MCT's Rajiv Gandhi Institute of Technology, Mumbai

Mechanical Engg.

Part A : Institutional Information

1 Name and Address of the Institution

MCT's Rajiv Gandhi Institute of Technology, Mumbai,
Juhu-Versova Link Road, Versova, Andheri (W), Mumbai-400 053

2 Name and Address of Affiliating University

University of Mumbai

3 Year of establishment of the Institution:

1992

4 Type of the Institution:

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

5 Ownership Status:

☐ Central Government	☑ Trust
☐ State Government	☐ Society
☐ Government Aided	☐ Section 25 Company
☑ Self financing	☐ Any Other(Please Specify)

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

Name of Institutions	Year of Establishment	Programs of Study	Location
MCT's College of Law, Airoli, Navi Mumbai	2006	UG Law	Navi Mumbai
Abhinav Adhyapak Vidyalaya, (B.Ed.), Tal. & Dist., Latur	1990	UG	Latur
Smt. Sushiladevi Deshmukh Mahila Sr. College, Tal. & Dist. Latur	2009	Degree programme	Latur
Smt. Sushiladevi Deshmukh Mahila Jr. College, Tal. & Dist., Latur	2000	XII	Latur
Manjareshwar Hanuman Primary School, Vilasnagar, Tal. & Dist. Latur	1991	Primary	Latur
Rokadeshwar Vidyalaya, Khadgaon Road, Tal. & Dist. Latur	2000	Secondary & higher secondary	Latur
Manjara Ayurvedic Mahavidyalaya, Tal. & Dist. Latur	2001	Degree college	Latur
Ganeshnath Higher Secondary Vidyalaya, Sarsa, Tal.& Dist., Latur	2000	Higher Secondary	Latur
MCT's College of Research & Education (B.Ed.), Navi Mumbai	2005	UG	Navi Mumbai
MCT's Jr. College of Education (D.Ed.), Andheri, Mumbai	2006	Diploma	Mumbai
Smt. Sushiladevi Deshmukh High School & Jr. College, Airoli, Navi Mumbai	2000	X and XII Arts and Commerce	Airoli, Navi Mumbai
Smt. Sushiladevi Deshmukh Sr. College, Tal. & Dist. Latur	1990	UG Arts and Commerce	Latur
Smt. Sushiladevi Deshmukh Jr. College, Tal. & Dist., Latur	1990	XII Arts and Commerce	Latur
Deshmukh Vidyalaya, Savargaon, Tal. & Dist., Latur	1995	Secondary & higher secondary	Latur
Sadguru Vidyalaya, Wanjarkheda, Tal. & Dist., Latur	1997	Primary, secondary & higher secondary	Latur
Nilkantheshwar Vidyalaya, Nevali, Tal. & Dist., Latur	1991	XII Arts and Commerce	Latur
Sant Dnyaneshwar Vidyalaya, Pimpalgaon, Tal. & Dist., Latur	1991	Primary, secondary & higher secondary	Latur
Manjareshwar Hanuman Vidyalaya, Vilasnagar, Tal. & Dist., Latur	1991	Primary, secondary & higher secondary	Latur
Ganeshnath Vidyalaya, Sarsa, Tal. & Dist., Latur	1991	Primary, secondary & higher secondary	Latur
Shriram Vidyalaya, Mamadapur, Tal. & Dist., Latur	1991	Primary, secondary & higher secondary	Latur
Smt. Sushiladevi Deshmukh Mahila Adyapak Vidyalaya, (D.Ed.), Tal.&Dist., Latur	1990	Primary, secondary & higher secondary	Latur
Manjara Krishi Vigyan Kendra, Latur	2005	UG	Latur
Goldcrest High ICSE School, Navi Mumbai	2009	Primary & Secondary	Navi Mumbai
Goldcrest International, Vashi	2012	Primary & Secondary	Navi Mumbai

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

Name of Program	Program Applied level	Start of year	Year of AICTE approval	Initial Intake	Intake Increase	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
MECHANICAL ENGINEERING	UG	1995	1995	60	Yes	120	Granted accreditation for 3 years for the period (specify period)	2014	2022	Yes	4
HEAT POWER	PG	2012	2012	18	No	18	Not eligible for accreditation	--	--	No	2

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Computer Engg.
2	Under Graduate	Engineering & Technology	Mechanical Engg.

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2023-24		2022-23		2021-22	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	50	58	42	53	59	60
Faculty in Engineering (Female)	24	35	32	33	42	43
Faculty in Maths, Science & Humanities (Male)	6	6	6	7	7	8
Faculty in Maths, Science & Humanities (FeMale)	7	7	4	6	5	8
Non-teaching staff (Male)	63	65	65	67	63	65
Non-teaching staff (FeMale)	13	13	12	12	13	15

B. Contractual* Employees (Faculty and Staff):

Items	2023-24		2022-23		2021-22	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	0	0	0	0	0	0
Faculty in Engineering (Female)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (Male)	0	0	0	0	0	0
Faculty in Maths, Science & Humanities (FeMale)	0	0	0	0	0	0
Non-teaching staff (Male)	0	0	0	0	0	0
Non-teaching staff (FeMale)	0	0	0	0	0	0

10 Total number of Engineering Students:

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

Engineering and Technology- UG Shift-1

Items	2023-24	2022-23	2021-22
Total no. of Boys	1452	1686	1658
Total no. of Girls	393	411	430
Total	**1845**	**2097**	**2088**

Engineering and Technology- PG Shift-1

Items	2023-24	2022-23	2021-22
Total no. of Boys	0	0	0
Total no. of Girls	0	0	0
Total	**0**	**0**	**0**

11 Vision of the Institution:

To create competent technical professionals with ethical behaviour and environment consciousness.

12 Mission of the Institution:

M1: To provide contemporary and cutting-edge technical education.

M2: To provide an ambience which nurtures research ideas in futuristic domains.

M3: To initiate project-based learnings and practical exposures.

M4: To direct faculties in research and consultancy / advisory roles.

M5: To establish strong linkages with well-known national and international technical institutes and industry.

M6: To promote a culture of imbibing environmental care.

M7: To aim to become an institute of aspiration and choice.

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

Head of the Institution	
Name	Dr. Sanjay Bokade
Designation	Principal
Mobile No.	9224496649
Email ID	principal.rgit@mctrgit.ac.in

☑ **NBA Coordinator, If Designated**

Name	Dr. Kiran Chaudhari
Designation	Professor, Mechanical Engg.
Mobile No.	9930959964
Email ID	kiran.chaudhari@mctrgit.ac.in

PART B: Criteria Summary

Critera No.	Criteria	Total Marks	Institute Marks
1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	60	60.00
2	PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES	120	120.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	120.00
4	STUDENTS' PERFORMANCE	150	102.91
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	160.03
6	FACILITIES AND TECHNICAL SUPPORT	80	80.00
7	CONTINUOUS IMPROVEMENT	50	50.00
8	FIRST YEAR ACADEMICS	50	46.33
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
	Total	**1000**	**909**

Part B

1 VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (60) Total Marks 60.00

1.1 State the Vision and Mission of the Department and Institute (5) Total Marks 5.00

Institute Marks : 5.00

Vision of the institute	To create competent technical professionals with ethical behaviour and environment consciousness.
Mission of the institute	M1: To provide contemporary and cutting-edge technical education. M2: To provide an ambience which nurtures research ideas in futuristic domains. M3: To initiate project-based learnings and practical exposures. M4: To direct faculties in research and consultancy / advisory roles. M5: To establish strong linkages with well-known national and international technical institutes and industry. M6: To promote a culture of imbibing environmental care. M7: To aim to become an institute of aspiration and choice.
Vision of the Department	Vision of the Department • To create competent technical professionals in Mechanical Engineering with ethical behavior and environment consciousness.
Mission of the Department	

Mission No.	Mission Statements
M1	To provide contemporary and cutting-edge technical education in Mechanical Engineering
M2	To provide an ambience which nurtures research ideas in futuristic domains of Mechanical Engineering
M3	To initiate project based learning and practical exposures in the area of mechanical engineering
M4	To direct the faculties in research and consultancy advisory roles
M5	To establish strong linkages with well-known national and international institutes
M6	To promote the culture of imbibing the environmental care and eco- friendly design
M7	To become a department of aspiration and choice

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

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	To prepare the stake holder to exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.
PEO2	To make ready the stake holder to pursue higher education for professional development
PEO3	To help the stake holder to acquire the analytical and technical skills, knowledge, analytical ability attitude and behavior through the program
PEO4	To prepare the stakeholders with a sound foundation in the mathematical, scientific and engineering fundamentals.
PEO5	To motivate the learner in the art of self-learning and to use modern tools for solving real life problems and also inculcate a professional and ethical attitude and good leadership qualities.
PEO6	To prepare the stake holder to able to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations

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

Institute Marks : 10.00

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

A. The Vision, Mission and PEOs are published at:

1. Institute website http://www.mctrgit.ac.in (http://www.mctrgit.ac.in/)
2. Institution /Department Information brochures.
3. Displayed at entrance of Department.
4. Displayed on notice boards in laboratories and notice boards of Department.
5. HOD cabin.
6. Faculty course file
7. Brochures and Flyers of program
8. Departmental Magazine
9. News letter
10. Departmental Reports.
11. Academic Diary.
12. Lab Manuals.
13. Social media
14. E-Notice Board
15. Staff seating place
16. Department corridors

B. Method of Dissemination

1. Department Advisory Board Meeting
2. Internal Quality Assessment Committee
3. Induction program and orientation pregame
4. Alumni meet
5. Parents Teacher Meeting
6. Conference
7. Faculty development Program

C. Process of dissemination among stake holders

Stakeholders of the program

Students: The entire scope of outcome based education revolves around the students and hence they are the principal stake holders.

Faculty & Staff: The faculty is the driving force through which the concept of outcome based education can be accomplished.

Industries/Research Organizations/Employers: The industries & employers provide broader perspectives towards the definition & realization of the stated objectives.

Alumni: The alumni being the recipients of the knowledge imparted at the institute are better judges of the system and hence their opinions play an important role in accomplishing the PEOs of the UG Program.

Parents: It is essential to consider the opinions of parents because welfare of their wards has a direct bearing on accomplishing the PEOs of the UG Program.

The Vision, Mission of the Institute, Department and PEOs of the program are disseminated to the internal and external stakeholders through continuous interaction and formal periodic meetings. The faculty would display the statements in their academic diary, Course file, first theory sessions of each semester. The statements would be communicated to students through classroom teaching, students' meeting. The institutional website and social media platforms would disseminate the statements to all concerned(Ref_Fig.1.1).

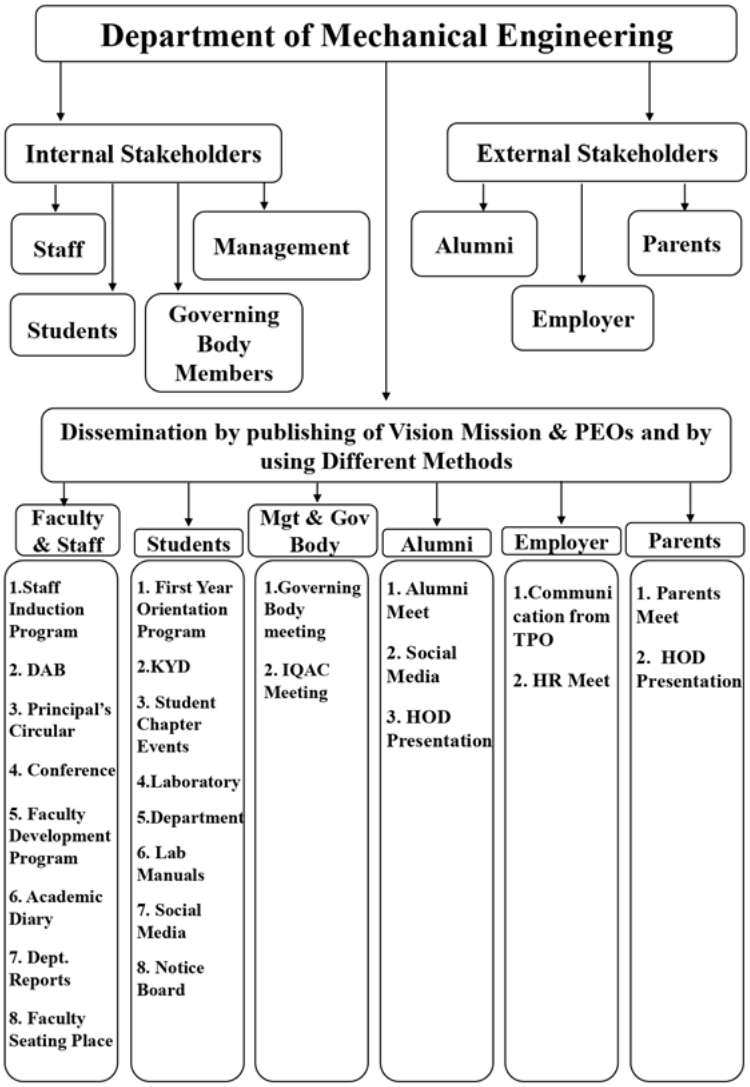

Fig. 1.1 Dissemination of Vision, Mission and PEOs

The dissemination of the Vision, Mission and PEOs to various stakeholders is done in the following manner.

Management and Governing body

The dissemination of the Vision mission PEOs is done in governing body meeting and IQAC meeting

Faculty & Staff

The dissemination of Vision Mission and PEOs amongst staff is done as follows

- Staff induction program
- Department Advisory Board Meeting
- Principal's circular for the staff
- Conference
- Faculty Development Program
- Through publishing of statements at various location and in documents, academic diary, department reports etc

Students

Dissemination of Vision Mission statements amongst students is done as follows

- Orientation programs for conducted for first year students and during 'Know Your Department' event
- Student chapter events
- Statements published in academic diary, laboratory, faculty seating area, department entrance etc.
- Statements displayed on notice boards of department.
- Departmental Magazine
- News letter
- Lab Manuals.

- Social media
- E-Notice Board

Alumni

- Dissemination of Vision Mission statements amongst alumni is done in alumni meet, HOD presentation and on various social media websites

Employer

- Training Placement officer disseminates the statements amongst employers through his communication with them and in HR meeting.

Parents

- Dissemination of Vision Mission statements amongst parents is done in orientation meeting of first year students. Awareness is created during ‘Parent Teacher meeting’ and HOD presentation.

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

Institute Marks : 25.00

1. **4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (25)**

(Articulate the process for defining the Visio and Mission of the Department and PEOs of the program)

The Pictorial representation of the process for defining the Vision and Mission is shown in fig 1.2 In establishing the Vision and Mission of the department, the following steps were followed:

Step1: In the initial phase, the Head of the Department along with the Department Committee, spend considerable time in understanding Institutes Vison and Mission. Vision and Mission of similar Institutions were studied.

The feedback from stakeholeders is taken into account while defining the Vision Mission statements. The feedback from both internal and external stakeholders are given utmost importance while defining Vision and Mission.

Brainstorming sessions are conducted to define the Vision and Mission statements which are in alignment with the Vision and Mission of the Institute.

Step 2: A discussion is done in the sceond meeting to refine the initial draft of Vision Mission statement

Step 3: The new Visiond Mission statements (outcome of the department committee meeting) are placed in DAB and IQAC for suggestions.

Step 4: Once the Vision and Mission statements are approved by the IQAC and DAB, they are validated by academic experts

Step 5: Once the Vision and Mission statements are validated by the academic experts they are published on the college website and other prominent places for the desimination.

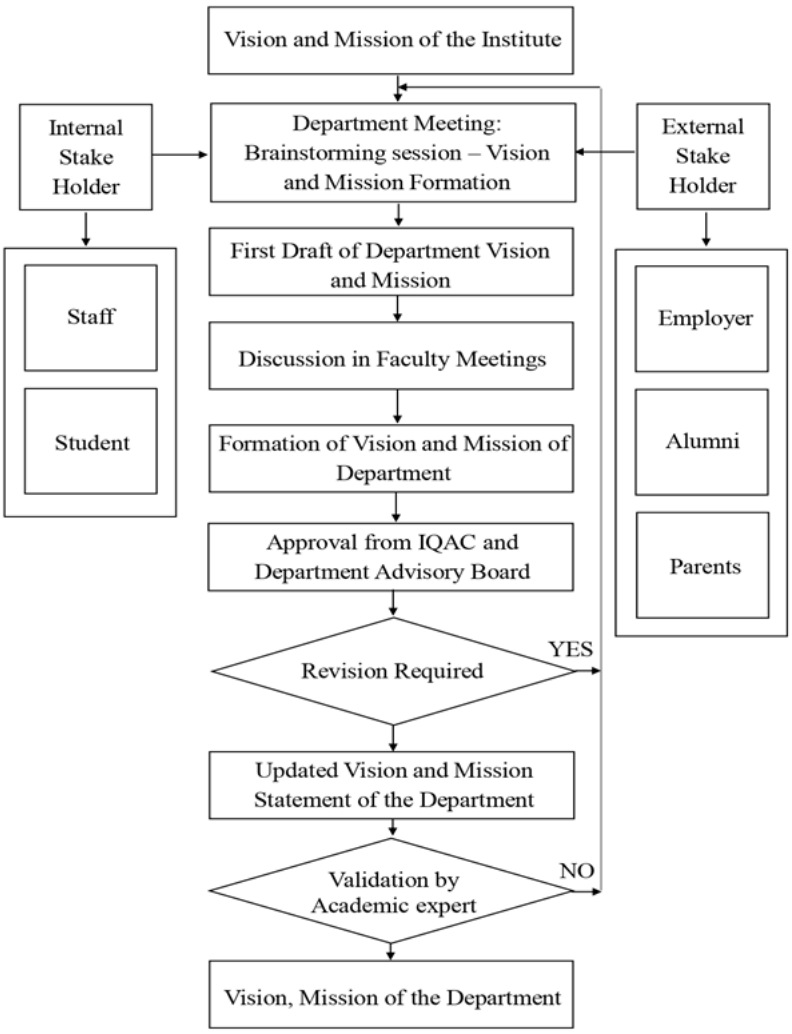

Figure 1.2 Process for defining Vision and Mission of the department

Process for defining Program Educational Objectives of the program:

Program Educational Objectives (PEOs) of the program are specified by the University of Mumbai in the university curriculum. The faculty member of our department represented Board of Studies at the University, at the time of drafting of curriculum. Some of our faculty members were in the curriculum drafting committee. This is how department plays a role in the formation of PEOs statements (Ref. University Syllabus R-19 C Scheme AC-29/06/2021 Item no.6.8).

Our institute is affiliated with the University of Mumbai, and the PEOs are defined by the University. We had a department meeting to identify the possibility of adding new PEO statements. We checked the consistency of the prescribed PEOs with the curriculum and program outcomes.

In the meeting, it was decided that there was no need to add any new PEO statements. So the department accepted the university-defined PEOS.

Program Educational Objectives of the Department

- PEO1: To prepare the stake holder to exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.
- PEO2: To make ready the stake holder to pursue higher education for professional development.
- PEO3: To help the stake holder to acquire the analytical and technical skills, knowledge, analytical ability attitude and behavior through the program.
- PEO4: To prepare the stakeholders with a sound foundation in the mathematical, scientific and engineering fundamentals.
- PEO5: To motivate the learner in the art of self-learning and to use modern tools for solving real life problems and also inculcate a professional and ethical attitude and good leadership qualities.
- PEO6: To prepare the stake holder to able to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations

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

Institute Marks : 15.00

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

(Generate a Mission of the Department- PEOs matrix with justification and rationale of the mapping)

PEO	M1	M2	M3	M4	M5	M6	M7	JUSTIFICATION
PEO1	--	--	3	--	2	3	1	• Students will inculcate leadership qualities, team spirit, ethics and respect for each other through their project work. • Students are made to organize technical events through departmental forum which makes them confident and effective team leader. • To promote culture of imbibing environmental care, we encourage product design with social commitments and responsibilities. • Strong linkages with well-known institutes and industries ensures student to get wide exposure, opportunity to explore, meet with peer groups from varied background and participate in various competitions. • PEO1 maps to M3, M5, M6, and M7
PEO2	3	2	1	--	2	1	1	• PEO2 is consistent with M2, M3, M4, M5 & M 7 as they substantially contribute towards the needs of industry. • Students develop sound technical knowledge and create research inclinations. • While working on projects and otherwise also, they use modern tools for solving problems. • Peer group influence and encouragement by faculty motivates the students to appear for competitive exams like GMAT, GRE, TOEFL, GATE and to pursue higher education.
PEO3	3	3	3	--	--	1	--	• Students while learning various courses develop technical understanding. • The program requires students to carry out various projects. While working, they develop the skillsets required to solve the problems encountered during project. • The students cultivate interpersonal skills and team work. • PEO3 maps to M1, M2, M3 & M6
PEO4	2	1	1	--	--	--	1	• PEO4 is consistent with M1, M2, M3. • The curriculum is carefully designed in such a way that it includes various subjects and practical in the domain of Thermal, Design, Manufacturing & Management Humanities & Sciences. • During the course of learning students develop a strong foundation in Mathematical, Scientific & Engineering Fundamental
PEO5	1	2	--	--	1	--	--	• PEO5 is mapping with M1, M2 M3 & M5. • The curriculum incudes various skilled based labs such as CNC & 3D Printing, CAD Modelling, Python programming, Internet of Things & Finite Element Labs & Mini Project and Major Project. • The Students enhances various skill sets in the process of learning while working in a team. The conducive environment develops an overall personality capable of solving real life problems.

PEO6	1	1	3	--	--	3	--	• The department is focused on student centric learning environment developing technical competency by imparting cutting edge technical education. • Core competence can be enhanced through rigorous course work. • Exposure to latest tools and technologies, imbibing interest in taking up research activities in the thrust areas of Mechanical engineering with the support of project based learning and practical exposure develops an ability to identify, formulate and solve problems in the latest technology. • PEO6 s maps to M1, M2 & M3

PEO Statements	M1	M2	M3	M4	M5	M6	M7
To prepare the stake holder to exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.	-	-	3	-	2	3	1
To make ready the stake holder to pursue higher education for professional development	3	2	1	-	2	1	1
To help the stake holder to acquire the analytical and technical skills, knowledge, analytical ability attitude and behavior through the program	3	3	3	-	-	1	-
To prepare the stakeholders with a sound foundation in the mathematical, scientific and engineering fundamentals.	2	1	1	-	-	-	1
To motivate the learner in the art of self-learning and to use modern tools for solving real life problems and also inculcate a professional and ethical attitude and good leadership qualities.	1	2	-	-	1	-	-
To prepare the stake holder to able to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations	1	1	3	-	-	3	-

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

2.1 Program Curriculum (20) Total Marks 20.00

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

Institute Marks : 10.00

2.1. Program Curriculum (20)

The MCT's Rajiv Gandhi Institute of Technology is affiliated to Mumbai University (MU), Mumbai, Maharashtra. The program curriculum of Mechanical Engineering is as provided by the University. Curriculum contains Basic Sciences and Humanities, Engineering Sciences, Program Core and Program Elective Courses along with Project work. The program curriculum is in compliance with AICTE norms. The program curriculum is formulated and reviewed by the University once in four years to fill the curricular gap. Currently a Choice Based Credit System program curriculum namely R-19 C-Scheme (2019) is in execution. The components of curriculum as per R-19 is as shown in table 2.1.1.

Table 2.1.1 Components of curriculum (2019 Pattern)

Sr. No.	Course component	Total no. of Credits	Curriculum Contents (%)
1	Basic Sciences and Humanities	31	18
2	Engineering Sciences	23	13
3	Program Core	77	45
4	Department level Electives	18	11
5	Institute level Electives	6	03
6	Project Work	17	10

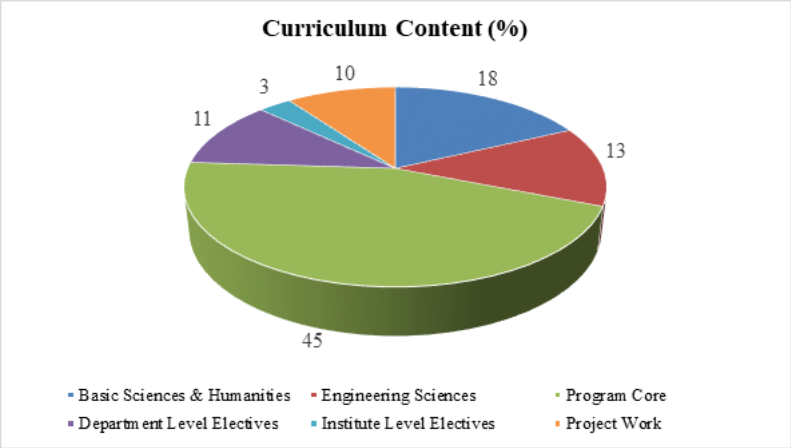

Figure 2.1.1: Graphical representation of components of curriculum (2019 Pattern)

The course credits are calculated as per AICTE guidelines and the method is mentioned in Table 2.1.2. The total contact hours are 224 and total credits are 172

Table 2.1.2 Credit calculation method

Sr. No.	Curriculum Delivery Mode	Period in Hrs.	Assigned Credits
1	Lecture/ Tutorial	1	1
2	Practical	1	0.5
3	Project/Seminar	1	0.5

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

By referring to university curriculum all the courses are mapped with twelve Program Outcomes (POs) and two Program Specific Outcome (PSOs) and assessment of all the POs and PSOs is done. The courses prescribed by the University are in compliance with all the POs and PSOs. Academic flexibility is achieved by arranging different skill oriented activities i.e. conducting guest/expert lectures, industrial visits and internships to meet industry requirements and expectations. In addition, student's participation in University/State/National level technical events/competitions also helps in their overall development to a great extent.

The faculty members of the Institution take active part in designing and implementing the University curriculum. Many senior faculty members are involved in various University activities such as Local Inquiry Committee, Board of Studies, Staff Selection Committee, University Examinations, Result Moderation Committee, Subject Chairman, etc. Academic overall growth of students is achieved by arranging extra co-curricular activities. The students are provided with sponsorship and support for different research oriented activities including final year project work. Students are exposed to social issues through different societal activities. The Institution has formal feedback mechanism to obtain feedback from various stakeholders such as students, alumni, parents and industry. Corrective measures are taken based on the feedback to improve the academic, administrative and infrastructural facilities.

A. Process used to identify extent of Compliance of University Curriculum for attaining POs and PSOs at Program level:

To map COs with POs, four domain groups were formed i.e. Management-Humanities-Basic Sciences, Thermal Engineering, Design Engineering, and Manufacturing Engineering. Courses of the Program have been classified under these four domains. The faculty members were divided as per their expertise in the respective domains. The mapping of CO and PO was done and the extent to which it maps was decided based on three levels namely 3 (High), 2 (Moderate), and 1 (Low). Mapping and levels

were decided by referring the AICTE report on Examination Reform Policy, November 2018 which focusses on the recommendations for reforms in examinations (assessment of student). Following is the process used for mapping COs with POs and PSOs.

- For each of the courses, Course Outcomes are ascertained as prescribed by the University.
- The subjective mapping of POs and PSOs with COs is ensured based on the PIs (Performance Indicators) of the Competency level conforming to the particular PO and PSO.
- Identification of weakly mapped POs and PSOs.
- The gap is deliberated in the Department Advisory Board (DAB) meeting. DAB is composed of industrial and academic experts.
- The topics are identified in the DAB meeting to fill the gap and a list of such topics and areas are prepared for the concerned course.
- Such topics are then addressed by organizing expert lectures from outside, organizing industrial visits, or through remedial extra classes.

Some of the topics have been pointed out by the team during campus placements. Discussions were held with the Alumni for identifying the same. Parents also gave their opinion about the course delivery & drawbacks of the present curriculum during PTA meetings which helped us identify some of the gaps. Student exit surveys were conducted to identify their level of satisfaction of the course curriculum & delivery. Some of the gaps were noted by faculty during the course delivery & assessment, project & seminar presentations by students and were discussed in depth during the departmental faculty meetings.

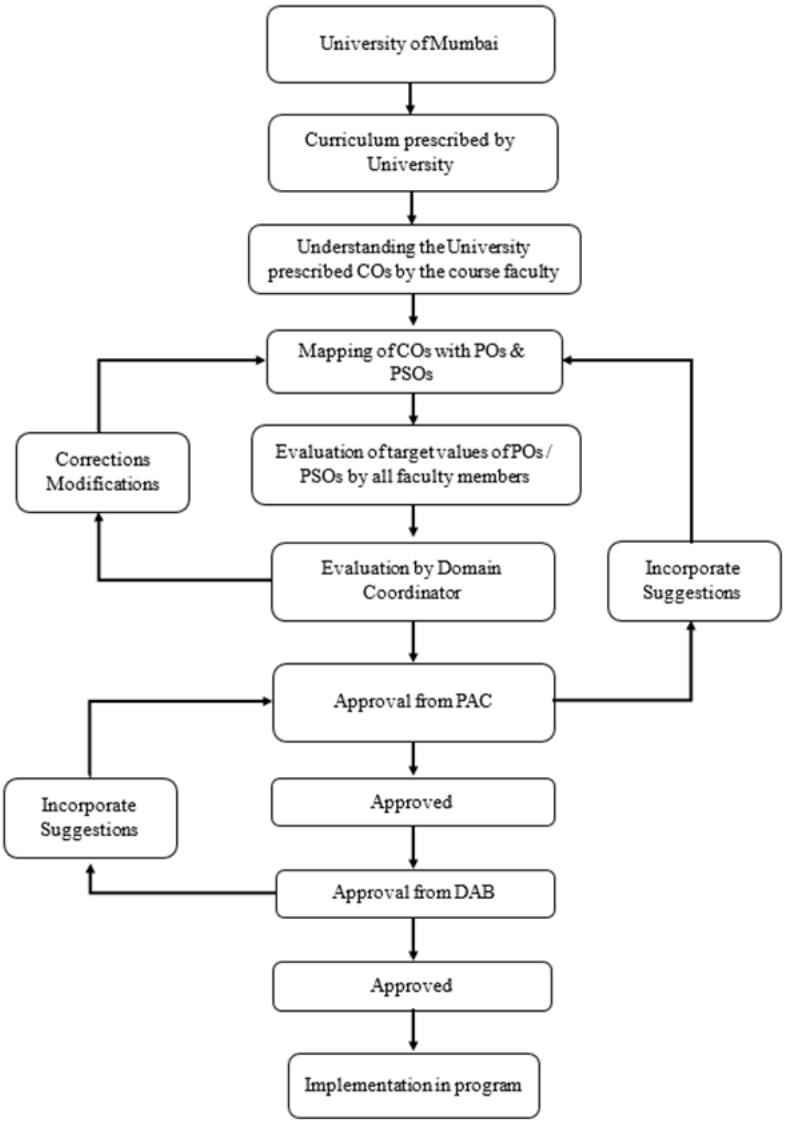

Figure 2.1.2: Flow Chart of CO-PO/PSO Mapping Process

B. List the curricular gaps for the attainment of defined POs & PSOs:

Core Courses component consists of core courses in thermal engineering, design and manufacturing. They offer the knowledge base of Mechanical Engineering streams and their interrelations in the application of industry. The objectives of pursuing successful careers in various sectors of Mechanical Engineering as well as the ability to design, to offer solutions and to adopt to continuous/ lifelong professional development needs a strong engineering knowledge base. This is provided by the module of core courses.

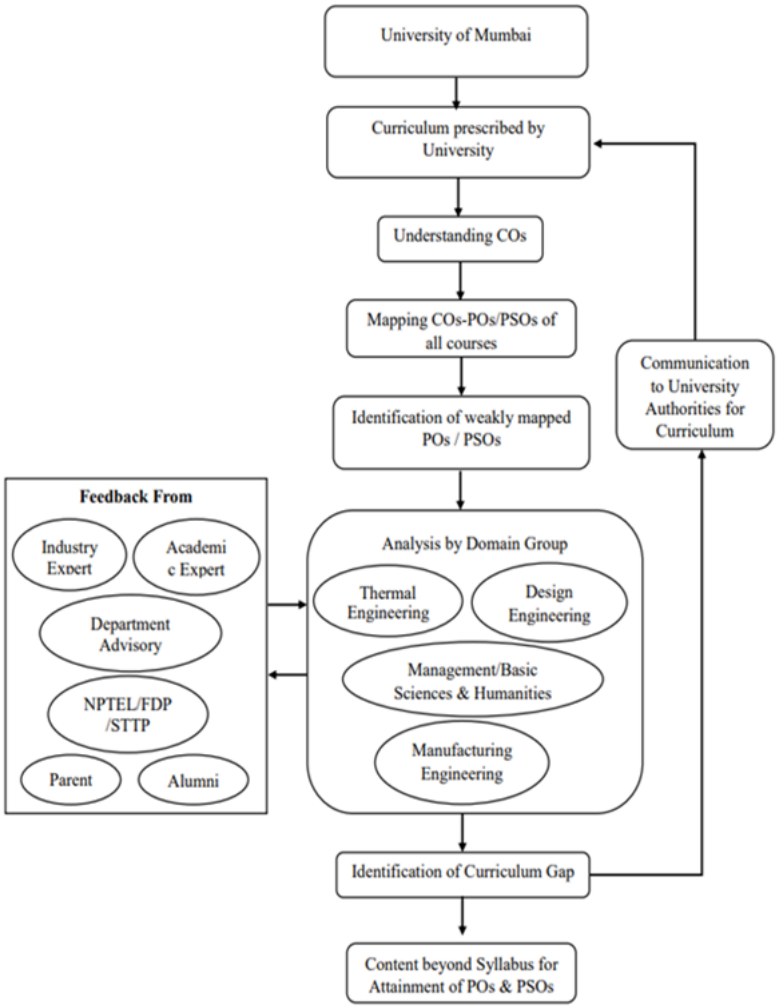

Figure 2.1.3: Process flow chart to identify Curriculum Gaps

Further the students carry out seminar work on the latest trends in technological development and during project they actually design model, fabricate and analyses actual mechanical system with the application of industry. Seminar and Project are individual professional experiences that are relevant to all PSOs and they are instrumental to satisfy those POs that are not easily attainable during classroom teaching or conventional laboratory sessions. The skills and behavioral qualities that are essential in the professional life are learnt through seminar and project work. Electives provide exposure to the students to specialized fields like HVAC, FEA, Product Design and Development, Condition Based Maintenance, Automobile, Solar Energy and many more open electives, which nurture future interests in these fields. Courses under the module of interdisciplinary and allied engineering have course on Python, machine learning and artificial intelligence which provides necessary base in IOT integrated automation in Mechanical Engineering applications. Industrial Engineering & Operation Research course contributes to successful professional careers including handling complex engineering problems.

Table 2.1.3 Compliance of mapping COs with POs and PSOs

Program Outcomes 2022-23 Batch (%)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO
Target	2.33	1.92	1.59	1.89	1.90	2.37	2.06	2.06	2.29	1.74	2.07	1.82	1.36	1.42

The courses offered in the curriculum are further identified to bridge the mapping gap of weakly mapped POs and PSOs. Content beyond syllabus are designed to fulfill by organizing the expert talks, industrial visit, etc. Courses and their relevant mapping with POs and PSOs are given in the table 2.1.4.

Table 2.1.4 Domain-wise courses and relevant POs and PSOs

Sr. No.	Courses	Domain	POs and PSOs Satisfied
1	Heating, Ventilation, Air Conditioning and Refrigeration	Thermal Engineering	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
2	Production Processes	Manufacturing Engineering	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
	Automation and Artificial Intelligence		
	CNC and 3-D Printing		
	CAD-Modelling		

3	Logistics and Supply Chain Management	Management, Humanities and Basic Sciences	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
	Design of Experiments		
	Disaster Management and Mitigation Measures		
	Professional Communication and Ethics		

Therefore, various steps are undertaken by the program to enhance technical knowledge, attitude and behavior of the students while identifying the program curricular gaps to attain the prescribed targets and levels of POs and PSOs apart from the regular curriculum. Extra efforts are taken to deliver content beyond syllabus to bridge the curricular gaps to fulfill the requirement of specific industry and to give the exposure to the students about outside world, hence better attainment of POs and PSOs which are weakly mapped.

The PAC of Mechanical engineering program has analyzed the attainment of all the POs and PSOs. In PAC meeting, the details of attainment have properly addressed and corrective actions in the form of gap identification and defining content beyond syllabus were thought out.

- The mechanism for identifying the curriculum gap is shown in figure 2.1.3. It involves the interaction with the Alumni, Industry and academic experts and gathering their feedback on the same. Feedbacks from the parents also add to the process of identifying the curriculum gap.
- Identified curriculum gaps are reviewed in the meeting with Department Advisory Board members. DAB also contribute to identifying the curriculum gap. The agenda to be discussed in the Advisory Board meeting comprises identifying the curriculum gap and methods implied to bridge the curriculum gap is also discussed in length.
- Similarly, the interactions with IITs, NITs, and other renowned Institutions during conferences, STTPs, FDP's and course work are the baselines to realize the curriculum gaps.

Table 2.1.5: Identified curricular gaps

Sr. No	Engineering Year	Domain	Identified curricular gaps
1	Second Year	Manufacturing	Designing of gating system, precipitation hardening, composite manufacturing
		Manufacturing	Understanding reverse engineering in manufacturing
2	Third Year	Manufacturing	Inclusion of more algorithms in automation and artificial intelligence
		Manufacturing	Tool Designations
		Management/ Humanities/ Science	Understanding disclosure agreement and creating awareness about government schemes
		Thermal Engineering	Understanding the concept of clean room fire, rated duct and its selection criteria
3	Final Year	Manufacturing	Mathematical modelling of different rapid prototyping techniques
		Management/ Humanities/ Science	Design for manufacturing of product with emphasis on product design and PLM
		Management/ Humanities/ Science	Application of AI & ML in disaster management
		Management/ Humanities/ Science	Diagnosing and rescuing troubled projects
		Management/ Humanities/ Science	Lean, agile & circular supply chain
		Management/ Humanities/ Science	use of reputed referencing and citation software in MS word
		Management/ Humanities/ Science	Role of multi-disciplinary engineering in reducing the global warming, pollution and waste generation
		Management/ Humanities/ Science	Ability to apply data analysis tools in product designing

The identified gaps were discussed in DAB meeting and following measures were taken to bridge the gap by planning different events and activities as given below:

- Guest/Expert Lectures
- Industrial Visits
- Offering internship to students
- Remedial lectures by course faculty
- NPTEL lectures

The identified gaps are shown in Table 2.1.5

2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs and PSOs (10) Institute Marks : 10.00

Content beyond syllabus is planned and implemented by analyzing the identified gap so that it is bridged effectively. Content beyond syllabus is imparted by the faculty through the course delivery, conducting Guest lectures, organizing workshops for better attainment of the COs with POs and PSOs. Also, the program has the following mechanism to cover the contents beyond Syllabus to meet the POs and PSOs:

- **Project Based Learning**

  Project Based Leaning is designed in our Department where,

- Group of students are formed
- Assign a project to each group

- **Expert Lecture:** Expert lectures are arranged for courses which plays very important role in understanding the opportunities.
- **Interactive learning:** The faculty encourages students for their active interaction during the lecture hour.
- **Industrial Visits:** Industrial visits are arranged to enable the students to have interaction/ field exposure with the industries which will help the students to become industry compatible.
- **Workshop:** Students are encouraged to attend various workshops conducted by experts from the Industry and academia to gain the knowledge in the emerging areas and different technologies.
- **Use of e-learning resources and Computer-assisted learning**

  The students as well as faculties are encouraged to make use of NPTEL videos and MOOC courses to improve their core knowledge and effective delivery of course content respectively.

- **Use of ICT tools:** Students are advised to use various Information Communication Technology (ICT) tools available in the Program to be well updated and well versed with the recent technology and trends in the field of mechanical engineering.
- **Use of charts and 3D models:** Students are advised to demonstrate the principles or concepts effectively through various charts and 3D models which are being used by faculties during their lectures and practical's.
- **Case Study:** Case studies are given to students to enhance their technical skills.
- **Special Lecture on Content Beyond Syllabus by Course Faculty/Senior Faculty**

  Special lectures are arranged on content beyond syllabus by course faculty or departmental senior faculty for better understanding of subject knowledge.

2022-23

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Inclusion of more algorithms in automation and artificial intelligence	Webinar on Robot Autonomy: Opportunities & Challenges	05/03/2023	Mr. Ameya Salvi, Alumni, RGIT	26	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
2	Mathematical modelling of different rapid prototyping techniques	Smart Manufacturing & 3D Printing Industrial Training	08/10/2022	SAHAS Softech LLP Sakinaka	15	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
3	Prospects for logistics and supply chain management	Seminar on International Placements & Opportunities	28/07/2022	Mr. Jignesh Doshi & Ms. Hiral, Kareer Krafters	88	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
4	Design for manufacturing of product with emphasis on product design and PLM	Engineering Education	13/11/2022	Mr.Vacchani Raj Mahendra, Design Engineer, Jaivel Aero space Pvt Ltd	47	PO2, PO3, PO5, PO10, PO12, PSO1, PSO2
5	Use of reputed referencing and citation software in MS word	Skill Development workshop	24/12/2022	Mr. Siddique Kazi	39	PO9, PO10, PO12, PSO1, PSO2
6	Diagnosing and rescuing troubled projects	Engineering Skills of the Decade	18/07/2022	Danish Sayyad, Data Analyst, Intelligent Cricket	33	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
7	Understanding disclosure agreement and creating awareness about government schemes	Knowledgeable & Awareness session on Intellectual Property Rights	15/09/2023	Mr Rohit Dave Prof. Hardik Shukla	42	PO2, PO5, PO10, PO12, PSO1, PSO2
8	Industrial visit to understand to understand the various processes in processing plant	Industrial Visit	09/03/2023	Mahanand Dairy, Aarey Colony, Goregaon	46	PO4, PO5, PO10
9	Industrial visit to understand design of gating system in moulding, Composite manufacturing and precipitation hardening, tool designations	Industrial visit	08/01/2023	Indo German Tool Room, Aurangabad	42	PO3, PO6, PO12
10	Design for manufacturing of product with emphasis on product design and PLM	Workshop on NX CAD	21/03/2023	Mr. Hanzala Maknojia ASME members	40	PO5, PO6, PO7, PO12
11	Ability to develop advanced algorithms	IOT workshop	29/01/2023	Mr. Mohammad Rafi Jalgaonkar, IOT Lead, GDSC, RGIT	45	PO1, PO2, PO5, PO10, PO12, PSO1,

2021-22

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Design for manufacturing of product with emphasis on product design and PLM	Workshop on Solidworks	30/03/2022	Vinayak Bhat	27	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
2	Understanding the concept of clean room fire, rated duct and its selection criteria	Energy Conservation using Engineering Efforts	18/12/2021	Mr. Saikat Das, Energy Analyst & Strategiest	40	PO2, PO5, PO10, PO12, PSO1, PSO2
3	Design for manufacturing of product with emphasis on product design and PLM	Advanced Product Designing & Analysis Software	26/02/2022	Mr. John Mathew, Managing Director, CADD Center & Mr. Sandip Nair, GM, CADD Centre	78	PO2, PO3, PO5, PO10, PO12, PSO1, PSO2
4	Awareness and prospects in pursuing management studies	Opportunity on MBA in India	13/10/2021	Mr. Vishesh Nadiana, IIM C Alumnus	86	PO10, PO12, PSO1, PSO2
5	Awareness on pursuing higher education in foreign countries	Webinar on MS in Abroad	02/10/2021	Ms. Nidhi Rangari & Abhijeet Bhati, MakinGrad Overseas Education Consultants Pvt. Ltd	80	PO10, PO12, PSO1, PSO2
6	Ability to virtual representation of the product to simulate and predict its performance in the context of reverse engineering	Unlocking Industrial Potential of Digital Twin	04/10/2021	Dr. Santosh Rane, Dean Academics, SPCE	59	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
7	Ability to use reverse engineering in the perspective of new product development	4-D Printing-New dimension in Manufacturing	18/09/2021	Mr. Amit Ghule, Co-founder Simpliforge Technologies Pvt Ltd	90	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2
8	Effective professional networking	Unlock the power of Linkedin	09/09/2021	Mr. Tejas Sawant. Linkedin expert & Instrumentation Engineer	43	PO10, PO12, PSO1, PSO2
9	Role of multi-disciplinary engineering in reducing the global warming, pollution and waste generation	Webinar on Role of Multi- Disciplinary Engineering	24/09/2022	Mr.Prathmesh Upadhyay	56	PO7, PO8, PO10, PO12, PSO1, PSO2
10	Industry readiness, usage of modern tools and technologies	Millennials in Stem	10/08/2022	Mr. Dinesh Vishwakarma, Senior Security Consultant, Ernst & Young Global Limited	27	PO2, PO3, PO4, PO5, PO10, PO12, PSO1
11	Ability to apply data analysis tools in product designing	Advanced Product Designing & Analysis Software	26/02/2022	Mr. John Mathew, Managing Director, CADD Center & Mr. Sandip Nair, GM, CADD Centre	37	PO2, PO3, PO4, PO5, PO10, PO12, PSO1

2020-21

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Application of AI & ML in disaster management	Talk on Deep Learning	12/09/2020	Mr. Rahul Agrawal, Principal ML Manager Microsoft	85	PO2, PO5, PO10, PO12, PSO1, PSO2
2	Awareness about future prospects in HVACR field	Career In HVACR	04/09/2020	Mr. Parth Thakkar, Diretor-Polfrost Aircon Pvt Ltd Mumbai	60	PO10, PO12, PSO1, PSO2
3	Understanding the concept of clean room fire, rated duct and its selection criteria	Air Handling Unit	24/04/2021	Mr. Ashutosh Rudraksha; Area Manager (Sales), LG Electronic India Pvt Ltd Pune	29	PO2, PO5, PO10, PO12, PSO1, PSO2
4	Lean, agile & circular supply chain	Webinar on Lean 6-Sigma	19/04/2021	Mr. Amitabh Saxena, Founder & CEO Anexas Europe	35	PO10, PO12, PSO1, PSO2
5	Understanding reverse engineering in manufacturing	CNC Programming & Manufacturing	24/03/2021	Sky Rider	35	PO2, PO3, PO4, PO5, PO10, PO12, PSO1, PSO2

2.2 Teaching - Learning Processes (100) Total Marks 100.00

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

Institute Marks : 25.00

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

The program has well defined structure for monitoring of teaching learning process. The teaching learning is implemented in close adherence to the Institute's academic calendar. It is meant for smooth & uniform conduction of academics throughout the institute. The Head of the Department and Associate Head of the Department is responsible for regulating and implementing different academic activities. Faculty members are entrusted with different responsible portfolios by the Head of the department. They are responsible for coordinating the academic activities in line and in coordination with the institute.

Standard practices of Time – Table

- The department follows the teaching scheme (contact hours) given in the revised syllabus by the University of Mumbai for time table
- The Principal gives general guidelines for the timetable in the academic committee meeting at the start of the academic year.
- After the total load calculation of the department and the subject distribution, the timetable is prepared.
- The interdisciplinary subjects such as Industrial Electronics, Python lab, Professional Communication Ethics, Engineering Mathematics etc., are shared by faculty from the concerned department.
- The Institute level electives are scheduled simultaneously for all the departments to opt for any institute-level elective and attain the same.
- Provision is made in the time table for engaging sessions for improving skill sets of the students, such as soft skills.
- Care is taken to schedule major theory classes in the first half of the day.
- A faculty member is not allotted consecutive lectures or practical's and care is taken not to schedule two lectures for a subject in a day.
- Individual class timetable, classroom timetable, laboratory timetable, individual faculty timetable and master timetable are prepared and disseminated on notice board, e notice board, classroom etc.

Head of the department conducts a meeting of all staff members before the start of the academic session, in mid of session and during the last phase. Clear agenda is set for the meetings. Issues apart from agenda are also taken-up in the meeting. All the attendees share their views on the relevant matters. Minutes of meeting are noted and officially circulated to the staff members so as to fulfil the commitments within stipulated time. All other academic activities; teaching load distribution, class time table are properly performed. Institute adheres to academic diary to be scrupulously maintained by the subject teacher for the teaching plan, attendance record, student's performance record in term-work, practical performance, sessional and end semester examination, earlier student feedbacks, etc. Academic diary is checked by the HOD and the Dean Academics in the mid of semester. Again after the end of semester academic diary is checked by HOD, Dean Academics and Hon. Principal. Feedback mechanism is at place. Hon. Principal monitors the feedback process. HOD conducts early stage feedback during the semester to take necessary corrections, while the end semester feedback is monitored by Hon. Principal and conducted through the HOD of different department. After feedback analysis, faculties are informed with the remark by Hon. Principal.

Conduction of Examination

The examination is conducted as per the guidelines given in the syllabus by the University of Mumbai.

List of examinations

1. Term Test I
2. Term Test II
3. KT Exam
4. Oral / Practical Exam
5. End Semester Exam

Continuous assessment in the laboratory

A continuous assessment system is used for assessment of laboratory work. The assessment is done on the basis of submission of laboratory records; oral viva-voce conducted to assess the understanding of the experiment and participation of the students. The neatness of the laboratory record book is also given weightage in the assessment.

Table 2.2.1: Criteria for Experiment's Grading

Indicator				
Understanding	Fully Understood the concepts and performance of the experiment, correct and complete reading.	Understood concepts, but some not clear, reading taken is not complete.	Most of the concepts not clear, Large variation in reading.	No answer to any question and wrong reading.
Performance	Diagrams and illustrations are neat, accurate and correct sample calculations. Work reflects an understanding of Topic.	Diagrams and illustrations are accurate sample calculation show some variations. Work shows some understanding of Topic.	Diagrams and illustrations are sometimes. Incomplete calculations Work lacks understanding of Topic.	Diagrams and illustrations are not accurate No Calculations done. Not interested.
Punctuality		On time	One week late	More than one week late

- As a part of the '**quality assurance initiatives of the Institute'**, The Institute conducts documentation audit and academic audit of every department every year. The documentation audit is done by an internal committee while an academic audit is conducted by an external committee respectively.
- The objectives of the department audit are as follows –
- To verify the academic practices followed are aligned to the academic policy adopted by the Institute which in turn are in sync with the policies laid down by the University

- To carry out the program assessment
- To evaluate the quality of the education process and take corrective actions
- To verify the documentation process

Procedure for Documentation Audit

- The Documentation audit and Academic audit are scheduled as per the dates mentioned in the academic calendar.
- The HOD takes review of the files and ensures the files are updated
- The Principal forms the internal committee to conduct documentation audit. The members are the HODs of various departments
- The internal committee enters remarks on the file and endorse that the documentation are in order
- The committee submits a file wise comprehensive report to the Principal

Procedure for Academic audit

- Principal appoints the external experts for the conduction of audit. HOD sends email to the experts communicating the date and the flow of the audit.
- The audit is conducted as per the plan. Individual staff members are invited to discuss the file they are assigned. The experts ask them specific questions on the teaching techniques they follow. The staff wise remarks are entered. Files are checked thoroughly and the entries, suggestions are made.
- After completion of academic audit, external expert submit academic audit report to the HOD.
- Based on the remarks of academic audit report, corrective actions are initiated and an action taken report is submitted to the Principal.

The Institution adheres to the academic calendar for the conduct of Continuous Internal Evolution (CIE)

The Institute prepares and publishes an academic calendar every year as per guidelines given by the Mumbai University. Academic calendar is drafted with the initiative of Dean Academics involving the Department Heads. The primary draft is tabled in the Academic Council Meeting chaired by Hon. Principal. Academic Council comprises of Dean IQAC, Dean Academics, Heads of the Departments and Senior Faculty members. Academic calendar includes plans for curricular and co-curricular activities based on the available working/teaching days as per university norms.

After finalizing, academic calendar is given to all faculties before the commencement of the semester. Based on the academic calendar, a teaching plan is prepared. The academic calendar of the Institute includes a schedule of curricular delivery, Term Tests, display of student's attendance, technical and cultural events, submission, oral–practical examination, parent meeting, Alumni meet, list of holidays, and extracurricular activities. Students are informed about the timetable and academic calendar well in advance. Institute strictly adhere the academic calendar.

Teaching Plan

The detailed Course plan according to the syllabus is prepared by each faculty before the start of the semester. The course plan comprises content, learning aid and methodology, faculty approach, and course outcomes. The course plan generally highlights the content and total lectures for completion of the curriculum. The lesson plan is periodically monitored by the HOD and Dean Academics.

Time Table

Time table for the semester is prepared as well as displayed on the notice board and e-notice board. The HOD monitors day to day working of the academic schedule. The teacher prepares the teaching plan and it is approved by the HOD. The teacher informs the same to the students in the classroom at the commencement of the course.

In the class, the teacher gives explanations for the uploaded material and gives additional information regarding the same, and calls for any queries. In the case of problem-oriented subjects, he takes the help of another teacher and gives problems for students to solve in the class itself. This is particularly helpful as in this case the instructions are given on a one-to-one basis, and the students shed all the inhibitions they might have, thus ensuring student-centric learning.

The frequent question arousals in the class enable the students to think and study home which develops self-learning ability. The library is equipped with live video lectures of eminent professors from institutions of repute viz. IITs, in addition to free access to NPTEL lectures and CDs, reference books, text books in sufficient numbers. This enables the self-learning ability among the students.

Following activities are carried out at departmental level to enhance the confidence, motivation and working in a team.

Table 2.2.2: Departmental Activities

• **Self-learning**	• **Project competition**	• **Technical, Cultural events**
• **Tutorials/ Assignment**	• **Group discussion**	• **seminars**
• **Professional bodies activities**	• **Industrial visits**	• **Workshop**
• **Mock oral / viva**	• **Mentorship scheme**	• **Technical competitions**

An experiential learning method adopted by the department involves different batch students / different groups of students, performing different problem statements/designs/questions in the laboratory, which is evaluated at the end of the semester. Students will be given a minimum of two assignments/tutorials batch-wise in every subject per semester. Students are allotted mini projects in topics, assigned by faculty as a part of their laboratory performance. Students are given special topics for seminar/case study in groups to enhance group discussion and teamwork learning. Above all points are evaluated as part of their academic performance. Various technical activities are carried out and students are encouraged to participate in inter-college technical and cultural activities. Various expert talks/ seminars /workshops /mini project/paper presentations were organized for topics beyond the syllabus. Social activities are held and students are encouraged to participate in activities like blood donation camp, Swachh Bharat, Versova beach cleanup, etc.

Innovation and Creativity in teaching-learning

In line with the Institutes vision, conscious efforts are taken in the academic and allied activities of the Institute to nurture critical thinking, creativity, and scientific temper among the students. Institute aspires to have a transformational impact on students through comprehensive education by inculcating qualities of competence, confidence, and excellence. Various activities are enumerated as follows.

Critical Thinking

The institute motivates students to participate in national-level project competitions organized by other institutes and universities, such as Avishkar. Students are motivated to participate in different techno-events which leads to critical thinking in them. Industrial visits are organized for the students to gain practical knowledge about the functioning which gives a way to broad thinking. Technical events/ competitions were also conducted.

Nurturing Scientific temper

Expert lectures of industry persons, scientists, and entrepreneurs are organized to share their experiences and to make them aware of new technology and practices followed in the industry. Students are motivated to become members of Professional society's chapter and student forums. Students who are interested in research and development work are motivated and encouraged to present their work in different conferences/journals. Students are rewarded for their best and outstanding performance in projects, research, and other relevant areas. Faculty members are also engaged with research work in association with potential students by sharing their innovative concepts with these students.

Research forum, Alumni guidance time-to-time

The faculty members continuously adopt different innovative teaching methodologies. Some of the innovative teaching methodologies adopted are as follows: Faculty uses computer simulation during the theory and practical classes. Faculty and students use open, educational, and E-learning-resources e.g. NPTEL. Project-based learning and experiential learning like field work, visit industries, and guest lectures are organized on regular basis. Institute also has NPTEL local chapter which Promotes students to go for online certification courses. A reference book of reputed authors, Animation, and video clips in class, and Study material is shared with students.

Innovation and creativity in teaching-learning

- For innovation and creativity in teaching-learning, college is provided access to E-subscription login and password for students as well as faculty to know the latest quality publications in their area of specializations.
- Teachers are encouraged to undergo courses from NPTEL and SWAYM platform for enhancing their knowledge in their specialization.
- Teachers are encouraged to carry out research, attend workshops, seminars, faculty development programs to build up strong basic knowledge and contribute to the students by guiding them in projects.
- Teachers are motivated to become members of esteemed professional organizations.
- Teachers assign ongoing topics for students to enhance their knowledge and make students aware of ongoing technologies. Students are encouraged to participate in different project competitions like Avishkar.
- Students are encouraged to present and publish papers in national and international conferences enrich enhances their personality development and confidence.
- Faculty are deputed to various orientation progress related to courses so that they become familiar with the revised syllabus, its content delivery, practical and theory evaluation strategies.
- The faculty monitors the student performance throughout the term and maintains its record in the academic diary.
- Faculty prepares respective subject course time-plan according to college academic calendar and it has been continuously monitored throughout the term for successful completion of the syllabus and content delivery. Along with the prescribed syllabus, content beyond the syllabus is taken to introduce the students

Slow Learner or Weak Students:

The Slow Learner Students are identified from their very passive and dull participation in classroom discussion, performance in the Term-tests, oral examination, University examinations, etc. Every course teacher prepares action plan for his/her course from the data of result analysis of Term-tests and University examination and takes action such as remedial classes and counseling.

Methodologies to support Slow Learner Students:

- Program arranges remedial lectures for weak students in all the courses before and/or after college hours.
- Teachers keep respective parents in loop and inform regarding improvement in the performance of their ward.
- In some cases, students are referred to professional counselors or mentors for personal counseling to improvement of their performance.
- Sessions of bright students for motivation and personal experience for betterment of weak

Students.

Fast Learners or Bright students:

The bright students are identified from their active and notable participation during classroom

discussion, performance in the Term-tests, performance during the oral examination, performance in University examinations, participation in various activities, etc.

Methodologies to encourage bright students:

- Felicitation of the bright students is carried out in the Program.
- Advanced learners are encouraged to further participate in workshops and seminars to gain knowledge on the latest developments and showcase their potential.
- Advanced learners are guided to publish their research work in reputed research journals, conferences. They are financially supported by the Institute.
- The students are encouraged to take up industry based trainings and mini projects in the advanced topics under the guidance of the faculty members.
- Department motivates and supports the students to participate in techno events at University, State and National level.
- Department encourages advanced learners to become member and actively participate in conducting programs under the umbrella of professional bodies; ISHRAE, ASME, MESA, RGIT Team Racing and AeroRGIT, CVS, Robotics, IIIE.
- Advanced learners are encouraged for peer teaching to their juniors.

2.2.2 Quality of internal semester Question papers, Assignments and Evaluation (20) Institute Marks : 20.00

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

In addition to predefined end semester examination by Mumbai University, additional efforts are taken in the form of sessional examinations; Term-test 1 and Term-test 2 and assignments to ensure learning outcomes. The process, structure and pattern of examinations and assignment is as below.

A. **Initiatives:**

Following initiatives have been devised at the department level to prepare quality assignments for all internal assessments.

- Program Assessment Committee ensure quality assignments and tests for all internal assessments.
- Assignment formats are discussed and finalized by the committee.
- Question papers are set as per university syllabus guidelines and difficulty level, course outcomes are mapped by Blooms taxonomy and verified by the committee.
- Students are advised to use syllabus-recommended textbooks and reference books for writing their assignments and test.
- The assignments/ question papers/Lab Assignments are prepared by the individual subject teachers.
- Faculty members are also encouraged to include case studies and standard questions that are important from an examination viewpoint.
- Subject assignments also include few questions on 'contents beyond the syllabus.

B. **Implementation Details**

Student assignments

- Students must do the assignments on a separate copy/file for each subject.
- Assignments are checked /graded by the faculty regularly.
- The solutions to given assignments are discussed in tutorial classes/other problem-solving classes.
- Solutions of best student assignments are also discussed in classes.

Question papers (Internal Assessment test/Class tests):

- Individual question papers are prepared by each faculty as per University guidelines and Blooms Taxonomy followed.
- References from standard books, old university question papers, and case studies.
- The standard & quality of questions is strictly maintained.
- Questions papers are prepared strictly as per the format of the university.
- The quality of question papers is checked by the committee.
- The solutions, common mistakes & the best answer sheets are discussed in the classes.

Laboratory Experiments

- A list of experiments is prepared at the beginning of the semester.
- The reference for preparing the list is the university syllabus.
- We also include few assignments as additional experiments beyond the syllabus.
- Concepts learned during theory classes are practically implemented during Lab hours.

C. **Evaluation & Analysis:**

Student assignments

- Sample copies of checked assignments are analyzed by the committee.
- Student class representatives provide useful inputs to Class Advisor/ HOD on the entire process of assignment.
- Assignments are also evaluated by HoD during the evaluation, of course, files regularly.
- The checked assignment accounts for 10 marks allocation to students which are one of the components of his internal assessment for each subject as per the Mumbai university norms.
- Students not submitting their assignments are further counseled and if required his/their feedback may be shared with his/her parents. Doing assignments is a compulsory academic activity.

Fair and transparent Internal Assessment test process:

1. Department Internal Assessment Test Committee will be constituted to scrutiny the internal test question paper.
2. After the scrutiny, any discrepancies are found in the question papers, those question papers will be sent to the respective faculty members for correction.
3. After scrutiny and correction question papers are sent for printing.
4. Received question papers from the printing are sorted and bundled according to room allotment.
5. Question papers are distributed according to the test timetable.

Answer book distribution, attendance sheet, and Room allotment:

1. The seating arrangement is prepared and displayed well in advance.
2. Invigilators duty charts will be prepared according to the timetable and the room requirement and circulated to all the faculty members.
3. The student will seat as per the seating arrangement displayed and each student signature in the attendance sheet will be checked by the room invigilator.
4. On each attendance sheet (room, semester, and course wise) Student's Roll no, Name, and need to sign the same.
5. Each room invigilators enter the number of absent and present in the attendance sheet along with the date and signature.
6. According to time table in each classroom, on each desk, two different class students will be allotted (not more than 40 students).
7. One/two faculty member is allotted to each class room.
8. Answer book and question paper distribution from the internal test control room.

Quality of Evaluation

1. All the course/Subject Incharge are informed to prepare a scheme of evaluation according to marks allotted to each question.
2. Faculty members evaluate the answer scripts according to the scheme of evaluation prepared by them.
3. Faculty members discuss the question paper and show the answer scripts to students in the respective classes.
4. If any discrepancies are found in the allocation of marks, then the faculty clarify their doubts.
5. The sample of answers and evaluation are maintained as a model answer evaluation sheet.

Continuous Assessment of the lab course:

Continuous assessment is conducted for theory as well as laboratory courses. In theory Courses, questions are asked based on the Course Outcomes and Revised Blooms Taxonomy levels, whereas in lab courses, continuous assessment is conducted based on predefined criteria.

Impact Analysis:

- Development in self-learning ability
- Improvement in problem solving ability
- Improvement in university examination results
- Improvement in overall performance of students

2.2.3 Quality of student projects (25)

Institute Marks : 25.00

2.2.3 Quality of student projects (25)

Students undertake two kinds of projects as per University curriculum. The details of the same are given in the following Table No. 2.2.3.

