ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY S COLLEGE OF ENGG KENNEDY ROAD NEAR R.T.O.PUNE

Mechanical Engg.

Part A : Institutional Information

1 Name and Address of the Institution

ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY S COLLEGE OF ENGG KENNEDY ROAD NEAR R.T.O.PUNE,
KENNEDY ROAD, PUNE-411001

2 Name and Address of Affiliating University

UNIVERSITY OF PUNE GANESHKHIND ROAD PUNE-411007

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
All India Shri Shivaji Memorial Society's College of Pharmacy, Pune – 1	1996	B Pharm and M Pharm	Kennedy Road, Pune - 1
All India Shri Shivaji Memorial Society's Institute of Management, Pune – 1	2002	MBA	Kennedy Road, Pune - 1
All India Shri Shivaji Memorial Society's Institute of Information Technology, Pune – 1	1999	Engineering and Technology : (Under Graduate Courses) 1) Computer Engineering, 2) Electrical Engineering, 3) Instrumentation Engineering, 4) Electronics and Telecommunication Engineering, 5) Information Technology, 6) Artificial Intelligence and Data Science (Post Graduate Courses) 1) Electronics and Telecommunication Engineering (VLSI & Embedded Systems), 2) Electrical Engineering (Power Electronics and Drives)	Kennedy Road, Pune - 1
All India Shri Shivaji Memorial Society's College of Polytechnic, Pune – 1	1994	Diploma Courses 1) Civil Engineering, 2) Computer Engineering, 3) Electronics and Telecommunication Engineering, 4) Information Technology, 5) Instrumentation Engineering, 6) Mechanical Engineering, 7) Automobile Engineering Kennedy Road, Pune - 1	Kennedy Road, Pune - 1
All India Shri Shivaji Memorial Society's College of Hotel Management & Catering Technology, Pune – 5	1997	CHMCT Course : BHMCT, B Sc HS	55-56, Shivajinagar, Pune – 411 005
All India Shri Shivaji Memorial Society's Private Industrial Training Institute, Pune – 02	1991	ITI Courses : Welder (Gas & Electric), Mechanic Diesel, Fitter, Turner, Machinist, Machinist (Grinder), Mechanic (Refrigeration and Air-Conditioner), Electrician, Mechanic (Motor Vehicle), Electronic Mechanic, Painter (General), Tool and Die Maker (Press, Tool, Jig and Fixture)	At – Daund, Urulikanchan, Dist – Pune – 412 202
All India Shri Shivaji Memorial Society's SSPM Day School & Junior College, Pune – 5	1972	School & Jr College : Std. 5th to 10th (School), Std. 11th to 12th (College – Science & Commerce)	55-56, Shivajinagar, Pune – 411 005
All India Shri Shivaji Memorial Society's Shri Shivaji Preparatory Military School, Pune – 5	1932	School & Jr College : Std. 1st to 10th (School) & 11th to 12th (College – Science & Commerce)	55-56, Shivajinagar, Pune – 411 005

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

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	1992	1992	60	Yes	120	Granted provisional accreditation for two years for the period(specify period)	2013	2015	Yes	4
Mechanical Engineering Sandwich	UG	1994	1994	30	Yes	60	Granted provisional accreditation for two years for the period(specify period)	2013	2015	No	4
Mechanical Automotive Engineering	PG	2009	2009	18	No	18	Eligible but not applied	--	--	No	2
Mechanical Design Engineering	PG	2013	2013	18	No	18	Eligible but not applied	--	--	No	2
Chemical Engineering	UG	1996	1996	40	Yes	60	Granted provisional accreditation for two years for the period(specify period)	2013	2015	No	4
ME - Chemical Engineering	PG	2011	2011	18	No	18	Eligible but not applied	--	--	0	2
Civil Engineering	UG	2002	2002	60	Yes	120	Not accredited (specify visit dates, year)	18/01/2013	20/01/2013	0	4
ME - Civil Engineering (Structural Engineering)	PG	2010	2010	18	No	18	Eligible but not applied	--	--	0	2
Computer Engineering	UG	1998	1998	40	Yes	120	Granted provisional accreditation for two years for the period(specify period)	2013	2015	0	4
ME - Computer Engineering (Artificial Intelligence and Data Science)	PG	2013	2013	18	No	18	Not eligible for accreditation	--	--	0	2
Electrical Engineering	UG	1992	1992	60	No	60	Not accredited (specify visit dates, year)	18/01/2013	20/01/2013	0	4
ME - Electrical Engineering (Power Electronics & Drives)	PG	2011	2011	18	No	18	Eligible but not applied	--	--	0	2
Electronics and Telecommunication Engineering	UG	1992	1992	60	No	60	Not accredited (specify visit dates, year)	18/01/2013	20/01/2013	0	4
ME - Electronics &Telecommunication Engineering (IOT and Sensor Systems)	PG	2009	2009	18	No	18	Not eligible for accreditation	--	--	0	2
Production Engineering (Sandwich)	UG	1994	1994	30	Yes	60	Granted provisional accreditation for two years for the period(specify period)	2013	2015	0	4
Robotics and Automation	UG	2022	2022	30	No	30	Not eligible for accreditation	--	--	No	4

8 Programs to be considered for Accreditation vide this application:

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Civil Engg.
2	Under Graduate	Engineering & Technology	Computer Engg.
3	Under Graduate	Engineering & Technology	Electrical Engg.
4	Under Graduate	Engineering & Technology	Mechanical Engg.
5	Under Graduate	Engineering & Technology	Chemical Engineering

9 Total number of employees in the institution:

A. Regular* Employees (Faculty and Staff):

Items	2021-22		2020-21		2019-20	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	85	86	90	90	89	93
Faculty in Engineering (Female)	64	64	55	57	60	60
Faculty in Maths, Science & Humanities (Male)	9	10	7	7	8	9
Faculty in Maths, Science & Humanities (FeMale)	4	5	7	7	7	7
Non-teaching staff (Male)	105	105	105	107	107	109
Non-teaching staff (FeMale)	9	10	9	10	9	9

B. Contractual* Employees (Faculty and Staff):

Items	2021-22		2020-21		2019-20	
	MIN	MAX	MIN	MAX	MIN	MAX
Faculty in Engineering (Male)	4	4	0	0	1	1
Faculty in Engineering (Female)	1	1	2	2	3	3
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	2021-22	2020-21	2019-20
Total no. of Boys	2312	2342	2075
Total no. of Girls	718	770	740
Total	**3030**	**3112**	**2815**

Engineering and Technology- PG Shift-1

Items	2021-22	2020-21	2019-20
Total no. of Boys	45	50	48
Total no. of Girls	28	27	21
Total	**73**	**77**	**69**

11 Vision of the Institution:

Service to Society through quality education

12 Mission of the Institution:

1) Generation of national wealth through education and research.

2) Imparting quality technical education at the cost affordable to all strata of the Society.

3) Enhancing the quality of life through sustainable development.

4) Carrying out high quality intellectual work.

5) Achieving the distinction of highest preferred Engineering College in the eyes of the stake holders.

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

Head of the Institution	
Name	Dr Dattatraya Shankar Bormane
Designation	Principal
Mobile No.	9850282286
Email ID	principal@aissmscoe.com

NBA Coordinator, If Designated

Name	Dr Mangesh Ravindra Phate
Designation	Professor in Mechanical Engineering
Mobile No.	7058816968
Email ID	mrphate@aissmscoe.com

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	113.00
3	COURSE OUTCOMES AND PROGRAM OUTCOMES	120	110.00
4	STUDENTS' PERFORMANCE	150	108.58
5	FACULTY INFORMATION AND CONTRIBUTIONS	200	148.93
6	FACILITIES AND TECHNICAL SUPPORT	80	70.00
7	CONTINUOUS IMPROVEMENT	50	44.00
8	FIRST YEAR ACADEMICS	50	42.37
9	STUDENT SUPPORT SYSTEMS	50	50.00
10	GOVERNANCE, INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120	120.00
	Total	**1000**	**867**

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	Service to Society through quality education
Mission of the institute	1) Generation of national wealth through education and research. 2) Imparting quality technical education at the cost affordable to all strata of the Society. 3) Enhancing the quality of life through sustainable development. 4) Carrying out high quality intellectual work. 5) Achieving the distinction of highest preferred Engineering College in the eyes of the stake holders.
Vision of the Department	To be recognized as a premier centre in the field of Mechanical Engineering Education
Mission of the Department	

Mission No.	Mission Statements
M1	To strive continuously for an advancement of academics and lifelong learning through effective teaching learning process.
M2	To strengthen industry-institute interface, association with professional societies to develop leadership, team work and industry oriented attributes through internship.
M3	To develop skill based mechanical engineering professionals for sustainable development through project based learning and active research

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

Total Marks 5.00

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Engage in designing, planning, manufacturing, testing, and developing products and processes in the field of mechanical and allied engineering industries.
PEO2	Work effectively as an individual and as team member in an organization.
PEO3	Meet global expectations of higher studies, research and changing professional needs.
PEO4	Engage in lifelong learning, career enhancement and respond to the demands of society for sustainable development.

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

Total Marks 10.00

Institute Marks : 10.00

The Vision, mission and PEOs are published and disseminated for internal stake holders (Students, Faculty members, Management and Governing council members) and External stake holders (Parents, Employers, Industry persons, Professional bodies and Alumni) at various locations through various modes and occasions. Modes of publication and dissemination are shown in Tables B 1.3a and B 1.3b.

Publishing mode of Vision Mission and PEOs

	Level	Sr. No.	Medium of Publishing	Stake holders	
Vision Mission PEOs				Internal	External

	Institute	1	The Institute website www.aissmscoe.com (http://www.aissmscoe.com/)	•	•
		2	Admission brochure	•	•
		3	Administrative office	•	•
		4	Administrative notice board	•	•
		5	Conference room, seminar hall, CITP	•	•
		6	Annual Magazine	•	•
		7	Library	•	•
		8	HOD Office, Seminar Hall	•	•
	Department	1	Institute website - Departments	•	•
		2	Department notice board	•	•
		3	Laboratory and Lab. manuals	•	•
		4	Faulty course file	•	•
		5	Department corridors	•	•
		6	HOD office, Seminar Hall	•	•

Table B1.3a Publication Medium

Dissemination of Vision Mission and PEOs

	Level	Sr. N0.	Method of Dissemination	Stake holders	
				Internal	External
Vision Mission PEOs	Institute and Department	1	Induction programs	•	•
		2	Parent Teacher Meetings	•	•
		3	Alumni Meet	•	•
		4	IQAC meetings	•	•
		5	Industry-Institute Meet	•	•
		6	Conferences organized	•	•
		7	Student Chapter activities	•	•
		8	Professional Body activities	•	•
		9	Letters to stakeholders by faculty members	•	•
		10	Syllabus implementation workshops	•	•
		11	E-mail correspondence	•	•

Table B 1.3b Dissemination Method

An example of dissemination of Vision Mission statement is shown in Figure B 1.3a, B 1.3b. Figure B 1.3a depicts the dissemination of vision, mission statement through an online meeting held with Department advisory Board members and faculty members of the department. Department vision mission statements are also disseminated through the flyers circulated of various programs amongst students and faculty community.

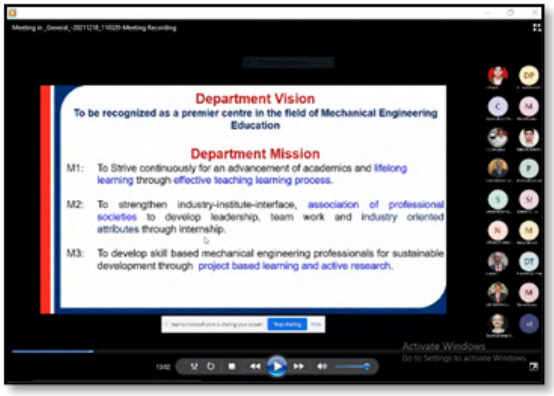


Figure B1.3a Dissemination of Department Vision-Mission during DAB meeting held through online mode

Figure B 1.3b Dissemination of Department vision through Flyers

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

Process for defining the Vision and Mission of the Department

The process of redefining department vision and mission starts from Institute Vision and Mission statement and inputs from previous accreditation visit. The vision and mission statements of the Mechanical Engineering Department were redefined based on the inputs and feedback from internal stakeholders associated with institute / department such as students, faculty, and alumni as well as from external stake holders such as parents, industry, professional bodies etc. Based on suggestion and inputs from stakeholders, a draft is prepared by the department. Brainstorming sessions were conducted to check consistency of department Vision Mission statements with Institute Vision Mission Statement.

In departmental meetings, the department Vision and Mission statements were reviewed considering current industry need and inputs from stakeholders. Guidance was sought from Department Advisory Board (DAB). Finally, the department vision and mission statements are communicated to Internal Quality Assurance Cell (IQAC) and Head of the Institute for review and approval. The vision and Mission of Department are published and disseminated to various stake holders. The figure B1.4a depicts the process of establishing Department vision and mission.

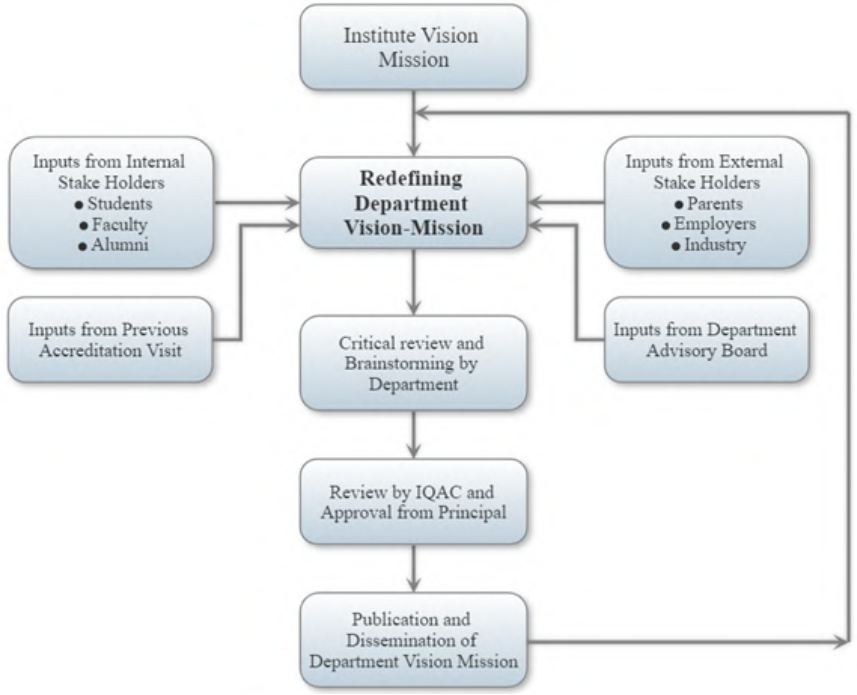


Figure B1.4a Process of establishing Department Vision and Mission

Process for defining PEO's of the program

The figure B1.4b depicts the process of establishing Department PEOs.

· The process of establishing PEO is based on program outcomes stated by NBA in conjunction with Vision and Mission of Institute.

· Program Educational Objectives are established keeping the view of satisfaction of stakeholders, through the consultation process with stakeholders.

· The suggestion, feedback from Alumni, parents, employers pertaining to professional, carrier accomplishment, and attainment of program outcomes are obtained in formulating the PEOs.

· Based on views collected from brainstorming sessions PEOs are reviewed and evaluated by IQAC.

· Consistency of PEOs with the vision and Mission statements of the department is checked and verified.

· Approved PEOs are established and disseminated to various stake holders.

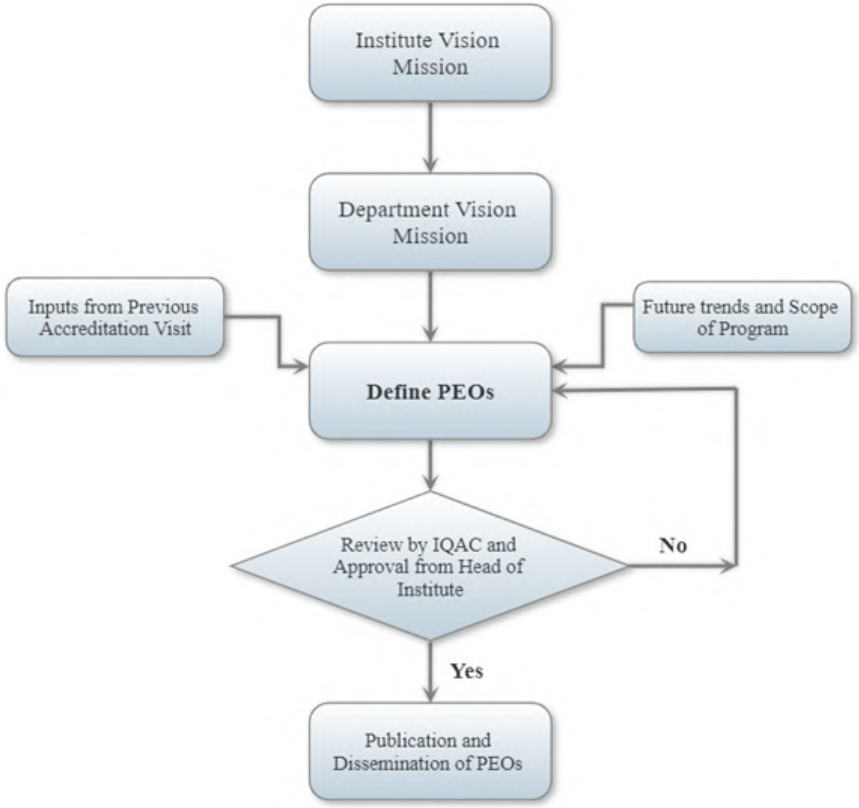


Figure B 1.4b Process of establishing Department PEOs.

Figure B1.4c depicts the dissemination of program education objectives through online meeting held with Department advisory Board members and faculty members of the department.

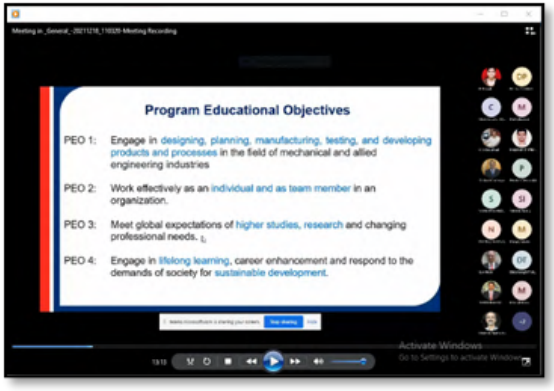


Figure B 1.4c Dissemination of Program Educational Objectives through DAB meeting held through online mode

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

Total Marks 15.00

Institute Marks : 15.00

Consistency of Co-Relation Parameters of the Matrix

The consistency of PEOs and mission statements of the department are shown in the table given below: The consistency is rated on the scale of 3-2-1. 3 being the Substantial, 2 moderate and 1 slight.

PEO 1: Substantially consistent with M1 and M3 and moderately consistent with M2

- Curriculum of the program consists of sufficient number of courses related to design manufacturing, planning and product development.
- There is an effective mechanism for the conduction of teaching learning processes, academic audit and student's feedback.
- Guest lectures from industry in the field of mechanical and allied engineering industries are being organized on regular basis.
- Conduction of co-curricular activities such as Paper presentation, Technical quiz, and design competitions through student chapters /clubs helps to develop skill based mechanical engineering professionals.
- Industry oriented attributes are developed through industrial visits, internships, industry sponsored projects and project based learning.
- Leadership and Teamwork is developed through extracurricular activities such as sports/cultural and NSS unit of the institute.

PEO 2: Substantially consistent with M2 and M3 and moderately consistent with M1

- Industry sponsored projects, industry internships, active participation in various activities under student chapters/clubs, Engineering Today, NSS team develops skill among students to function effectively as an individual and a team member or leader in diversified groups.
- Platform provided through active student chapters such as SAE, IE(I), FPSI, SESI, ISHRAE, TRIZ and MESA.

PEO 3: Moderately consistent with Mission M1, M2 and M3

- Opportunities for students to work on real life industrial projects, research projects.
- Support to student for preparation of higher studies in India and abroad, competitive examinations (GATE).
- Develop holistic approach through soft skill training.
- Interaction with alumni for higher study abroad
- Organization of webinars and seminars on opportunities for higher studies in abroad.

PEO4: Substantially consistent with M2 and M3 and slightly consistent with M1.

- Exposure to advanced tools and recent trends in industry through internship, webinars, seminars and through participation of students in various intercollegiate competitions organized by various professional bodies.
- Courses highlighting the importance of sustainable development.
- Organization of extension lectures on Stress management, Universal values and ethics, Motivational Talks etc., solving societal problems from end-to-end extension activities through NSS.
- Platforms available for student to interact with Alumni and entrepreneurs.
- Counselling and mentoring of students through defined mechanism (mentor – mentee system).

