Contest	50
21	Area Contest- Convergence	70
22	Toastmasters Meeting Theme Carnival of Words	15

This initiative provides a structured platform for students to enhance their public speaking, communication, and leadership skills through regular speech sessions, impromptu speaking activities, and constructive feedback mechanisms. Participants develop confidence, articulation, critical thinking, and effective presentation abilities in a supportive learning environment. The forum fosters personality development, stage presence, and professional communication skills, preparing students to excel in academic, corporate, and leadership roles.



Fig. 9.14(r): Glimpse of Toastmaster Activities

**C. Indian Green Building Council: IGBC**

This initiative promotes environmental sustainability and green building practices by encouraging energy efficiency, water conservation, waste management, and eco-friendly infrastructure on campus. Through awareness programs, sustainability audits, and green drives aligned with recognized green standards, it fosters responsible resource utilization and environmental stewardship, reinforcing the institution’s commitment to sustainable development.

Table 9.14(q): Activities under IGBC in session 2024-25

S. No	Activity Name	No. of Participation
1	FDP-NITTTR Clean and Green Technologies	21
2	FDP-NITTTR Green Manufacturing	26
3	Poster Making Competition on World Forestry Day	15



Fig. 9.14(s): Glimpse of IGBC Activities

**d. Universal Human Values & Ethical Living Initiative: UHV**

This initiative focuses on imparting Universal Human Values to students to promote ethical decision-making, self-awareness, and responsible living. Through interactive sessions, reflective discussions, and value-based learning modules, students develop clarity about relationships, harmony in family and society, and professional ethics. The initiative strengthens emotional maturity, social responsibility, and holistic development, ensuring that students grow not only as competent professionals but also as responsible and value-oriented individuals.

Table 9.14(r): Activities under UHV in session 2024-25

S. No	Activity Name	No. of Participation
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1	Converting Waste into Fuel	5
2	Cleaning Oceans and Reef	5
3	Social media	5
4	Alimony - A Support or Struggle	5
5	Human Value in the Age of Technology	5
6	Terrorism	5
7	Old Age Homes and Joint Family System	5
8	Save Electricity for Sustainable and Brighter Future	5
9	Save Trees	5
10	Save Trees for the Society Benefits	5
11	Save Water	5
12	Save Electricity	5
13	Mental Health Awareness	5
14	Girls Education Values	5
15	Security Devices for Society	5
16	Importance Of Integrity	5
17	Sustainable Development: Engineering A Greener Future	5
18	Save Trees and Save Lives	5
19	Save Trees	5
20	Nobel Work for Human Values: Visiting an Old Age Home	5
21	Cleaning And Planting	5
22	Empowering Education: The Case for Mandatory Social Projects	5
23	Youth Caring for Elders	5
24	Investing In Our Future: Social Projects for Children	5
25	Social Project Initiative: Empowering Students, Strengthening	5
26	Inclusive Physical Education	5
27	Education For Children in Needy/Weaker Sections	5
28	Education For Children in Needy/Weaker Sections	5
29	Empowering Futures	5
30	Child Development	5
31	Renewable Energy Sources	5
32	Protect Our Planet: Reduce, Reuse, Recycle	5
33	Ludo Of Life: A Game of Choices and Consequences	5
34	Human Values Model on Awareness of Core Human Values	5
35	The Water Cycle -Natures Eternal Flow	5
36	Model on 3D Fundamental Human Values	5
37	Core Human Values Social and Ethical Values Spiritual and Personal Growth Professional Growth	5
38	Significance Of Ethics and Human Values	5
39	Human Values Tree	5
40	Stop Road Trash	5
41	Core Values of an Ideal Student	4
42	Religion Unity	5
43	Sustainable Development	5
44	Meditation and Its Types	4
45	Sustainable Development	5
46	Game of Ethics	5
47	Soul as Solar System	4
48	Soul Tree	5
49	Four Orders of Nature	5
50	7 Qualities of Soul	4
51	7 Qualities of Soul	5

52	Save Electricity	4
53	Energy Conservation and Save Electricity	5
54	Apno Rajasthan	5
55	Yoaga, Meditation or Physical Exercises	5
56	Waste Management Awareness	4
57	Rain Sensor	5
58	Activities For the Restoration of Art and Culture	4
59	Mental Health Awareness	5
60	Save Electricity and Water	4
61	Design A Poster Which Includes Varities of Animals in Campus	5
62	Literacy Programs	5
63	Core Values of an Ideal Student	5
64	Stop Paper Wastage - Save Trees	4
65	Meditation	4
66	Stop Road Trash	4
67	Give Food to Poor People	4
68	Artistic And Educational Representation Through 3d- Design	4
69	Stop Paper Waste - Save Trees	4
70	Save Water and Electricity	5
71	Varities Of Fruits in Our Campus	4
72	Stop Throwing Garbage on Road	4
73	Herbal Plants in The Campus	5
74	Animals In the Campus	5
75	Give Food to Poor People	5
76	Yogic Asanas and Exercises	5
77	Holding Sessions for Yoga, Meditation or Physical Exercise	5
78	Animals In the Campus	4
79	Poster Includes Various Herbal Plants Available in Campus	4
80	Poster Includes Various Herbal Plants Available in Campus	4
81	Clean Your Surroundings	5
82	Save Water, Save Electricity	5
83	Gender Inequality	5
84	Wheel of Values	4
85	Spin The Wheel	4
86	The Battle Within	4
87	Ludo	4
88	Heaven And Hell	5
89	Snake & Ladder (Value Game)	5
90	Good Mental Health V/S Bad Mental Health	5
91	Water Contamination in India	5
92	7 Element of Soul	5
93	Blood Donation Camp	5
94	Balance Within	4
95	7 Qualities of Soul	4
96	Building The Foundation for A Harmonious Life	4
97	Eco Friendly Festival	5
98	Four Orders of Nature	5
99	Deforestation: Understanding the Global Challenge	5
100	Sustainable Development of Plastic Road	5
101	Mediation	5
102	Impact Of Traffic Regulations During VVIP Arrival	5
103	Black Bird	5

104	Smart Rain: Tech-Enabled Water Harvesting for Rural India	5
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Fig. 9.14(t): Glimpse of UHV Activities

**Annexure I  
(A) PROGRAM OUTCOME (POs)**

**Engineering Graduates will be able to:**

- PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop the solution of complex engineering problems.
- PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)
- PO3: Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)
- PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).
- PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)
- PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).
- PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)
- PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.
- PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
- PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.
- PO11: Life-Long Learning:** Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

**(B) PROGRAM SPECIFIC OUTCOME (PSOs)  
Program should specify 2-4 program specific outcomes.**

PSO1	Graduates will be able to design, analyze, and fabricate electric and hybrid vehicles using modern engineering tools and sustainable practices.
PSO2	Graduates will be able to apply design principles and computational techniques, including programming and data structures, to analyze and solve mechanical engineering problems.

## 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**

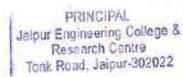
Name : Prof. Vinay Kumar Chandna

Designation : Principal

Signature :



Seal of The Institution :



**Place :** jaipur

**Date :** 27-02-2026 15:34:02