Table No. 2.2.3: Details of Projects

Sr. No.	Type of Project	Class
1	Mini Projects	SE, TE
2	Major Project	BE

Standard Practices followed for Final Year Project

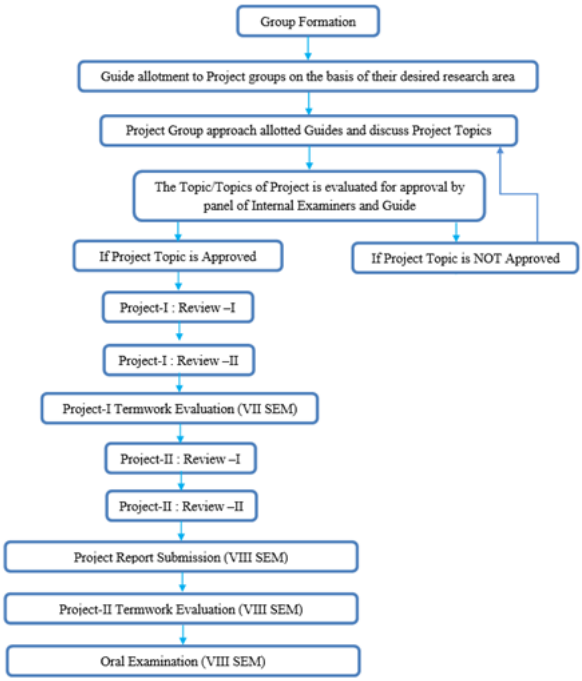

Figure 2.2.1: Flow chart of the procedure followed for Final Year Project

1. **Procedure followed in the Department**

- **Appointment of Project Coordinator**:
- Head of the Department (HOD) appoints The Project Coordinator
- **Final Year Project Orientation:**
- At the end of the sixth semester, the Project coordinator conducts a Project Orientation for Third year students to brief them about objectives, outcomes, and the various aspects of the Project work.
- **Project Group Registration**:
- Project coordinators share the Google Form to the third year students to collect information regarding the Project groups, the desired area of research and the guide preference.
- Students have the option to choose the areas in which they are interested in carrying out the projects. The different areas which are identified by the project coordinator are Thermal engineering, Manufacturing engineering, Design engineering.
- Students are allowed to form group which consists of maximum 4 members.
- The project group members can be from the same or another division of the same class.
- If the students are not able to form the group, then the project coordinator will help them to form the group.
- **Project Guide Allotment:**
- Final allotment of the Guide in done on the basis of the Groups area of interest and the preference for the guide.
- Final Guide allotment for the Project groups is done and displayed by the project coordinator after approval from HOD.
- **Project Topic Approval:**
- The Project group discusses their Project topics with their respective guide and finalizes tentative topics.
- The students have to give presentation in front of expert panel and guide. The panel can decide about the approval or rejection of topic.
- **Continuous Monitoring**:

- The project activity report is prepared for the continuous monitoring of project work.
- Every week during project slot, students have to meet project guide for queries and suggestions. They should report about the progress in the project work. The project guide will give suggestions towards the improvements of the Project.
- Based on inputs from the guide, students have to complete their project work.
- Project Review I and Review II is conducted in both semesters as per the Institutional academic calendar.
- The Project guide and expert panel provide suggestions for Project improvement during the Project review meetings.

- **Project Evaluation**

- The Project-I is evaluated based on the continuous assessment and the presentations delivered by the Group, which is assessed by panel of Internal examiners.
- The Project-II is evaluated based on the continuous assessment and the presentations delivered by the Group, which is assessed by panel of Internal and External examiners.

2. **Assessment Criteria and Marking scheme**

Assessment of Project-I and Project- II term work and Project-II Oral examination is done as per the guidelines given by the Mumbai University.

Project-I Term Work:

Project II is assessed through a presentation by the student project group to a panel of internal examiners appointed by the Head of the Department/Institute of respective Program.

Table 2.2.4: Project Evaluation scheme for Sem. VII: Internal /external/ oral /TW marks

Particular	Marks
Quality of Problem Selected	**5**
Clarity of Problem Definition and Feasibility of Problem Definition	**5**
Relevance to the Specialization/Industrial Trends	**5**
Originality	**5**
Clarity of Objective and Scope	**5**
Quality of Analysis and Design	**10**
Quality of Oral/Written Communication	**10**
Individual/Team Work	**5**
Total	**50**

Project-II Term Work:

Project II should be assessed through a presentation by the student project group to a panel of internal examiners appointed by the Head of the Department/Institute of respective Program.

Table 2.2.5: Project Evaluation scheme for Sem. VII: Internal /external/ oral /TW marks

Particular	Marks
Quality of Problem Selected	**10**
Clarity of Problem Definition and Feasibility of Problem Definition	**10**
Relevance to the Specialization	**10**
Clarity of Objective and Scope	**10**
Breadth and Depth of Literature Survey	**10**
Total	**50**

Project-II Oral Examination:

Project II should be assessed through a presentation by the student project group to a panel of Internal and External Examiner approved by the University of Mumbai.

Quality evaluation parameters for the Project II Oral examination are as follows

1. Relevance to the specialization / industrial trends
2. Modern tools used
3. Innovation
4. Quality of work and completeness of the project
5. Validation of results

6. Impact and business value

7. Quality of written and oral presentation

8. Individual as well as team work

3. **Procedure for Institutional Financial Assistance to final year Project groups for excellent Projects**

- The Project Coordinators in consultation with the HOD, send a Notice to all the Project guides to recommend the Final year projects for Institutional financial assistance.
- The Project guides send their recommendations to the Project coordinators in a specified format.
- The HOD constitutes a committee for evaluation of the Projects for Institutional financial assistance.
- The Project coordinator submits the consolidated list of Projects recommended by the Guides, to the Evaluation committee.
- The Project Guide and the Project students demonstrate the proper working of the Project to the Project Evaluation committee, and submit the proper bills of the expenditure towards the Project.
- The Project Evaluation committee evaluates the Projects based on the quality of work and as per the guidelines given by the Principal.
- The Project Evaluation committee recommends the Projects for Institutional financial assistance.
- The recommendations of the Project Evaluation committee are sent to the Hon. Principal through the Head of department, for approving the grant of financial assistance.
- The Hon. Principal approves the recommendations for the Institutional financial assistance to the Project groups.
- The Project group members can collect the Institutional financial support amount from the Accounts department.

4. **Criteria for the selecting best five projects**

- Prize award winner in Inter-collegiate/National/ International level project competitions.
- Paper published in the National/International Journals on the project work.
- Paper published in the National/International Conference on the project work.
- Poster presentation at Inter-collegiate/National/ International level.
- Best Fabrication/ Experimental Set-up/Application based projects.

The outcome of the Project:

- Knowledge of various aspects of project management was developed.
- Apply Engineering knowledge and identify, formulate and analyze engineering problems.
- The confidence level of the students was boosted.
- Improved teamwork spirit, ethics, and managerial skill.
- Implementation and deployment of the project for social benefits.
- Develop document preparation and presentation skill.
- Opportunities to showcase their project work in project exhibition

Table 2.2.6: BE Project Details Academic Year 2022-23

Sr. No.	Name of Students	Title of Project	Project Guide	Category	Project Domain	PO/PSO Mapping
1	Yash Karanjavkar Mohmmad Rafi Jalgaonkar Ishita Kale Indrekar Nishnant Krishna	Multifunctional Vine Robots with end effectors	Dr. R. V. Kale	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
2	Omkar Rane Omkar Parab Prathamesh Parab Harshal Shikhare	Design and Fabrication of Quadcopter to deliver essentials during disaster	Dr. R. V. Kale	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
3	Maurya Shilpa Manoj Joyson Neelkumar Nadar Jagtap Devendra Vijay Nadar Shanmuga Robins	Design and Fabrication of multi-purpose agriculture machine	Dr. R. V. Kale	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
4	Rupesh Nair Karan Jain Loukika Neve Pranav Hare	Bomb diffusing robot	Dr. R. V. Kale	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
5	Mehul Barkul Arun Pillai Kaustubh Narvekar Shubham Salvi	Automatic floor and wall cleaning machine	Dr. K. M. Chaudhari	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2

6	Sumeet Warang Pranav Patil Shantanu Shinde Shaikh Mohammed Jafar	Design and analysis of composite leaf spring by FEA	Dr. K. M. Chaudhari	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
7	Vaibhav Gorakshanath Sanap Asmita Nilesh Shinde Pranay Manesh Pawar Aditya Mahehs Salunkhe	Design and Fabrication of vertical axis wind turbine	Dr. K. M. Chaudhari	Product	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
8	Vatsal Shanbhag Tejal Temker Niyati Vaidya Anukool Sasi	Experimental investigation on performance of Microalgae biodisel C.I. Engine	Dr. K. M. Chaudhari	Research	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
9	Apurva Vichare Shruti Shirke Shubham Mhatre Mayur Wadle	Design and Fabrication of 4 wheel 3 mode steering system	Dr. Y. P. Deshmukh	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
10	Kalpesh Kadam Prajwal Shetty Aryan Bhalerao Yunus Khan	Design and Manufacturing of Data acquisition system	Prof. S. D. Gaikwad	Application	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
11	Akanksha Vishwakarma Vaishnavi Pawar Kunal Padiyar Kaushal Nikam	Multi-function Arduino car	Prof. S. D. Gaikwad	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
12	Anushka Dhamankar Bhavna Kolkondi Aaditya Dhananjay Arun Kunchumuthu	Autonomous agricultural drone	Prof. A. L. Mangrulkar	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
13	Aishwary Kakodkar Aakanksha Shirke Rugved Raote Gaurav More	Fabrication of blended wing body airplane	Prof. A. L. Mangrulkar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
14	Kanchan Balaji Bansode Qureshi Mohd Adnan Mohd Nizam Pooja Sharad Kotharkar Ruhi Dilip More	Railway track crack detection using Arduino	Prof. A. G. Londhekar	Application	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
15	Meet Samant Dipesh Shinde Tejas Sawant Shivani Chavan	Design and Fabrication of Material handling system	Prof. A. G. Londhekar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
16	Parsramani Sahil Gavit Kishor Narayan Jadhav Balasaheb Dnyandev Awasarmol Nitin Ratan	Mechanical pick and place	Prof. Rehan Siddiqui	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2

17	Kurkute Avinash Krushna Mahala Piyush Chandu Shaikh Abdul Azim Sawant Vajresh Pradeep	Wave energy convertor	Prof. Rehan Siddiqui	Product	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
18	Thoke Pratik Prabhakar Ahire Riddhesh Sanjay Aryan Surendran Kumar Sumer Kamble	Manual R & D Bind sealing mechanism	Prof Ashwini Gotmare	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
19	Vikrant Prakash Dundale Gaurav Raju Gawade Venkatesh Maroti Kanole Ankit Ashok Choukekar	Remote Controlled Mini Forklift	Prof. R. Y. Kurane	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
20	Ruturaj Jadhav Faisal Makarani Sahil Amerkar Gavit Rohit	Regenerative Braking system	Prof. R. Y. Kurane	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
21	Sanaullah Ansari Varad Bandiwadekar Tejashree Bendale Aamir Maktabay	Design and Fabrication of E-recumbent cycle	Prof. N. B. Shahapure	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
22	Ankit Thakur Janmesh Dalvi Deep Mali Aditya Sankhe	Improvement of laser machine using OEE	Prof. N. B. Shahapure	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
23	Rathod Gaurang Vinod Vernekar Vedant Vishwajit Potul Sudarshan Ramkishan Bakhda Shreya Hiren	Prototype of furling wind turbine	Prof. N. N. Bhostekar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
24	Jadhav Pushkar Santosh Mishra Ambuj Brijesh Prathamesh Sanjay Mainkar Shikalgar Wasim Firoz	Prototype design and fabrication of automatic waste classifier	Prof. N. N. Bhostekar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
25	Harsh Mhaskar Sanket Kadam Ajinkya Kadam Raj Salekar	Design, analysis and development of Exoskeleton based Bionic chair	Prof. Mukund Valse	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
26	Prithvij Kakade Omkar Sapkal Aman Trivedi Alisha Vinerkar	Braking System plausibility device	Prof. Mukund Valse	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
27	Patil Tanvesh Nitin Pradnesh Mokal Aniruddh Bhai Pawar Jadhav Siddhesh Mersing	Investigation of challenges in implementing LSS in assembly of EV	Prof. Nitin Panaskar	Review	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2

28	Saurabh Santosh Shirsikar Shubham Shamrao Shintre Abdul Maarij Arif Momin Varad Kumbhar	Green and sustainable supply chain design	Prof. Nitin Panaskar	Review	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
29	Yash Karandekar Utsav Jaiswal Nikhil Thosar Bhushan Kokate	Design and Implementation of HVAC system	Prof. N. K. Deshmukh	Product	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
30	Onkar Sudrik Jay Savale Harshal Yeole Kaushal Bharambe	Creating dashboard of SCM using power BI	Dr. Y. P. Deshmukh	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
31	Sayyad Aiyaz Hussain Tushar Hinwar Pramod Mohammed Wajeed Hamdule Chirag Khaducha	AI based automatic solar tracking	Prof. R. R. Gujar	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
32	Kishore Shaji Siddhesh Deshmukh Vaibhav Kelkar Neha Patne	Design and optimisation of Automatic drone	Prof. R. R. Gujar	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
33	Shravan Bangera Aditya Gupta Kunal Kamtekar Chaitanya Diwadkar	Surface water trash collecting bot	Prof Chetan Rane	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
34	Mitesh S. Bhangare Tanvi S. Gaikwad Dishant Gawane Sonali Khamkar	E-Recumbant cycle	Prof Chetan Rane	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
35	Omkar Keer Yash Jain	Numerical investigation of thermal hydraulic performance in ribbed channel	Prof. P.R. Paul	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
36	Jayesh Ghagare Abhijit Mestri Vivek Goswami Prathamesh Chougule	Investigation of thermal hydraulic performance in ribbed channel	Prof. P.R. Paul	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
37	Siddiqui Mohd Sufiyan Umang Gosavi Darshan Raikar Hitesh Rajput	Design and fabricatiion of Automobile lifting mechanism	Prof. Nikhil V. S	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
38	Kamble Bhavesh Ganesh Kumavat Tanmay Sanjay Divte Siddesh Mohan Desle Raj Ravindra	Noise reduction of air compressor	Prof. Nikhil V. S	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2
39	Jay Shetty	Arduino 2 D writing machine	Prof Ashwini Gotmare	Product	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PO12, PSO1, PSO2

Table 2.2.7: BE Project Details Academic Year 2021-22

Sr. No.	Name of Students	Title of Project	Project Guide	Category	Project Domain	PO/PSO Mapping
1	Bodke Atharv Jitendra Chaudhari Aman Jatin Chavan Rutuja Hemantkumar Bagul Pritish Somnath Agre Sushant Santosh	Unmanned Underwater Vehicle	Dr. Sanjay Bokade/ Prof. Prasad Kawade	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
2	Gohil Mihir Vinod Gupta Niteshkumar Ashok Koli Krutarth Devendra D	Automatic sorting system using robotic arm	Prof. Ravindra Y. Kurne	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
3	Mishra Shubham Ishwarprasad Kolhar Prasad Pravin Prerana Shaikh Bashir Jameel Siddique Abdullah Ajmal	Automatic bar feeding and clamping mechanism	Prof. Ravindra Y. Kurne	Application	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
4	Firake Amit Gopalrao Navnita Tilawat Rishi Koli Dishant Prakash Mayuri Gaikwad Anirudha Sunil Kiran	Design of power generation unit using human effort	Prof. N.N.Bhostekar	Application	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
5	Shetty Jay Jagdish Deepa Akhade Anuj Ramchandra Bhangle Swapnil Sakharam Bharaj Sahibsingh Swindersingh	Firefighting robot	Prof. N.N.Bhostekar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
6	Kharat Shubham Bharat Kunder Akshay Gopal Pol Yashshree Hemant Ramugade Advait Shashi	Design and fabrication of Stair climbing mechanism to lift load over staircase	Dr. Nitin Panaskar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
7	Rewale Sahil Vaishanav Bharat Amrut Syed Fasiuddin Rathod Jimit	Automatic tennis ball machine	Dr. Nitin Panaskar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
8	Patel Rutvik Rajesh Yadav Udaybhan Pandharilal Save Atharva Krutin Surve Aniket Chandrakant	Off-terrain E-bike	Prof. Prasad Kawade	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
9	Rahate Vikrant Ravindra Rajbhar Sujit Mundrika Revandkar Omkar Rajiv Shaikh Arman Ayub	360 degree drilling machine	Prof. Prasad Kawade	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
10	Venugopal Shravan Shirsat Nilay Rajan Solanki Milind Kishor Shinde Vicky Vijay	Design and fabrication of solar operated pestcide sprayer	Prof. Nilesh B. Shahapure	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
11	Arekar Saurav Sanjyot Bhandari Prachi Sunil Gaikwad Shubhangi R Bhandari Smit Jitendra	Eco-friendly Air purifier	Prof. Nilesh B. Shahapure	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2

12	Tambe Shreeya Sanjay Mali Aman Dilip Surawse Satyam Arun Shetty Pratik Prabhakar	Design & Fabrication of Track Cleaning with Crack cleaning Machine	Prof. Chetan R. Rane	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
13	Rathod Shubham Vijay Pal Rohit SIRAJ ADIL Sirajul Gaikwad Chinmay Dhananjay	Fabrication of Water Coolere	Prof. Chetan R. Rane	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
14	Pagar Rutuja Sanjay Parab Chaitali Sunil Bendkhale Siddhant Ajay	Wing morphing based on compliant mechanism	Dr. Rajesh Kale	Application	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
15	Sharma Kaushik Kamlesh Sharma Akshat Anubhav Shinde Shubham Shankar Shetty Ashita Anand	Artificial Intelligence enabled quality inspection of a dengue kit on a conveyor belt	Dr. Rajesh Kale	Application	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
16	Lad Prapti Devendra Mhaskar Vaishnavi Anil Sayyed Abrar Ali Singh Hrishik Rameshwar Singh	CFD analysis of a residential room	Dr. Kiran Chaudhari	Application	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
17	Mahadik Ninad Vishwanath Mahajan Jay Kishor Mahadik Rahul Khotu Mahindrakar Shubham Sunil	CFD analysis of a bladeless turbine	Dr. Kiran Chaudhari	Application	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
18	Sawant Nitesh Prakash Prabhu Pranav Pradeep Raikar Dhananjay Devanand Sawant Shreyash Surba	Design and Optimization of offshore Wind turbine support structure	Prof. N.K.Deshmukh	Research	Thermal and Fluids & Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
19	Chandi Kashish Vishal Khobragade Romesh R Pise Pratik Balu Jyoti Shah Roshan Barun Kiran	Pneumatically controlled Ramming Machine	Prof. N.K.Deshmukh	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
20	Parab Siddhesh Milind Shaikh Maaz Shaikh Muneshwar Diksha Deelip Sondkar Shraddha Suresh	Fabrication of Human-Powered Charging Booth with Rotary Mechanism	Prof. Mukund Valse	Application	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
21	Patil Chetan Umakant Patel Varun Nirav Shilpa Reddy Abhishek Vijay	Design and Fabrication of Tesla Turbine	Prof. Mukund Valse	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
22	Pawaskar Siddhiq Ali Patil Atharv Nilesh Raje Tanmay Satish Patekar Nilesh	Analysis And Fabrication Of Electromagnetic System	Dr. Atul G. Londhekar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
23	Gholap Shubham Bharat Mahadik Siddhesh Shantaram Patel Hardik Mahendra Shinde Anuksha Deepak	Design And Simulation Of Clean Up BOT	Dr. Atul G. Londhekar	Research	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2

24	Pillikandlu Sahil Nasir Sadaf Kotecha Utkarsh Parag Kinnari Moolya Tejas Omprakash Reena Jadhav Suraj Satyawan	Semi Autonomous Quadruped Robot	Prof. Ratnam R. Gujar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
25	Jogale Neel Mahesh Koli Manish Ganesh Salunkhe Patil Aakash Rajaram Pople Karan Bhanudas	Pneumatic sheet metal cutting machine	Prof. Ratnam R. Gujar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
26	Gaonkar Aditya Sanjay Ganji Vijay Krishna Kamble Mihir Harishchandra Govari Abhishek Ramesh	Experimental and Numerical Analysis of Multilayer Sandwitch panel under three point bending load	Prof. Parmeshwar Paul	Research	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
27	Chikkannavar Vijay Bharatesh Mujpara Jeelan Ramesh Mordekar Amey Rajendra	Analysis of diffrent HP and their properties for maximum efficiency in electronics Cooling	Prof. Parmeshwar Paul	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
28	Bhat Vinayak Venkatesh Gond Aditya Rajesh Solanke Sakshi Pradip Mangaonkar Deep Shailesh	Design and analysis of Electric powertrain	Prof. Sambhaji Gaikwad	Research	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
29	Parmar Sagar Bharatbhai Nediyirippil Devarath Munnuru Ranjith Venkataiah Sidhankar Aditya Nalat Krushnakant Rajendra	Optimisation of milling operation	Prof. Sambhaji Gaikwad	Research	Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
30	Kothavade Gaurav Balkrishna Kshirsagar Akshay Gajanan Yadav Aakash Rajkumar Shah Vishal Nandu Kanti	Development of Automatic Bottle Filling & Capping Machine For Buffer Solution	Prof. Amol Mangrulkar	Research	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
31	Khavare Adhiraj Bhimrao Kamble Swarali Sunil Raut Pratik Kandivalikar Pruthvi	Quality Control & Inspection for Covid Antigen Test Kit Using Machine Learning	Prof. Amol Mangrulkar	Research	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
32	Bachim Bhavesh Raghunath Bhinderwala Husain Moyyed Bhinderwala Hamza Mohsin Amre Omkar Mahendra	Four Way Motorised Hacksaw Machine	Prof. Nikhil V S	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
33	Pawar Suraj Kunde Suraj Mahadik Nishikant Shetty Athish Manohar	Developement of Multi Angular Geraless Transmission	Prof. Nikhil V S	Application	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
34	Rao Aayush Charit Kalra Arushi Yogesh Purandare Shivam Sanjay Sulaiman Mohamed Afsal	Design of hydrogen storage and supply system for fuel cell vehicles	Dr. V.B. Malji	Application	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2

35	Raskar Siddhi Shashikant Vavekar Sanghavi Santosh Karote Priti Pandurang Shobha Mungekar Gauravi Santosh	Design and development of fitment for Hybrid motorcycle (Petrol+Electric)	Dr. Prathamesh R. Potdar	Application	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
36	Karekar Vijay Vinod Vinaya Kasar Nikhil Sunil Sejal Bagwe Omkar Rajan Khot Tejasvi Sadguru Mansi	Development of smart pest killer and soil condition monitoring system	Dr. Prathamesh R. Potdar	Application	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
37	Das Swagat Shisir Kumar Ghadigaonkar Mayuri Mangesh Dhanani Smit Paresh Wagh Vaishnavi Balasaheb	Design and Development of an Adaptive Airfoil for Topology Optimization in Aerial Transport and Wind Turbine	Prof. Ashwini Gotmare/ Prof. Prasad Kawade	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
38	Bari Krishna Sanjay Chavan Parth Sameer Leena Khataukar Aryaman Ashutosh Limbachiya Shubh Ashok Hansa	Design and Fabrication of 3 axis arc Welding machine	Prof. Ashwini Gotmare/ Prof. Prasad Kawade	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
39	Jaiswar Shivam Hiralal Malkani Amir Rafik Noorjaha Parakh Manas Ajay Seema Nair Sreehari Gopi Jaya	Design of exoskeleton arm	Prof. Rehan Siddiqui	Application	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
40	Khan Manauwar Husaain Bendoamar Ceon Koli Shubham Kailash Meena Yadav Prakash Abhayraj	Design and development of solar desalination system	Prof. Rehan Siddiqui	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2

Table 2.2.8: BE Project Details Academic Year 2020-21

Sr. No.	Name of Students	Title of Project	Project Guide	Category	Project Domain	PO/PSO Mapping
1	Shinde Rohan Madhukar Shimpi Harsh Shivaji Kumbhar Falguni Sunil Dhatrak Ashwini Balu	Beach Cleaner	Prof. P. M. Deshmukh	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
2	Baria Kshitij Bhavyesh Chougule Mayur Hariba Choudhary Rahul Madan Chikhale Sahil Satyajit	Application Of Kers In Bicycle	Prof. S.D. Gaikwad	Application	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
3	Ghongade Jay Sanjay Rawate Tejas Sampat Bhattacharjee Arnab Kandpal Himanshu Devakinandan	Analysis On Aerodynamic Design And Performance Of Bladeless Fan	Prof. R.R. Gujar	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
4	Thakare Alisha Sangram Yelve Neha Rajan Tambe Pritam Anand Shendge Ameya Nitin Manisha	Integrated Rapid Prototyping: Efficient Development Of Custom Orthotics'	Prof. A. L. Mangrulkar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2

5	Fargose Blair William Dhumal Manas Samir Khanvilkar Chinmay Sandip Raorane Mihir Madhusudan Bidaye Prathamesh Subhash	Pedal Operated Washing Machine Using Four Bar Crank Mechanisam	Prof. S. D Gaikwad	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
6	Sanghani Pritish Sanjay Kekane Pradnya Dinkar Satan Aakash Sunil Salunkhe Abhishek Prakash	Design, Analysis, And Prototype Development Of Ornothopter (Garuda)	Dr. S.U. Bokade	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
7	Kondaguli Spurti Neelkanthappa Mistry Jay Suresh Veena More Rahul Sanjay Patil Gaurav Anil	Design Simulation & Optimization Of MEMS Devices	Prof V.B Sawant	Research	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
8	Kanade Yogesh Balkrishna Pawar Siddhant Nilesh Singh Hemant Brijpal	IOT Based Autonomous Wheel Chair	Prof. R.M. Siddique	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
9	Mayekar Shivani Dattaram Pawar Om Jitendra Dighe Sakshi Anil Nevrekar Ankeeta Deepak	Battery Management System Using Markov Chain	Dr. A.G. Londhekar	Product	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
10	Puthukattil Rahul Mahesh Shaikh Raheela Riyaz Sawant Omkar Mangesh	Advanced Two Storey Parking System	Prof. R.M. Siddiqui	Application	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
11	Makwana Vivek Rajeshbhai Parmar Jay Chetan Korde Ketan Sunil Shah Urvi Pankaj Bhavana	Multipurpose Agro Vehicle	Prof. P.R. Potdar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
12	Dhum Jagdish Sandesh Jadhav Mayur Rajendra Sancheti Ashish Ravikumar Mahore Rushikesh Ramrao	Fabrication Of Pipe Inspection Robot	Prof. V.B.Sawant	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
13	Vanjare Siddhesh Vishnu Gode Nikhil Rangnath Vaje Rohit Manohar Tervankar Pravin Chandrakant	Design And Fabrication Of Pneumatic Shearing And Bending Machine	Dr. R.V.Kale	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
14	Yadav Suraj Rajesh Yadav Nitesh Anand Vesavkar Kevin Lalit Yadav Rahul Mohanlal	Pick And Place Vacuum End Effector	Prof. N.B.Shahapure	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
15	Deshmukh Akshay Viraj Adawade Prathamesh Prakash Bagal Sanmeet Sanjay Mane Prathamesh Dattatray Batavia Raunak Manoj Nita	Water Purification Using Solar Energy	Prof. K.M. Chaudhari	Application	Thermal and Fluidds	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2

16	Devgania Naitik Suresh Maurya Nikhil Phoolchand Mahimkar Smitesh Sanjeev Wani Abhishek Nitin	Iot Based Biaxial Solar Tracking System	Prof. A.L.Mangrulkar	Application	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
17	Shaikh Musharraf Rayees Ahmad Shewale Vinay Madhukar Solanki Bhavesh Shivlal Thorat Sai Jitendra	Design Of Automatic Brake Failure Detection System	Prof. A.V. Gotmare	Application	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
18	Kantale Aniket Yashwant More Omkar Maruti Magare Ritu Ramchandra	Design And Fabrication Of Automatic Filling Machine	Prof. K.M. Chaudhari	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
19	Prajapati Ajit Lalsaheb Prajapati Sunny Manoj Pitlewar Devraj Sunil	Design And Fabrication Of Fruit Pulper	Prof. R.Y. Kurane	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
20	Sankhe Nikhil Nilesh Nikita Sarfare Ankit Sumedh Sathe Shubham Shankar Pawar Shweta Mahesh	Monitoring And Vibrations Control For Cold Rolling Mills	Prof. M.R. Valse	Research	Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
21	Shah Parth Paras Pinki Sawant Sahil Shahajirao Shelar Harshal Manohar Rathod Sumit Zumbar	Design And Fabrication Of Pandemic Ventilator	Prof A.V.Gotmare	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
22	Mehta Pallavi Rajendra Parab Soham Ramchandra Patel Pragnesh Rajesh Patil Kartik Madhukar	Design And Optimization Of A Triple Swirler In Jet Engine	Dr. R.V.Kale	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
23	Bhat Yash Ramakrishna Khairnar Dhanashree Gopal Mane Swapnil Suresh Raval Tirth Manishkumar Hublikar Malhardutt	Design And Of Simulation Of Efficient Tractive System Of Electric Vehicle	Prof. N.N. Bhostekar	Research	Design & Mechatronics and Robotics	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
24	Kasmani Aadil Anis Dwivedi Shubham Kounder Roshan Arumugam Malik Mohammed Nomaan	Pneumatically Controlled Ramming Machine	Prof. Nikhil .V.S	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
25	Suthar Kiran Bhanwarlal Kakade Rajendra Nana Awate Tejas Pandurang Wadke Amogh Subodh	Dual Speed Semi-Automatic Power Hacksaw Machine Using Withworth Quick Return Mechanis	Prof. C.R. Rane	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
26	Borade Trupti Balasaheb Abhang Bhavesh Eknath Bhavsar Tanmay Anilkumar Phatarpekar Mohit Nilesh Niranjane Simony Mahendra	Transtibial Prosthetic Leg	Prof. P. M. Deshmukh	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
27	Doshi Nimeet Manish Chaturvedi Yash Sanjay Sarita Vyas Paavan Akshay	Design And Fabrication Of Automatic Screen Printing Machine	Prof. N.J. Panaskar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2

28	Rege Chinmay Girish Rane Siddhesh Sanjay Salunke Swarang Dilipkumar Patil Siddhi Jitendra	Foldable E-Tricyc Bag	Prof.R.Y.Kurane	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
29	Gudur Prashant Prabhakar Palkar Pranav Prakash Raut Mohnish Kiran Patil Nikita Kishor	Design, Fabrication And Testing Of Silencer	Prof. M.R. Valse	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
30	Mandal Anirudha Arup Mhatre Devam Atul Manapure Mukul Vijay Kadam Abhishek Rajendra	Development Of Experimental Setup To Use Krypton Gas In Ion Thrusters	Prof. P.R. Potdar	Applicatiom	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
31	Mahadik Aniket Anil Mahajan Harshal Ravindra Gholap Arti	Design And Fibrication Of Motorised Car Scissor Jack	Prof. N.N. Bhostekar	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
32	Mirashi Tushar Taturam Mukadam Bhoomi Hemant Phale Sahil Sunil Sunita Pikhan Sourav Romesh Paul	An Analytical Investigation Of Purification And Quantification For Exhaust Gases Emissions	Prof. N.B.Shahapure	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
33	Dhande Pratik Hemraj Anita Firake Tanmay Chandrakant Jadhav Gitesh Krishna Dherange Shubham Arvind	Experimental & Numerical Analysis Of Honeycomb Structure Sandwich Panel Under Compressive Load	Prof. P.R. Paul	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
34	Hedau Raj Sunil Kalpana Kamble Shubham Dattaram Karalkar Akash Tukaram Khan Sufyan Badruddin	Automatic Storage And Retrieval System	Prof. Nikhil .V.S	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
35	Jogani Jay Sharma Sahil Patel Mayank Gavit Rohit Dilip	Experimental Analysis Of Carbon Nano Tubes In CI Engine	Dr. A.G. Londhekar	Research	Thermal and Fluids	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
36	Shirke Manas Mahendra Shahane Saurabh Topiwala Ganesh Shailen Shrivatsa Chandrashekhar	Simulation Of Self Driving Car Using Machine Learning	Prof. N.K. Deshmukh	Application	Design	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2
37	Bhadarge Roshan Dhanaji	Design And Fabrication Of Wheelchair Using Rocker Bogie Mechanism	Prof. P.R. Paul	Product	Design & Manufacturing	PO1, PO2, PO3, PO4, PO5 PO6, PO7, PO8, PO9, PO1 PO12, PSO1, PSO2

Five best projects recommended by project committee for financial support from the Institute

Table 2.2.9: Five Best Projects Academic Year 2022-23

Sr. No.	Name of Students	Title of Project	Project Guide	Category	Project Domain
1	Maurya Shilpa Manoj Joyson Neelkumar Nadar Jagtap Devendra Vijay Nadar Shanmuga Robins	Design and Fabrication of multi-purpose agriculture machine	Dr. R. V. Kale	Product	Design & Manufacturing

2	Yash Karanjavkar Mohmmad Rafi Jalgaonkar Ishita Kale Indrekar Nishnant Krishna	Multifunctional Vine Robots with end effectors	Dr. R. V. Kale	Product	Design & Manufacturing
3	Sanaullah Ansari Varad Bandiwadekar Tejashree Bendale Aamir Maktabay	Design and Fabrication of E-recumbent cycle	Prof. N. B. Shahapure	Product	Design & Manufacturing
4	Anushka Dhamankar Bhavna Kolkondi Aaditya Dhananjay Arun Kunchumuthu	Autonomous agricultural drone	Prof. A. L. Mangrulkar	Product	Mechatronics and Robotics
5	Onkar Sudrik Jay Savale Harshal Yeole Kaushal Bharambe	Supply chain management dashboard in Power BI'	Dr. Y. P. Deshmukh	Product	Mechatronics and Robotics

Table 2.2.10: Five Best Projects Academic Year 2021-22

Sr. No.	Name of Students	Title of Project	Project Guide	Category	Project Domain
1	Mishra Shubham Kolhar Prasad Pravin Shaikh Bashir Jameel Siddique Abdullah Ajmal	Automatic bar feeding and clamping mechanism	Prof. Ravindra Y. Kurne	Application	Design & Manufacturin
2	Kharat Shubham Bharat Kunder Akshay Gopal Pol Yashshree Hemant Ramugade Advait Shashi	Design and analysis of Stair climbing mechanism to lift load over staircase	Dr. N.J. Panaskar	Product	Design & Manufacturin
3	Rewale Sahil Vaishanav Bharat Amrut Syed Fasiuddin Rathod Jimit	Automatic tennis ball machine	Dr. N.J. Panaskar	Product	Design & Manufacturin
4	Venugopal Shravan Shirsat Nilay Rajan Solanki Milind Kishor Shinde Vicky Vijay	Design and fabrication of Solar powered pesticide sprayer	Prof. Nilesh Shahapure	Product	Design & Manufacturin
5	Pawaskar Siddhiq Ali Patil Atharv Nilesh Raje Tanmay Satish Patekar Nilesh	Analysis And Fabrication Of Electromagnetic System	Dr. Atul Londhekar	Product	Design & Manufacturin

Table 2.2.11: Five Best Projects Academic Year 2020-21

Sr. No.	Name of Students	Title of Project	Project Guide	Category	Project Domain
1	Vanjare Siddhesh Vishnu Gode Nikhil Rangnath Vaje Rohit Manohar Tervankar Pravin Chandrakant	Design and fabrication of pneumatic shearing and bending machine	Dr. Rajesh.V. Kale	Product	Design & Manufacturin

2	Thakare Alisha Sangram Yelve Neha Rajan Tambe Pritam Anand Shendge Ameya Nitin	'Integrated Rapid Prototyping: Efficient Development of Custom Orthotics'	Prof. A L. Mangrulkar	Product	Design & Manufacturing
3	Devgania Naitik Suresh Maurya Nikhil Phoolchand Mahimkar Smitesh Sanjeev Wani Abhishek Nitin	'IoT based biaxial solar tracking system	Prof. A L. Mangrulkar	Application	Design
4	Rege Chinmay Girish Mita Rane Siddhesh Sanjay Salunke Swarang Dilipkumar Patil Siddhi Jitendra	'Foldable E-Tricyc Bag	Prof. R.Y. Kurane	Product	Design & Manufacturing
5	Kantale Aniket Yashwant More Omkar Maruti Magare Ritu Ramchandra	Automated Filling Machine	Dr. K.M. Chaudhari	Product	Design & Manufacturing

Success Stories

1. Out of twenty-six project groups of batch 2022-23 who applied to Copyright Office, Government of India, nineteen project teams were granted copyright certificate. Buoyed by this success, project batches in current academic year are motivated to develop quality kind of projects and ensure more number of application for copyright certificate.
2. Mr. Aishwary Kakodkar, Aakanksha Shirke, Rugved Raote under the guidance of Dr. Amol Mangrulkar successfully published a Research Paper "Rapid Prototyping: Kids Ankle Foot Orthotics" and won 2nd Prize in National Level Paper Presentation Competition conducted in Mumbai & published their patent on "Design of Blended Wing Airplane".
3. Mr. Omkar Sudrik, Mr. Kaushal Bharambe, Mr. Jay Sawale and Mr.Harshal Yeole (2023 pass-out) under the guidance of Dr. Yogesh Deshmukh, successfully completed live project at 'National Institute of Industrial Engineering (NITIE), Mumbai on, 'Supply Chain Management and Logistics Dashboard using Power BI'.
4. Mr. Shubham Dixit, final year student of 2023-24 is working on a live project at, Tata Institute of Fundamental Research (TIFR), Mumbai on,
    a. 'Integrated Monitoring and Alarms Interface for Enhanced Efficiency and Safety in Liquid Nitrogen Plant at LTF (Low-temperature facility) under the supervision of Dr. K. V. Srinivasan, TIFR Mumbai.
    b. Integrated ML-Driven ECR Ion Source: Real-time Monitoring and Lab-View Integration for Precise Energy Generation, under the supervision of Dr. K. V. Srinivasan., TIFR, Mumbai

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

2.2.4 Initiatives related to industry interaction (15)

Industry-Institute-Interaction provides a platform to both students and faculty members to identify industry expectations and skill sets required. Experts from industry are activities such as expert talks, workshops, and training. Their expertise is useful to emphasize and inculcate practical aspects among our under-graduate students to boost technical compatibility and build them to become employable in the industry. This enables students to identify their weaknesses and provides an opportunity for improvement. Students update their knowledge through various student chapters such as ISHRAE, ASME, MESA, RGIT Team Racing and AeroRGIT, CVS, Robotics, IIIE.

Industry Supported Laboratories:

The industry supported laboratories develops best learning process using a comprehensive understanding of industry's best practices for both students and faculty.

The Department has entered into an agreement with the following companies/Institution.

MoU (Memorandum of Understanding) with Industries and Academic Institutions

To strengthen interaction with industries and to keep our students updated with the latest trends in Mechanical Engineering, the Department has entered into an MoU with the industries. Industry interactions help the students to acquire practical knowledge. So, in order to improve the technical abilities various industrial activities are carried out.

MOUs Signed by MCT's RGIT with,

• Tech analogy Pvt Ltd, Delhi
• Center for Reliability & Diagnostics, Navi Mumbai
• Air-Wise Engineering, Dahisar (E),Mumbai
• ETG Carrier Labs Pvt Ltd, Bangalore
• CEMS, Mumbai
• IIRS-ISRO, Dehradun
• Rashtriya Chemicals & Fertilizers Ltd, (RCF), Mumbai
• HCL Technologies, New Delhi
• Reliance Infrastructure Ltd, Palghar
• KVIC, Mumbai
• India Nivesh Securities Ltd, Mumbai
• TechFest IIT, Bombay
• IITB, (INUP), Mumbai
• VJTI, Mumbai
• Techno Project Industries, Sangali
• Advance Electronic Industries, Bhandup Mumbai
• Sardar Patel Technology Business Incubator
• Anucool Engineers, Kolhapur

Industry involvement in the partial delivery of any regular courses for students

To strengthen interaction with industries and to keep our students updated with the latest trends in Mechanical Engineering, the Department undertakes expert talks and arrange technical visits to manufacturing, processing and service industries, power generating stations etc. to practice aspects of various course contents.

Table No. 2.2.12: Expert Talks organized by Student Professional Bodies

2022- 2023

Sr . No.	Professional Body	Program/Event Details	Date	Resource Person with the designation	No. of Students Attended
1	ASME 22-23	Quiz competition on 'Engineering Skills of the Decade'	18/7/2022	Mr. Danish Sayyad, Data Analyst, Intelligent Cricket	33
2	ASME 22-23	Millennials in Stem	30/8/2022	Mr. Dinesh Vishwakarma, Senior Security Consultant, Ernst & Young Global Limited	27
3	ASME 22-23	Webinar on Role of Multi- Disciplinary Engineering	24/09/2022	Mr.Prathmesh Upadhyay	36
4	ASME 22-23	Engineering Education	13/11/22	Mr.Vacchani Raj Mahendra, Design Engineer, Jaivel Aero space Pvt Ltd	47
5	ASME 22-23	Skill Development workshop	22-24/12/2022	Mr. Siddique Kazi,	67
6	MESA 22-23	Seminar on International Placements & Opportunities	28/7/22	Mr. Jignesh Doshi & Ms. Hiral, Kareer Krafters	122
7	MESA 22-23	Smart Manufacturing & 3D Printing Industrial Training	7-8/10/2022	SAHAS Softech LLP & KLT I.V.. Pune	15
8	MESA 22-23	Webinar on Robot Autonomy: Opportunities & Challenges	5/3/2023	Mr. Ameya Salvi, Alumni, RGIT	69
9	MESA 22-23	Aurangabad Industrial visit	6-8/1/2023	Indo German Tool Room	15
10	ISHRAE-2022-23	Start up Opportunity in HVACR inductries	15/9/2023	Mr Rohit Dave Prof. Hardik Shukla	42
11	ISHRAE-2022-23	Visit to Powering Global HVAC Supply Chain	14-16/3/2023	Discussion with Mr. Lalit Ingale, Senior Manager at Voltas Ltd Exhibition of New Technolies in HVACR ACREX India 2023	7

2021- 2022

Sr . . No.	Professional Body	Program/Event Details	Date of Event	Resource Person with the designation	No. of Students Attended
1	ASME 21-22	Unlock the power of Linkdin	9/9/2021	Mr. Tejas Sawant. Linkdine expert & Instrumentation Engineer	57
2	ASME 21-22	4-D Printing-New dimension in Manufacturing	18/9/2021	Mr. Amit Ghule, Co-founder Simpliforge Technologies Pvt Ltd	240

3	ASME 21-22	Unlocking Industrial Potential of Digital Twin	4/10/21	Dr. Santosh Rane, Dean Academics, SPCE	59
4	ASME 21-22	Webinar on 'MS in Abroad	2/10/2021	Organised by MakinGrad Overseas Education Consultants Pvt. Ltd Ms. Nidhi Rangari & Abhijeet Bhati	90
5	ASME 21-22	Opportunity on MBA in India	13/10/2021	Mr. Vishesh Nadiana, IIM C Alumnus	100
6	ASME 21-22	Advanced Product Designing & Analysis Software	26/2/2022	Mr. John Mathew, Managing Director, CADD Center & Mr. Sandip Nair, GM, CADD Centre	38
7	ASME 21-22	Energy Conservation using Engineering Efforts	18/12/2021	Mr. Saikat Das, Energy Analyst & Strategiest	40
8	ASME 21-22	Workshop on Solidworks	28-30/3/2022	Vinayak Bhat	27

2020- 2021					
Sr. No.	**Professional Body**	**Program/Event Details**	**Date of Event**	**Resource Person with the designation**	**No. of Students Attended**
1	MESA20-21	CNC Programming & Manufacturing	24/3/2021	Sky Rider	35
2		Webinar on Lean 6-Sigma	19/4/2021	Mr. Amitabh Saxena, Founder & CEO Anexas Europe	35
3	2020-21 ISHRAE	Air Handling Unit	24/4/2021	Mr. Ashutosh Rudraksha; Area Manager (Sales), LG Electronic India Pvt Ltd Pune	29
4		Career In HVACR	4/09/2020	Mr. Parth Thakkar, Diretor-Polfrost Aircon Pvt Ltd Mumbai	60
5	RGIT Robotics 2020-21	Talk on Deep Learning	12/9/2020	Mr. Rahul Agrawal, Principal ML Manager Microsoft	85
6		E-Workshop_ Introduction to Computer Vision	4/10/2020	Ms. Niyati Vaidya Adrian D'Souza	44
7		Overseas study	7/10/2020	Mr. Sumeet Verlekar, IMS-Trusted for Success	50

Table No. 2.2.13: **Industrial Visits**

Academic Year	No. of Industrial Visits in Academic Year	Name of the Company	Date of Visit	No. of Students Attended
2020-21	1	Industrial Visit at KLT Automotive	19/04/2021	30

2021-22	1	Uran thermal power Station, Mumbai.	16/03/2022 to 17/03/2022	75
	2	Mitsubishi Electric India Ltd, Mumbai	19/04/2022-20/04/2022	153
2022-23	1	Adani TPS, Dahanu	08/12/2022	49
	2	Uran thermal power Station, Mumbai.	27/02/2023 - 28/02/2023	62
	3	Mahananda Dairy Plant	03/09/2023	45
	4	Sridevi Engineering Tools Engineers Ltd. Vasai	25/06/2023	32
	5	Rapid Manufacturing Lab, IIT Bombay	26/06/2023	33
	6	Industrial Engg. Corporation, Vasai	26/06/2023	32
	7	AVIS-Educational Toys, Vasai	26/06/2023	32
	8	SAHAS Softech LLP, Andheri	27/06/2023	32

Impact analysis

1. The attitude, knowledge and skills of students are improved so that they can be fit into any kind of organizations.
2. The ability to apply was improved with internship program, as where they applied theoretical knowledge what they learnt in the classroom.
3. Practical knowledge was improved through which they have elevated their career opportunities.
4. Placement opportunities were improved.
5. Students gained from this exposure to incorporate an entrepreneurial spirit and project based thinking.

Case Study 1:

Department of Mechanical Engineering always emphasized on equal opportunities to be made available for girl students. Institute attempts in exploring employment opportunities for girl students in core companies. Examples to highlight are,

- Ms. Ishita Kale, Ms. Shivani Chavan and Ms. Vaishnavi Pawar got selected in Bosch Engineering Company.
- Ms. Ruhi More and Ms. Tanvi Gaikwad got selected in Worley Engineering Services Company.

Case Study 2:

A differently abled student, Mr. Nishant Indrekar of 2022-23 pass-out batch got an opportunity for six-month internship at Infosys. It is an excellent example of industry-institute interaction.

2.2.5 Initiative related to industry internship/summer training (15) Institute Marks : 15.00

2.2.5 Initiatives related to Industry Internship/Summer Training (15)

The students are encouraged to take up internship programs during their semester break. Department provides recommendation letters and other necessary support to the students to complete training/ internship. Industrial visits are arranged department to enhance the skills of students.

Objectives

- Internship is introduced to make the students to expose to different environment.
- It makes the students to know the industrial /real time problems.
- It helps the students in solving/understanding real-life problems through application of engineering analysis, design, evaluation and creation.
- It changes the behavioral aspects of student and make him/her ready to face industry.
- It provides a good platform on the job training to the students and to develop a network which will be useful in enhancing their career prospects.

Implementation Details: Policies for Internship

1. Students of the department are eligible to register for an internship through the internship program. The internship program is offered in winter and summer.
2. Training and Placement Cell with the help of the department coordinators organize an internship and training in addition to the placement activities.
3. Students are encouraged to register for their internship through the internship program.
4. Registered internships must be pre-professional work experiences values of the organization, working on projects that encourage practical application of skills and teach about the industry through activities such as attendance at conferences and/or meetings, being mentored, etc.
5. Internships are allowed somewhere around two weeks to one-month duration.
6. Students may register for one internship per semester/term.
7. Students may register for the internship program through the department/ college authority, after the end of the semester.
8. To receive a recommendation letter for an internship, students must satisfactorily complete all required reflective work according to established due dates and deadlines.
9. Students must complete Responsibility Agreements which will be distributed at the start of the internship.
10. The institutes have the flexibility to schedule internships, Project work, Seminar duration according to the availability of the opportunities.
11. Students may choose either to work on innovation or entrepreneurial activities resulting in start-up or undergo internship with industry/ NGO's/ Government organizations/ Micro/ Small/ Medium enterprises to make them ready for the industry.
12. Every student is required to prepare a internship report containing documentary proofs of the activities done by him or her. The evaluation of these activities will be done by project guide/TPO/ Industry Supervisor.

Table No.2.2.14: Internships Details AY 2022-23

Sr. No.	Name of Student	SE/TE/ BE	Company Name & Location	Duration	Date
1	Ms Prity Nath	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
2	Mr Rohan Nalawade	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
3	Mr Aishwary Kakodkar	BE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
4	Mr.Akbar sayyad	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
5	Mr Aman Baddela	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
6	Mr Sahil khatri	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
7	Mr Akash Gonde	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
8	Mr Shubbham Dixit	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
9	Mr Pranay Katke	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
10	Mr Rohit Katke	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
11	Mr Haresh Galve	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
12	Mr Aditya Namadeva	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
15	Ms Arya Pawar	TE	Sahas Softech LLP	1 Month	07/10/2022 -08/10/2022
16	Mr Yash Pednekar	BE	TCS iON Career Edge	17 Days	03/12/2022 -20/12/2022
17	Mr. Keval Ved	TE	Tableau (intershala)	1 Day	12-08-2022
18	Mr. Keval Ved	TE	Buisness Analystics (Intershala)	1 Day	12-07-2022
19	Mr. Shubham Koli	TE	Solidworks (Intershala)	1 Day	13/10/2022
20	Mr. Chinmay Rane	TE	Solidworks (Intershala)	1 Day	13/07/2022
21	Mr. Keval Ved	TE	AR/VR (Intershala)	1 Day	29/08/2022
22	Mr.Yash Karandekar	BE	MATLAB(Intershala)	1 Day	23/09/2022
23	Ms Krishna Bari	TE	Advanced Excel (Intershala)	1 Day	16/10/2022
24	Mr. Keval Ved	TE	Data Science (Intershala)	1 Day	15/08/2022
25	Mr. Siddhant Bendkhale	BE	PLM(Simens)	2 Months	16/08/2022- 14/10/2022
26	Mr. Pritish Bagul	BE	PLM(Simens)	2 Months	16/08/2022- 14/10/2022
27	Mr. Anvit Devadiga	SE	RCF (Mumbai)	15 Days	21/12/2022- 06/01/2022

28	Mr.Yash Pednekar	SE	RCF (Mumbai)	15 Days	21/12/2022- 06/01/2022
29	Mr. Ankush Yadav	SE	RCF (Mumbai)	15 Days	21/12/2022- 06/01/2022
30	Mr.Aman Baddela	TE	RCF (Mumbai)	15 Days	21/12/2022- 06/01/2022
31	Mr. Tejas Bhagat	TE	RCF (Mumbai)	15 Days	21/12/2022- 06/01/2022
32	Mr.Pranay Katke	TE	RCF (Mumbai)	15 Days	21/12/2022- 06/01/2022
33	Mr.Pratham Gurav	TE	RCF (Mumbai)	15 Days	21/12/2022- 06/01/2022
34	Mr.Jayesh Ghagare	BE	Larsen &Toubro	15 Days	26/12/2022- 10/01/2023
35	Mr.Amey Mestry	TE	Pacifab Technologies	15 Days	19/12/2022- 02/01/2023
36	Mr.Mrunmesh Rikame	TE	Pacifab Technologies	15 Days	19/12/2022- 02/01/2023
37	Mr.Shantanu Naik	TE	Pacifab Technologies	15 Days	19/12/2022- 02/01/2023
38	Mr.Tanmay Masurkar	TE	Pacifab Technologies	15 Days	19/12/2022- 02/01/2023
39	Mr.Priten Parmar	TE	Mahindra Intertrade Limited	1 Month	15/12/2022-15/01/2023
40	Mr.Jay Devkar	SE	Mazgon Dock Shipbuilders	1 Month	12/12/2022-12/01/2023
41	Mr.Parag Jathar	SE	Mazgon Dock Shipbuilders	1 Month	12/12/2022-12/01/2023
42	Mr.Rohit Hasam	SE	Mazgon Dock Shipbuilders	1 Month	12/12/2022-12/01/2023
43	Mr.Rohit Jadhav	SE	Mazgon Dock Shipbuilders	1 Month	12/12/2022-12/01/2023
44	Ms.Prity Nath	TE	CADD Centre	1 Month	09/12/2022-
45	Mr. Prasad Kadam	TE	Carriage Repair and Workshop Lower Parel	41 days	12/12/2022-23/12/2022
46	Mr.Yash Madskaikar	TE	Larsen &Toubro	20 Days	05/12/2022-25/12/2022
47	Shaikh Mohammed Ammar	TE	Kirloskar Pnuematic Company	25 days	08/12/2022-02/01/2023
48	Keval Ved	TE	Rathi Sales Corporation (Intershala)	1 Day	21/07/2022
49	Pralay Chimbe	BE	Envisage India Multibiz Pvt Ltd	1 Day	08-08-2022
50	Milind Solanki	BE	Sirius Clean Tech private Limited(Intershala)	1 Day	21/11/2022
51	Mr. Aishwary Kakodkar	BE	Fraternity of mechanical & Automotive Engineers	1 month & 6 days	08/01/2023-14/01/2023
52	Devendra Jagtap	BE	JK Paper Unit	1 month	07/06/2023-07/07/2023
53	Anuj Palande	TE	KLT Automotive and Tubular Products LTD	1 month	05/06/2023-05/07/2023
54	Sahil Bari	TE	KLT Automotive and Tubular Products LTD	1 month	05/06/2023-05/07/2023
55	Siddhesh Patil	TE	KLT Automotive and Tubular Products LTD	1 month	05/06/2023-05/07/2023
56	Mohak Save	TE	KLT Automotive and Tubular Products LTD	1 month	05/06/2023-05/07/2023
57	Shubham Yelve	TE	Auro Engineering Company	1 month & 6 days	01/06/2023-07/07/2023
58	Rohit Pailkar	TE	Mazagon Dock Shipbuilders Limited Company	1 month	01/06/2023-30/06/2023
59	Karan Mangela	TE	Central Railway Carriage Repair Workshop	22 Days	08/06/2023-30/06/2023
60	Mohit Laxman Sah	TE	Central Railway Carriage Repair Workshop	22 Days	08/06/2023-30/06/2023
61	Yogesh Kolkandi	TE	Central Railway Carriage Repair Workshop	22 days	08/06/2023-30/06/2023
62	Chintan Mahale	TE	Adani Electricity Mumbai Limited	1 month & 4 days	05/06/2023-09/07/2023
63	Nirgun Pawar	TE	CG Power & Industrial Solutions Limited	1 month	28/05/2023-30/06/2023
64	Darshan Thakare	TE	Hindustan Coca-Cola Beverages pvt. Ltd	1 month	25/05/2023-25/06/2023
65	Darshan Thakare	TE	Ganesh Sinare	1 month	25/05/2023-25/06/2023
66	Sayli Chowdhary	TE	Salasar Autocraft Pvt. Ltd	1 month	02/06/2023-02/07/2023
67	Apurva Rajendra Vichare	BE	Tata Power Company	1 month	12/06/2023-12/08/2023
68	Shruti Shirke	BE	Tata Power Company	1 month	12/06/2023-12/08/2023
69	Prity Nath	TE	Central Railway Carriage Workshop, Matunga	1 month & 3 days	12/06/2023-15/07/2023
70	Rituja Kotangale	TE	Central Railway Carriage Workshop, Matunga	1 month & 3 days	12/06/2023-15/07/2023
71	Manish Sawant	BE	Auro Engineering Company	1 month	05/06/2023-06/07/2023
72	Shruti Shirke	BE	BEST	1 month	12/06/2023-12/07/2023
73	Hrishikesh Bandgar	TE	Central Railway Carriage Workshop,Matunga	17 days	19/06/2023-06/07/2023
74	Sahil Khatri	TE	Reliance Retail Limited	1 month	12/06/2023-12/07/2023

75	Eshank Pawar	TE	BEST	1 month	15/06/2023-15/07/2023
76	Mohmmed Hamdule	BE	BEST	1 month	21/06/2023-21/07/2023
77	Shreyas Sawant	BE	Infact Pro trainers (Intershala)	1 Day	13/06/2023
78	Zuhair Khan	TE	Symag India	1 month	1/06/2023- 30/06/2023
79	Fiza Shaikh	TE	Symag India	1 month	1/06/2023- 30/06/2023
80	Shubham Dixit	TE	Central Railway	1 month & 6 Days	18/06/2023 - 15/07/2/2023

Table No.2.2.15: Internships Details AY 2021-22

Sr. No.	Name	SE/TE /BE	Company Name & Location	Duration	Date
1	Mr.Kunal Vijay Padiyar	TE	Mechathon Engineering Pvt. Ltd, Kanchipuram, TN	2 Months	05/07/2021 - 03/09/2021
2	Mr. Mohammad Ammar Shaikh	SE	RCF,Mumbai	15 Days	02/11/2021 - 16/11/2021
3	Mr Rohit Ganesh Bodhuna	SE	RCF,Mumbai	15 Days	02/11/2021 - 16/11/2021
4	Mr. Shubham Shamrao Shintre	TE	RCF,Mumbai	15 Days	02/11/2021 - 16/11/2021
5	Mr.Abhishek Sadashiv Dornal	SE	RCF,Mumbai	15 Days	02/11/2021 - 16/11/2021
6	Mr. Siddhesh Mohan Divate	SE	RCF,Mumbai	15 Days	02/11/2021 - 16/11/2021
7	Mr.Kunal Vijay Padiyar	SE	RCF,Mumbai	15 Days	02/11/2021 - 16/11/2021
8	Mr. Siddhesh Shantaram Mahadik	BE	L&T Heavy Engineering, Powai	8 Days	19/07/2021 - 28/08/2021
9	Ms. Siddhi Raskar	BE	TATA Technologies Ltd,Pune.	9 days	05/07/2021 - 14/08/2021
10	Ms. Arushi Kalra	BE	ONGC,Mumbai	15 Days	02/11/2021 - 16/11/2021
11	Mr. Varad Bandiwadekar	BE	Modimaz enginners,Mumbai	14 days	03/12/2021 - 17/012/2021
12	Ms. Tanvi Sunil Gaikwad	TE	Railway Loco workshop, Parel, Mumbai	17 Days	22/12/2021-05/01/2022
13	Mr. Raj Ravindra Desale	BE	Railway Loco workshop, Parel,Mumbai	17 Days	22/12/2021-05/01/2022
14	Mr. Dishant Damodhar Gawane	SE	Railway Loco workshop, Parel, Mumbai	17 Days	22/12/2021-05/01/2022
15	Mr. Swapnil Mane	BE	Scienceplace (Intershala)	1 Day	01-08-2021
16	Ms.Payal Patel	BE	Dridhsankalp Foundation (Intershala)	1 Day	01-08-2021
17	Mr. Pratik Vaydande	BE	International Centre for culture (Intershala)	1 Day	01-09-2021
18	Mr. Laukik Cheulkar	SE	Quizzy (Intershala)	1 Day	01-09-2021
19	Mr. Laukik Cheulkar	SE	AP Guru (Intershala)	1 Day	02-10-2021
20	Mr. Anendra Potwad	SE	Proof Mountain Media (Intershala)	1 Day	09-07-2021
21	Mr. Aniket Thorat	SE	kan iinovations (Intershala)	1 Day	11-09-2021
22	Mr. Naveen Khola	SE	Shine Projects (Intershala)	1 Day	14/09/2021
23	Mr. Hitesh	SE	Steps Techniron Limited (Intershala)	1 Day	15/09/2021
24	Mr. Hardeep Singh	SE	Inch Enviro technologies(Intershala)	1 Day	17/09/2021
25	Mr. Rikvit Kumar	SE	Spring Fest,IIT Kharagpur(Intershala)	1 Day	18/07/2021
26	Mr.Bhadane Aneekat	SE	Dr.APJ Abdul kalam Centre(Intershala)	1 Day	19/08/2021
27	Mr. Utsav Jaiswal	SE	Softareo Private Limited (Intershala)	1 Day	27/09/2021
28	Mr. Yash Karandekar	SE	Safecity(R3ed Dot Foundation- Intershala)	1 Day	28/08/2021
29	Mr. Utsav Jaiswal	SE	Hariyali(Intershala)	1 Day	28/09/2021
30	Mr. Prathmesh Mainkar	BE	Hamari pahchan NGO(Intershala)	1 Day	28/09/2021
31	Ms. Arushi Kalra	BE	Alstom Projects India Limited,Gujrat	17 Days	01/07/2021-31/07/2021
32	Mr. Sahil Nasir Pillikandlu	BE	Tata Motors Ltd,Pune	15 Days	02/11/2021 - 16/11/2021
33	Mr. Rudra Jani	SE	Ascent Foundation,Mumbai	17 Days	01/11/2021 - 31/12/2021
34	Ms. Priti Pandurang Karote	BE	ACCENT Techno Solutions,Mumbai	22 Days	03/01/22 - 25/01/22
35	Mr. Rudra Jani	SE	AN Fabricators (F & B Div)	1 month	01/03/2022 - 30/04/2022
36	Ms. Apurva Vichare	BE	Mazagon Dock Shipbuilders Ltd	1 month	27/12/2021 - 27/01/2022
37	Mr. Manish Deepak Sawant	BE	Matunga Workshop Western Railway Mumbai	15 Days	02/11/2021 - 16/11/2021
38	Mr. Yash Balaji Karandekar	BE	Escorts Limited	15 Days	27/06/2022 - 11/07/2022

39	Mr. Ritik Shobhnath Prajapati	BE	Godrej and Boyce Mfg.Company Ltd,Mumbai	1 month	15/06/2022 - 15/07/2022
40	Mr. Roshan Bhadarge	BE	HPCL,Mumbai	1 month	01/06/2022 - 30/06/2022
41	Mr. Yash Jain	BE	Maruti Suziki Service Workshop,Mumbai	2 months	07/03/2022 - 08/05/2022
42	Mr. Nilay Rajan Shirsat	BE	IIT Kanpur	25 days	07/12/2021 - 31/01/2022
43	Mr. Yash Ganesh Karanjavkar	BE	BYJUs (Think and Learn Pvt Ltd),Mumbai	12 Days	15/12/2021 - 27/03/2022
44	Mr. Yash Ganesh Karanjavkar	BE	Mandeshi Agro,Mumbai	1 month	01/01/2022 - 30/06/2022
45	Mr. Tanmay Masurkar	BE	AutoCad 3D (Intershala)	1 Day	12-01-2022
46	Mr. Yash Karandekar	BE	Solidworks (Intershala)	1 Day	14/03/2022

Impact analysis of Internship

1. The purpose of those internships is not only to get acquainted with the culture of companies but also to realize something of importance for the company visited.
2. Working in a group within the company, it is expected that the trainee gets a better insight into the practical aspects of the industry.
3. The bridge gets build between the learning and the future career path a student can choose, due to the practical hands-on industrial training.
4. Students get the basic needed skills for the development of the real-world project.
5. Students grasp knowledge and implement it to their mini projects and final year projects.
6. The experiences gained by students through these internships allow them to incorporate an

   entrepreneurial spirit and project-based thinking.

7. Students learn about new technologies in the industry and get exposure to the same which assists them during their placements.
8. The industry gets the benefit of hiring young technical manpower whom they can mold as per the industry requirements.

Case Study 1:

Mr. Siddhant Bendkhale, Mr. Abhishek Govari, Mr. Aman Chaudhari and Mr. Pritesh Bagul; all four of 2021-22 pass-out batch undertook internship at, 'Centre of Excellence in Maritime and Shipping' (CEMS). After successful completion of their internship training, Mr. Siddhant Bendkhale and Mr. Aman Chaudhari got readily placed in 'Indian Register of Shipping, Powai. While, on the basis of internship training Mr. Abhishek Govari got placed in 'Design Tech System Pvt. Ltd.' Pune and Mr. Pritesh Bagul got selected in L & T Heavy Engineering Ltd. Powai.