PEO Statements	M1	M2	M3
Engage in designing, planning, manufacturing, testing, and developing products and processes in the field of mechanical and allied engineering industries.	3	2	3
Work effectively as an individual and as team member in an organization.	2	3	3
Meet global expectations of higher studies, research and changing professional needs.	2	2	2
Engage in lifelong learning, career enhancement and respond to the demands of society for sustainable development.	1	3	3

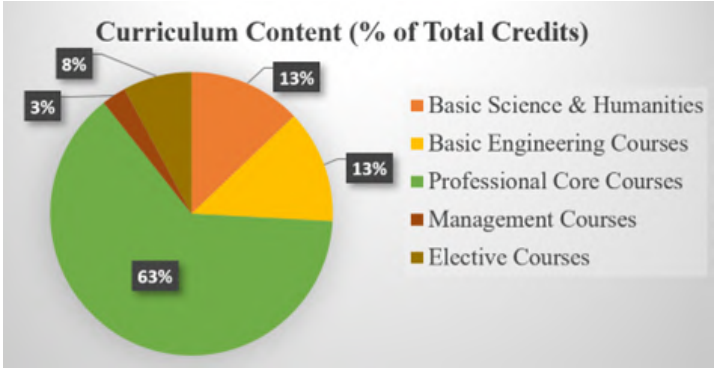
2 PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES (120) Total Marks 113.00

2.1 Program Curriculum (20) Total Marks 18.00

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

AISSMS COLLEGE OF ENGINEERING, Pune is affiliated with Savitribai Phule Pune University (SPPU). So our Program Curriculum is as per pattern and syllabus of affiliated university. The program curriculum is categorized into various streams like Basic sciences, Basic engineering courses, Professional core courses, Management & humanities and Elective courses. Various streams of program curriculum is as shown in Table below

Sr. No.	Streams	Contribution of Curriculum content (%)	Total Credits
1	Basic Sciences & Humanities	13	23
2	Basic Engineering Courses	13	23
3	Professional Core Courses	64	113
4	Management Courses	3	5
5	Elective Courses	7	14



University Curriculum

Savitribai Phule Pune University
Faculty of Science & Technology

Curriculum/Syllabus
for
Second Year
Bachelor of Engineering
(Choice Based Credit System)
Mechanical Engineering and Automobile Engineering
(2019 Course)

Board of Studies - Automobile and Mechanical Engineering
(With Effect from Academic Year 2020-21)

Savitribai Phule Pune University
Board of Studies - Automobile and Mechanical Engineering
Undergraduate Program - Automobile Engineering & Mechanical Engineering (2019 pattern)

Course Code	Course Name	Teaching Scheme (Hours/ Week)			Examination Scheme and Marks						Credit			
		TH	PR	TUT	ISE	ESE	TW	PR	OR	TOTAL	TH	PR	TUT	TOTAL
Semester-III														
202041	Solid Mechanics	4	2	-	30	70	-	50	-	150	4	1	-	5
202042	Solid Modeling and Drafting	3	2	-	30	70	-	50	-	150	3	1	-	4
202043	Engineering Thermodynamics	3	2	-	30	70	-	-	25	125	3	1	-	4
202044	Engineering Materials and Metallurgy	3	2	-	30	70	25	-	-	125	3	1	-	4
203156	Electrical and Electronics Engineering	3	2	-	30	70	25	-	-	125	3	1	-	4
202045	Geometric Dimensioning and Tolerancing Lab	-	2	-	-	-	25	-	-	25	-	1	-	1
202046	Audit Course - III	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**16**	**12**	**-**	**150**	**350**	**75**	**100**	**25**	**700**	**16**	**6**	**-**	**22**
Semester-IV														
207002	Engineering Mathematics - III	3	-	1	30	70	25	-	-	125	3	-	1	4
202047	Kinematics of Machinery	3	2	-	30	70	-	-	25	125	3	1	-	4
202048	Applied Thermodynamics	3	2	-	30	70	-	-	25	125	3	1	-	4
202049	Fluid Mechanics	3	2	-	30	70	-	-	25	125	3	1	-	4
202050	Manufacturing Processes	3	-	-	30	70	-	-	-	100	3	-	-	3
202051	Machine Shop	-	2	-	-	-	50	-	-	50	-	1	-	1
202052	Project Based Learning - II	-	4	-	-	-	50	-	-	50	-	2		2
202053	Audit Course - IV	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**15**	**12**	**1**	**150**	**350**	**125**	**-**	**75**	**700**	**15**	**6**	**1**	**22**

Abbreviations: TH: Theory, **PR**: Practical, **TUT**: Tutorial, **ISE**: In-Semester Exam, **ESE**: End-Semester Exam,**TW**: Term Work, OR: Oral

Note: Interested students of SE (Automobile Engineering and Mechanical Engineering) can opt for any one of the audit course from the list of audit courses prescribed by BoS (Automobile and Mechanical Engineering)

Instructions

- Practical/Tutorial must be conducted in three batches per division only.
- Minimum number of required Experiments/Assignments in PR/ Tutorial shall be carried out as mentioned in the syllabi of respective subjects.
- Assessment of tutorial work has to be carried out as a term-work examination. Term-work Examination at second year of engineering course shall be internal continuous assessment only.
- Project based learning (PBL) requires continuous mentoring by faculty throughout the semester for successful completion of the tasks selected by the students per batch. While assigning the teaching workload of 2 Hrs/week/batch needs to be considered for the faculty involved. The Batch needs to be divided into sub-groups of 5 to 6 students. Assignments / activities / models/ projects etc. under project based learning is carried throughout semester and Credit for PBL has to be awarded on the basis of internal continuous assessment and evaluation at the end of semester.
- Audit course is mandatory but non-credit course. Examination has to be conducted at the end of Semesters for award of grade at institute level. Grade awarded for audit course shall not be calculated for grade point & CGPA.

Savitribai Phule Pune University

B. E. (Mechanical) (2015 Course) Semester – I

Code	Subject	Teaching Scheme Hrs / week			Examination Scheme					Total Marks	Credits	
		Lecture	Tut	Pract	In Sem	End Sem	TW	PR	OR		Theory	TW/ Pr/OR
402041	Hydraulics and Pneumatics	3	-	2	30	70	25	-	25	150	3	1
402042	CAD CAM Automation	3	-	2	30	70	25	50	-	175	3	1
402043	Dynamics of Machinery	4	-	2	30	70	25	-	25	150	4	1
402044	Elective-I	3	-	2	30	70	25	-	-	125	3	1
402045	Elective-II	3	-	-	30	70	-	-	-	100	3	-
402046	Project-I	-	-	4	-	-	25	-	25	50	-	2
Total		16	-	12	150	350	125	50	75	750	16	6
											22	

B. E. (Mechanical) (2015 Course) Semester – II

Code	Subject	Teaching Scheme Hrs / week			Examination Scheme					Total Marks	Credits	
		Lecture	Tut	Pract	In Sem	End Sem	TW	PR	OR		Theory	TW/ Pr/OR
402047	Energy Engineering	3	-	2	30	70	25	-	25	150	3	1
402048	Mechanical System Design	4	-	2	30 (1.5 Hrs)	70 (3 Hrs)	25	-	50	175	4	1
402049	Elective-III	3	-	2	30	70	25	-	-	125	3	1
402050	Elective-IV	3	-	-	30	70	-	-	-	100	3	-
402051	Project-II	-	-	12	-	-	100	-	100	200	-	6
Total		13	-	18	120	280	175	-	175	750	13	9
											22	

Elective – I		Elective – II	
Code	Subject	Code	Subject
402044 A	Finite Element Analysis	402045 A	Automobile Engineering
402044 B	Computational Fluid Dynamics	402045 B	Operation Research
402044 C	Heating Ventilation and Air Conditioning	402045 C	Energy Audit and Management
		402045 D	Open Elective**

Elective – III		Elective – IV	
402049 A	Tribology	402050 A	Advanced Manufacturing Processes
402049 B	Industrial Engineering	402050 B	Solar & Wind Energy
402049 C	Robotics	402050 C	Product Design and Development
		402050 D	Open Elective**

The Process used to identify the extent of compliance of the University curriculum for attaining the Program Outcomes (POs) and Program Specific Outcomes (PSOs) is explained in **Figure B2.1.1**

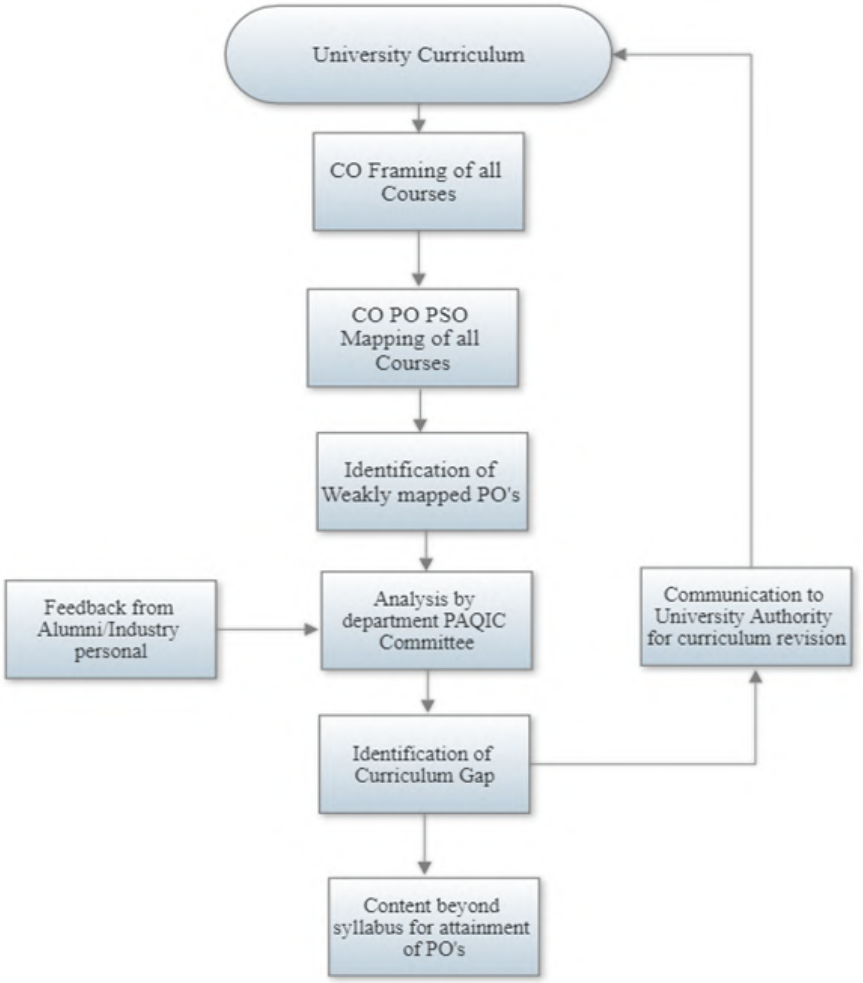


Figure B2.1.1 ***Process used to identify the extent of compliance of the University curriculum for attaining the Program Outcomes (POs) and Program Specific Outcomes (PSOs)***

Content needed to improve average attainment level of particular Program Outcomes (PO's) and Program Specific Outcomes (PSO's) is identified as Curriculum Gap and this gap is bridge by imparting appropriate additional knowledge by including content beyond syllabus in collaboration Exhibits/Context to be Observed/Assessed:

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

Curriculum Gap identified in the CAYm1(2020-21)

Sr. No.	Curriculum Gap
1	Ability to maintain engineering activity within time and budget
2	Understanding of professional engineering regulations legislations and standards
3	Awareness about professional ethics and norms of the engineering practice

4	Understanding of engineering role in broader context

Curriculum Gap identified in the CAYm2(2019-20)

Sr. No.	Curriculum Gap
1	Awareness about advances in Robotics & Automation
2	Knowledge of dynamic analysis
3	Awareness about artificial intelligence
4	Knowledge about impact of energy on environment

Curriculum Gap identified in the CAYm3(2018-19)

Sr. No.	Curriculum Gap
1	Awareness about scope of design engineer in industry
2	Knowledge about product design and development
3	Awareness about advances in industry
4	Knowledge about advance computational tools

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

Institute Marks : 8.00

Additional resources to impart content beyond syllabus for attainment of POs and PSOs are as follows:

- Industrial Visits
- Additional laboratory experiments
- Soft skills
- Workshops/Conferences

Email was sent to higher authorities of university to include identified curriculum gaps in the next curriculum revision. Email was sent to include following courses in the curriculum.

1. Innovation and IP rights
2. Startup & Entrepreneurship
3. Industrial Economics

And as per request, elective subject **Engineering Economics and Financial Management** is included in the **revised curriculum of BE(Mechanical).**

2020-21

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Ability to maintain engineering activity within time and budget	Industry Expert Lecture on Production Planning and Control	19/03/2021	Mr. Rohit Kshirsagar Asst Manager Kirloskar Brothers Ltd Pune	85	PO6, PO8, PO10, PSO2
2	Understanding of professional engineering regulations legislations and standards	Seminar on Industry 4.0	18/03/2021	Mr. Vaibhav Khude Project Engineer 3D Guru Innovation Pvt Ltd. Pun	89	PO6,PO8,PSO1
3	Ability to maintain engineering activity within time and budget	Industry Expert Lecture on Production Planning and Control	19/03/2021	Mr. Rohit Kshirsagar Asst Manager Kirloskar Brothers Ltd Pune	90	PO8, PO11, PSO2
4	Understanding of professional engineering regulations legislations and standards	Seminar on Industry 4.0	18/03/2021	Mr. Vaibhav Khude Project Engineer 3D Guru Innovation Pvt Ltd. Pune	90	PO6, PO8, PSO2

2019-20

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Knowledge of dynamic analysis	Arranged expert lecture on “Fundamentals of Dynamic Analysis”	15/10/2019	Mr. Nitin Badhe, Sr. Technical Specialist- Global NVH, ALTAIR INDIA Pvt Ltd, Pune	86	PO4, PO5, PO12, PSO1
2	Knowledge about impact of energy on environment	Arranged expert lecture on “Energy and Environment	04/10/2019	Dr Prasad Khandagale, R & D Head, Henkel, Pune	90	PO6, PO7, PSO3
3	Awareness about advances in Robotics & Automation	Arranged expert lecture on “Role and Effect on Industries of Robotics and Automation in coming years	03/10/2019	Gautam Doshi, Advisor, Indian Machine Tool Manufacturers' Association (IMTMA)	92	PO5,PO6, PSO2
4	Awareness about artificial intelligence	Arranged expert lecture on “How to Enter in Artificial Intelligence”	01/10/2019	Mr. Ajit Deshpande (Advanced Analytics, FinTech)	90	PO4, PO5, PO10

2018-19

S.No	Gap	Action Taken	Date-Month-Year	Resource Person with Designation	% of students	Relevance to POs, PSOs
1	Awareness about scope of design engineer in industry	Industry expert’s talk on “Career opportunities in Designing”	27/02/2019	Mr. Sunder Assistant Manager DQ Labs	89	PO3, PO6, PO12
2	Knowledge about product design and development	Expert lecture on “Product Design and	4/2/2019	Mr. Sagar Mane, Tata Motors Pune	90	PO5, PO6, PO7, PO12
3	Awareness about advances in industry.	Expert lecture on “Industry 4.0 and Design Thinking	5/10/2018	Dr. Krishnaswami Srihari , Dean of The Thomas J. Watson School of engineering and Applied Science Binghamton University, New York	86	PO1, PO12, PSO2
4	Knowledge about advance computational tools	Arranged expert lecture on “Applications of CFD in Heat transfer analysis”	25/9/2018	Mr Anil Samale, Technical Leader – Aero-Thermo Group, Dresser Rand	92	PO4,PO5, PSO1

2.2 Teaching - Learning Processes (100) Total Marks 95.00

2.2.1 Describe processes followed to improve quality of Teaching & Learning (25) Institute Marks : 25.00

Our institute is affiliated with Savitribai Phule Pune University (SPPU). Institute is following the teaching-learning as per the university guideline. To strengthen teaching-learning process, institute and department believe that outcome-based education (OBE) is important to identify the strength and weaknesses and to decide the plan for continuous improvement. This process helps us to identify our strengths and weakness and attain proficiency in the teaching-learning process.

For assessment of teaching-learning process, department use direct and indirect tools. The direct assessment of each outcome is through internal and external tools. Some indirect tools are also used for the assessment. The indirect tools provide valuable insights and feedback on students views of what they are learning.

Organization structure of academic monitoring committee is as shown in **Figure B2.2.1a**

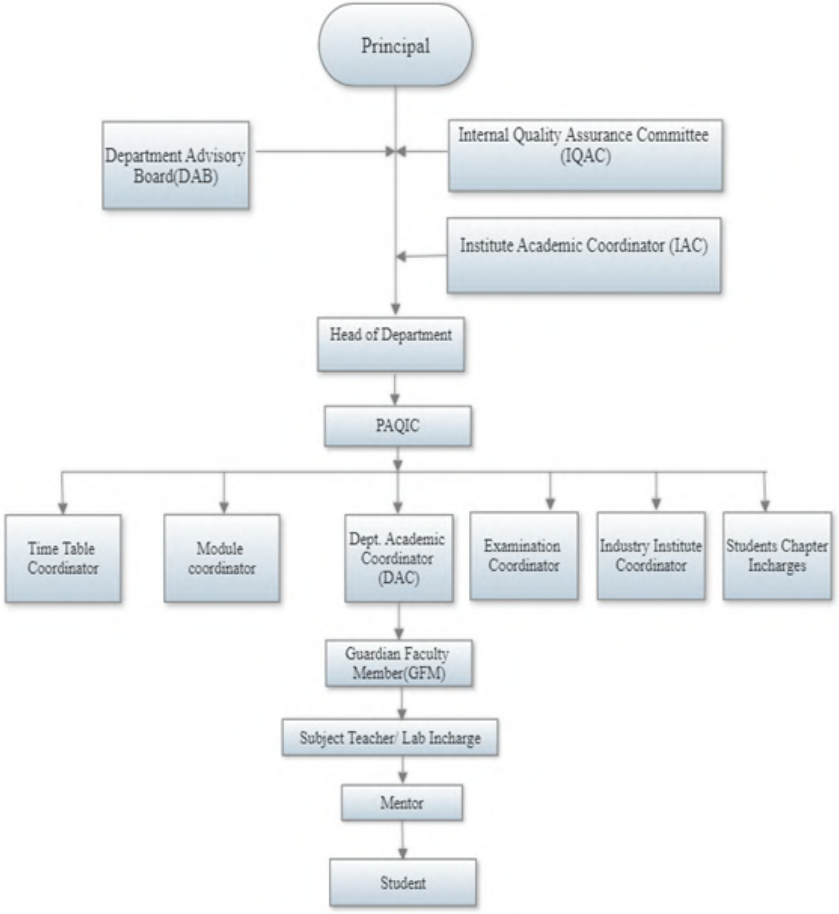


Figure B2.2.1a Organization structure of academic monitoring committee

The Institute Academic Coordinator (IAC) in consultation with Principal and Heads of Department will form an Academic Monitoring Committee comprising of Heads of all departments (HOD) and Department Academic Coordinators (DAC). IQAC will provide guidelines to department coordinators and collect information from departmental coordinators and convey it to the Principal for corrective measures, if required. AMC will prepare Academic Calendar and submit the same to Principal for approval and same is to be forwarded to all the departments at least 15 days before commencement of semester. In consultation with Principal and the Heads of Departments, DAC should collect the following information for smooth conduction of academics.

A. Adherence to Academic Calendar

Institutional calendar has been prepared and aligned with university academic calendar. In addition to events proposed by the university in academic calendar, Institute has introduced many other events which are useful in overall development of the students. For example, events like **AISSMS ENGINEERING Today**, **Ashwamedh** and **Shivanjali** are part of our academic calendar. These events are planned to develop co-curricular and extra-curricular skill sets of students, which is necessary for overall development of our students. Department academic calendar is prepared in line with university and Institute academic calendar. Following activities are included in department academic calendar:

- Time table display
- Elective choices
- Project group formation and allotment of guides
- Commencement of term
- Class tests
- Assignments
- Students feedback
- Industrial Visits
- Internships
- Expert lectures
- Conclusion of term

University Academic Calendar

Savitribai Phule Pune University
(Formerly University of Pune)

Circular No. 134 of 2021

Important Notification

Dates of Commencement and Conclusion of terms of U.G. / P.G. Courses for the Academic Year 2021-22 For affiliated Colleges/recognised Institutes.

It is hereby informed that, the dates of Commencement and conclusion of terms of U.G. / P.G. Courses for the Academic Year 2021-2022, under various faculties shall be as under :

The date of Commencement and Conclusion of the academic session of the first year of all those courses whose admission was made/ will be made under Common Entrance Examination (CET) conducted by the Government/SPPU will be announced seperatly.

Sr. No.	Name of the Faculty	Name of the Courses	Year	2021 - 2022			
				First Term		Second Term	
				Commencement	Conclusion	Commencement	Conclusion
1	Science & Technology	Science	I, III	15/06/2021	20/10/2021	15/11/2021	30/04/2022
			II	01/07/2021	20/10/2021	15/11/2021	30/04/2022
		Engineering	TE, BE	15/06/2021	20/10/2021	15/11/2021	30/04/2022
			SE	20/08/2021	12/11/2021	03/01/2022	15/05/2022
		ME, MCA	II	20/08/2021	12/11/2021	03/01/2022	15/05/2022
		B.Architecture	III, IV & V	15/06/2021	20/10/2021	15/11/2021	30/04/2022
			II	20/08/2021	12/11/2021	03/01/2022	15/05/2022
		M. Architecture	II	20/08/2021	12/11/2021	03/01/2022	15/05/2022
		B. Pharmacy	III & IV	15/06/2021	20/10/2021	15/11/2021	30/04/2022
			II	20/08/2021	12/11/2021	03/01/2022	15/05/2022
		M. Pharmacy	II	20/08/2021	12/11/2021	03/01/2022	15/05/2022
2	Commerce & Management	Commerce	I, III	15/06/2021	20/10/2021	15/11/2021	30/04/2022
			II	01/07/2021	20/10/2021	15/11/2021	30/04/2022
		Management	II	15/11/2021	03/03/2022	11/03/2022	30/06/2022

Sr. No.	Name of the Faculty	Name of the Courses	Year	2021 - 2022			
				First Term		Second Term	
				Commencement	Conclusion	Commencement	Conclusion
3	Humanities	Arts & Fine Arts	I, III	15/06/2021	20/10/2021	15/11/2021	30/04/2022
			II	01/07/2021	20/10/2021	15/11/2021	30/04/2022
		Mental,Moral and Social Sciences	I, III	15/06/2021	20/10/2021	15/11/2021	30/04/2022
			II	01/07/2021	20/10/2021	15/11/2021	30/04/2022
		Law : UG & PG	III, IV & V	01/07/2021	11/12/2021	01/01/2022	20/05/2022
		B.A. LL.B. 5 Yrs	II	11/10/2021	31/01/2022	05/2/2022	31/05/2022
		LL.B. 3 Years	II	11/10/2021	31/01/2022	05/2/2022	31/05/2022
4	Inter-disciplinary Studies	Education (B.Ed.)	II	15/09/2021	06/01/2022	17/01/2022	10/05/2022
		Education (M.Ed.)	II	15/09/2021	06/01/2022	17/01/2022	10/05/2022
		Physical Education (B.P.Ed.)	II	15/09/2021	06/01/2022	17/01/2022	10/05/2022
		Physical Education (M.P.Ed.)	II	15/09/2021	06/01/2022	17/01/2022	10/05/2022

NOTE

1. In view of prevailing COVID-19 situation in the Country, Colleges / Institutes shall required to follow the guidelines / instructions issued by the Government of Maharashtra time to time.
2. In case the Principal of the Affiliated Colleges require to give additional holiday in exceptional circumstances, he may do by the compensative the same by keeping the college working on Sunday.
3. The college are required to complete the theory and practical remaining syllabus of current term of academic year 2020-21.

14/5/2021.

Uttam R. Chavan
Deputy Registrar
(P.G.Admission)

Ganeshkhind, Pune-07
Ref. No. PGS/ 1961
Date: 14/05/2021

Copy to:
The Heads of all University Departments, Savitribai Phule Pune University, Pune.
The Principals of all Affiliated Colleges, Savitribai Phule Pune University, Pune.
The Directors of all Recognized Institutes, Savitribai Phule Pune University, Pune.

Copy to: for information
The Members of the Management Council , Savitribai Phule Pune University, Pune.
The Registrar, Savitribai Phule Pune University, Pune.
The Deans of Faculties, Savitribai Phule Pune University, Pune.
The Director, Examinations & Evaluation, Savitribai Phule Pune University, Pune.

Institute Academic Calendar

All India Shri Shivaji Memorial Society's
College of Engineering Pune-01
ACADEMIC CALENDAR 2020-21 TERM I

ACADEMIC ACTIVITIES

SN	Activity	Year/Class	Dates
1	Notice	Time Table	08/06/2020
		Roll Call List	
		Elective Confirmation List	
		Seminar List	
		Project List	
2	Principal Address to Faculty Members	All Faculty Members	15/06/2020
3	Commencement of Teaching	SE,TE,BE	15/06/2020
		ME-II	01/07/2020
		FE	As per MHT Cell
4	Weekly Academic Report	FE,SE,TE,BE	After every 07 days (starting from commencement of teaching)
5	Mid term test/In-semester/Online/End term Test	SE TE and BE Mid Term exam	Each Faculty Member Conduct Class Test after Completion of Unit (Minium 6 Class Test)
		FE,SE,TE,BE	As per the University Schedule
6	Assignment	FE,SE,TE,BE	Each Faculty Member Shoild provide Assignment after Completion of two Units (Minium 3 Assignment)
7	BE and ME Project Evaluation	BE & ME Students	Department Should Conduct Minimum 3 Preentation during the term
8	Students Feedback	FE,SE,TE,BE	Department should conduct minimum 2 Feedback during the term
9	Completion of Term Work	SE,TE,BE	23/11/2020 to 27/11/2020
		ME II	07/12/2020 to 11/12/2020
		FE	First Week of April 2021
10	Conclusion of Term	SE,TE,BE	05/12/2020
		ME-II	24/12/2020
11	Oral/ Practical examination	SE,TE,BE	As per the University Schedule
		ME II	As per the University Schedule
12	Theory Exam	SE, TE, BE	As per the University Schedule
		ME II	As per the University Schedule
		FE	As per the University Schedule
13	Commencement of Second Term of Academic Year 2020-21	SE,TE,BE	01/01/2021
		FE, ME I, II	19/01/2021

Two Department Meetings with Principal will be conducted in the month of August and November

HOD Meeting with Principal	Every Thursday
NAAC/NBA Meeting	Every Tuesday
ADC	First and Third Monday of Every Month
CDC and GC	August, November, February and April/ May
Purchase Meeing	Last Week of April
Staff Selection Meeting	Last Week of May
Principal Meeting with all Non Teaching Staff and Supportir	Once in Term
Principal Meeting with CITP	Once in Term

PRINCIPAL
AISSMSCOE, PUNE

Department Academic Calendar

All India Shri Shivaji Memorial Society's
College of Engineering Pune-01
ACADEMIC CALENDAR 2020-21 TERM I

Department of Mechanical Engineering

SN	Activity	Year/Class	Dates
		Time Table	

1	Display of Notices	Roll Call List Elective Confirmation List Seminar List Project List and Guide allocation	29/06/2020
2	Principal Address to Faculty Members	All Faculty Members	03/07/2020
3	Commencement of Teaching	SE,TE,BE	06/07/2020
		ME-II	20/07/2020
5	Students Feedback	First	07/09/2020 to 11/09/2020
		Second	09/11/2020 to 13/11/2020
6	BE Project Evaluation	BE Students	24/08/2020 to 28/08/2020 21/09/2020 to 25/09/2020 26/10/2020 to 30/10/2020
7	ME Project Evaluation	ME Students	07/09/2020 to 11/09/2020 12/10/2020 to 16/10/2020 20/11/2020 to 30/10/2020
9	Mid term test/In-semester/Online/End term Test	SE TE and BE Mid Term exam	10/08/2020 to 14/08/2020 14/09/2020 to 18/09/2020 19/10/2020 to 23/10/2020
		SE,TE, BE Insem exam	As per the University Schedule
10	Submission of attainment sheets of subjects	All Faculty Members	within week after decleration of university result
11	Course File Checking (Term I Subjects)	All Faculty Members	In the Month of October
12	Completion of Term Work	SE,TE,BE	02/11/2020 to 06/11/2020
		ME II	16/11/2020 to 20/11/2020
14	Conclusion of Term	SE,TE,BE	13/11/2020
		ME-II	27/11/2020
15	Submission of Faculty Presentation Report in soft copy	All Faculty Members	15/11/2020
16	Oral/ Practical examination	SE,TE,BE	16/11/2020 to 04/12/2020
		ME II	30/11/2020 to 10/12/2020
17	Theory Exam	SE, TE, BE	14/12/2020 to 08/01/2021
		ME II	28/12/2020 to 15/01/2021
18	Commencement of Second Term of Academic Year 2020-21	SE,TE,BE	18/1/2021 (Tentative)
		ME I, II	01/02/2021

Two Depertment Meetings with Principal will be conducted in the month of August and September	
HOD Meeting with Principal	Every Thursday
NAAC/NBA Meeting	Every Tuesday
Mentoring .	Every Tuesday
Department meeting	Every Friday
Principal Meeting with all Non Teaching Staff and Supporting Staff	Once in Term
Principal Meeting with CITP	Once in Term

Head of Department

B. Use of Various instructional methods and pedagogical initiatives:

Various instructional methods and pedagogical initiatives are as follows

i. Lecture method and Interactive learning:

The faculty use chalk and board and audio-visual aids in teaching. Students are also encouraged to actually interact during the lecture hour by getting the doubts clarified on the spot. Faculty using models, charts for interactive teaching.

ii. Project-based learning:

During the period of study in the 4th semester, students are introduced with basic concepts of project related activities. In 7 th and 8th semester of program, students work on real world projects and they are guided by both faculty and Industry/Research personnel. Students are motivated to work on interdisciplinary projects.

iii. Computer-assisted learning:

The College has number of computers, printers, LCD projectors, application software's and system software's. These are effectively used for teaching. The students are also encouraged to use these software's for the solution of the assignments and tutorials. Many final year projects are completed through the use of software.

iv. SMART class Room

Faculties are using SMART class room to provide interactive session. Projector is used for demonstration, video (NPTEL), audio of classes.

Following are some additional pedagogical initiatives taken by the department

- Working model/Visual charts/ videos
- Group assignments and projects
- Lab experiments beyond syllabus
- Quizzes (conventional/ Technical)
- Seminars/ presentations
- Group Discussions
- Designing and Problem solving through simulation, etc

C. Methodologies to support academically weak students and encourage bright students

Process to identify academically weak and bright students is as shown in **Figure B2.2.1b.** Course pre-requisite test is conducted at the beginning of semester. Academically weaker students and bright students are identified on basis of the pre-requisite test results.

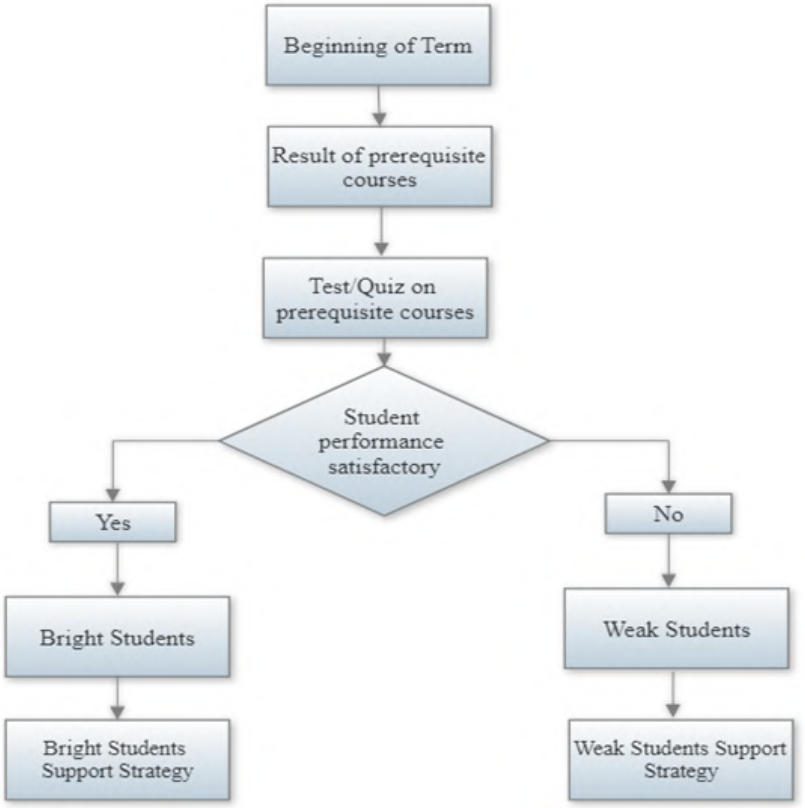


Figure B2.2.1b Process to identify academically weak and bright students

Weak student support strategy:

- Mentors are appointed to enhance the performance of weak student as follows;
- Regular counseling and providing moral support to them.
- Encouraging them towards study through peer tutoring.
- Encouraging them for regular attendance.
- Proper guidance given to weak students through remedial support to clear their backlogs.
- Constant monitoring their performance in internal tests.
- Extra classes arranged for backlog subjects if needed.

Bright student support strategy:

- Bright students are felicitated at department level
- University rankers are felicitated at Institute level in annual function
- Encouraging them to score more marks in the final examination
- Encouraging them to participate in different seminars/conferences organized in other institutes
- Students are encouraged to participate in SUPRA, BAJA, GARUDASHWA and Efficycle team events.

D. Quality of classroom teaching:

Class rooms available in the department are equipped with LCD, Computer with internet connection and conventional black board. Ambience in class rooms is maintained. There is also a dedicated classroom having Smart Board to enhance effective delivery of teaching learning process

E. Conduct of experiments

Laboratory experiments are conducted as per guidelines in the curriculum of affiliated university. Laboratory manuals are maintained in each laboratory. Virtual Labs are used for the available subjects. Additional experiments are conducted to impart additional knowledge through the concept of CONTENT BEYOND SYLLABUS.

F. Continuous Assessment in laboratory

Continues assessment of laboratory work is conducted by concerned course teacher on regular basis. At the end of semester, concerned teacher is expected to submit continues assessment of laboratory work of all students. Department Academic Coordinator along with Module Coordinator conducts academic audit in a semester. Continues assessment of laboratory work is verified in the academic audit.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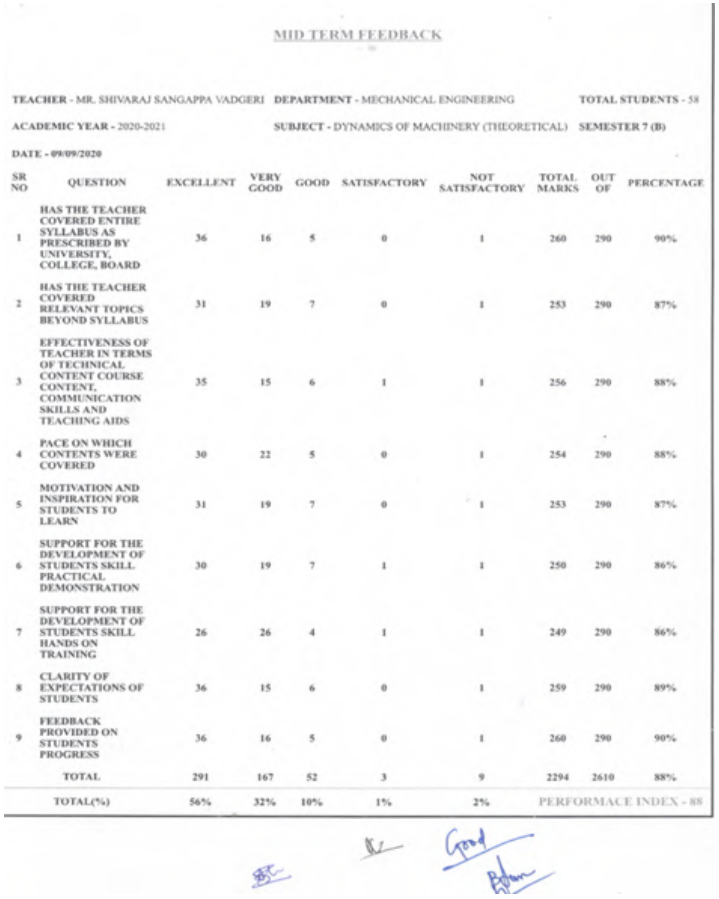
G. Student feedback of teaching learning process and actions taken:

Student feedback is taken twice during the semester on the institute ERP system. All the students are required to fill a feedback-form apprising the faculty using a scale of (Very poor -1 to Excellent -5)

Following actions are taken after continues monitoring of lectures by higher authorities

- Lecture classes are monitored by senior Professors and the HOD of the Department. They give constructive comments to improve the quality of teaching and the teaching- learning process.
- Counseling by the respective HOD for those faculty members who have secured less scores and negative comments, if any, in the feedback. This motivates them to improve their skills and abilities.
- If required training / orientation programs are conducted by professional experts to master the skills of the faculty members in the nuances of teaching, thus improving the efficiency of teaching-learning process.



MID TERM FEEDBACK

TEACHER - MR. SHIVARAJ SANGAPPA VADGERI **DEPARTMENT** - MECHANICAL ENGINEERING **TOTAL STUDENTS** - 58

ACADEMIC YEAR - 2020-2021 **SUBJECT** - DYNAMICS OF MACHINERY (THEORETICAL) **SEMESTER 7 (B)**

DATE - 09/09/2020

SR NO	QUESTION	EXCELLENT	VERY GOOD	GOOD	SATISFACTORY	NOT SATISFACTORY	TOTAL MARKS	OUT OF	PERCENTAGE
1	HAS THE TEACHER COVERED ENTIRE SYLLABUS AS PRESCRIBED BY UNIVERSITY, COLLEGE, BOARD	36	16	5	0	1	260	290	90%
2	HAS THE TEACHER COVERED RELEVANT TOPICS BEYOND SYLLABUS	31	19	7	0	1	253	290	87%
3	EFFECTIVENESS OF TEACHER IN TERMS OF TECHNICAL CONTENT COURSE CONTENT, COMMUNICATION SKILLS AND TEACHING AIDS	35	15	6	1	1	256	290	88%
4	PACE ON WHICH CONTENTS WERE COVERED	30	22	5	0	1	254	290	88%
5	MOTIVATION AND INSPIRATION FOR STUDENTS TO LEARN	31	19	7	0	1	253	290	87%
6	SUPPORT FOR THE DEVELOPMENT OF STUDENTS SKILL PRACTICAL DEMONSTRATION	30	19	7	1	1	250	290	86%
7	SUPPORT FOR THE DEVELOPMENT OF STUDENTS SKILL HANDS ON TRAINING	26	26	4	1	1	249	290	86%
8	CLARITY OF EXPECTATIONS OF STUDENTS	36	15	6	0	1	259	290	89%
9	FEEDBACK PROVIDED ON STUDENTS PROGRESS	36	16	5	0	1	260	290	90%
	TOTAL	291	167	52	3	9	2294	2610	88%
	TOTAL(%)	56%	32%	10%	1%	2%	PERFORMACE INDEX - 88		

Good

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

Institute Marks : 20.00

A. Process for internal semester question paper setting and evaluation and effective process implementation

Process of setting question paper and evaluation is as shown in Figure B2.2.2a

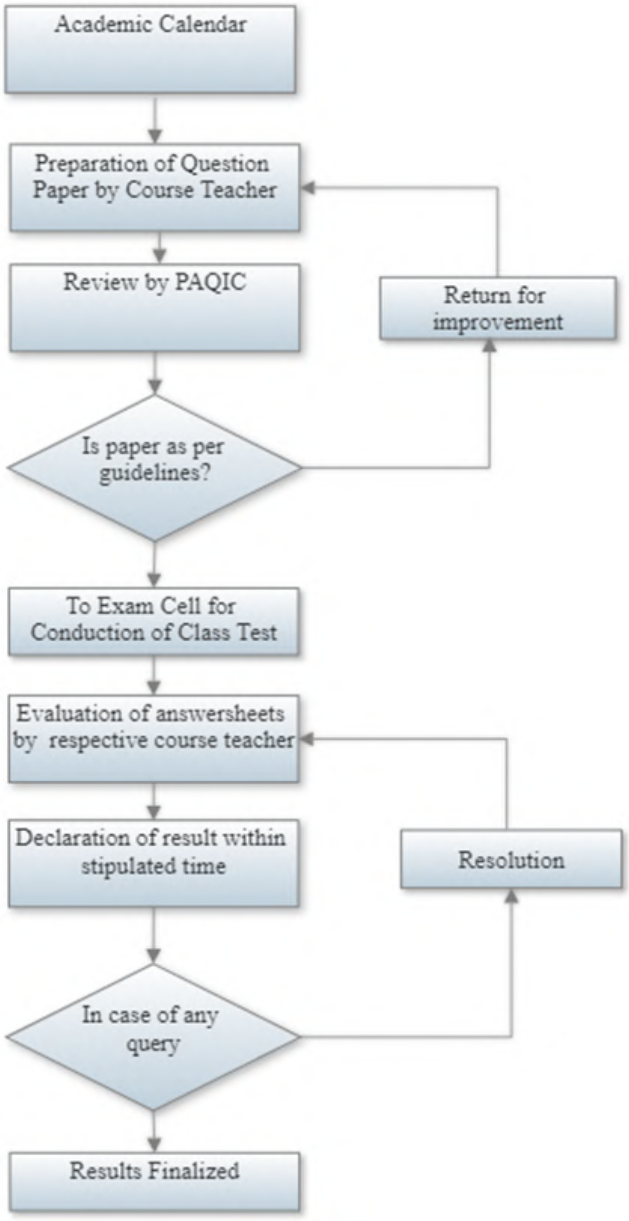


Figure B2.2.2a Process of Setting of question paper, evaluation and effective process implementation by PAQIC

In order to ensure quality of setting internal semester question papers following process is followed

- Guidelines are set for unit test papers as per instructions from Institute level academic coordinator.
- Bloom's taxonomy is followed during question paper setting
- While setting question papers course outcomes are taken into account

- Defining scheme of evaluation for question paper
- Evaluation of answer sheets based on scheme of evaluation
- After assessment answer sheets are given back to students

B. Process to ensure questions from outcomes/learning level perspectives

Each question is mapped with Course Outcomes. Student who answered to particular question is taken into consideration and average of all students' marks is taken for CO-PO attainment.