Case Study 2:

To facilitate the students residing in Mumbai suburb with the opportunity of internship training, Department of Mechanical Engineering in association with Institute Innovation Council (IIC) taken an initiative to organize two 'In-house Internship Programs' of two weeks duration in the college campus from 19/06/2023 to 30/07/2023. Resource persons were senior faculty members, invited industry personnel combined with industrial visits.

1. Product Development Using State-of-Art Technology: attended by 15 students

2. Industrial Automation and Robotics: attended by 18 students.

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120) Total Marks 120.00

Define the Program specific outcomes

3.1 Establish the correlation between the courses and the Program Outcomes (POs) and Program Specific Outcomes (PSOs) (20) Total Marks 20.00

:

PSO1	Successful Career and Entrepreneurship: Graduates will be able to understand the social-awareness & environmental wisdom along with ethical responsibility to have a successful career and to sustain passion and zeal for real-world applications using optimal resources as an entrepreneur.
PSO2	Hobbies and Career: Graduates have nurtured their hobbies which are useful in their specific chosen career.

3.1.1 Course Outcomes(COs)(SAR should include course outcomes of one course from each semester of study, however, should be prepared for all courses and made available as evidence, if asked) (5) Institute Marks : 5.00

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

Course Name :	C2 01	Course Year :	2020-2021

Course Name	Statements
C2 01.1	Demonstrate fundamental knowledge about various types of loading and stresses induced.
C2 01.2	Draw the SFD and BMD for different types of loads and support conditions.
C2 01.3	Analyse the bending and shear stresses induced in beam.
C2 01.4	Analyse the deflection in beams and stresses in shaft.
C2 01.5	Analyse the stresses and deflection in beams and Estimate the strain energy in mechanical elements.
C2 01.6	Analyse buckling phenomenon in columns.

Course Name :	C2 02	Course Year :	2020-2021

Course Name	Statements
C2 02.1	Define properties of fluids, classify fluids and evaluate hydrostatic forces on various surfaces.
C2 02.2	Define properties of fluids, classify fluids and evaluate hydrostatic forces on various surfaces.
C2 02.3	Differentiate velocity potential function and stream function and solve for velocity and acceleration of a fluid at a given location in a fluid flow.
C2 02.4	Formulate and solve equations of the control volume for fluid flow systems and Apply Bernoulli's equation to various flow measuring devices.
C2 02.5	Calculate pressure drop in laminar and turbulent flow, evaluate major and minor losses in pipes.
C2 02.6	Calculate resistance to flow of incompressible fluids through closed conduits and over surfaces.

Course Name :	C3 01	Course Year :	2021-2022

Course Name	Statements
C3 01.1	Analyze the three modes of heat transfer in engineering application.
C3 01.2	Develop mathematical models for different modes of heat transfer.
C3 01.3	Analyze performance parameters of different types of heat exchangers.
C3 01.4	Identify and analyze the Transient heat Transfer in engineering applications.
C3 01.5	Explain construction and working of different components of internal combustion engines.
C3 01.6	Evaluate engine performance and emission characteristics.

Course Name :	C3 02	Course Year :	2021-2022

Course Name	Statements
C3 02.1	Define various parameters associated with steam generators and turbo machines.
C3 02.2	Identify various components and mountings of steam generators with their significance.
C3 02.3	Identify various turbo machines and explain their significance.
C3 02.4	Apply principles of thermodynamics and fluid mechanics to estimate various parameters like mass flow rate power, torque, efficiency, temperature, etc.
C3 02.5	Evaluate performance of SG and Turbo machines and apply various techniques to enhance performance.
C3 02.6	Evaluate various phenomena related to performance like cavitation, choking, surging.

Course Name :	C4 01	Course Year :	2022-2023

Course Name	Statements
C4 01.1	Apply the concept of system design.
C4 01.2	Select appropriate gears for power transmission on the basis of given load and speed
C4 01.3	Design material handling systems such as hoisting mechanism of EOT crane

C4 01.4	Design belt conveyor systems
C4 01.5	Design engine components such as cylinder, piston, connecting rod and crankshaft
C4 01.6	Design pumps for the given applications

Course Name :	**C4 02**	**Course Year :**	**2022-2023**

Course Name	**Statements**
C4 02.1	Illustrate operations functions and manage operations in a better way.
C4 02.2	Apply various strategies to develop aggregate production plan based on the demand forecasting.
C4 02.3	Apply various algorithms in scheduling and sequencing of manufacturing and service operations
C4 02.4	Develop Material Requirements Plans (MRP) to estimate the planned order releases
C4 02.5	Apply various techniques for facility layout planning and line balancing to optimize the resources
C4 02.6	Demonstrate the importance of implementation of JIT, Lean, Agile and Synchronous manufacturing in manufacturing and service organizations.

3.1.2 CO-POmatrices of courses selected in 3.1.1(Six matrices to be mentioned; one per semester from 3rd to 8th semester) (5) Institute Marks : 5.00

1 . course name : C201

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C201.1	2	1	1	1	-	-	-	-	-	-	-	-
C201.2	3	1	-	1	-	-	-	-	-	-	-	-
C201.3	3	1	-	1	-	-	-	-	-	-	-	-
C201.4	3	1	-	1	-	-	-	-	-	-	-	-
C201.5	3	1	-	1	-	-	-	-	-	-	-	-
C201.6	3	1	-	1	-	-	-	-	-	-	-	-
Average	**2.80**	**1.00**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2 . course name : C202

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202.1	3	2	1	1	-	-	-	-	-	1	-	-
C202.2	3	2	1	2	1	-	-	-	-	1	-	-
C202.3	3	2	1	1	1	-	-	-	-	1	-	1
C202.4	3	3	2	2	-	-	-	-	-	1	-	1
C202.5	3	3	2	2	-	-	-	-	-	1	-	1
C202.6	3	3	1	1	-	-	-	-	-	1	-	1
Average	**3.00**	**2.50**	**1.33**	**1.50**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**	**1.00**

3 . course name : C301

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301.1	3	2	1	2	-	-	-	-	-	-	-	2
C301.2	2	2	2	3	1	-	-	-	-	-	2	2
C301.3	2	3	3	3	2	2	1	2	-	-	2	2
C301.4	2	2	1	2	2	-	1	-	-	-	1	1
C301.5	1	1	1	1	-	-	-	-	-	-	2	2
C301.6	2	3	3	3	3	2	2	-	-	-	2	2
Average	**2.00**	**2.17**	**1.83**	**2.33**	**2.00**	**2.00**	**1.33**	**1.50**	**0.00**	**0.00**	**1.80**	**1.83**

4 . course name : C302

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302.1	3	3	1	1	-	3	-	-	-	1	-	-
C302.2	3	1	1	-	-	-	-	-	-	-	-	-
C302.3	3	3	2	1	-	2	-	-	-	1	-	1
C302.4	3	3	2	1	-	-	-	-	-	-	-	-
C302.5	3	3	2	2	-	3	-	-	-	-	-	-
C302.6	3	3	2	1	-	3	-	-	-	-	-	-
Average	**3.00**	**2.67**	**1.67**	**1.20**	**0.00**	**2.75**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**	**1.00**

5 . course name : C401

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12

C401.1	2	2	3	-	-	-	-	-	-	-	-	-
C401.2	3	3	1	-	-	-	-	-	-	-	-	-
C401.3	3	3	1	-	-	-	-	-	-	-	-	-
C401.4	3	3	1	-	-	-	-	-	-	-	-	-
C401.5	3	3	1	-	-	-	-	-	-	-	-	-
C401.6	3	3	1	-	-	-	-	-	-	-	-	-
Average	**2.83**	**2.83**	**1.33**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

6 . course name : C402

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C402.1	2	1	1	-	-	-	-	-	-	1	2	-
C402.2	2	2	1	3	-	-	-	-	-	2	2	2
C402.3	2	2	1	3	-	-	-	-	-	2	2	2
C402.4	2	2	1	3	2	-	-	-	-	2	2	2
C402.5	2	2	1	3	-	-	-	-	-	2	2	2
C402.6	2	1	1	-	-	-	-	-	-	1	2	2
Average	**2.00**	**1.67**	**1.00**	**3.00**	**2.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.67**	**2.00**	**2.00**

1 . Course Name : C201

Course	PSO1	PSO2
C201.1	-	-
C201.2	-	-
C201.3	-	-
C201.4	-	1
C201.5	-	1
C201.6	-	-
Average	**0.00**	**1.00**

2 . Course Name : C202

Course	PSO1	PSO2
C202.1	1	2
C202.2	1	1
C202.3	1	1
C202.4	1	2
C202.5	1	2
C202.6	1	2
Average	**1.00**	**1.67**

3 . Course Name : C301

Course	PSO1	PSO2
C301.1	1	2
C301.2	2	3
C301.3	2	3
C301.4	2	2
C301.5	1	2
C301.6	2	2
Average	**1.67**	**2.33**

4 . Course Name : C302

Course	PSO1	PSO2
C302.1	2	1
C302.2	1	1
C302.3	2	1
C302.4	1	2
C302.5	1	-
C302.6	1	-
Average	**1.33**	**1.25**

5 . Course Name : C401

Course	PSO1	PSO2
C401.1	1	1
C401.2	1	1

C401.3	1	1
C401.4	1	1
C401.5	1	1
C401.6	1	1
Average	**1.00**	**1.00**

6 . Course Name : C402

Course	PSO1	PSO2
C402.1	1	1
C402.2	1	1
C402.3	1	1
C402.4	1	1
C402.5	1	1
C402.6	1	1
Average	**1.00**	**1.00**

3.1.3 - A Program level Course-PO matrix of all courses INCLUDING first year courses (10) Institute Marks : 10.00

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
FEC101	1.5	1	1	1	1	0	0	0	0	0	0	1.17
FEC102	2.33	1.67	1	0	0	0	0	0	0	0	0	1.5
FEC103	2.17	1.17	1	3	3	1	2.5	2	0	0	0	1
FEC104	3	1	0	0	0	0	0	0	0	1	0	0
FEC105	2	2	0	0	0	0	0	0	0	0	0	0
FEC201	2.17	1	1	1	1	0	0	0	0	0	0	1
FEC202	1.83	1.33	0	0	0	0	0	0	2	0	0	1.17
FEC203	2.50	1.75	0	0	0	1.67	2.50	0	0	0	1.67	1.80
FEC204	2	1	0	0	0	0	0	0	0	2	0	0
FEC205	2.33	1.67	1	2.17	1.83	0	0	0	0	0	0	1.40
FEC206	0	0	0	0	0	0	0	1	1	1	0	1
FEL103	3	1	0	0	0	0	0	0	0	1	0	0
FEL104	2	2	0	0	0	0	0	1	3	0	0	0
FEL105	2.29	1.57	1	0	2	2	0	1	0	2	0	1.43
FEL203	2	1	0	0	2	0	0	0	0	2	0	0
FEL206	2.29	2	1	0	0	0	0	0	0	2	0	1
ILO7013	2.17	2	1.83	1.67	2.17	2	1.67	2	2	2	2	2
ILO7017	2	1.2	1.33	0	0	3	2.67	3	1	3	2.25	1.5
ILO7018	2.2	2	2.2	2.2	1	2	3	0	3	3	3	3
ILO8021	1.17	1.83	2.17	2.33	1.40	2	2.2	1.2	1.83	1.6	1.6	1.25
ILO8026	2.83	2.83	2.5	2.5	3	2	2	1	1	3	0	0
ILO8028	1	1.6	1.67	1.25	1.5	0	0	2	3	2	0	0
ILO8029	1.5	1	0	0	0	0	3	3	0	3	0	3
MEC301	2.33	1	1	0	1	0	0	0	0	0	0	1
MEC302	2.83	1	1	1	0	0	0	0	0	0	0	0
MEC303	2.29	1.71	2	1	1.5	2	1	2	0	1	0	1.29

MEC304	2.17	1.5	1.17	1	0	0	1	1	0	1	0	2.5
MEC305	2.83	2.67	1.67	1.83	1	2.33	2.33	1	0	1.33	2	2
MEC401	2.67	1	1	1.67	1	0	0	0	0	0	0	1
MEC402	3	2.5	1.33	1.5	1	0	0	0	0	1	0	1
MEC403	2.5	1.5	1	0	0	0	0	0	0	0	0	0
MEC404	2.83	2.33	2.17	2	2	2	3	3	0	1	3	1.5
MEC405	1.67	1	1	1.5	1	0	0	1	0	0	0	1
MEC501	2.5	2.67	3	2	0	0	0	0	0	0	0	3
MEC502	2	2.17	1.83	2.33	2	2	1.33	1.5	0	0	1.8	1.83
MEC503	2.67	1.5	1	0	0	0	0	0	0	0	0	0
MEC504	2.67	2.33	2	2.20	2.20	2	1.25	1.67	0	0	1.8	1.5
MEC601	2.67	1.17	1.17	0	0	2	1	0	0	1	0	1
MEC602	3	2.67	1.67	1.2	0	2.75	0	0	0	1	0	1
MEC603	2.67	2.6	1.5	2.6	2	2.33	2	0	0	1.67	0	1.67
MEC604	2.67	2.33	2.17	2.20	2.20	2	1.25	1.67	0	0	1.8	2
MEC701	2.83	2.83	1.33	0	0	0	0	0	0	0	0	0
MEC702	2	2.5	2	2.33	2.33	3	2.8	3	3	0	2	1.75
MEC801	2	1.67	1	3	2	0	0	0	0	1.67	2	2
MEDL501	2	2	0	2	0	0	0	0	0	0	0	3
MEDLO5(	2	2	0	3	0	0	0	0	0	0	0	3
MEDLO5(	2.17	1.33	1	1.5	0	0	0	0	0	0	0	0
MEDLO6(	2.5	2.5	2.33	1.33	1.33	2	0	0	0	1	2	1
MEDLO6(	2	2.17	1.83	2.33	2	2	1.33	1.5	0	0	1.8	1.83
MEDLO7(	2	1.5	1.83	1.4	0	3	2.33	1.67	1	1	2.5	1.75
MEDLO7(	2.33	1.83	1.83	2.17	2	2.67	2	1.60	0	0	0	2
MEDLO7(	1.5	1.5	1	2.2	1.67	2	1	0	0	0	2	1.5
MEDLO8(	2.33	1.83	1.5	1	2	0	1	0	0	0	0	0
MEDLO8(	2.5	PO2	1	1	1	2	2	0	0	1	1	3
MEDLO8(	2	1	1	1	1	0	1	0	1	1	1	3
MEDLO8(	1.83	2.33	2.17	2.17	2	2	1.83	2	2.67	2	2	2.25
MEDLO8(	2.83	2.33	2.33	2.8	3	0	2.83	2	0	1	1	3
MEL301	2.83	1.83	1	1	0	0	0	0	0	2	0	1
MEL302	2.33	2	1.5	1.5	0	2.33	0	1	0	1	0	0.83
MEL401	1.67	1	1	0	1	0	0	0	0	0	0	1
MEL402	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
MEL403	2	2.33	0	1	2	2	0	0	0	1.4	0	0
MEL501	2	2.17	1.83	2.33	2	2	1.33	1.5	0	0	1.8	1.83
MEL502	2.83	2.83	1.67	0	2	0	0	0	3	2.17	0	0
MEL503	3	2	3	3	2	2	1.25	1.67	0	0	1.8	1.5
MEL601	2.5	1.2	1.17	1	1	2	1	0	0	1.33	0	1
MEL602	3	2.67	1.67	1.2	0	2.75	0	0	0	1	0	1
MEL603	2.5	1.8	1.83	2.25	2	2	3	2.33	0	1.8	0	2
MEL701	2.83	2.83	1.67	0	2	0	0	0	3	2.17	0	0
MEL702	2.33	2.67	1	2.67	1.67	2	1	0	0	0	2	1.8

MEL703	2	1.67	0	1.5	2.33	0	0	3	3	2.17	2	1
MEL801	1.83	2.33	2.17	2.17	2	2	1.83	2	2.67	2	2	2.25
MEL802	2	1	1	1.33	1.17	0	1	2	0	1	0	1
MEP701	2.6	2.5	2.17	2.2	3	3	3	3	3	2	2.5	3
MEP801	3	2.25	1.6	1	3	3	3	3	1	2.33	2.33	3
MEPBL30	2.6	2.8	2.5	2.71	3	3	3	3	3	3	3	3
MEPBL40	2.6	2.8	2.5	2.71	3	3	3	3	3	3	3	3
MEPBL50	2.6	2.8	2.5	2.71	3	3	3	3	3	3	3	3
MEPBL60	2.6	2.8	2.5	2.71	3	3	3	3	3	3	3	3
MESBL30	2	2.83	1	1	1.67	3	0	0	0	1.8	0	0
MESBL40	2.33	2	1.5	3	2.33	3	3	3	0	0	1.75	3
MESBL50	0	0	0	0	0	0	0	3	1.75	1.75	0	1
MESBL60	3	2	1	1	3	3	3	0	0	2	0	1

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

Course	PSO1	PSO2
FEC101	0	0
FEC102	0	0
FEC103	0	0
FEC104	1	1
FEC105	0	0
FEC201	0	0
FEC202	0	0
FEC203	0	0
FEC204	1	1
FEC205	PSO1	PSO2
FEC206	PSO1	PSO2
FEL103	1	1
FEL104	0	0
FEL105	0	1
FEL203	1	1
FEL206	0	1
ILO7013	2.83	2
ILO7017	1.17	1
ILO7018	1.25	1
ILO8021	2	2.17
ILO8026	0	0
ILO8028	2	1
ILO8029	2	1
MEC301	0	0
MEC302	0	1
MEC303	1	1
MEC304	1	1
MEC305	1	2
MEC401	0	0

MEC402	1	1.67
MEC403	0	1
MEC404	2	3
MEC405	1	1.83
MEC501	1	1
MEC502	1.67	2.33
MEC503	0	1
MEC504	1	1
MEC601	1	1
MEC602	1.33	1.25
MEC603	1.60	1.67
MEC604	3	3
MEC701	1	1
MEC702	1.5	1
MEC801	1	1
MEDLO5(	1	1
MEDLO5(	1.67	1
MEDLO5(	0	0
MEDLO6(	1.17	1
MEDLO6(	1	1
MEDLO7(	1.75	1
MEDLO7(	1.67	2.33
MEDLO7(	1	1.60
MEDLO8(	0	1
MEDLO8(	1	1.5
MEDLO8(	1	0
MEDLO8(	1.33	2
MEDLO8(	1.75	1.80
MEL301	1	1
MEL302	1.33	2
MEL401	1	1.83
MEL402	0	1
MEL403	1	1.17
MEL501	1.67	2.33
MEL502	1.17	1.33
MEL503	1	1
MEL601	1	1.20
MEL602	1.33	1.25
MEL603	1.67	1
MEL701	1.17	1.33
MEL702	1.60	1.60
MEL703	1	1
MEL801	1.75	1.8
MEL802	1	2.83

MEP701	1.5	1.67
MEP801	2.17	1.33
MEPBL30	1.75	2
MEPBL40	1.75	2
MEPBL50	1.75	2
MEPBL60	1.75	2
MESBL30	1.8	2
MESBL40	1	1
MESBL50	1	0
MESBL60	1.33	1.67

3.2 Attainment of Course Outcomes (50) Total Marks 50.00

3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10) Institute Marks : 10.00

Assessment processes play a crucial role in gathering data for the evaluation of Course Outcomes (COs). The assessment methods used are aligned with the specific course objectives of each course and provide meaningful insights into students achievement. Here are common assessment processes employed in the evaluation of COs:

Summative Assessment:

Definition: Summative assessments are conducted at the end of a course or a specific instructional period to evaluate overall student learning.

Purpose: Measure the extent of student attainment of specific course outcomes and determine if the learning outcomes have been achieved.

Tools used for the assessment: end semester examinations, Internal Assessment (term Test I and Term Test II), project presentations, oral and practical examination for the lab and theory course, skill based lab courses.

Continuous Assessment:

Definition: Assessment activities are distributed throughout the course rather than concentrated at the end.

Purpose: Capture the development of knowledge and skills over time and provide ongoing feedback for improvement.

Tool for the Assessment: Assignments based on the course outcome as prescribed by the university curriculum, performance of the experiment by the students.

Project-Based Assessment:

Definition: Project-based assessments require students to work on a substantial project that integrates and applies knowledge gained during the courses they have under gone.

Purpose: Assess students ability to synthesize information, solve problems, and demonstrate practical skills.

Tool used for the Assessment: Research projects, group presentations, and collaborative assignments in skill based labs, mini projects, major projects, Internships, project specified for somme subjects in curriculum.

Adopted procedure for Grading:

Clear and well-defined criteria for evaluating student work is a measure step in the assessment of CO. This provide transparency in expectations and facilitate consistent and fair grading of the student's attainment of specific course outcome.

Criterions are defined to get the measurable attainment value which is based on timely submission of work, quality of work, performance in the end semester and Term examinations which are based on the average or targeted values.

e.g.

1)Marking Scheme For Sem VII Project-I

Project (Oral/ practical) marks	%
Assigned work	40
Presentation	20
Punctuality	20
Analysis	20

2) Experiments Grading:

Indicator				
UNDERSTANDING	Fully Understood the concepts and performance of experiment, correct and complete reading.	Understood concepts but some not clear, reading taken are not complete.	Most of the concepts not clear, Large variation in reading.	No answer to any question and wrong reading.
PERFORMANCE	Diagrams and illustrations are neat, accurate and correct sample calculations. Work reflects understanding of Topic.	Diagrams and illustrations are accurate sample calculation shows some variations. Work shows some understanding Of Topic.	Diagrams and illustrations are sometimes. Incomplete calculations Work lacks understanding of Topic.	Diagrams and illustrations are not accurate No Calculations done. Not interested.
PUNCTUALITY		On time	late	Very late

Frequency of data collection

Sr. No.	Direct Assessment	Description
1.	Internal Assessment (IA) tests	Two internal tests are conducted as prescribed by the university curriculum for the course. The schedule of the term test is mentioned in academic calendar of the college.
		The faculties prepare the question papers for the respective subject by following the standard practice that for each test at least two course outcomes should map and papers were set by following blooms taxonomy and performance indicator mentioned as per the examination reform policy given by the AICTE in Nov. 2018.
		The faculties will follow scheme and solutions for each test and evaluate the performance of students. The Internal assessment marks are based on average score of two tests conducted.
2.	Lab Assessment	Laboratory in-charge faculties will follow the rubrics, which is set by the department for evaluation of laboratory experiments/programs.
		There shall be maximum of 10 Marks in each.
3.	Assignment	Based on the subject number of assignments are given each of 10 Marks. The assignment marks are based on average of marks assigned to all the assignments.
4.	End Semester examination marks	There shall be maximum of 80 Marks and minimum of 32 marks to pass the university examination.

Process of evaluation of Course Outcome:

In outcome-based education, a “design down” process is employed which moves from POs to Course Outcomes (COs) and outcomes for individual learning experiences. Outcomes at each successive level need to be aligned with, and contribute to, the program outcomes.

To connect high-level learning outcomes (POs) with course content, course outcomes and its assessment is necessary. There is a necessity to bring further clarity and specificity to the program outcomes attainment through course outcome AICTE given the examination reform policy in November 2018. This can be achieved through the following two-step process of identifying Competencies and Performance Indicators (PI).

(1) Identify Competencies to be attained: For each PO define the competencies –different abilities implied by program outcome statement that would generally require different assessment measures. This helps us to create a shared understanding of the competencies we want students to achieve. They serve as an intermediate step to the creation of measurable indicators. It should be noted that, when we consider the program outcome, it looks like, it can be achieved only in the Capstone project. But if we consider the competencies and performance indicators, we start seeing the opportunities of addressing them (and hence PO) in various courses of the program. Once the above process is completed for the program, the assessment of COs for all the courses is done by connecting assessment questions (used in various assessment tools) to the PIs. By following this process, where examination questions map with PIs, we get clarity and better resolution for the assessment of COs and POs.

Step 1: Formation of Domain Group / Mapping, Validation and Formation of Rubrics of CO PO as per syllabus content / Creation of Articulation Matrix / Specific remarks for CO PO attainment level

MATRIX FOR CO PO MAPPING FOR COURSE:

CO/ PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	X	X	X	X	--	--	--	--	--	--	--	X		
CO2	X	X	X	X	X	--	--	--	--	--	X	X		
CO3	X	X	X	X	X	X	X	X	--	--	X	X		
CO4	X	X	X	X	X	--	X	--	--	--	X	X		
CO5	X	X	X	X	--	--	--	--	--	--	X	X		
CO6	X	X	X	X	X	X	X	X	--	--	X	X		

ARTICULATION MATRIX FOR SUBJECT / COURSE (Assigning weightages as per curriculum by using PO competency levels and its performance indicators)

High – 3

Moderate – 2

Low – 1

ATTAINMENT OF PO THROUGH COURSE OUTCOMES

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2

CO1	3	2	1	2	--	--	--	--	--	--		2		
CO2	2	2	2	3	1	--	--	--	--	--	2	2		
CO3	2	3	3	3	2	2	1	2	--	--	2	2		
CO4	2	2	1	2	2	--	1	--	--	--	1	1		
CO5	1	1	1	1	--	--	--	--	--	--	2	2		
CO6	2	3	3	3	3	2	2	1	--	--	2	2		
AVG	**2**	**2.17**	**1.83**	**2.33**	**2.00**	**2.00**	**1.33**	**1.50**	**-**	**-**	**1.80**	**1.83**		

Calculate the Average Value of PO through Course Outcomes

Average Value PO = Total Attainment level / total number of POs mapped with COs.

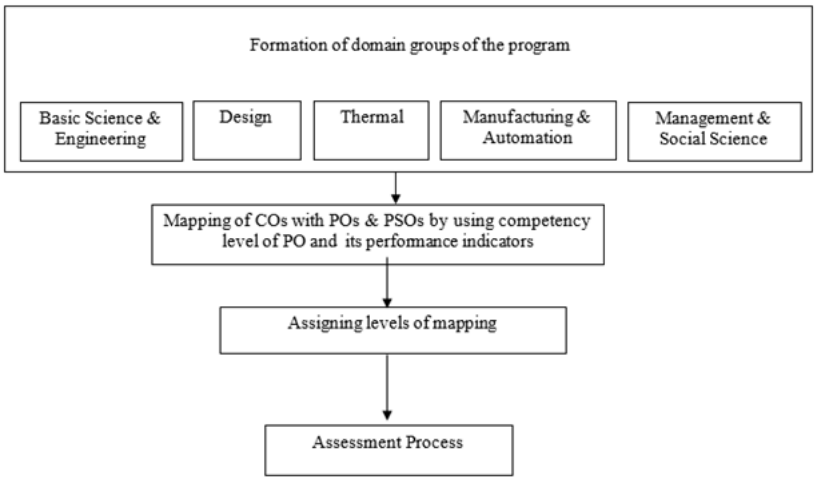

Fig 3.2: Mapping Process of CO with PO

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

Institute Marks : 40.00

Procedure and evaluation of attainment of POs and PSOs

Calculate the attainment level of CO by direct assessment methods (student performance)

With knowledge of attainment level of CO determine the attainment level of the PO satisfied for the related CO in the given course in terms of correlation levels [1: slight(low) , 2: Moderate (medium) , and 3: substantial(high)]

Calculate the average attainment of PO_n in percentage and enter the correlation level in CO-PO Matrix based on the target.

Level of CO attainment	
No. of students having marks > cut-off	Level
No. of students having marks>=60%	3
No. of students having marks50% to 59%	2
No. of students having marks40% to 49%	1

PO attainment calculation with CO-PO matrix table for the course.

Similar procedure is to be followed to calculate the attainment level of PSOs by preparing CO-PSO matrix for the course.

DEPARTMENT OF MECHANICAL ENGINEERING

ACADEMIC YEAR 2022-23

COURSEWISE CO PO CALCULATION

COURSE: COMPOSITE MATERIALS

FINAL YEAR SEM: VIII **COURSE CODE: MEDLO805**

ROLL NO.	NAME OF STUDENTS	TEST I						TEST II						ASSES
		Q1	Q2	Q3	Q4	Q5	Total	Q1	Q2	Q3	Q4	Q5	Total	IA
		5	5	5	5	5	20	5	5	5	5	5	20	20
	Mapping CO →	CO1	CO1	CO1	CO2	CO2		CO6	CO6	CO6	CO3	CO5		
A-801	ALDAR ASHISH RAMCHANDRA						0						0	0
A-802	AWASARMOL NITIN RATAN	5		3		5	13	5	4	3	1		13	13
A-803	BANGERA SHRAVAN VINOD	5	5	4	5		19	5		5	2	5	17	18
A-804	CHAVAN SHIVANI VISHWANATH	5	5	5	4		19	5	3	4	1		13	16
A-805	CHOUGULE PRATHAMESH DATTATRAY	4	5	5	3		17	5	5	4	1		15	16
A-806	CHOUKEKAR ANKIT ASHOK	5	5	5	3		18	5		5	1	5	16	17
A-807	DALVI JANMESH PARAG	3	5	4	5		17	5	5	5	1		16	17
A-808	DHAMANKAR ANUSHKA SANDEEP	5		5	5	4	19	5	5	5	5		20	20
A-809	DIWADKAR CHAITANYA MAHESH	5	4	3	5		17	1	3	4	4		12	15
A-810	INDREKAR NISHNANT KRISHNA	3		5	4		12	5		4	1	1	11	12
A-811	JADHAV AADITYA DHANANJAY	3	3	4	1	5	15	3	5		2	5	15	15
A-812	JADHAV BALASAHEB DNYANDEV	5	3	2		1	11	5	3		1		9	10
A-813	JADHAV SIDDHESH MERSING	3	3	4	4		14	5	4	4	1		14	14
A-814	JAGTAP DEVENDRA VIJAY	4	3	4	4		15	4	4	4	1		13	14
A-815	KAMBLE SUMER PRAVIN	4	3		2	5	14	5	4			1	10	12
A-816	KAMTEKAR KUNAL KISHOR	2		1	4	5	12	5	5		5	4	19	16
A-817	KANOLE VENKATESH MAROTI	4	1	3			8	5	4	4		3	16	12

A-818	KHADUCHA CHIRAG SUDARSHAN	5	4	4	1		14	5	4	4		2	15	15	
A-819	KOLKONDI BHAVNA KAILASHPATHI	4	4	5	5		18	2	5	5	2		14	16	
A-820	KUNCHUMUTHU ARUN	5	5	5	1		16	5		5	2	2	14	15	
A-821	KURKUTE AVINASH KRUSHNA	5		4			9	5	4	5	2		16	13	
A-822	LAKHE BALASAHEB						0						0	0	
A-823	MAHALA PIYUSH CHANDU	5	5	4			14	5	5	5		4	19	17	
A-824	MALI DEEP DILIP	5	4		3	5	17	4	2	3	2		11	14	
A-825	MESTRI ABHIJIT VIJAY	5	3	1	4		13	3	5	5	3		16	15	
A-826	NIKAM KAUSHAL KRISHNAKANT	5	3	1	3		12	5	4	1			10	11	
A-827	PARAB OMKAR BALKRISHNA	4	4	5	5		18	5	5	4	2	5	19	19	
A-828	PARAB PRATHAMESH PRAMOD	4	4	3	3	3	14	5	5		2	5	17	16	
A-829	PARSRAMANI SAHIL						0						0	0	
A-830	RANE OMKAR PRAKASH	5	4	5	5		19	5	5		5	5	20	20	
A-831	RUGVED RAOTE	5	5	3		4	17	5	5		3	5	18	18	
A-832	SALUNKHE ADITYA MAHESH	3		4	3		10	5	4	5			14	12	
A-833	SAMANT MEET PRASAD	5	5	4		5	19	5	5	5	2		17	18	
A-834	SANKHE ADITYA BIPIN	4	4	5	3		16	5	5	5	2		17	17	
A-835	SAPKAL OMKAR GANESH	5		5	5		15	5		4	2	5	16	16	
A-836	SAVALE JAY SANTOSH	4	1	5	3		13	5	2	5	4	5	19	16	
A-837	SAWANT TEJAS SUDHIR	5	5	5	5		20	5	5	5	2		17	19	
A-838	SAWANT VAJRESH PRADEEP	5	5	5		4	19	5		5	2	3	15	17	
A-839	SHETTY JAY	3	4		1	4	12	5	5	5	2		17	15	
A-840	SHIKALGAR WASIM FIROZ	5	3	4	2		14	5	5		2	5	17	16	
A-841	SHINDE DIPESH SURESH	5	5	5		4	19	5	5		2	2	14	17	
A-842	SHINDE SHANTANU SURESH	5	5	5		4	19	5	5	5	2		17	18	
A-843	THAKUR ANKIT JAYESH	5	4	5	2	5	21	5	5	5	3		18	20	
No. of students having marks>=60%		**39**	**31**	**33**	**23**	**14**	**36**	**38**	**32**	**30**	**8**	**14**	**35**	**37**	
No. of students having marks50% to 59%		**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**4**	**3**	
No. of students having marks40% to 49%		**1**	**0**	**1**	**3**	**0**	**2**	**1**	**2**	**0**	**17**	**3**	**1**	**0**	
Internal & External Evaluation		**2.95**	**3.00**	**2.94**	**2.77**	**3.00**	**2.85**	**2.95**	**2.88**	**3.00**	**1.64**	**2.65**	**2.85**	**2.93**	
Mapping CO →		**CO1**	**CO1**	**CO1**	**CO2**	**CO2**		**CO6**	**CO6**	**CO6**	**CO3**	**CO5**			
TOOLS FOR MAPPING		**IA-I**						**IA-II**						**IA**	

Level of CO attainment
No. of students having marks > cut-off
No. of students having marks>=60%
No. of students having marks50% to 59%
No. of students having marks40% to 49%

CO ATTAINMENT LEVEL	**INTERNAL EVALUATION**													
	TEST I						**TEST II**						**ASSESMENT**	
	Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Total**	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Total**	**IA**	**ESE**
Maximum marks →	**10**	**5**	**5**	**5**	**5**	**20**	**5**	**5**	**5**	**5**	**5**	**20**	**20**	**80**
Mapping CO →	**CO1**	**CO1**	**CO1**	**CO2**	**CO2**		**CO6**	**CO6**	**CO6**	**CO3**	**CO5**			**ALL CO**

No. of students having marks>=60%	39	31	33	23	14	36	38	32	30	8	14	35	37	25
No. of students having marks50% to 59%	0	0	0	0	0	2	0	0	0	0	0	4	3	9
No. of students having marks40% to 49%	1	0	1	3	0	2	1	2	0	17	3	1	0	4
Internal & External Evaluation	2.95	3.00	2.94	2.77	3.00	2.85	2.95	2.88	3.00	1.64	2.65	2.85	2.93	2.55

CALCULATION OF FINAL ATTAINMENT LEVEL								
Course Outcome	**Test 1**	**Test 2**	**Internal Evaluation Average**	**University Evaluation**	**80% of External+ 20% of internal examination**	**Attainment Levels**		
						3	**2**	**1**
CO1	2.96	-	2.96	2.55	2.63	2.63	1.74	0.87
CO2	2.88	-	2.88	2.55	2.62	2.62	1.73	0.86
CO3	-	1.64	1.64	2.55	2.37	2.37	1.56	0.78
CO4	-	-		2.55	2.04	2.04	1.35	0.67
CO5	-	-	2.65	2.55	2.57	2.57	1.70	0.85
CO6	-	2.94	2.94	2.55	2.63	2.63	1.73	0.87

		ATICULATION MATRIX													
COURSE NAME: COMPOSITE MATERIALS		**COURSE CODE MEDLO8051**													
COUSE OUTCOMES (CO)		**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**
CO-1	Select the type of material for the fibres and matrix in a composite material for the given application.	2	1	1	1	--	--	1	--	--	--	--	--	--	1
CO-2	Relate stresses and strains through the elastic constants for a given lamina.	3	3	1	1	--	--	--	--	--	--	--	--	--	--
CO-3	Evaluate elastic properties of a lamina based on the properties of its constituents.	3	2	2	1	--	--	--	--	--	--	--	--	--	--
CO-4	Predict failure of a lamina under the given loading condition.	2	2	2	1	--	--	--	--	--	--	--	--	--	1
CO-5	Select the number of laminae and their stacking sequence in a composite material for the given loading condition.	2	1	2	1	--	--	--	--	--	--	--	--	--	1
CO-6	Identify the type of damage occurring in a composite structure and select an appropriate method to repair it.	2	2	1	1	2	--	--	--	--	--	--	--	--	1
TARGET VALUE		**2.33**	**1.83**	**1.50**	**1.00**	**2.00**	**--**	**1.00**	**--**	**--**	**--**	**--**	**--**	**--**	**1.00**

	DIRECT ATTAINMENT OF COs WITH POs													
COURSE NAME: COMPOSITE MATERIALS	**COURSE CODE MEDLO8051**													
COUSE OUTCOMES (CO)	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**

CO-1	Select the type of material for the fibres and matrix in a composite material for the given application.	1.74	0.87	0.87	0.87	--	--	0.87	--	--	--	--	--	--	0.87
CO-2	Relate stresses and strains through the elastic constants for a given lamina.	2.62	2.62	0.86	0.86	--	--	--	--	--	--	--	--	--	--
CO-3	Evaluate elastic properties of a lamina based on the properties of its constituents.	2.37	1.56	1.56	0.78	--	--	--	--	--	--	--	--	--	--
CO-4	Predict failure of a lamina under the given loading condition.	1.35	1.35	1.35	0.67	--	--	--	--	--	--	--	--	--	0.67
CO-5	Select the number of laminae and their stacking sequence in a composite material for the given loading condition.	1.7	0.85	1.7	0.85	--	--	--	--	--	--	--	--	--	0.85
CO-6	Identify the type of damage occurring in a composite structure and select an appropriate method to repair it.	1.73	1.73	0.87	0.87	1.73	--	--	--	--	--	--	--	--	0.87
DIRECT ATTAINMENT		**1.92**	**1.50**	**1.20**	**0.82**	**1.73**	**--**	**0.87**	**--**	**--**	**--**	**--**	**--**	**--**	**0.82**

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50) Total Marks 50.00

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

Institute Marks : 10.00

Procedure of Calculating CO PO Attainment

- First the mapping between the individual Courses or subjects and the learning outcomes in terms of program Outcomes and Program Specific Outcomes has been carried out.

- Performance in these courses is then analyzed in detail to measure the degree to which the Program Outcomes and Program Specific Outcomes are attained.

- PO Assessment Tools
  - Assessment tools are categorized into direct and indirect methods to assess the program Specific outcomes, program outcomes and course outcomes.
  - Direct method increases the student knowledge and skill for their performance in the continuous assessment tests, end–semester examinations, presentations, and classroom assignments etc.
  - **Direct Tools:**
    - Internal Assessment I & II
    - Assignments
    - Tutorials
    - Experiments
    - Subject / Course Project
    - Industrial Visits
    - Presentation
    - Final University Examination (Subject / Oral /Practical)

Indirect Assessment Tools:

1. Program Exit Survey
2. Employer Feedback: Rubrics is given in department
3. Alumni Feedback: Rubrics is available in Academic Diary
4. Parents Feedback: Rubrics is available in Academic Diary
5. Feedback from Industry

Calculate the Average Value of PO through Course Outcomes

Average Value PO = Total Attainment level / total number of POs mapped with COs.

PROGRAM OUTCOME ARTICULATION MATRIX

(After entering the Average values of Course Outcomes of all subjects of a Program)

Year	Sem.	Subject Code	Name of Subject	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2
FE	I	FEC101															
	II	FEC201															
SE	III	MEC301															
	IV	MEC401															
TE	V	MEC501															
		MEC502	Thermal Engineering	2	2.17	1.83	2.33	2.00	2.00	1.33	1.50	-	-	1.80	1.83		
	VI	MEC601															
BE	VII	MEC701															
	VIII	MEC801															
Target Value																	

Calculate Average Value of PO of all subjects

Average Value PO = $Total\ of\ attainment\ level\ /\ Total\ No.of\ subjects\ mapped\ with\ PO$

Step 2: CALCULATION FOR DIRECT ATTAINMENT FOR CO PO MAPPING

1. **Direct Tools:**
   - Internal Assessment I & II
   - Assignments
   - Tutorials
   - Experiments
   - Subject / Course Project
   - Industrial Visits
   - Presentation
   - Final University Examination (Subject / Oral /Practical)

CALCULATION OF COURSE OUTCOME ATTAINMENT LEVEL

Estimating the Levels wrt students marks	
Cut-off %	**Level**
No. of students having marks>=60%	**3**
No. of students having marks 50% to 59%	**2**
No. of students having marks 40% to 49%	**1**

Note: High Scoring subjects can elevate the attainment level with justification (If the results are observed consistently high, No failures or Number of failures are less, any other) for e.g. PCE I and PCE II

Enter the data of each student:

Name of students	**IA 1**		**IA2**		**ASSIGNMENT**		**EXPERIMENT**		**COURSE PROJECT / IV / PRESENTATION**	**UNIVER - SITY EXAM**
	Q1	**Q2**	**Q1**	**Q2**	**A1**	**A2**	**E1**	**E2**		
Max Marks										
Student 1										
Student 2										
Student 3										
. .										
Student 100										
Total No. of students appeared										
Total No. of students scored above 60										
Total No. of students scored =>50 and <59										
Total No. of students scored =>40 and <49										
Mapping CO										**All COs**
Attainment Level										

Calculation of Attainment Level Ex.

If Total no of students are 100

Total No. of students scored above 60 = 50

Total No. of students scored above 50 and <59 = 25

Total No. of students scored above 40 and <49 = 25

Then Attainment Level = (50 x 3 + 25x2 + 25x1) / 100 = 2.25

External Assessment 80% and Internal Assessment 20% Calculation

	Internal Assessment (20%)				External Assessment (80%)	80% of External+20% of internal examination
Course Outcome	IA-I OR IA- II	Experiment	Assignment	Internal Evaluation Average	University Evaluation	
CO1	2.87	2.87	2.66	2.8	1.7	1.92
CO2	2.92	2.81	2.66	2.8	1.7	1.92
CO3	2.66		2.66	2.66	1.7	1.89
CO4	2.82		2.66	2.74	1.7	1.91
CO5			2.66	2.66	1.7	1.89
CO6			2.66	2.66	1.7	1.89

Articulation Matrix: (Converting Levels to Scores)

- **Level 3 = Actual score**
- **Level 2 = Actual Score x 2 / 3**
- **Level 1 = Actual Score x 1 / 3**

Actual Score	CO PO Attainment as per weightage		
	3	2	1
1.89	1.89	1.26	0.42
1.87	1.87	1.24	0.41
1.79	1.79	1.20	0.40
1.79	1.79	1.19	0.40
1.92	1.92	1.28	0.43
1.93	1.93	1.29	0.43

DIRECT ATTAINMENT OF COURSE OUTCOMES WITH PO (Articulation Matrix gets converted to Score Based Matrix)

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	1.89	1.26	0.42	1.26	--	--	--	--	--	--		1.26		
CO2	1.24	1.24	1.24	1.87	0.41	--	--	--	--	--	1.24	1.24		
CO3	1.2	1.79	1.79	1.79	1.2	1.2	0.4	1.2	--	--	1.2	1.2		
CO4	1.19	1.19	0.4	1.19	1.19	--	0.4	--	--	--	0.4	0.4		
CO5	0.4	0.43	0.43	0.43	--	--	--	--	--	--	1.28	1.28		
CO6	1.28	1.93	1.93	1.93	1.93	1.29	1.29	0.43	--	--	1.29	1.29		
AVG	**1.2**	**1.31**	**1.04**	**1.41**	**1.18**	**1.25**	**0.70**	**0.82**	**-**	**-**	**1.08**	**1.11**		

DIRECT ATTAINMENT OF PROGRAM OUTCOMES (Considering all Subjects)

Year	Sem.	Name of Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	P08	P09	P10	P11	P12	PSO1	PSO2
FE	I	FEC101														
		FEC102														
	II	FEC201														
		FEC202														
SE	III	MEC301														
		MEC302														
	IV	MEC401														
		MEC402														

TE	V	MEC501														
		MEC502	1.2	1.31	1.04	1.41	1.18	1.25	0.70	0.82	-	-	1.08	1.11		
	VI	MEC601														
		MEC602														
BE	VII	MEC701														
		MEC702														
	VIII	MEC801														
		MEC802														
Average																
Direct 80 %																

For Calculation of Direct attainment level of PO = Total of attainment Level / No of courses for that particular PO

INDIRECT ATTAINMENT TOOLS:

- Program Exit Survey
- Employer Feedback: Rubrics is given in department
- Alumni Feedback: Rubrics is available in Academic Diary
- Parents Feedback: Rubrics is available in Academic Diary
- Feedback from Industry

Rubrics of Indirect Attainment for all types of Feedback and Survey

Name of Alumni	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO 11	PO 12	PSO1	PSO2
Student 1	1		1		1		1			1		1		
Student 2	2	1	2		2		2			2		2		
Student 3	2	1	2		1		2			2		2		
Student 4	2	2	1				1			1		1		
Student 5	3						2			2		2		
Student 6	2		2							2		2		
Student 7														
Student 8	2	1	2		1		2			2		2		
Student 9	2	2	1				1			1		1		
Student 10	3						2			2		2		
Student 11	2		2							2		2		
Student 12	2	1	2		1		2			2		2		
Student 13	2	2	1				1			1		1		
Student 14	3						2			2		2		
Student 15	2		2							2		2		
Student 16	2	1	2		1		2			2		2		
Student 17	2	2	1				1			1		1		
Student 18	3						2			2		2		
Student 19	2		2							2		2		
Student 20	2	2	1				1			1		1		
Average	2.2	1.5	1.6	0.0	1.2	0.0	1.6	0.0	0.0	1.7	0.0	1.7		

RUBRICS FOR INDIRECT ATTAINMENT

Tools	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	P08	P09	P10	P11	P12	PSO 1	PSO 2
Program Exit Survey														

Employer Feedback														
Alumni Feedback														
Parents Feedback														
Feedback from Industry														
Average														
20% of Indirect Attainment														

INDIRECT ATTAINMENT OF PROGRAM OUTCOMES

For Calculation of Indirect attainment level of PO = Total of attainment Level / No of Feedbacks for that particular PO

OVERALL ATTAINMENT OF PROGRAM OUTCOMES = 0.8 x Attainment Level of PO as per Direct attainment + 0.2 x Attainment Level of PO as per Indirect attainment.

Program Outcomes	**PO 1**	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**P08**	**P09**	**P10**	**P11**	**P12**	**PSO 1**	**PSO 2**
Direct Attainment														
Indirect Attainment														
Overall attainment														

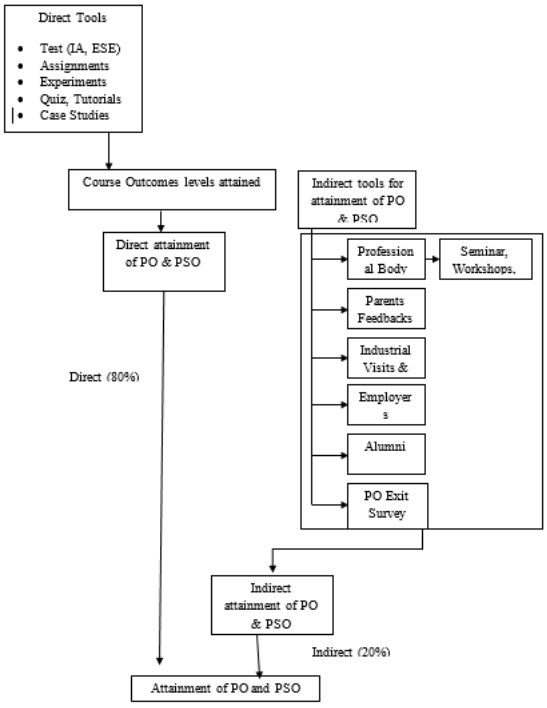

Figure 3.3 : Flowchart for the PO and PSO Attainment Process.

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

PO Attainment

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
FEC101	1.18	0.78	0.78	0.78	0.78	0	0	0	0	0	0	0.91

FEC102	1.90	1.35	0.81	0	0	0	0	0	0	0	0	1.22
FEC103	2.02	1.08	0.93	2.81	0.93	2.33	1.85	0	0	0	0	0.93
FEC104	2.13	0.71	0	0	0	0	0	0	0	0.71	0	0
FEC105	1.23	1.46	0	0	0	0	0	0	0	0	0	0
FEC106	0	0	0	0	0	0	0	0.70	0.70	0.70	0	0.70
FEC201	2.03	0.93	0.93	0.93	0.93	0	0	0	0	0	0	0.93
FEC202	1.58	1.15	0	0	0	0	0	0	1.72	0	0	1
FEC203	2.10	1.45	0	0	0	1.39	2.08	0	0	0	1.37	1.50
FEC204	1.92	0.95	0	0	0	0	0	0	0	1.90	0	0
FEC205	2.04	1.45	0.87	1.89	1.60	0	0	0	0	0	0	1.22
FEL103	2.98	0.99	0	0	0	0	0	0	0	0.99	0	0
FEL104	1.83	1.83	0	0	0	0	0	2.91	2.77	0	0	0
FEL105	1.91	1.39	0.85	0	1.74	1.30	0	0.85	0	1.74	0	1.39
FEL203	1.76	0.88	0	0	1.76	0	0	0	0	1.76	0	0
FEL206	2.18	1.83	0.89	0	0	0	0	0	0	1.83	0	0.89
ILO7013	2.05	1.86	1.86	1.68	2.05	1.86	1.49	1.86	1.86	1.86	1.86	1.86
ILO7017	1.75	1.05	1.16	0	0	2.65	2.34	2.65	0.87	3	1.98	1.31
ILO7018	2.03	1.84	2.03	2.03	0.91	1.83	2.75	0	2.77	2.79	2.77	2.77
ILO8021	0.85	1.34	1.58	1.71	1.03	1.48	1.62	0.88	1.35	1.18	1.17	0.92
ILO8026	2.78	2.78	2.44	2.44	2.94	1.93	1.93	0.97	0.97	2.98	0	0
ILO8028	0.74	1.15	1.27	0.91	1.08	0	0	1.48	2.24	1.48	0	0
ILO8029	1.05	0.70	0	0	0	0	2.15	2.13	0	2.12	0	2.28
MEC301	2.2	0.94	0.94	0	0.94	0	0	0	0	0	0	0.94
MEC302	2.71	0.95	0.95	0.95	0	0	0	0	0	0	0	0
MEC303	2.19	1.66	1.94	0.92	1.38	1.77	0.99	1.57	0	0.96	0	1.18
MEC304	2.07	1.41	1.11	0.95	0	0	0.89	0.89	0	0.95	0	2.38
MEC305	2.82	2.65	1.64	1.80	0.99	2.31	2.31	0.99	0	1.32	1.96	1.97
MEC401	2.65	0.98	0.98	1.64	0.98	0	0	0	0	0	0	0.98
MEC402	3	2.50	1.17	1.50	1	0	0	0	0	1	0	1
MEC403	1.84	1.10	0.74	0	0	0	0	0	0	0	0	0
MEC404	2.80	2.30	2.14	1.97	1.95	1.95	2.96	2.96	0	0.98	2.93	1.46
MEC405	1.58	0.99	0.99	0	0.99	0	0.99	0	0	0.99	0.99	0.99
MEC501	2.48	2.65	2.99	1.99	0	0	0	0	0	0	0	2.99
MEC502	1.92	2.07	1.74	2.24	1.88	1.85	1.23	1.42	0	0	1.71	1.75
MEC503	2.63	1.47	0.99	0	0	0	0	0	0	0	0	0
MEC504	2.52	2.20	2.04	2.08	2.07	1.87	1.17	1.56	0	0	1.69	1.41
MEC601	1.89	0.80	0.80	0	0	1.25	0.69	0	0	0.69	0	0.62
MEC602	2.15	1.91	1.18	0.85	0	1.97	0	0	0	0.71	0	0.71
MEC603	2.01	1.97	1.13	1.96	1.51	1.76	1.51	0	0	1.26	0	1.27
MEC604	2.26	1.97	1.83	1.86	2.03	1.96	1.35	1.39	0	0	1.85	1.68
MEC701	2.04	2.04	0.94	0	0	0	0	0	0	0	0	0
MEC702	1.67	2.12	1.70	1.99	1.97	2.58	2.40	2.58	2.58	0	1.70	1.49
MEC801	1.6	1.23	0.81	2.41	1.58	0	0	0	0	1.33	1.6	1.6
MEDLO5011	1.28	1.28	0	1.95	0	0	0	0	0	0	0	1.95
MEDLO5012	1.29	1.29	0	1.29	0	0	0	0	0	0	0	2.94
MEDLO5013	1.98	1.22	0.79	1.38	0	0	0	0	0	0	0	0
MEDLO6021	1.95	1.95	1.82	1.04	1.04	1.51	0	0	0	0.78	1.56	0.79

MEDLO6023	1.85	2.00	1.69	2.16	1.85	1.84	1.22	1.38	0	0	1.65	1.68
MEDLO7031	1.56	1.17	1.44	1.09	0	2.37	1.84	1.31	0.78	0.78	1.98	1.38
MEDLO7032	2	1.56	1.57	1.85	1.7	2.28	1.71	1.37	0	0	0	1.71
MEDLO7041	1.04	1.03	0.51	1.5	1.2	1.55	0.51	0	0	0	1.55	1.03
MEDLO8051	1.92	1.5	1.2	0.82	1.73	0	0.87	0	0	0	0	0
MEDLO8052	2.09	1.57	0.78	0.78	0.78	1.57	1.57	0	0	0.78	0.78	2.35
MEDLO8053	1.56	0.78	0.78	0.78	0.78	0	0.78	0	0.78	0.78	0.78	0.78
MEDLO8061	1.53	1.95	1.81	1.81	1.67	1.66	1.53	1.68	2.24	1.68	1.67	1.88
MEDLO8063	2.4	1.98	1.97	2.37	2.55	0	2.4	0.85	0	0.85	0.84	2.54
MEL301	2.75	1.77	0.96	0.96	0	0	0	0	0	1.92	0	0.96
MEL302	2.33	2.00	1.50	1.50	0	2.33	0	1	0	1	0	1
MEL401	1.42	0.85	0.85	1.27	0.86	0	0	0.85	0	0	0	0.85
MEL403	1.89	2.20	0	0.94	1.89	1.89	0	0	0	1.33	0	0
MEL501	1.92	2.07	1.74	2.24	1.88	1.85	1.23	1.42	0	0	1.71	1.75
MEL502	2.65	2.65	1.56	0	1.85	0	0	0	2.82	2.01	0	0
MEL503	2.83	1.88	2.83	2.83	1.88	1.87	1.17	1.56	0	0	1.68	1.40
MEL601	2.34	1.11	1.08	0.93	0.93	1.86	0.93	0	0	1.24	0	0.93
MEL602	2.15	1.91	1.18	0.85	0	1.97	0	0	0	0.71	0	0.71
MEL603	2.27	1.63	1.66	2.05	1.82	1.82	2.70	2.11	0	1.62	0	1.81
MEL701	2.83	2.83	1.67	0	2	0	0	0	3	2.17	0	0
MEL702	2.23	2.56	0.95	2.56	1.58	1.89	0.95	0	0	0	1.89	1.72
MEL703	2	1.67	0	1.5	2.33	0	0	3	3	2.17	2	1
MEL801	1.69	2.16	2.01	2.01	1.86	1.85	1.70	1.87	2.49	1.87	1.86	2.1
MEL802	1.66	1	1	1.33	1.17	0	1	1.99	0	1	0	1
MEP701	2.58	2.48	2.14	2.18	2.98	2.98	2.98	2.97	2.97	1.98	2.48	2.98
MEP801	3	2.24	1.59	0.99	2.99	2.99	2.99	2.99	0.99	2.32	2.33	3
MEPBL301	2.55	2.74	2.44	2.66	2.94	2.94	2.94	2.94	2.95	2.95	2.94	2.94
MEPBL401	2.56	2.76	2.47	2.68	2.96	2.96	2.96	2.96	2.96	2.96	2.96	2.96
MEPBL501	2.60	2.80	2.50	2.71	3	3	3	3	3	3	3	3
MEPBL601	2.60	2.80	2.50	2.71	3	3	3	3	3	3	3	3
MESBL401	2.14	1.83	1.36	2.76	2.13	2.76	2.76	2.76	0	1.82	1.60	2.76
MESBL501	0	0	0	0	0	0	0	2.62	1.55	1.61	0	0.93
MESBL601	2.97	1.97	0.98	0.98	2.97	2.97	2.94	0	0	1.96	0	0
MESDL301	1.96	2.80	0.98	0.98	1.63	2.97	0	0	0	1.76	0	0

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	2.08	1.70	1.54	1.65	1.84	2.11	1.84	1.94	2.11	1.69	1.90	1.65
Direct Attainment	2.07	1.69	1.42	1.67	1.72	2.11	1.82	1.88	2.10	1.59	1.87	1.59
InDirect Attainment	2.12	1.76	2.02	1.58	2.33	2.12	1.93	2.18	2.16	2.09	2.04	1.91

PSO Attainment

Course	PSO1	PSO2
FEC101	0	0
FEC102	0	0
FEC103	0	0
FEC104	1	1

FEC105	0	0
FEC201	0	0
FEC202	0	0
FEC203	0.82	0
FEC204	1	1
FEC205	0.87	0.87
FEC206	0	0.7
FEL103	1	1
FEL104	0	0
FEL105	0	0.85
FEL203	1	1
FEL206	0	0.89
ILO7013	2.80	1.86
ILO7017	1.02	0.87
ILO7018	1.14	0.91
ILO8021	1.44	1.69
ILO8026	0	0
ILO8028	1.32	0.33
ILO8029	1.4	0.7
MEC301	0	0
MEC302	0	0.95
MEC303	0.96	0.96
MEC304	0.95	0.89
MEC305	0.99	1.97
MEC401	0	0
MEC402	1	1.67
MEC403	0	0.74
MEC404	1.95	2.93
MEC405	1.15	1.81
MEC501	0.99	0.99
MEC502	1.43	2.08
MEC503	0	0.98
MEC504	0.94	0.94
MEC601	0.69	0.69
MEC602	0.95	0.89
MEC603	1.21	1.26
MEC604	2.56	2.56
MEC701	0.71	0.71
MEC702	1.29	0.86
MEC801	0.81	0.81
MEDLO5011	0.64	0.64
MEDLO5012	0.32	0.32
MEDLO5013	0	0
MEDLO6021	0.91	0.77
MEDLO6023	0.92	0.91
MEDLO7031	1.37	0.78
MEDLO7032	1.43	2.00

MEDLO7041	0.51	1.13
MEDLO8051	0	0.82
MEDLO8052	0.78	1.18
MEDLO8053	0.78	0
MEDLO8061	1.46	1.5
MEDLO8063	1.18	1.69
MEL301	0.96	0.96
MEL302	1.6	2
MEL401	0.85	1.56
MEL403	0.94	1.10
MEL501	1.43	2.08
MEL502	1.08	1.24
MEL503	0.93	0.93
MEL601	0.93	1.11
MEL602	0.95	0.89
MEL603	1.52	0.90
MEL701	1.17	1.33
MEL702	1.52	1.52
MEL703	1	1
MEL801	1.62	1.67
MEL802	1	2.82
MEP701	1.48	1.64
MEP801	2.15	1.32
MEPBL301	1.59	1.96
MEPBL401	1.73	1.97
MEPBL501	1.75	2
MEPBL601	1.75	2.00
MESBL301	1.76	1.96
MESBL401	0.91	0.91
MESBL501	0.94	0
MESBL601	1.63	1.63
PSO Attainment	1.35	1.36

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	1.20	1.27
InDirect Attainment	1.94	1.73

4 STUDENTS' PERFORMANCE (150) Total Marks 102.91

:

Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2023-24 (CAY)	2022-23 (CAYm1)	2021-22(CAYm2)	2020-21(CAYm3)	2019-20(CAYm4)	2018-19 (CAYm5)	2017-18 (CAYm6)
Sanctioned intake of the program(N)	120	120	120	120	120	120	120
Total number of students admitted in first year minus number of students migrated to other programs/ institutions plus No. of students migrated to this program (N1)	68	44	56	78	83	120	120
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	46	73	54	48	12	24
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	68	90	129	132	131	132	144

Table 4.2

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated without backlogs in any semester/ year of study (Without Backlog means no compartment or failures in any semester/ year of study)			
		I year	II year	III year	IV year
2023-24 (CAY)	68	0	0	0	0
2022-23 (CAYm1)	90	5	0	0	0
2021-22 (CAYm2)	129	33	17	0	0
2020-21 (CAYm3)	132	78	95	68	0
2019-20 (LYG)	131	81	129	124	104
2018-19 (LYGm1)	132	76	88	88	88
2017-18 (LYGm2)	144	84	93	93	85

Table 4.3

Year of entry	Total No of students admitted in the program (N1 + N2 + N3)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2023-24 (CAY)	68	0	0	0	0
2022-23 (CAYm1)	90	37	0	0	0
2021-22 (CAYm2)	129	56	92	0	0
2020-21 (CAYm3)	132	78	132	127	0
2019-20 (LYG)	131	83	131	131	112
2018-19 (LYGm1)	132	115	124	124	124
2017-18 (LYGm2)	144	116	131	131	131

4.1 Enrolment Ratio (20)

Total Marks 0.00

Institute Marks : 0.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2023-24 (CAY)	120	68	56.67
2022-23 (CAYm1)	120	44	36.67
2021-22 (CAYm2)	120	56	46.67

Average [(ER1 + ER2 + ER3) / 3] : 46.67

Assessment : 0.00

4.2 Success Rate in the stipulated period of the program (40) Total Marks 30.50

4.2.1 Success rate without backlogs in any semester / year of study (25) Institute Marks : 17.00

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation minus 1, LYGm1 (2018-19)	Latest Year of Graduation minus 2 LYGm2 (2017-18)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	131.00	132.00	144.00
Y Number of students who have graduated without backlogs in the stipulated period	104.00	88.00	85.00
Success Index [SI = Y / X]	0.79	0.67	0.59

Average SI [(SI1 + SI2 + SI3) / 3] : 0.68

Assessment [25 * Average SI] : 17.00

4.2.2 Sucess rate in stipulated period (15) Institute Marks : 13.50

Item	Latest Year of Graduation, LYG (2019-20)	Latest Year of Graduation minus 1, LYGm1 (2018-19)	Latest Year of Graduation minus 2 LYGm2 (2017-18)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	131.00	132.00	144.00
Y Number of students who have graduated in the stipulated period	112.00	124.00	131.00
Success Index [SI = Y / X]	0.85	0.94	0.91

Average SI[(SI1 + SI2 + SI3) / 3]: 0.90

Assessment [15 * Average SI] : 13.50

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

4.3 Academic Performance in Third Year (15) Total Marks 12.50

Institute Marks : 12.50

Academic Performance	CAYm3 (2020-21)	LYG (2019-20)	LYGm1 (2018-19)
Mean of CGPA or mean percentage of all successful students(X)	7.17	8.45	9.65
Total number of successful students(Y)	127.00	131.00	124.00
Totalnumber of students appeared in the examination(Z)	132.00	131.00	124.00
API [X*(Y/Z)]:	6.90	8.45	9.65

Average API [(AP1 + AP2 + AP3)/3] : 8.33

Assessment [1.5 * AverageAPI] : 12.50

4.4 Academic Performance in Second Year (15) Total Marks 11.51

Institute Marks : 11.51

Academic Performance	CAYm2 (2021-22)	CAYm3 (2020-21)	LYG (2019-20)
Mean of CGPA or mean percentage of all successful students(X)	7.32	8.44	9.36
Total number of successful students (Y)	92.00	132.00	131.00
Total number of students appeared in the examination (Z)	129.00	132.00	131.00
API [X * (Y/Z)]	5.22	8.44	9.36