C. Evidence of COs coverage in class test / mid-term tests

Process of Setting of question paper, evaluation and effective process implementation by PAQIC is as shown in the figure 2.4 In PAQIC meeting Guidelines are set for unit test papers as per instructions from Institute level Academic Coordinator. Blooms Taxonomy & Course outcomes are taken into account. Question paper Format approved by PAQIC is circulated to all course teachers. Question papers for all courses are collected & checked by Module coordinator. In case of some modifications needed, those question papers are reverted back to concerned course teacher for revision.

After approval by Module coordinator question papers are forwarded to HOD for approval. After HOD's Approval Question papers are floated to particular class during examination. Assessment of answer sheets is done by respective course teacher. Result of examination is communicated to students. In case of any query, student contact corresponding course teacher to clarify their doubts

Examination record (Question Paper, Model Answer sheet, Marksheet & Sample sheets) is submitted to Department Examination Coordinator.

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ज्ञानम् सकलजनहिताय
Accredited by NAAC with "A+" Grade

DEPARTMENT OF MECHANICAL ENGINEERING

Class: TE (Mech) **Semester: VI**

Subject: Computer Aided Engineering **Academic Year: 2021-22**

Maximum Marks: 20 **Time: 1 Hour**

UNIT TEST – I

(SET A)

Time: 11.30 AM to 12.30 PM **Date:** 15/03/2022

Instruction for the students:
(i) Assume suitable data if required
(ii) Figures to the right indicate full marks.
(iii) Use of programmable calculator is allowed.
(iv) Write all necessary steps.

CO1	Understand the basic concepts of Computer Aided Engineering (CAE) and Characteristics of Various elements required for the analysis.	
Q.1	**Describe** various discretization methods used in Computer Aided Engineering (CAE)	05 M
Q.2	**Explain** various element shapes used in Computer Aided Engineering (CAE)	05 M
Q.3	**Construct** Pascal triangle for a 2D polynomial shape function with second order.	05 M
Q.4	In a triangular element, the nodes 1, 2 and 3 have Cartesian coordinates (40,50); (150,80) and (90,140) respectively. The temperatures in °C at nodes 1,2 and 3 are 30°C, 50°C and 80°C. Determine the natural coordinates, shape functions and temperature at a point '**P**' inside the element which has Cartesian coordinates (90,100)	05 M
	*********	

Course Coordinator Module Coordinator PAQIC Coordinator Head of Department

D. Quality of Assignment and its relevance to COs

As part of continues improvement in terms of improving teaching performance and better out come from students Assignment questions will be given to students, and evaluate the same and mapping with CO's.

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Assignment – 1
BE Mechanical – A
CAD/CAM and Automation

Course Outcomes

C402042.1	Apply homogeneous transformation matrix for geometrical transformations of 2D CAD entities for basic geometric transformations.
C402042.2	Understand analytical and synthetic curves and surfaces and apply it in part modelling.

1	A Line PQ has coordinates P (5, 5) and Q (5, 105). Find the new coordinates of line if line is transformed to make it horizontal, keeping point P intact.
2	An object is to be rotated about point A(-10,-10) by 90° in counterclockwise direction. Calculate concatenated (CT) transformation matrix.
3	A point P having coordinates (3, 3) is mirrored about X and Y axis (i.e. about origin). Find new coordinates.
9	Line A(5, 5) B(10, 15) is to be rotated about point B by 60° in CCW direct find the new position of point A and B of line.
10	In concatenated transformation why translation matrix to be written in homogeneous form also write translation matrix in homogeneous form.
11	Explain Isometric Projections.
12	What is Inverse Transformations. Discuss with suitable example.
13	Explain need of for mapping of geometric models.
14	Explain Isometric Projections.
15	Write a short note on Concatenated Transformation with examples.
16	Compare Hermit cubic spline, Bezier curve and B - Spline curve.
17	Write a short note on Constructive Solid Geometry (CSG) technique.
18	Compare Solid Modeling with Wire - frame Modeling.
19	Explain with neat sketch a constructive solid geometry (CSG) technique of modeling. State its two main advantages.

BE Mech - A CCA

CAD/CAM And Automation
BE Mechanical Div - A
Assignment - I; 21 Oct 2021

Sr. No.	Name	A - 10 Marks	B - 5 Marks	C - 5 Marks	D - 10 Marks
18ME001	AAYUSH SATYENDRA RAWAT	6	12	18	27
18ME002	ADHAV PRASAD SOPAN	3	15	24	27
18ME003	AHER KARTIK PRAMOD	8	11	20	26
18ME005	AVISHAKE MARICK	6	15	24	29
18ME006	BAGAD SANKET POPAT	9	14	21	29
18ME007	BAGUL RITIKESH RAMESH	9	13	21	30
18ME008	BAJARI ANISH JAIPRAKASH	3	13	19	30
18ME009	BAKHALE PRATIK SUKHDEO	10	15	23	27
18ME010	BANDEKAR SHUBHAM VITTHAL	7	11	17	27
18ME011	BASNET AMIT SUNIL	4	14	24	27

2.2.3 Quality of student projects (25) Institute Marks : 22.00

Process followed in allocation of project to particular group of students is as shown in the **Figure B2.2.3a**

Project group registration form is circulated by Project Coordinator at the beginning of seventh semester. As per domain interest of project groups & domain area of faculty members, guides are allotted to project groups. All project groups after frequent meetings with their guide make a research proposal of their project. This proposal is presented in a meeting with review panel. Review panel after discussion with project group may give their remarks as follows

1.Topic is approved

2.Topic is approved with modifications suggested by review panel

Topic rejected project group again prepares fresh proposal in consultation with guide and submits fresh proposal to review panel again. After acceptance remark by review panel. Progress of project is monitored by same review panel & guide throughout year till completion of project

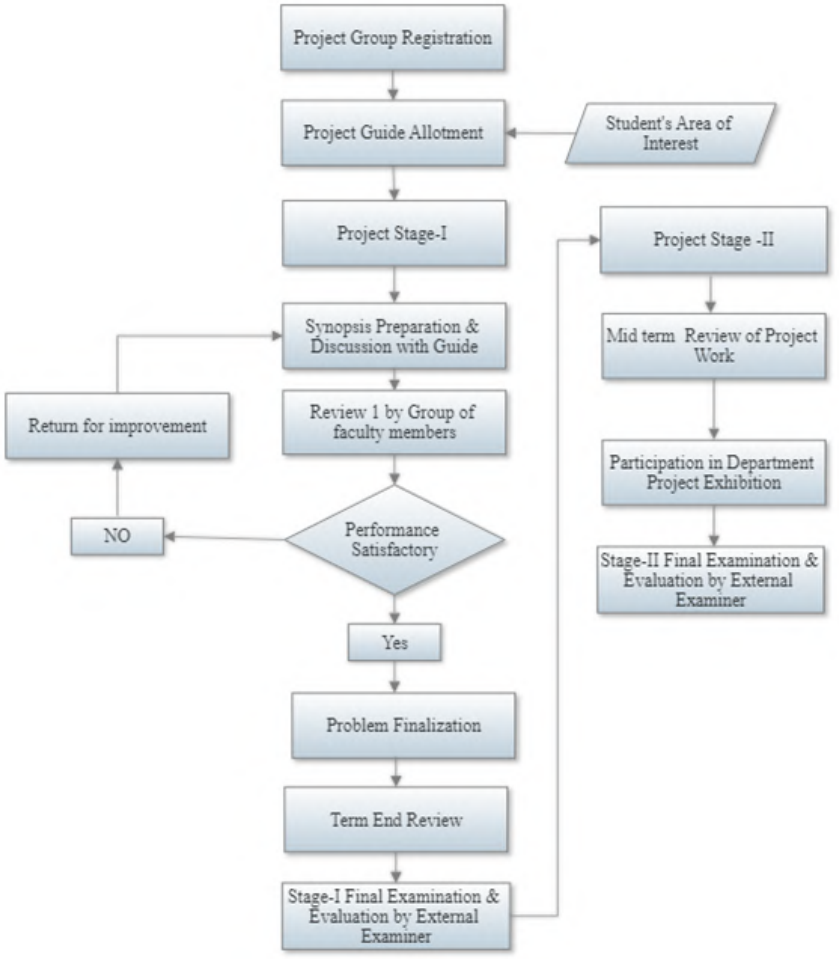

Figure B2.2.3a Project allocation and evaluation process.

A. Identification of projects and allocation methodology to Faculty Members

Following methodology is used for identification and allocation of project

- Project group formation notice is circulated to final year students after completion of 6th semester.
- Project group formation guidelines are given to students.
- Students forms the groups as per the guidelines and submit to project co coordinator before stipulated date.
- Project coordinator allots group to faculty members in consultation with head of department depending on area of specialization and scope of project.
- Project group and guide will discuss about –

  i. Innovative idea of students if any.

  ii. Projects already done in the department.

  iii. Topics available with guide.

  iv/ Students interest of doing the project in-house or sponsored.

- After brain storming session's project is finalized and accordingly students are submitting synopsis to the co-coordinator.
- Review committee will assess the project feasibility; quality and required suggestion are given to project group in first review.
- If suggestions are there then student will reform the synopsis and submit it to coordinator and project guide.

B. Types and relevance of the projects and their contribution towards attainment of POs and PSOs

Summary Report of Best Projects Mapped with POs for the year 2020-21

Project No	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO 12
1	Design and Development of Ultrasonic Welding Machine for Joining Plastic Components.											
	3	2	2	1	2	2	1	1	2	2	1	
2	Design, Modelling and Analysis of Airboat											
	3	2	2	1	2				2	2	1	1
3	Design and Development of Reverse Osmosis Filtration System											
	3	2	2	1		1	1		2	2		
4	Savonius vertical axis wind turbine: design, simulation, and physical testing											
	3	2	2	1		1	1		2	2	1	
5	Design and fabrication of river cleaning machine											
	3	2	2		1	2	1	1	2	2	1	1
6	Experimental Study of 3D Printer Process Parameters for Threaded Component											
	3	1	1	1	3				2	2	1	1

Summary Report of Best Projects Mapped with PSOs for the y1ear 2020-21

Project No.	PSO1	PSO2	PSO3
1	Design and Development of Ultrasonic Welding Machine for Joining Plastic Components.		
	3	2	1
2	Design, Modelling and Analysis of Airboat		
	3	1	
3	Design and Development of Reverse Osmosis Filtration System		

	3	2	
4	Savonius vertical axis wind turbine: design, simulation, and physical testing		
	3	2	
5	Design and fabrication of river cleaning machine		
	3	3	
6	Experimental Study of 3D Printer Process Parameters for Threaded Component		
	1	2	1

Summary Report of Best Projects Mapped with POs for the year 2019-20

Project No	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO 12
1	Study of performance and emission characteristics of SI Engine fueled with different blends of banana pseudo ethanol											
	3	2	2	1		3	3		2		2	
2	Design & Development of Synthetic and Hybrid Composite & Comparison of their Mechanical Properties											
	3	2	2	1	1				2	2	1	1
3	Design and Analysis of Material Handling Robot with AI assistance											
	3	2	2		2		1	1	2	2	1	1
4	Experimental and Thermodynamic Analysis of VCR system using Environment friendly Refrigerant											
	3	3	2		2	2	2	1	2	2	1	1
5	Fabrication of Waste Heat Recovery Heat Pump Using PCM											
	3	2	2		1	1	1		1	1	1	1
6	Design and Analysis Aspects of Turbojet Engine Blade using Different Composite Materials											
	3	2	2		2		1	1	1	1		1

Summary Report of Best Projects Mapped with PSOs for the year 2019-20

Project No.	PSO1	PSO2	PSO3
1	Study of performance and emission characteristics of SI Engine fueled with different blends of banana pseudo ethanol		
			3
2	Design & Development of Synthetic and Hybrid Composite & Comparison of their Mechanical Properties		
	3	1	

3	Design and Analysis of Material Handling Robot with AI assistance		
	3	2	
4	Experimental and Thermodynamic Analysis of VCR system using Environment friendly Refrigerant		
	1		3
5	Fabrication of Waste Heat Recovery Heat Pump Using PCM		
	1	3	3
6	Design and Analysis Aspects of Turbojet Engine Blade using Different Composite Materials		
	3	3	1

Summary Report of Best Projects Mapped with POs for the year 2018-19

Project No	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO 12
1	Development of air conditioner with water cooled condenser with reference to waste heat recovery for hotel industry											
	3	2	2	1			1		2	2	1	1
2	Design and development of tapping torque tester for Evaluation of Bio-Lubricants											
	3	2	2	1	1		1		1		1	1
3	Experimental investigations on performance of diesel engine fuelled with neem based biodiesel as an alternate fuel.											
	3	2	1	1		1	2	1	1			2
4	Design & Development of Composite Railway sleeper											
	3	2	2		2			1	1	1	1	**1**
5	Design and Development of Automated and Smart Vacuum Cleaning and Wiping Machine											
	3	2	2		2				2	2	2	
6	Swap Energy Generation System-Solar Wind and Piezo Energy System to Power Electric Charging Stations on Highway											
	3	2	2	1		1			1	1	1	**1**

Summary Report of Best Projects Mapped with PSOs for the year 2018-19

Project No.	PSO1	PSO2	PSO3
1	Development of air conditioner with water cooled condenser with reference to waste heat recovery for hotel industry		
	2		3
2	Design and development of tapping torque tester for Evaluation of Bio-Lubricants		
	2	2	
3	Experimental investigations on performance of diesel engine fueled with neem-based biodiesel as an alternate fuel		

	2		2
4	Design & Development of Composite Railway sleeper		
	3	2	
5	Design and Development of Automated and Smart Vacuum Cleaning and Wiping Machine		
	3	3	
6	Swap Energy Generation System-Solar Wind and Piezo Energy System to Power Electric Charging Stations on Highway		
	1	2	3

C. Process for monitoring and evaluation

In seventh semester internal review committee conducts two reviews and accordingly evaluates performance of all project groups. Review committee suggestions/modifications are communicated to concerned project guide and group. Along with internal assessment students have to appear for Project Stage-1 examination. External examiner evaluates the performance of the project group. In eighth semester projects groups' performance is evaluated by internal review committee members. At the end of eight semester, all project groups are displayed in the project exhibition organized by the department. Finally at the end of eighth semester, external examiner evaluates performance of project group and individual students of the respective group in consultation with the project guide. Rubrics is used for evaluation of projects.

RUBRICS FOR PROJECT EVALUATION

Rubrics Review

Review #	Agenda	Assessment	Review Assessment Weightage	Over all Weightage
Review 1	Project Synopsis/ Proposal Evaluation	Rubric R1	(20)	50
Review 2	First Semester End Term Project Evaluation	Rubric R2	(18)	
Review 3	Evaluation by Guide	Rubric R3	(12)	
Review 4	Second Semester Project Evaluation	Rubric R4	(120)	200
Review 5	Project Report Evaluation by Guide	Rubric R5	(80)	
Total			(250)	(250)

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Date: 02/08/2020

B.E. Mechanical 2020-21 (Term-I)

BE Project Review- I(Review Penel Details)

Panel Name	Date & Time	Group List	Review Panel Members
A	04/08/2020 05.00 PM Onwards	B3(MUG), B5(DYD), B6(MRP), A3(MPB), A17(NNG), A18(YBK)	MUG+DYD+MRP
B		A8(SJN), A7(CSD), A11(MSS), A5(APD), B2(SSP), B13(MPS)	SJN+CSD+MSS
C		B14(ATT), B7(CSC), A13(BDB), A6(KLK), B4(SRP), B15(PGK)	ATT+CSC+BDB
D		A9(MRD), A12(PSG), B10(SVC), A14(VSW), B8(DSM), B16(SSP1)	MRD+PSG+SVC
E		A2(AVW), A4(PVD), A10(OAM), A15(STG), B11(GPL), B17(VRP)	AVW+PVD+OAM
F		B1(MSD), B9(PSA), A1(RAM), A16(SSK), B12(SSV)	MSD+PSA+RAM

Dr. S J Navale
BE Project Coordinator

Dr. B D Bachchhav
HOD (Mechanical Engg.)

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B.E. Mechanical 2020-21 (Term-I)

BE PROJECT REVIEW-I TIME TABLE

Date: 02/08/2020

Notice

All students of **BE Mechanical Div. A & B** are hereby informed that the **BE Project Review-I (Topic Finalization)** is scheduled on **04/08/2020 (Tuesday).**

Sr. No.	Date & Time	Subject	Group
A	04/08/2020 05.00 PM Onwards	BE Project (Course Code: 402046)	B3(MUG), B5(DYD), B6(MRP), A3(MPB), A17(NNG), A18(YBK)
B			A8(SJN), A7(CSD), A11(MSS), A5(APD), B2(SSP), B13(MPS)
C			B14(ATT), B7(CSC), A13(BDB), A6(KLK), B4(SRP), B15(PGK)
D			A9(MRD), A12(PSG), B10(SVC), A14(VSW), B8(DSM), B16(SSP1)
E			A2(AVW), A4(PVD), A10(OAM), A15(STG), B11(GPL), B17(VRP)
F			B1(MSD), B9(PSA), A1(RAM), A16(SSK), B12(SSV)

Note:

1. This Reviw will be taken on Microsoft Teams
2. Panel wise MS Teams Joining link will be shared on official WhatsApp group
3. Prepare Maximum 10 Slides for Presentation
4. 15 minutes for presentation/ group will be given
5. All Students Should Join MS Team 10 minutes before schedule time.

Dr. S J Navale
BE Project Coordinator

Dr. B D Bachchhav
HOD (Mechanical Engg.)

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B.E. Mechanical 2020-21 (Term-I)

BE Project Stage-I (Examination Penel Details)

Group Name	Date & Time	Subject	Group	Examinars
Group-1	(BE Mech A) Date: 29/04/2021 Time: 9:00 AM Onwards	BE Project (2015 Pattern) (Course Code: 402046)	A1(RAM), A2(AVW), A3(MPB), A4(PVD), A6(KLK), A7(CSD), A9(MRD), A8(SJN), B10(SVC)	Dr. S. J. Navale (Internal) Dr. S. V. Chaitanya (External)
Group-2			A10(OAM), A11(MSS), A12(PSG), A14(VSW), A15(STG), A16(SSK), A17(NNG), B4(SRP), B5(DYD)	Mr. S. R. Patil (Internal) Dr. D. Y. Dhande (External)
Group-3	(BE Mech B) Date: 30/04/2021 Time: 9:00 AM Onwards		A18(YBK), B1(MSD), B2(SSP), B3(MUG), B6(MRP), B8(DSM), B9(PSA), A13(BDB), B12(SSV)	Mr. S. S. Vadgeri (Internal) Dr. B. D. Bachchhav (External)
Group-4			B11(GPL), B13(MPS), B14(ATT), B15(PGK), B16(SSP1), B17(VRP), A5(MMS), B7(CSC)	Dr. M. M. Sayyad (Internal) Dr. C. S. Choudhari (External)

Dr. S J Navale
BE Project Coordinator

Dr. B D Bachchhav
HOD (Mechanical Engg.)

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B.E. Mechanical 2020-21 (Term-II)

BE Project Stage-II (Examination Penel Details)

Group Name	Date & Time	Subject	Group	Examinars
Group-1	Date: 16/06/2021 Time: 9:00 AM Onwards	BE Project-II (2015 Pattern) (Course Code: 402051)	A18(YBK), B1(MSD), B2(SSP), B3(MUG), B6(MRP), B8(DSM), B9(PSA), **A13**(BDB), **B12**(SSV)	Mr. S. S. Vadgeri (Internal) Dr. B. D. Bachchhav (External)
Group-2			A10(OAM), A11(MSS), A12(PSG), A14(VSW), A15(STG), A16(SSK), A17(NNG), B4(SRP), B5(DYD)	Mrs. A T Thombare (Internal) Mrs. M P Shah (External)
Group-3	Date: 17/06/2021 Time: 9:00 AM Onwards		A1(RAM), A2(AVW), A3(MPB), A4(PVD), A6(KLK), A7(CSD), A9(MRD), **A8**(SJN), **B10**(SVC)	Dr. S. J. Navale (Internal) Dr. S. V. Chaitanya (External)
Group-4			B11(GPL), B13(MPS), B14(ATT), B15(PGK), B16(SSP1), B17(VRP), **A5**(MMS), **B7**(CSC)	Dr. M. M. Sayyad (Internal) Dr. C. S. Choudhari (External)

Dr. S J Navale
BE Project Coordinator

Dr. B D Bachchhav
HOD (Mechanical Engg.)

D. Process to assess individual and team performance

During project hours students are expected to work on their project in consultation with guide. At the time of assessment project guide also interacts with the review committee and progress of project is jointly assessed. Depending on the performance of project group in the review marks are given to individual students by the review committee.

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DEPARTMENT OF MECHANICAL ENGINEERING

BE Project Stage-I Review Evaluation Sheet (AY 2021/22 Term-I)

Group No:	B10	Project Title:	Design and analysis of Thermal Barrier Coating on Piston in Automobile		
Guide Name:		Dr P S Gajjal	Inhouse/Sponsored		
Group Members:		Student 1:	shubham singh yadav	Total Marks (Out of 50)	43
		Student 2:	vivek dandade		42
		Student 3:	durgesh bhalchandra sonawane		40
		Student 4:	sayyed imran ameen		40

Review Panel Members:	Dr P S Gajjal, Prof P.V.Deshmukh,Dr S.R.Patil	Date: 13/09/2021

Level of Achievement-Project Synopsis/ Proposal Evaluation (R1)

	Group Evaluation	Excellent (5-6)	Good (3-4)	Average (≤2)	Score (Max-18) Student 1	Student 2	Student 3	Student 4
a	Study of the Existing Systems (PO-2)	Detailed and extensive explanation of the specifications and the limitations of the existing systems	Moderate study of the existing systems; collects some basic information	Minimal explanation of the specifications and the limitations of the existing systems; incomplete information	5			
b	Identification of Problem (PO-2)	Detailed and extensive explanation of the purpose and need of the project	Average explanation of the purpose and need of the project	Minimal explanation of the purpose and need of the project	5			
c	Formulation of Objectives and Methodology proposed (PO-3)(PO-11)	All objectives of the proposed work are well defined; Steps to be followed to solve the defined problem are clearly specified	Incomplete justification to the objectives proposed; Steps are mentioned but unclear; without justification to objectives	Objectives of the proposed work are either not identified or not well defined; Incomplete and improper specification	5			
				Total	15			

Level of Achievement-Project Synopsis/ Proposal Evaluation (R2)

	Group Evaluation	Excellent (5-6)	Good (3-4)	Average (≤2)	Score (Max-18) Student 1	Student 2	Student 3	Student 4
a	Design /Development of Methodology (PO-3)	Divison of problem into modules and good selection of computing framework	Divison of problem into modules and average selection of computing framework	Divison of problem into modules but inappropriate selection of computing framework	5			
		Appropriate design methodology and properly justification	Design methodology not properly justified	Design methodology not defined properly				
b	Planning of Project Work and Team Structure (PO-11,PO-9)	Time frame properly specified and being followed	Time frame properly specified and being followed	Time frame properly specified, but not being followed	5			
		Objectives achieved as per time frame	Objectives achieved as per time frame	Objectives achieved as per time frame				
		Appropriate distribution of project work among team members	Distribution of project work inappropriate	Distribution of project work inappropriate				
c	Demonstration and Presentation (PO-11)	Contents of presentations are appropriate and well arranged	Contents of presentations are appropriate but not well arranged	Contents of presentations are appropriate but not well arranged	5			
		Proper eye contact with audience and clear voice with good spoken language	Satisfactory demonstration, clear voice with good spoken language but eye contact not proper	Presentation not satisfactory and average demonstration				
					15			

Level of Achievement-Evaluation by Guide(R3)								
	Individual Evaluation	Excellent (4-5)	Good (3)	Average (≤2)	Score (Max-14)			
					Student 1	Student 2	Student 3	Student 4
a	Team Work (PO-9)	Collaborates and communicates in a group situation and integrates the views of others/shown strong leadership qualities/functions effectively in diverse teams.	Exchanges some views but requires guidance to collaborate with others.	Makes little or no attempt to collaborate in a group situation	5	4	3	3
b	Technical Knowledge related to Project	Extensive knowledge related to the project	Fair knowledge related to the project	Lacks sufficient knowledge	4	4	3	3
c	Regularity/Professional ethics (PO-8)	Reports to the guide regularly and consistent in work	Not very regular but consistent in the work	Irregular in attendance and inconsistent in work	4	4	4	4
				Total	13	12	10	10

E. Quality of completed projects/working prototypes

Broad areas in Mechanical Engineering are as follows:

- Design
- Thermal
- Manufacturing
- Mechatronics
- Automobile Engineering
- Product Development

Last three years project classification is as shown in **Table B2.2.3**

Year	Total Groups	In-house	Industry Sponsor	Defence*
2020-21	35	29	6	
2019-20	38	30	8	
2018-19	37	15	22	1

Table B2.2.3 Classification of last three years projects

Project guide motivate students to participate in different project competitions. Students are motivated to present/publish research paper based on the project work. Also, some patents are registered based on the project work of students.

2.2.4 Initiative related to industry interaction (15)

Institute Marks : 13.00

Following initiatives are taken by institute in order to strengthen industry institute interaction

- Industry trainings and visits
- Industry Expert lectures
- Industry projects
- Signed Memorandum of Understanding (MOU) with various industries
- Value added programs and seminars organized and participated by students

Effectiveness: Feedback from students about industrial visit and training is collected and impact of such interventions is assessed. Based on which corrective actions are taken.

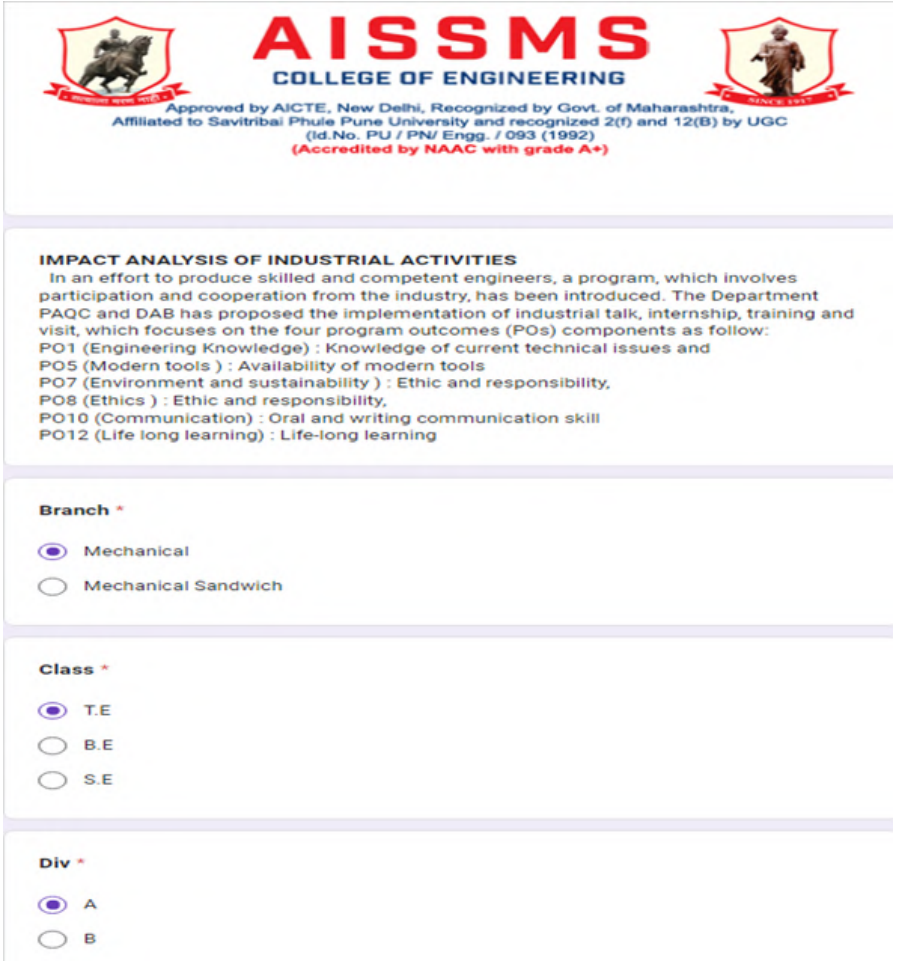
Corrective action points:

- Training report of the student is collected and analyzed for positive impact.

- Student feedback is utilized for exposure to better industries o Students are exposed to real working environment in the industry.
- Students are required to deliver presentation about their industrial visit and training
- Feedback from industries where the internship is conducted is also obtained from students as well as from the industry.
- Based on above feedback corrective action is taken to streamline the internship and training

Impact analysis of industrial activities is conducted in the department after completion of activities.

Fig 2.2.4a shows impact analysis of industrial activities carried out by department.



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IMPACT ANALYSIS OF INDUSTRIAL ACTIVITIES

In an effort to produce skilled and competent engineers, a program, which involves participation and cooperation from the industry, has been introduced. The Department PAQC and DAB has proposed the implementation of industrial talk, internship, training and visit, which focuses on the four program outcomes (POs) components as follow:
PO1 (Engineering Knowledge) : Knowledge of current technical issues and
PO5 (Modern tools) : Availability of modern tools
PO7 (Environment and sustainability) : Ethic and responsibility,
PO8 (Ethics) : Ethic and responsibility,
PO10 (Communication) : Oral and writing communication skill
PO12 (Life long learning) : Life-long learning

Branch *
- (•) Mechanical
- ( ) Mechanical Sandwich

Class *
- (•) T.E
- ( ) B.E
- ( ) S.E

Div *
- (•) A
- ( ) B

Rate below mentioned questions on the scale of 1-5

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

How this activity has helped you to understand the relationship of the courses that have been studied with the industrial processes? (PO1) *

- 1
- 2
- 3
- 4
- 5

How this activity has helped you to see up close the unit operations that have been learned in the course and understand its function.? (PO1) *

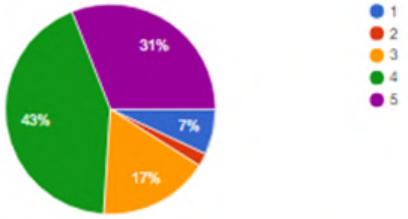
- 1
- 2
- 3
- 4

Rate below mentioned questions on the scale of 1-5

How this activity has helped you to understand the relationship of the courses that have been studied with the industrial processes? (PO1)

Copy

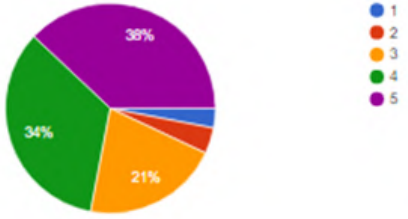
100 responses



How this activity has helped you to see up close the unit operations that have been learned in the course and understand its function.? (PO1)

Copy

100 responses



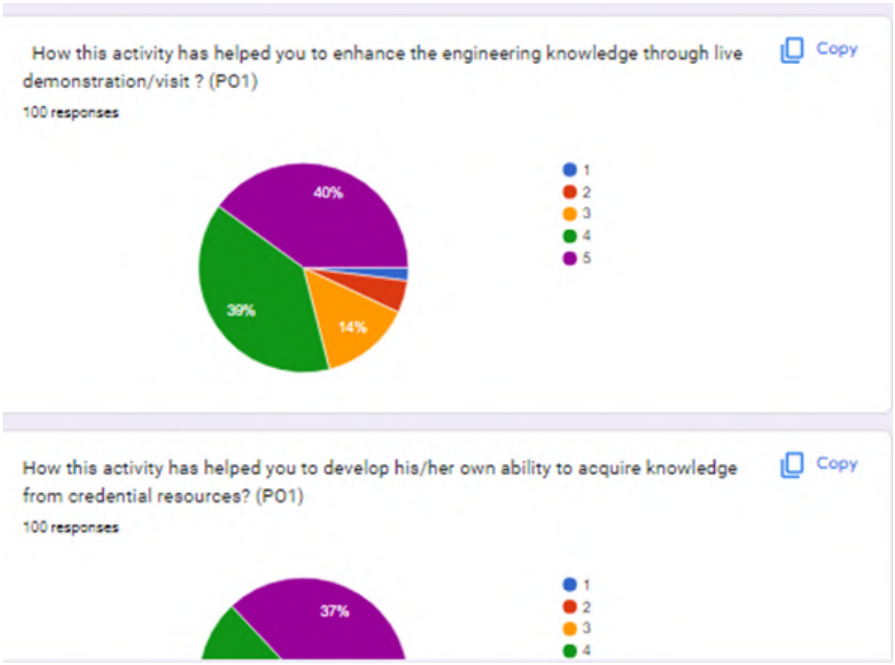
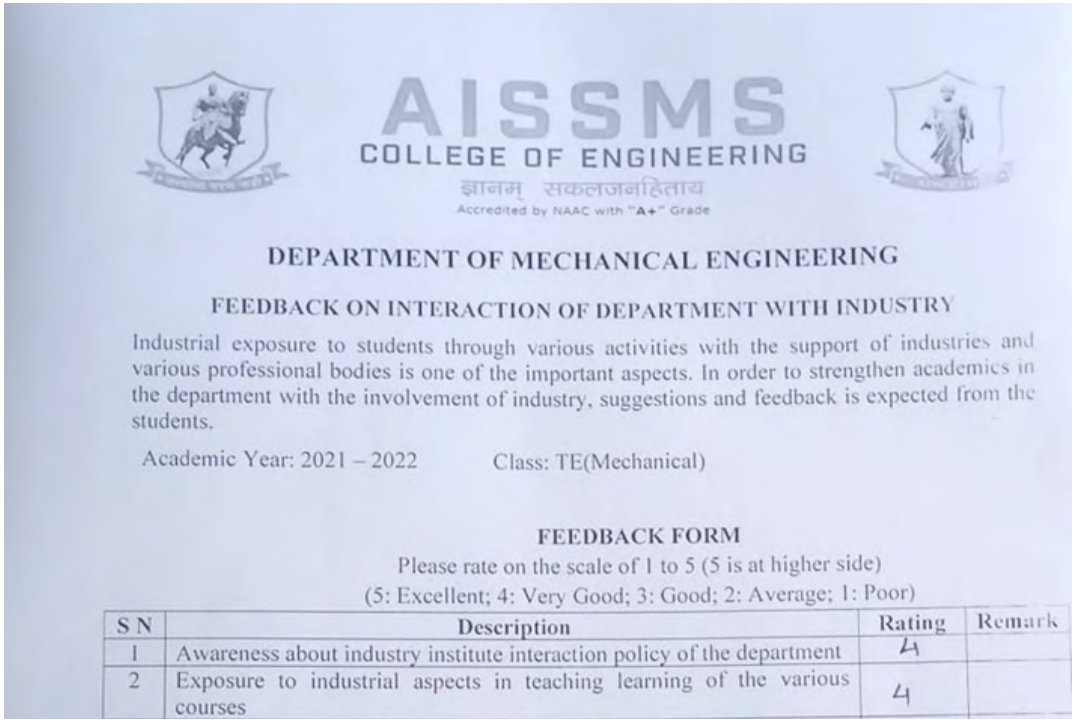


Figure 2.2.4a Impact analysis of industrial activities.



AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय
Accredited by NAAC with "A+" Grade

DEPARTMENT OF MECHANICAL ENGINEERING

FEEDBACK ON INTERACTION OF DEPARTMENT WITH INDUSTRY

Industrial exposure to students through various activities with the support of industries and various professional bodies is one of the important aspects. In order to strengthen academics in the department with the involvement of industry, suggestions and feedback is expected from the students.

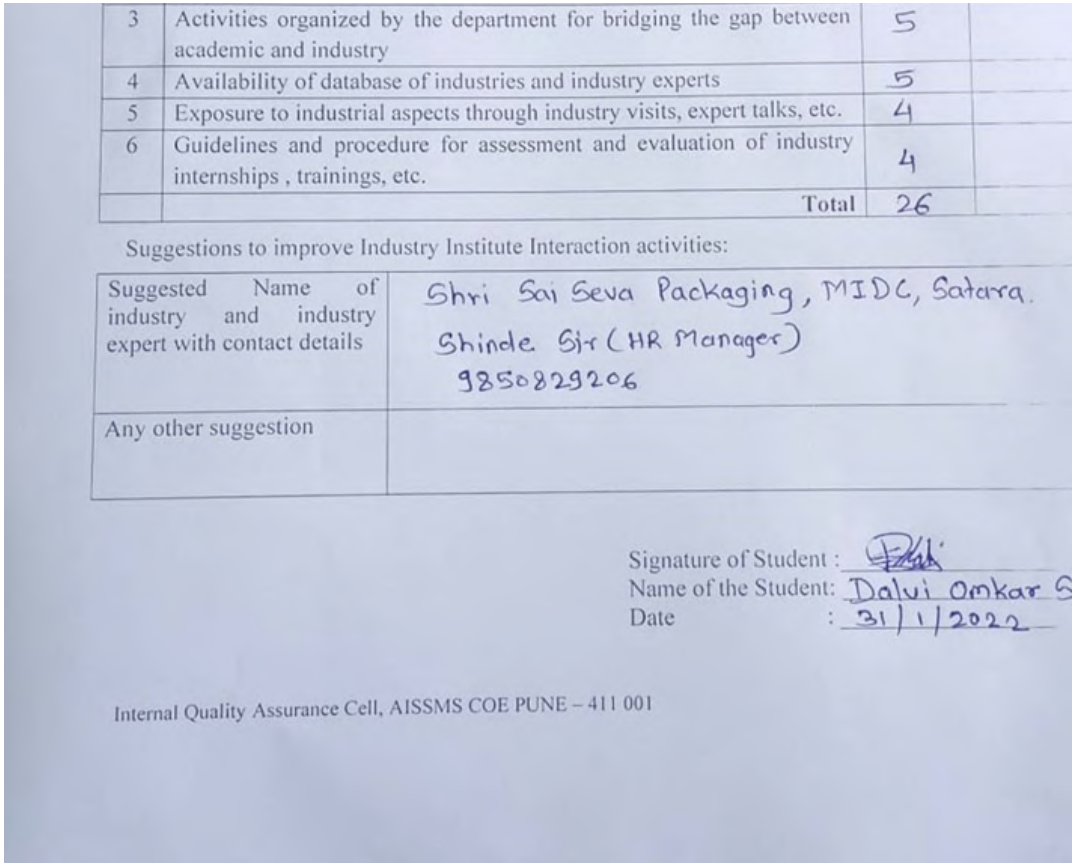
Academic Year: 2021 – 2022 Class: TE(Mechanical)

FEEDBACK FORM

Please rate on the scale of 1 to 5 (5 is at higher side)

(5: Excellent; 4: Very Good; 3: Good; 2: Average; 1: Poor)

S N	Description	Rating	Remark
1	Awareness about industry institute interaction policy of the department	4	
2	Exposure to industrial aspects in teaching learning of the various courses	4	



3	Activities organized by the department for bridging the gap between academic and industry	5
4	Availability of database of industries and industry experts	5
5	Exposure to industrial aspects through industry visits, expert talks, etc.	4
6	Guidelines and procedure for assessment and evaluation of industry internships , trainings, etc.	4
	Total	26

Suggestions to improve Industry Institute Interaction activities:

Suggested Name of industry and industry expert with contact details	Shri Sai Seva Packaging, MIDC, Satara. Shinde Sir (HR Manager) 9850829206
Any other suggestion	

Signature of Student :
Name of the Student: Dalvi Omkar S
Date : 31/1/2022

Internal Quality Assurance Cell, AISSMS COE PUNE – 411 001

INDUSTRY SUPPORTED LABROTARIES

Sr.No.	Name of Laboratory	Supported by
1	Bio diesel production setup	Napro Scientific Pune
2	Centre of excellence in the field of robotics and automation	Automation Anywhere Pvt. Ltd.