Average API [(AP1 + AP2 + AP3)/3] : 7.67

Assessment [1.5 * AverageAPI] : 11.51

4.5 Placement, Higher Studies and Entrepreneurship (40) Total Marks 28.40

Institute Marks : 28.40

Item	LYG (2019-20)	LYGm1 (2018-19)	LYGm2 (2017-18)
Total No of Final Year Students(N)	131.00	124.00	131.00
No of students placed in the companies or government sector(X)	68.00	71.00	63.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	17.00	19.00	28.00
No of students turned entrepreneur in engineering/technology (Z)	3.00	4.00	1.00
x + y + z =	88.00	94.00	92.00
Placement Index [(X+Y+Z)/N] :	0.67	0.76	0.70

Average Placement [(P1 + P2 + P3)/3] : 0.71

Assessment [40 * Average Placement] : 28.40

Program Name :
Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	RAOTE RUGVED RITESH	2019016402519571	Tata Consultancy Services Limited	TCS offer Letter dated on 01/10/2022
2	BANDIWADEKAR VARAD JAYANT	2020016402099596	Burns & Mcdonnell Engineering India Pvt.Ltd	Burns & Mcdonnell email letter dated on 18/10/2022
3	SAVALE JAY SANTOSH	2020016402215215	Jaro Education	Jaro Education email letter dated on 18/02/2023
4	KAMTEKAR KUNAL KISHOR	2019016402250972	Toothsi	Toothsi email letter dated on 25/05/2023
5	JADHAV BALASAHEB DNYANDEV	2019016402519876	Toothsi	Toothsi email letter dated on 25/05/2023
6	SIDDHESH MOHAN DIVATE	2019016402248451	Toothsi	Toothsi email letter dated on 25/05/2023
7	AWASARMOL NITIN RATAN	2018016401017824	Toothsi	Toothsi offer letter dated on 07/06/2023
8	PARAB OMKAR BALKRISHNA	2019016402249415	Reliance Retail Limited	Reliance Retail offer letter dated on 05/06/2023
9	SAMANT MEET PRASAD	2020016402099364	Reliance Retail Limited	Reliance Retail offer letter dated on 09/06/2023
10	SHINDE DIPESH SURESH	2020016402099936	Reliance Retail Limited	Reliance Retail offer letter dated on 05/06/2023
11	PARAB PRATHAMESH PRAMOD	2019016402248756	Burns & Mcdonnell Engineering India Pvt.Ltd	Burns & Mcdonnell offer letter dated on 24/11/2022
12	SONALI SHANTARAM KHAMKAR	2020016402099894	Burns & Mcdonnell Engineering India Pvt.Ltd	Burns & Mcdonnell offer letter dated on 24/11/2022
13	MITESH SUDHAKAR BHANGARE	2020016402099623	Analyzer CAE Solutions Pvt Ltd.	Analyzer CAE Solutions email Letter dated on 07/07/2023
14	SHIVANI VISHWANATH CHAVAN	2020016402100257	Bosch Limited	Bosch offer letter dated on 08/08/2023
15	PAWAR VAISHNAVI SHASHIKANT	2019016402251213	Learning Routes Pvt Ltd	Learning Routes offer letter dated on 25/03/2023
16	ALISHA VINERKAR	2018016401811836	Learning Routes Pvt Ltd	Learning Routes offer letter dated on 25/03/2023
17	MAKTABAY AAMIR SOHEL AKHTAR	2020016402100354	Nikhil Comforts	Nikhil Comforts email letter dated on 19/06/2023
18	PATIL TANVESH NITIN	2020016402097013	Bharaj Machineries Pvt. Ltd.	Bharaj Machineries Pvt. Ltd. offer letter dated on 31/05/2023
19	JAGTAP DEVENDRA VIJAY	2020016402095196	contec Airflow projects Pvt Ltd	contec Airflow projects email letter dated on
20	JAYESH SANDEEP GHAGARE	2019016402250627	Qspiders campus Connect	Qspiders email letter dated on 01/07/2023
21	NARVEKAR KAUSTUBH VIRENDRA	2020016402099905	Qspiders campus Connect	Qspiders email letter dated on 01/07/2023
22	SAPKAL OMKAR GANESH	2019016402249992	Qspiders campus Connect	Qspiders email letter dated on 01/07/2023
23	MOKAL PRADNESH DINESH	2020016402100203	Finulent Solutions Pvt Ltd	Finulent Solutions offer letter dated on 30/05/2023
24	MOMIN ABDUL MAARIJ ARIF	2020016402097721	Hindustan Unliver Limited	Hindustan Unliver offer letter dated on 05/06/2023
25	TANVI SUNIL GAIKWAD	2020016402095207	Worley India Private Limited	Worley India offer letter dated on 29/01/2023
26	BANGERA SHRAVAN VINOD	2019016402249485	Tata Consultancy Services Limited	TCS offer Letter dated on 01/10/2022
27	SUDRIK ONKAR PRAMOD	2019016402248787	Tata Consultancy Services Limited	TCS offer Letter dated on 01/10/2022
28	GUPTA ADITYA AKHILESH	2019016402250217	Tata Consultancy Services Limited	TCS offer Letter dated on 01/10/2022
29	SAYYAD AIYAZ HUSSAIN	2020016402099921	Reliance Retail Limited	Reliance Retail offer letter dated on 07/06/2023
30	PATNE NEHA SHIVAJI	2020016402097342	Learning Routes Pvt Ltd	Learning Routes offer letter dated on 25/03/2023
31	JADHAV AADITYA DHANANJAY	2019016402249334	Bosch Limited	Bosch offer letter dated on 08/08/2023
32	ANUKOOL SASI	2019016402249825	LogIQids Campusconnect Technologies Pvt Ltd	LogIQids offer letter dated on 06/02/2023
33	JAISWAL UTSAV SHYAM	2019016402251035	contec Airflow projects Pvt Ltd	contec Airflow projects email letter dated on
34	DISHANT DAMODAR GAWANE	2020016402095706	contec Airflow projects Pvt Ltd	contec Airflow projects email letter dated on 06/02/2023
35	NADAR JOYSON NEELKUMAR	2019016402250852	Sanmar Group-Corporate Division	Sanmar Group email letter dated on 04/07/2023
36	MORE RUHI DILIP	2020016402085855	Worley India Private Limited	Worley India offer letter dated on 29/01/2023
37	ISHITA ABHIJIT KALE	2019016402519563	Bosch Limited	Bosch offer letter dated on 08/08/2023
38	KADAM KALPESH SANTOSH	2019016402248482	Neuron energy Private Limited	Neuron energy offer letter dated on 06/10/2023
39	JADHAV PUSHKAR SANTOSH	2019016402250272	Media.Net Software services Pvt Ltd	Media.Net Software services offer letter dated on 10/10/2023
40	RAJ ANIL SALEKAR	2020016402215173	Vioma Motors Pvt Ltd	Vioma Motors offer letter dated on 01/07/2023
41	CHAITANYA DIWADKAR	2019016402519973	NOVA WEATHERWORKS ACR PVT LTD	NOVA WEATHERWORKS offer letter dated on 19/06/2023
42	KUMAVAT TANMAY SANJAY	2020016402100002	Madhav Fluid Solutions	Madhav Fluid Solutions offer letter dated on 13/09/2023

43	HARE PRANAV SAHEBRAO	2019016402250225	SEPADU Tech Pvt Ltd	SEPADU Tech offer letter dated on 03/07/2023
44	DHAMANKAR ANUSHKA SANDEEP	2019016402250933	Seatrium Pvt Ltd	Seatrium joining letter dated on 03/07/2023
45	SHINDE ASMITA NILESH	2020016402097396	Accenture Pvt Ltd	Accenture offer letter dated on 09/11/2023
46	GAWADE GAURAV RAJU	2019016402519265	Jspiders Training & Development Center	Jspiders Training email letter dated on 16/08/2023
47	KHAN YUNUS NASIR	2019016402250202	Vioma Motors Pvt Ltd	Vioma Motors Pvt Ltd offer letter dated on 26/06/2023
48	JAY SHETTY	2015016401966467	Sociohub Pvt Ltd	Sociohub Pvt Ltd offer letter dated on 24/08/2023
49	TRIVEDI AMAN SURESH	2019016402250442	Unisteps Consulting Pvt Ltd	Unisteps Consulting email letter dated on 01/07/2023
50	SHAIKH MOHAMMED JAFAR MOHD UMAR	2020016402097357	Gharda Chemicals Limited	Gharda Chemicals Limited offer letter dated on 10/07/2023
51	PILLAI ARUN BABU	2020016402096996	Chempro Expertise Pvt Ltd	Chempro Expertise joining dated on 12/06/2023
52	KELKAR VAIBHAV SADANAND	2019016402249365	Muscat Engineering Consultancy	Muscat Engineering Consultancy joining dated on 01/06/2023
53	MISHRA AMBUJ BRIJESH	2019016402250546	Zycus Infotech private Limited	Zycus Infotech private Limited offer letter dated on 22/11/2023
54	VISHWAKARMA AKANKSHA GOPAL	2020016402099967	James Walkar Inmarco Industries Pvt Ltd	james Walkar Inmarco Industries offer letter dated on 23/06/2023
55	BHUSHAN DINESH KOKATE	2019016402250964	Lotmar Brands Pvt Ltd	Lotmar Brands Pvt Ltd joining dated on 01/07/2023
56	SHINDE SHANTANU SURESH	2019016402248996	Volar Fashion Pvt Ltd	Volar Fashion Pvt Ltd email letter dated on 12/07/2023
57	KADAM AJINKYA SANJAY	2020016402100516	Vioma Motors Pvt Ltd	Vioma Motors offer letter dated on 01/07/2023
58	ANSARI SANAULLAH ZIYAULLAH	2020016402085863	Perudence Analytrics and software solutions Pvt Ltd	Perudence Analytrics and software solutions offer letter dated on 14/11/2023
59	KAUSHAL SHARAD BHARAMBE	2019016402248412	VAV airconditioning,Mumbai	VAV airconditioning offer letter dated on 01/06/2023
60	WARANG SUMEET NANDKUMAR	2019016402249504	NIRMAL EPM SERVICE LLP,Mumbai	NIRMAL EPM SERVICE joining letter dated on 12/07/2023
61	SHETTY PRAJWAL RAVINDRA	2019016402249632	Buymyev technology Pvt Ltd	Buymyev technology offer letter dated on 15/07/2023
62	MHASKAR HARSH VINOD	2020016402099631	A.R.S energy Auditors	A.R.S energy Auditors offer letter dated on 10/07/2023
63	MOHMMAD RAFI ABDULALIM JALGAONKAR	2019016402248876	kan Innovations Pvt Ltd,Mumbai	kan Innovations offer letter dated on 08/07/2023
64	BENDALE TEJASHREE RAVINDRA	2020016402100346	Inter Gold (I) Pvt Ltd	Inter Gold (I) Pvt Ltd email to T&P dated 24/07/2023
65	GOSAVI UMANG GANPAT	2020016402087796	Nikhil Comforts	Nikhil Comforts mail to T&P dated 05/07/2023
66	RANE OMKAR PRAKASH	2019016402249945	Worley India Pvt. Ltd.	Worley India Pvt. Ltd. email to T&P dated 05/07/2023
67	BHALERAO ARYAN SANDIP	2019016402250585	GoFloat Technologies (P) Ltd.	GoFloat Technologies (P) Ltd. joining date 01/12/2023
68	POOJA SHARAD KOTHARKAR	2020016402100404	AMPA Orthodontics Pvt. Ltd.	AMPA Orthodontics Pvt. Ltd. offer letter 21/10/2023

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	BHANDARI SMIT JITENDRA	2019016402354286	Relience Retail Limited	Relience Retail email letter dated 08/12/2021
2	PAGAR RUTUJA SANJAY	2018016401811047	Vioma Motors Pvt Ltd	Vioma Motors offer letter dated on 01/08/2023
3	KAROTE PRITI PANDURANG	2019016402519192	irobokid limited	irobokid limited offer letter dated on 06/07/2022
4	SURAWASE SATYAM ARUN	2019016402519362	Worley India Pvt Ltd	Worley India offer letter dated on 10/03/2022
5	TAMBE SHREEYA SANJAY	2019016402354731	Worley India Pvt Ltd	Worley India offer letter dated on 10/03/2022
6	BHANDARI PRACHI SUNIL	2018016402057373	Technimont Pvt Ltd	Technimont offer letter dated on 13/06/2022
7	VAVEKAR SANGHAVI SANTOSH	2018016401811016	Jio Platforms Limited	Jio Platforms offer letter dated on 29/07/2022
8	PILLIKANDLU SAHIL NASIR	2018016402057326	Jio Platforms Limited	Jio Platforms offer letter dated on 29/07/2022
9	PARAB CHAITALI SUNIL	2018016401811701	Jio Platforms Limited	Jio Platforms email letter dated 10/03/2022
10	GHOLAP SHUBHAM BHARAT	2019016402354545	Jio Platforms Limited	Jio Platforms email letter dated 10/03/2022
11	PATEL HARDIK MAHENDRA	2019016402354537	Jio Platforms Limited	Jio Platforms email letter dated 10/03/2022
12	AKSHAY KUNDER	2018016401812414	Jio Platforms Limited	Jio Platforms Limited offer letter dated on 06/07/2022
13	MUNNURU RANJITH	2018016401812886	Jio Platforms Limited	Jio Platforms email letter dated 10/03/2022
14	MISHRA SHUBHAM ISHWARPRASAD	2019016402354576	Future Supply Chain Solutions Limited	Future Supply Chain Solutions offer letter dated on 30/03/2022
15	BARI KRISHNA SANJAY	2018016401811682	Dexian Consulting	Dexian Consulting offer letter dated on 06/04/2022
16	BHAT VINAYAK VENKATESH	2018016401812526	Saideep Vibrators Pvt Ltd	Saideep Vibrators OFFER LETTER DATED ON 10/04/2022
17	SHINDE SHUBHAM SHANKAR	2018016401811121	Saideep Vibrators Pvt Ltd	Saideep Vibrators OFFER LETTER DATED ON 10/04/2022
18	KOLHAR PRASAD PRAVIN	2019016402354746	Safety Circle	Safety Circle OFFER LETTER DATED ON 07/05/2022
19	SIDDIQUE ABDULLAH AJMAL	2019016402519184	Radisson Hotel	Radisson Hotel offer letter dated on 3/06/2022
20	CHAVAN PARTH SAMEER	2018016401812557	Gegadyne energy	Gegadyne energy offer letter dated ne 3/06/2022
21	NEDIYIRIPPIL DEVARATH SUKU	2018016401810914	Newgen Software Technologies Limited	Newgen Software Technologies Limited offer letter dated 3/06/2022
22	REVANDKAR OMKAR RAJIV	2018016401810976	Newgen Software Technologies Limited	Newgen Software Technologies Limited offer letter dated 3/06/2022
23	UDAYBHAN PANDHARILAL YADAV	2018016401812847	Banas jewels	Banas jewels offer letter dated on 16/06/2022
24	MAHADIK SIDDHESH SHANTARAM	2019016402354707	Worley India	Worley India offer letter dated on 14/06/2022
25	PISE PRATIK BALU	2018016401811136	Business Access Private Limited	Business Access offer letter dated on 17/06/2022
26	SYED FASIUDDIN	2017016402705226	Seatrium Pvt Ltd	Seatrium joining letter dated on 13/02/2023
27	JIMIT ANIL RATHOD	2018016402234473	Skynox Overseas Pvt Ltd	Skynox Overseas offer letter dated on 09/09/2022
28	SHAIKH ARMAN AYUB	2018016401812051	Ameya Infovision Pvt Ltd	Ameya Infovision email letter dated on 11/08/2023
29	ANIKET SURVE	1178512	Banas jewels	Banas jewels offer letter dated je 3/06/2022
30	KAMBLE SWARALI SUNIL	2018016401811917	Inter Gold (India) Private Limited	Inter Gold (India) offer letter dated on 19/12/2022
31	RUTUJA	2018016402234256	Business Access Private Limited	Business Access email letter dated on 24/06/2022
32	MOOLYA TEJAS OMPRAKASH	2018016401811716	irobokid limited	irobokid limited email letter dated on 05/07/2022
33	PARMAR SAGAR BHARATBHAI	2018016402298155	Shroff & Associates Engineering Pvt Ltd	Shroff & Associates Engineering offer letter dated on 29/08/2022
34	PATIL CHETAN UMAKANT	2018016401812171	John Crane Sealing systems India Pvt Ltd	John Crane Sealing systems India offer letter dated on 23/05/2023
35	AREKAR SAURAV SANJYOT	2018016401811577	Adani Ellectricity Mumbai Limited	Adani Ellectricity Mumbai Limited offer letter dated on 08/12/2023
36	MAHAJAN JAY KISHOR	2018016401811813	Larsen & Tourbo limited	Larsen & Tourbo limited offer letter dated on 18/12/2022
37	YASHSHREE POL	2019016402354696	Maxval technologies Pvt Ltd	Maxval technologies offer letter dated on 01/08/2022
38	PAWASKAR SIDDHIQ ALI	2018016401811891	Toyo Engineering India Pvt Ltd	Toyo Engineering India joining dated on 01/08/2022
39	SHAIKH MAAZ SHAMIM	2018016401810953	Evolute Fintech Innovations	Evolute Fintech Innovations offer letter dated on 29/06/2022
40	BENDKHALE SIDDHANT AJAY	2018016401812573	IRCLASS(Indian Register of Shipping)	IRCLASS offer letter dated on 01/10/2022

41	KHARAT SHUBHAM BHARAT	2019016402354626	Kalyani Group	Kalyani Group offer letter dated on 06/10/2022
42	YADAV PRAKASH	2017016402705234	Perfios Software Solutions Pvt Ltd	Perfios Software Solutions offer letter dated on 04/10/2023
43	SWAGAT DAS	2018016401811643	Evobi Automations Pvt Ltd	Evobi Automations offer letter dated on 11/07/2023
44	RAIKAR DHANANJAY DEVANAND	2018016402057245	Hitek Engineering Services	Hitek Engineering Services offer letter dated on 16/03/2023
45	SAWANT NITESH PRAKASH	2018016401812116	Mazagon dock Shipbuilders Limited	Mazagon dock Shipbuilders Ref No BOAT APP Batch 2022-23
46	SOLANKI MILIND KISHOR	2018016401811295	Sirius Cleantech Pvt Ltd Mumbai	Sirius Cleantech offer letter dated on 01/12/2022
47	GAIKWAD SHUBHANGI RAMCHANDRA	2019016402354665	Danfoss technologies Pvt Ltd	Danfoss technologies offer letter dated on 19/04/2022
48	GUPTA NITESHKUMAR ASHOK	2018016401811531	Bharat Petroleum COrporation Ltd	BPCL offer letter dated on 13/01/2023
49	BODKE ATHARV JITENDRA	2018016401810984	DHL Supply Chain India Pvt Ltd	DHL Supply Chain India offer letter dated on 03/10/2022
50	PRAPTI DEVENDRA LAD	2018016401812511	Capgemeni	Capgemeni Ref 6458273/1539665
51	GHADIGAONKAR MAYURI MANGESH	2018016401811515	Burns McDonnell	Burns McDonnell offer letter dated on 01/10/2023
52	SULAIMAN MOHAMED AFSAL	2018016401812855	pallets and Crates Movers and packers	PACMAP offer letter dated 01/10/2022
53	KOLI MANISH GANESH	2018016401811883	Firstsource solutions limited	Firstsource solutions limited offer letter dated on 09/09/2023
54	MHASKAR VAISHNAVI ANIL	2018016401811202	Mazagon dock Shipbuilders Limited	Mazagon dock Shipbuilders Ref No BOAT APP Batch 2022-23
55	BAGUL PRITISH SOMNATH	2018016401811167	Milestone PLM Solutions Pvt Ltd	Milestone PLM Solutions offer letter daTED ON 28/10/2022
56	GOVARI ABHISHEK RAMESH	2018016401811152	DesignTech Systems Pvt.Ltd	DesignTech Systems offer letter dated on 19/10/2022
57	CHAUDHARI AMAN JATIN	2018016401812824	IRCLASS(Indian Register of Shipping)	IRCLASS offer letter dated on 01/10/2022
58	KAMBLE MIHIR HARISHCHADRA	2018016401811411	ASMACS (Ship repairs,contractors,traders)	ASMACS offer letter dated on 01/12/2022
59	RAHATE VIKRANT RAVINDRA	2018016401811844	Finulent Solutions LLP	Finulent Solutions joining dated on 01/04/2022
60	SHIVAM H JAISWAR	2018016401812646	VEDAM Design &Technical Consultancy Pvt Ltd	VEDAM Design joining dated on 01/10/2022
61	SHETTY PRATIK PRABHAKAR	2019016402519385	Evosys	Evosys email letter dated on 03/11/2021
62	ADITYA RAJESH GOND	2018016401811651	Hindustan Petrolium Pvt Ltd	Hindustan Petrolium joining letter dated on 12/04/2023
63	MALI AMAN DILIP	2019016402354673	Capgemini	Capgemini email letter dated 09/11/2021
64	MAHADIK NINAD VISHWANATH	2018016401811105	Capgemini	Capgemini email letter dated 09/11/2021
65	MAHADIK RAHUL KHOTU	2018016401810945	Capgemini	Capgemini email letter dated 09/11/2021
66	MALKANI AMIR RAFIK	2018016401812727	Capgemini	Capgemini email letter dated 09/11/2021
67	JADHAV SURAJ SATYAWAN	2018016402057357	Tata consultancy Services Limited	Tata consultancy Services email letter dated 14/11/2021
68	DIKSHA DEELIP MUNESHWAR	2018016401812453	Tata consultancy Services Limited	Tata consultancy Services email letter dated 14/11/2021
69	PATEL RUTVIK RAJESH	2018016401811256	Tata consultancy Services Limited	Tata consultancy Services email letter dated 14/11/2021
70	CHIKKANNAVAR VIJAY BHARATESH	2018016401812685	Tata consultancy Services Limited	Tata consultancy Services email letter dated 14/11/2021
71	PARAB SIDDHESH MILIND	2018016402057454	Infosys	Infosys email to T&P office

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	KHAN MAROOF.YUSUF	2017016402623134	Rws moravia ,Mahape navi mumbai	RWS Moravia joining letter dated on 01/07/2022
2	RATHOD SUMIT ZUMBAR	2017016402364464	RELIANCE RETAIL LTD, NAVI MUMBAI	RELIANCE RETAIL joining letter dated on 15/07/2022
3	SUTHAR KIRAN BHANWARLAL	2017016402366223	Verisk Financial-Fintellix Pvt Ltd	Verisk Financial-Fintellix joining letter dated on 01/08/2022
4	SHAH PARTH PARAS	2017016402367702	Infosys Limited, Bangalore	Infosys Limited email letter dated 03/02/2021
5	PRATIK HEMRAJ DHANDE	2017016402621986	Tata Consultancy Services, Hiranandani Estate, Thane West	TCS Email letter dated on 25/12/2020
6	TANMAY CHANDRAKANT FIRAKE	2017016402364986	Tata Consultancy Services, Hiranandani Estate, Thane West	TCS Email letter dated on 25/12/2020
7	KAMBLE SHUBHAM DATTARAM	2017016402364681	UV Hitech Pvt Ltd	UV Hitech offer letter dated on 02/10/2022
8	MANAS SHIRKE	2014016400907901	Auro Engineering Company	Auro Engineering Company offer letter dated on 10/01/2022
9	RUSHIKESH MAHORE	2016016401001475	Cognizant Technology Solutions Pvt Ltd	Cognizant Technology Solutions offer letter dated on 23/11/2021
10	BARIA KSHITIJ BHAVYESH	2017016402364673	LTI Mind Tree	LTI Mind Tree joining date on 01/08/2021
11	SHUBHAM ARVIND DHERANGE	2017016402364882	Rao Edusolutions Pvt.Ltd	Rao Edusolutions offer letter dated on 14/08/2021
12	JADHAV GITESH KRUSHNA	2017016402364271	Gala Precision Engineering	Gala Precision Engineering offer letter dated on 24/03/2023
13	PAWAR OM JITENDRA	2017016402365301	Reliance Retail Limited	Reliance Retail Limited joining dated on 06/06/2021
14	YADAV RAHUL MOHANLAL	2017016402623090	Mikado Enterprise	Mikado Enterprise joining dated 06/08/2021
15	SOLANKI BHAVESH SHIVLAL	2017016402367547	Corrival Corporate Services Pvt.Ltd	Corrival Corporate Services Pvt.Ltd joining dated 15/12/2021
16	PAWAR SHWETA MAHESH	2018016401988853	HYDROPURE Systems Pvt. Ltd.	HYDROPURE Systems Pvt. Ltd. joining dated 28/08/2023
17	CHIKHALE SAHIL SATYAJIT	2017016402366842	Millenia Tools and Services	Millenia Tools and Services joining dated 26/12/2022
18	BHADARGE ROSHAN DHANAJI	2018016402234376	Hindustan Petroleum Corporation Limited	Apprenticeship letter dated 05/10/2023
19	VANJARE SIDDHESH VISHNU	2016016400975556	Auro Engineering Company	Auro Engineering Company joined letter 17/01/2022
20	SHINDE AKSHAY SUNIL	2016016401000994	Mahindra and Mahindra Ltd.	Mahindra and Mahindra Ltd. 29/01/2022
21	VAJE ROHIT MANOHAR	2017016402364762	Swims Engineering Services Private Limited	Swims Engineering Services Private Limited joining dated 05/09/2022
22	SIDDHANT NILESH PAWAR	2017016402366745	Express Roadways Pvt. Ltd	Express Roadways Pvt. Ltd joining dated 13/08/2021
23	RAORANE MIHIR MADHUSUDAN	2017016402366834	Intellipaat	Intellipaat joining date 27/07/2021
24	KANTALE ANIKET YASHWANT	2018016401989632	Infosys Limited	Infosys Limited mail dated 12/05/2021
25	BHAVESH EKNATH ABHANG	2017016402364514	Infosys Limited	Infosys Limited mail dated 12/05/2021
26	SARFARE ANKIT SUMEDH	2017016402366366	Tata Consultancy Services Limited	Tata Consultancy Services Limited mail dated 07/07/2021
27	KHAIRNAR DHANASHREE GOPAL	2017016402366954	Tech Mahendra	Tech Mahendra letter 24/08/2022
28	TERVANKAR PRAVIN CHANDRAKANT	2018016401989021	Shree Rapid Technologies	Shree Rapid Technologies joining dated 03/08/2021
29	PATIL NIKITA KISHOR	2018016401989013	TOYO Engineering India Pvt. Ltd.	TOYO Engineering India Pvt. Ltd joining dated 10/07/2023
30	SALUNKHE ABHISHEK PRAKASH	2017016402367122	Infosys Limited, Bangalore	Infosys Limited email letter dated 03/02/2021
31	DEVGANIA NAITIK SURESH	2018016401989311	Infosys Limited, Bangalore	Infosys Limited email letter dated 03/02/2021
32	SAWANT SAHIL SHAHAJIRAO	2017016402364592	Tata Consultancy Services, Hiranandani Estate, Thane West	TCS Offer letter dated on 09/01/2021
33	PATIL GAURAV ANIL	2017016402365653	"Flipspaces Mindspaces malad"	"Flipspaces Mindspaces joining dated on 01/06/2022"
34	KHANVILKAR CHINMAY SANDIP	2017016402367002	Balmer lawrie-Van leer Limited	Balmer lawrie-Van leer Limited offer letter dated on 26/09/2022
35	THAKARE ALISHA SANGRAM	2017016402365073	Reliance Retail Limited	Reliance Retail Limited offer letter dated 05/07/2021

36	SANKHE NIKHIL NILESH	2017016402364182	Saideep Vibrators Pvt Ltd	Saideep Vibrators OFFER LETTER DATED ON 11/05/2021
37	AKSHAY DESHMUKH	2017016402364932	Saideep Vibrators Pvt Ltd	Saideep Vibrators OFFER LETTER DATED ON 06/05/2021
38	MAKWANA VIVEK RAJESHBHAI	2018016401989187	Saideep Vibrators Pvt Ltd	Saideep Vibrators OFFER LETTER DATED ON 06/05/2022
39	MAHIMKAR SMITESH SANJEEV	2017016402364851	Newgen Software Technologies Limited	Newgen Software Technologies Limited offer letter dated 04/07/2021
40	TAMBE PRITAM ANAND	2017016402366173	Newgen Software Technologies Limited	Newgen Software Technologies Limited offer letter dated 04/07/2022
41	THORAT SAI JITENDRA	2017016402364707	Newgen Software Technologies Limited	Newgen Software Technologies Limited offer letter dated 04/07/2023
42	SIMONY MAHENDRA NIRANJANE	2017016402366664	Newgen Software Technologies Limited	Newgen Software Technologies Limited offer letter dated 04/07/2024
43	BIDAYE PRATHAMESH SUBHASH	2017016402367323	Accenture Solutions Pvt Ltd	Accenture Solutions offer letter dated on 27/07/2021
44	WADKE AMOGH SUBODH	2017016402365684	Wipro	Wipro offer letter dated on 21/02/2022
45	GUDUR PRASHANT PRABHAKAR	2018016402234272	Bank of Maharashtra	Bank of Maharashtra offer letter dated on 01/04/2023
46	PALKAR PRANAV PRAKASH	2018016401989195	Tata Consultacy Services,Mumbai	Tata Consultacy Services offer letter dated on 04/01/2022
47	PRITISH SANJAY SANGHANI	2017016402365862	Dell Pvt Ltd	Dell Pvt Ltd offer letter dated on 24/08/2021
48	TANMAY ANIL KUMAR BHAVSAR	2017016402367041	Hindusatan Uniliver Pvt Ltd	Hindusatan Uniliver email letter dated on 13/05/2023
49	RAWATE TEJAS SAMPAT	2017016402366536	Duraz HR Services	Duraz HR Services offer letter dated on 08/03/2022
50	SHINDE ROHAN MADHUKAR	2018016401988981	Worley India Pvt Ltd	Worley India offer letter dated on 14/11/2021
51	KASMANI AADIL ANIS	2017016402366931	Sahas Softech LLP Pvt Ltd	Sahas Softech LLP offer letter dated on 06/06/2022
52	SHELAR HARSHAL MANOHAR	2017016402364777	Blue Star Limited,thane	Blue Star offer letter dated on 01/08/2023
53	AAQIB SHARFUDDIN MOMIN	2018016401989005	Flextronics Technologies India Pvt. Ltd.	Flextronics Technologies joining letter dated on 01/08/2022
54	CHOUDHARY RAHUL MADAN	2017016402366134	Bluechip Cooling Towers	Bluechip Cooling Towers joining letter dated on 01/07/2022
55	RANE SIDDHESH SANJAY	2017016402365572	Godrej infotech ltd	Godrej infotech joining letter dated on 01/08/2022
56	JAY SANJAY GHONGADE	2017016402365065	RELIANCE RETAIL LTD.	RELIANCE RETAIL joining letter dated on 15/07/2022
57	KUMBHAR FALGUNI SUNIL	2018016401988926	Saideep Vibrators Pvt Ltd	Saideep Vibrators OFFER LETTER DATED ON 06/05/2021
58	SHIMPI HARSH SHIVAJI	2018016401989133	TransGanization creations Pvt Ltd	TransGanization creations joining letter dated on 08/03/2022
59	KORDE KETAN SUNIL	2018016401988965	Saideep Vibrators Pvt Ltd	Saideep Vibrators OFFER LETTER DATED ON 06/05/2022
60	CHINMAY REGE	2017016402366826	TCS , TCS- Thane Yantra Park	TCS Joining letter dated on 10/11/2022
61	VYAS PAAVAN AKSHAY	2017016402621994	KUBIC India Solutions LLP	KUBIC India Solutions LLP joining letter dated on 01/08/2022
62	BAGAL SANMEET SANJAY	2017016402623084	Tuffwell Springs	Tuffwell Springs joining letter 01/06/2021
63	MORE OMKAR MARUTI	2018016402234322	Power Mech Projects Limited	Power Mech Projets joining letter dated on 01/01/2022

4.6 Professional Activities (20) Total Marks 20.00

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

Institute Marks : 5.00

CAY 2022 – 23				
MESA				
Sr. No.	**Date**	**Event Name**	**Speaker's Name**	**No. of Participants**
1	28/07/2022	Seminar on International placements & opportunities	Jignesh Doshi & Hiral	120
2	06/09/2022-07/09/2022	Teacher's Day Greeting Card Distribution Drive	MESA Team Members	15
3	04/10/2022	Silver Jubilee Celebrations	Mr.Bhuvan singh Damahe & Mr.Rahul Chavan	80
4	07/10/2022-09/10/2022	Visit on Smart Manufacturing Training Program	Mr.Tanmay Bhavsar	15
5	Jan 2023	SAHAS Industrial Internship Drive	MESA Team Members	22
6	23/01/2023-24/01/2023	Stem Cell Donor's Registration Drive	Dr.Praveen Clement	5
7	10/02/2023	Workshop on IPR Mining	Mr Mandar S.Chikhale & Mr. avinash B.Karande	60
8	23/02/2023	Webinar on Robopack	Mr. Mohit & Mr.Sahil	300
9	28/02/2023	Awareness Program on IPR"s	Mr.K.Narayan Murthy	88
10	05/03/2023	Webinar on Robot Autonomy: Opportunities & challenges	Mr. Ameya Salvi	26
11	09/03/2023	Visit on Mahanand dairy Industrial Visit	Mr. Dinesh Joshi	80
12	23/03/2023-24/03/2023	Competition onTechnical Poster presentation	Mr Akbar Sayyed & Ms Jaya Verma	30
ASME AY 2022-23				
1	18/07/2022	Engineering Skills of the Decade	Mr. Danish Sayyed	55
2	04/08/2022	Building LinkedIn Profiles	Mr Yash Karanjavkar	42
3	30/08/2022	Millennials in Stem	Mr.Dinesh Vishwakarma	65
4	24/09/2022	Role of Multi-Disciplinary Engineering	Mr.Prathmesh Upadhyay	63
5	30/10/2022	ASME Standards in Industry Quiz Competition	ASME Team	21
6	13/11/2022	Engineering Education	Mr.Vacchani Raj	43
7	22/12/2022 To 24/12/2022	Skill Development Workshop	Mr.Siddique Kazi	40
8	27/01/2023 To 29/01/2023	IoT Workshop	Mr.Mohmmad Rafi Jalgoankar	35
9	17/03/2023 To 21/03/2023	NX CAD 3D Printing	Mr. Hanzala Maknojia	25
AERORGIT 2022-23				
1	10/08/2022	Basic Sessions on Aerodynamics and Aeronautics	Vaibhav Kelkar & Prathmesh parab	18

2	17/08/2023	Industrial expectations & Career aspirations Seminar	Dr. P.C.sehgal	81
3	24/08/2023	Basic sessions on wing Design	Sahil Khatri & Prathmesh parab	26
4	25/08/2022	Basic sessions on fuselage,empennage and landing gear	Shubham dixit & Aditya wavale	26
5	4/10/2022-10/10/2022	World Space Week	Vaibhav Kelkar & Prathmesh parab	18
5.1	4/10/2022	Worksop on Space Week Day 1 (Inauguration & Open Rocket Workshop)	Vivek Marde & Nikhil Thosar	20
5.2	5/10/2022	Expert talk on Space Week Day 2	Devendra patil	30
5.3	6/10/2022	Quiz Competition on Space Week Day 3	Members of RGIT	42
5.4	7/10/2022	Paper making Competition on Space Week Day 4	Members of RGIT	15
5.5	8/10/2022	Visit on Space Week Day 5 (Nehru planetarium Visit)	Members of RGIT	55
5.6	10/10/2022	Game competition on Space Week Day 6(treasure Hunt)	Members of RGIT	15
6	16/12/2022-17/12/2022	Workshop on SAEISS DDC 2023	Coordinator of SAE INDIA	72
7	13/01/2023-15/01/2023	Stargazing and Camping at Pawna lake	Members of AeroRGIT	40
8	10/02/2023-12/02/2023	Workshop on Solidworks	Vaibhav Kelkar	25
9	01/04/2023-02/04/2023	Workshop on Aero-Modelling	Members of AeroRGIT	31
SAE 2022-23				
1	07/10/2022	Online Judging Event	SAE Menbers	15
ISHRAE 2022-23				
1	13/10/2022	ISHRAE RGIT chapter Installation Ceremony	Sachin Gupte,Jayant Patekar,Sandip vardam	17
2	28/02/2023	IPR	K. Narayanmurthy	25
3	14/03/2023-16/03/2023	ACREX 2023	Lalit Ingale	7
4	March 2023	A Quest Final 2023	ISHRAE National Committee Members	20
IIIE 2022-23				
1	29/09/2022	Entrepreneurship and Innovation as career Opportunity	Luvai Darwajawala,Ayush panchmiya	110
2	15/10/2023	First Year engineering Students Induction Programme	Dr. Nitin Panaskar	14
3	16/10/2022	Guidance on Industrial Engineering	Dr. Nitin Panaskar	14
4	16/03/2023	Revolutionizing Marketing with Web 3.0	Ayush panchmiya	43

CAY 2021 – 22				
MESA AY 2021-22				
Sr. No.	**Date**	**Event Name**	**Speaker's Name**	**No. of Participants**
1	03/07/2021	Webinar on Python Programming	Ms Antaripa Saha	60
2	17/07/2021	Felicitation Ceremony	Members of MESA RGIT	89
3	06/09/2021	Webinar on Electric Vehicle Technology	Mr.Ujjwal Kumaren	66
4	20/09/2021	Know your Committee	Prof.Rajesh Kale	70
5	18/09/2021	Website Development Tutorial	Ms Tejal Temkar	60
6	22/09/2021	Megazine Launch Event	Mr.Hrishik Singh	79
7	03/10/2021	Webinar on Career Opportunities in Public Sector Institutions	Mr. Karan Sardana	60
8	19/04/2021	Industrial Visit at KLT Automotive	Members of MESA RGIT	35
ASME AY 2021-22				
1	09/09/2021	Unlock the power of Linkedin	Tejas Sawant Linkedin Expert and Instrumentation engineer	30
2	18/09/2021	'4D Printing: New dimension in manufacturing'	Ghule Co-Founderof Simpliforge technologies,	15
4	04/10/2021	Unlocking Industrial Potential of Digital Twin	Dr Santosh B. Rane Dean, SPCE, Mumbai\	45
5	02/10/2022	webinar on 'MS in abroad'	MakinGrad Overseas Education Consultants Pvt Ltd, Mumbai	42
6	13/10/2021	webinar on Opportunity 'MBA IN INDIA'.	Mr. Vishesh Nadiyana (IIM CAlumnus).	55
7	08/12/2021	Know Your Branch	Orientation SE SEM III Students	40
8	18/12/2021	Webinar on Energy Conservation'.	'Saikat Das', Energy Analyst and Strategists	36
9	24/01/2022 To 01/02/2022	WORKSHOP ON NX-CAD	Mr. Prasad Mastakar	35
10	16/02/2022	Inaugural Day ASME-RGIT	DEPT staff & Students	65
11	28/03/2022 To 30/03/2022	Workshop On Solidworks	Vinayak Bhatt	25
12	21-23/04/22	ICEI 4.0 International Conference	ASME TEAM	15
AERORGIT 2021-22				
1	10/07/2023-11/07/2021	Computational Fluid dynamics Workshop	Mr.Rehan Ansari	12
2	21/08/2021	Crack the career code webinar on MBA by IMS	Mr.Dhaval Kunte	25
3	04/09/2021	IID Webinar on Drones	Mr.Rakesh Rai	20

4	4/10/2021-10/10/2021	World Space Week	Members of AeroRGIT	18
4.1	4/10/2021	Space Week Day 1	Ms.Shweta Kulkarni	20
4.2	5/10/2022	Space Week Day 2	Members of AeroRGIT	20
4.3	6/10/2022	Space Week Day 3 (Treasure Hunt)	Members of AeroRGIT	18
4.4	7/10/2022	Space Week Day 4 (Astrophotography)	Members of AeroRGIT	18
4.5	8/10/2022	Space Week Day 5	Members of AeroRGIT	22
4.6	9/10/2022	Space Week Day 6	Mr.Siddharth Pandey	25
4.7	10/10/2022	Space Week Day 7(Poster Making)	Members of AeroRGIT	26
5	20/05/2022-22/05/2022	SAE Aero-Design East Challenge 2022,Micro Class	Members of AeroRGIT	15
Robotics AY 2021-22				
1	19/08/2021-04/10/2021	All about Robotics	Robotics team Members	60
2	08/10/2021	Further Studies after Engineering	Mr.Abhinav Gogoi	80
3	March 2022	Robotic Arm	Mr Mohammed javed Khan	25
ISHRAE AY 2021-22				
1	05/02/2022	Competition on ISHRAE Quiz	ISHRAE Team Member	21
IIIE AY 2021-22				
1	05/04/2022	Industry 4.0 : Scope Challenges in indian Landscape	Prof. Amitkumar Patil	70
2	23/02/2022	Resume Writing and CV Building	Mr.Vineeth	30
3	23/04/2022	Case Study Competition on Total Quality management	Mr.Shivaan Munsif , Mr.Kunal Bhoir, Mr.Akash Shelar, Mr.Pranit sovilkar	50

CAY 2020 – 21

MESA AY 2020-21

Sr. No.	Date	Event Name	Speaker's Name	No. of Participants
1	31st August , 1st & 2nd September 2020	3-day workshop on MATALAB & SIMULINK in collaboration with Team RGIT Racing from 31 st August to 2 nd September 2020	Swapnil Mane team caption of Team RGIT Racing and Malharduth Hublkar electrical head of Team RGIT Racing	32 students
2	5th September 2020	Teachers' Day	Students of MESA, ASME	40 Students & faculties
3	8th October 2020	ALUMNUS TALKS.	Mr. Sushmit Chaudhari Senior Officer at Audi	65
4	23rd October 2020	webinar on CV Building and Importance of Aptitude Test	Mr. Navneet Anand, head of MBA division in Career Launcher	50
5	8th November 2020	A webinar on "Importance of CV building and interview tips"	Business Head at CL Educate Limited.	50

6	11th November 2020	Fact Abroad Study Destination	Mr.Sunil Shah, Mr.Amey Phadke, Mr. Vikas Bhadoria, and Mr.Santosh Raju Battu.	80
7	24th February 2021	Webinar on CNC Programming	Members of MESA RGIT	
8	19th April 2021	Webinar on Lean Six Sigma	Mr. Amitabh Saxena	80
9	02nd April 2021	Webinar on Student Development Program	Mr. Hrishik Singh	50
ASME AY 2020-21				
1	1st October 2020	Orientation Program KNOW YOURDEPARTMENT FOR S.E.	ASME Core Team members	62
2	16th October 2020 to 18th October 2020	WORKSHOP ON SOLIDWORKS	Mr Mohanish Raut	30
3	31th October 2020 to 01th November 2020	WORKSHOP ON PHOTOSHOP	Mr. Mihir Raone and Ms. Rutuja	30
4	05th September 2021	Celebration of TEACHER'SDAY	Principal Dr Sanjay Bokade	31
5	06th February 2021	Orientation Program FE KNOW YOUR DEPT	ASME CoreTeam 1.	300
6	12th February 2021	ASME INAUGURALDAY	Department Faculty	25
7	27th November 2020	Workshop on CREO S/WWORKSHOP	Mr. Naveen gupta, sir Design Engineer,Engrown eLearning Solution LLP,UP	45
AERORGIT AY 2020-21				
1	16th August 2020	Webinar on Career Opportunities after Engineering in India & Abroad	Ms Vinni Shah Modani	40
2	26th September 2020-27th September 2020	ANSYS Workshop	Mr Kartik Patil	40
ROBOTICS AY 2020-21				
1	12th September 2020	Webinar on Talk on Deep Learning	Mr Rahul Agrawal	86
2	2nd October 2020-04th October 2020	E Workshop Introduction to Computer Vision	Mr Swagat Das,Mr Avadhoot Khedekar,Ms Niyati Vaidya	44
3	07/10/2020	Webinar on Talk Delivered on Higher Education by IMS	Mr Avadhoot Khedekar,Ms Niyati Vaidya	44

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

Institute Marks : 5.00

Magazines	Year of Publication	Publishers	Editors
Mechazine	2022-23	MESARGIT	Aishwarya Kakodkar, Prof. Rehan Siddique Team MESA RGIT 2021-22.
Mechazine	2021-22	MESARGIT	Prof. Rehan Siddique Team MESA RGIT 2021-22.
Mechazine	2020-2021	MESARGIT	Hrishik Singh Kasshik Prof. Rehan Siddique Team MESA RGIT 2020-21.
Newsletter	January 2023-June 2023	Dept. Mechanical Engg.	Dr. R. V. Kale, Prof. Mukund Valse
Newsletter	July 2022-December 2022	Dept. Mechanical Engg.	Dr. R. V. Kale, Prof. Mukund Valse
Newsletter	January 2022-June 2022	Dept. Mechanical Engg.	Dr. R. V. Kale, Prof. Mukund Valse
Newsletter	July 2021-December 2021	Dept. Mechanical Engg.	Dr. R. V. Kale, Prof. Mukund Valse
Newsletter	January 2021-June 2021	Dept. Mechanical Engg.	Dr. R. V. Kale, Prof. Mukund Valse
Newsletter	July 2020-December 2020	Dept. Mechanical Engg.	Dr. R. V. Kale, Prof. Mukund Valse

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

Institute Marks : 10.00

Extra-Curricular Activities

Academic year	Total no. of events	No. of students in sports	No. of students in cultural activity	No. of student in technical activity	No of student in social activity	Total no of students
2022-2023	**16**	**7**	**-**	**67**	**55**	**131**
2021-2022	**6**	**-**	**1**	**76**	**23**	**100**
2020-2021	**8**	**-**	**-**	**35**	**61**	**96**

Sports and Cultural Activities

Year	No. of events sports/ cultural (Mech)	No. of students(Mech)
2022-23	4	7
2021-22	1	1
2020-21	-	-

Year	Event date	Event	No of students	Sports/ Cultural	National/ International	Name of the student
2022-23	1st October 2022	Football	3	Sports	University	1.Onkar Sudrik 2.Kartik Kumar 3.Aditya Pol
2022-23	19th March 2023	Chess	1	Sports	University	Kanishq Jondhale
2022-23	11th December 2022	Chess	1	Sports	University	Gauri Redkar (FE Mech)
2022-23	19th March 2023	Impulse	2	Sports	National	1Vishal Naikwadi (1st) 2.Nishant Gaurav (2nd)
2021-22	19th August, 2021	Photography Competition	1	Cultural	National	Siddharth Mahadik

Technical and Social Activities

Year	No. Of events (Mech)	No. Of students (Mech)
2022-23	7	122
2021-22	5	99
2020-21	8	96

AY 2022-23					
Event date	**Event**	**No of students**	**Type**	**National / International**	**Name of Student**
Sept 2022	Competition on E-Yantra	12	Technical	National	1st Runner up ASME Team Ishita Kale

Jan 2023	Training Course on E-Yantra MOOc	7	Technical	National	1.NyatiVaidya 2.Swapnil Bhisale 3.Sidhi Sawant 4.Rutuja Kotkar 5.Sahil Pillkandu 6.Vaishnavi Wagh 7.Prachit Yedre
28/01/2023	Jamboree 20-23	9	Technical	National	1.Prsad Gurav 2. Aditi Pisat 3. Zain Mir 4. Rohit Thakur 5. Ajit Rohan 6.Sonu Lad 7. Sushant Ghurup 8. Rohi Palshetkar 9.Eshanl Pawar
19/01/2023- 24/01/2023	Competition on Formula Bharat 2023-Class II	15	Technical	National	AIR 9th Out of 22 TEAMS 1.Yunus Khan 2.Prajwal Shetty 3.Yesh Jain 4.Ajinkya Kadam 5.Swapnil Bhisale 6.Manas Darji 7.Prajapati Pratik 8.Shobhnath 9.Rane Chinmay 10.Rane Sahil 11.Dixit Shubham 12.Hule Om Ganesh 13.Jagtap Atharva 14.Chauhan Chirag 15.Dubey Manish
1/4/2023 To 02/04/2023	HPVC ASME TEAM	8	Technical	National	AIR 5 1. Aman Choudhari 2. Yunus Khan 3. Rupesh Nair 4. Balasaheb Jadhav 5 Yash Jain 6. Prathmesh Parab 7. Omkar Rane 8. Alisha Vinekar
13/08/2022 To 15/08/2022	E- CYCLOTHON	6	Technical	Intercollege	1st Team NOVA 1.Ishita Kale 2.Sanaullah Ansari 3.Rohan Nalawade 4.Sayli Chowdhary 5.Rutuja Kotangale 6.Shams Mallick

01/04/2023 To 02/04/2023	IAM3D	4	Technical	National	AIR 7 1.Rane Chinmay 2.Rane Sahil 3..Dixit Shubham 4..Hule Om Ganesh
Jan 2023	DD Robocorn	6	Technical	National	1st Team NOVA 1.Ishita Kale 2.Sanaullah Ansari 3. Prajapati Pratik 4.Sayli Chowdhary 5.Rutuja Kotangale 6.Shams Mallick
AY 2021-22					
31/07/2021	FSEV Concept Challenge	20	Technical	National	20th rank out of 20 Teams 1.Chinmay rege 2. Khavare Adhiraj 3. Siddhi Patil 4.Swarang salunke 5.Alisha Thakare 6. Neha Rajan Yelve 7. Ameya Shendge 8. Pritam Tambe .Neha Patne 10. Aryan Bhalerao 11. Raj Salekar 12. Sanket Kadam 13. Prithvij Kakade 14. Balasaheb Jadhav 15.Vedant Vernerkar 16. Alisha Vinekar 17 Arun Pillai 18. Rudraksh Mali 19. Sayujya Lohar 20.Yogesh Kolkondi
30/04/2021	Technical paper presentation (FCRIT Vashi)	2	Technical	Intercollege	3rd rank 1.Rugved Rote 2. Akansha Shirke
01/10/2021	HPVC CHALLENGE	10	Technical	National	EFEST ASME Competition
1/28/2022	Avishkar research convention	1	Technical	Inter collegiate	1. Swarali kamble
25/04/2022	Avishkar research convention	3	Technical	Inter collegiate	1.Raut Pratik 2. Khavare Adhiraj 3.Kandivalikar Pruthvi
25/04/2022	Avishkar research convention	3	Technical	Inter collegiate	1.Bendkhale Siddhant 2. Pagar Rutuja 3. Parab Chaitali

25/04/2022	Avishkar research convention	4	Technical	Inter collegiate	1.Vavekar Sanghavi 2. Raskar Sidhi 3.Mungekar Gauravi 4.Karote Priti
25/04/2022	Avishkar research convention	3	Technical	Inter collegiate	1.Karekar Vijay 2. Kaskar Nikhil 3. Bagwe Omkar
Oct 2021- Feb 2022	Techfest 2021-22	7	Technical	National	1.NyatiVaidya 2.Swapnil Bhisale 3.Sidhi Sawant 4.Rutuja Kotkar 5.Sahil Pillkandu 6.Vaishnavi Wagh 7.Prachit Yedre
Nov 2021 - May 2022	Robocon 2021-22	1	Technical	National	AIR 14 Prachit Yedre
21/01/2022- 25/01/2022	Competition on Formula Bharat 2022 electric	20	Technical	National	AIR 11th 1Vinayak Bhat 2.Deep Mangaonkar 3. Yunus Khan 4.Prajwal Shetty 5.Yesh Jain 6.Ajinkya Kadam 7.Swapnil Bhisale 8. Kalpesh Kadam 9.Neha Patne 10.Aryan Bhalerao 11. Raj Salekar 12. Sanket Kadam 13. Prithvij Kakade 14.Balasaheb Jadhav 15.VedantVernerkar 16. Alisha Vinekar 17 Arun Pillai 18. Rudraksh Mali 19. Sayujya Lohar 20.Yogesh Kolkondi

29/07/2021-04/08/2021	Competition on Formula Student EV Challenge	20	Technical	National	AIR 20th 1Vinayak Bhat 2.Deep Mangaonkar 3. Yunus Khan 4.Prajwal Shetty 5.Yesh Jain 6.Ajinkya Kadam 7.Swapnil Bhisale 8. Kalpesh Kadam 9.Neha Patne 10. Aryan Bhalerao 11. Raj Salekar 12. Sanket Kadam 13. Prithvij Kakade 14. Balasaheb Jadhav 15.Vedant Vernerkar 16. Alisha Vinekar 17 Arun Pillai 18. Rudraksh Mali 19. Sayujya Lohar 20.Yogesh Kolkondi
AY 2020-21					
30/04/2021	Technical paper presentation (FCRIT Vashi) Avishkar research convention	11	Technical	Intercollege	3rd rank 1.Rugved Rote 2. Akansha Shirke 3.Aishwary Kakodkar 4.Siddhesh rane 5. Chinmay rege 6. Siddhi Patil 7.Swarang salunke 8.Alisha Thakare 9. Neha Rajan Yelve 10. Ameya Shendge 11. Pritam Tambe
17/04/2021	Project competition SCOE Avishkar2021	4	Technical	University	2nd Winner 1.Ameya Shendge 2. Neha Yadav 3. Alisha Thakare 4. Pritam Tambe

22/07/2020	FSEV Concept Challenge	20	Technical	National	27th rank out of 40 Team 1.Swapnil Mane 2. Yash Bhatt 3. Tirth Raval 4. Mihir Raorane 5.Malhadutt Hublikar 6. Sakshi Dighe 7. Ameya Shendge 8. Rahil Idreshi 9. Vinayak Bhatt 10. Deep Mangaonkar 11. Karan Gupta 12. Aman Choudhari 13. Yunus Khan 14. Rupesh Nair 15. Balasaheb Jadhav 16 Yash Jain 17. Prathmesh Parab 18. Omkar Rane 19. Alisha Vinekar 20.Aditya Salunkhe
Nov-Dec 2020	Competition on Cozmo-clench (Techfest 2020-21 IITB)	4	Technical	National	1.Tejas Phutane 2.Aaditya Auti 3.Niyati Vaidya 4.Tejal Temkar
Aug 2020	Competition on E-Yantra 2020-21 IIT B	7	Technical	National	1.NyatiVaidya 2.Swapnil Bhisale 3.Sidhi Sawant 4.Rutuja Kotkar 5.Sahil Pillkandu 6.Vaishnavi Wagh 7.Prachit Yedre
Dec2020-June2021	Competition on DD Robocorn 2021	5	Technical	National	1.Sidhi Sawant 2.Rutuja Kotkar 3. NyatiVaidya 4.Vaishnavi Wagh 5.Prachit Yedre
AY 2022-23					

on 19th April2023	Fire Safety	15	Social	-	1.Devkar Jay 2.Dhamane Sahil 3.Ghanekar Aayush 4.Ghatlia Devam 5.Harijan Aakash 6.Hasam Rohit 7.Morey Siddhant 8.Mukane Vighnesh 9.Nerkar Adesh 10pravil Pagare 11.Pednekar Yash 12.Pol Aditya 13.Parkar Aadil 14.Parmar Priten 15.Patel Yagnesh
19th March2023	Impulse Marathon2023	30	Social	-	1.Rawool Vedant 2.Sakalkale Varun 3.Kunchumuthu Arun 4.Makarani Faisal 5.Jogani Jay 7.Mahadik Ninad 8.Mahadik Nishikant 9.Mahadik Rahul 10.Rao Aayush 11.Raskar Siddhi 12.Rathod Shubham 13.Reddy Abhishek 14.Rewale Sahil 15.Save Atharva 16.Sawant Nitesh 17.Tambe Shreeya 18.Vavekar Sanghavi 15.Patel Yagnesh 16.Salekar Raj 17.Shetty Prajwal 18.Shikalgar Wasim 19.Wagh Vaishnavi 20kalra Arushi 21.Kamble Mihir 22.Kunde Suraj 23. Sapkal Omkar Ganesh 24.Sasi Anukool 25.Sawant Vajresh 26.Mane Deepak 27.Mhatre Shubham 28.Parkar Aadil 29.Parmar Priten 30.Rathod Gaurang

24 January 2023	Pad distribution drive on the ocassion of National Girl Childs Day	10	Social	-	1.Sapkal Omkar 2.Sasi Anukool 3.Vishwakarma Akanksha 4.Warang Sumeet 5.Yeole Harshal 6.Kadam Sanket 7.Khan Yunus Nasir 8.Pillai Arun Babu 9.Salekar Raj Anil 10. Wadle Mayur
AY 2020-21					
7th March2021	Beach clean-up drive at Juhu and Erangal beach	23	Social	-	1.Nevrekar Ankeeta 2.Niranjane Simony 3.Phale Sahil 4.Phatarpekar Mohit 5.Karalkar Akash 6.Kasmani Aadil 7.Lad Prapti 8.Limbachiya Shubh 9.Shaikh Bashir 10.Shaikh Maaz 11.Chaudhari Aman 12.Chavan Parth 13.Gupta Niteshkumar 14.Jadhav Suraj 15.Jaiswar Shivam 16.Pawar Vaishnavi 17.Potul Sudarshan 18.Kakodkar Aishwary 19.Bharambe Kaushal 20.Channe Suyash 21.Mahala Piyush 22.Mainkar Prathamesh 23.Divate Siddhesh

10th October 2020	Mental Health Awareness Event	18	Social	-	1.Mukadam Bhoomi 2.Nevrekar Ankeeta 3.Niranjane Simony 4.Palkar Pranav 5.Parab Soham 6.Parmar Jay 7.Patel Pragnesh 8.Solanki Bhavesh 9.Suthar Kiran 10.Tambe Pritam 11.Tervankar Pravin 12.Thakare Alisha 13.Yadav Nitesh 14.Yadav Rahul 15.Yadav Suraj 16.Kakade Rajendra 17.Kamble Shubham 18.Kanade Yogesh
16th October 2020	Orphanage Visit	20	Social	-	1.Kandpal Himanshu 2.Kantale Aniket 3.Momin Aaqib 4.Gholap Arti 5.Sharma Sahil 6.Jogani Jay 7.Mahadik Ninad 8.Mahadik Nishikant 9.Mahadik Rahul 10.Rao Aayush 11.Raskar Siddhi 12.Rathod Shubham 13.Reddy Abhishek 14.Rewale Sahil 15.Save Atharva 16.Sawant Nitesh 17.Tambe Shreeya 18.Vavekar Sanghavi 19.Wagh Vaishnavi 20.Prabhu Pranav

May 13, 2021	Vaccination	15	Social	-	1.Kasar Nikhil 2.Khavare Adhiraj 3.Koli Dishant Prakash 4.Mujpara Jeela 5.Parmar Sagar 6.Revandkar Omkar 10.Sharma Akshat 11.Sharma Kaushik 12.Govari Abhishek 13.Gupta Niteshkumar 14.Jadhav Suraj 15.Joshi Sanika
on 6th September 2020	Valedictory	8	Social	-	1.Kalra Arushi 2.Kamble Mihir 3.Kunde Suraj 4. Sapkal Omkar Ganesh 5.Sasi Anukool 6.Sawant Vajresh 7.Mane Deepak 8.Mhatre Shubham
21st September 2020	Tech fest IIT Bombay, in association with MCTs RGIT MESA presented Online Workshops on Mental Health and Suicide Prevention	15	Social	National	1.Sharma Kaushik 2.Govari Abhishek 3.Gupta Niteshkumar 4.Jadhav Suraj 5.Sharma Sahil 6.Jogani Jay 7.Mahadik Ninad 8.Mahadik Nishikant 9.Mahadik Rahul 10.Rao Aayush 11.Raskar Siddhi 12.Rathod Shubham 13.Reddy Abhishek 14.Rewale Sahil 15.Save Atharva

17/04/2021	Beach clean-up drive on	15	Social	-	1.Vernekar Vedant 2.Bhalerao Aryan 3.Jain Yash 4.Kadam Ajinkya 5.Kadam Kalpesh 6.Kadam Sanket 7.Khan Yunus 8.Pillai Arun 9.Salekar Raj 10. Ahirekar Suyog 11.Bhagat Saigan 12.Bhamra Jagjit 13.Tambe Shreeya 14.Vavekar Sanghavi 15. Khan Yunus Nasir

5 FACULTY INFORMATION AND CONTRIBUTIONS (200) Total Marks 160.03

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Associa Type
RAJESH VASANTRAO KALE	ACBPK7490B	ME/M. Tech and PhD	20/02/2015	THERMAL ENGINEERING	13	1	0	Professor	05/03/2021	06/08/1996	Regular
KIRAN MANOJ CHAUDHARI	AWRPK3270H	ME/M. Tech and PhD	03/03/2009	THERMAL ENGINEERING	1	0	0	Professor	17/05/2010	17/05/2010	Regular
RAVINDRA YASHWANT KURANE	ABDPK7353A	M.E/M.Tech	25/11/1997	PRODUCTION ENGINEERING	0	0	0	Associate Professor	08/10/2004	08/10/2003	Regular
NITIN KESHAVRAO DESHMUKH	ABUPD0093K	M.E/M.Tech	14/03/2005	POWER ENGINEERING	0	0	0	Assistant Professor		25/07/1994	Regular
ATUL GAJANAN LONDHEKAR	ACFPL8611F	ME/M. Tech and PhD	13/11/2018	THERMAL ENGINEERING	0	0	0	Assistant Professor		01/08/2003	Regular
SHANMUKHA RAMAIAH NANJAMMA	AMRPS8331D	M.E/M.Tech	13/09/1993	STRUCTURAL ENGINEERING	0	0	0	Assistant Professor		15/01/1999	Regular
SAMBHAJI DAJIRAO GAIKWAD	AFQPG0564E	M.E/M.Tech	05/08/2005	MACHINE DESIGN	0	0	0	Assistant Professor		09/11/2011	Regular
NILESH BHALCHANDRA SHAHAPURE	BFYPC7082C	M.E/M.Tech	13/11/2006	MANUFACTURING ENGINEERING	3	0	0	Assistant Professor		02/01/2006	Regular
NARENDRA NARAYAN BHOSTEKAR	AAWPB8117H	M.E/M.Tech	10/11/2007	MANUFACTURING ENGINEERING	0	0	0	Assistant Professor		01/07/2009	Regular
AMOL LAXMAN MANGRULKAR	AJXPM2072J	ME/M. Tech and PhD	14/01/2013	CAD/CAM	9	0	1	Assistant Professor		29/06/2009	Regular
MUKUND RAJARAM VALSE	AQCPV8191R	M.E/M.Tech	16/11/2015	THERMAL ENGINEERING	1	0	0	Assistant Professor		18/07/2016	Regular
REHAN MUNIRUDDIN SIDDIQUI	CREPS9691G	M.E/M.Tech	24/12/2014	MACHINE DESIGN	0	0	0	Assistant Professor		07/07/2015	Regular
NITIN JAYWANT PANASKAR	ATFPP3300G	ME/M. Tech and PhD	07/08/2021	MANUFACTURING ENGINEERING	2	0	1	Assistant Professor		18/07/2016	Regular
CHETAN RAGHUNATH RANE	ARVPR4238D	M.E/M.Tech	30/09/2015	MANUFACTURING SYSTEM ENGINEERING	0	0	0	Assistant Professor		03/07/2017	Regular
PARMESHWAR RATNESHWAR PAUL	BUWPP8428E	M.E/M.Tech	05/10/2016	THERMAL ENGINEERING	0	0	0	Assistant Professor		03/07/2017	Regular
ASHWINI VAIBHAV GOTMARE	CJTPK2938R	ME/M. Tech and PhD	24/08/2023	MACHINE DESIGN	3	0	1	Assistant Professor		03/07/2017	Regular
NIKHIL V. S.	FNUPS2741J	M.E/M.Tech	14/06/2016	MANUFACTURING ENGINEERING	0	0	0	Assistant Professor		03/07/2017	Regular
YOGESH PRATAPRAO DESHMUKH	AYAPD8259J	ME/M. Tech and PhD	03/08/2020	PRODUCTION ENGINEERING	8	0	0	Assistant Professor		25/03/2022	Regular
SANJAY UMAKANT BOKADE	ABVPB7340L	ME/M. Tech and PhD	24/03/2014	MANUFACTURING ENGINEERING	8	2	0	Professor	03/07/2017	10/08/1995	Regular

VISHRAM BHIKAJI SAWANT	ANRPS0222Q	M.E/M.Tech	01/02/2003	PRODUCTION ENGINEERING	0	0	0	Assistant Professor		01/08/2003	Regular
AJAY KHEMAJI GAWADE	BRRPG5819G	M.E/M.Tech	27/12/2021	MACHINE DESIGN	0	0	0	Assistant Professor		11/07/2022	Regular
PRAVINKUMAR RAMJI GUPTA	ASAPG8947N	M.E/M.Tech	16/03/2022	HEAT POWER	0	0	0	Assistant Professor		15/07/2022	Regular
KIRAN PRAKASHRAO DESHMUKH	BGLPD7727F	M.E/M.Tech	23/11/2015	MACHINE DESIGN	0	0	0	Assistant Professor		18/07/2022	Regular
SHWETALI SANTOSH TAYADE	DNDPB0438J	M.E/M.Tech	04/09/2017	aDVANCED mANUFACTURING AND MECHANICAL SYSTEM DESIGN	0	0	0	Assistant Professor		03/10/2022	Regular
MANJULATA PAL	AJZPL1420B	ME/M. Tech and PhD	17/11/2021	THERMAL ENGINEERING	0	0	0	Assistant Professor		01/03/2022	Regular
PRASAD BHIMAJI KAWADE	CDLPK4628Q	M.E/M.Tech	12/08/2015	CAD/CAM	3	0	0	Assistant Professor		03/09/2021	Regular
RATNAM RAMESH GUJAR	BCHPG4592H	M.E/M.Tech	18/03/2016	HEAT POWER	0	0	0	Assistant Professor		01/07/2017	Regular
PRATHAMESH RAMKRISHNA POTDAR	BAGPP9328H	ME/M. Tech and PhD	01/02/2021	MACHINE DESIGN	5	0	0	Assistant Professor		18/07/2016	Regular

5.1 Student-Faculty Ratio (20) Total Marks 14.00

Institute Marks : 14.00

UG

No. of UG Programs in the Department 1

MECHANICAL ENGINEERING						
Year of Study	**CAY (2023-24)**		**CAYm1 (2022-23)**		**CAYm2 (2021-22)**	
	Sanction Intake	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**	**Sanction Intake**	**Actual admitted through lateral entry students**
2nd Year	120	12	120	12	120	12
3rd Year	120	12	120	12	120	12
4th Year	120	12	120	12	120	12
Sub-Total	**360**	**36**	**360**	**36**	**360**	**36**
Total	**396**		**396**		**396**	
Grand Total	396		396		396	

PG

No. of PG Programs in the Department 1

HEAT POWER			
Year of Study	**CAY(2023-24)**	**CAYm1(2022-23)**	**CAYm2 (2021-22)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	18	18	18
2nd Year	18	18	18
Total	**36**	**36**	**36**
Grand Total	36	36	36

SFR

No. of UG Programs in the Department 1

No. of PG Programs in the Department 1

Description	**CAY(2023-24)**	**CAYm1 (2022-23)**	**CAYm2 (2021-22)**
Total No. of Students in the Department(S)	432 **Sum total of all (UG+PG) students**	432 **Sum total of all (UG+PG) students**	432 **Sum total of all (UG+PG) students**
No. of Faculty in the Department(F)	23 **F1**	25 **F2**	20 **F3**
Student Faculty Ratio(SFR)	18.78 **SFR1=S1/F1**	17.28 **SFR2=S2/F2**	21.60 **SFR3=S3/F3**
Average SFR	19.22 **SFR=(SFR1+SFR2+SFR3)/3**		
F=Total Number of Faculty Members in the Department (excluding first year faculty)			

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

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

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

	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2023-24)	23	0
CAYm1(2022-23)	25	0
CAYm2(2021-22)	20	0

Average SFR for three assessment years : 19.22

Assessment SFR : 14

5.2 Faculty Cadre Proportion (25) Total Marks 25.00

Institute Marks : 25.00

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2023-24)	2.00	3.00	4.00	0.00	14.00	20.00
CAYm1(2022-23)	2.00	3.00	4.00	0.00	14.00	22.00
CAYm2(2021-22)	2.00	3.00	4.00	0.00	14.00	17.00
Average Numbers	2.00	3.00	4.00	0.00	14.00	19.67

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

5.3 Faculty Qualification (25) Total Marks 16.03

Institute Marks : 16.03

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2023-24(CAY)	8	15	21.00	16.67
2022-23(CAYm1)	8	17	21.00	17.62
2021-22(CAYm2)	6	14	21.00	13.81

Average Assessment : 16.03

5.4 Faculty Retention (25) Total Marks 20.00

Institute Marks : 20.00

Description	2022-23	2023-24
No of Faculty Retained	19	18
Total No of Faculty	21	21
% of Faculty Retained	90	86

Average : 88.00

Assessment Marks : 20.00

5.5 Innovations by the Faculty in Teaching and Learning (20) Total Marks 20.00

Institute Marks : 20.00

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

Innovation in the teaching-learning process refers to the introduction of new and creative approaches, methods, and technologies to enhance the effectiveness and efficiency of the educational process. It involves adopting novel ways of designing and delivering instruction to facilitate better understanding, engagement, and retention of knowledge among students. By adopting innovative strategies, educators can enhance the quality of education, improve student outcomes, and prepare students for the challenges in this new era. An innovative teaching and learning process is required for students to understand the curriculum. This helps in bridging the gap between the curriculum and the Industry.

We follow these steps while deciding on the Innovation in Teaching Learning Process in RGIT

In RGIT, the following methods are adopted in Innovation in teaching-learning methods are adopted by RGIT process

- ICT Classroom
- Flipped Classroom
- Project Based Learning
- Use of Open Education Resources
- Virtual Labs
- Industrial Visits
- Hands-on Training

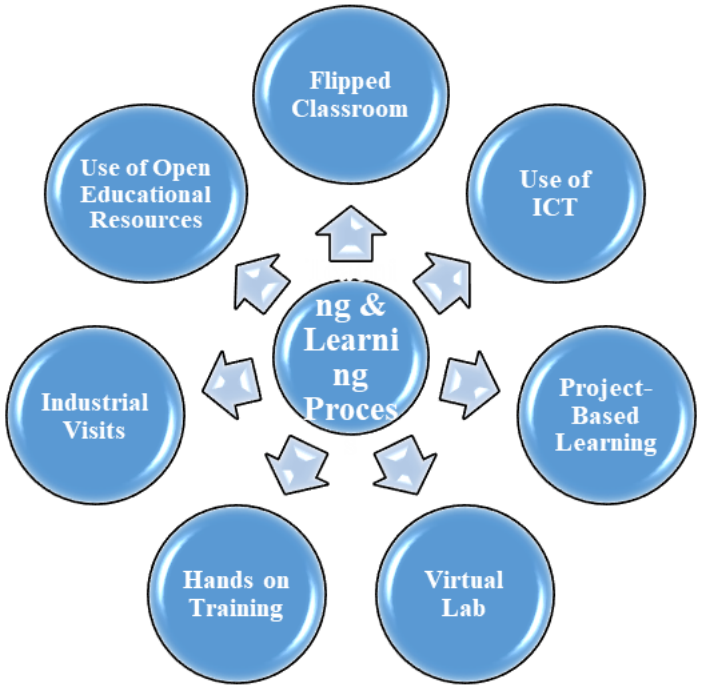

Fig. 1: Various Teaching Learning Process

1. Use of ICT:

Idea:

To provide interactive learning experiences, stimulates and motivates students to learn.

Implementation:

Faculty integrated educational apps or websites and create interactive assignments. Some of faculty members created their own YouTube channels.

Outcome:

ICT provides comfortable learning. ICT aids in the understanding of difficult concepts and processes.

2. Flipped Classroom:

Idea:

To familiarize students with the new information and prepare for in-class activities with the teacher and peers, ahead of time.

Implementation:

The flipped classroom approach is reserved for revisiting the topic while the teacher actively engages with the students through group discussions, collaborative coursework, and assessments.

Outcome:

Helps improve students' engagement and communication between the teacher and students as well as their peers. It provides the students with the opportunity to learn at their own pace.

3. Project-Based Learning:

Idea:

Project-based learning involves students working on real-world projects or authentic tasks that require them to apply knowledge and skills in meaningful and relevant ways.

Implementation:

Incorporating appropriate instruction and guidance to the students to do small projects in industry based /research based learning skills and content, thinking critically and solving problems in a group.

Outcome:

Fosters critical thinking, problem-solving, and creativity, and promotes collaboration and communication skills.

4. Virtual Labs:

Idea:

Create immersive and interactive learning experiences that go beyond traditional classroom settings.

Implementation:

During Covid or post-covid, engaging students in virtual field trips, simulations, and hands on learning, making complex concepts with more accessible.

Outcome:

Improved students' conceptual understanding, laboratory or practical skills, and motivation and attitudes towards practical approach.

5. Use of Open Educational Resources:

Open Educational Resources are freely available learning materials that can be accessed, shared, and adapted by teachers and students. They include textbooks, videos, simulations, and other digital resources that can enhance the quality and accessibility of education, and promote collaboration and innovation in the learning process.

6. Industrial Visits:

Idea:

To give exposure to the students about the practical environment with theoretical learning.

Implementation:

Industrial Visits are systematic and well planned or organised by the department for few subjects of program.

Outcome:

Students will get to know the working environment in the industries, their processing, how machines are working, interact with the experts.

7. Hands on Training / Technical Events:

Idea:

To engage students, develop skills, and apply knowledge to real-world situations.

Implementation:

Department / Students' Professional bodies or clubs are organizing technical events that are related to upgrading the knowledge of students. The department is planned systematically for the gradual growth of students.

Outcome:

- Flexibility and adaptability are increased
- Leverage essential learning skills and processes

Implementation and Effectiveness

A.Y. 2020 – 21

Sr. No.	Name of Faculty	Name of Subject (S.E./T.E/B.E.)	Type of innovation 1)Youtube video link 2)Google drive video link 3)Google classroom link 4)Virtual lab link	Details (Provide links)	Outcome
1	Prof. Rehan Siddiqui	Design of Mechanical systems/ Machine design (T.E.)	Youtube video link	https://youtu.be/hNPEeimUQ0g?si=gT2JhFreK1VxMGPx	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://www.youtube.com/watch?v=h_EUiLlk_PI	
				https://www.youtube.com/watch?v=mfdoisJ1RLk	
				https://www.youtube.com/watch?v=fHFBCP17ec8	
				https://www.youtube.com/watch?v=10kjfbY3Tfk	
				https://www.youtube.com/watch?v=EskQ_h4D-vI	
				https://www.youtube.com/watch?v=fpSH7Ku0LUI	
				https://www.youtube.com/watch?v=-HNM5hB0eb4	
				https://www.youtube.com/watch?v=DjgIG5KZT_U	
				https://www.youtube.com/watch?v=6rLMlKGB1w8	
				https://www.youtube.com/watch?v=DrXGWmA2iN4	
				https://www.youtube.com/watch?v=CkV0AXACPxg	
				https://www.youtube.com/watch?v=vkjevi9sKO8	
2	Prof. Parmeshwar Paul	CAMD	Youtube video link	https://www.youtube.com/watch?v=j64VM99Rh7g	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://www.youtube.com/watch?v=aoqV51PNTQE	
				https://www.youtube.com/watch?v=fbYLw-H90bY	
				https://www.youtube.com/watch?v=QtI7_6yiAF8	
				https://www.youtube.com/watch?v=D54ugBqsQ1E	
				https://www.youtube.com/watch?v=_C2z3Fd_Hx8	
		Python		https://www.youtube.com/watch?v=zPKM7vw3GxQ	
3	Prof. Mukund Valse	CAMD	Youtube video link	https://www.youtube.com/watch?v=Z6N7zLshYhc	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://www.youtube.com/watch?v=1AtiId86cAk	
				https://www.youtube.com/watch?v=ZZvd0dkiyKI	
				https://www.youtube.com/watch?v=7JAR37_qEtk	
				https://www.youtube.com/watch?v=j4DiLxnd8z8	
				https://www.youtube.com/watch?v=1p-e0h8O--k	
				https://www.youtube.com/watch?v=6klirLftG2Q	
				https://www.youtube.com/watch?v=QFT_bQwLI_4	
				https://www.youtube.com/watch?v=Rx5d05_bCX4	
				https://www.youtube.com/watch?v=FinsvAfKckA	
				https://www.youtube.com/watch?v=WHDffgv8N0Q	

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Sr. No.	Name of Faculty	Name of Subject (S.E./T.E/B.E.)	Type of innovation 1)Youtube video link 2)Google drive video link 3)Google classroom link 4)Virtual lab link	Details (Provide links)	Outcome

1	Prof. Rehan Siddiqui	Design of Mechanical systems/ Machine design (T.E.)	Youtube video link	https://youtu.be/hNPEeimUQ0g?si=gT2JhFreK1VxMGPx	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://www.youtube.com/watch?v=h_EUiLlk_PI	
				https://www.youtube.com/watch?v=mfdoisJ1RLk	
				https://www.youtube.com/watch?v=fHFBCP17ec8	
				https://www.youtube.com/watch?v=10kjfbY3Tfk	
				https://www.youtube.com/watch?v=EskQ_h4D-vI	
				https://www.youtube.com/watch?v=fpSH7Ku0LUI	
				https://www.youtube.com/watch?v=-HNM5hB0eb4	
				https://www.youtube.com/watch?v=DjgIG5KZT_U	
				https://www.youtube.com/watch?v=6rLMlKGB1w8	
				https://www.youtube.com/watch?v=DrXGWmA2iN4	
				https://www.youtube.com/watch?v=CkV0AXACPxg	
				https://www.youtube.com/watch?v=vkjevi9sKO8	

		DMS	Google drive video link	https://drive.google.com/file/d/18yM0Sv-yZsuSj1eOTYn_d3MMAqk6JHdj/view?usp=drivesdk	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1cJpySaSapFe2QF1hIAMftBzCVu0jF3aH/view?usp=drivesdk	
				https://drive.google.com/file/d/1FGb8u921j6VHZMciBgQUxRtiSmjlAnQ6/view?usp=drivesdk	
				https://drive.google.com/file/d/1iv6pcWMEWLsfhacYjcrXKkYo2U3MyVHG/view?usp=drivesdk	
				https://drive.google.com/file/d/1JFA8uKIcbCbQ_OmXppLO1w6CGXh4n-o1/view?usp=drivesdk	
				https://drive.google.com/file/d/1lpcdoz8YtXI7KAMZeXj5f1aNP_lZn-zo/view?usp=drivesdk	
				https://drive.google.com/file/d/1RKbGByGOqljIUocrkv_aszatijJkUOld/view?usp=drivesdk	
				https://drive.google.com/file/d/1Um8PSs0sWKNRjm9X7tO9-5UkqB6HpA-K/view?usp=drivesdk	
				https://drive.google.com/file/d/1w0b16ddtiNg4_TYu5J1La_EFe0JDNMrR/view?usp=drivesdk	
				https://drive.google.com/file/d/1wqf7JA_cedunsOndpP2UQRTII2G-HT2v/view?usp=drivesdk	
				https://drive.google.com/file/d/1AQHPJR8TjhEYSyh2HJs5f2x45fTSvnJb/view?usp=drivesdk	
				https://drive.google.com/file/d/1iU-e_i2yUqgrGXR9aOwmFRPJIIIVw6Xa/view?usp=drivesdk	
				https://drive.google.com/file/d/1JC_DEEJPalpplK-0zBqJ-mlrcEPFSCQ_/view?usp=drivesdk	
		KOM		https://drive.google.com/file/d/1_k47rmFEJNWYmNARlJlJbBivK2lTB5kU/view?usp=drivesdk	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/10bA0Dcc6u7Jyb1dw8vfZkB9g5owlAh4y/view?usp=drivesdk	
				https://drive.google.com/file/d/16ZHmip3lXP8dQmiNUtjFVF4LpDdtwvDi/view?usp=drivesdk	
				https://drive.google.com/file/d/1BVDTOD5a0DYA4CybaTqjOaV7qJj9AoBF/view?usp=drivesdk	
				https://drive.google.com/file/d/1hC78wxnG2QF71BcDh51qN3KVZsXICWaE/view?usp=drivesdk	
				https://drive.google.com/file/d/1MpRxFvLzTcspkigscdnhmhESggZDL87s/view?usp=drivesdk	
				https://drive.google.com/file/d/1nqqAx5TKmyhBn6SY0PHYN1oGCB9MjtFf/view?usp=drivesdk	
				https://drive.google.com/file/d/1pdKKCOP8BKUDL7y8kV2QXrTHq9FO3JHb/view?usp=drivesdk	
				https://drive.google.com/file/d/1E_kALnHrOreSmDP9lvB-e2yysiHd1zL-/view?usp=drivesdk	
				https://drive.google.com/file/d/1Ev_EbNAcqwp0rY_EkoMGPqmilV0mMjwD/view?usp=sharing	

2	Prof. Parmeshwar Paul	CAMD	Youtube video link	https://www.youtube.com/watch?v=j64VM99Rh7g	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://www.youtube.com/watch?v=aoqV51PNTQE	
				https://www.youtube.com/watch?v=fbYLw-H90bY	
				https://www.youtube.com/watch?v=QtI7_6yiAF8	
				https://www.youtube.com/watch?v=D54ugBqsQ1E	
				https://www.youtube.com/watch?v=_C2z3Fd_Hx8	
		Python		https://www.youtube.com/watch?v=zPKM7vw3GxQ	
		CADM (P)	Google drive video link	https://drive.google.com/file/d/18VaYWW7WbQgNCrNjY7YsTE_fgnzf9u0A/view?usp=sharing	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1xeyQw6eRd0liGDlM1hUp4jWZzaEaFQ-C/view?usp=sharing	
				https://drive.google.com/file/d/1zTG--7RhmVdhrYlZv1WqSF9vZ7pKVTNZ/view?usp=drivesdk	
		HVARC		https://drive.google.com/file/d/1HuL4XIp3io9XiejcIYs34sIiLb7_Tx6c/view?usp=drivesdk	
				https://drive.google.com/file/d/1K1mHqW2rZ2-4Y55gxN10rWig_8qsdvK3/view?usp=drivesdk	
				https://drive.google.com/file/d/1q_vs0z3I_OYF31oPJaEEK9hClWrGMPWg/view?usp=sharing	
				https://drive.google.com/file/d/1SbnVpibkNmeDeqAhlmdzVbiFhJqN0Kkl/view?usp=sharing	
				https://drive.google.com/file/d/1WKTT9ZJXvLJnSLFRneDh5gYE7UpqAWsf/view?usp=sharing	
				https://drive.google.com/file/d/1wYlBtf6LKrNsTILpA7QLWkNCagkuXalx/view?usp=sharing	
				https://drive.google.com/file/d/1ZNR8p1MTEA5rC4yf8lfwFgN31uTyS_VH/view?usp=sharing	
				https://drive.google.com/file/d/1Zr-AM1XRqA2lg1oHw4YVoMj2Y210XaTZ/view?usp=sharing	
		HVACR (P)		https://drive.google.com/file/d/129TqQAEurYF3J6sMPojdwFfIfgJyIdDB/view?usp=sharing	
				https://drive.google.com/file/d/1X1CNPDq2NfnOjbMAR9Pz0QdC_1_X3i6v/view?usp=sharing	
		KOM (P)		https://drive.google.com/file/d/1D1NxfehxPaVSSCsHEq3hI2fNSy4u6qbH/view?usp=sharing	
				https://drive.google.com/file/d/1Ff-QfZHprGQpEFsAPMCozotew0vr475A/view?usp=sharing	
				https://drive.google.com/file/d/1NXoJiq5Hd0VVK4e0D3dHJ71btQSOfqQ0/view?usp=sharing	

3	Prof. Mukund Valse	CAMD	Youtube video link	https://www.youtube.com/watch?v=Z6N7zLshYhc	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://www.youtube.com/watch?v=1AtiId86cAk	
				https://www.youtube.com/watch?v=ZZvd0dkiyKI	
				https://www.youtube.com/watch?v=7JAR37_qEtk	
				https://www.youtube.com/watch?v=j4DiLxnd8z8	
				https://www.youtube.com/watch?v=1p-e0h8O--k	
				https://www.youtube.com/watch?v=6klirLftG2Q	
				https://www.youtube.com/watch?v=QFT_bQwLI_4	
				https://www.youtube.com/watch?v=Rx5d05_bCX4	
				https://www.youtube.com/watch?v=FinsvAfKckA	
				https://www.youtube.com/watch?v=WHDffgv8N0Q	
		FM	Google drive video link	https://drive.google.com/file/d/15bE-K0A-c2otP1SlRR65inI4QaVdxJKn/view	
				https://drive.google.com/file/d/1dh-jwY0FqLgx0W_pdlsBCKnlG7C7ayk2/view	
				https://drive.google.com/file/d/1fbyDQum3DJLhKWxrRr8IlsdDhXyB-LGJ/view	
				https://drive.google.com/file/d/1hc6z-AAqS-GWYLIx37DaFlpmtTZ4V6O6/view	
				https://drive.google.com/file/d/1QNjQliLP_r-gNwrhr3gmRjuMu1qtu_EH/view	
				https://drive.google.com/file/d/1QXDU3-ZhKl31YCkSO3izSqoqjWdTAeki/view	
				https://drive.google.com/file/d/1tDSEdCMIhXmMYbxA10tS23E-r1lSnV1_/view	
				https://drive.google.com/file/d/1wWlVRizXJ7T9DY1P7jO4Uwo6em3y5x7y/view	
				https://drive.google.com/file/d/10Acm0wk3ollxN6k5nfs7U0514XpFUlvy/view	
				https://drive.google.com/file/d/1rj7cNZfJXGthK-AuNmXNYG20eKh-ufo3/view	
				https://drive.google.com/file/d/1XRRhCPEakE-vc2f232je56EJ3R2zXLCo/view	
				https://drive.google.com/file/d/1zOBu5dZBMY9ERfhUADZTap3hDFLadIvS/view	
4	Prof. Nikhil V.S.	Metal Forming Technology (T.E.)	Virtual Lab	Metal Forming Virtual Simulation Lab	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
			Google drive video link	https://drive.google.com/file/d/13tutMz6ZFX2Q3Ca5iqvf7fS8-L9ZMNfo/view?usp=drivesdk	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1jgwmJuxUhEh3d0RnZ99HRSEABPlwR0KH/view?usp=drivesdk	
				https://drive.google.com/file/d/1RsR-2ebjybhXKB-ODsYP_faAmJsIaFy8/view?usp=drivesdk	
				https://drive.google.com/file/d/10IfWfCmkYxGg-2gdNQY1s0b2sVMsR8xC/view?usp=drivesdk	
				https://drive.google.com/file/d/15BCDSyzaFULbnKJeBVNhLtZ33JFraOUe/view?usp=drivesdk	
				https://drive.google.com/file/d/1EE8yWSH6ZfStyFMSttDzzH_CXsaVUugC/view?usp=drivesdk	
				https://drive.google.com/file/d/1Fgm6Yd0XE4jYGAO4RGM0HQZou4X0aLTT/view?usp=drivesdk	
				https://drive.google.com/file/d/1v9Vq70fLTVaL36qwzeuPIkBgNA3rM6PN/view?usp=drivesdk	
				https://drive.google.com/file/d/13tutMz6ZFX2Q3Ca5iqvf7fS8-L9ZMNfo/view?usp=drivesdk	

5	Prof. Nitin Panaskar	Metal Forming Technology (T.E.)	Virtual Lab	Metal Forming Virtual Simulation Lab	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
		Metal Forming Technology	Google drive video link	https://drive.google.com/file/d/1GZIEv5eiAt_4_1Yz8joqjm8tsgGosLjL/view?usp=drive_web	
		Industrial Engineering and Management		https://drive.google.com/file/d/10vUqwjXezDWWJaRAqqJ5PrK5X09zmg8q/view?usp=sharing	
				https://drive.google.com/file/d/10Xox6bdZ5C1DYwcNXP0xTZYxWLD6KD-2/view?usp=sharing	
				https://drive.google.com/file/d/13zSYG-aIjP-HaMQiFP2X7PrBUam340oK/view?usp=sharing	
				https://drive.google.com/file/d/14XLX1UTxuxQ3pvAPorfYZXCi039VDFdg/view?usp=sharing	
				https://drive.google.com/file/d/1cHphHORPNp4qUz642GrriN8K_PwEkRMC/view?usp=sharing	
				https://drive.google.com/file/d/1hv2trgT5LG6FSjpC0-RsrT4r-JAa-MsM/view?usp=sharing	
				https://drive.google.com/file/d/1NXKLg9TfjBT3EDaqS7YB7QQ8E6MjS0S_/view?usp=sharing	
				https://drive.google.com/file/d/1oYrmQA4mhlS0bXdnPol9DPkDwg7Mayff/view?usp=sharing	
				https://drive.google.com/file/d/1VPzrKALn_zgjKm1J37O2q3bb5H9QB5a0/view?usp=sharing	
				https://drive.google.com/file/d/1ywRulQo_kcORRzYTtmJI6jtpXoQeB60R/view?usp=sharing	
		Project Management		https://drive.google.com/file/d/1dwY9lCmkaiRv5SAiNxuKv5pfTmPerNsC/view?usp=sharing	
				https://drive.google.com/file/d/1MfJXoIOTTCpmvOcoRx6h2kMQ_mRKGvin/view?usp=sharing	
				https://drive.google.com/file/d/1HAg4jAwMfg7-Srcg8sAqahKHZqFn5tKn/view?usp=sharing	
				https://drive.google.com/file/d/19DenTin2UEBtintXc8_6oJRdTE8jtBl3/view?usp=sharing	
				https://drive.google.com/file/d/1wxozBvnkChxmJWDvmua1JQm8kPXPel4X/view?usp=sharing	
				https://drive.google.com/file/d/1VPzrKALn_zgjKm1J37O2q3bb5H9QB5a0/view?usp=sharing	
				https://drive.google.com/file/d/1muy31xGRraGzz_swKjmSlOn3U-HL44pP/view?usp=sharing	
				https://drive.google.com/file/d/1oDk1VTQbuUL9zp60dCwUt0UjX1P-Qa2v/view?usp=sharing	

6	Prof. Amol Mangrulkar	AAI	Google drive video link	https://drive.google.com/file/d/1bXge5ZM_dSIfpNA6R64kzOJbWA3_GIwJ/view?usp=sharing	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1EuBw6CAqRf4HL-oIF2V30weGQWIBz4HJ/view?usp=sharing	
				https://drive.google.com/file/d/1FiedUQ0SO-QUz193bzjzombVStDmfyec/view?usp=sharing	
				https://drive.google.com/file/d/1HEkvG2bQqw9uO-hfW-4sDmzYbeNTCOGu/view?usp=sharing	
				https://drive.google.com/file/d/1obrLyVYcYyriXW0r-8LcupX-cvzMvnWm/view?usp=sharing	
				https://drive.google.com/file/d/1Vjh_1gxpRD-g9f_D-fZcfxtbe8h3jVzI/view?usp=sharing	
				https://drive.google.com/file/d/1VuW5UBYco9mjDyrdpxcj3nRj55LeVebP/view?usp=sharing	
				https://drive.google.com/file/d/1WmF-UBJPygVzZzeDqxgkrPPpyzvIVPD7/view?usp=sharing	
				https://drive.google.com/file/d/1ytcWi12MbXkWQuVNQ3EzvJICtTnnFQh-/view?usp=sharing	
		CAD/CAM		https://drive.google.com/file/d/1cCYC2No7PRpktKSG6_Fla6s9xs5Fr5U5/view?usp=sharing	
				https://drive.google.com/file/d/1cCYC2No7PRpktKSG6_Fla6s9xs5Fr5U5/view?usp=sharing	
				https://drive.google.com/file/d/1gbZkLKdhTBXhxVcVpRyN60zRzb42DASF/view?usp=sharing	
				https://drive.google.com/file/d/1HEkvG2bQqw9uO-hfW-4sDmzYbeNTCOGu/view?usp=sharing	
				https://drive.google.com/file/d/1KcRAh2OheAVVU1EFUVjPPy6iPmMNbT-X/view?usp=sharing	
				https://drive.google.com/file/d/1nolybB3QYDGTw2ykrR4CSd_uG6qoZtZ9/view?usp=sharing	
				https://drive.google.com/file/d/1PR2KEys1yrwa63ig42d-1bLgtIfdRmEr/view?usp=sharing	
				https://drive.google.com/file/d/1ZZDAn3UUi0EP-_A8kQ1yUOZBK4nyMcCG/view?usp=sharing	
		CNC &3DP (P)		https://drive.google.com/file/d/1Mi-tGDPROypnmwc4SWXSkeR1K57UMyVt/view?usp=sharing	
				https://drive.google.com/file/d/1obrLyVYcYyriXW0r-8LcupX-cvzMvnWm/view?usp=sharing	
				https://drive.google.com/file/d/1saIE6at5gbHR-H0Et-Js0TKMt1eBgIzv/view?usp=sharing	
				https://drive.google.com/file/d/1Mi-tGDPROypnmwc4SWXSkeR1K57UMyVt/view?usp=sharing	
				https://drive.google.com/file/d/1nolybB3QYDGTw2ykrR4CSd_uG6qoZtZ9/view?usp=sharing	
				https://drive.google.com/file/d/1w0Jy6hB7IvHVefnlxApayP3Mky90Wxaa/view?usp=sharing	

7	Dr. Atul Londhekar	Power Engineering	Google drive video link	https://drive.google.com/file/d/1_sqLYy6XPxzu2RLoHV9GR6-QpBx8cwWv/view?usp=sharing	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/120g0BJsk3sTCxQY8pbvL4G-yyi3hwZQz/view?usp=sharing	
				"https://drive.google.com/file/d/1aLwPFjElLDp8ueLTqy7wgtoOUj2zoxju/view?usp=sharing	
				https://drive.google.com/file/d/1B5_iOq9b7Y6px9HwwqDRbWSBE6pX2-KA/view?usp=sharing	
				https://drive.google.com/file/d/1CzIwdqIU5ljoHelc2x5MFldn3iw1WffX/view?usp=sharing	
				https://drive.google.com/file/d/1db8pigsMugeS7BaMDYExJj9wHeHKa2eO/view?usp=sharing	
				https://drive.google.com/file/d/1e92ztrrhepLLWXjwmAI_MMmg1mwg_MjZ/view?usp=sharing	
				https://drive.google.com/file/d/1eUBSZ3Ts-wlC0tvaenjcU_6HtzCRbSiu/view?usp=drive_web	
				https://drive.google.com/file/d/1kXIeZkmOzn1W4Re0osjFTkNRbiRr4AFZ/view?usp=sharing	
				https://drive.google.com/file/d/1qO6Kwy9mNnO91ddEJRul0IUbcAHUKYkL/view?usp=sharing	
				https://drive.google.com/file/d/1qXb06iZcL1lZRTwji-Ciipk9rO4UXgX0/view?usp=sharing	
		PE (P)		https://drive.google.com/file/d/15Nieuo7GUEOICBuI2OEXQ6lR8BAXexOg/view?usp=sharing	
				https://drive.google.com/file/d/1f3M0xyuIowCRgNR7y1WOxxXVsenpiYvM/view?usp=sharing	
				https://drive.google.com/file/d/1vBQSN0Ft1QIxxenN8T3jGQG48k4ief1x/view?usp=sharing	
		TM		https://drive.google.com/file/d/1Da9JYEU2R81fDXLZzVfeOBGSiDeoWwlV/view?usp=sharing	
				https://drive.google.com/file/d/1fQiBtNyEndJqtabirZEjv15OWDPtV46O/view?usp=sharing	
				https://drive.google.com/file/d/1gUSXTHERHopkQQG_stdRhDw5T766yMuJ/view?usp=sharing	
				https://drive.google.com/file/d/1jfswm5Wzw6oR4Kw2RBrf25GtpjWZdAbq/view?usp=sharing	
				https://drive.google.com/file/d/1K7ygmZLq9YU7t3ZY6OwSxhjlz8m-xOmu/view?usp=sharing	
				https://drive.google.com/file/d/1kc4EKyQd90HglVrz2HMcnX1y4HK7urFW/view?usp=sharing	
				https://drive.google.com/file/d/1Q6dtpT4we-UVoQXRF_nL3lG6KBiW-UIP/view?usp=sharing	
				https://drive.google.com/file/d/1tabnbW1TB_TCGr6BMurXE53wiD04_-Bu/view?usp=sharing	

8	Dr. Kiran Chaudhari	HVACR	Google drive video link	https://drive.google.com/file/d/1c-Ue-LlQbZ3KfcoZMaooxSgj3UYU4CqZ/view?usp=drivesdk	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1kZfcaHa4dMOi1atJNdq4uEfVzaQ2RmjI/view?usp=drivesdk	
				https://drive.google.com/file/d/1kZfcaHa4dMOi1atJNdq4uEfVzaQ2RmjI/view?usp=drivesdk	
				https://drive.google.com/file/d/1-qrs9_jAgwcYjUu37G5BLQrm0W1icJ7-/view?usp=drivesdk	
				https://drive.google.com/file/d/1wyu6jY_cHAvecwGQerqYOufpEPc_P9ZI/view?usp=drivesdk	
		HVACR (P)		https://drive.google.com/file/d/1kZfcaHa4dMOi1atJNdq4uEfVzaQ2RmjI/view?usp=drivesdk	
				https://drive.google.com/file/d/1wyu6jY_cHAvecwGQerqYOufpEPc_P9ZI/view?usp=drivesdk	
9	Dr. Rajesh Kale	ILOC (RM)		https://drive.google.com/file/d/1eeni0T1tqQL7oqUJDyJ8qRim5N89TRjE/view?usp=sharing	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1lahKiEthGeAFWx7D1bmg7E-JWWkViXL7/view?usp=sharing	
				https://drive.google.com/file/d/1hVdAZbts6YCHsMlSMKvOMfjHcrkskn7S/view?usp=sharing	
				https://drive.google.com/file/d/1PYirSfjvNXU7_rWKX33QI5Rz21Psy3bC/view?usp=sharing	
		PE (P)		https://drive.google.com/file/d/1eIiFQZQ31O4K64XNtazRG_4LGYTPXfU1/view?usp=sharing	
				https://drive.google.com/file/d/1FNjBD_RYB3jddOovUkBPP9gwMzUxUcWk/view?usp=sharing	
				https://drive.google.com/file/d/1iVnfQfkby-yGFa2jWRyfCqaCmt15xwhs/view?usp=sharing	

10	Prof. Narendra Bhostekar	CADM		https://drive.google.com/file/d/1nFzjA4nhid7M2Memy0LLfq1W55MEvBvX/view?usp=sharing	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1WKxJMspyEgyF894KVjsygIN7cdvitaQ1/view?usp=sharing	
		DLOC : RES		https://drive.google.com/file/d/1eUBSZ3Ts-wlC0tvaenjcU_6HtzCRbSiu/view?usp=drive_web	
				https://drive.google.com/file/d/1v-EbzLd1MfgQdWpZhxOnzHmrBYPOThnk/view?usp=sharing	
				https://drive.google.com/file/d/1VNVFMTc2YsMpKVx-3B_Jljd1BgItP1Ji/view?usp=sharing	
				https://drive.google.com/file/d/11XkMW1VuhmWvA8w8si7bba4jSsvnoSDN/view?usp=sharing	
				https://drive.google.com/file/d/1eeGpeZlpRy-n_3D7znkgWbkd5PC1on2b/view?usp=sharing	
				https://drive.google.com/file/d/1Js6GwTUnBYQt5AR3sp2_YOSwBqbzGPU5/view?usp=sharing	
				https://drive.google.com/file/d/1LebGXzZMc7AwoevejCOvQXPXPGm1L-T0/view?usp=sharing	
				https://drive.google.com/file/d/1q0k2BxhgWpnA1XaSRa0rFAhj5zqzdP4n/view?usp=sharing	
				https://drive.google.com/file/d/1sm_Q5zC_y7hdp2FiW9vDS1qomG54PQwL/view?usp=sharing	
				https://drive.google.com/file/d/1x_rizprH3c9fYSHfZEWgko2prqHAfnaz/view?usp=sharing	
		IEM		https://drive.google.com/file/d/10ZzuAnSoaXlQdxo6chMskPJiYCemFqSR/view?usp=sharing	
				https://drive.google.com/file/d/164rOO2FLjs5rPerFO9lWvbI_JdjzTydQ/view?usp=sharing	
				https://drive.google.com/file/d/1B4PrEacBrnn9aUgOcF4ZLcPUMQz069P2/view?usp=sharing	
				https://drive.google.com/file/d/1eBRJ03m7-FsT_qzdqb-fz_lXL1ftJr08/view?usp=sharing	
				https://drive.google.com/file/d/1H0DOb_rTuXfBwF8B2bi5-kmZC2lNAU5s/view?usp=sharing	
				https://drive.google.com/file/d/1h4p3YdE1yIlnpCDXjQeAaH3ZHaXcK6CP/view?usp=sharing	
				https://drive.google.com/file/d/1louRN0Jdm5Q0gXsseTBKN7Gw44iLXwmU/view?usp=sharing	
				https://drive.google.com/file/d/1p-2uEU_oe4nVnvbibxqQj3z-teOs0EnJ/view?usp=sharing	
				https://drive.google.com/file/d/1u90nX4Wae4Ot0_gD_jFXE79bKQxr3P-Q/view?usp=sharing	
				https://drive.google.com/file/d/1uH_T3S5kUjKxuZEDyFwtSV0zin5AeXAG/view?usp=sharing	
				https://drive.google.com/file/d/1VmdC8JmJLIQ0e_l8o6UzEbEPXkMvhDGU/view?usp=sharing	

11	Prof. Nilesh Shahapure	CAD/CAM		https://drive.google.com/file/d/1CAyyGUm421SxexZod033u8wbBcR-ilNP/view?usp=drivesdk	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1EcEF18zujp3t4nEmke5JRw-4N3w-pdvo/view?usp=drivesdk	
				https://drive.google.com/file/d/1GoyGcxER9tLuyrsoJPssY9jSmP-P_7oV/view?usp=drivesdk	
				https://drive.google.com/file/d/1nMmAeWJQ1oqq89l9NXAHeMmXENa2UY3u/view?usp=drive_web	
				https://drive.google.com/file/d/1s90n-jIae78FhC-GlyWVXyL3Ihz46br_/view?usp=drivesdk	
				https://drive.google.com/file/d/1ujUlTrsXwOqi0k97VtlcDrQXNa8pUFUV/view?usp=drive_web	
				https://drive.google.com/file/d/1ymU56eHu7EyRhXwQU5rniAaZax8i1DUh/view?usp=drivesdk	
		CNC & 3DP		https://drive.google.com/file/d/1iTDPsHvQKWqopfxHmrAEiqRLkjVUwGZh/view?usp=drivesdk	
				https://drive.google.com/file/d/1LBt_F0xfdehkq6Bfi5QMD-gghqjOtTZA/view?usp=drive_web	
				https://drive.google.com/file/d/1tHhGxL2Fzv6TXddZSWWUM09qljdIlJfg/view?usp=drivesdk	
		CNC & 3DP (P)		https://drive.google.com/file/d/1Mmrkt8-EHSWu3gAmNtFJWyAzS-gP5PPp/view?usp=drive_web	
				https://drive.google.com/file/d/1x5X4Kk8rURPjPwLU10NRPeHlwOI9Ca3f/view?usp=drivesdk	
		KOM		https://drive.google.com/file/d/12EX_uQ1US4uU_1oeCEpspvA7M1Zzf_JL/view?usp=drivesdk	
				https://drive.google.com/file/d/1d8nhk0dGPamICw_b5OlmzV-ZOx9lQkak/view?usp=drive_web	
				https://drive.google.com/file/d/1HaPJYkkrC8enTuS7WPy-a0OiF2_Dgu_L/view?usp=drivesdk	
				https://drive.google.com/file/d/1HZtohovJMs6M-ziiXV9buT65wedYrwfS/view?usp=drivesdk	
				https://drive.google.com/file/d/1kKbzrzpInGJNqCIlid13oSncr7UXJ1pf/view?usp=drivesdk	
				https://drive.google.com/file/d/1oJKpj3eHkfL_d6_zIfcGLoCtlzHs0qMU/view?usp=drivesdk	
				https://drive.google.com/file/d/1-RN8edbKvKe24TFq4icSBhSclzrzdraF/view?usp=drive_web	
				https://drive.google.com/file/d/1sgdBo7_qR-CUb9U1gqLpN6cU2GFlmsEd/view?usp=drive_web couldnt record completely due low band width	

12	Prof. Nitin Deshmukh	DLOC : RES		https://drive.google.com/file/d/1bkl8cTJcF-6S2_BBW4hjfiyIXE17BxP2/view?usp=sharing	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1tOlJns5V8YmcjCrXDoSMvvE42XeiK_O4/view?usp=sharing	
				https://drive.google.com/file/d/11qwe7rMNyW1YSPZQAIfjcnIMsqXqwnyq/view?usp=sharing	
				https://drive.google.com/file/d/15x4UzDrJC_NzZ9of9e-ItHCF8GIlpflm/view?usp=sharing	
				https://drive.google.com/file/d/1ph7HrKmPFp6Pnr65sj1kIkbLHzrvNSgR/view?usp=sharing	
				https://drive.google.com/file/d/1qiD3O-kYcXtuMdpN_Eo7ymPqIXKQ0EiK/view?usp=sharing	
				https://drive.google.com/file/d/1r3cvT-zupifqWsso43Y7X26Vae7ORBV2/view?usp=sharing	
				https://drive.google.com/file/d/1XmWQgIILG2wBVfd447JcrAX5ij_zMJSZ/view?usp=sharing	
				https://drive.google.com/file/d/1Y8l1BYdEeyHpUt_wy_I2b51t4jjZoYUn/view?usp=sharing	
				https://drive.google.com/file/d/1Z_GITROsF0LeGMszA-rhZlOHjORw1dW9/view?usp=sharing	
		FM		https://drive.google.com/file/d/1B0le8yEmeNdxE4X4zLKzE2hxHVbqnK2m/view?usp=sharing	
				https://drive.google.com/file/d/1bbzaltekCu06JQlXSPmOVZfbQLR26_ib/view?usp=sharing	
				https://drive.google.com/file/d/1FZc50K8SeptGT04k-SLfnQxkZ5_r-Tmt/view?usp=sharing	
				https://drive.google.com/file/d/1JTbKS7zScT6AhDZFB1xGbGDfscQVMFRh/view?usp=sharing	
				https://drive.google.com/file/d/1Knzkuzz45DMMeHYerv6McL5g8ZzgaIQM/view?usp=sharing	
				https://drive.google.com/file/d/1nflumAnoMh-6Etlh-4kcniUP6IdVZmP5/view?usp=sharing	
				https://drive.google.com/file/d/1Qa3XzQRVjJKMrL38roleoKVfxpGxEMpc/view?usp=sharing	
				https://drive.google.com/file/d/1s3GP1LR-V4V3DleWwRTkjsN-lMSPs5hk/view?usp=sharing	
		TM (P)		https://drive.google.com/file/d/1kIpu8WNnh3bjqYZcnhzKNYqQrzH1SVsv/view?usp=sharing	
				https://drive.google.com/file/d/1PAGRiE5MzHNKApLgqfiSXaVOLYRdez6s/view?usp=sharing	
				https://drive.google.com/file/d/1phDJ8CpLoUiFkSKRgQuYp-xi_rKiM5dw/view?usp=sharing	

13	Prof. Prasad Kawade	M&A (P)		https://drive.google.com/file/d/1-lzv4vVPMI0ZA0Wd7dANWZl3jNndzXXF/view?usp=sharing	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/16R-CWG5aetouRR5NEAeF4SnFH8e6f65Q/view?usp=sharing	
		MD		https://drive.google.com/file/d/1112W2tO3gLVqDWNHGj49Xm42ye0Dt9aq/view?usp=sharing	
				https://drive.google.com/file/d/15cy9dWQL9GzzYx56inzFJe_UeLf5oJe-/view?usp=sharing	
				https://drive.google.com/file/d/16Em28b5U-vsC2pK9GTxfYB2KFBXrEfV9/view?usp=sharing	
				https://drive.google.com/file/d/1j_7Jli9mjtNXLAYjAi_L1TqUmWLPPnQ1/view?usp=sharing	
				https://drive.google.com/file/d/1NtwHpDZQx2CgTYebS4QHBssKGDV_vucR/view?usp=sharing	
				https://drive.google.com/file/d/1Q6XOCH2__wwZRml5ZbDAGWRyFBgdIxKW/view?usp=sharing	
				https://drive.google.com/file/d/1sm8OqLn0t9GbbzkCghrBOJvEAQivE4sl/view?usp=sharing	
				https://drive.google.com/file/d/1-tSL1EQXYdAx1bIPzdi8fxnR2zBneLQk/view?usp=sharing	
				https://drive.google.com/file/d/1X37ePe0yszyARCECkKjO0yWkvWOSs7Ym/view?usp=sharing	
		MD (P)		https://drive.google.com/file/d/14WxSc1tMVTKpbE2kBxo7su_rQhKSCeEG/view?usp=sharing	
				https://drive.google.com/file/d/1iStKPQ7S2gZxSX7kvqnQjyoprG7bskuX/view?usp=sharing	
				https://drive.google.com/file/d/1ZKsC3RvQof5ZYfi1Gdwj4EqI1ldhFtpw/view?usp=sharing	
		MSP		https://drive.google.com/file/d/17zygZt0x-Vun7b9pmddDpg52j5x_oUPS/view?usp=sharing	
				https://drive.google.com/file/d/1xqaMCvkJjA9uRT_YVLMOK7y4TciorUhv/view?usp=sharing	

14	Prof. Prathamesh Potdar	MD		https://drive.google.com/file/d/1ARUMIdZEAO2xzq4nWi-3L_XyFdzI0j7j/view?usp=sharing	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1cQpaulmynP_JuEJ6QGYM6W0joR8sEhs2/view?usp=sharing	
				https://drive.google.com/file/d/1dApQQeEfe1IuW0C61GjXUr9dmFYFisL2/view?usp=sharing	
				https://drive.google.com/file/d/1DX4fb1YqMs7z2NsAPWeEwGd4s865Qqmr/view?usp=sharing	
				https://drive.google.com/file/d/1MckFgDwg3HHSUWfsOPAk_ibplrCVONDN/view?usp=drivesdk	
				https://drive.google.com/file/d/1TPqbj4lLl4o8vVG_BLyFh9OiWo2M-XKD/view?usp=drivesdk	
				https://drive.google.com/file/d/1UiffHPz--RlTuYv5B3qqkgc4-mJmQnz7/view?usp=drivesdk	
				https://drive.google.com/file/d/1xBMh2OZKTtcuDarAvPQ7nSyEeK87BPsu/view?usp=sharing	
				https://drive.google.com/file/d/1Xy-IhI9Vugn_8pEz35Ivqk5ltq7dE-kJ/view?usp=sharing	
				https://drive.google.com/file/d/1ZLCiDtIKMYyJMGvPYZr-eG7ptt27vPek/view?usp=sharing	
		MD (P)		https://drive.google.com/file/d/11gLQoe0TTLg240RFbAsdRtrcQrFmMD_r/view?usp=sharing	
				https://drive.google.com/file/d/1IMNBSJUJjMqbLy2Vna5763J87BKm7tu4/view?usp=drivesdk	
				https://drive.google.com/file/d/1lidQF03p977vGpCAayrLTMzf4wcAuoKe/view?usp=sharing	
		MT		https://drive.google.com/file/d/1vt51qAFLIaUXf-0PmQmlZSjwLb-Huz3U/view?usp=sharing	
				https://drive.google.com/file/d/1vt51qAFLIaUXf-0PmQmlZSjwLb-Huz3U/view?usp=sharing	
		SOM		https://drive.google.com/file/d/10Qi0YDHxk6dvlMKcisWOu1jplKvPVt5D/view?usp=sharing	
				https://drive.google.com/file/d/12PQZK94GPKlpKRhBlfH_n6Ibb0WrIzPY/view?usp=sharing	
				https://drive.google.com/file/d/18-U-b5pgUkFYxsi5bIzBYlGZXH-PwCHs/view?usp=sharing	
				https://drive.google.com/file/d/1F6f_qn66W_AgO_4YtJv0HDnvRfziiP2O/view?usp=sharing	
				https://drive.google.com/file/d/1gnuiILVFPDBchYOQWxqhDdbyvgfozLhw/view?usp=drivesdk	
				https://drive.google.com/file/d/1LPVMAwraPZDChk6XDIuQhz7BpPqS-p2o/view?usp=sharing	

15	Prof. Ratnam Gujar	PE		https://drive.google.com/file/d/11fE7Ip8clKpJvCa5AS4PiYKw1eF4caVw/view?usp=drivesdk	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/12d46DWPHao_R3L6WSEij09oxRrg8jaEZ/view?usp=drivesdk	
				https://drive.google.com/file/d/12j-HDypZ4fd-ByRucZzOiTgym-YVDCQQ/view?usp=drivesdk	
				https://drive.google.com/file/d/17AiIB5dxeRwyM4OFb4veOLEp5jNPSZM9/view?usp=drivesdk	
				https://drive.google.com/file/d/1EhZtAdWvyP9nnzuvW1AkuXau5YwSPz5F/view?usp=drivesdk	
				https://drive.google.com/file/d/1LjPCNYBdak13SazP5ekBexatJu7HcYYq/view?usp=drivesdk	
		TM		https://drive.google.com/file/d/1mFO2xoFGPKzXj2tLaVH9zHImk8z6Hi5j/view?usp=drivesdk	
				https://drive.google.com/file/d/1PmgLOGERvk_AsMrJKle3tX7gFVBG8o9b/view?usp=drivesdk	
				https://drive.google.com/file/d/1s7FciiBwmVSChlhxKuXSLN4m_x6TZUo2/view?usp=drivesdk	
				https://drive.google.com/file/d/1WiqI_hQ2NuqYbVD9UvRQCmAJcEpm3LgY/view?usp=drivesdk	
				https://drive.google.com/file/d/1yMphr2TBMTqdaroLe5oxd1ogMISsHW2s/view?usp=drivesdk	
		TM (P)		https://drive.google.com/file/d/19clDr5_JDY2zEB4dT11PGSai0G_XbCyG/view?usp=drivesdk	
				https://drive.google.com/file/d/1Qo_ASGYPPfiCY43JcSJywgnL3oASy9Va/view?usp=drivesdk	
16	Prof. Ravindra Kurane	DLOC : PTD		https://drive.google.com/file/d/15qjd96qfuh6_wZgzpZtYUhfWZ7N3RaTU/view?usp=drive_web	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/1C9p0YEnXlOnTKYKYW9b5FM_1jzC30Jqy/view?usp=drive_web	
				https://drive.google.com/file/d/17v9IU59ySIVuyFbC3SybQskch-JL9O68/view?usp=drive_web	
				https://drive.google.com/file/d/1fOVq3dX3FD1FxXPy0z8vzZuFcNnN8MjG/view?usp=drive_web	
				https://drive.google.com/file/d/1mu1La584DPTgaKNSw5aMkxbgHZSnfy-6/view?usp=drive_web	
				https://drive.google.com/file/d/1sInqvDrBqeubMQY4j__-e9h2TD25lqG7/view?usp=drive_web	
		MM		https://drive.google.com/file/d/11DiHaX9UNSoDPy0riwg6VmEJtTuquYmb/view?usp=drive_web	
				https://drive.google.com/file/d/1h4p3YdE1yIlnpCDXjQeAaH3ZHaXcK6CP/view?usp=sharing	
				https://drive.google.com/file/d/1KBWz1XbufGsbsyvPpmmYU6mHKcu6Hl6e/view?usp=drive_web	
				https://drive.google.com/file/d/1sX9cTMMa9E5soVOgS6c1I6-13Jdk_hLn/view?usp=drive_web	
				https://drive.google.com/file/d/1UhMqpcPoithpeqnwWfPX4Tww6rC5SRx0/view?usp=drive_web	
				https://drive.google.com/file/d/1UhMqpcPoithpeqnwWfPX4Tww6rC5SRx0/view?usp=drive_web	

				https://drive.google.com/file/d/1zXByDKv5DK6ylkx38uYaJZBXApjFq0y-/view?usp=drive_web	
17	Prof. Sambhaji Gaikwad	DMS		https://drive.google.com/file/d/14vt3SxTHedT0PNqv3sWQdqCkZDvNsPR7/view?usp=drive_web&authuser=1	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://drive.google.com/file/d/16vOigJJrJYw2AYboV6BWd8ltGg9r1iZC/view?usp=drive_web&authuser=1	
				https://drive.google.com/file/d/1A0ZZ4EMcH_fJoKO2_8BWxKx586DKOEzQ/view?usp=sharing	
				https://drive.google.com/file/d/1KT5yiMnB85kXgYqO_UttMykr_XQC0bLg/view?usp=drive_web	
				https://drive.google.com/file/d/1MhbqjGV-jOvJz-wXxTikpv-xw1slEWb9/view?usp=drive_web	
				https://drive.google.com/file/d/1mr4dIfzHFsQArUDzLK1k42B1ehSLPbLv/view?usp=drive_web	
				https://drive.google.com/file/d/1o08NM6lMVmGL9SqDshfqPp3HTzDf3rp-/view?usp=drive_web	
				https://drive.google.com/file/d/1OF06QEHLkR0ptIeXXQyNcYJMtadz9pjy/view?usp=drive_web	
				https://drive.google.com/file/d/1SAjCr7Br6Qh-8mAkSf5l4GE7YKHdCWtQ/view?usp=drive_web&authuser=1	
				https://drive.google.com/file/d/1vbGk04oi4P1Pd4wo8B4Ubt25AkU2ymAW/view?usp=sharing	
				https://drive.google.com/file/d/1vrdfWk0Z7ZafV9_oI7BVbCys1SjNXCH7/view?usp=drive_web&authuser=1	
		DMS (P)		https://drive.google.com/file/d/1B8-c7Y11ny1gfzhpKdMyKX_nC6A3uTYw/view?usp=drive_web	
				https://drive.google.com/file/d/1kqE1os2NTRrxukTa4rY60wzFRroPiHTT/view?usp=sharing	
				https://drive.google.com/file/d/1UbyXe2uA0HhHK2y3MjVMA4Jm_oNpHGsk/view?usp=drive_web&authuser=1	

18	Prof. Vishram Sawant	AAI		"https://drive.google.com/file/d/10pVlsgPljV_l07m6P0KlWv2sJFkOfth7/view?usp=drive_web	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				"https://drive.google.com/file/d/11C0SHmqF8Ts9Pu8gLWgKhBH_elK6gD-p/view?usp=drive_web	
				https://drive.google.com/file/d/15vReeQxpy-EbvBhL8B7zvymyeKfPacKF/view?usp=sharing	
				https://drive.google.com/file/d/1EkjNrj8R4uRvjphrkix5-rpacZBzwhgE/view?usp=sharing	
				https://drive.google.com/file/d/1HuRaWAkncke8vantmoEy9fUebVLt7aV5/view?usp=sharing	
				https://drive.google.com/file/d/1mXt8yeey_ezsYRh9hg87SkYSf_waZvlJ/view?usp=sharing	
				"https://drive.google.com/file/d/1tO_VT69tub912W6pFESQ8lSsMF0yNmBG/view?usp=drive_web	
				https://drive.google.com/file/d/1Y1J7Pd6l0pC9uK1gwe---nP-TlwEIV6f/view?usp=sharing	
				https://drive.google.com/file/d/1z7diIUZ1zQTQ5T8FHIl2RSQnJYbhJ0yW/view?usp=sharing	
		MFT		https://drive.google.com/file/d/13U_qE05kziRQcWe6eCjvZ2S5eH6EfKRn/view?usp=sharing	
				https://drive.google.com/file/d/16i0wRQkIJJs65hk6YPHv8U-diBM2ttRj/view?usp=sharing	
		M & A (P)		https://drive.google.com/file/d/1BnbZHobmwwUoJ_kAFe-uMI0E5RkU-GND/view?usp=sharing	
				"https://drive.google.com/file/d/1Ecc3rmaJ_ZKtBBeW-sWSa4HiBYrPYFUX/view?usp=drive_web	
				https://drive.google.com/file/d/18C0RfBq05LC5XYAnQlS2NgbbgiTTBLFW/view?usp=sharing	

A.Y. 2022 – 23

Sr. No.	Name of Faculty	Name of Subject (S.E./T.E/B.E.)	Type of innovation 1)Youtube video link 2)Google drive video link 3)Google classroom link 4)Virtual lab link	Details (Provide links)	Outcome

1	Prof. Rehan Siddiqui	Design of Mechanical systems/ Machine design (T.E.)	Youtube video link	https://youtu.be/hNPEeimUQ0g?si=gT2JhFreK1VxMGPx https://www.youtube.com/watch?v=h_EUiLlk_PI https://www.youtube.com/watch?v=mfdoisJ1RLk https://www.youtube.com/watch?v=fHFBCP17ec8 https://www.youtube.com/watch?v=10kjfbY3Tfk https://www.youtube.com/watch?v=EskQ_h4D-vI https://www.youtube.com/watch?v=fpSH7Ku0LUI https://www.youtube.com/watch?v=-HNM5hB0eb4 https://www.youtube.com/watch?v=DjglG5KZT_U https://www.youtube.com/watch?v=6rLMlKGB1w8 https://www.youtube.com/watch?v=DrXGWmA2iN4 https://www.youtube.com/watch?v=CkV0AXACPxg https://www.youtube.com/watch?v=vkjevi9sKO8	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
2	Prof. Parmeshwar Paul	Computer aided machine drawing (S.E.) Python (T.E.) Heating, Ventilation,and Air Conditioning (T.E.)	Youtube video link	https://www.youtube.com/watch?v=j64VM99Rh7g https://www.youtube.com/watch?v=aoqV51PNTQE https://www.youtube.com/watch?v=fbYLw-H90bY https://www.youtube.com/watch?v=QtI7_6yiAF8 https://www.youtube.com/watch?v=D54ugBqsQ1E https://www.youtube.com/watch?v=_C2z3Fd_Hx8 https://www.youtube.com/watch?v=zPKM7vw3GxQ https://www.youtube.com/watch?v=mKQp0PkrI38 https://www.youtube.com/watch?v=KsrcMogEqVk https://www.youtube.com/watch?v=Ex1n-1eFqUo https://www.youtube.com/watch?v=KsrcMogEqVk https://www.youtube.com/watch?v=Ex1n-1eFqUo https://www.youtube.com/watch?v=WqjkAVTWXZY https://www.youtube.com/watch?v=D2DtbyhqXEc https://www.youtube.com/watch?v=IXQM6PR-sVI&t=196s https://www.youtube.com/watch?v=93x5gsIPDS0	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
3	Prof. Mukund Valse	CAMD	Youtube video link	https://www.youtube.com/watch?v=Z6N7zLshYhc https://www.youtube.com/watch?v=1AtiId86cAk https://www.youtube.com/watch?v=ZZvd0dkiyKI https://www.youtube.com/watch?v=7JAR37_qEtk https://www.youtube.com/watch?v=j4DiLxnd8z8 https://www.youtube.com/watch?v=1p-e0h8O--k https://www.youtube.com/watch?v=6klirLftG2Q https://www.youtube.com/watch?v=QFT_bQwLI_4 https://www.youtube.com/watch?v=Rx5d05_bCX4 https://www.youtube.com/watch?v=FinsvAfKckA https://www.youtube.com/watch?v=WHDffgv8N0Q	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics

4	Prof. Nikhil V.S.	Strength of Materials/ Mechanics (S.E.)	Youtube video link	https://www.youtube.com/watch?v=YuGPrxiTv5c	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
				https://www.youtube.com/watch?v=DSxYqunNTyQ	
				https://www.youtube.com/watch?v=keGwpbQhvhM	
5	Dr. Nitin Panaskar	Industrial Skills (B.E.)	Youtube video link	https://www.youtube.com/watch?v=YdMaM-9K9dE&t=7s	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
6	Dr. Amol Mangrulkar	Maintenance Engineering/ Machine Diagnostics (B.E.)	Virtual lab link	https://mdmv-nitk.vlabs.ac.in/	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
7	Dr. Yogesh Deshmukh	Maintenance Engineering/ Machine Diagnostics (B.E.)	Virtual lab link	https://mdmv-nitk.vlabs.ac.in/	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics
8	Prof. Shwetali Tayade	Maintenance Engineering/ Machine Diagnostics (B.E.)	Virtual lab link	https://mdmv-nitk.vlabs.ac.in/	1)Students understood the concepts 2)Understand practical applications 3)Visualisation of processes 4)Quick and systematic revision of topics

5.6 Faculty as participants in Faculty development/training activities/STTPs (15) Total Marks 15.00

Institute Marks : 15.00

Name of the faculty	Max 5 Per Faculty		
	2022-23 (CAYm1)	2021-22 (CAYm2)	2020-21 (CAYm3)
Dr. Sanjay U. Bokade	3.00	0.00	0.00
Dr. Rajesh V. Kale	3.00	3.00	5.00
Dr. Kiran M. Chaudhari	5.00	0.00	3.00
Mr. Ravindra Y. Kurane	3.00	5.00	5.00
Mr. Nitin K. Deshmukh	3.00	3.00	5.00
Dr. Atul G. Londhekar	3.00	3.00	5.00
Mr. R. N. Shanmukha	3.00	0.00	0.00
Mr. Sambhaji D. Gaikwad	3.00	3.00	5.00
Mr. Nilesh B. Shahapure	3.00	5.00	5.00
Mr. Narendra N. Bhostekar	3.00	3.00	5.00
Dr. Amol L. Mangrulkar	3.00	5.00	5.00
Mr. Mukund R. Valse	5.00	3.00	5.00
Mr. Rehan M. Siddiqui	3.00	5.00	5.00
Dr. Nitin J. Panaskar	5.00	5.00	5.00
Mr. Chetan R. Rane	3.00	3.00	5.00
Mr. Parmeshwar R. Paul	5.00	5.00	5.00
Dr. Ashwini V. Gotmare	5.00	3.00	5.00
Mr. Nikhil V. S.	5.00	5.00	5.00
Dr. Yogesh P. Deshmukh	3.00	0.00	0.00
Mr. Ajay Gawde	5.00	0.00	0.00
Mr. Pravinkumar Gupta	5.00	0.00	0.00
Mr. Kiran Deshmukh	3.00	0.00	0.00
Ms. Shwetali .S. Tayade	5.00	0.00	0.00
Dr. Manju Lata	5.00	0.00	0.00
Prof. Ratnam Gujar	5.00	0.00	5.00
Dr. Prathamesh Potdar	0.00	5.00	5.00
Prof. Vishram Sawant	0.00	0.00	5.00
Sum	97.00	64.00	93.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	21.60	21.60	21.60
Assessment [3*(Sum / 0.5RF)]	26.94	17.78	25.83

Average assessment over 3 years: 23.52

5.7 Research and Development (30) Total Marks 20.00

5.7.1 Academic Research (10)

Institute Marks : 10.00

The department offers Bachelor of Engineering (B.E.), Master of Engineering (M.E.) Ph.D. program with a wide range of specializations.

Three research scholars have completed their Ph.D. under the guidance of faculties of Mechanical department at RGIT during the assessment period.

1. Mrs. Ashwini Gotmare
2. Mr. Rajesh Bisane
3. Mr. Vinod Surange

There are three approved Ph.D. guides in the department.

1. Dr. S.U. Bokade
2. Dr. R.V. Kale
3. Dr. K.M. Chaudhari

Three faculty members were awarded Ph.D. during the assessment period.