EXPERT LECTURES DELIVERED BY INDUSTRY EXPERTS

CAY(2021-22)

Sr. No.	Faculty Coordinator	Class (Number of students attended)	Name, Industry, designation and contact details of Expert	Topic	Date
1	Dr Mrs P S Gajjal	TE, 109	Mr. Shrishant Patil PTC Softcell Pune	Digital solutions for real world mechanical engineering design challenges	25/12/2021

2	Dr S V Chaitanya	BE, 26	Mr Sagar Kenjale Asst Manager, Burckhardt Compression India Ltd. Pune	Excel for freshers	25/10/2021
3	Mrs A A Tonde/ Mrs M P Shah	SE, TE, 145	Mr. Apoorv Bapat CEO, Eleation Pune	Introduction to CREO and ANSYS	07/09/2021
4	Dr D S Malwad	TE, BE 150	Mr. Suraj Ghante technical Lead, TTL Pune	Role of CAD in Design of Automotive Systems	19/11/2021
5	Dr B D Bachchhav	SE, 56	Principal Consultant Institute of Systems Pune	Lean manufacturing and quality systems	04/04/2022
6	Dr Mrs P S Gajjal	BE, 98	Dr Rakesh Himte Motivational Speaker Nagpur	Presentation Skills and Motivational Thoughts	17/3/22

CAYm1(2020-21)

Sr. No.	Faculty Coordinator	Class (Number of students attended)	Name, Industry, designation and contact details of Expert	Topic	Date
1	Dr C S Dharankar S S Vadgeri	BE, 120	Mr. Nitin Badhe Sr. Technical Specialist Altair India Pvt Ltd Pune	Fundamentals of Automotive NVH	06/11/2020
2	Dr P S Gajjal	SE, 125	Mr. S. D. Patil Application Engineer Modelcam Engineering Pvt Ltd. Pune	Experience the design the way it should be using CREO	04/12/2020
3.	Dr D Y Dhande	TE, 45	Mr.Pravin Dholle, Sr. R & D Manager, Knorr Bremse Technological Centre, Hinjewadi, Pune	Carrer options for Mechanical Engineers	24/05/2020
4.	Dr D Y Dhande	TE, 101	Dr M R Patkar Director, Energia-intelekt, Pune	Stress Management	08/08/2020
5	Dr D Y Dhande	SE,TE, BE, 210	Mrs. Preethi Narayanan Sr Professional Patent Consultant	Patent Process Overview	24/05/2021
6	Dr P S Gajjal	BE, 120	Dr. Rakesh Himte Motivational Speaker and Counsellor Nagpur	Employability kills for Industry 4.0	31/05/2021

7	Mr S S Vadgiri	BE, 115	Mr S D Patil Application Engineer Softcell Technologies Global Pvt Ltd Pune	Digital Solutions for a real world mechanical engineering design challenges	15/05/2021
8	Ms S S Patil	TE, 123	Mr. Vaibhav Khude Project Engineer 3D Guru Innovation Pvt Ltd. Pune	Industry 4.0	18/03/2021
9	Mr D S Mane	BE, 110	Mr. Rohit Kshirsagar Asst Manager Kirloskar Brothers Ltd Pune	Production Planning and Control	19/03/2021

CAYm2(2019-20)

Sr. No	Faculty Coordinator	Class (Number of students attended)	Name, Industry, designation and contact details of Expert	Topic	Date
1	Dr B D Bachchhav	TE, 61	Mr. Avinash Khare, IMTMA, Chinchwad	Additive Mfg.	8/8/2019
2	P V Deshmukh	BE, 67	Gautam Doshi, Advisor, Indian Machine Tool Manufacturers Association (IMTMA)	Role and Effect on Industries of Robotics and Automation in coming years	3/10/2019
3	D S Mane	SE, 82	Mr. Sagar Naikade, Valmont India, Quality Engineer,	Welding Technology	08/07/2019
4	M P Bauskar	TE, 56	Mr S A Mandhare	MSA system	26/07/2019
5	M R Dahake	TE, 50	Mr S S Tikar	ARAI Pune	05/10/2019
6	Dr. C S Dharankar & S S Vadgeri	BE, 120	Mr. Nitin Badhe, Sr. Technical Specialist- Global NVH, ALTAIR INDIA Pvt Ltd, Pune	Fundamentals of Dynamic Analysis	15/10/2019
7	K. L. Kumbhar	TE, 120	Mr. Ajit Deshpande (Advanced Analytics, FinTech)	How to Enter in Artificial Intelligence	01/10/2019

INDUSTRY – SPONSORED PROJECTS (UG/PG)

Sr. No	Name of Project guide	Year	Title of Industry Sponsored Project	Name of Sponsoring Industry
1	P V Deshmukh	2019 - 20	Design and Development of Overhead Crane with Rotating Jib Arm	G A Enterprises
2	D S Mane	2019-20	Design, Analysis and Development of Connecting Rod For V12 IC Engine	MechaTol Engineering Solutions
3	S S Vadgeri	2019-20	Design and Development of Biogas Engine for Power Generation	Kirloskar Oil Engines Ltd, Pune

4	Dr C S Choudhari	2019 - 20	Design and development of solar powered sterling engine for electricity generation	Engineering Cluster Pune

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

Institute Marks : 15.00

A. Industrial training/tours for students

Initiatives were taken to meet out the tremendous need for Academic-Industry Interaction. All the stakeholders, namely: Management, Industry, Employers, Faculty, Students 'and society stand to gain, as it can be a 'win-win' partnership. Here academic-industries are viewed as a system where active participation of all players is important.

Academic Benefits include improving their morale through secure training and final placements for students and relationship established with industry.

Faculty Benefits lead to improve teaching perspective through knowledge sharing by various industrial training programmes designed by the Industry, partial delivery of the regular courses and to carry out the research work.

Students stand to gain by way of hands-on training during visits, reduction of learning curve in industrial practices, employment opportunities, filling the gap between theoretical and practical courses, various Internship trainings and to carry out the project work.

Industry Benefited by updated and upgrading the knowledge base of the industry professionals through management program designed by the academia, expenditure on internal

Research and development and using academia's knowledge base to improve quality and global competitive products. Overall, effective Academia-Industry Interaction leads to strengthen competitiveness, promote innovation and new technology development and ensure quality and quantity of Human Resource base.

INDUSTRIAL VISITS ORGANISED

CAY(2021-22)

Sr. No	Faculty Coordinator	Class and Number of students attended	Industry Name and Address	Date of visit
1	Mr. M R Dahake Dr S J Navale Mr G P Lohar	SE M A SE M B	Diesel Locomotive Shed Pune	24th, to 26th March 2022
2	Mr. M R Dahake Mr G P Lolhar	TE M B	Vertex Infracore Solutions Pune	04/05/2022
3	Dr P S Gajjal Mr M R Dahake Mr M S swami	Electric Vehicle Honour Course Students	Pune Alternate Fuel Conclave	05/04/2022

CAYm2(2019-20)

Sr. No	Faculty Coordinator	Class and (Number of students attended)	Industry Name and Address	Date of visit
1	P V Deshmukh	BE (Mech- B) 67 Students	IMTMA, Pimpri-Chinchwad, 411019	3 Oct 2019
2	M.U.Gan K.L.Kumbhar	TE (Mech A & B)118	Ujani Hydroelectric Power Plant, Bhimanagar, Pune	23rd Sept. 2019
3	M P Bauskar	TE Mech A (68)	Whirlpool India ltd	23/07/2019
4	M P Bauskar S R Patil	TE Mech B (69)	Fiat India Ltd	24/07/2019

5	A V Waghmare A R Takalkar S S Vadgeri	BE Mech A & B (118)	Stauff India Pvt Ltd	10/10/2019
6	P.S.Aglawe Dr. C.S.Dharankar	BE Mechanical (A) (68)	INDIAN MACHINE TOOL MANUFACTURERS' ASSOCIATION	04/10/2019
7	Dr C S Choudhari	TE Mechanical B	Thermax Ltd Pune	26/09/2019

STUDENTS UNDERGONE IN-PLANT TRAINING AND (OR) INTERNSHIP PROGRAMME

CAY(2021-22)

Sr. No	Name Of Student	Name Of Industry	Class	Start Date	End Date	Duration (No. of Days)
1	Aniruddha Kulkarni	Cricstox Pvt Ltd	TE A	24/12/2021	31/01/2022	48
2	Aniket Rajendra Kadam	Simira Healthcare Private Limited	TE A	01/01/2022	31/01/2022	31
3	Rutuja Kank	Rieter India Private Limited	TE A	05/01/2022	05/02/2022	30
4	Vedant Chavan	Wipro PARI	TE A	03/01/2022	04/02/2022	31
5	Sayali Santosh Koli	Shri Jagadamba Engineering Works Karad.	TE B	20/12/2021	20/1/2022	30
6	Darshan Dayanand Gawas	Fabchair	TE A	15/12/2021	30/01/2022	45
7	Shivam Nitin Deshmukh	Shree Motors (Maruti Suzuki Arena)	TE A	11/1/2022	11/2/2022	28
8	Om Bayas	Saj Test Plant.	TE A	15/12/2021	13/01/2022	30
9	Balraj Waghmare	Arai Chakan	TE A	27/12/2021	27/01/2022	31
10	Rutuja Jadhav	Arai, Chakan	TE A	27/12/21	27/01/22	31
11	Shubham Sahebrao Borade	Shaurya Motors Pvt .Ltd Nashik	TE A	1/1/2022	31/1/2022	30
12	Nitesh Umesh Pampattiwar	Sai Auto (Toyota Pro Service)	TE B	3/1/2022	4/2/2022	31
13	Vijay Dattatraya Takmoge	Shree Ramkrishna Dies And Tooling	TE B	24/12/21	24/1/22	30
14	Rahul Murlidhar Kokane	Ammunition Factory Khadki, Pune	TE A	10/01/2022	09/02/2022	30

15	Vedant Aher	Brose India Pvt Ltd	TE A	13/12/2021	28/01/2022	46
16	Ganesh Khandalkar	Ybi Foundation	TE A	03/01/2022	28/02/2022	56
17	Omkar Bamble	Ammuniton Factory Khadki	TE A	10/01/2022	9/02/2022	30
18	Rohan Chaure	High-Way Automobiles Tata Motors Authorised Service Station	TE A	09/01/2022	05/02/2022	28
19	Mane Sangram Bhau	Meritech	TE B	27/12/2021	24/01/2022	29
20	Ranade Saket Ramchandra	Dyeglo Pvt. Ltd.	TE B	16/12/2021	16/01/2022	32
21	Shree Rajaram Khopade	Nilesh Fabricators	TE A	01/01/2022	31/01/2022	31
22	Nikhil Santosh Bundele	Nikhil Santosh Bundele	TE A	03/01/2022	05/02/2022	33
23	Pratik Kailas Mahajan	Maruti Suzuki Arena (Manraj Motors Pvt. Ltd. Jalgaon)	TE B	13/01/2022	12/02/2022	31
24	Shambhuraj Yashvant Chavan	Trishul Service Station Pvt Ltd	TE A	26/12/2021	31/01/2022	37
25	Rane Mohit Umesh	Om Engineering Works	TE B	01/01/2022	31/01/2022	31
26	Neha Jitendra Kuchekar	Manufacturing Industry	TE A	05/01/2022	05/02/2022	30
27	Parag Rajendra Dhamne	Snehal Industries, Nashik	TE A	31/12/2021	31/01/2022	30
28	Pratik Khagesh Jadhav	Kiran Engeenering Works	TE A	17/12/2021	23/01/2022	38
29	Palange Sejal Devraj	Avi Enterprises	TE B	13/01/22	14/02/22	33
30	Prachi Baban Pandhare	Pusalkar Su–Rak–Sha Components Private Limited	TE B	02/02/2022	07/03/2022	35
31	Ameya Gandhi	Apex Imprints	TE A	27/12/2021	25/01/2022	30
32	Mane Vrunda Parmeshwar	Shri Ramkrishna Dies And Tooling	TE B	24/12/2021	24/01/2022	30
33	Kshitij Modhe	Nsk Fabs And Welds	TE A	22/12/2021	23/01/2022	28
34	Rawool Sanyogita Sandeep	Mapsons India Private Limited	TE B	24/12/2021	22/01/2022	30

35	Aashish Shashikant Mahale	Hexagon Nutrition Limited	TE B	4/1/2022	4/2/2022	31
36	Gourav Sharma	Shivpratap Engineering Works	TE A	30/01/2022	28/02/2022	30
37	Rohit Vijay Honwadajkar	Varsha Forgings Limited	TE A	24/01/2022	28/02/2022	36
38	Joshi Dnyanesh Vilas	Wingstair Elevators Pvt.Ltd, Pune	TE A	25/12/2021	25/1/2022	30
39	Patil Sarvesh Dinkar	Shree Motors	TE B	03/01/2022	03/02/2022	30
40	Sanskar Sunil Fursule	Ridewell Motors Nanded	TE A	03/02/2022	03/03/2022	30
41	Durgesh Rajendra Nankar	Ksb Ltd., Pimpri.	TE B	10/01/2022	09/02/2022	31
42	Gaurav Singh	Pratyin Infotech Consulting Pvt. Ltd.	TE B	31/12/2021	31/01/2022	31
43	Omkar Pralhad Landge	Seva Engineering Works Pvt Ltd	TE B	03/01/2022	02/02/2022	30
44	Lakshmi Bakshi	512 Army Base Workshop	TE A	5/1/ 2022	12/2/2022	24
45	Siddharth Shitole	Pakshimitra Poultry Technologies	TE B	23/12/2021	03/02/2022	43
46	Pathan Aman Mainoddin	Shriram Automobile,Sangola	TE B	31/12/2021	31/01/2022	31
47	Sharvil Sanjay Suradkar	Padmavati Industries Pvt Ltd	TE B	27/12/2021	22/01/2022	28
48	Yash Sanjay Gulhane	Shri Gurukrupa Enterprise (Mundada Fastener)	TE A	24/12/2021	23/01/2022	31
49	Ranjit Baban Kharat	Eleation Institute Pune	TE A	15/12/2021	29/01/2022	45
50	Siddiqui Faizan Babaruddin Siddiqui	Rs Engineering Industries	TE B	03/01/2022	04/02/2022	30
51	Landage Shubham Pandurang	Rieter India Pvt. Ltd.	TE A	05/01/2022	05/02/2022	32

52	Dhobe Manthan Bhausaheb	High-Way Automobile (Tata Authorised Service Center)	TE A	09/01/2022	09/02/2022	30
53	Dighe Harshad Laxman	Oriental Machine Care	TE A	03/01/2022	28/01/2022	25
54	Tanvi Gavhane	Kohler Power India Private Limited	TE A	10/01/2022	10 /02/2022	32
55	Urjit Mehta	Meritech.Pvt.Ltd	TE B	27/12/2021	24/1/2022	30
56	Raj Ramdas Nishandat	Salasar Mahindra Autocraft Pvt. Ltd	TE B	01/01/2022	31/01/2022	31
57	Sunayana Khandu Mohite	Pusalkar SU-RAK-SHA Components Pvt.Ltd	TE B	03/01/2022	03/02/2022	32
58	Taksal Pritam Kailas	Shilpi Engineering Pvt, Ltd,Nagothane, Raigad.	TE B	16/12/2021	31/01/2022	45
59	Soham Raghunath Ingale	Ultra Marc Industries	TE A	20/12/2021	22/01/2022	27
60	Rohit Sobale	Yash Plastic And Engineering Works	TE B	27/12/2021	30/01/2022	25
61	Kundan Shankar Ghorpade	Garaware Fulflex India Pvt Ltd	TE A	05/02/2022	05/03/2022	28
62	Ashwathi Maniyath	Ameya Industries	TE B	15/12/2021	31/01/2022	45
63	Sahil Nisar Jahagirdar	Mahabal Metals Pvt.Ltd	TE A	28/12/2021	28/01/2022	31
64	Kokare Guruprasad Dattaram	Durga Fibres	TE A	05/01/2022	06/02/2022	33
65	Vedant Rameshrao Godbole	Endurance Technology Pvt. Ltd.	TE A	07/01/2022	05/02/2022	28
66	Rajwardhan Wagh	Prmolc Industries	TE B	17/1/2022	15/2/2022	28

67	Sandesh Rajaram Deshmukh	Sandesh Fabricators And Glass Centre	TE A	01/01/2022	31/01/2022	31
68	Atharva Prashant Deokar	Trishul Service Station Pvt. Ltd.	TE A	26/12/2021	31/01/2022	31
69	Nikhil Durgam	Eleation	TE A	24/12/2021	24/1/2022	31
70	Prajwal Rathod	Leanpro Manufacturing	TE B	12/01/2022	12/02/20122	30
71	Nitesh Verma	Maruti Suzuki Jamkash Vechicleades Pvt Ltd	TE B	17/01/2022	17/02/ 2022	23
72	Akash Didbhai	Trisons Engineering	TE A	01/01/2022	31/01/2022	31
73	Atharva Shankar Thube	Alfa Laval India Private Limited	TE A	03-01-2022	02-02-2022	30
74	Siddhant Warule	Sandesh Fabrications And Glass Centre	TE B	15/12/2021	15/01/2022	30
75	Sumit Ramesh Shirtode	Tube Products Of India, Shirwal	TE B	01/01/22	31/01/22	28
76	Dhiraj Rajesh Shinde	Arka Engineering Works	TE B	27/12/2021	31/01/2022	36
77	Nawde Yogesh Dinesh	Kirloskar Pneumatic Co. Limited	TE B	15/12/2021	31/01/2022	45
78	Tanishq Badegar	Infinityx Tech Systems Pvt Ltd	TE A	14/01/2022	14/02/2022	30
79	Samarjeet Aherrao	Oracle Presscomps And Engineering Pvt. Ltd. Satara	TE A	19/12/2021	20/01/2022	30
80	Sahil Sunil Mate	Alpha Dies & Pattern (I) Pvt.Ltd	TE B	05/01/2022	05/02/2022	26
81	Sourav Parimal Bhowmick	Dhananjay Bendre Foods and Beverages PVT. LTD	TE A	02/01/2022	31/01/2022	30
82	Sanyogini Sanjay Mohite	Vanaz Engineers Limited	TE B	01/01/2022	30/01/2022	30
83	Raju Ganpati Mali	KSB Limited Pune	TE B	10/01/2022	09/02/2022	31
84	Atharv Shrirang Jadhav	Kaivalya Electricals Pvt. Ltd.	TE A	05/01/2022	05/02/2022	30
85	Avanti Narendra Waghmare	Kartik Industries	TE B	01/01/2022	31/01/2022	31
86	Atharva Pravin Pakhode	Spirotech Heat Exchangers Pvt. Ltd	TE B	27/12/2021	23/01/2022	29
87	Sreyesh Chandrashekhar Dharne	Shree Ganesh Engineering Works	TE B	14/01/2022	14/02/2022	28
88	Abhishek Manjarekar	Thermo Touch	TE B	30/12/2021	31/01/2022	33
89	Kamble Girish Jagannath	Proton Metalcrafts Pvt. Ltd.	TE A	27/12/2021	30/01/2022	29
90	Sharang Purwant	Global Corporate Council India	TE B	02/01/2022	31/01/2022	30
91	Divya Mahendra Dhamal	Bhavani Industries	TE A	31/12/2021	31/01/2022	30
92	Parth Jivaraj Khedekar	512,Army Base Workshop Kirkee	TE A	05/01/2022	06/02/2022	24
93	Utkarsh Anil Ekatpure	S.K. Engineers	TE A	15/12/2021	28/01/2022	45