1. Dr. Nitin Panaskar
2. Dr. Amol Mangrulkar
3. Dr. Ashwini Gotmare

Further four faculties of Mechanical department are currently pursuing PhD.

1. Prof. N.B.Shahapure
2. Prof. M.R. Valse
3. Prof. Nikhil V. S.
4. Prof. Ratnam Gujar

Faculty has published **33** research papers in referred/SCI/Scopus indexed/ UGC Approved/WoS (ESCI, Conference Proceedings Citation Index)/Cross-ref/Inspec/Other Peer Reviewed Journals with **42** paper Google Scholar citations and **39** Scopus citations. Faculty has published **18** research papers in conferences/ book chapters with **1** Scopus citation in the assessment period. The total citations of authors are **770 Google Scholar citations with 37 h-Index and 15 I-10 Index & 324 Scopus citation with 17 h-Index**.

Table 1. Summary of Faculty publications

Faculty Publication			
Publication type	**2021-2022**	**2022-2023**	**2023-2024**
Journal	14	14	5
Conference	15	3	-
Patent	-	4	4
Book	-	8	-

Table 2. Summary of Google Scholar citations and Faculty Scopus citations

Sr. No.	**Faculty**	**Google Scholar Citations**			**Scopus Citations**	
		Citations	**h-Index**	**I-10 index**	**Citations**	**h-Index**
1	Dr. S. U. Bokade	121	4	2	64	3
2	Dr. R.V. Kale	141	6	2	57	2
3	Dr. K. M. Chaudhari	23	2	1	-	-
4	Prof. R. Y. Kurane	4	1	-	-	-
5	Prof. N. K. Deshmukh	7	1	-	-	-
6	Dr. A. G. Londhekar	13	2	1	-	-
7	Prof. Sambhaji Gaikwad	-	-	-	-	-
8	Prof. N.B. Shahapure	2	1	0	1	-
9	Prof. N. N. Bhostekar	5	1	-	-	-
10	Dr. A. L. Mangrulkar	80	5	2	32	4
11	Prof. M.R. Valse	-	-	-	-	-
12	Prof. R.M. Siddiqui	1	1	-	-	-
13	Prof. Ratnam Gujar	3	1	-	-	-
14	Dr. N. J. Panaskar	104	5	3	74	4
15	Prof. C. R. Rane	-	-	-	-	-
16	Prof. P. R. Paul	-	-	-	-	-

17	Dr. A. V. Gotmare	155	3	3	92	2
18	Prof. Nikhil V. S.	-	-	-	-	-
19	Dr. Yogesh Deshmukh	12	2	-	5	2
20	Dr. Manju Lata	-	-	-	-	-
21	Prof. Ajay Gawade	-	-	-	-	-
22	Prof. Pravin Gupta	-	-	-	-	-
23	Prof. Kiran Deshmukh	-	-	-	-	-
24	Prof. Shwetali Tayade	-	-	-	-	-
25	Dr. Prathamesh Potdar	124	5	2	10	-
26	Prof. Prasad Kawade	-	-	-	-	-
TOTAL		**770**	**37**	**15**	**334**	**17**

Faculties have published 8 books and filed 8 patents during the assessment period.

5.7.2 Sponsored Research (5) Institute Marks :

2022-23 (CAYm1)

Project Title	Duration	Funding Agency	Amount

2021-22 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2020-21 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.7.3 Development Activities (10) Institute Marks : 10.00

Product Development

Product development is carried out by students as a part of Major Project, Mini-Project, Product design and development lab course, Students' professional bodies such SAE (Society of Automotive Engineers), AeroRGIT, MESA (Mechanical Engineering students association), Robotics Club.

The Products developed are:

1. SAE Racing car, Conventional/Electric
2. e-Human powered vehicle
3. Task-performing Robots
4. 3D printed ball-point pen
5. Multi-function box
6. USB charger cable organizer
7. Multiple mobile stand
8. 3D printed card holder
9. 3D printed pen holder
10. Geneva based drive mechanism
11. Belt drive system
12. Elliptical trammel
13. Crank slider mechanism

Research laboratories

The department of Mechanical Engineering strongly motivates quality research and provides full support for the same. The department has a well-equipped research laboratories with more than 39 computers installed with software such as Ansys, and Open-source software such as FlashPrint, Cura, Chitubox, 3D slicer, NC viewer, Inventor with 24x7 internet facility. Turnitin software is available for Similarity/Plagiarism check of Research thesis and publication manuscripts.

Machines available for manufacturing/product development include CNC Vertical milling machine and 3D printing machines. Available Major measuring and testing machines/ equipments include Tool Makers microscope, surface roughness tester, Autocollimator and angle dekkor Universal testing machine, Hardness testing machine.

Instructional materials

The department encourages self-learning and skill development of students. Along with that department ensures no hurdles should come in students' way and thus provides properly designed required instructional material such as:

- Laboratory manuals for each laboratory
- Assignments, tutorials, and Laboratory Experiments for periodic assessment and practice.
- Theory notes wherever required to channelize the students vision towards the course structure and improve skill set.

Working models/charts/monograms etc.

Working models are available for better understanding of construction & working of mechanisms/equipments such as models in Theory of machines and Thermal engineering lab, CNC & 3D printing lab, etc.

Elaborative and lucid charts have been placed in each laboratory of the department to make students aware of the theoretical study as well as experimental work that can be carried out in the laboratory.

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

2022-23 (CAYm1)

Project Title	Duration	Funding Agency	Amount

2021-22 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2020-21 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

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

Institute Marks : 30.00

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

Following the Institutes Annual Self-Appraisal policies, the faculty members are required to submit Self Appraisals to the administration as per schedule given in the Academic Calendar.

Appraisal Format:

1. Annual Self Appraisals (Assessment Year) – Institute Formant
2. Performance Based Self-Appraisal (PBAS) as per eligibility in assessment years – University Format

Annual Self-Appraisal:

Faculty performs a variety of tasks in diverse roles. Faculty members actively contribute to conducting research activities. This keeps them, abreast with changes in the technologies and develops expertise in the field. Such an engagement of faculty helps in understanding the real-life problems in Industry and the development of curriculum.

Faculty members are shouldered with administrative responsibilities at the Institute as well as department. Annual self-appraisal plays a vital role in optimizing the contribution of faculty to Institutional performance.

Submission of Annual Self-Appraisal and Preliminary Assessment:

Submission dates are notified in the Academic Calendar. Standard formats designed by the Institute are provided. The appraisals are primarily self-assessed by the faculty himself/herself and followed by the assessment by the Head of Department with his / her specific remarks.

Self-Appraisals assessment by 02 External Experts:

Two external experts are then invited by the Institute to assess the appraisals, submitted by the faculty.

Self-appraisal assessment by Principal jointly with Management Representatives and Grant of Increments:

The self-appraisals assessed by the external experts are further verified by the Principal jointly with the management representatives. Upon observations of satisfactory performance Annual Increments are granted.

Evaluation Scheme for Annual Self-Appraisals

	PART A – Academic Contributions					
Teaching Feedback (10)	**Administrative Contributions*** (50)**					**Total (60)**
	Institute Administration (10)	**AICTE/DTE/UGC /UNIVERSITY (10)**	**Policy Development (10)**	**Accreditations (10)**	**Staff Development (10)**	

PART B- Research Contribution (40)*					
Publications (10)	**Proposals Submitted (05)**	**Grants Received (10)**	**Patent filed (05)**	**Patents Published (10)**	**Total (40)**

PART C								
Outside World Interactions			**Stake Holder Interactions**					**Innovations Brought**
Professional Bodies Association, Interaction and contribution to the Industry world (10)	Invited Talks Delivered (10)	RAC – Members (10)	Industry (10)	Parents (10)	Alumni (10)	Employers (10)	Others (10)	Exclusive Contribution (20)
Total (100) :								

2. Performance Based Appraisal Scheme (PBAS) Format:

Performance-Based Self-appraisal :(Format as per Circular from University of Mumbai CIRCULAR NO. CONCOL/TAU/ 40 of 2012-2013 dated 19th March, 2013)

The University of Mumbai apparels for enhancing the standards in education. These submissions are done as per the eligibility of faculty for promotions. Faculty members claiming eligible for promotions to upgraded designations or upper Annual Grade Pay are required to submit the PBAS in the prescribed format.

Screening & Evaluation of PBAS:

Committee constituted by the Institute as per the guidelines of CIRCULAR NO. CONCOL/TAU/ 40 of 2012-2013 having three Internal Senior Faculty takes up the Screening and Evaluation submitted by the faculty.

The selection committee constituted by the Institute **as per the guidelines of** CIRCULAR NO. CONCOL/TAU/ 40 of 2012-2013 having two to three External Experts complete the process of selection through expert evaluation and interviews.

Evaluation Scheme of PBAS as per the university guidelines

CATEGORY I: TEACHING, LEARNING AND EVALUATION RELATED ACTIVITIES

Sr. No.	Nature of Activity	Maximum Score		
		API Score	Score Marked	Verified API Score
1.	Lectures, Seminars, Tutorials, Practical, Contact Hours (give semester-wise details, where necessary)	50		
2.	If teacher has taken classes exceeding University norm, then two point to be assigned for each extra hour of classes	10		
3.	Imparting of knowledge/instruction as per the curriculum with the prescribed material (Text book / Manual etc.) and methodology of the curriculum *(Maximum score of 20 points if there is 100% compliance)*	20		
4.	Use of Participatory and innovative teaching – learning methodologies updating of subject context, course improvement etc.	20		
5.	**Examination Related Work**	25		
	Total Score	125		

CATEGORY II: CO-CURRICULAR, EXTENSION AND PROFESSION DEVELOPMENT RELATED ACTIVITIES

Sr. No.	Nature of Activity	Maximum Score		
		API Score	Score Marked	Verified API Score
1.	Student related co-curricular, extension and field based activities (such as extension work through NSS/NCC and other channels, cultural activities, subject related events, advise and counselling.	20		
2.	Contribution to corporate life and Management of the department and Institution through participation in academic and administrative committees and responsibilities.	15		
3.	Professional Development Activities (such as participation in seminars, conferences, short term training courses, talks, lectures, membership of associations, dissemination and general articles, not covered in category III.	15		
	Total Score	50		

CATEGORY III: RESEARCH AND PUBLICATIONS AND ACADEMIC CONTRIBUTIONS

Sr. No.	Nature of Activity	Maximum Score		
		API Score	Score Marked	Verified API Score
A.	RESEARCH PUBLICATION (JOURNALS)			
B.	RESEARCH PUBLICATIONS (BOOKS, CHAPTERS IN BOOKS OTHER THAN REFEREED JOURNAL ARTICLES)			
C.	RESEARCH PROJECT			
D.	RESEARCH GUIDANCE			
E.	TRAINING COURSES AND CONFERENCE /SEMINAR/WORKSHOP PAPERS			
	Total Score	50		

Screening and Evaluation Sheet

Sr. No.	Name of Faculty	Promotion Applied for	Score Teaching Learning Evaluation related activities (Category I	Score Co-curricular extension and profession-related activities (Category II)	Average Score-Category I and Category II	Score Research and Academic Contribution Category III	REMARK

Implementation and Effectiveness:

- Faculty members promoted under the Career Advancement Scheme

Sr. No.	Name of Faculty	Promoted to Next Level
1	Dr. Rajesh V. Kale	Promoted to Professor

- Faculty members sponsored for PhD (Enrolled at our Institute) :

Sr. No.	Name of Faculty	Year of Admission
1	Dr. Ashwini Gotmare	2019
2	Prof. Mukund Valse	2018

- Faculty members sponsored for PhD at other institutes :

Sr. No.	Name of Faculty	Institute	Year of Admission
1	Prof. Nilesh Shahapure	Veermata Jijabai Technological Institute (VJTI, Mumbai)	2016
2	Prof. Nikhil V.S.	Singhania University	2020

- Financial aid for Conference :

Sr. No.	Name of Faculty	Name of Conference	Year
1	Dr. Ashwini Gotmare	Third International Conference on Future Technologies in Manufacturing, Automation, Design and Energy, NIT Puducherry, Karaikal	2023
2	Dr. Amol Mangrulkar	International Conference on Vibration Engineering, Science, and Technology (INVEST 22)	2022

3	Dr. Yogesh Deshmukh	International Conference on Vibration Engineering, Science, and Technology (INVEST 22)	2022

- Financial aid for Patent :

Sr. No.	Name of Faculty	Name of Patent	Year
1	Dr. Sanjay Bokade	Auxiliary Flap Turbocharger (AFT) for Automobile Applications	2022
2	Dr. Rajesh Kale	Auxiliary Flap Turbocharger (AFT) for Automobile Applications	2022
3	Dr. Amol Mangrulkar	Design of Blended Wing Airplane	2023

5.9 Visiting/Adjunct/Emeritus Faculty etc. (10) Total Marks 0.00

Institute Marks : 0.00

6 FACILITIES AND TECHNICAL SUPPORT (80) Total Marks 80.00

6.1 Adequate and well equipped laboratories, and technical manpower (30) Total Marks 30.00

Institute Marks : 30.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Machine Shop	20	1.Lathe machine 4.5 feet (16) 2.Lathe machine 5.5 feet - all gear (2) 3.Column & knee type vertical milling machine VM-3 table size 300mmx1200mm (1) 4.Column & knee type horizontal milling machine M-2 table size 20x1000mm (1) 5.Bench grinder 250X25mm (1) 6.Surface grinder 6"x18" (1) 7.Power saw machine 8" capacity (1) 8.Shaper 12"strock length (1) 9.Shaper 24" strock length (1) 10.Pedastal grinder 250mmX25mm (1) 11.Radial drilling machine 32 mm Capacity (1) 12.Bend Saw Machine 10" Capacity (1) 13. Electric arc welding machine 2 phase 80 -240 amp (1) 14.Spot welding machine 2 phase , input 240V ,50hertz,AC supply (1) 15.Electric welding Machine 3 Phase (1)	80%	Mr.S.M. Hajare, Mr.R.D. Darokar, Mr.N.R. Vankar, Mr.R.S. Biradar	Sr. Instructor	ATI, ATI, ITI NCVT, ITI NCVT
2	Fluid Mechanics & Machinery	20	1.Reynolds app. For demonstration of streamlined and turbulent flow (1) 2.Appartus For verification of bernoulli's Theorem (1) 3.Apparatus for determination losses in pipelines (major & minor losses) (1) 4.Orifice & mouthpiece apparatus (1) 5.Venturi meter & orifice meter Apparatus (1) 6.Pelton turbine test rig (1) 7.Centrifugal pump test rig (1) 8.Reciprocating pump test rig (1) 9.Francis turbine test rig (1)	40%	Mr. J. L. Jadhav	Technical Assistant	Diploma in Mechanical Engg.
3	HVAC Lab	20	1.Ice plant test rig (1) 2.Refrigeration test rig (1) 3.Window a/c test rig (1) 4.Mechanical heat pump (1) 5.Display board-components used in rac (1) 6.Water cooling tower (1)	25%	Mr. J. L. Jadhav	Technical Assistant	Diploma in Mechanical Engg.
4	Automobile & I C Engine	20	1.Exhaust gas analyzer (1) 2.Battery charging system (1) 3.Multi cylinder petrol engine test rig. With hydraulic dynamometer (1) 4.Single cylinder diesel engine test rig with rope brake dynamometer (1) 5.Two cylinder diesel engine test rig with electrical dynamometer (1)	25%	Mr. J. L. Jadhav	Technical Assistant	Diploma in Mechanical Engg.
5	Strength of Material & Material Technology	20	1.Hardness testing machine (rock well & brinell hardness) with electrical dynamometer (1) 2.Universal testing machine with electrical dynamometer (1) 3.Impact testing machine (izod & charpy test) (1) 4.Torsion testing machine with (1) 5.Muffle furnace (1) 6.Monocular metallurgical microscope (indian optics) sm –7 (1) 7.Binocular metallurgical microscope sm-8 indian optics (1) 8.Trincocular metallurgical microscope sm-9 imported optics (1) 9.Fluorescent dye penetront kit (1) 10.Magnetic particle crack detector with Accessories (1) 11.Fatigue testing m/c (1)	40%	Mr. J. M. Hajare	Laboratory Assistant	NCTVT
6	Thermal Engineering	20	1.Lawcashire boiler (1) 2.Chocran boiler (1) 3.Babcok & wilcox boiler (1) 4.Locomotive boiler (1) 5.Benson boiler (1) 6.Lamount boiler (1) 7.Air compressor test rig (1) 8.Heat transfer from pin fin (1) 9.Heat transfer through composite wall (1) 10.Emissivity measurement apparatus(1) 11.Stefan boltman apparatus (1) 12.Thermal conductivity of insulating Powder (1) 13.Thermal conductivities of liquid (1) 14.Heat transfer in forced convection (1) 15.Heat transfer in natural convection (1) 16.Unsteady state of heat transfer (1) 17.Heat pipe demonstrator (1) 18.Dropwise & film wise condensation Apparatus (1) 19.Critical heat flux apparatus (1) 20.Parallel flow & counter flow Apparatus (1) 21.Heat transfer through lagged pipe (1) 22.Thermal conducting of metal rod (1) 23.Computerized heat pipe apparatus (1)	40%	Mr. J. M. Hajare	Laboratory Assistant	NCTVT

7	Theory of Machines & Maintenance Lab	20	1.Motorised gyroscope (1) 2.Cut section model of gear box with Cluth (1) 3.Motorised governer apparatus (1) 4.Static and Dynamic Balancing Machine 5.Vibration Experimental set – Up 6. Whirling of Shaft (1) 7.Vibit -Wi-Fi based 6 Khz Edge IoT Tri-axial Vibration sensor (2) 8. Wi-Fi router 2.4GHz (6-8 sensors based on location of Assets) (1) 9.Software Application for Machine Diagnostics and prognostics 10.Power Supply Panel	60%	Mr. Sohel Shaikh	Laboratory Assistant	Diploma in Mechanical Engg
8	Mechatronics & Mechanical Engineering Measurement	20	1.Mechatronics training package (1) 2.8085 microprocessor kites (1) 3.Various control systems (1) 4.Electro hydraulic trainer (1) 5.Dead weight pressure gauge (1) 6.Vibration measurement system (1) 7.Vacuum gauge (1) 8.Profile projector (1) 9.Surface roughness tester (1) 10.Angle gauge set (1)	80%	Mr. Sohel Shaikh	Laboratory Assistant	Diploma in Mechanical Engg.
9	CAD/CAM Lab	20	1.HP Computer (20) CPU (System Details)Desktop HP Intel (R)Core (TM) i5-10500 CPU @ 3.10 GHz 3.10 GHz RAM : 8.00 GB (7.78 GB Usable) & Hard disk : 512GB SSD 2.LG Computer (4) LG Computer CPU (System Details)Intel(R) i5 CPU, 2.90Ghz, 16GB RAM, 1TB HDD 3.Stabilzer (1) 4.3d printer (1) 5.printer (1) 6.ANSYS Version (25) (Software)	80%	Mr.R.T. Sangale	Laboratory Assistant	Diploma in Mechanical Engg.
10	Laboratory based on IOT	20	1.DTH 1 Temperature Sensor (5) 2.HCO5 Bluetooth Module (10) 3.PIR Sensor (5) 4.SG-90 Servo motor (10) 5.Arduino Uno with cable (15) 6.Arduino Nano with cable (5) 7.LCD (5) 8.LED (100) 9.Male to male wires (240) 10.Female to female wires (160) 11.Male to female wire (80) 12.Wire stripper (2) 13.Breadboards (20) 14. Resistors (20) 15.12C Connectors (2)	40%	Mr.R.T. Sangale	Laboratory Assistant	Diploma in Mechanical Engg.
11	Project Lab & E Yantra Lab	20	1. HP Computer (16) CPU (System Details)Desktop HP Intel (R)Core (TM) i5-12500 CPU @ 3.00 GHz RAM : 8.00 GB (7.69 GB Usable) Hard disk : 512 GB 2.Fire Bird V 2560 Robot (5) 3.Spark V Robot (5) 4.Metal Gear Servo Motors (10) 5.Infrared sensor (1) 6.Zigbee Modules 100 M RANGE (5)	50%	Mr. Sohel Shaikh	Lab Assistant	Diploma in Mechanical Engg.
12	CNC & 3D Printing Lab	20	1.Cnc mill trainer model vmm-a- 200 pc based sinewave make controller. 2.Flash Forge Finder 3D Printer	50%	Mr.S.M. Hajare	Sr. Instructor	ATI

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

Total Marks 25.00

Institute Marks : 25.00

Sr. No	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1	3 D Printer Open Source Software cura	1.Cura Blender Open Form 2. Blender education software fusion 360 3.Inventer altair	Fusion 360 Inventer Altair	By Students	ASME SAE Robotics students professional bodies, competition project work	All PO's & PSO's
2	R & D Lab	Ansys	Analyzing & Design of models.	By Students	FEM design	PO1, PO2, PO3, PO4, PO12
3	Robots	1.Fire Bird V 2560 Robot 2.Spark V Robot 3.Metal Gear Servo motors 4.Infrared sensor 5.Zigbee Modules	Students can use Facility for better understanding	By Students, Faculties and Staff	Used for Projects & Mini Projects Students	PO1, PO12 PSO2
4	Plagiarism software	Turnitin	Promote academic integrity, improve student outcomes, improve students' academic writing to facilitate faculty research	UG, PG students, research scholars & faculty	Mini projects and major projects	PO5, PO8, PSO1, PSO2
5	Exhaust Gas Analyser	Petrol Gas Analyser	To understand PUC norms	By Students	Theory of Engineering	PO1, PO2, PO3, PO12
6	Virtual Lab	http://vlab.co.in/	To provide remote- access to IIT Labs for courses like Software Engineering, Computer Organizations and architecture	By students for R&D, Project and to perform experiments beyond curriculum	All engineering subject domains	PO1, PO9, PO10,PSO1
7	SAE / ASME activity room	All the required facilities including Wi-Fi.	Students Build Car for FSAE Competition	By Students	Design and Manufacture domain	All PO's & PSO's

6.3 Laboratories: Maintenance and overall ambiance (10) Total Marks 10.00

Institute Marks : 10.00

6.3. Laboratories: Maintenance and overall ambiance (10)

Department has a practice of carrying out regular repair and maintenance of the machine/equipment/computers in the laboratory every year. Principal of the Institute asks for maintenance budget in the month of March- April. Department prepares budget for maintenance of labs based on the requirement given by lab In-charges. The budget is sanctioned and allocated by Principal. Accordingly the necessary repair, maintenance & calibration of the equipment is carried out.

The following measures are taken care to maintain the lab equipment and good ambiance.

1. The student have to switch off / shut down Machine/lab equipment /computer before leaving the lab.
2. Antivirus softwares are installed in the computers.
3. The USB ports are disabled to prevent the computers from viruses.
4. CAD/CAM/CAE lab is equipped with 230 Volts/50 Hz AC stabilizer to protect the lab equipment from Unregulated supply.
5. Laboratory deadstock register is being maintained regularly & every year it is updated by Conducting stock verification and scrapping of the equipment which is beyond repair.
6. End of every semester routine maintenance is carried out by Combination of Internal & External agency
7. Each lab is facilitated with blackboard to demonstrate the theory portion of the practical.
8. Some labs are equipped LCD projector and smart board to provide the better ambiance and user experience of learning.
9. The students are provided with storage racks to put their belongings.
10. The students are allowed to work in lab beyond college working hours if it is required. e.g. For mini project/ Major Project.
11. Most of the time more than 90 % equipments are in working condition which provide good ambiance and pleasant working environment.
12. The lab voltage stabilizer is repaired and maintain as per requirement and AMC is given to external agency.
13. The lab experiments list is displayed on the notice board for the convenience of the students.
14. The Department Vision & Mission is displayed in Laboratories.
15. Identification Number for each equipment is marked on the devices/Equipment.
16. Floor cleaning of labs are done on daily basis by housekeeping department of the college.

6.4 Project laboratories (5) Total Marks 5.00

Institute Marks : 5.00

6.4 Project laboratory (5)

(Mention facilities & Utilization)

- The department has dedicated project laboratory which helps the students in performing Major Project and Mini Project Works.
- The laboratory is open for the students from 8.30 a.m. to 4.15 p.m. If the students are willing to work on their projects, even after the working hours they are allowed to work along with a faculty member / lab technician.
- Project laboratory helps in integrating project making exercise. Internet facilities have been provided. Open-source software is useful for the students & faculty who all are pursuing their research projects.

Name of the Facilities

- Ansys 23
- Python
- Auto Desk Inventor
- Arduino Programming
- Auto CAD

6.5 Safety measures in laboratories (10) Total Marks 10.00

Institute Marks : 10.00

Sr. No	Laboratory Name	Safety Measures
1	Machine Shop	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply. 5. In Machine shop Students mandatorily work with Aprons & Shoes 6. While Performing welding operation sin workshop students compulsorily wear welding safety googles.
2	Fluid Mechanics & Machinery	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.
3	HVAC	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.
4	Automobile & I C Engine	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.
5	Strength of Material & Material Technology	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.
6	Thermal Engineering	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.
7	Theory of Machines & Maintenance Lab	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.
8	Mechatronics & Mechanical Engineering Measurement	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.
9	CAD/CAM Lab	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply. 6. The 230 V/50 Hz Stabilizer is used as a supply for the lab equipment for safety. 7. The USB port of computer is disabled to prevent from virus.
10	Laboratory based on IOT	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.

11	Project Lab & E Yantra Lab	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply. 6. The 230 V/50 Hz Stabilizer is used as a supply for the lab equipment for safety. 7. The USB port of computer is disabled to prevent from virus.
12	CNC & 3D Printing Lab	1. The primary health first-aid kit is provided in each laboratory. 2. Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. 3. Well trained technical supporting staff always monitor the labs. 4. Damaged system/equipment are identified and serviced at the earliest. 5. The earthing pin or plug is properly checked and connected to earth supply.

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 50.00

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

Total Marks 20.00

Institute Marks : 20.00

POs Attainment Levels and Actions for Improvement- (2022-23)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.33	2.07	1) PO1 needs improvement. 2) students need more practice on problem solving with the help of mathematical knowledge and engineering fundamentals.
Action 1: Additional practice of problem solving is given Action2: Assignment were given related to engineering fundamentals, engineering mathematics & science.			
PO 2 : Problem Analysis			
PO 2	1.92	1.69	1) PO2 needs improvement. 2) Need improvement in basic knowledge of subject like fluid machinery and mechanics,Thermal engineering to identify and formulate engineering problems.
Action 1:Students are advised to approach the respective faculty for doubt solving and to join NPTEL MOOC courses. students were provided with the notes prepared by the faculty.			
PO 3 : Design/development of Solutions			
PO 3	1.59	1.42	It was observed that understanding in few design courses needs improvement
Action: 1. Students are shown various mechanism and given safety precautions to be taken while handling various processes. 2. students are advised and mentored to participate in compitations like AVISHKAR, ROBOCON, HPVC to analysis the predefined problem statements 3. Seminars or Workshops related to engineering problem solving conducted pertaining to respective subjects. 4. Different problem statement / design specification / case studies are assigned to students to design and implement in experiments / assignments / tutorials.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.89	1.67	1) Inclination toward research based knowledge need to improve. 2) Lack of ability to analyze data and reach a valid conclusion.
Action: 1. Guest lectures or hands on session conducted to improve knowledge to analyze problems. 2. Different problem statement / design specification / case studies are assigned to students to design and implement in experiments / assignments. 3. Hands on and skill base learning activities like mini projects, workshops. 4. Students are encouraged, motivated and guided to participate in different national project competition like AVISHKAR, Hackathon, HPVC competition organized by ASME.			
PO 5 : Modern Tool Usage			
PO 5	1.90	1.72	Inadequate knowledge in modern engineering technology and IT tools.
Action: 1. Different workshops are conducted on latest trends in technologies like Python, IoT, Ardunio, CNC,3-D printing etc. 2. Students are encouraged to perform various practical on latest source software such as, Matlab, FEA, Solidworks, CATIA, ProE, Unigraphics, Anaconda etc.			
PO 6 : The Engineer and Society			
PO 6	2.37	2.11	Lagging in knowledge of health ,safety ,legal issues related to professional engineering practice
1. Health awareness, human safety workshops and seminars were conducted to address the legal & cultural issues. 2. Most of the Mini Projects and Major projects are designed to satisfy human needs and society.			
PO 7 : Environment and Sustainability			
PO 7	2.06	1.82	It is found to be due to lack of awareness and insensitivity to environment and sustainable development.
1. Students are motivated to generate interest in solving the problems by looking around the vicinity and to design the major and mini projects which can help the society such as renewable energy. 2. More outreach activities such as tree plantation, clean-up drive etc. are organized to create awareness.			
PO 8 : Ethics			
PO 8	2.06	1.83	Additional efforts are required to improve the knowledge and follow professional ethics & engineering norms.
Action: 1) Brahma kumaris seminars has been arranged to give guidelines to budding engineers to ensure their decision making is aligned with their obligations to the public, their clients and industry 2) Students are advised to follow ethics during the implementation of Mini, major projects and research based publications and made them compulsory to check plagiarism of project report 3) Department has taken initiative to start standard club by bureau of Indian standards to understand & follow engineering standards in manufacturing of product's and cater the services to the society. 4) Students and staff has completed the courses of universal Human values and ethics.			
PO 9 : Individual and Team Work			
PO 9	2.29	2.10	Lack of ability to work in team to achieve common goal.
1. More motivation to involve as volunteer/ participant in Tech Fest, National level sports meet, technical and cultural activities to generate team spirit and create leadership quality. 2. During lab sessions, mini and major projects groups, students are encourage to work in team. 3. Student bodies are encouraged to conduct different activities with interdisciplinary collaborations.			
PO 10 : Communication			
PO 10	1.74	1.59	Lack of writing and communication skill to communicate ideas/activities effectively.

1. Remarks / Suggestions are given on student's presentation, report writing and documentation to enhance their writing and communication skills. 2. Department has motivated the students to present their technical papers in national / international conferences and to participate in poster/projects competitions at university level			
PO 11 : Project Management and Finance			
PO 11	2.07	1.87	Need to improve understanding of the engineering and management principles and its application to manage projects
1. Students are given input of importance of project management in executing their own project work. 2. Various programme were organized through Institution's Innovation Council 3. Experts seminars has been arranged to inculcate understanding of the engineering and management principles and its application to manage projects.			
PO 12 : Life-long Learning			
PO 12	1.82	1.59	Need to enrich life long learning skills in context of rapid technological change.
1) Various programme were organized through Institution's Innovation Council. 2) Brahma Kumari's seminars has been arranged to give guidelines life long learning skills to budding engineers.			

PSOs Attainment Levels and Actions for Improvement- (2022-23)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Successful Career and Entrepreneurship: Graduates will be able to understand the social-awareness & environmental wisdom along with ethical responsibility to have a successful career and to sustain passion and zeal for real-world applications using optimal resources as an entrepreneur.			
PSO 1	1.36	1.20	Need to improve the social -awareness and wisdom for successful career
1. Various programme were organized through Institution's Innovation Council. 2. Students are encouraged to choose the industry for internship which will help for real-world applications using optimal resources as an entrepreneur.			
PSO 2 : Hobbies and Career: Graduates have nurtured their hobbies which are useful in their specific chosen career.			
PSO 2	1.42	1.27	Need to nurture hobbies which are useful in building the career.
1. Seminars /workship has been arranged to improve/nurtured creative thinking of students 2. Various programme were organized through Institution's Innovation Council to help the students for choosing career.			

7.2 Academic Audit and actions taken thereof during the period of Assessment (10) Total Marks 10.00

Institute Marks : 10.00

Academic audit is conducted in order to monitor the teaching learning process. The process consists of documentation audit and academic audit which are conducted as per the schedule mentioned in academic calendar. The Academic Audit provides the opportunity for a regular strategic overview of the fullness of teaching-learning activity. A review report will be produced by the department and asked to respond to the report by producing an action plan to address any issues identified. The Academic Audit is done at the department level by an external committee consisting of peer reviewers and subject experts from premier institutes.

Process for Conduction of Academic Audit

- As a part of the '**Quality Assurance Initiatives of the Institute'**, The Institute conducts documentation audit and academic audit of every department every year. The documentation audit is done by an internal committee while an academic audit is conducted by an external committee respectively.
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- The objectives of the department audit are as follows –
- To verify the academic practices followed are aligned to the academic policy adopted by the Institute.
- To monitor the quality of the teaching learning process and take corrective actions
- To verify the documentation process and standardise it

Procedure for Academic audit –

- Principal appoints the external experts for the conduction of audit. HOD sends email to the experts communicating the date and the flow of the audit.
- The audit is conducted as per the plan. Individual staff members are invited to discuss the file they are assigned. The experts ask them specific questions on the teaching techniques they follow. The staff wise remarks are entered. Files are checked thoroughly and the entries, suggestions are made.
- After completion of academic audit, external expert submit academic audit report to the HOD.
- Based on the remarks of academic audit report, corrective actions are initiated and an action taken report is submitted to the Principal.

The following documents are verified during the academic audit.

- Information of department (Vision, Mission, Program outcomes, PEO and PSO)
- Budget of the department
- Academic activities
- Best practices
- Professional activities
- Social activities
- Result analysis
- Competitive examination
- Skill development activities
- Co / Extra-curricular activities
- Student Mentoring
- Training placement information
- Class Time Table & Faculty Time Table
- Students Roll List
- Students Batch List (for practical)
- Minutes of course committees
- Academic Diary for all the courses including practical, tutorials etc.
- Course File
- Consolidated attendance statement of students
- Consolidated statement of internal marks
- Consolidated term work marks of students
-

Summary of Academic Audit of 2019-20 & the Action Plan & Action Taken

Sr.No.	Particular	Observation	Remark/Suggetion	Action Plan	Action taken/Outcome

1	Teaching-Learning Process	Satisfactory	Minutes of the meeting shall be endorsed by all the domain group members	Department has four core subject domain groups namely Management-Humanities-Basic Sciences, Design Engineering, Manufacturing Engineering, and Thermal Engineering. Domain groups organized meetings to decide the mapping of Course Outcomes (COs) with Program Outcomes (POs) and Program Specific Outcomes (PSOs) of the courses of semesters III, IV, V, and VI (C-Scheme 2019	The attainment decided by the domain groups has to be verified by the External Domain Experts. The minutes of the meeting of the sequence of meetings conducted by the four domain groups have been well drafted and maintained.
2	Content of Course file	Satisfactory	To maintain the data of PO attainment in the respective course files in the form of percentage attainment to identify the scope of improvement.	Informed to all faculties to maintain PO attainment data in course file	Course file are well maintained with PO attainment
3	Textbooks and reference books	Satisfactory	Faculties of the Department of Mechanical Engineering requested to refer reference books and Research periodicals to gain access to research articles	Faculty members have been informed to refer the relevant research article published by our staff members as well as other research articles published in other reputed journals	Faculty members are following practice of extending the good projects and giving it to new batches of students. This ensures that quality project work gets accepted in good journals. Faculty members have developed the practice of referring reputed journals
4	Content, quality,and depth	Satisfactory	All the Assignments, Term test papers are standardized and designed in accordance with the advanced Bloom's Taxonomy and level of CO attainment.	All the faculties are informed to strictly adhere advanced Bloom's Taxonomy and level of CO attainment while setting the question papers, and assignments.	All the faculties are setting term test question paper as per blooms taxonomy & same mention on question paper .Faculties are setting assignment as per co and Blooms texonomy
5	Quality of Assignment questions	Satisfactory	Live problems or case studies to be given in the assignments	It is informed to faculties to include live problem in the assignments in accordance with syllabus & level of CO attainment.	Subject incharges are including live problem in the assignments whereever possible in accordance with syllabus & level of CO attainment.

6	Mechanism for engaging Labs,new experiments added etc.	Satisfactory	Innovative and open-ended experiments to be given.	It is informed to faculties to include Innovative and open-ended experiments.	In a few skill-based labs faculties have conducted experiments which have different outputs with different inputs for skill development.
7	Adequacy and quality of experiment:	Satisfactory	New experiments to be added	It is informed to faculties to encourage students to take Mini projects in second, third year and major projects in the final year based on use of IOT applications	Some project groups have choosen Mini projects in second, third year and major projects in the final year based on use of IOT applications . New experiments are added and some test rigs are developed by students as project.
8	Mechanism adopted for Collaborative and Experimental learning	Satisfactory	Enhance collaborative and experiential learning through mini projects & various co-curricular events	Faculties are advised to enhance collaborative and experiential learning through mini projects & various co-curricular events	Student are working on mini projects in small group in second year and third year & participated in various competitions. Also, students were encouraged to organize various co-curricular events.For some subject's presentations are arranged in small groups to have peer learning concepts.
9	Internal evaluation procedure for practical	Satisfactory	To Follow continuous evaluation in the assessment of experiments.	Faculties are advised to follow continuous evaluation procedure in the assessment of experiments. Ensure mid term submission of students. Timely submission & submit experiments before deadline.	Faculties are following mid term submission for continuous evaluation procedure in the assessment of experiments.
10	Methods adopted for slow learners	Need to improve.	Identify Slow learners on the basis of their internal evaluation in term tests/quizzes/multiple-choice questions and teacher-student interactions.	Faculties are advised to take special efforts to address such student's problems A process of appointing mentors for every 20 students has been followed and Mentors have been asked to keep record of progress of weak students	A process of appointing mentors for every 20 students has been followed and Mentors have been asked to keep record of progress of weak students.

11	Innovation in teaching and learning	Satisfactory	Faculties should be sponsored for pedagogical training and AICTE MOOCS courses.	Faculty member are encouraged for various NITTR courses for pedagogical training and AICTE MOOCS courses.	Faculty member are sponsored for various NITTR courses for pedagogical training and AICTE MOOCS
12	Course objectives and outcomes-Feedback mechanism on understanding the student satisfaction	Satisfactory	Feedback mechanism is well established	Earlystage Feedback is taken by HOD in mid of term and at the end of semester by IQAC. Subject teachers are asked to take the first lecture to educates the students about the course objective and course outcomes.	Feedback is taken as per academic calendar of the institute. Subject teachers educates the students about the course objective and course outcomes
13	Program Educational objectives – Modern Tool.	Good	To Enhance the use of modern tool.	It is proposed to install 3D printer. ,Use of New simulation software, CNC training, solid works etc. can be enhanced.	3D printing has been installed. students are allowed to use 3D printing ,CNC training, solid works etc. for their projects.

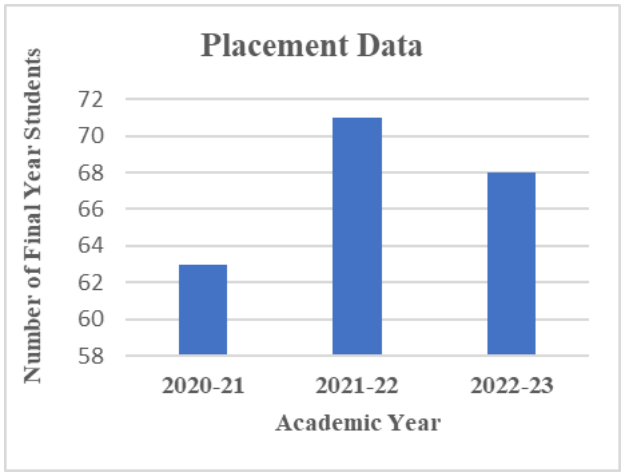
7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10) Total Marks 10.00

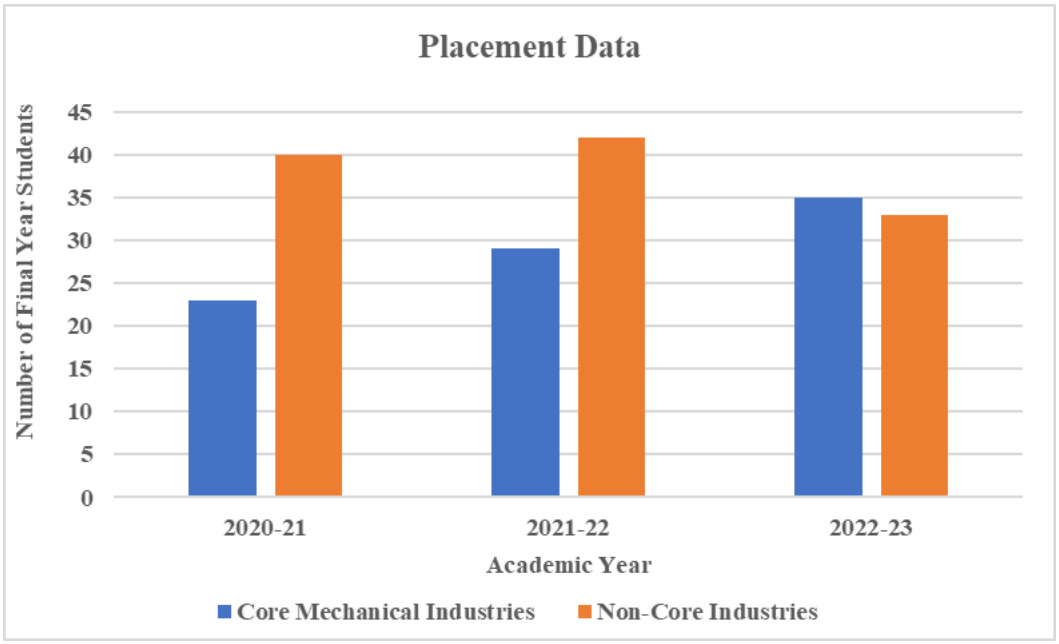
Institute Marks : 10.00

The Major Recruiters for our Department were Hindusatan Uniliver, Worley India, Blue Star, Bluechip Cooling Towers,Saideep Vibrators,Tata Consultancy Services, Infosys, Newgen Software Technologies Limited, Balmer Lawrie-Van leer Limited, Auro Engineering, Godrej infotech Ltd, ,Accenture Solutions Pvt Ltd, LTI Mind Tree ,Cognizant Technology Solutions Pvt Ltd, Wipro etc. Average Salary Package in the range between 2.2 to 8 LPA.

Yearwise data of placement

YEAR	NUMBER OF STUDENTS PLACED	QUALITY PLACEMENT	CORE MECHANICAL INDUSTRIES	NON CORE INDUSTRIES	PAY PACKAGE (Rs. Per Annum)
2020-21	63	23	23	40	250000-500000
2021-22	71	29	29	42	250000-700000
2022-23	68	35	35	33	300000-800000





- Along with good Campus Placement our Students also opted for Higher Study in India and Outside India for courses like M.S., MBA, M-Tech in reputed Institutes like IIT Mumbai, IIM Amritsar, S.P JAIN School Of Management,Northern, University college of Engineering, Symboisis International University ,NYU London school of Engineering, University of California, Northeastern University, Boston, University Of Houston, RWTH Aachen University,Stevens Institute of Technology, Arizona State University, University of Michigan, University of Adelaide etc.

Higher Studies (GATE, GRE, GMAT, CAT & admissions in premier Institutions)

Qualifying Examnation / Year	2022-23	2021-22	2020-21
GRE	02	02	-
GATE	-	-	01
CAT	-	-	-
GMAT	-	-	-
CEED	01	-	-
IELTS	09	01	02
TOFFEL	-	03	-

CET	**-**	**-**	**02**
Admissions in Premier Institutions	**17**	**19**	**28**
Entrepreneurs	**03**	**04**	**01**

UNIVERSITY RANKING	1-100	101-200	201-300	301-400	401-500	501-600	601-700	701-800	801-900
YEAR 2020-21	9	5	0	2	2	2	0	0	0
YEAR 2021-22	5	3	4	1	2	0	1	1	1
YEAR 2022-23*	4	5	2	1	0	0	0	0	0

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

Total Marks 10.00

Institute Marks : 10.00

Item		**2023-24**	**2022-23**	**2021-22**
National Level Entrance Examination	No of students admitted	12	6	11
JEE	Opening Score/Rank	84	78	79
	Closing Score/Rank	24	34	46
State/ University/ Level Entrance Examination/ Others	No of students admitted	56	38	45
CET	Opening Score/Rank	98	97	93
	Closing Score/Rank	1	8	4
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of students admitted	46	73	54
	Opening Score/Rank	85	90	96
Diploma in Engineering	Closing Score/Rank	62	60	62
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		4	3	4

8 FIRST YEAR ACADEMICS (50)

Total Marks 46.33

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

Total Marks 5.0

Institute Marks : 5.0

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

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Prof. B. B. Saw	AMYPS0250J	M.Sc	20/05/1993	Mathematics	Assistant Professor	08/06/1999	100	100	100	Yes	Regular	
Prof. Rohini Gh	ASOPG2941E	M.Sc	17/08/2009	Mathematics	Assistant Professor	01/08/2012	0	100	100	No	Regular	30/06/2022
Prof. Rahul Ch	BDWPC8137Q	M.Sc	03/08/2016	Mathematics	Assistant Professor	01/07/2014	0	100	100	No	Regular	29/09/2022
Prof. Shalini Sh	ANOPD2999L	M.Sc	25/05/2004	Mathematics	Assistant Professor	01/01/2010	100	100	100	Yes	Regular	
Prof. Sarla Yad	AGNPY6181D	M.Sc	28/01/2012	Mathematics	Assistant Professor	21/11/2022	9	0	0	Yes	Regular	
Dr. K. G. Chau	AAUPC5192P	M.Sc. and PhD	27/10/2014	Physics	Assistant Professor	25/08/1994	100	100	100	Yes	Regular	
Dr. Y.S. Patil	AGGPP2364J	M.Sc. and PhD	25/04/2015	Physics	Assistant Professor	22/07/1999	100	100	100	Yes	Regular	
Dr. Neeta Kaps	AFKPJ7569N	M.Sc. and PhD	15/03/2004	Chemistry	Assistant Professor	11/07/2003	100	100	100	Yes	Regular	
Dr. Pallavi Mal	BEZPD0384L	M.Sc. and PhD	20/02/2015	Chemistry	Assistant Professor	20/07/2015	100	100	100	Yes	Regular	
Dr. Priyanka Ka	AJPPM6881R	M.Sc. and PhD	01/10/2013	Chemistry	Assistant Professor	05/01/2020	0	0	100	No	Regular	31/03/2020
Prof. D.K. Chal	AGJPC3191K	MA	15/06/2004	Communication Skills	Assistant Professor	07/11/2005	100	100	100	Yes	Regular	
Prof. S.S. Patil	BHUPP5854M	MA	15/06/2008	Communication Skills	Assistant Professor	01/01/2010	100	100	100	Yes	Regular	
Prof. Ankush Ir	ABUPI5235L	MA	12/06/2009	Communication Skills	Assistant Professor	01/01/2010	100	100	100	Yes	Regular	
Prof. R. N. Sha	AMRPS8331D	M.E/M.Tech	12/12/1993	Mechanical	Assistant Professor	15/01/1999	100	100	100	Yes	Regular	
Prof. Chetan R	ARVPR4238D	M.E/M.Tech	26/08/2015	Mechanical	Assistant Professor	03/07/2017	100	100	100	Yes	Regular	
Prof. Nikhil V.	FNUES2741J	M.E/M.Tech	26/08/2016	Mechanical	Assistant Professor	03/07/2017	100	100	100	Yes	Regular	
Dr. Asha Bhave	AQRPD5362P	M.Sc. and PhD	20/06/2016	Mathematics	Assistant Professor	23/07/2017	100	100	100	Yes	Regular	
Dr. Manju latha	AJZPL1420B	ME/M. Tech and PhD	15/12/2021	Physics	Assistant Professor	01/01/2022	63	0	0	No	Regular	06/07/2023
Prof. Swetali Ta	DNDPB0438J	M.E/M.Tech	04/09/2017	Mechanical	Assistant Professor	03/10/2022	44	0	0	Yes	Regular	
Prof. Priyanka	BZZPK0404K	M.E/M.Tech	15/06/2011	Mechanical	Assistant Professor	06/07/2015	0	0	63	No	Regular	31/03/2020
Prof. R. R. Gu	BCHPG4592H	M.E/M.Tech	16/03/2016	Mechanical	Assistant Professor	03/07/2017	63	0	0	No	Regular	14/09/2023
Prof . M. R. Val	AQCPV8191R	M.E/M.Tech	24/11/2015	Mechanical	Assistant Professor	18/07/2016	44	100	0	Yes	Regular	
Prof. P. Paul	BUWPP8428E	M.E/M.Tech	26/08/2016	Mechanical	Assistant Professor	03/07/2017	0	25	0	Yes	Regular	
Prof. S. D. Gail	AFQPG0564E	M.E/M.Tech	08/12/2005	Mechanical	Assistant Professor	09/11/2011	13	100	100	Yes	Regular	
Prof. N.J. Pana	ATFPP3300G	ME/M. Tech and PhD	08/07/2021	Mechanical	Assistant Professor	18/07/2016	0	13	0	Yes	Regular	

Prof. R.M. Sidc	CREPS9691G	M.E/M.Tech	20/12/2014	Mechanical	Assistant Professor	07/07/2015	0	0	25	Yes	Regular	
Prof. Chhaya H	ACAPH8884K	M.E/M.Tech	26/08/2013	Instrumentation	Assistant Professor	13/07/2009	0	0	100	No	Regular	21/07/2021
Dr. Satyanaray	AOFPS3397P	ME/M. Tech and PhD	16/07/2020	Instrumentation	Assistant Professor	08/09/2006	100	100	0	Yes	Regular	
Prof. Gunwant	AKSPS3334F	M.E/M.Tech	15/03/2010	Instrumentation	Assistant Professor	29/07/2004	100	100	0	Yes	Regular	
Prof. Sanjana F	AHTPR5303B	M.E/M.Tech	03/03/2008	Electronics and Telecom	Assistant Professor	15/06/2005	100	100	25	Yes	Regular	
Prof. Piyush Da	ALOPD5585A	M.E/M.Tech	01/12/2014	Electronics and Telecom	Assistant Professor	27/07/2016	0	0	100	No	Regular	03/08/2021
Prof. Kunal Tiw	AJWPT1300M	M.E/M.Tech	17/09/2021	Instrumentation	Assistant Professor	17/02/2021	0	0	63	No	Regular	01/06/2021
Prof . Ankur Ga	ALUPG8086D	M.E/M.Tech	12/01/2012	Electronics and Telecom	Assistant Professor	01/07/2013	0	100	0	No	Regular	06/06/2022
Prof. Vinita Var	ATPPM2020E	M.E/M.Tech	01/08/2014	Instrumentation	Assistant Professor	05/08/2014	100	100	0	Yes	Regular	
Prof. Vidya V. J	AZMPK9433E	M.E/M.Tech	02/08/2010	Instrumentation	Assistant Professor	17/06/2005	0	100	0	No	Regular	20/10/2022
Prof. Ankita Ya	AOWPY9049R	M.E/M.Tech	10/11/2020	Electronics and Telecom	Assistant Professor	18/07/2022	59	0	0	Yes	Regular	
Prof. P.B. Gawa	ABQPG0021Q	M.E/M.Tech	07/06/1989	Instrumentation	Assistant Professor	01/08/1996	0	0	63	Yes	Regular	
Prof. R.Y. Kurn	ABDPK7353A	M.E/M.Tech	15/11/1997	Mechanical	Assistant Professor	10/08/2004	100	100	100	Yes	Regular	
Dr. Manoj Patil	ANBPP6139B	ME/M. Tech and PhD	05/08/2022	Computer	Associate Professor	09/02/2023	21	0	0	Yes	Regular	
Dr. Shikha Gup	ALSPG3774C	ME/M. Tech and PhD	10/09/2020	Computer	Associate Professor	01/02/2023	21	0	0	Yes	Regular	
Prof. Deepak G	APZPG7894N	M.E/M.Tech	15/06/2015	Computer	Assistant Professor	08/07/2008	31	100	100	Yes	Regular	
Prof. Naina Kal	AEROL5347L	M.E/M.Tech	24/11/2005	Computer	Assistant Professor	04/07/2011	0	100	100	Yes	Regular	
Prof. Kajaal Sh	BKQPS3135K	M.E/M.Tech	29/08/2008	Computer	Assistant Professor	01/01/2010	0	100	100	Yes	Regular	
Prof. Sumitra S	BTWPS1501A	M.E/M.Tech	01/05/2008	Computer	Assistant Professor	07/04/2011	0	13	0	Yes	Regular	
Prof. Dnynesh	ANMPD5041R	M.E/M.Tech	29/03/2014	Computer	Assistant Professor	01/07/2008	0	13	0	No	Regular	31/01/2022
Prof. Kausar Al	ABUPA5957H	M.E/M.Tech	16/01/2017	AIDS	Assistant Professor	03/01/2022	16	0	0	No	Regular	17/08/2023
Prof.. Taruna S	BXAPS5096L	M.E/M.Tech	29/08/2009	Computer	Assistant Professor	17/03/2023	100	0	0	No	Regular	30/05/2023
Prof. Shivani K	MHCPK7309D	M.E/M.Tech	30/09/2021	Computer	Assistant Professor	23/01/2023	13	0	0	Yes	Regular	
Prof. Sowmya S	DSDPS2614N	M.E/M.Tech	15/06/2015	Computer	Assistant Professor	21/03/2022	19	0	0	No	Regular	20/03/2023
Prof. Radha Na	DACPS2482B	M.E/M.Tech	15/10/2016	Computer	Assistant Professor	01/03/2022	28	0	0	No	Regular	30/12/2022
Dr. Swati Narw	AQSPP1680P	ME/M. Tech and PhD	23/02/2023	IT	Associate Professor	01/02/2023	6	0	0	Yes	Regular	
Prof. Mrunaline	CZOTP0267R	M.E/M.Tech	20/12/2017	IT	Assistant Professor	10/01/2023	13	0	0	Yes	Regular	
Prof. Aditi Malk	AJBPN7885Q	M.E/M.Tech	22/11/2011	Computer	Assistant Professor	05/01/2023	13	0	0	Yes	Regular	

Prof. Nilesh Bh	AKBPB4994R	M.E/M.Tech	21/06/2008	AIDS	Assistant Professor	23/01/2023	13	0	0	Yes	Regular	

Year	Number Of Students(approved intake strength) N	Number of Faculty members(considering fractional load) F	FYSFR (N/F)	*Assessment= (5*20)/FYSFR(Limited to Max.5)
2021-22(CAYm2)	480	26	19	5
2022-23(CAYm1)	480	28	17	5
2023-24(CAY)	480	24	20	5
Average	480	26	18	5

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 3.00

Institute Marks : 3.00

Year	x (Number Of Regular Faculty with Ph.D)	y (Number Of Regular Faculty with Post graduate Qualification)	RF (Number Of Faculty Members required as per SFR of 20:1	Assessment Of Faculty Qualification [(5x + 3y) / RF]
2021-22	5	16	24	3.00
2022-23	6	17	24	3.00
2023-24	6	14	24	3.00

Average Assessment: 3.00

8.3 First Year Academic Performance (10) Total Marks 8.33

Institute Marks : 8.33

Academic Performance	2023-24	2022-23	2021-22
Mean of CGPA or mean percentage of all successful students(X)	7.89	8.84	9.52
Total Number of successful students(Y)	37.00	56.00	78.00
Total Number of students appeared in the examination(Z)	44.00	56.00	78.00
API [X*(Y/Z)]	6.63	8.84	9.52

Average API[(AP1+AP2+AP3)/3] : 8.33

Assessment [1.5 * Average API] : 8.33

8.4 Attainment of Course Outcomes of first year courses (10) Total Marks 10.00

8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5) Institute Marks : 5.00

ASSESSMENT STRATEGY FOR OUTCOME-BASED EDUCATION

1. Mapping Program Outcomes to Assessment (Examinations)

Program Outcomes (POs) articulate the generic abilities to be looked for in a graduate of any undergraduate degree program. They form the Program Outcomes (POs) that reflect the skills, knowledge and abilities of graduates regardless of the field of study. This does not mean that POs are necessarily independent of disciplinary knowledge –rather, these qualities may be developed in various disciplinary contexts. In outcome-based education, a "design down" process is employed which moves from POs to Course Outcomes (COs) and outcomes for individual learning experiences. Outcomes at each successive level need to be aligned with, and contribute to, the program outcomes. Courses are the building blocks of a program. Teaching strategies, learning activities, assessments and resources should all be designed and organized to help students achieve the learning outcomes at the course level. In the assessment activities, students demonstrate their level of achievement of the course learning outcomes. In a constructively aligned program, the courses are carefully coordinated to ensure steady development or scaffolding from the introduction to mastery of the learning outcomes, leading to the achievement of the intended POs. For the effectiveness of the program, the achievement of POs is crucial which needs to be proven through accurate and reliable assessments.

2. Two-step Process for Bringing Clarity to POs

POs give useful guidance at the program level for the curriculum design, delivery and assessment of student learning. However, they represent fairly high-level generic goals that are not directly measurable. Real observability and measurability of the POs at course level is very difficult. To connect high-level learning outcomes (POs) with course content, course outcomes and assessment, there is a necessity to bring further clarity and specificity to the program outcomes [5]. This can be achieved through the following two-step process of identifying Competencies and Performance Indicators (PI). (1) Identify Competencies to be attained: For each PO define competencies –different abilities implied by program outcome statement that would generally require different assessment measures. This helps us to create a shared understanding of the competencies we want students to achieve. They serve as an intermediate step to the creation of measurable indicators.

Example: Program Outcome (Attribute 3)

Design: PO3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations. Competencies

1. Demonstrate an ability to define a complex, open-ended problem in engineering terms.

2. Demonstrate an ability to generate a diverse set of alternative design solutions.

3. Demonstrate an ability to select the optimal design scheme for further development.

4. Demonstrate an ability to advance an engineering design to the defined end state.

(2) Define Performance Indicators: For each of the competencies identified, define performance Indicators (PIs) that are explicit statements of expectations of the student learning. They can act as measuring tools in assessment to understand the extent of attainment of outcomes. They can also be designed to determine the appropriate achievement level or competency of each indicator so that instructors can target and students can achieve the acceptable level of proficiency.

Example: For the Competency -2

Demonstrate an ability to generate a diverse set of alternative design solutions

Performance Indicators:

1. Apply formal idea generation tools to develop multiple engineering design solutions

2. Build models, prototypes, algorithms to develop a diverse set of design solutions

3. Identify the functional and non-functional criteria for evaluation of alternate design solutions. It should be noted that, when we consider the program outcome, it looks like, it can be achieved only in the Capstone project. But if we consider the competencies and performance indicators, we start seeing the opportunities of addressing them (and hence PO) in various courses of the program.

Once the above process is completed for the program, the assessment of COs for all the courses is designed by connecting assessment questions (used in various assessment tools) to the PIs. By following this process, where examination questions map with PIs, we get clarity and better resolution for the assessment of COs and POs. The pictorial representation of the process is given in Fig. 1

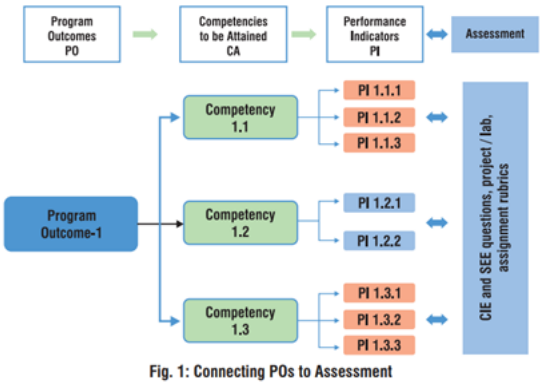


Fig. 1: Connecting POs to Assessment

Reference: AICTE Examination Reform Policy November 2018

As per University curriculum, articulation matrix is formed for all subjects.

UG PROGRAM IN INFORMATION TECHNOLOGY

PROGRAM ARTICULATION MATRIX OF FE COURSES

Year	Sem	Course Code	Name of Course	Program Outcomes													
				PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
FE	I	FEC101	Engineering Mathematics-I	2.50	1.67	1.00	1.17	2.00	–	–	–	–	–	–	1.00	--	--
		FEC102	Engineering Physics - I	2.33	1.67	1.00	—	—	—	—	—	—	—	—	1.50	—	—
		FEC103	Engineering Chemistry - I	2.17	1.17	1.00	3.00	1.00	2.50	2.00	–	–	–	–	1.00	—	—
		FEC104	Engineering Mechanics	2.00	2.00	1.00	–	–	–	–	–	–	–	–	1.00	–	–
		FEC105	Basic Electrical Engineering	2.00	2.00	–	–	–	–	–	–	–	–	–	–	1.00	–
		FEL103	Engineering Mechanics Lab	2.00	2.00	1.00	–	–	–	–	–	–	–	–	1.00	–	–
		FEL104	Basic Electrical Engineering Lab	2.00	2.00	–	–	–	–	–	1.00	3.00	--	—	—	—	—
		FEL105	Basic Workshop Practice - I	1.57	1.57	1.00	–	2.00	2.00	–	1.00	-	2.00	–	1.43	-	-
	II	FEC201	Engineering Mathematics-II	2.00	1.00	1.00	1.00	1.00	--	--	--	--	--	--	1.00	–	–
		FEC202	Engineering Physics-II	1.83	1.33	—	—	—	—	—	—	2.00	—	—	1.17	–	–
		FEC203	Engineering Chemistry-II	1.67	1.00	1.00	--	--	3.00	2.33	--	--	--	--	1.17	–	–
		FEC204	Engineering Graphics	1.00	--	--	--	--	-	-	-	-	1.00	-	1.00	-	-
		FEC205	C Programming	2.00	1.00	--	--	--	--	--	–	--	--	--	--	–	–
		FEC206	Professional Communication and Ethics - I	–	–	–	–	–	–	–	1.00	–	1.00	–	1.00	–	1.00
		FEL203	Engineering Graphics Lab	1.00	1.00	1.00	1.00	1.00	-	-	-	-	2.00	1.00	1.00	-	-
		FEL206	Basic Workshop Practice - II	2.00	1.57	1.00	-	-	-	-	-	-	2.00	-	1.43	-	-
Average Value				1.87	1.50	1.00	1.54	1.40	2.50	2.17	1.00	2.50	1.60	—	1.13	1.00	1.00

DATA COLLECTION PROCESS & PROCEDURE:

In Outcome Based Education (OBE), assessment is done through one or more than one processes, carried out by the institution, that identify, collect, and prepare data to evaluate the achievement of course outcomes (CO's).

Assessment tools are categorized into two methods: Direct methods and indirect methods.

Direct methods measures the student's knowledge and skills based on the performance in the continuous internal assessment tests, semester examinations and classroom and laboratory assignments etc. These methods measures the level of what students know and/or can do after learning.

Indirect methods such as surveys will reflect on student's learning. They assess opinions or thoughts about the graduate's knowledge or skills and they are valued through survey from different stakeholders.

Attainment level measured in terms of student performance with respect to internal assessments of a subject plus the performance in the University examination

TARGET & ATTAINMENT LEVELS OF COS FOR INTERNAL and EXTERNAL ASSESSMENT

Level of CO attainment	
No. of students having marks > cut-off	**Level**
No. of students having marks>=60%	**3**
No. of students having marks 50% to 59%	**2**
No. of students having marks 40% to 49%	**1**

Note: High Scoring subjects can elevate the attainment level with justification for e.g. PCE I and PCE II

Internal Evaluation

Sr. No.	**Assessment Methods**
1	Internal Term Test
2	Assignments

3	Experiments
4	Course Project

End Semester Examination (University Examination)

Sr. No.	Assessment Methods
1	Theory examination
2	Laboratory examination

Direct Assessment of Theory & Lab:

Internal test are conducted as per the Academic Calendar set by institution and IA marks are computed considering the performance of the students in internal test.

The lab evaluations are calculated as per the rubrics and assigned

The Maximum Internal assessment for 2019 C Scheme is 15 or 20 marks.

Direct Assessment Methods are formative as well as summative:

For some of the POs that are abstract, rubrics has been designed using performance indicators and shared with the students in advance. This helps students to understand against which parameter their work will be judged". These rubrics can be used by students in, revising, and judging their work and progress.	
Internal Assessment Test	Qualitative performance assessment tool such as Class tests are conducted by institute to assess students' knowledge and problem solving skills.
Assignments & Tutorials	This is mainly to assess student's knowledge with their design thinking or logical analysis capabilities.
Experiments	This is mainly to assess student's practical knowledge with their design thinking or logical analysis capabilities.
End semester exam (theory + practical)	Semester End examination is the metric for assessing whether all the POs are attained or not. Examination is more focused on attainment of course outcomes and program outcomes.

CO ATTAINMENT LEVEL	IA 1		IA2		ASSIGNMENT		EXPERIMENT		PROJECT / IV / PRESENTATION	UNIVERSITY EXAM
	Q1	Q2	Q1	Q2	A1	A2	E1	E2		
Maximum Marks										
Mapping CO										
Total No. of students appeared										
Total No. of students scored above 60										
Total No. of students scored above 50 and <59										
Total No. of students scored above 40 and <49										
Attainment Level										

8.4.2 Record the attainment of Course Outcomes of all first year courses (5) Institute Marks : 5.00

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

The attainment of course is evaluated based on the following rubrics.

80% of Weightage to University exams & 20 % weightage to Internal Assessment Test. Based on that attainment level is calculated.

CALCULATION OF FINAL ATTAINMENT LEVEL								Attainment Level		
Course Outcome	Test 1	Test 2	TUTORIALS	SCILAB TUTORIALS	Internal Evaluation Average	University Evaluation	80%of External+20% of Internal examination	3	2	1
CO1	2.59	-	3.00	-	2.80	1.94	2.11	2.11	1.4	0.7
CO 2	2.68	-	3.00	-	2.84	1.94	2.12	2.12	1.4	0.7
CO3	-	-	3.00	-	3.00	1.94	2.15	2.15	1.42	0.71
CO4	-	2.93	3.00	-	2.97	1.94	2.15	2.15	1.42	0.71
CO5	-	2.82	3.00	-	2.91	1.94	2.13	2.13	1.41	0.7
CO6	-	-	3.00	3.00	3.00	_	0.60	0.6	0.4	0.2

ACADEMIC YEAR 2022-23

UG PROGRAM IN MECHANICAL ENGINEERING

CO-PO MAPPING OF ALL FE COURSES

FE SEM - I

COURSE NAME: Engineering Mathematics -I		COURSE CODE: FEC101													
COURSE OUTCOMES (CO)		PROGRAM OUTCOMES													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Illustrate the basic concepts of Complex number	0.66	0.66	--	--	--	--	--	--	--	--	--	0.66	-	-
CO2	Apply the knowledge of complex numbers to solve problems in Hyperbolic function and Logarithmic function	0.66	0.66	--	--	--	--	--	--	--	--	--	0.66	-	-
CO3	Illustrate the basic principles of partial differentiation	1.35	0.68	--	--	--	--	--	--	--	--	--	1.35	-	-
CO4	Illustrate the knowledge of Maxima,Minima and successive differentiation , Maxima,Minima and successive differentiation	1.34	0.67	--	--	--	--	--	--	--	--	--	0.67	-	-
CO5	Apply principal of basic operation of Matrices,rank and echelon from of Matrices to simultaneous equations	1.33	0.66	0.66	--	--	--	--	--	--	--	--	0.66	-	-
CO6	Illustrate SCILAB programming techniques to the solution of linear and simultaneous algebraic equations	0.20	0.20	0.20	0.20	0.20	--	--	--	--	--	--	0.20	-	-
ATTAINMENT		**0.92**	**0.59**	**0.43**	**0.20**	**0.20**	--	--	--	--	--	--	**0.70**	-	-

COURSE NAME: Engineering Physics-I		COURSE CODE: FEC102													
COURSE OUTCOMES (CO)		Program Outcomes													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Illustrate the fundamentals of quantum mechanics and its application.	1.31	1.31		—	—	—	—	—	—	—	—	0.53	—	—
CO2	Illustrate the knowledge of crystal planes, X-ray diffraction and its application.	1.98	1.31	0.65	—	—	—	—	—	—	—	—	1.31	—	—
CO3	Illustrate the knowledge of Fermi level in semiconductors and applications of semiconductors in electronic devices.	1.93	0.64		—	—	—	—	—	—	—	—	1.27	—	—
CO4	Illustrate the knowledge of interference in thin films and its various applications.	1.31	0.65		—	—	—	—	—	—	—	—	0.65	—	—
CO5	Illustrate the basic knowledge of superconductors and supercapacitors.	1.32	1.32		—	—	—	—	—	—	—	—	0.66	—	—
CO6	Illustrate the knowledge of engineering materials and applications.	1.32	1.32		—	—	—	—	—	—	—	—	1.32	—	—
ATTAINMENT		**1.53**	**1.09**	**0.65**	—	—	—	—	—	—	—	—	**0.96**	—	—

COURSE NAME: Engineering Chemistry-I		COURSE CODE: FEC103													
COURSE OUTCOMES (CO)		Program Outcomes													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Explain the concept of microscopic chemistry in terms of atomic and molecular orbital theory and relate it to diatomic molecules.	1.30	0.65	--	–	0.65	--	--	--	--	--	--	0.65	-	-
CO2	Describe the concept of aromaticity and interpret it with relation to specific aromatic systems.	1.34	0.67	--	–	0.67	--	--	--	--	--	--	0.67	-	-
CO3	Illustrate the knowledge of various types of intermolecular forces and relate it to real gases.	--	--	--	–	--	--	--	--	--	--	--	--	-	-
CO4	Interpret various phase transformations using thermodynamics.	1.34	0.67	--	–	--	--	--	--	--	--	--	0.67	-	-
CO5	Illustrate the knowledge of polymers, fabrication methods, conducting polymers in various industrial fields.	1.31	0.66	0.66	–	0.66	1.31	1.31	--	--	--	--	0.66	-	-
CO6	Analyze the quality of water and suggest suitable methods of treatment.	1.90	1.25	0.63	1.90	0.63	1.90	1.25	--	--	--	--	0.63	-	-
ATTAINMENT		**1.44**	**0.78**	**0.65**	**1.90**	**0.65**	**1.61**	**1.28**	--	--	--	--	**0.66**	-	-

COURSE NAME: Engineering Mechanics		COURSE CODE: FEC104												
COURSE OUTCOMES (CO)		PROGRAM OUTCOMES												
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Illustrate the concept of force, moment and apply the same along with the concept of equilibrium in two and three dimensional systems with the help of FBD.	1.67	0.56	--	--	--	--	--	--	--	0.56	--	–	1	1
CO2	Demonstrate the understanding of Centroid and its significance and locate the same.	1.66	0.55	--	--	--	--	--	--	--	0.55	--	–	1	1
CO3	Correlate real life application to specific type of friction and estimate required force to overcome friction.	1.79	0.60	--	--	--	--	--	--	--	0.60	--	–	1	1
CO4	Establish relation between velocity and acceleration of a particle and analyze the motion by plotting the relation	1.82	0.61	--	--	--	--	--	--	--	0.61	--	–	1	1
CO5	Illustrate different types of motions and establish Kinematic relations for a rigid body	1.85	0.62	--	--	--	--	--	--	--	0.62	--	–	1	1
CO6	Analyze particles in motion using force and acceleration, work-energy and impulse momentum principles	1.28	0.43	--	--	--	--	--	--	--	0.43	--	–	1	1
ATTAINMENT		**1.68**	**0.56**	--	--	--	--	--	--	--	**0.56**	--	–	**1.00**	**1.00**

COURSE NAME: Basic Electrical Engineering		COURSE CODE: FEC-105												
COURSE OUTCOMES (CO)		PROGRAM OUTCOMES												
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Apply various network theorems to determine the circuit response / behavior.	1.05	1.05	--	--	--	--	--	--	--	--	--	–	--	–
CO2	Evaluate and analyze 1-Φ circuits	1.04	1.04	--	--	--	--	--	--	--	--	--	–	--	–
CO3	Evaluate and analyze 3-Φ AC circuits.	1.04	1.04	--	--	--	--	--	--	--	--	--	–	--	–
CO4	Understand the constructional features and operation of 1-Φ transformer			--	--	--	--	--	--	--	--	--	–	--	–
CO5	Illustrate the working principle of 3-Φ machine.	0.96	--	--	--	--	--	--	--	--	--	--	–	--	–
CO6	Illustrate the working principle of 1-Φ machines	0.96	--	--	--	--	--	--	--	--	--	--	–	--	–
ATTAINMENT		**1.01**	**1.04**	--	--	--	--	--	--	--	--	--	–	--	–

COURSE NAME: Engineering Mechanics Lab		COURSE CODE: FEL103												
COURSE OUTCOMES (CO)		PROGRAM OUTCOMES												
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Verify equations of equilibrium of coplanar force system	2.86	0.95	--	--	--	--	--	--	--	0.95	--	–	1	1
CO2	Verify law of moments	2.87	0.96	--	--	--	--	--	--	--	0.96	--	–	1	1
CO3	Determine the centroid of plane lamina.	2.86	0.95	--	--	--	--	--	--	--	0.95	--	–	1	1
CO4	Evaluate co-efficient of friction between the different surfaces in contact.	2.87	0.96	--	--	--	--	--	--	--	0.96	--	–	1	1
CO5	Demonstrate the types of collision/impact and determine corresponding coefficient of restitution.	2.87	0.96	--	--	--	--	--	--	--	0.96	--	–	1	1
CO6	Differentiate the kinematics and kinetics of a particle	2.87	0.96	--	--	--	--	--	--	--	0.96	--	–	1	1
ATTAINMENT		**2.87**	**0.96**	--	--	--	--	--	--	--	**0.96**	--	–	**1.00**	**1.00**

COURSE NAME: Basic Electrical Engineering Lab		COURSE CODE: FEL104												
COURSE OUTCOMES (CO)		PROGRAM OUTCOMES												
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Interpret and analyse the behaviour of DC circuits using network theorems.	1.92	1.92	--	--	--	--	--	0.96	2.91	--	--	--	--	--
CO2	Perform and infer experiment on single phase AC circuits.	1.92	1.92	--	--	--	--	--	0.96	2.90	--	--	--	--	--
CO3	Demonstrate experiment on three phase AC circuits.	1.92	1.92	--	--	--	--	--	0.96	2.92	--	--	--	--	--
CO4	Illustrate the performance of single phase transformer and machines.	1.92	1.92	--	--	--	--	--	0.96	2.92	--	--	--	--	--
ATTAINMENT		1.92	1.92	--	--	--	--	--	0.96	**2.91**	–	--	–	--	--

COURSE NAME: Basic Workshop Practice - I		COURSE CODE: FEL105													
COURSE OUTCOMES (CO)		PROGRAM OUTCCOMES													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Develop the necessary skill required to handle/use different fitting tools	1.76	0.86	0.86	-	-	-	-	-	-	1.76	-	0.86	-	0.86
CO2	Develop skill required for hardware maintenance	1.74	1.74	0.85	-	1.74	1.74	-	-	-	1.74	-	1.74	-	0.85
CO3	Able to install an operating system and system drives.	1.74	1.74	0.85	-	1.74	-	-	0.85	-	1.74	-	1.74	-	0.85
CO4	Able to identify the network components and perform basic networking and crimping.	1.74	1.74	0.85	-	1.74	0.85	-	-	-	1.74	-	1.74	-	0.85
CO5	Able to prepare edges of jobs and do simple arc welding.	2.59	0.85	0.85	-	-	-	-	-	-	1.74	-	0.85	-	0.85
CO6	Develop the necessary skill required to handle / use different plumbing tools.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO7	Demonstrate the turning operation with the help of a simple job	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ATTAINMENT		1.91	1.39	0.85	-	1.74	1.30	-	0.85	-	1.74	-	1.39	-	0.85

FE SEM - II

COURSE NAME: Engineering Mathematics -II		COURSE CODE: FEC101													
COURSE OUTCOMES (CO)		Program Outcomes													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Apply the concept of first order and first degree Differential equation to the problem in the field of engineering	2.11	0.70	--	0.70	--	--	--	--	--	–	--	0.70	-	-
CO2	Apply the concept of higher order linear differential equation to the engineering problem	2.12	0.70	--	0.70	--	--	--	--	--	–	--	0.70	-	-
CO3	Apply concept of Beta and Gamma function to solve improper integrals	1.42	0.71	--	0.71	--	--	--	--	--	–	--	0.71	-	-
CO4	Apply concept of Double Integral of different coordinate system to the engineering problem like area and mass	1.42	0.71	--	0.71	--	--	--	--	--	–	--	0.71	-	-
CO5	Apply concept of triple integral of different coordinate system to the engineering problem and problem based on volume of solids	1.41	0.70	--	0.70	--	--	--	--	--	–	--	0.70	-	-
CO6	Solve differential equations and integration numerically using SCILAB software to experimental aspects of applied mathematics	0.20	0.20	0.20	0.20	0.20	--	--	--	--	–	--	0.20	-	-
ATTAINMENT		1.45	0.62	0.20	0.62	0.20	--	--	--	--	–	--	0.62	-	-

COURSE NAME: Engineering Physics-II		COURSE CODE: FEC202													
COURSE OUTCOMES (CO)		Program Outcomes													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Illustrate the knowledge of diffraction through slits and its applications.	1.11	0.55	—	—	—	—	—	—	1.11	—	—	0.55	-	-
CO2	Illustrate the working principle of various lasers and their applications in different fields, The concepts of optical fiber and its applications in communication system.	1.67	1.1	—	—	—	—	—	—	1.1	—	—	0.55	-	-
CO3	Illustrate the fundamentals of electrodynamics with required mathematical concepts.	0.54	0.54	—	—	—	—	—	—	1.09	—	—	0.54	-	-
CO4	Illustrate the fundamentals of relativity.	1.07	0.54	—	—	—	—	—	—	1.07	—	—	0.54	-	-
CO5	Illustrate the knowledge of synthesis, characterization and applications of nanomaterials.	0.54	0.54	—	—	—	—	—	—	1.08	—	—	0.54	-	-
CO6	Illustrate the knowledge of working principles of various sensors.	1.08	1.08	—	—	—	—	—	—	1.08	—	—	1.08	-	-
ATTAINMENT		1.00	0.73		—	—	—	—	—	1.09	—	—	0.63	-	-

COURSE NAME: Engineering Chemistry-II		COURSE CODE: FEC203													
COURSE OUTCOMES (CO)		Program Outcomes													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Distinguish the ranges of the electromagnetic spectrum used for exciting different molecular energy levels in various spectroscopic techniques.	1.23	—	--	--	--	--	--	--	--	--	--	0.61	—	—
CO2	Illustrate the concept of emission spectroscopy and describe the phenomena of fluorescence and phosphorescence in relation to it.	—	—	--	--	--	--	--	--	--	--	--	--	—	—
CO3	Explain the concept of electrode potential and nernst theory and relate it to electrochemical cells.	1.13	0.57	--	--	--	--	0.57	--	--	--	--	0.57	—	—
CO4	Identify different types of corrosion and suggest control measures in industries.	1.72	0.57	--	--	--	0.57	1.72	--	--	--	0.57	1.13	—	—
CO5	Illustrate the principles of green chemistry and study environmental impact.	1.69	1.11	--	--	--	0.56	1.69	--	--	--	1.11	1.11	0.56	—
CO6	Explain the knowledge of determining the quality of fuel and quantify the oxygen required for combustion of fuel.	1.73	1.73	--	--	--	1.73	1.73	--	--	--	1.14	1.73	0.57	—
ATTAINMENT		**1.50**	**1.00**	--	--	--	**0.95**	**1.43**	--	--	–	**1.43**	**1.03**	**0.57**	—

COURSE NAME: Engineering Graphics		COURSE CODE: FEC204													
COURSE OUTCOMES (CO)		Program Outcomes													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Apply the basic principles of projections in Projection of Lines and Planes	1.13	0.57	--	--	--	--	--	--	--	1.13	--	--	1	1
CO2	Apply the basic principles of projections in Projection of Solids.	1.13	0.57	--	--	--	--	--	--	--	1.13	--	--	1	1
CO3	Apply the basic principles of sectional views in Section of solids.	1.13	0.56	--	--	--	--	--	--	--	1.13	--	--	1	1
CO4	Apply the basic principles of projections in converting 3D view to 2D drawing.	1.13	0.57	--	--	--	--	--	--	--	1.13	--	--	1	1
CO5	Read a given drawing.	1.16	0.58	--	--	--	--	--	--	--	1.16	--	--	1	1
CO6	Visualize an object from the given two views.	1.15	0.58	--	--	--	--	--	--	--	1.15	--	--	1	1
ATTAINMENT		**1.14**	**0.57**	--	--	--	--	--	--	--	**1.14**	--	--	**1.00**	**1.00**

COURSE NAME: C-Programming		COURSE CODE: FEC205													
COURSE OUTCOMES (CO)		Program Outcomes													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Formulate simple algorithms for arithmetic, logical problems and translate them to programs in C language	1.49	0.74	0.74	1.49	1.74	--	--	--	--	--	--		0.74	0.74
CO2	Implement, test and execute programs comprising of control structures	2.26	1.49	0.75	1.49	1.49	--	--	--	--	--	--	0.75	0.75	0.75
CO3	Decompose a problem into functions and synthesize a complete program.	2.24	1.48	0.74	1.48	1.48	--	--	--	--	--	--	1.48	0.74	0.74
CO4	Demonstrate the use of arrays, strings and structures in C language.	1.47	1.47	0.73	2.22	1.47	--	--	--	--	--	--	1.47	0.73	0.73
CO5	Understand the concept of pointers	1.50	1.50	0.75	1.50	1.50	--	--	--	--	--	--	0.75	0.75	0.75
CO6	Understand the concept to allocate memory using dynamic memory management functions	1.50	0.75	0.75	1.50	1.50	--	--	--	--	--	--	0.75	0.75	0.75
ATTAINMENT		**1.74**	**1.24**	**0.74**	**1.61**	**1.53**	--	--	--	--	--	--	**1.04**	**0.74**	**0.74**

COURSE NAME: Professional Communication & Ethics-I		COURSE CODE: FEC206													
COURSE OUTCOMES (CO)		PROGRAM OUTCOMES													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Eliminate barriers and use verbal/non-verbal cues at social and workplace situations.	-	-	-	-	-	-	-	-	-	0.54	-	-	-	-
CO2	Employ listening strategies to comprehend wide ranging vocabulary, grammatical structures, tone and pronunciation.	-	-	-	-	-	-	-	-	0.58	0.58	-	-	-	-
CO3	Prepare effectively for speaking at social, academic and business situations.	-	-	-	-	-	-	-	-	0.57	0.57	-	-	-	-
CO4	use reading strategies for faster comprehension, summarization and evaluation of texts.	-	-	-	-	-	-	-	-	-	0.58	-	0.58		0.58
CO5	Acquire Effective writing skills for drafting academic, business and technical documents.	-	-	-	-	-	-	-	-	0.53	0.53	-	-	-	
CO6	Successfully interact in all kinds of settings, displaying refined grooming and social skills.	-	-	-	-	-	-	-	0.57	0.57	0.57	-	-	-	-
ATTAINMENT		-	-	-	-	-	-	-	**0.57**	**0.56**	**0.56**	-	**0.58**	-	**0.58**

COURSE NAME: Engineering Graphics Lab		COURSE CODE: FEL203													
COURSE OUTCOMES (CO)		Program Outcomes													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Apply the basic principles of projections in 2D drawings using a CAD software.	1.43	0.71	--	--	1.43	--	--	--	--	1.43	--	--	1	1
CO2	Create, Annotate, Edit and Plot drawings using basic AutoCAD commands and features.	1.43	0.71	--	--	1.43	--	--	--	--	1.43	--	--	1	1
CO3	Apply the concepts of layers to create drawing.	1.43	0.71	--	--	1.43	--	--	--	--	1.43	--	--	1	1
CO4	Apply basic AutoCAD skills to draw different views of a 3D object.	1.77	0.88	--	--	1.77	--	--	--	--	1.77	--	--	1	1
CO5	Apply basic AutoCAD skills to draw the isometric view from the given two views.	1.77	0.88	--	--	1.77	--	--	--	--	1.77	--	--	1	1
CO6	To generate blueprints of drawings using Autocad.	1.77	0.88	--	--	1.77	--	--	--	--	1.77	--	--	1	1
ATTAINMENT		**1.60**	**0.80**	–	–	**1.60**	–	–	–	–	**1.60**	–	–	**1.00**	**1.00**

COURSE NAME: Basic Workshop Practice - II		COURSE CODE: FEL206													
COURSE OUTCOMES (CO)		PROGRAM OUTCCOMES													
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	Develop the necessary skill required to use different carpentry tools.	2.61	1.74	0.86	-	-	-	-	-	-	1.74	-	0.86	-	0.86
CO2	Identify and understand the safe practices to adopt in electrical environment	1.69	1.69	0.83	-	-	-	-	-	-	1.69	-	0.83	-	0.83
CO3	Demonstrate the wiring practices for the connection of simple electrical load/ equipment.	1.69	1.69	0.83	-	-	-	-	-	-	1.69	-	0.83	-	0.83
CO4	Design, fabricate and assemble pcb	1.69	1.69	0.83	-	-	-	-	-	-	1.69	-	0.83	-	0.83
CO5	Develop the necessary skill required to use different masons tools.	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CO6	Develop the necessary skill required to use different sheet metal and brazing tools.	2.76	1.85	0.91	-	-	-	-	-	-	1.85	-	0.91	-	0.91
CO7	Able to demonstrate the operation, forging with the help of a simple job	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ATTAINMENT		**2.09**	**1.73**	**0.91**	-	-	-	-	-	-	**1.73**	-	**0.85**	-	**0.85**

8.5 Attainment of Program Outcomes from first year courses (20) Total Marks 20.00

8.5.1 Indicate results of evaluation of ezch relevant PO and/ or PSO, if applicable (15) Institute Marks : 15.00

POs Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Engineering Mathematics-I	0.92	0.59	0.43	0.20	0.20	0	0	0	0	0	0	0.70
Engineering Physics-I	1.53	1.09	0.65	0	0	0	0	0	0	0	0	0.96
Engineering Chemistry-I	1.44	0.78	0.65	1.90	0.65	1.61	1.28	0	0	0	0	0.66
Engineering Mechanics	1.68	0.56	0	0	0	0	0	0	0	0.56	0	0
Basic Electrical Engineering	1.01	1.04	0	0	0	0	0	0	0	0	0	0
Engineering Mechanics Lab	2.87	0.96	0	0	0	0	0	0	0	0.96	0	0
Basic Electrical Engineering Lab	1.92	1.92	0	0	0	0	0	0.96	2.91	0	0	0
Basic Workshop Practice-I	1.91	1.39	0.85	0	1.74	1.30	0	0.85	0	1.74	0	1.39
Engineering Mathematics-II	1.45	0.62	0.20	0.62	0.20	0	0	0	0	0	0	0.62
Engineering Physics-II	1.00	0.73	0	0	0	0	0	0	1.09	0	0	0.63
Engineering Chemistry-II	1.50	1.00	0	0	0	0.95	1.43	0	0	0	1.43	1.03
Engineering Graphics	1.14	0.57	0	0	0	0	0	0	0	1.14	0	0
C Programming	1.74	1.24	0.74	1.61	1.53	0	0	0	0	0	0	1.04
Professional Communication and Ethics-I	0	0	0	0	0	0	0	0.57	0.56	0.56	0	0.58
Engineering Graphics Lab	1.60	0.80	0	0	1.60	0	0	0	0	1.60	0	0
Basic Workshop Practice-II	2.09	1.73	0	0.91	0	0	0	0	0	1.73	0	0.85

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	1.59	1.00	0.59	1.05	0.99	1.29	1.36	0.79	1.52	1.18	1.43	0.85
CO Attainment	1.59	1.00	0.59	1.05	0.99	1.29	1.36	0.79	1.52	1.18	1.43	0.85

PSOs Attainment:

Course	PSO1	PSO2
Engineering Mechanics	1.00	1.00
Engineering Mechanics Lab	1.00	1.00
Basic Workshop Practice-I	0	0.85
Engineering Chemistry-II	0.57	0
Engineering Graphics	1.00	1.00
C Programming	0.74	0.74
Professional Communication and Ethics-I	0	0.58
Engineering Graphics Lab	1.00	1.00
Basic Workshop Practice-II	0	0.85

PSO Attainment Level

Course	PSO1	PSO2
Direct Attainment	0.88	0.88
CO Attainment	0.88	0.88

8.5.2 Actions taken based on the results of evaluation of relevant POs (5) Institute Marks : 5.00

POs Attainment Levels and Actions for Improvement- (2022-23)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	1.63	1.59	1. Close to target level 2. Need of extra practice session 3. Need of awareness of latest technologies 4. Opportunity to perform
1. One extra hour per week than the university prescribed number of hours is allotted to conduct tutorials to motivate students to improve their understanding in basic engineering subjects 2. Seminars are to be arranged related to engineering program by industry experts to give our view of latest technology & innovation. 3. Provide opportunity to participate in technical events.			
PO 2 : Problem Analysis			
PO 2	1.34	1.00	1.Efforts needed to improve 2.Need of group activities 3.Special efforts on development of pre requisite 4. Practice required to improve subject understanding.
1. Group activities to be conducted to enhance presentation skills & thinking skill etc. 2. Special classes to be conducted to revise prerequisite required for first year subjects. 3. Give more tutorial problems to improve understanding of subjects.			
PO 3 : Design/development of Solutions			
PO 3	1.11	0.63	1.Efforts needed to improve 2.Need of self-study work for awareness of environment. 3.Need of student's involvement in social -cultural activities.
1. A Seminar was organized to impart knowledge on environment safety and society welfare. 2. Assignments were given to make students to be aware of Pollution free environment. 3. To provide opportunity to participate in social and cultural activities.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.32	1.08	1.Efforts needed to improve 2.Need of practice 3.Students are required to see technical exhibitions.
1. Students were given experiments to analyse and explore it in various ways. 2. Students were motivated to participate in project expo. 3. Encourage to participate in seminars and presentations			
PO 5 : Modern Tool Usage			
PO 5	1.33	0.99	1.Efforts needed to improve 2.Need of group activities 3. Exposure to ICT tools
1. Students were provide opportunities to participate in various technical events. 2. Conduct virtual classes and use ICT tools in classroom teachings			
PO 6 : The Engineer and Society			
PO 6	1.66	1.28	1.Efforts needed to improve 2.Need of awareness program for students 3.Need of student's involvement in societal activities
1. Awareness programmes were organized to inculcate public and society welfare. 2. Provided opportunities to the Students to join different activities on societal and health issues.			
PO 7 : Environment and Sustainability			
PO 7	1.44	1.35	1. Close to target 2. Need of awareness program.
1. Seminars are arranged on Environment related topics. 2. The activity like Tree Plantation organized to encourage the students for understanding the responsibility towards environment. Energy conservation is practised by the installation of LED tube light. 3. Need Arranging activities of Environment and Energy Conservation.			
PO 8 : Ethics			
PO 8	1.44	0.89	1. Efforts needed to improve 2. Initiatives to understand professional ethics. 3. Need of Extracurricular and co-curricular activities.
1. Initiatives are taken to understand and follow the professional ethics. 2. Opportunities provided to the students to participation in Co- Curricular activities and games and promote commitment to ethical principles and understanding of participation is more important than winning.			
PO 9 : Individual and Team Work			
PO 9	1.60	1.52	1. Close to target 2. Need of opportunities of group activities 3. Initiatives required to get rid of communication barrier.
1. Students are provided opportunities to participate in Group activities as members or leader. 2. Presentations were assigned to students to make them get rid of communication barriers.			
PO 10 : Communication			
PO 10	1.22	1.18	1. Close to target 2. Need of practice sessions 3. Need of exposure in competitive environment 4. Use of language lab extensively
Actions: 1. Real time situations were given to students to improve their fluency. 2. Students were asked to participate in various inter- collegiate meet events. 3. Students are seen to be weak in communication skills are advised to undergo relevant courses and are also referred to language lab for improving their communication skills.			

PO 11 : Project Management and Finance

PO 11	1.45	1.43	1. Very close to target 2. Need of building leadership skills 3. Need of participation in competition
1. Team Building activities are conducted to build leadership activities. 2. Students are provided opportunities to participate in projects competitions.			

PO 12 : Life-long Learning

PO 12	1.27	0.85	1. Efforts required to improve 2. Need of programmes of Entrepreneurship awareness
1. Various programmes are to be organized through Entrepreneurship Development Cell. 2. To provide opportunities to students to educate themselves about changing technological environment.			

PSOs Attainment Levels and Actions for Improvement- (2022-23)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Successful Career and Entrepreneurship: Graduates will be able to understand the social-awareness & environmental wisdom along with ethical responsibility to have a successful career and to sustain passion and zeal for real-world applications using optimal resources as an entrepreneur.			
PSO 1	0.95	0.88	1. Very close to target 2. Need of innovative teaching learning 3. Need of Expert Talk
1. Innovative teaching-learning methods are practiced for the subjects that do not meet the target through Assignments & Tutorials. 2. Conducted different seminars/webinars/workshops to enhance student's technical skills.			
PSO 2 : Hobbies and Career: Graduates have nurtured their hobbies which are useful in their specific chosen career.			
PSO 2	0.99	0.88	1. Very close to target 2. Need of awareness on research in diverse technical field 3. Need of exposure on diverse technical domain.
1. To promote study and research in diverse technical field, students are exposed to guest lectures and make-up classes. 2. Conducted workshops/webinar to get knowledge of different technical topics.			

9 STUDENT SUPPORT SYSTEMS (50) Total Marks 50.00

9.1 Mentoring system to help at individual level (5) Total Marks 5.00

Institute Marks : 5.00

- As stated in First Year Engineering, revised syllabus, University of Mumbai, Rev 2019, C scheme, circular No UG/65 of 2019-20, following revised protocols for student mentoring will be maintained with effect from current semester of academic year 2020-21.
- Mentoring Guidelines (As per First Year Engineering, revised syllabus, University of Mumbai, Rev 2019,C scheme, circular No UG/65 of 2019-20):

Objective: Faculty members as Mentors must keep in mind the students' best interests, abilities, skills and talents, by guiding them to realize their best potential.

Operating procedure:

Allocation of mentees to faculty members by the mentor coordinator / HOD at the beginning of the academic year.

Number of Faculty Mentors : All Faculty Members

Number of Students per mentor : 20

Frequency of Mentoring : Need based, in addition to helping the students at any time on individual basis, providing personal mentoring and Professional guidance/career advancement.

Procedure for allocation:

- The Applied Sciences & Humanities department faculty will mentor first-year students.
- The records of mentees, updated in all respects will be handed over to the respective departments by the basic science department at the end of 2 semesters.
- The mentors should be aware of the strengths and weaknesses of the mentees.
- Mentors should bring to the notice of the head of the department in case of any issues/problems.
- Mentors should regularly communicate parents regarding their wards academic performance. Regular meeting will be held between the head of the department and the mentors to assess the progress.
- The mentors can discuss the issues related to their mentees.
- Mentoring will be a parameter in evaluating a faculty members performance in a year.

Mentoring process

Mentoring is for overall development of the student. Counselling books are maintained by faculty where in all details of the students of his/her group is recorded. The same details are maintained in the counselling book of each student:

- Personal Information.
- Mentoring Regularity of the students.
- Monitoring Performance of the students.
- Personal Counselling for Career Guidance
- The parents of poorly performing students are informed through SMS and call.
- Students are encouraged to participate in technical events.

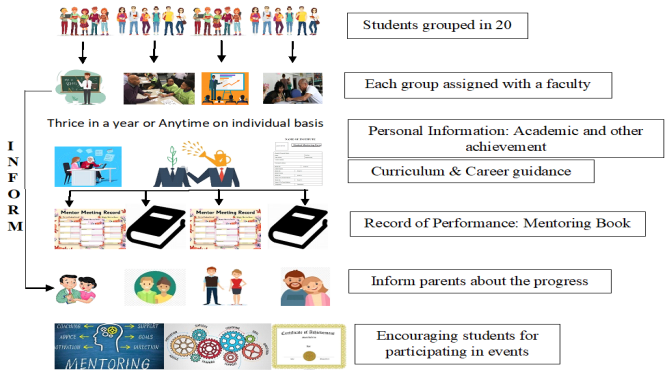


FIG: CHART OF MENTORING PROCESS

By Implementing mentoring system in the Institute the following parameters are improved

Efficacy of mentoring system

Sr. No.	Parameters	Outcomes
1.	Regularization of Student Attendance	Enhanced learning process
2.	Academic Performance	Intellectual Curiosity
3.	Involvement of students in Co-curricular activities and Extra-Curricular Activities	Team Building, Effective Communication and Leadership Skills
4.	Guidance towards Self learning	More number of students enrolled for certifications
5.	Placements guidance	Enhanced Placements
6.	Counseling students towards overall well being	Improved self-confidence, self-esteem and holistic development
7.	Extended support to peer related issues in consultation with parents	Overcoming negative behavioural traits

Case Study: Bright student

Name of Student : Saksham Gurbhele, B.E. Sem: VII (2023-2024) Roll No: 763

Faculty Mentor : Dr. Sunil Wankhade

Abstract: Mentoring to the student and supportive interventions.

Mr. Saksham Gurbhele has admitted in First Year 2020-21. He was an average student with an average grade points and having less attendance in the classes. Dr. Sunil Wankhade is the mentor of Mr. Saksham since Semester-III. Mentor guided by conducting regular meetings and counselling him. There is lot of improvement in the grade points in the later examinations and having good attendance in the classes. . Mentor helped him in writing a paper fin the International Conference., Publication fees is sanctioned from the principal and paper is published in the International Journal.

Due to an extra efforts and support from IT Department, Saksham has got the Research Intern for the duration of 1 Year at the prestigious Tata Institute of Fundamental Research (TIFR), Coloba, Mumbai, and 3 Months project under Dr. K. V. Shrinivasan, TIFR Scientist"

Details of Projects:

Project Title: "Integrated ML driven ECR ion source real time monitoring and lab view integration for precise energy generation" under the guidance of Mr. K.V. Tulasiram, TIFR.

Project Title: "Integrated Monitoring and alarms interface for enhance efficiency and safety in Liquid Nitrogen Plant at LTF (Low Temperature Facility), under the Guidance of Dr. K. V. Shrinivasan, TIFR Scientist"

Details of Paper Publication:

Sunil Wankhade, Saksham Gurbhele (2023), "Smart Door Lock System Using Blockchain Based on Solana Technology", International Journal of Engineering Applied Sciences and Technology, 2023, Vol. 8, Issue 03, ISSN No. 2455-2143, Pages 85-88.

Impact analysis: Observation: Good academic result, attendance improvement and actively representing in co-curricular activities. Paper publication in International Journal.

Case Study: PWD student:

Student Name : Aashil Sonal Umralia , Roll no.: B-558,Year :SE(2022-2023)

Faculty Mentor : Prof.Shivani Kuduple

Supporting a Second-Year Engineering Special Case Student with Cochlear Implant and Slow Learning Ability. Navigating Challenges: Cochlear Implant, Slow Learning, and Supportive Interventions

Aashils journey is examined with emphasis on the corrective actions taken by mentoring faculty and subject faculties to foster an inclusive educational experience. Subject faculties implement consistent practices, ensuring accessible study materials and accommodations for Aashils unique learning needs. Recognizing Aashils slow learning ability, an Individualized Learning Plan (ILP) was crafted. Subject faculties integrate ILP accommodations, offering extended time for assessments and diverse methods tailored to Aashils learning pace. This case underscores the importance of collaboration, individualized approaches, and proactive measures to support PWD students like Aashil in their academic pursuits.

The outcome observed was improvement in his academic performance.

CASE STUDY: Encouragement for Sports

Student Name : Priyanshu Naik, Year: TE(2023-24),Roll No.: A-566

Faculty Mentor : Prof.Jignesh Patil

During mentoring session, student who is academically good, shared insights into the colleges standard schedule and how it hindered his full commitment to cricket. The mentor advised him to join a club or engage in competitions with other teams. Despite his cricket-related self-doubt, reassurance was given that by enjoying the game without worrying about career or other issues, success in both academics and cricket could be achieved. He signed up to play for the team at the M.I.G. Cricket Club Kherwadi Bandra East Along with academics; he went the extra mile to integrate studies with his cricket endeavors.

CASE STUDY: Academic and Co-curricular activities

Students Name : Sanualah Ansari Z.

Faculty Mentor : Dr. Amol L. Mangrulkar, AY: 2022 – 23

By mentoring Sanualah, he improves his academic perforce progressively his pointer score improves as

- Sem 3: 9.83, Sem 4: 9.91, Sem 5: 9.73
- Sem 6: 9.13, Sen 7: 8.73, Sem 8 : 9.55
- Motivate him to do extra co-curricular activities guide him along the way.
- He was elected as ASME-RGIT **Vice Chairperson** and **lead the team** in various national level compaction and own the first award in E-Cyclothon23 and AIR5 in 2023-34 E Fest HPVC Chennai.

He also got selected in off campus interview with his developed skill doing well. Company Name: Prudence Analytics and Software Solution P Ltd, Vidyavihar , Mumbai Role: Jr Software Engineer.

CASE STUDY: Internships

Few students of EXTC:

Faculty Mentor : Prof. Manisha Ahirrao

Few Students were guided by the faculty for internship which benefitted them to do the final year project in the same topic; below is the response from the students. "We are writing this to express our gratitude for Professor Manisha Ahirrao guidance in suggesting relevant internship opportunity for us. Her support in connecting our academic studies with practical experiences is invaluable. These internships align perfectly with our coursework and will undoubtedly enhance our skills for future endeavors. Skills we learn are as follows gained expertise in Fingerprint and Handwriting analysis, solved cases related to document authenticity. Learned about counterfeit detection, data recovery using tools like Xiao Stenography, FTK Imager, and more."

9.2 Feedback analysis and reward /corrective measures taken, if any (10) Total Marks 10.00

Institute Marks : 10.00

Feedback collected for all courses: YES

The institution is proactive for continuous improvement. To achieve this, it follows a 360° feedback system from Students, Alumni, Parents, and Industry. Student Feedback is very important factor. Feedback system is available and students are asked to give their confidential feedback for subjects taught to them at the end of the semester. The feedback of alumni, Parents, and industry person is also recorded time to time to improve the methodology of teaching and learning.

Student feedback is collected in both odd and even semester from IQAC for all the courses. The feedback is collected, analyzed and communicated to all faculty members once in a Semester through Principal & HOD.

Specify the feedback collection process:

- Twenty regular and sincere students from each class are selected and feedback form for all subjects given to them and are advised to give their feedback. These forms are collected by teachers assigned for the same.
- As a part of Early Stage feedback, the Head of Department during semester go to each and every class and get the students feedback in terms of administrative affairs, library, laboratories, and academics and of teachers.

Schedule of Feedback Collection

1. Early stage Feedback : After 15 to 20 days from commencement of classes

2. End Semester Feedback : At the end of semester

The faculty members with prescribed norms in feedback are counselled by the HOD, Principal, taking corrective measures if required. The indices used for measuring teaching and learning through Student Feedback are as follows:

- How does the teacher explain the subject?
- How much opportunity does the teacher give for questions & discussions?
- Have you understood about the course objectives & course outcomes?
- To what extent do you feel that the outcomes are achieved after learning the subject?
- How much of the subject material in the syllabus does the teacher completed?
- How much of the class time does the teacher use for teaching the subject (as against deviating to irrelevant or general matters)?
- To What extent was the syllabus covered before the Mid Term-I & II?
- When does the teacher return the corrected Mid Term Test Paper?
- How is the audibility of the teacher in the class?
- How is the language clarity of the teacher in the class?
- Comment on the teacher control and command over the class?
- What is the attitude of the teacher towards you?
- Does the teacher victimize and do favoritism to some students?
- How punctual is the teacher to the classes?

Percentage of students participating:

For final feedback 20 regular and sincere students from each class is selected and advised them to give feedback. In case of informal feedback, all students of every class are involved.

How are the comments used?

The comments are observed positively while planning the teaching-learning and evaluation activities. The comments do encourage the good teachers and provide a chance for improvement for the ineffective teachers. The feedback also motivates the staff to inculcate the habit of learning on a continuous basis to be effective teachers.

Basis of reward/corrective measures, if any,

The faculties with consistence good feedback have been given promotion. They are encouraged and sponsored to participate in national and international conferences. Faculties are sponsored for PG and Ph.D. programs at reputed institutions.

Faculty members promoted under the Career Advancement Scheme:

Name of Faculty Member	Research Program
Prof. Nilesh Rathod	Computer Engineering, RGIT
Prof. Anushree Deshmukh	Computer Engineering, RGIT
Prof. Akush Hutke	Computer Engineering, RGIT
Prof.. Surendra Sutar	Electronics & Telecommunication Engg., RGIT
Prof. Premdas Pawar	Electronics & Telecommunication Engg, RGIT
Prof. Shripad Kulkarni	Electronics & Telecommunication Engg, TSEC, Mumbai
Prof. Manisha Ahirrao	Electronics & Telecommunication Engg. SPPU
Prof. Bhushan Patil	Computer Engineering, RGIT
Prof. Sumitra Sadhukhan	Computer Engineering, Indian Institute of Technology, Bombay
Prof. Dilip Dalgade	Computer Engineering, PAHER, Udaipur
Prof. Savita Lade	Computer Engineering, SANDIP University, Nasik
Dr. Ashwini Gotmare	Mechanical Engineering, RGIT

Prof. Mukund Valse	Mechanical Engineering, RGIT
Prof. Nilesh Shahapure	Mechanical Engineering, VJTI
Prof. Nikhil V.S.	Mechanical Engineering, Kerala

Sr. No.	Name of Faculty	Promoted to Next Level
1.	Dr. S. D. Deshmukh	Professor
2.	Dr. Rajesh V. Kale	Professor
3.	Dr. Poonam Sonar	Assistant Professor to Associate Professor
4.	Dr. Kishor Sawarkar	Assistant Professor to Associate Professor
5.	Mr. Premdas Pawar	Next AGP Level
6.	Prof. Ankush Hutke	Next AGP Level
7.	Dr. Jyoti Deshmukh	Associate Professor
8.	Dr. Sharmila Gaikwad	Associate Professor
9.	Dr. Yogaraj Patil	Next AGP Level
10.	Dr. Kishor Chaudhari	Next AGP Level

Faculty members sponsored for PhD (Enrolled at our Institute/ other institute):

Name of Faculty Member	Research Program
Prof. Nilesh Rathod	Computer Engineering, RGIT
Prof. Anushree Deshmukh	Computer Engineering, RGIT
Prof. Akush Hutke	Computer Engineering, RGIT
Prof.. Surendra Sutar	Electronics & Telecommunication Engg., RGIT
Prof. Premdas Pawar	Electronics & Telecommunication Engg, RGIT
Prof. Shripad Kulkarni	Electronics & Telecommunication Engg, TSEC, Mumbai
Prof. Manisha Ahirrao	Electronics & Telecommunication Engg. SPPU
Prof. Bhushan Patil	Computer Engineering, RGIT
Prof. Sumitra Sadhukhan	Computer Engineering, Indian Institute of Technology, Bombay
Prof. Dilip Dalgade	Computer Engineering, PAHER, Udaipur
Prof. Savita Lade	Computer Engineering, SANDIP University, Nasik
Dr. Ashwini Gotmare	Mechanical Engineering, RGIT
Prof. Mukund Valse	Mechanical Engineering, RGIT
Prof. Nilesh Shahapure	Mechanical Engineering, VJTI
Prof. Nikhil V.S.	Mechanical Engineering, Kerala

Financial Aid for Conferences / Ph.D course work / Paper publication

Name of Faculty Member	Sponsored for
Prof.Nilesh Rathod	PhD Course Work: Cyber sycurity and network
Prof.Anushree Deshmukh	PhD Course Work: CS 725 :Foundations of Machine Learning
Prof. Sunil Wankhade	International Conference (online) on Data Science And Management – ICDSE-2021
Prof.Nilesh Rathod	International Conference on Advanced Communication System (CACCS)
Prof.Ankush Hutke	IEEE International Conference on Advanced Computing Technologies and Application-2023
Dr.Swati Narwane	STTP on Exhilarating Socio-Human Life Using Deep Learning

Prof.Ankush Hutke	STTP on Exhilarating Socio-Human Life Using Deep Learning
Prof.Govind Wakure	FDP on DevOps.
Prof. Anushree Deshmukh	FDP on Block chain and DLT
Prof. Sunil Wankhade	Smart Door lock system using blockchain based on salona technology
Prof. Sunil Wankhade	Analysis of Stack Market and its forecasting
Dr. Sanjay Deshmukh	Academic Leadership Programme
Prof.Jeenal Rambhia	Applications of AI & ML in Signal Processing and Communications
Prof.Jeenal Rambhia	1) NPTEL on Fuzzy logic and artificial neural network 2) NPTEL on Introductory Neuroscience and Neuro Instrumentation
Dr. Rehmani Akhtar	Course on Industrial Robotics at Autofina Robotics Factory
Prof.Keshav Chougule	Course on Industrial Robotics at Autofina Robotics Factory
Prof. Surendra Sutar	NPTEL on Introduction to Wireless and Cellular Communication
Dr. Ankita Malhotra	NITTT Course on Creative Problem Solving, Innovation and Meaningful R&D
Prof.Viplav Soliv	Development and Diagnosis of Autism Spectrum Disorder (ASD) Screening Leveraging Machine Learning Techniques.
Prof. Manisha Ahirrao	NPTEL on Research Methodology
Dr. Jyoti Deshmukh	Patent
Prof. Bhavesh Panchal	NPTEL
Dr. Sharmila Gaikwad	NPTEL
Dr. Rajesh Kale	Patent on Auxiliary Flap Turbocharger (AFT) for Automobile Applications
Dr. Amol Mangrulkar	Patent on Design of Blended Wing Airplane
Dr. Ashwini Gotmare	International Conference on Future Technologies in Manufacturing, Automation, Design and Energy, NIT Puducherry, Karaikal
Dr. Amol Mangrulkar	International Conference on Vibration Engineering, Science, and Technology (INVEST 22)
Dr. Yogesh Deshmukh	International Conference on Vibration Engineering, Science, and Technology (INVEST 22)

9.3 Feedback on facilities (5) Total Marks 5.00

Institute Marks : 5.00

Facilities assessment is based on student feedback, its analysis and thereafter subsequently corrective action is taken. Below mentioned questionnaire is intended to collect information related to students satisfaction towards facilities and services provided with in the college campus. Students are suggested to provide feedback for the following parameters on a qualitative scale ranging from 1 to 5.

Student feedback form on facilities

Students should read each point carefully and award points as per the scale given below against each item. The scale is 1-5.

Not Satisfactory-1, Satisfactory-2, Good -3, Very Good-4, Excellent-5

The feedback is collected from the students through Google forms and Hard copy. The corrective measures will be taken based on the student feedback on facilities.

Process followed in feedback:

1. Feedback collection process

2. Feedback analysis and report generation

3. Plan to Corrective measures

4. Implementation of plan of action

Feedback collection process:

1. Prepare Feedback question on all facilities provided by the college with the approval of head of the institute

2. Generate computerized Feedback forms and share to the students

3. The Administrative department receives feedback

4. Analyze the feedback using the Metrics as 5-Excellent 4-Very good 3-Good 2-Satisfactory 1- Not Satisfactory

5. Additional question given in feedback for the students to share any view points as their perspective

Composition of Feedback Questions:

The feedback question are prepared by considering the following Heads:

- Are the classrooms / Laboratories clean and well-maintained?
- Is Internet facility available in the department?
- Is available reading space in library satisfactory?
- Are the library staff cooperative and helpful?
- Do you have adequate facilities for Teaching and Learning (Content and Methods)
- Do you have adequate facilities for Placement and Training?
- Do you have adequate facilities for Sports and Games?
- Are your Grievances/problems redressed/solved well in time?
- Rate your satisfaction level on canteen facilities.
- Is Clean drinking water available in the department and the campus?
- Are Toilets/washrooms hygienic and properly maintained?
- Are the office staff in the department helpful?
- Are the office and account staff helpful?

Students Feedback Analysis

The following points emerged from the analysis of students' feedback survey:

- The feedback given by the students is consolidated and analyzed.
- Most of the student are satisfied with the academic environs as well as the facilities available for pursuing their academic and research careers.
- Majority of the students expressed happiness with the support rendered by the non-teaching and the library staff in their respective departments.
- The Principal discussed the consolidated report with the Head of the department and prepared plan of action.
- Strengthening of extra-curricular activities and special sessions with industry experts has been requested.
- All the department executes the plan as discussed.

Action Taken:

- The placement cell has been further strengthened by ensuring coordination of the Central Placement cell with the departmental cell.
- Departments have initiated steps to conduct seminars /conferences on skill enhancement/extension and sport activities

9.4 Self-Learning (5) Total Marks 5.00

Institute Marks : 5.00

Fig: Self Learning

- The Institute has access to various e-books, journals and magazines which are available in the Institute Library to help students to explore and read about their areas of interest. (Institute is a member of National Digital Library)
- This helps student to come up with new ideas and new techniques.
- Faculty from time to time change adopt new ways in the course to enhance self-learning such as:
- Presentation of seminars,
- Industrial Training
- Projects and Mini Projects
- Skill based Laboratory
- Assignments
- Dissertation in some courses are compulsory as a part of their course requirements.

- The institute has arranged certification courses in Computer Networking, Pro-E, PLC, SCADA, Ansys etc. in association with D-Link India, PTC, Siemens and RCF respectively for Computer Engineering, Mechanical Engineering., Instrumentation Engineering and Electronics and Telecommunication Engg.
- Value added training has been arranged in Siemens India Ltd, Mumbai, L & T, Madh, Mumbai and Rastriya Chemicals and Fertilizers Ltd., Mumbai, CEMS Shipping Corporation of India, Powai, Mumbai.
- Departmental Alumni committee is organizing the Alumni Speak Series for career guidance and encouragement for higher studies.

- The institute organizes seminars, expert lectures on various emergent areas of social, economic, political and engineering and technology and other sciences. The various students' association bodies (CESS, CSI, Code-cell, ABIT, MESA, ISTE, IETE, IEEE, ASME, ISHRAE, SAE, IIIE, AERORGIT, ROBOTICS, ISA, SWE, UBA and SOCH etc) do organize seminars and guest lecturers as a tool to learning beyond the syllabus.
- Student professional bodies arrange Hands on Training on Modern tools which are helpful for participation at National and International Level competitions.

- The students are also encouraged to get acquainted with emerging trends and tools in the various areas of engineering and technology through seminars and workshops by eminent professionals and technocrats.
- At the same time, the institute also focuses on developing students' social quotient and communication quotient by arranging training programmes and lectures on the various social and cultural topics.
- As a result, our students not only show interest in mere technological and scientific advancements, but they also give their valuable time for various social causes by arranging clean up drives, blood donation camps, computer literacy and awareness camps for the poor and needy students.
- Apart from the above, the college actively promotes self-learning through the resources procured through NPTEL and other Audio-Video content. In each and every department, for 1 to 2 subjects similar to syllabus given by University assignments are considering as a NPTEL course assignment. For the solution of these assignments are listening the video lectures of respective NPTEL course and solving the assignments.

NPTEL Assignments	Total number of students
2023-24	22
2022-23	18
2021-22	7

- Additional Facility for Self Learning:

Facility Name	Details	Reason(s) for creating facility Areas	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
Language Lab	It is equipped with Computer Systems, Internet Connection, Projector, Software, Head Set and Teaching Board	To Teach Lessoning, Speaking, Reading & Writing Skills	English & Communication Skills	PO10, PO12

Internet Lab	Equipped with Computer Systems, LAN connectivity & Ethernet/WiFi	For faculties & students to enhance their knowledge	Inculcate self-learning Skills and communication skills	PO10, PO12,

RGIT's LEAD Club, in association with Resolt launched a full course, wherein students learnt German (Complete A1 Level) with live interactive online sessions, doubt solving session, mock tests along with notes and study material. From 5th February, 2022 and proceeded further for a total duration of 40+ hours over the weekend. The workshop witnesses the participation of 20 students.

Google Cloud Carrier Readiness Programme:

Sr.No	Student Name	Academic Year	Google Cloud Skills Boost Profile URL	TRACK NAME
1	Vaishnavi Mishra	IT-FINAL Year	https://www.cloudskillsboost.google/public_profiles/beec3f88-62b9-4897-b76f-d84b2ac944ed (https://www.cloudskillsboost.google/public_profiles/beec3f88-62b9-4897-b76f-d84b2ac944ed)	Data Analyst (DA) Track
2	Rushikesh Shelar	COMP-Thired Year	https://www.cloudskillsboost.google/public_profiles/a7376b0a-f293-41a9-89b3-ff3869f2ff08	Data Analyst (DA) Track
3	Namrata Mahesh Yeole	COMP-Second Year	https://www.cloudskillsboost.google/public_profiles/88eab2e4-e52e-4b5d-a2ee-00e9b985c98c (https://www.cloudskillsboost.google/public_profiles/88eab2e4-e52e-4b5d-a2ee-00e9b985c98c)	Data Analyst (DA) Track
4	Daksha Sanjay Narwadiya	Second Year	https://www.cloudskillsboost.google/public_profiles/f3695b76-da96-4d97-9509-a3a8180d3732	Associate Cloud Engineer (ACE) Track
5	Vijetha Upendra Kamath	Fourth Year	https://www.cloudskillsboost.google/public_profiles/a8cf7729-c5cc-4bea-9817-5e2de667e193	Associate Cloud Engineer (ACE) Track
6	AHIRE NAMEET SUDAM	COMP-FOURTH Year	https://www.cloudskillsboost.google/public_profiles/00c868fa-8333-4b27-9df1-51091eb392a6	Associate Cloud Engineer (ACE) Track
7	Fletcher Fernandes	COMP-Fourth Year	https://www.cloudskillsboost.google/public_profiles/b1659386-0e97-497c-a431-f7d4ccd617cf	Associate Cloud Engineer (ACE) Track
8	Tushhar Barkur	COMP-Fourth Year	https://www.cloudskillsboost.google/public_profiles/299d8c2d-40d1-44c5-b11c-681092ed2b0f	Associate Cloud Engineer (ACE) Track
9	Abhishek Manojkumar Pillai	COMP-Fourth Year	https://www.cloudskillsboost.google/public_profiles/a0cb8306-1c07-4c5b-8e38-014ba4246554	Cloud Digital Leader (CDL) Track
10	KHAN OBAIDUR REHMAN	COMP-Fourth Year	https://www.cloudskillsboost.google/public_profiles/8f82b26a-ea9c-4654-a506-330412ab9023	Cloud Digital Leader (CDL) Track
11	ADRIN DESOUZA	COMP-PASSOUT	https://www.cloudskillsboost.google/public_profiles/88eab2e4-e52e-4b5d-a2ee-00e8b985c98c (https://www.cloudskillsboost.google/public_profiles/88eab2e4-e52e-4b5d-a2ee-00e8b985c98c)	GCR FACILATOR
12	DEVENAS TRIVEDI	COMP-PASSOUT	https://www.cloudskillsboost.google/public_profiles/bcd102ae-472d-4ceb-889f-bec03b3a8c2a (https://www.cloudskillsboost.google/public_profiles/bcd102ae-472d-4ceb-889f-bec03b3a8c2a)	GCR FACILATOR

Utilization and its effectiveness

The above facilities help students to present technical papers in conferences, publish papers in journals, take-up projects and participate in competitions/exhibitions and complete online certification courses.

- The overall aim of this review is to evaluate the effectiveness of self-directed learning on the professional development of students.
- Students are motivated to improve their initiation in reaching their goals.
- Students are able to scan through the reading material available to them.
- Many of the needs of students are best met by learning process. The students are encouraged to learn by themselves for their present and future needs.

- Students are able to do better in Placement drives and get placed in suitable companies.

9.5 Career Guidance, Training, Placement (10) Total Marks 10.00

Institute Marks : 10.00

- **Career Guidance**
- The institute encourages students for taking up higher studies in the premier institutes in India and abroad. The students are given information about various career trends and opportunities of higher learning through counseling by the staff of the institute and various other professionals.
- The institute organizes guest lectures and workshops by professional career counselors and consultees for enabling students to understand the different career options in their respective fields.
- This career counseling has largely benefited the students in choosing proper fields of higher education. Moreover, there is gradual increase in the percentage of students opting for the top institutes in India and foreign countries. More and more students are qualifying for the different entrance tests with very high score.
- In the year 2021, 2022 and 2023 nearly 100 students are appearing for competitive exams like GATE, and 40% of them have qualified and are pursuing higher studies in Indian Universities. Nearly 10% students have pursuing higher studies in Indian and foreign Universities.
- Department internship co-ordinator helps and guides the students to get internships in various industries

Training and Placement Cell

- The Training and Placemen t cell (TPC) ensures the future of the students in the dynamic & vibrant professional job market. This cell ensures that the efforts of the students throughout the course bear fruits at the end. The training and placement cell is headed by Training and Placement Officer.
- The TPO runs all the training and placement activities with the help of different committees constituted for attracting the pool of job opportunities for our students. There are more than fifty companies recruiting the students. The Training and Placement Cell organizes expert talks and training programmes for developing the students' Soft Skills and employability skills.

Placement Policy

Placement Policy for Student

- Students opting for campus recruitment must fill the profile details by registering the Google Form.
    - They further need to upload CV with correct & verifiable information.
    - Training and placement cell will not be responsible for any mismanagement/miscommunication due to incomplete profiles or non-submission of the necessary documents.
- Students opting for campus placement need to enroll on company's available campus virtual platforms & should register themselves for the competitions/contests happening at company's campus for the various domains/roles applicable to registered students.
- Students are requested to refer emails, Departmental and Training & Placement Cell notice boards for campus training and placement information.
- They are also requested to check their emails for the same during vacations/holidays.
- Students are advised not to change their Mobile Number and Email Id shared with placement cell or companies.
- Students have to register for each campus placement drive. It is compulsory for registered students to appear all selection rounds of the visiting company. Any one of the following actions can be taken against defaulters:
- Students have to pay the fine of Rs.500 to Accounts Department
- Their journal & project submissions will be denied
- They will be treated as defaulter and will not be allowed for further campus placement opportunities.
- Students selected in any company will not be allowed to appear for next campus drive.
- Placed students can be considered for one more campus placement opportunity, only in case where second company offers 40% salary hike with respect to the offer already made to them by first company.
- Students must have their College ID, Updated printed CV, attested Xerox copies of all academic mark sheets, project certificates etc. with them during every campus recruitment program.
- Students should appear for the interviews in formal dress code.(No Jeans and T –Shirts)
- Students opting for higher studies have to fill higher studies record format. These students will not be allowed to sit for the campus recruitment program, if found so, then he/she will be liable for suitable action.
- Students once selected by any company must join the company, if not join, then following actions will be taken against the student:-
- Institute will forfeit the final marksheet / institute leaving certificate / LOR / Transcript.
- Such students need to pay the fine Rs.5000/-
- Selected students must submit their signed & scanned offer letter to T&P Cell.
- Students are advised not to pay any amount or not to keep original documents with companies, before joining them. In case, such securities are kept; college authorities will not be responsible for any further consequences.
- Students should abide with all the rules and regulations of the company as well as the institute.

Placement policy for industry

- The training and placement cell (T & P) will invite the prospective industries for the recruitment of final year students from August / September of every academic calendar.
- As per the criteria and parameter of the company, T& P cell of the institute will share the detailed database of the respective final year students opting for placement, along with mutually convenient date for the campus recruitment drive.
- On the receipt of detailed campus drive (date of campus event, job description, stipend and salary details, eligible students, eligibility criteria, required domain knowledge, no. of requirements, selection process, requirement of infrastructure for conducting campus drive, travel plan, details of visiting officials & other details (if any)), T& P cell will inform the respective student through official notice and ask them to register with T& P cell in person within a stipulated time frame.
- As per the given details by the employer, the institute will make necessary arrangements for campus drive.
- Placement drive starts with pre-placement talk (PPT) conducted in seminar hall. HR gives PPT and share information about company profile, job profile, package, about selection process to students.
- After PPT, online/offline test is conducted in computational labs/class rooms.
- Cabins are provided to experts for technical and HR interviews.
- At the end of all rounds, HR either declared the result on the same day or result will be shared with TPO through Email.

Training Activities

- Conduction of soft skill Training Program for T.E. and B.E. students. This includes communication skill, Group Discussion & Interview preparation.

- Conduction of Aptitude Test for English, Logical Reasoning, Quantitative Analysis etc. through assignments & practice test papers.
- Arranging the expert talks on spiritual, personality development, etc.
- Conduction of online test for students to assess their aptitude & technical skills.
- Arranging seminar & counselling of students about careers & future education.
- Organising Yoga camps for students.
- In addition, these practices are highly encouraged to make learning more student-centric. Performance in these activities gives an excellent opportunity to students to improve upon their knowledge level. Technical fests, contests, debates, etc. are arranged and organized mostly by the students themselves so that student-centered learning exercises are developed both at the department and institute level. This improves the qualities such as leadership, decision making, self-learning from experience.

Training program by Training and Placement Office:

Year	BE	Name of program	No. of students
2018-19	BE Final	Campus Credential Soft skill training	37
2019-20	BE Final	Campus Credential Soft skill training	5
2021-22	BE Final	Campus Credential Soft skill training	15

Record of Internships of last 4 years:

Year	Branch	Total No. of students
2019 – 20	Computer Engg.	93
	Information Technology	23
	Electronics & Telecommunication Engg.	62
	Mechanical Engg.	74
	Instrumentation Engg.	12
2020 – 21	Computer Engg.	98
	Information Technology	19
	Electronics & Telecommunication Engg.	83
	Mechanical Engg.	70
	Instrumentation Engg.	14
2021 – 22	Computer Engg.	56
	Information Technology	62
	Electronics & Telecommunication Engg.	37
	Mechanical Engg.	53
	Instrumentation Engg.	10
2022 – 23	Computer Engg.	24
	Information Technology	15
	Electronics & Telecommunication Engg.	23
	Mechanical Engg.	97
	Instrumentation Engg.	2

9.6 Entrepreneurship Cell (5) Total Marks 5.00

Institute Marks : 5.00

Entrepreneurship cell is formed in our institute. This cell arranged lectures and entrepreneurship of renowned personality. Various talk on same have been arranged regularly.

In our institute entrepreneurship development cell is organizing workshop on entrepreneurship. Through entrepreneurship development cell interaction with the entrepreneur is organized. Through entrepreneurship development cell competitions are arranged for new innovative business ideas. Entrepreneurship cell and incubation facility.

The entrepreneurship Development Cell has been organizing workshops and seminar for the benefit of students. The EDC Cell invites speaker, Entrepreneurs to share their experiences and also invites professionals from Industries, Federation of E-Commerce to motivate and educate students on Entrepreneurship.

Incubation Cell, RGIT

Rajiv Gandhi Institute of Technology, Mumbai has started the **"Incubation Cell, RGIT**" for nurturing and overseeing innovation and entrepreneurship. Incubation Cell, RGIT is a space for new age entrepreneurs and young minds to transform their innovative ideas into viable business propositions. It is a platform for nurturing, encouraging and developing innovation and entrepreneurial skills among our students. Incubation Cell, RGIT provides students a chance to make their business commercially viable, before they reach out to the market.

VISION:

"Our vision is to harness the entrepreneurial potential and ambitions of students, to help them start their own ventures."

1. Facilitating budding entrepreneurs to start a business venture with minimum risks.
2. Ensuring that incubates have access to technological assistance which will be generated through mentors with multidisciplinary expertise.
3. Encourage young enthusiasts with creative pursuits with an inherent zeal to be entrepreneurs.

MISSION:

The mission of Incubation Cell, RGIT is to nurture and empower the next generation entrepreneurs to serve the local problems and global problems, through creative and innovative solutions.