94	Paithankar Jyoti Prasad	Shree Ramkrishna Dies And Tooling	TE B	24/12/2021	24/01/2022	30
95	Tanaya Jagtap	Alfa Laval, Dapodi	TE A	28/12/2021	28/01/2022	31
96	Yash Bendre	Pioneer Pvt Ltd	TE A	02/01/2022	31/01/2022	30
97	Vikky Mukund Kale	Shiv Enterprises	TE B	01/01/2022	30/01/2022	30
98	Waghole Nikita Vitthal	Eleation	TE B	24/12/2021	31/1/2022	30
99	Wadje Vilas Hari	Padmavati Industries	TE B	27/12/2021	22/01/2022	28
100	Atish Machindra Saste	Padmavati Industries,Dhayari	TE B	27/12/2021	22/01/2022	24
101	Aniket Ramesh Ambule	Alkyl Amiens	TE A	07/012020	05/02/2020	25
102	Vaishnavi Shailesh Shisode	Eleation	TE B	24/12/2021	24/01/2022	32
103	Madhura Gulavani	Technovision Auto Components Pvt Ltd	TE A	24/12/2021	23/01/2022	31
104	Suvidha Sanjay Bhosale	Sharv Polyplast Pvt Ltd.	TE A	09/01/2022	10/02/2022	30
105	Lalikar Tejas Tukaram	Shivraj Heavy Engineering Pvt. Ltd. Dehu- Yelwadi Road, Yelwadi Tq:Khed, Dist:Pune	TE A	01/01/2022	31/01/2022	31
106	Harshal Anil Gaikwad	Patri Engineers	TE A	31/12/2021	31/01/2022	31
107	Saurabh Maskade	Rm Engineering And Consultancy	TE B	24/12/2021	23/01/2022	30
108	Srushti Sunil Shinde	Yash Plastic & Engineering Works	TE B	27/12/2021	27/01/2022	32
109	Vishvajeet Vivek Ghatage	Msl Driveline System Limited	TE A	17/12/2021	18/01/2022	33
110	Heramb Siddheshwar Khandve	512 Army Base Workshop, Kirkee, Pune 03	TE A	05/01/2022	05/02/2022	24
111	Rohan Mane	Resonance Racing	TE B	10/01/2022	10/02/2022	30
112	Sahil Mangesh Pawar	Tejaswi Engineering Works	TE B	03/01/2022	02/02/2022	30
113	Khagesh Sanjay Patil	Masterline Lubricants Pvt Ltd	TE B	08/12/2021	07/01/2022	30
114	Jaswantsingh Patil	Jain pipes systems	TE B	1/01/2022	31/01/2022	30
115	Aryan Rahul Deshpande	Inypco Macmold Industries	TE A	1.1.22	31/01/2022	31
116	Suyash Satish Pawar	Innovative Automation Products	TE B	24/12/2021	23/01/2022	31
117	Vinaya Arun Gholap	Force Motors, Akurdi	TE A	04-01-2022	03/03/2022	59
118	Swapnil Tole	Team Garudashwa, AISSMS CoE	TE B	16/12/2022	31/01/2022	45
119	Deshmukh Rajeshwari Satishrao	Sangamner Taluka Sahakari Dudh Sahgh Ltd(Rajhanse Milk)	TE A	15/02/2022	15/03/2022	30
120	Sakshi Vijay Jagdhane	Rieter India pvt Ltd	TE A	05/01/2022	05/02/2022	30
121	Aniket Ramdas Londhe	Rathod metal rolling mill	TE A	27/12/2021	27/01/2022	28
122	Akshata Sachin Patil	Team Garudashwa, AISSMS COE	TE B	16/12/2021	31/01/2022	45

123	Nikita Anil Bhamare	Om engineering nashik	TE A	8/1/2022	8/2/2022	30
124	Shruti Puntambekar	AISSMSCOE, Team Garudashwa	TE B	16/12/2021	31/1/2022	45
125	Bhosale Omkar Sanjeev	Apex Imprints , MIDC Bhosari	TE A	27/12/2021	25/01/2022	30
126	Neeraj Shashikant Maddel	Yash Automobiles (Yash Honda)	TE B	14/01/2022	14/02/2022	25
127	Sagar Navnath Ghalme	Proto-D Engineering Pvt Ltd Chakan	TE A	01/02/2022	05/03/2022	31
128	Ghadge Jalindar Radhakisan	Proto-D,Pvt Engineering Ltd,Chakan	TE A	1/2/2022	5/3/2022	33

CAYm1(2020-21)

Sr. No.	Name of the Student	Name of the Industry	Class	Training duration		
				Start date	Last date	Duration (days)
1	Abhishek Pisal	Ratna Gears Pvt Ltd	TE	6/1/2019	6/30/2019	30
2	Chetan jain	Balaji Engineering	TE	6/1/2019	6/30/2019	30
3	Mrunal Kukre	Forbes Motors LTd	BE	6/3/2019	7/2/2019	30
4	Kunal gaikwad	Ameya Industries	BE	6/13/2019	6/28/2019	15
5	Pushkaraj deshmukh	Marvelour Metals Pvt Ltd	SE	6/15/2019	6/30/2019	15
6	Vijayalaxmi Kdoli	Hero Pvt Ltd	BE	6/1/2019	6/30/2019	30
7	Kedar Ashtikar	Milman Thinfilm systems	BE	6/2/2019	7/2/2019	30
8	Aditya Chougule	Milman Thinfilm systems	BE	6/2/2019	7/2/2019	30
9	Yadnya Khadake	Cummins India Ltd	BE	6/3/2019	7/3/2019	30
10	Hrushikesh banger	Hrushi Insustries	BE	6/5/2019	6/30/2019	25
11	Pratik Dond	Bosch Ltd Nashik	BE	6/1/2019	6/28/2019	30
12	Suraj Gadgade	DCE Refrigeration	BE	6/16/2019	7/1/2019	15
13	Abhishek Dyade	Engineering Cluster Pvt Ltd	BE	6/7/2019	7/6/2019	30
14	Tejas Borkar	Engineering Cluster Pvt Ltd	BE	6/5/2019	7/4/2019	30
15	Shriya Kulkarni	Blue Huron Industries Pvt Ltd	TE	7/3/2019	6/30/2019	30
16	Shivam Nitin Deshmukh	Shital Enterprises	SE	15/5/2019	25/5/2019	40
17	Siddharth Ingale	Indoswe engineers Pvt ltd	TE	03/06/2019	15/06/2019	13

18	Aryan Rahul Deshpande	Rullitech Engineers	SE	13/05/2019	21/06/2019	42
19	Shree Rajaram Khopade	Gurusai Enterprises	SE	15/05/2019	25/06/2019	42
20	Vedant Rameshrao Godbole	MSRTC	SE	17/05/2019	28/06/2019	42
21	Bhagyesh S Kore	Unik Techno Systems Pvt. Ltd.	SE	27/05/19	07/07/19	52
22	Rohan Soni	S.M. Engineers and Distributors	BE	01/11/2019	15/11/2019	15
23	Patil Madhura Pradip	Citax Energy Dmcc Dubai	BE	25/06/2020	23/07/2020	30
24	Sujal Sanap	Tanmay Engineering	TE	20/6/2020	20/8/2020	60
25	Aayush Satyendra Rawat	Research	TE	05/08/2020	15/09/2020	42
26	Tanmay Chandrakant Gangawane	Upasana Enterprises	TE	21/09/2020	21/10/2020	30
27	Mandar Dilip Shevalkar	Tata Motors Limited	TE	28/08/2020	24/10/2020	58
28	Sourabh Ganesh Hole	Upasana Enterprises	TE	04/09/2020	04/11/2020	60
29	Mandar Dilip Shevalkar	Industrial Training Institute, Aundh	TE	02/11/2020	07/11/2020	6
30	Mandar Dilip Shevalkar	Industrial Training Institute, Aundh	TE	9/11/2020	12/11/2020	4
31	Tushar Koul	Power house	T.E	15/12/2020	31/12/2020	15
32	Rutuja Rohit Kalkate	Ujwal Automotive Pvt.Ltd.Dhule (Dealers of TATA MOTORS)	TE	9/12/2020	09/1/2021	30
33	Jaswantsingh Patil	TVS Motors	SE	15/12/2020	16/1/2021	30
34	Sumit Bendale	Cummins India limited	TE	19/01/2021	28/02/2021	35
35	Jadhav Rutuja Hemant	Adler Pelzer (I) pvt Ltd	SE	08/02/21	05/03/21	30
36	Amit Dhananjay Dhotre	Simulation Lab Pvt. Ltd.	BE	18/01/2021	12/03/2021	54
37	Sonawane Mansi Sanjay	Synergy tooltech	SE	15/02 2021	31/03/2021	45
38	Sidhdee Bhase	ASSIST Design Automation Private Limited	TE	1/02/ 2021	31/03/ 2021	60
39	Kota Rushikesh Manoj	Soham Industries	TE	01/03/2021	01/05/2021	60
40	Abhishek Sanjeev Deo	Indian Space Society	TE	24/01/2021	Ongoing	Min 3 months

CAYm2(2019-20)

Sr. No	Name of the Student	Name of the Industry	Class	Training duration		
				Start date	Last date	Duration (days)
01	Isabel Edison	Thermax Pvt Ltd	TE	6/13/2019	6/28/2019	15 days

02	Kunal Gaikwad	Ameya Industries	TE	6/13/2019	6/28/2019	15 days
03	Pushkaraj Deshmukh	Marvelour Metals Pvt Ltd	TE	6/15/2019	6/30/2019	15 days
04	Vijayalaxmi Kodoli	Hero Pvt Ltd	TE	6/01/2019	6/30/2019	30 days
05	Kedar Ashtikar	Milman Thinfilm systems	TE	6/02/20119	7/02/2019	30 days
06	Aditya Chougule	Milman Thinfilm systems	TE	6/02/20119	7/02/2019	30 days
07	Yadnya Khadake	Cummins India Ltd	TE	6/03/20119	7/03/2019	30 days
08	Hrushikesh Banger	Hrushi Insustries	TE	6/05/20119	6/30/2019	25 days
09	Pratik Dond	Bosch Ltd Nashik	TE	6/01/20119	6/28/2019	28 days
10	Suraj Gadgade	DCE Refrigeration	TE	6/16/20119	7/01/2019	15 days
11	Abhishek Dyade	Enggineering Cluster Pvt Ltd	TE	6/07/20119	7/06/2019	30 days
12	Tejas Borkar	Enggineering Cluster Pvt Ltd	TE	6/05/20119	7/04/2019	30 days
13	Abhishek Pisal	Ratna Gears Pvt Ltd	TE	6/01/2019	6/30/2019	30 days
14	Rohan Soni	S. M. Engineers and Distributors	TE	11/01/2019	11/15/2019	15 days
15	Himanshu Jaiswal	Engineering Cluster	TE	6/05/2019	7/04/2019	30 days
16	Shrungal Kulkarni	CASIO	TE	8/01/2019	9/30/2019	60 days
17	Aditya Ghode	Sundaram Fasteners	TE	6/10/2019	6/21/2019	10 days

Memorandum of Understanding (MOU's):

Memorandum of Understandings are signed between our Department and various Industry like systems through which Students can gain their knowledge relevant to industries by interacting with industry persons during Guest lectures, Seminars and Workshops.

MOU SIGNED WITH ACADEMIC AND PROFESSIONAL ORGANISATIONS

CAY (2021-22)

Sr. No	Faculty Coordinator	Name of Industry	Date of MoU Signed	Valid upto
1	Dr C S Choudhari, Dr A V Waghmare	Vimal Nourishment Technologies Pvt. Ltd. Pune	04/08/2021	04/08/2024
2	Dr D Y Dhande	University of Therengganu, malaysia	01/07/2021	30/06/2023
3	Dr. B. D. Bachhav Dr. C. S. Chaudhari Dr. P. S. Gajjal	Setco Spindles India (Pvt) Ltd Pune	18/02/2022	17/02/2025
4	Dr. B. D. Bachhav	Stead Solve Design and Manufacturing Solutions LLP Pune	23/02/2022	22/02/2025
5	Dr. S H Wankhade	UB Cryogenic Solutions LLP, Pune	04/03/2022	03/03/2025

6	Dr. B. D. Bachchhav	Institute of Systems Pune.	04/04/2022	03/04/2025
7	Dr. B. D Bachchhav Dr S V Chaitanya	SSIG Manufacturing Advancements Pvt Ltd. Pune	27/04/2022	26/04/2025

CAYm2 (2019-20)

Sr. No	Faculty Coordinator	Name of Industry	Date of MoU Signed	Valid upto (00/00/0000)
1	Mr M P Bauskar	Mettchnik Pvt Ltd	10/10/2019	10/10/2024
2	Dr S J Navale	Avishkar Engineers Pvt.Ltd	31/12/2019	31/12/2020
3	D S Mane	Suntech Landriani Machine Tools Pvt Ltd	08/08/2018	07/08/2021
4	D S Mane	Nemade Engineers Pvt Ltd	08/08/2018	07/08/2021
5	P.S.Aglawe	eAdicct Mobility Solution Pvt Ltd	21/08/2017	21/08/2022

3 COURSE OUTCOMES AND PROGRAM OUTCOMES (120)

Total Marks 110.00

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	Our graduate will have competencies in design and develop mechanical elements and systems.
PSO2	Our graduate will have incremental skills to specify and select materials, processes to manufacture an industrial product.
PSO3	Our graduate will have ability to analyze and evaluate performance of thermal system.

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 41**	**Course Year :**	**2020-2021**

Course Name	Statements
C2 41.1	On completion of the course, students will be able to DEFINE various types of stresses and strain developed on determinate and indeterminate members.

C2 41.2	DRAW Shear force and bending moment diagram for various types of transverse loading and support.
C2 41.3	COMPUTE the slope & deflection, bending stresses and shear stresses on a beam.
C2 41.4	CALCULATE torsional shear stress in shaft and buckling on the column.
C2 41.5	APPLY the concept of principal stresses and theories of failure to determine stresses on a 2-D element.
C2 41.6	UTILIZE the concepts of SFD & BMD, torsion and principal stresses to solve combined loading application based problems.

Course Name :	**C2 47**	**Course Year :**	**2020-2021**

Course Name	Statements
C2 47.1	On completion of the course, students will be able to APPLY kinematic analysis to simple mechanisms.
C2 47.2	ANALYZE velocity and acceleration in mechanisms by vector and complex algebra method, Analyze Single and Double Hook’s joint.
C2 47.3	ANALYZE velocity and acceleration in mechanisms by graphical method.
C2 47.4	SYNTHESIZE a four-bar mechanism with analytical and graphical methods.
C2 47.5	APPLY fundamentals of gear theory as a prerequisite for gear design.
C2 47.6	CONSTRUCT cam profile for given follower motion.

Course Name :	**C3 42**	**Course Year :**	**2021-2022**

Course Name	Statements
C3 42.1	On completion of the course, students will be able to ANALYSE and APPLY the modes of heat transfer equations for one dimensional thermal system.
C3 42.2	DESIGN a thermal system considering fins, thermal insulation and & Transient heat conduction.
C3 42.3	EVALUATE the heat transfer rate in natural and forced convection & validate with experimentation results.
C3 42.4	INTERPRET heat transfer by radiation between objects with simple geometries, for black and gray surfaces.
C3 42.5	ABILITY to analyze the rate of mass transfer using Fick's Law of Diffusion and understands mass diffusion in different coordinate systems.
C3 42.6	DESIGN and ANALYSIS of heat transfer equipment and investigation of its performance.

Course Name :	**C3 51**	**Course Year :**	**2021-2022**

Course Name	Statements
C3 48.1	On completion of the course, students will be able to APPLY the principle of Spur & Helical gear design for industrial application and PREPARE a manufacturing drawing with the concepts of GD&T.

C3 48.2	EXPLAIN and DESIGN Bevel & Worm gear considering design parameters as per design standards.
C3 48.3	SELECT and DESIGN Rolling and Sliding Contact Bearings from manufacturer's catalogue for a typical application considering suitable design parameters.
C3 48.4	DEFINE and DESIGN various types of Clutches, Brakes, used in automobile.
C3 48.5	APPLY various concept to DESIGN Machine Tool Gear box, for different applications
C3 48.6	ELABORATE various modes of operation, degree of hybridization and allied terms associated with hybrid electric vehicles.

Course Name :	**C4 43**	**Course Year :**	**2021-2022**

Course Name	Statements
C4 43.1	On completion of the course, students will be able to UNDERSTAND the fundamentals of vibration and noise.
C4 43.2	DEVELOP analytical competency in solving one degree of freedom vibration problems.
C4 43.3	MODEL and SOLVE undamped two degree of freedom vibration problem to determine natural frequencies and mode shapes
C4 43.4	REALIZE the importance of effects of unbalance on the performance of mechanical systems and apply balancing techniques
C4 43.5	ANALYSE the noise, it’s measurements and apply noise reduction techniques for real-life problems
C4 43.6	DESCRIBE vibration measuring instruments for practical applications along with suitable vibration control methods

Course Name :	**C4 48**	**Course Year :**	**2021-2022**

Course Name	Statements
C4 48.1	On completion of the course, students will be able to UNDERSTAND and ANALYZE the design of multistage gear box
C4 48.2	UNDERSTAND and APPLY the statistical parameters or consideration in design.
C4 48.3	UNDERSTAND and APPLY the design of belt conveyor system for material handling system.
C4 48.4	UNDERSTAND and DESIGN the cylinders and pressure vessels.
C4 48.5	UNDERSTAND and ANALYZE the design of I.C. Engine Components.
C4 48.6	EVALUATE the optimum design parameters.

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 : C241

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

C241.1	2	2	-	-	-	-	-	-	-	1	-	-
C241.2	2	2	1	-	2	-	-	-	-	-	-	-
C241.3	2	1	-	-	-	-	-	-	-	-	-	-
C241.4	2	2	-	-	1	-	-	-	-	1	-	-
C241.5	2	2	-	-	-	-	-	-	-	1	-	-
C241.6	2	1	1	-	-	-	-	-	-	-	-	-
Average	**2.00**	**1.66**	**1.00**	**0.00**	**1.50**	**0.00**	**0.00**	**0.00**	**0.00**	**1.00**	**0.00**	**0.00**

2 . course name : C247

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C247.1	2	2	1	1	-	-	-	-	-	-	-	-
C247.2	2	2	1	-	-	-	-	-	-	-	-	-
C247.3	2	2	2	1	-	-	1	1	-	-	-	-
C247.4	2	2	1	1	-	1	-	1	-	-	-	-
C247.5	2	2	1	1	-	-	-	-	-	-	-	-
C247.6	2	2	1	1	-	1	-	-	-	-	-	-
Average	**2.00**	**2.00**	**1.17**	**1.00**	**0.00**	**1.00**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**

3 . course name : C342

Course	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**
C342.1	3	3	-	-	-	-	-	-	-	1	-	1
C342.2	3	3	2	1	-	-	-	-	-	1	-	1
C342.3	3	3	2	1	-	2	-	-	1	2	-	1
C342.4	3	3	1	1	-	-	-	-	-	1	-	1
C342.5	3	3	2	2	-	2	2	2	-	1	2	1
C342.6	3	3	-	-	-	-	-	-	-	-	-	1
Average	**3.00**	**3.00**	**1.75**	**1.25**	**0.00**	**2.00**	**2.00**	**2.00**	**1.00**	**1.20**	**2.00**	**1.00**

4 . course name : C351

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C348.1	2	2	2	2	2	-	-	-	2	2	1	2
C348.2	2	2	2	2	2	-	-	-	2	2	1	2
C348.3	2	2	2	2	2	-	-	-	2	2	1	2
C348.4	2	2	2	2	2	-	-	-	2	2	1	2
C348.5	2	2	2	2	2	-	-	-	2	2	1	2
C348.6	2	2	2	2	2	-	-	-	2	2	1	2
Average	**2.00**	**2.00**	**2.00**	**2.00**	**2.00**	**0.00**	**0.00**	**0.00**	**2.00**	**2.00**	**1.00**	**2.00**

5 . course name : C443

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C443.1	3	3	2	2	-	-	-	-	2	-	-	-
C443.2	3	3	2	3	-	-	-	-	2	-	-	-
C443.3	3	2	2	2	-	-	-	-	2	-	-	-
C443.4	3	2	2	2	-	-	-	-	2	-	-	-
C443.5	3	2	2	2	3	-	2	-	2	-	-	2
C443.6	3	2	2	2	3	-	2	-	2	-	-	2
Average	**3.00**	**2.33**	**2.00**	**2.16**	**3.00**	**0.00**	**2.00**	**0.00**	**2.00**	**0.00**	**0.00**	**2.00**

6 . course name : C448

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C448.1	3	3	3	2	-	1	-	-	-	-	-	3
C448.2	3	3	3	1	1	1	-	-	-	-	-	2
C448.3	3	3	3	1	-	1	-	1	-	-	-	3
C448.4	3	3	3	1	-	1	-	-	-	-	-	3
C448.5	3	3	3	1	-	1	-	-	-	-	-	2
C448.6	2	3	3	2	1	1	-	-	-	-	-	3

Average	**2.83**	**3.00**	**3.00**	**1.33**	**1.00**	**1.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.67**

1 . Course Name : C241

Course	PSO1	PSO2	PSO3
C241.1	2	1	2
C241.2	2	-	-
C241.3	2	-	1
C241.4	1	1	-
C241.5	2	1	-
C241.6	1	1	-
Average	**1.66**	**1.00**	**1.50**