OBJECTIVES:

1. To create jobs, wealth and businesses aligning with national priorities
2. To promote new technology/knowledge/innovation based startups.
3. To provide opportunity to students to exhibit their products through competitions, exhibitions, etc.
4. To provide a platform for swift commercialization of products and services developed by the students.
5. To build a vibrant startup ecosystem, by establishing a network between academia, financial institution, industries and other institutions.
6. To provide cost effective, value added services to startups like mentoring, legal, technical, product development and testing, intellectual property related services.
7. To equip them with necessary skills required for entrepreneurship.
8. To promote creative thinking and an entrepreneurial mindset and skills among the students.
9. To promote innovations and help convert them into market-acceptable products and services.

ACTIVITIES:

The Incubation Cell, RGIT activities involves:

1. Inspiring and motivating students to start their own venture by sharing success stories of entrepreneurial ventures of alumni.
2. Provide training to students to learn the various dimensions of entrepreneurship and business operations.
3. Conducting seminars and workshops in related topics.
4. Tie-up with various organizations to help students build their prototypes and models.
5. Providing critical evaluation of students' ideas and projects by faculty.
6. Providing support in terms of working space and internet connectivity, mentor faculty.
7. To support the incubation of selected projects each year.
8. To facilitate the students to get internships through the companies, which are under incubation.
9. Assistance in company registration, GST registration, patent filing, etc.

Student Name		**Mr. Niket Sarvaiya**
Company Name		Picostone Technology Pvt ltd
Position in the company		Co-founder and COO (Chief Operating Officer)
What exactly you are doing	:	At Picostone we engineer, design and manufacture devices that make your homes smarter and make your lives a little more convenient and comfortable.
Future goals		As of now we provide our products and services across 12 cities across the country, and have more than 5000 happy customers.

Student Name		**Mr. Premnath Borkar**
Company Name		VPS Techub Private Limited
Position in the company		Founder and CEO
What exactly you are doing	:	We are an automation focused startup. Started with healthcare automation and now working in canteen automation.
Future goals		Expand in other sectors and make it big.

Student Name		**Pulkit Poddar**

Company Name	: Reach and Teach Learning Solutions,
Position in the company	Founder
What exactly you are doing :	We are enhancing the digital footprints of educational institutions by leveraging technology, marketing & content.
Future goals	We intend to be the single-point solution for all the digital requirements (products & services) of educational institutes & educators
Student Name	**: Mr. Abhishek Reddy**
AY	**: 2022-23**
Company Name	**:** DEE VEE Engineering Works
Entrepreneur/Startup	**:**Star-up
Designation	**:**Founder
What exactly you are doing	**:** At our company we manufacture various precise engineering products like gears, seals etc through injection molding process.Planing, Management, Maketing and sales etc
Future Goal	**:** As of now we provide our products and services across across the country, and have more than 2000 happy customers. We intend to become one of the leading brands in precise engineering injection molding product, both in India and globally.

Student Name	**: Mr. Saurabh Sahane**
AY	**: 2021-22**
Company Name	**:** The Machine Learning Company (Start-up)
Entrepreneur/Startup	**:**Star-up
Designation	**:**CEO and Co**-**Founder
What exactly you are doing	**:** The Machine Learning Company as a Incubate at COEPs Bhau Institute of Innovation, Entrepreneurship and Leadership
Future Goal	**:** The Machine Learning Company is a modern consulting firm that builds sustainable AI/ML applications enabling clients to add an automation layer to their businesses.

Student Name	**: Mr. Mr. Harshal Shikhare**
AY	**: 2021-22**
Company Name	**:** Mandesi Agro (Start-up)
Entrepreneur/Startup	**:**Star-up
Designation	**:**CEO and Co**-**Founder
What exactly you are doing	**:** The Machine Learning Company as a Incubate at COEPs Bhau Institute of Innovation, Entrepreneurship and Leadership
Future Goal	**:** The Machine Learning Company is a modern consulting firm that builds sustainable AI/ML applications enabling clients to add an automation layer to their businesses.

Student Name	**: Mr. Kanishk Parab & Mr Atharva Kantak**
AY	**: 2019-20**
Company Name	**:** Vastra Shastra Ecommerce Pvt Ltd
Entrepreneur/Startup	**:**Star-up
Designation	**:**CEO and Co**-**Founder
What exactly you are doing	**:** E- Commerce business on cloth and printing
Future Goal	**:** Aim to become do business at national level with more varieties of clothing products targeting for young customer between age of 12 to 32 years.

Student Name	**: Mr. Javed Khan , Mr. Sumit Kumbhar & Mr Prathamesh Kadam**
AY	**: 2019-20**
Company Name	**:** RoboRise Technologies Pvt. Ltd
Entrepreneur/Startup	**:**Star-up
Designation	**:**CEO and Co**-**Founder
What exactly you are doing	**:** Our role is to provide a wide spectrum of services right from Core designing, CAD modelling, Virtual Simulation, Electronics Assembly to Software development.
Future Goal	**:** We design & set-up automated manufacturing & assembly line processes to increase the production capacity & reduce the lead time ensuring an end to end product development lifecycle right from the design, development to product launch. We focus on building state of the art smart solutions which would enable businesses to maximize their production metrics by saving costs while functioning with increased efficiency. be a part of staup India, and Make in India of govt initiative..mbly line product

Student Name	**: Mr. Prasad Mastakar , Miss Dimple Bhanushali**
AY	**: 2019-20**
Company Name	**:** The Cube partners
Entrepreneur/Startup	: Star-up
Designation	: CEO and Co**-**Founder
What exactly you are doing	**:** Our role is to provide a wide spectrum of services in stationer items
Future Goal	**:** Our target is to export quality stationery item.

Student Name	**: Mr. Abhishek Masurkar, Mr Yogesh Kudale**
AY	**: 2018-19**
Company Name	: Taypro Private Limited
Entrepreneur/Startup	:Star-up
Designation	:CEO and Co-Founder
What exactly you are doing	: Design, development and fabrication of solar panel cleaner
Future Goal	: Our target is to lead one of most successful solar panel cleaner and be a part of staup india, and Make in India of govt initiative.

Student Name	**: Mr. Chiraj Manuja**
AY	: 2018-19
Company Name	: BOT-O-BOT, New Mumbai
Entrepreneur/Startup	: Startup
Designation	: Co-Founder
What exactly you are doing	**:** Robotics games and education
Future Goal	**:** To become leader in Robotics games and education.
Student Name	**SAYEED NABEEL AKHTAR**
AY	**2022**
Company Name	**Detroids Pvt. Ltd.**
Entrepreneur/Startup	**Entrepreneur**
Designation	**Director**
What exactly you are doing	Leverage the capabilities of Machine Learning (ML) to bring intelligent automation to your operations.

Future Goal	Our ML algorithms dont just respond; they anticipate, adapt, and deliver enhanced user experiences.

Student Name	**JATIN SINGH**
Company Name	**MOTHERS MADE Pvt. Ltd.**
Designation	**Co-founder**
What exactly you are doing	Specialize in creating high- quality, handmade soaps
Future Goal	committed to providing our customers with the best possible products.

Student Name	**NAMRATA JAISWAR**
Company Name	**Apinnovate IT Consulting Service)**
Designation	**Co-founder**
What exactly you are doing	To design and deliver cost effective software solutions with excellent quality well within the timelines. We contribute to the growth of India to become the world-class destination of high technology. We help Startups and Enterprises harness the power of AI and Blockchain by universalizing high-tech products and bring them into real business application.
Future Goal	To make a bold stance in the era of digital disruption with excellent consulting capabilities - addressing innovative approaches to technology transfer. We also aim to expand our knowledge and expertise in producing powerful new developments by using AI and blockchain technology,

9.7 Co-curricular and Extra-curricular Activities (10) Total Marks 10.00

Institute Marks : 10.00

activities such as NCC, NSS etc.)

The institute has a well-established SOCH forum which shows dedication and commitment for running several services for social and cultural welfare of public.

Institution has been selected as Participating Institute under Flagship Program Unnat Bharat Abhiyan (UBA) 2.0.

List of events organized by different Councils:

Sports Committee:

- Athletics
- Cricket
- Foot ball
- Table Tennis
- Chess
- Carrom
- Badminton
- Volleyball
- Basketball
- Kabaddi
- Yoga

By Unnat Bharat Abhiyan (UBA – RGIT) and NSS Committee:

- Career Guidance For Civil Service Examinations (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.cyvdxibtj8rk)
- National Online Workshop (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.ah3zkxvnfayt) – Gramin Vikas
- Covid-19 Awareness Activities (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.58n8cz1ajq0e)
- Republic Day Gathering & Villagers Meet (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.2whm2b511oc5)
- Technical Survey Visit (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.ejg7wlicdtj4)
- UBA: Awakening The Gandhian Ideology (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.gvxna08djw1d)
- Flood Relief Drive (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.zd04xeyv1xg9)
- Tech4seva Workshop (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.2txeyd8x1jpv)

By SOCH – RGIT: Social Organization for Conserving Humanity

- Beach (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.cyvdxibtj8rk) Clean-up Drive
- Books (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.ah3zkxvnfayt) Donation Drive
- Covid (https://sites.google.com/view/ubacellrgit/events-activities/2019-2020#h.58n8cz1ajq0e) – 19 Pandemic Relief Drive

Co-curricular Activities of the various department:

Name of Department	Name of Student Professional Body	Event	Name of Resource Person	No. of Participants
Information Technology	ABIT	Microsoft Certification on Machine Learning organized by ATS Learning Solutions	Mr. Deepak Garg	65
Information Technology	ABIT	Announcement and Meeting of the Junior Core Members of ABIT	Dr. S.B.Wankhade	50
Information Technology	ABIT	ABIT Orientation for Incoming SE students	Prof. Nilesh Rathod	70
Information Technology	ABIT	Announcement and Meeting of the Super Junior Core Members of ABIT and discussion of Committee's plan for the AY.	Prof. Nilesh Rathod	70
Information Technology	ABIT	Induction programme for Incoming First Year Students by ABIT Committee	Dr. S.B.Wankhade	60
Information Technology	ABIT	Know Your Department for First Year Students	Prof. A.E.Patil	60
Information Technology	ABIT	IELTS/TOEFL/GRE Preparation Webinar by Azent Overseas Education Pvt. Ltd.	Mr. Vinayak Bhosale	50

Information Technology	ABIT	Data Science Career and Job Prospects in association with I.T.Vedant	Prof. Sneha Lohana	70
Information Technology	ABIT	Paper Publication and Presentation	Prof. Nilesh Rathod	65
Information Technology	ABIT	Data Science – From Inception to Delivery	Mr. Mohammed Hasnain and Mr. Keith Rebello	65
Information Technology	ABIT	Collegepond Global UniConnect Education Fair in association with Collegepond	CollegePond Representatives	52
Instrumentation Engg.	ISA	Online mock aptitude test	ISA CORE COMMITTEE	150
Instrumentation Engg.	ISA	Webinar on navigating through graduate school	Ms. Juniyali Nauriyal	90
Instrumentation Engg.	ISA	Webinar on career opportunities in Instrumentation	Mr. Neel Shah	96
Instrumentation Engg.	ISA	Webinar on IIoT AND 3D printing	Ms. Saylee Panchbhai	75
Instrumentation Engg.	ISA	Webinar On Resume Building	Ms. Ashwini Shinde.	50
Instrumentation Engg.	ISA	Arduino workshop	Mr. Cinmay Nikharage	35
Electronics & Telecommunication Engg.	IETE	Recent developments and opportunities in VLSI Industry	Dr. Surendra Rathod, Sardar Patel Institute Of Technology	100
Electronics & Telecommunication Engg.	IETE	Higher education prospects	Ms. Deepika Awasthi, Un academy	100
Electronics & Telecommunication Engg.	IETE	Industry readiness, usage of modern tools and technologies	Mr. Rishi Gupta, Autumn Tech Labs.	80
Electronics & Telecommunication Engg.	IETE	Industry readiness, usage of modern tools and technologies	Ms. Navya Sheregar, Ms. Pooja Palekar, BE EXTC Students	130
Electronics & Telecommunication Engg.	IETE	Recent Trends in the automobile industry which is not included in the syllabus.	Mr. Karan Gupta, Technical Secretary IETE RGIT Mr. Vinay Bhat, Team RGIT Racing	100

Computer Engg.	CESS	Individual and team work in multidisciplinary settings: Facebook Developer Circle- Build Day	Mr. Saad Ghojaria, Mr. Aayush Singh and Mr. Nitish Talekar, senior committee members, CESS	30
Computer Engg.	CSI	Usage of Modern tools: Cloud Computing Seminar	Mrs. Priyanka Sawant, Belfrics Cryptex Pvt Ltd.	55
Computer Engg.	CSI	Data Science Workshop	Mr.Ashwin Mehta, Technical Director at Vissicomp	50
Computer Engg.	CODECELL	Reach and Teach: Django Workshop	Omkar Chorghe, from RGIT Code Cell, and Sagar Ambilpure	30
Mechanical Engg.	SAE-RIT	MATLAB & SIMULINK Workshop	Mr Swapnil Mane & Mr Malharduth Hublkar	40
Mechanical Engg.	Aero-RGIT	Talk on Deep Learning	Mr Rahul Agrawal	86
Mechanical Engg.	SAE-RGIT	ANSYS Workshop	Mr Kartik Patil	40
Mechanical Engg.	Aero-RGIT	Introduction to Computer Vision	Mr Swagat Das,Mr Avadhoot Khedekar,Ms Niyati Vaidya	44
Mechanical Engg.	ASME-RGIT	WORKSHOP ON SOLIDWORKS	Mr Mohanish Raut	34
Mechanical Engg.	ASME-RGIT	CREO S/W WORKSHOP	Mr. Naveen Gupta, sr Design Engineer,Engro wn eLearning Solution LLP,UP	45
Mechanical Engg.	MESA-RGIT	CNC Programming	Members of MESA RGIT	15
Mechanical Engg.	IIIE-RGIT	Lean Six Sigma	Mr. Amitabh Saxena	80
Mechanical Engg.	MESA-RGIT	Webinar on Python Programming	Ms Antaripa Saha	60
Mechanical Engg.	MESA-RGIT	Webinar on Electric Vehicle Technology	Mr.Ujjwal Kumaren	66
Mechanical Engg.	ASME-RGIT	4D Printing: New dimension in manufacturing?	Mr Amit Ghule CoFounder of Simpliforge technologies	35
Mechanical Engg.	ASME-RGIT	Unlocking Industrial Potential of Digital Twin	Dr Santosh B. Rane Dean,SPCE,Mumbai	45
Mechanical Engg.		Webinar onEnergy Conservation'.	'Saikat Das',Energy Analyst and Strategists	36
Mechanical Engg.	Robotics Club	Robocon 2022-23	IITB	12
Mechanical Engg.	ASME-RGIT	WORKSHOP ON NX-CAD	Mr. Prasad Mastakar	35
Mechanical Engg.	ISHRAE-RGIT	ISHRAE Quiz	ISHRAE Team	21
Mechanical Engg.	Robotics Club	Robotic Arm workshop	Mr Mohammed javed Khan	25

Mechanical Engg.	IIIE-RGIT	Industry 4.0 : Scope Challenges in indian Landscape	Prof. Amitkumar Patil	70
Mechanical Engg.	Robotics Club	Robocon 2021-22	IITB	12
Mechanical Engg.	ASME-RGIT	Engineering Skills of the Decade	Mr. Danish Sayyed	25
Mechanical Engg.	Aero-RGIT	Basic Sessions on Aerodynamics and Aeronautics	Vaibhav Kelkar & Prathmesh parab	35
Mechanical Engg.	ASME-RGIT	Role of Multi-Disciplinary Engineering	Mr.Prathmesh Upadhyay	33
Mechanical Engg.	Aero-RGIT	Basic sessions on fuselage,empennage and landing gear	Shubham dixit & Aditya wavale	35
Mechanical Engg.	ASME-RGIT	Industry Succes Story, ICEI 4.0 International Conference,	ASME TEAM	15
Mechanical Engg.	MESA-RGIT	Case Study Competition on Total Quality management	Mr.Shivaan Munsif , Mr.Kunal Bhoir, Mr.Akash Shelar, Mr.Pranit sovilkar	50
Mechanical Engg.	Aero-RGIT	SAE Aero-Design East Challenge 2022,Micro Class	AeroRGIT Team	23
Mechanical Engg.	ASME-RGIT	E-Cyclothon 22	ASME Team	12
Mechanical Engg.	IIIE-RGIT	Guidance on Industrial Engineering	Dr. Nitin Panaskar	22
Mechanical Engg.	ASME-RGIT	ASME Standards in Industry Quiz Competition	ASME Team	35
Mechanical Engg.	ASME-RGIT	Engineering Education	Mr.Vacchani Raj	33
Mechanical Engg.	MESA-RGIT	SAHAS Industrial Internship Drive	MESA Team	12
Mechanical Engg.	SAE-RGIT	Formula Bharat 2023-Class II	SAE Team	15
Mechanical Engg.	ASME-RGIT	IoT Workshop	Mr.Mohmmad Rafi Jalgoankar	25
Mechanical Engg.	Aero-RGIT	Solidworks Workshop	AeroRGIT Team	25
Mechanical Engg.	MESA-RGIT	IPR Mining Workshop	Mr Mandar S.Chikhale & Mr. avinash B.Karande	60
Mechanical Engg.		Robopack Workshop	Mr. Mohit & Mr.Sahil	33
Mechanical Engg.	MESA-RGIT	Awareness Program on IPRs	Mr.K.Narayan Murthy	45
Mechanical Engg.	MESA-RGIT	Robot Autonomy: Opportunities & challenges	Mr. Ameya Salvi	45
Mechanical Engg.	MESA-RGIT	Mahanand dairy Industrial Visit	Mr. Dinesh Joshi	60
Mechanical Engg.	ASME-RGIT	NX CAD 3D Printing	Mr. Hanzala Maknojia	43
Mechanical Engg.	MESA-RGIT	Technical Poster presentation	Mr Akbar Sayyed & Ms Jaya Verma	22
Mechanical Engg.	ASME-RGIT	HPVC	ASME TEAM	13

Mechanical Engg.	ASME-RGIT	IAM3D	ASME TEAM	12
Mechanical Engg.	Aero-RGIT	Aero-Modelling	AeroRGIT Team	23

10 GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES (120) Total Marks 120.00

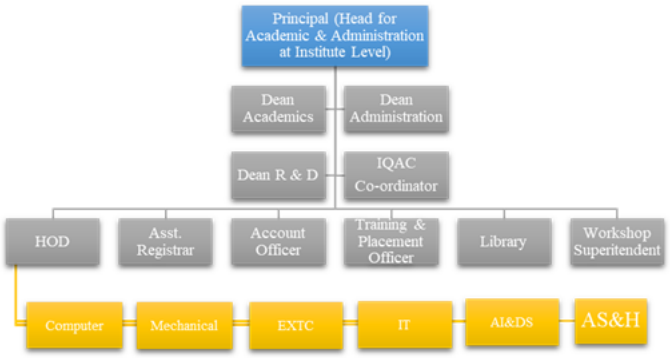
10.1 Organization, Governance and Transparency (40) Total Marks 40.00

10.1.1 State the Vision and Mission of the Institute (5) Institute Marks : 5.00

Vision :
To create competent technical professionals with ethical behaviour and environment consciousness.
Mission :
M1: To provide contemporary and cutting-edge technical education.
M2: To provide an ambience which nurtures research ideas in futuristic domains.
M3: To initiate project-based learnings and practical exposures.
M4: To direct faculties in research and consultancy / advisory roles.
M5: To establish strong linkages with well-known national and international technical institutes and industry.
M6: To promote a culture of imbibing environmental care.
M7: To aim to become an institute of aspiration and choice.

10.1.2 Governing body,administrative setup,functions of various bodies,service rules, procedures, recruitment and promotional policies (10) Institute Marks : 10.00

Administrative Setup



Organization Chart for Administrative Set – up

GOVERNING BODY

Objective: The Governing Body is responsible for formulating the policies of the institution, providing the right direction for all-round development of the institute and insures the proper governance periodically. It chalks out a roadmap in order to achieve the goals of the institution from time to time.

Constitution of Governing Body:

The Governing Body shall have at least eleven members including the Chairman and the Member Secretary. The Registered Trust/ Society/ Company shall nominate six members including the Chairman and the Member Secretary, and the remaining five members shall be nominated as indicated below.

- 1 Chairman – A technical expert either an entrepreneur or an industrialist or an educationist of repute
- 2 to 5 – Members to be nominated by the Registered Society / Trust
- 6 & 7 – Two eminent professionals from the area of Engineering & Technology
- 8 & 9 – Two academicians of excellence.
- 10 – University Nominee
- 11 – Member Secretary – Principal (ex-officio)

Frequency of Meetings: Twice in an academic year.

Functions & Responsibilities:

- The Governing Body works towards ensuring that all stakeholders, including students, faculty, staff, management and industry, are confident and have faith in the institution. It also ensures that all those assigned authority for various nodal functions, both within and outside institutions, carry these out effectively.
- Adopt rules and procedures for good governance of the institutions
- To appoint the teaching and non-teaching staff on the recommendations of the selection committees constituted under the relevant regulations of the University.
- To monitor and review the academic progress of the institute periodically
- To monitor faculty deployment and development, placement and industry-institute interaction activities in the institute/college and suggest remedial measures wherever necessary.
- To do budget allocation as per development plan.

Sr. No.	Name	Designation
1.	Shri. Diliprao Dagdojiraoji Deshmukh	Chairman
2.	Shri. Amit Vilasraoji Deshmukh	Secretary
3.	Mrs. Aditi Amit Deshmukh	Member
4.	Shri. Dheeraj Vilasraoji Deshmukh	Member
5.	Dr.Abhay Wagh, Director, DTE, Maharashtra	Member
6.	Shri. Subhodh Sant, General Manager, Siemens Ltd.	Member
7.	Dr. D. N. Raut, VJTI	Member
8.	Dr. Bhushan T. Patil, FrCRCE, Mumbai	Member
9.	Dr. Ramesh Lekurwale, K.J. Somaiya Vidyavihar University, Mumbai	Member
10.	Mr. Gautam Dubey, Deepti Air Systems, Mumbai	Member
11.	Ms. Miloni Thakkar, KLT Automotive & Tubular Products Ltd	Member
12.	Dr. Sanjay D. Deshmukh, Dean Academics	Member
13.	Dr. Kiran M. Chaudhari, Dean Administration	Member
14.	Dr. Rajesh Kale, Dean R & D	Member

15.	Dr. Sanjay U. Bokade Principal RGIT	Member Secretary

College Development Committee (CDC) Earlier known as Local Managing Committee (LMC)

The CDC is constituted as per provisions of Sec 97 of Mumbai Universities Act, 2016. The members hold office for a term of 5 years.

Objective: To prepare a comprehensive development plan of the institute on annual basis like academic, placement, infrastructure, administrative, and admission growth.

Constitution of CDC:

- Chairperson of the management or his nominee ex-officio Chairperson;
- Secretary of the management or his nominee;
- One head of department, to be nominated by the principal or the head of the institution;
- Three teachers in the college or recognized institution, elected by the full-time amongst themselves out of whom at-least one shall be woman;
- One non-teaching employee, elected by regular non-teaching staff from amongst themselves;
- Four local members, nominated by the management in consultation with the principal, from the fields of education, industry, research and social service of whom at least one shall be alumnus;
- Co-ordinator, Internal Quality Assurance Committee of the college;
- President and Secretary of the College Students Council;
- Principal of the college or head of the institution - Member - Secretary

Frequency of Meetings: Four times in a year

Functions & Responsibilities:

- Prepare an overall comprehensive development plan of the college regarding academic, administrative and infrastructural growth, and enable college to foster excellence in curricular, co-curricular and extra-curricular activities;
- Decide about the overall teaching programmes or annual calendar of the college
- Recommend to the management about introducing new academic courses and the creation of additional teaching and administrative posts.
- Make specific recommendations to the management to foster academic collaborations to strengthen teaching and research
- Make specific recommendations regarding the improvement in teaching and suitable training programmes for the employees of the college
- Formulate proposals of new expenditure not provided for in the annual financial estimates (budget)
- Discuss the reports of the Internal Quality Assurance Committee and make suitable recommendations
- Recommend the administration about appropriate steps to be taken regarding the discipline, safety and security issues of the college or institution
- Prepare the annual report on the work done by committee for the year ending on the 30th June and submit the same to the management of such college.

Internal Quality Assurance Cell (IQAC)

Objectives:

- Develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of the institution.
- Promote measures for institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.
- Ensure timely, efficient and progressive performance of academic, administrative and financial tasks.
- Ensure the relevance and quality of academic and research programmes.
- Ensure equitable access to and affordability of academic programmes for various sections of society.

Constitution of IQAC Cell:

- Chairperson: Head of the Institution
- Teachers to represent all level (3 to 8)
- One member from the Management
- Few Senior administrative officers
- One nominee each from local society, students and Alumni
- One nominee each from Employers / Industrialists / Stakeholders
- One of the senior teachers as the co-ordinator / Director of IQAC

Frequency of Meetings: Four times in a year

Functions & Responsibilities:

- Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution
- Facilitating the creation of a learner-centric environment conducive to quality education and faculty maturation to adopt the required knowledge and technology for participatory teaching and learning process
- Arrangement for feedback response from students, parents and other stakeholders on quality-related institutional processes
- Dissemination of information on various quality parameters of higher education
- Organization of inter and intra institutional workshops, seminars on quality related themes and promotion of quality circles
- Documentation of the various programmes /activities leading to quality improvement
- Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices
- Development and maintenance of institutional database for the purpose of maintaining/enhancing the institutional quality
- Development of Quality Culture in the institution
- Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAAC

Academic Committee

Objective: The Academic Committee is a vital link between the student body and the faculty. The objective of this committee is to keep the students aware of their academic standing and reducing blind-spots. It takes up the responsibility of imbibing best practices so that future student's community can have better system in place. It also arranges regular interaction between faculty and students.

Constitution of Committee:

- Head of Institution
- Head and Associate Head of all departments
- Senior faculty of each department

Frequency of Meeting: Four times in a year or as per the need

Functions and Responsibilities:

- Arranging teaching requirements for successful completion of academic programs of the college and supervising the same periodically.
- Facilitating Controller of Examinations for making arrangements for conducting examinations, as per the norms of University.
- Encouraging collaboration with other academic institutes and industry.
- Ensuring discipline among students.
- Facilitating and supervising the co-curricular activities of the students.
- Allocation of
- Inspiring students to be creative and innovative and recommending management to encourage them with financial support towards the same.
- Appointing committees from amongst the college teaching faculty and experts from outside, in order to sort out and advise on specific academic issues and consequently acting on the recommendations of such committees after due consideration.
- Planning and executing the overall academic growth of the college by making recommendations to the Management, wherever necessary
- To do budget allocation as per development plan.

Defined rules, procedures, recruitment and promotional policies etc

List of the published rules, policies and procedures, year of publications, awareness among the employees/students, availability on institute website etc. Any changes received from State Govt., University and Manjara Charitable Trust are communicated through circulars via hard copy and e-mails. Procedures are aligned with University of Mumbai. Teachers code of conduct of University of Mumbai.

Recruitment:-

- As per requirement, draft advertisement is sent to the concol department of University for Approval. On receiving approval to draft of advertisement, the advertisement is published in two national newspapers and applications are called. The interview panel consists of subject experts, V.C. nominee nominated by University, DTE nominee, AICTE nominee, Chairman or his nominee and the Principal being secretary of selection committee. The recommendations of the Selection Committee are forwarded for Management's approval. Subsequently, it is forwarded to the University for approval to regular appointment.
- After successful completion of probation, the staff is considered as a permanent staff.
- Permanent staff gets the benefits of PF, gratuity, and all other benefits as per the norms of the University and State Government.
- The non-teaching staff is initially appointed on the consolidated payment with regular increments in salary. After successful completion of three years of service, they are considered for permanent appointment with proper scale and all other benefits.
- Few non-teaching staff are promoted from Jr. clerks to Sr. clerks and few are granted additional increments in their present scale.

CAREER ADVANCEMENT SCHEME FOR TEACHING AND NON-TEACHING STAFF FOR 3 YEARS:

1. **TEACHING STAFF**:

The following parameters

Parameters	**Marks**
Teaching Feedback	10
Administrative Contribution (Department / Institute)	40
Staff Development	10
Research Contribution	40
Outside World Interaction	30
Stake Holder interaction	50
Innovation brought	20

Promotion of Teaching Staff:

Name of Faculty	**Department**	**Previous Designation**	**Promoted to**
Dr. Sharmila Gaikwad	Computer Engg.	Assistant Professor	Associate Professor
Dr. Jyoti Deshmukh	Computer Engg.	Assistant Professor	Associate Professor
Dr. Sanjay Deshmukh	Electronics & Telecommunication Engg.	Assistant Professor	Professor
Dr. Poonam Sonar	Electronics and Telecommunication Engg.	Assistant Professor	Associate Professor

Dr. Kishor Sawarkar	Electronics and Telecommunication Engg.	Assistant Professor	Associate Professor
Prof. Premdas Pawar	Electronics and Telecommunication Engg.	Assistant Professor AGP 6000	Assistant Professor AGP 7000
Prof. Ankush Hutke	Information Technology	Assistant Professor AGP 6000	Assistant Professor AGP 7000
Dr. Rajesh Kale	Mechanical Engineering	Associate Professor	Professor
Dr. Satyam Sadala	Instrumentation Engineering	Assistant Professor	Associate Professor
Prof. Pramod Gawande	Instrumentation Engineering	Assistant Professor AGP 5000	Assistant Professor AGP 6000
Dr. Yogaraj Patil	Applied Sciences & Humanities	Assistant Professor AGP 7000	Assistant Professor AGP 8000
Dr. Kishor Chaudhari	Applied Sciences & Humanities	Assistant Professor AGP 7000	Assistant Professor AGP 8000

Career Advancement Scheme is implemented for non-teaching staff. The administrative and supporting technical staff has been promoted from Junior Scale to Senior Scale with additional increments and few are promoted to higher posts.

2) SUPPORTING STAFF:

a) Lab Assistant: 5200 – 20200 AGP 2400

b) Instructors/ Accountant / Office Superintendent: 9300 – 34800 AGP 4300

c) Assistant Librarian: 5200 – 20200 AGP 2800

d) Peon: 4440 – 7440 AGP 1300

e) Head Clerk: 9300 – 34800 AGP 4200

f) Assistant Account Officer: 9300 – 34800 AGP 5100

- The Non teaching staff who have completed more than 12 years and 24 years have given one increment & AGP from 2400 - 2700 and two additional increments respectively in the present scale and as per qualification upgraded by staff. They are also considered for upgradation.
- The rules for outdoor duty, compensatory off, casual leave, medical, earned leave and vacations are well defined and as per govt. norms and known to all staff. Any changes received from the university / State Govt. are regularly communicated.

Details of the Leaves:

1. **Compensatory Off**: The compensatory off applicable to non-teaching staff who remains present on holidays or Sundays for doing other than routine work.
2. **Casual Leave:** 1st January to 31st December : 8 days of CL
3. **Vacation:**

	Summer	Winter
Probation completed	40	30
More than 1.5 years completed	28	28
More than 1 year completed	21	21
1 year completed	14	14
Less than 6 months	07	07

4. **Earned Leave:** 1. Administrative staff – 30 days per year
   2. Vacation (technical supporting staff) – 46 days per year
5. **Medical Leave**: Teaching and non-teaching staff – 10 days per year
6. **Maternity Leave**: 3 months for regular staff (full pay) (interim order)
7. **Resignation leave**: In case staff desire to leave the job during probation period, he /she has to give one month's notice in writing or one-month salary in lieu thereof. If he/she desires to leave the job after completion of probation period, he/she has to give three months' notice in writing or three months' salary in lieu thereof.

10.1.3 Decentralization in working and grievanceredressal mechanism (10) Institute Marks : 10.00

An administrative body is set up in the Institution to make the campus ragging free, eradicate harassment and to address the grievances of students and staff.

- The head of the committee and members are nominated by Head of the Institution to oversee the process and maintain strict vigil in all the activities carried out at the institute.
- Principal holds a meeting with all the members and brief the importance of the committee and also the responsibility of each member.
- The members are advised to implement their task carefully and periodically update the report to the head of the committee and during any unforeseen incidents an emergency meeting is conducted in the presence of Head of the Institution to discuss and the action is taken accordingly.
- The management has delegated its authority to the Principal. The principal in-turn has delegated the powers to committee Heads and committee members. All these committees work independely and implement need based action into force for the upliftment of the college.
- All the teaching and non-teaching staff members are hereby informed that following Institute level committees have been formed for the Academic Year starting from July of every year.

GRIEVANCE REDRESSAL SYSTEM:-

Any complaint by a particular staff or faculty is brought to the notice of Principal by the Head of Department, who taken considers the matter and takes a decision. If the issue is serious then the Principal discusses with the Management and the issue is resolved.

College Grievance Redressal Cell (Student & Staff)

Constitution of COLLEGE GRIEVANCE REDRESSAL CELL (CGRC) for Staff and students as per the State Government Gazette Dated February 27, 2019 Extra Ordinary Number 67.

Objectives:

1. To provide an avenue for the aggrieved students to redress their individual grievances in order to have a healthy atmosphere among students, staff and management in the Institute.

2. To comply with the AICTE Regulations to provide for establishment of Grievance Redressal Committee in each Institute approved by AICTE.

Constitution of Cell:

- Chairperson
- One senior member
- Member Secretary

Frequency of Meetings: As per the need

Functions and Responsibilities:

- The cases will be attended promptly on receipt of written grievances from the students.
- The committee formally will review all cases and will act accordingly as per the Management policy
- The committee will give report to the authority about the cases attended to and the number of pending cases, if any, which require direction and guidance from the higher authorities.
- The students may feel free to put up a grievance in writing and drop in the grievance box or handover to the officer- in-charge of the committee.
- The Grievance committee will assure that the grievance has been properly solved in a stipulated time limit provided by the committee.

1. College Grievance Redressal Cell – Staff:

1	**Dr. Sanjay U. Bokade**	**Chairperson**
2	Prof. Sanjay D. Deshmukh	Member Secretary
3	Prof. Kiran Chaudhari	Member

2. College Grievance Redressal Cell - Students:

1	**Prof. Rajesh V. Kale**	**Chairperson**
2	Prof. Sunil B. Wankhade	Member Secretary
3	Prof. Jyoti Deshmukh	Member

Anti-Ragging Committee

Objective: To assist the college authorities in promoting and maintaining discipline in the institute and prevent anti ragging, in any form.

Constitution of Committee:

- Chairperson: Head of the Institution
- Teachers to represent all level
- Non teaching representatives (1 to 2)
- Student Affair Convenors
- One representative from Civil and Police administration
- One representative from News Media
- One representative from Non-Government Organization
- Two representatives from students
- Two representatives from Stakeholders (Parents)

Frequency of Meetings: As per the need

Functions and Responsibilities:

- Give wide publicity regarding anti-ragging laws and policies across the college.
- Monitor activities during start of academic year.
- Solicit affidavits from parents/guardians and students.
- Conduct counselling sessions for senior students.
- Conduct counselling sessions for incoming students at the time of admission and induction.
- Prevent ragging by students in the institute by pro-actively involving, taking rounds.
- Promote and maintain discipline in the institute by pro-actively giving suggestions to curb ragging

ANTI-RAGGING PROHIBITION AND PREVENTION AT RGIT CAMPUS

- Installation of Anti-Ragging committee as per AICTE directions
- Contact numbers of all the concerned authorities are put on to the institute website and also the display banner in the premises.
- Anti-Ragging squad for monitoring
- Counselling and mentoring activities are taken up
- Secured campus with guards in service

S.N.	Name	Designation	Member
1.	Dr. Sanjay U. Bokade	Principal	Head
2.	Prof. Sanjay D. Deshmukh	Vice-Principal	Member – Faculty
3.	Prof. Kiran M. Chaudhari	HOD - ASH	Member – Faculty
4.	Prof. Sunil P. Khachane	HOD - COMP	Member – Faculty
5.	Prof. Sunil B. Wankhade	HOD - IT	Member – Faculty
6.	Prof. Rajesh V. Kale	HOD - MECH	Member – Faculty
7.	Prof. Jyoti A. Deshmukh	HOD – AIDS	Member – Faculty
8.	Prof. Pramod Gawande	HOD - INSTU	Member – Faculty
9.	Prof. Shalini Sharma	Convener - SA	Member – Faculty
10.	Prof. Suresh Mestry	Convener - SA	Member – Faculty
11.	Ms. Ujwala Shelar	Lab Assistant	Member – Non Teaching
12.	Mr. Durgesh Salunke	PSI – D N Nagar, Mumbai Police	Member – Police Admin
13.	Mr. Aditya Dubey	Dy. Chief Reporter Navbharat	Member – Media
14.	Ms. Raheen Jummani	Member - NGO	Member – NGO
15.	Mr. Varad Lad	BE EXTC	Member - Student
16.	Mr. Pratik Dave	BE IT	Member - Student
17.	Mr. Nikhil Poojari	TE MECH	Member - Student
18.	Mr. Nandakumar Keluskar	Father of Mr. Saurabh Keluskar – B.E. MECH	Member - Parent
19.	Mrs.Sabiha Desai	Mother of Mr.Aamil Desai- T.E. IT	Member - Parent

Internal Complaints Committee:

Objectives:

1. To create and maintain safe, healthy and supportive environment for women and girl students in the campus.

2. To address issues faced by women at work place and to organize awareness generation programmes and to take preventive steps towards protection of women staff / female students from sexual harassment in the college.

3. The Women Redressal Committee / Women Development Cell / Internal Complaints Committee is functioning in the college as per the norms laid down by the AICTE / University of Mumbai.

Constitution of Committee:

- Chairman / Presiding Officer
- Female Nominee from teacher (2 to 3)
- Female nominee from non-teaching staff (2 -3)

- Girl nominee from students (1-2)
- Secretary

Frequency of Meeting: Twice in a year or as per the need

Functions and Responsibilities:

- To undertake the awareness programs on gender sensitization, women rights and women empowerment in campus.
- To ensure protection of girls/women studying/working from sexual harassment in the premises through workshop and hands-on training of Self-defense.
- To organize workshops and seminars on health and hygiene education for students.
- To organize the gender awareness through screening of films/street plays/ posters/slogans/essay competition.
- To organize the programs with other associations of the college such as Students council, Cultural Association, etc.
- To provide a platform to girls/women studying and working in the institute to express their views and show their special talents.

Sr.No.	Member	Designation	Mobile	Email Address
1	Prof. Kiran M. Chaudhari	Presiding Officer	9930959964	kiran.chaudhari@mctrgit.ac.in
2	Prof. Poonam Sonar	Member - Faculty	9967330308	poonam.sonar@mctrgit.ac.in
3	Prof. Savita Lade	Member - Faculty	9022800304	Savita.Lade@mctrgit.ac.in
4	Ms. Manisha Warade	Member - Non Teaching	9969052481	manisha.warade@mctrgit.ac.in
5	Ms. Sunita Bharambe	Member - Non Teaching	9869619386	sunita.bharambe@mctrgit.ac.in
6	Ms. Isha N. Ahire	Member - Student TE MECH	9819256329	eshaahire2003@gmail.com
7	Ms. Kiran Sahu	Member - Student TE IT	7506432401	kiransahu2309@gmail.com
8	Ms. Vaishnavi Gurav	Member - Student BE EXTC	9136074530	gvaishnavi159@gmail.com
9	Ms. Raheen Jummani	Member - NGO	9820694758	raheenjummani@gmail.

Purchase Committee

Objective: To review and evaluation of Purchases / Expenses.

Constitution of Committee: Purchase Committee member with the terms of provisions made under Section 75(3)(b) of the Maharashtra Universities Act, 1994.

- Chairman: Head of Institution
- Members: All HOD's
- Members: Accounts (1-2)
- Member: Maintenance In-charge (Computer & Other)

Frequency of Meetings: Four times in a year or as per the need

Functions and Responsibilities:

- Purchase Committee will prepare an Annual Budget for the Institute.
- The Purchase Committee will collect the requirements of all the departments so as to make the Annual Budget.
- Purchase Committee will forward the Budget to the IQAC for its approval.
- The Purchase Committee will forward the Budget to the management after the approval from IQAC.
- All the repair purchases / Expenses to be discussed and approved in Purchase Committee meetings.

Committee for SC / ST

Objectives:

1. To create and maintain safe, healthy and supportive environment for SC / ST staff and students in the campus.

2. To address the issues of staff and students, belonging to schedule caste / schedule tribes in the Institute and to prevent atrocities against them.

3. To comply with AICTE regulations for the establishment of the Committee for SC / ST (As per the Scheduled Caste and the Scheduled Tribes (prevention of Atrocities) act, 1989, No. 33 of1989, dated 11/09/1989)

Constitution of Committee:

- Chairperson: Head of Institution
- Two nominees from Teachers
- One nominee from Non-Teaching

Frequency of meeting: As per the need or twice in a year

Functions and Responsibilities:

- Circulate GOI and Commission's decisions and to collect regularly, on an annual basis, information regarding course-wise admissions to candidates belonging to the Scheduled Castes and Scheduled Tribes in the Universities and Colleges for different courses, in suitable forms prescribed, by a stipulated date, and to take follow up action, where required.
- To look into the complaints if any received from the concerned staff and students belonging to SC / ST.

Research & Development Committee

Objectives: - To motivate faculty members and students for research and development activities.

Constitution of Committee

- Dean R&D
- One senior member from each department

Frequency of Meetings: Twice in an academic year.

Functions and Responsibilities:

- To encourage and help faculty and students to apply for research funding grant in minor/major projects from various government agencies like University of Mumbai, SERB, DST, AICTE. etc.
- To interact with Industry, Government, Professionals, Experts from research laboratory for research opportunities
- To incubate, projects in the institute and then promote and commercialize them to external stakeholders like industry and other institutions, Alumni through project exhibition and competition
- To have memorandum of understanding (MOU) with industries for research service and product development.
- To register the work done by researchers under Intellectual Property Rights like copyrights, patents etc.
- To work on Research and Development projects and offer consultancies in core and interdisciplinary areas of engineering to strengthen the education and research ecosystem.
- To establish the linkages with apex educational and national research institutions and emerge into a Centre of Excellence.

Unfair means Inquiry Committee

Objective: To investigate unfair means resorted to by students at the University examination, following will be the members of Unfair Means Committee with the terms of provisions made under Section 32(6)(a) of the Maharashtra Universities Act 1994

Constitution of Committee.

- Chairman: Principal
- Senior Faculty Member (2 to 4)
- Controller of Examinations (1 To 2)

Frequency of meeting: As per the need or twice in a year

Functions and responsibilities:

- To investigate the cases of students involved in unfair means during examinations and reported by the Examination committee
- To recommend action(s) (if any) to the Principal regarding unfair practices
- To conduct transparent and unbiased investigation against any unfair means cases
- To counsel the student(s) indulging in unfair means to avoid any drastic step being taken
- To act as the investigative body for any complaints of alleged unfair practices against Junior Supervisor/ Paper Setter and any other person involved directly or indirectly in the examination work

Library Committee

Objectives: To function as a channel between the library and its users.

Constitution of Committee:

- Convenor: Senior faculty from any department
- Co-ordinator: Faculty (1-2) from Computer or IT department
- Member from each department

Frequency of Meeting: Twice in a year

Functions and Responsibilities:

- To assist the Librarian in formulating Library policy.
- To look after general maintenance of the library in terms of reading material and infrastructure.
- To effectively involve in fostering the reading habit of staff and students.
- To recommend / justify / sanction / approve - withdrawal and weeding out of outdated material to the competent authority for final decision in the matter.
- To prepare the plan for stock verification.

Website Committee

Objectives: To ensure that the college website is regularly updated, improved and well maintained.

Constitution of Committee:

- Convenor: Senior faculty from any department
- Member from each department
- Member from Library

Frequency of Meeting: Twice in a year

Functions and Responsibilities:

- Regularly update the information/data given on the website under various items/heads so as to have the latest and correct information about the institute at all times and removes the incorrect and irrelevant data.
- Collect information about the latest events in the institute, achievements etc and get them posted on the website by way of write ups and pictures etc.
- Update all communications, notices, announcements etc on a regular basis.
- Strive to make improvement in the website with respect to design, preventability etc on a continuous basis.

Student Affair Committee

Objective: To promote and arrange extracurricular and co-curricular activities to bring out the talents of students in the performing arts.

Constitution of Committee:

- Two members as a Convenors (One Male and One Female)
- One member from each department

Frequency of Meetings: As per the need

Functions and Responsibilities:

- The Cultural Committee shall be responsible for all intra and inter collegiate cultural events in the College.
- To plan and schedule Technical and Cultural events for the academic year. (Tentative dates to be included in the academic calendar of the institute.) by delegating various tasks.
- To the procedure to organize cultural events
- To communicate about various festivals and events to be celebrated in the college and give a wide publicity.
- Arranging events/programs for staff and students in coordination with 'Students Technical and Cultural Committee'.

Sports / Yoga Committee

Objective: To provide healthy leisure time for every staff and students of RGIT.

Constitution of Committee:

- Convenor: One member from any department
- One member from each department

Frequency of Meetings: As per the need

Functions and Responsibilities:

- To maintain a stock of sports goods.
- To order sports equipment after seeking necessary approvals.
- To arrange venues for sports events.
- To recommend students for permission to participate in the intra or inter collegiate events.
- To ensure that those students who participate in sports events are given attendance as per University of Mumbai rules.
- To maintain discipline in all events happening in and outside the college.
- Maintaining records of sports events attended by students.

UBA / NSS Committee

Objective: To inculcate and develop social sensitivity, moral values and professional ethics in students along with their academic formation so as to show responsible behavior to the professional community and society at large and to grow as responsible citizens of high moral values, making valuable contributions to profession/community/society, thus realizing a major thrust in the Vision and Mission of the Institute.

Constitution of Committee:

- Institute Co-ordinator (UBA)
- Program Officer (NSS)
- One representative from each department

Frequency of Meetings: As per the need

Functions and Responsibilities:

- UBA / NSS coordinator will plan regular activities and special camping programme.
- The programme officer will ensure that NSS volunteers complete the prescribed hours in regular activities and participate in special camping programme as per requirements.
- He/She will supervise the work of UBA / NSS volunteers.
- He/She will maintain the necessary records and registers prescribed by programme coordinator of the university.
- He/She will ensure that the basic aims of NSS programme i.e. personality development of NSS volunteers, interaction of the different classes of the society take place harmoniously and the NSS volunteers and community are benefited from the activities of NSS unit.
- He/She will convene the meeting of the college advisory committee in consultation with the Principal of the institution as laid down in the NSS manual.

Training and Placement Committee

Objective: To help the Training and Placement Office in conducting and coordinating campus placement process as well as training programs in the college.

Constitution of Committee:

- Training & Placement Officer
- Representative from Each department (1 to 2)
- Placement Co-ordinator

Frequency of Meetings: As per the need

Functions and Responsibilities:

- Conducting Aptitude tests for the students and as when required on behalf companies for recruitment process.
- Assembling students for placement.
- Assist in setting up laboratories for on-line recruitment tests.
- Updating T & P data on the department level from time to time.
- Interacting with corporate for Internship and projects

Alumni Committee:

Objectives:

- To significantly increase alumni interaction with the institution.
- Fostering and keeping alive loyalty to the institution and creating concern for its welfare.
- Inculcate exchange of ideas among alumni and between alumni and students
- To assist current students to achieve their goals by means of mentorship and entrepreneurship setup through Alumni.

Frequency of Meetings: Once in an academic year

Functions and Responsibilities:

- To maintain an up-to-date and detailed database of the alumni.
- To highlight the success of alumni to improve the credibility and reputation of the university.
- Plan and promote a platform for interaction between all stakeholders.
- Promote the interests and welfare of alumni association.
- Maintain healthy relationship with the alumni body.
- Assist management in creating an environment in the college which is enables student to have long-lasting memories.

Institute Innovation Cell:

Objective: To develop entrepreneurial zeal among the students on a continuous basis and prepare them to undertake independent technology development or self-employment during the course of their work life.

Scope: Develop necessary knowledge for an entrepreneurial career, assimilate adequate skills in the total project management area of an enterprise and acquire a drive or motivation to pursue self-employment inspired by self-actualization in spite of the elements of the hardship and risk involved in it.

Responsibilities: E-Cell will be responsible for conducting various interventions and academic programs to impart knowledge, skill and attributes which will help in innovation, problem solving, technology development, project management, entrepreneurial motivation. It will also provide supporting systems including laboratories, innovation kits etc.

Work Environment: Work environment include the innovative mini projects and final year practical assignments undertaken by students, and independent creative projects undertaken by the motivated group of students in their respective technology areas or projects of multidisciplinary nature. Organizations like National R&D Labs, Defense research Labs, Industry, Dept of Science and Technology, Technology Organizations etc

The Process: The students who are interested and also have an aptitude for entrepreneurship and self -employment are selected and admitted for internship in the E-cell. Three modules of academic inputs are given to them during the first two years by qualified internal faculty and external experts.

Universal Human Values Cell:

Objectives: To create awareness of a humane approach, reasoning, moral coherence, and propagate a value system based on generosity, benevolence and tolerance for fellow human beings.

Constitution of Cell: Members from teachers (2 to 4)

Frequency of Meetings: As per the need

Functions and responsibilities:

- Organizing Students Induction Program
- Enabling the students to make decisions on the basis of sound moral principles.
- Conducting various workshops and seminars by Eminent personalities for students as well as faculty members.

Position	Functions
Dean Academic	• Coordinating the activities of HODs, admin, and faculty • Developing and maintaining academic policies • Providing academic support to students • Developing and implementing strategic plans to ensure overall academic success
Dean R & D	• To make the students and the faculty members aware of the latest advancements in technology. • To encourage research competence and research activities undertaken in the Institute. • To provide engineering consultancy and research in various innovative areas and foster research collaborations within the faculties and or across the faculty and institutes for pioneering research in field of Science & Technology. • To enhance the engineering education with research orientation. • To promote Industry-Academia collaboration and interaction.
Dean Administration	• New Proposal with AICTE, DTE and University • Maintain minutes of meeting (all) • Co – ordinate day to day activities of office • AICTE, DTE, University committee preparation • Extension of Approval and Affiliation to University

Head of Department	• Plan and execute academic activities of the department • Maintain discipline and culture in the department • Maintain the department neat and clean • Pick and promote strengths of students / faculty / staff • Monitor academic activities of the department • Propose Department Budget • Adhere to IQAC Procedures • Maintain records of departmental activities and achievements • Monitoring of lectures and practical • Conduction of internal examinations • Students feedback • Collective attendance of students • Co-ordinate the activities of class teachers

10.1.4 Delegation of financial powers (10)

Institute Marks : 10.00

- Head of Institution is authorized to make payments of Staff Salary, Statutory Payments, AICTE / DTE / University, Payment to vendors.
- All Head of Departments are authorized to use of Petty cash of Rs, 5000/- and Department Level Meeting expenses (Department / Parents Meeting / Alumni / Academic Audit or Meeting / DAB)

Designation	Financial Power	Utilization of Financial Power in Rs.		
		2022 - 23	2021 - 22	2020 - 21
Principal	Staff Salary	391888191	141325475	151062615
	Provident Fund	4586283	3658138	2848950
	Gratuity	2485347	7648764	2832462
	GSLI	211200	227400	247200
	AICTE	877051	1150529	59000
	DTE	415180	440200	-
	University	643700	1562182	339000
	Examination	4841479	2438323	3523902
	Property Tax	2747579	2747579	2457479
	Payment to vendors for all purchases & Maintenance	30967083	8911521	4057432
	Electricity Bills	2851704	1594572	1672483
	Water Bills	355652	120111	109873
	Telephone Bills	112084	207548	137554
	Staff Welfare	1522250	254337	379846
	Contingent Expenses	33880550	22035985	11668844
Head of Department	Authorization of a petty cash of Rs.5000/-	5000	5000	5000
	Staff Welfare (Expenses towards Department Meeting)	76000	75000	7000
	Expenses towards Parents Meeting	40712	131596	-
	Expenses towards Alumni Meet	17000	144681	

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5)

Institute Marks : 5.00

All information is displayed on the Institute website as per the Mandatory Disclosure requirement of AICTE. The information relating to faculty strength, results, administrative structure etc.is displayed on the site. (Mandatory Disclosure | Rgit Site New 2023 (mctrgit.ac.in) (https://www.mctrgit.ac.in/mandatory-disclosure)

The college website ensures that all information's pertaining to students, staff in the website committee to ensure that all stake holders are adequately informed about the policies and procedures along with the developments taking place that could affect them.

All the information pertaining to the admissions, faculty and supporting staff details, student attendance, internal marks, infrastructural facilities, details of programs, information related to ongoing student training programs, faculty development programs, symposiums etc., are made available in the college website / brochures / E-Notice Board.

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30) Total Marks 30.00

Summary of currentfinancial year's budget and actual expenditure incurred(for the institution exclusively)in the three previous financial years :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY : (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2023-24

Total Income 217902979				Actual expenditure(till…): 151916016			Total No. Of Students 1845
Fee	Govt.	Grants	Other sources(specify) Bank Interest and Miscellaneous	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
206068187	0	0	11834792	142115203	9800813	0	82339.30

Table 2 - CFYm1 2022-23

Total Income 244581126				Actual expenditure(till…): 245986391			Total No. Of Students 2097
Fee	Govt.	Grants	Other sources(specify) Bank Interest and Miscellaneous	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
238398646	0	0	6182480	224131898	21854493	0	117303.95

Table 3 - CFYm2 2021-22

Total Income 226330192				Actual expenditure(till…): 195205523			Total No. Of Students 2088
Fee	Govt.	Grants	Other sources(specify) Bank Interest and Miscellaneous	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
223068329	0	0	3261863	190950492	4255031	0	93489.24

Table 4 - CFYm3 2020-21

Total Income 212076388				Actual expenditure(till…): 181878470			Total No. Of Students 2071
Fee	Govt.	Grants	Other sources(specify) Bank Interest and Miscellaneous	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
201864387	0	0	10212001	180394232	1484238	0	87821.57

Items	**Budgeted in 2023-24**	**Actual Expenses in 2023-24 till**	**Budgeted in 2022-23**	**Actual Expenses in 2022-23 till**	**Budgeted in 2021-22**	**Actual Expenses in 2021-22 till**	**Budgeted in 2020-21**	**Actual Expenses in 2020-21 till**
Infrastructure Built-Up	15000000	0	6920124	3679143	2157263	1133380	2660900	0
Library	850000	0	1035000	65657	600000	8309	400000	30808
Laboratory equipment	15287317	1849494	14005000	19526862	13336000	4246722	14586000	1436910
Laboratory consumables	895325	799773	755000	1562692	1600000	756982	1504300	426930
Teaching and non-teaching staff salary	190519258	116752598	168900000	156162083	168900000	148932346	168900000	149323417
Maintenance and spares	1108400	5452957	770000	3161650	2564000	2766128	2499800	1932962
R&D	900000	198509	500000	900	400000	0	0	0
Training and Travel	0	762380	0	0	0	1770672	0	1574579
	0	93485	0	40230	0	0	0	0
Others, specify	35151700	26006820	36715000	61787265	34631000	35590984	31769000	27152864
Total	**259712000**	**151916016**	**229600124**	**245986482**	**224188263**	**195205523**	**222320000**	**181878470**

10.2.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

The budget allocated for staff salary, administrative expenses, and academic activities is adequate and sufficient.

- Budget is allotted to each department towards up-gradation of laboratories, laboratory consumables and repair of laboratory equipment etc., internal adjustments are made as per the urgency, in specific cases.
- The allocated budget shall always adequate and the budget gets sanctioned based on the budget predictions given by the department for every academic year.

Sr. No.	Assessment Year	Total Liabilities in Lakhs (Rs.)	Allocated Budget in Lakhs (Rs.)
1	2022 – 2023	2000.00	2296.00
2	2021 – 2022	2000.00	2241.88
3	2020 – 2021	2000.00	2223.20

10.2.2 Utilization of allocated funds (15)

Institute Marks : 15.00

- Head of Departments are intimated about the funds allocated against their budget proposals. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the respective departments and the funds are released on proposal basis from the accounts office of the college on approval by the Principal.
- Major works like construction, up gradation of existing infrastructure, procurement and maintenance of common utilities, house-keeping, procurement of furniture etc. are controlled by the Principal.
- During the last three years, the budget was utilized to meet expenses such as staff salaries, infrastructure development, purchase of equipment, expenses towards consumables and contingencies, travel etc.
- The details of budget allocation, sanction and expenditure statement of last 3 years as shown in 10.2.

Sr. No.	Assessment Year	Allocated Budget in Lakhs (Rs.)	Utilization in Lakhs (Rs.)	Adequate / Non Adequate
1	2022 – 2023	2296.00	2459.86	Adequate
2	2021 – 2022	2241.88	1952.05	Adequate
3	2020 – 2021	2223.20	1818.78	Adequate

10.2.3 Availability of the audited statements on the institute's website (5)

Institute Marks : 5.00

Yes and URL is https://mctrgit.ac.in

10.3 Program Specific Budget Allocation, Utilization (30)

Total Marks 30.00

Institute Marks :

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3
CFY: (Current Financial Year),
CFYm1 : (Current Financial Year minus 1),
CFYm2 : (Current Financial Year minus 2) and
CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2023-24

64928000		Actual expenditure (till…): 37979004		Total No. Of Students 367
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
4701004	60226996	2450203	35528801	103485.02

Table 2 :: CFYm1 2022-23

57400031		Actual expenditure (till…): 61496620		Total No. Of Students 485
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
4092500	53307531	5463623	56032997	126797.15

Table 3 :: CFYm2 2021-22

56047066		Actual expenditure (till…): 48801381		Total No. Of Students 518
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
3502750	52544316	1063758	47737623	94211.16

Table 4 :: CFYm3 2020-21

55580000		Actual expenditure (till…): 45469618		Total No. Of Students 544
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
3761250	51818750	371060	45098558	83583.86

Items	**Budgeted in 2023-24**	**Actual Expenses in 2023-24 till**	**Budgeted in 2022-23**	**Actual Expenses in 2022-23 till**	**Budgeted in 2021-22**	**Actual Expenses in 2021-22 till**	**Budgeted in 2020-21**	**Actual Expenses in 2020-21 till**
Laboratory equipment	3821829	462374	3501250	4881716	3334000	1061681	3646500	359228
Software	448750	424019	713750	166073	72570	19240	76500	19240
Laboratory consumable	223831	199943	188750	390673	400000	189246	376075	106733
Maintenance and spares	277100	1363239	192500	790413	641000	691532	624950	483241
R & D	225000	49627	125000	225	100000	0	0	0
Training and Travel	0	190595	0	0	0	442668	0	393645
	0	23371	0	10058	0	0	0	0
Total	**4996510**	**2713168**	**4721250**	**6239158**	**4547570**	**2404367**	**4724025**	**1362087**

10.3.1 Adequacy of budget allocation (10) Institute Marks : 10.00

- Budget is allotted to each department towards up-gradation of laboratories, laboratory consumables and repair of laboratory equipment etc., internal adjustments are made as per the urgency, in specific cases.
- The allocated budget shall always adequate and the budget gets sanctioned based on the budget predictions given by the department for every academic year.

Sr. No.	Assessment Year	Total Liabilities in Lakhs (Rs.)	Allocated Budget in Lakhs (Rs.)	Remarks
1	2022 – 2023	500.00	574.00	Adequate
2	2021 – 2022	500.00	560.47	Adequate
3	2020 – 2021	500.00	555.80	Adequate

10.3.2 Utilization of allocated funds (20)

Institute Marks : 20.00

- Department Heads are intimated about the funds allocated against their budget proposals. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the respective departments and the funds are released on proposal basis from the accounts office of the college on approval by the Principal.
- Major works like construction, up gradation of existing infrastructure, procurement and maintenance of common utilities, procurement of furniture etc. are controlled by the Principal.
- During the last three years, the budget was utilized to meet expenses such as purchase of equipment, expenses towards consumables and contingencies, travel etc.
- The details of budget allocation, sanction and expenditure statement of last 3 years as shown in 10.3.

Sr. No.	Assessment Year	Allocated Budget in Lakhs (Rs.)	Utilization in Lakhs (Rs.)	Adequate / Non Adequate
1	2022 – 2023	574.00	614.96	Adequate
2	2021 – 2022	560.47	488.00	Adequate
3	2020 – 2021	555.80	454.69	Adequate

10.4 Library and Internet (20)

Total Marks 20.00

10.4.1 Quality of learning resources (hard/soft) (10)

Institute Marks : 10.00

Details of Library Facility:

Carpet area of Library (in m^2):	804 sqm
Reading Space (in m^2):	247sqm
Number of Seats in reading space:	150 students
Number of Users (issue book) per day:	20 (on average)
Number of Users (Reading space) per day:	40 (on average)
Timings: During working day, weekend, and vacation:	8.15 am to 5.30 pm
Number of library Staff	07
Number of library staff with a degree in Library Management	05
Computerization for search, indexing, issue/return	Yes
Records Bar-coding used?	Yes
Library services on internet/intranet INDEST or other similar membership achieves	Turnitin & ASME/ IEEE and IIT Availability of Digital Library Contents: Yes CD: 4000
Total number of NDIL	1639

Sr. No.	Digital Contents	Availability
1.	Project Reports	350
2.	University Question Papers	Since 2001 for all semester
3.	Syllabus	All editions

Availability of an exclusive server: 01

Availability over intranet/ internet: Yes

Availability of exclusive space/ room: Yes

Number of users per day: 40

Year	Expenditures (Rs. In Rupees)				Comments
	Book	Magazine / Journals (for hard copy subscription)	Magazine / Journals (for soft copy subscription)	Misc. Contents	
2022 – 23	59197.00	40743.00	212056.00	35400.00	Students and staff are encouraged to use journals and periodicals. Many staff use journals for their research activity and students for their final year projects.
2021 – 22	9645.00	40991.00	108174.00	53100.00	
2020 – 21	2475.00	-	-	50000.00	

Details of Internet Facitilty:

Sr. No.	Service Provider	Speed	Served At
1	Hathway Internet	150 Mbps	Whole Campus
2	Adtech Internet	150 Mbps	Whole Campus
3	Jio Internet	10 Mbps	Whole Campus
4	Seven Star Digital	100 Mbps	Principal Office
5	Seven Star Digital	50 Mbps	Accounts
6	Seven Star Digital	100 Mbps	Administration
7	Seven Star Digital	150 Mbps	Conference Room
8	Seven Star Digital	150 Mbps	Management Office
9	Seven Star Digital	50 Mbps	AI&DS Lab
10	Seven Star Digital	150 Mbps	Project Room
11	Seven Star Digital	150 Mbps	Stationery

12	Seven Star Digital	300 Mbps	B-11 Computer Lab
13	Seven Star Digital	100 Mbps	Exam Cell
14	Seven Star Digital	300 Mbps	Lab-6 C35

10.4.2 Internet (10)

Institute Marks : 10.00

Name of the Internet provider	Hathway, Adtech, Jio and Seven Star Digital
Available band width	310 Mbps
WiFi availability	Yes 50 to 300 Mbps
Internet access in labs, classrooms, library and offices of all Departments	Yes
Security arrangements	Yes

Annexure I

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

1. **Engineering Knowledge :** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1	Successful Career and Entrepreneurship: Graduates will be able to understand the social-awareness & environmental wisdom along with ethical responsibility to have a successful career and to sustain passion and zeal for real-world applications using optimal resources as an entrepreneur.
PSO2	Hobbies and Career: Graduates have nurtured their hobbies which are useful in their specific chosen career.

Declaration

The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute
Name : Dr. Sanjay U Bokade
Designation : Principal
Signature :

Seal of The Institution :

Place : RGIT,Mumbai
Date : 29-12-2023 10:10:59