2 . Course Name : C247

Course	PSO1	PSO2	PSO3
C247.1	1	-	-
C247.2	2	1	-
C247.3	2	2	1
C247.4	1	1	-
C247.5	1	1	-
C247.6	1	-	-
Average	**1.33**	**1.25**	**1.00**

3 . Course Name : C342

Course	PSO1	PSO2	PSO3
C342.1	1	1	2
C342.2	1	1	2
C342.3	1	1	2
C342.4	1	1	3

C342.5	1	1	3
C342.6	1	2	3
Average	**1.00**	**1.17**	**2.50**

4 . Course Name : C351

Course	PSO1	PSO2	PSO3
C348.1	-	2	-
C348.2	-	3	-
C348.3	-	2	-
C348.4	-	2	-
C348.5	1	2	-
C348.6	2	1	-
Average	**1.50**	**2.00**	**0.00**

5 . Course Name : C443

Course	PSO1	PSO2	PSO3
C443.1	2	2	-
C443.2	1	2	-
C443.3	1	2	-
C443.4	-	-	-
C443.5	-	-	-
C443.6	-	2	-
Average	**1.33**	**2.00**	**0.00**

6 . Course Name : C448

Course	PSO1	PSO2	PSO3
C448.1	3	2	-
C448.2	2	2	-

C448.3	3	2	-
C448.4	3	2	-
C448.5	3	2	-
C448.6	2	1	-
Average	**2.66**	**1.83**	**0.00**

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
101011	2	2	PO3	PO4	1	PO6	PO7	PO8	PO9	1	PO11	PO12
102003	2	1	PO3	PO4	PO5	PO6	1	PO8	PO9	1	PO11	PO12
102012	2	1	1	PO4	1	PO6	PO7	PO8	PO9	1	PO11	PO12
103004	1.5	1.5	1	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
104010	2	1	1	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
107001	3	2	1	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
107002	2	1	PO3	PO4	1	PO6	1	PO8	PO9	1	PO11	PO12
107008	3	2	1	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
107009	2.3	2	1	PO4	PO5	PO6	1	PO8	1	1	PO11	PO12
110005	1.3	2	1.6	PO4	1	PO6	PO7	1	1	1	PO11	PO12
110013	2.3	1.3	1	PO4	2.5	1	1	PO8	2.	1	1	PO12
111006	1	1	1	1	PO5	1	PO7	PO8	PO9	PO10	PO11	PO12
202041	2	1.7	1	PO4	1.5	PO6	PO7	PO8	PO9	1	PO11	PO12
202042	3	2.3	1.5	PO4	3	PO6	PO7	PO8	PO9	2.8	PO11	1
202043	3	2.8	1.7	2.5	1	PO6	1	PO8	PO9	PO10	1	1
202044	3	2.5	1.5	2	2	2	1	PO8	1.5	1	PO11	2
202045	2.5	1.3	2.3	1.5	1	PO6	PO7	PO8	PO9	2	PO11	1
202047	2	2	1.2	1	PO5	1	1	1	PO9	PO10	PO11	PO12
202048	3	2.8	2.5	2	2	2	2	2	2	1.5	2	1
202049	3	3	2	2	PO5	PO6	PO7	PO8	1	1	PO11	1

202050	2.5	2.2	1.7	1.8	1	PO6	1	PO8	PO9	1.5	PO11	1
202051	2.2	2	1	1	1	PO6	1	PO8	1.5	2.2	PO11	1
202052	2.7	2.5	3	PO4	3	2	PO7	2	3	3	PO11	1
203156	1.5	1	1.7	PO4	2.8	1	1.5	PO8	1.7	1	PO11	1
207002	3	1	1	2	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
302041	3	3	1.8	2	1	1	PO7	PO8	2	1	1	PO12
302042	3	3	1.8	1.3	PO5	2	2	2	1	1.2	2	1
302043	3	2.3	1.5	2	PO5	1	PO7	PO8	PO9	1	PO11	1
302044	3	3	2	1	PO5	PO6	PO7	PO8	1	1	PO11	1
302045	2.2	2.7	2	2	1	PO6	PO7	PO8	2	2	PO11	1
302046	2.7	2.5	3	2	2	PO6	2	2	2	3	2	2
302047	3	3	3	2	3	PO6	PO7	PO8	2	3	PO11	PO12
302048	3	3	3	PO4	3	PO6	3	PO8	3	3	PO11	PO12
302049	3	2.7	2.3	2.8	2.5	2	1	1	1.3	2	1	1.3
302050	3	2	2	2	2	PO6	PO7	PO8	PO9	2	PO11	2
302051	2.3	2	2.2	2	PO5	PO6	PO7	PO8	PO9	2	PO11	1
302052	2.3	2.3	1.5	1.5	2	1	PO7	PO8	PO9	2	PO11	1
302053	2	2	1	PO4	2	3	1	2	2	3	PO11	2
402041	3	2.2	2.2	3	2.7	3	2	3	PO9	PO10	PO11	PO12
402042	3	1.7	1.5	1	2	PO6	1	PO8	PO9	1.2	PO11	1
402043	3	2.3	2	2.2	3	PO6	2	PO8	2	PO10	PO11	2
402046	3	2.5	1.7	1.6	1.7	2	1.7	2	2.2	1.6	1.7	2
402047	2.7	2.5	1.7	1.3	1.5	PO6	1	PO8	PO9	PO10	PO11	1
402048	2.8	3	3	1.3	1	1	PO7	PO8	PO9	PO10	PO11	2.7
402051	2.8	2	2	2	1.5	1.5	2	2.5	2	2.3	2	2

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

Course	PSO1	PSO2	PSO3
101011	1.7	1	1

102003	1	1.5	2
102012	1	1	1
103004	PSO1	PSO2	PSO3
104010	PSO1	PSO2	PSO3
107001	1.3	1.2	1.3
107002	1	1.3	1
107008	1	1	1
107009	PSO1	1	2
110005	PSO1	PSO2	PSO3
110013	1	1	1
111006	1	1	1
202041	1.67	1	1.5
202042	2	PSO2	PSO3
202043	PSO1	PSO2	3
202044	2.5	2.17	2
202045	1.5	1.5	PSO3
202047	1.33	1.25	1
202048	2	1	2
202049	PSO1	PSO2	2
202050	1.67	1.5	1
202051	1.5	1.5	1.25
202052	1	1	1
203156	1.75	1.5	1
207002	1	1	1
302041	1.83	1	PSO3
302042	1	1.17	2.5
302043	1.5	1	PSO3
302044	1	PSO2	2

302045	1	2	PSO3
302046	1	1	PSO3
302047	3	2	PSO3
302048	3	2	PSO3
302049	PSO1	PSO2	2.83
302050	1.83	2	2
302051	1.5	2	PSO3
302052	2	1.33	1.67
302053	1	2	PSO3
402041	2.67	2.5	1.5
402042	1.67	2	PSO3
402043	1.33	2	PSO3
402046	2	2	1
402047	PSO1	PSO2	3
402048	2.67	1.83	PSO3
402051	2	2	1

3.2 Attainment of Course Outcomes (50) Total Marks 45.00

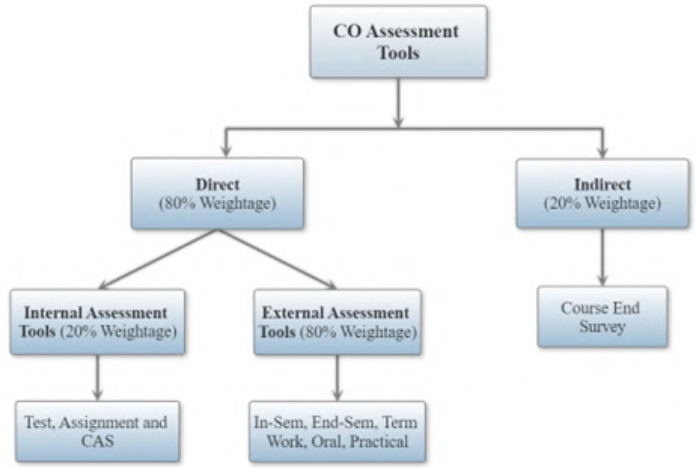
3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based (10) Institute Marks : 10.00

Assessment Process Details

Course Outcomes (COs): Statements indicating what a student will be able do after the successful completion of a course. Every Course have some Course Outcomes. The CO statements are defined by considering the course content covered in each unit of a course. For every course there are 6 COs framed/reframed. The keywords used to define COs are based on Bloom's Taxonomy.

The department carried out assessment processes to gather and prepare data to evaluate the attainment of course outcomes and program outcomes. Attainment is the action of attaining a standard result towards achievement of expected goals.

Direct and indirect assessment tools are used to calculate CO attainment of the course. 80% weightage is given to direct assessment tools and 20% weightage is given to indirect assessment tool.



Direct Assessment Tools

Course Outcome is evaluated based on the performance of students in internal assessments and in external assessment (university examination) of a course. Internal assessment contributes 20% and university assessment contributes 80% to the total attainment of a CO using direct assessment tools.

Theory:

Internal Tests and Assignments: Internal tests and assignments serve to encourage students to keep up with course content covered in class. Each course is divided in to six units and one test on each unit is conducted to evaluate students' performance. Three assignments based on 2 units each are designed.

The questions are framed in such a way that it should satisfy Bloom's Taxonomy, wherein each question paper is mapped to the respective course outcome of the course, which is evaluated based on the set attainment levels by the department.

University Examination: These in-semester and end-semester examinations are conducted by university. In semester examination covers 3 units of the course and end-semester examination covers the entire syllabus of the course. In-semester examination satisfy 3 COs and End-semester examination would satisfy all course outcomes for a particular course.

Practical:

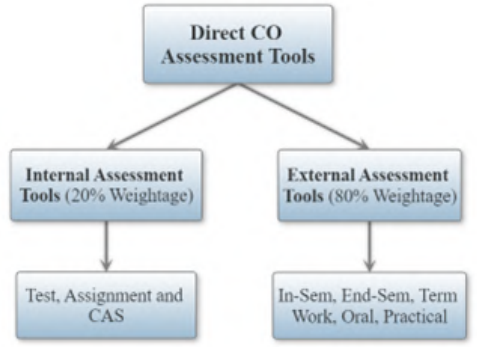
Lab courses provide students direct knowledge with course concepts and the opportunity to explore methods used in their discipline. All the students are expected to learn the practical aspects of the course and develop the necessary skills to become professionals. Students' performance is evaluated using Continuous Assessment Sheet (CAS). Parameters used in CAS are Regularity, Experiment write up and his/her Performance during each experiment.

University Examination: The end semester examination in the form of Term Work/Oral/Practical is conducted with an external examiner and the internal examiner.

CO Assessment Tools:

Direct assessment method i.e., using internal and external assessment tools is considered for evaluation of CO.

For the evaluation and assessment of CO's, different tools as defined above are used. Course Outcome is evaluated based on the performance of students with internal assessments and external assessment (university examination) tools for respective course.



The particulars of Assessment tools used for the evaluation of Course Outcomes, Program Outcome and Program Specific Outcome is given in **Table – B 3.2.1a**. The various assessment tools used to evaluate COs, POs/PSOs and the frequency with which the assessment processes are carried out are listed in table.

Sr. No.	Assessment Tool	Description	Evaluation of Course Outcomes	Related POs/PSOs	Frequency of assessment per term
Internal Assessment Tools					
1.	Test	Written examination	Questions in the test are mapped against CO of respective course.	Corresponding mapped POs/PSOs with the CO	Six (One for each CO)
2.	Assignment	Set of question to solve to home. (Open Book)	Questions in the assignment are mapped against two CO of respective course.	Corresponding mapped POs/PSOs with the COs	Three (one for Two COs)
3	Continues Assessment Sheet (CAS)	Assessment of students during practical	Based on the COs mapped with the experiments / assignments	Corresponding mapped POs/PSOs with the COs	For each experiment/ assignment during practical.
External Assessment Tools					
4	In-Sem Exam	Written examination	Questions in the exam are mapped against COs corresponds to first three units of respective course.	Corresponding mapped POs/PSOs with the COs	One (Mid of the Term)
5	End-Sem Exam	Written examination	Questions in the exam are mapped against COs corresponds to complete syllabus of respective course.	Corresponding mapped POs/PSOs with all COs	One (End of the Term)
6	Term Work	Based on the continues assessment during practical sessions –CAS is used	Based on the COs mapped with the experiments / Assignments	Corresponding mapped POs/PSOs with the COs	One (End of the Term)

7	Oral/Practical	Based on the experiments / assignment performed during practical session	Based on the COs mapped with the experiments / Assignments	Corresponding mapped POs/PSOs with the COs	One (End of the Term)
8	Seminar	Based on the continues assessment during practical sessions – CAS is used	Based on the COs mapped	Corresponding mapped POs/PSOs with the COs	One (End of the Term)
9	Project	Based on the continues assessment during internal review and university exams, CAS and rubrics are used	Based on the COs mapped	Corresponding mapped POs/PSOs with the COs	External – One (End of the Term) and Internal Review – Two in Term

Table B3.2.1a: Mapping of assessment tools to COs, POs/PSOs with frequency

Indirect CO Assessment Tool: Course End Survey

Course End Surveys are administered at the end of term to get the course to perceptions of students regarding the implementation of academic activity. It also invites the students to further incorporate the feasible suggestions for improvement.

Course End Survey provides valuable feedback to the faculty. This feedback is quite helpful in improving the quality of the teaching learning and closing the quality loop. Based on the feedback, faculty can plan the necessary improvements for next time to enhance the quality.

For each course, a specific course end survey form is designed. The questions related to the course and mapped with the COs. Responses were collected through forms on the scale of 1 – 3 (Low to High). This data is used for computing the indirect CO attainment. Weightage for indirect CO attainment is 20%.

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

Institute Marks : 35.00

Attainment Levels

Course outcomes of the courses are assessed with the help of assessment tools and attainment level is evaluated. Target is stated in terms of percentage of students getting more than the set percentage of marks. Attainment is measured in terms of actual percentage of students getting set percentage of marks. Attainment Levels for internal as well as external assessment tools are defined as;

Attainment Level 1: 40% to 60% students scoring more than **60%** marks out of the relevant maximum marks.

Attainment Level 2: 60% to 70% students scoring more than **60%** marks out of the relevant maximum marks.

Attainment Level 3: More than **70%** students scoring more than **60%** marks out of the relevant maximum marks.

A. **Evaluation of CO Attainment by Internal Assessment Tool**

Internal assessment tools such as Test, Assignment and Continues Assessment Sheet are used to evaluate CO attainment level.

i. **CO – Assessment Tool Mapping and evaluation**

For the evaluation of the student's performance in terms of CO attainment, each internal assessment tool is mapped with COs.

Consider a particular course having Six Course Outcomes (CO.1 to CO.6) and the assessment tools for each CO and maximum marks (MTi and MAi) as in below **Table – B 3.2.2a**. Considering performance of students and target values, ATi and AAi are the CO attainment by each tool.

Assessment Tool -->	Test-1	Test-2	Test-3	Test-4	Test-5	Test-6	Assig. -1	Assig. -2	Assig. -3	CAS
COs Mapped	**CO.1**	CO.2	CO.3	CO.4	CO.5	CO.6	**CO.1**, CO.2	CO.3, CO.4	**CO.5**, CO.6	**CO.1** to CO.6
Maximum Marks	MT1	MT2	MT3	MT4	MT5	MT6	MA1	MA2	MA3	MCS
CO Attainment Level	AT1	AT2	AT3	AT4	AT5	AT6	AA1	AA2	AA3	ACS

Table – B 3.2.2a - Mapping of Assessment Tools

As multiple tools are used for assessment of each Course Outcome, Final CO attainment of each CO will depend on CO attainment by each tool. Final CO attainment of CO.1 depends on CO attainment through multiple assessment tools such as Test – 1, Assig. – 1 and CAS.

Final CO attainment of CO.1

ACO.1 = f(AT1, AA1, ACS)

Similarly

ACO.2 = f(AT2, AA1, ACS) and

ACO.6 = f(AT6, AA3, ACS)

i. **Weightage and Attainment Levels**

Final CO attainment of each CO is calculated by weighted method. Maximum marks allocated for each tool are considered for deciding the weight of corresponding tool. If an assessment tool is used for two or more COs, equal distribution of maximum marks is considered. Assig.-1 is assessment tool for CO.1 and CO.2, maximum mark are distributed equally to each CO i.e. AT1/2 for each CO.

CO	Assessment Tool, Weightage and Attainment Level			Total
CO.1	Test-1	Assig. -1	CAS	
Marks for CO.1	MT1/1	MA1/2	MCS/6	**MCO1**
Weightage	WT1 = MT1 / (1*MCO1)	WA1 = MA1 / (2*MCO1)	WCS = MCS / (6*MCO1)	**1**
CO Attainment	AT1	AA1	ACS	
Final CO Attainment =		**WT1*AT1 + WA1*AA1 + WCS*ACS**		
CO.6	Test-6	Assig. -3	CAS	
Maximum Marks	MT6/1	MA3/2	MCS/6	**MCO6**
Weightage	WT6 = MT6 / (1*MCO6)	WA3 = MA3 / (2*MCO6)	WCS = MCS / (6*MCO6)	**1**
CO Attainment	AT6	AA3	ACS	
Final CO Attainment =		**WT6*AT6 + WA3*AA3 + WCS*ACS**		

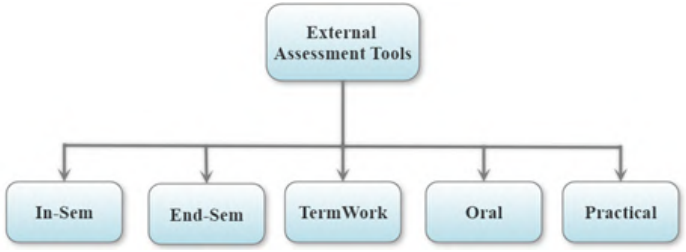
Table B 3.2.2b Evaluation of CO attainment

Final CO Attainment for particular CO using multiple internal assessment tools is calculated as

$$\Sigma \text{ weightage} * CO\ attainment$$

B. CO Attainment Levels by External Assessment Tools:

CO attainment by the external assessment tools (defined in the university syllabus structure) is calculated by weighted average method.



i. **CO – Assessment Tools Mapping**

For the evaluation of the student's performance in terms of CO attainment, each external assessment tool is mapped with COs.

					End Sem with weightage	
In-Sem	TW		Practical		End Sem	Marks
Yes	Yes		Yes		Yes	6
Yes	Yes		Yes		Yes	7
Yes	Yes		Yes		Yes	7
	Yes		Yes		Yes	16
	Yes		Yes		Yes	16
	Yes		Yes		Yes	18
					Total	70

Table B 3.2.2c CO – Assessment tool Mapping

End Sem examination is for 70 marks and weightage for each CO is different as marks allocated for each CO are different.

Considering mapping of each external assessment tool and marks allocated weightage is calculated for each assessment tool.

Weighted method is used to calculate final attainment of each CO as defined earlier in case of internal assessment tools.

C. CO Attainment Level by Indirect Assessment Tool

Course end survey is used as Indirect assessment tool for CO attainment. 5 to 6 questions are framed to address all the COs of the course. Responses are collected through forms on the scale of 1 – 3 (Low to High). Average of the responses is considered as CO attainment on the scale of 0 to 3. Weightage for indirect CO attainment is 20%.

D. CO Attainment Level for Course

Multiple tools are used for the evaluation and assessment of COs. Direct assessment tools are Internal assessment tools and external assessment tools are university exams having 80% weightage. While calculating the CO attainment by direct assessment tools for each CO, 20% weightage is given to internal assessment tools and 80% weightage is given to external assessment tools.

Weightage for CO attainment by indirect assessment tool (Course End Survey) is 20 %.

Thus, CO attainment using all the tools is

Course Outcome of all courses are listed in table below:

Code	Course	CO1	CO2	CO3	CO4	CO5	CO6
	First Year						
107001	Engineering Mathematics - I	3.00	3.00	2.16	2.15	2.25	2.26
107002	Engineering. Physics	2.93	2.93	2.20	2.28	2.05	2.06

102003	Systems in Mechanical Engineering	2.52	2.52	2.22	2.22	2.22	2.22
103004	Basic Electrical Engineering	3.00	3.00	3.00	3.00	2.40	2.40
110005	Programming & Problem Solving	3.00	2.66	3.00	3.00	2.40	2.40
111006	Workshop Practices	3.00	3.00	3.00	3.00		
107008	Engineering Mathematics - II	3.00	3.00	2.80	2.80	3.00	2.90
107009	Engineering Chemistry	2.73	3.00	3.00	2.85	2.80	2.70
104101	Basic Electronics Engineering	3.00	3.00	3.00	3.00	3.00	3.00
101011	Engineering Mechanics	3.00	3.00	3.00	3.00	3.00	2.87
102012	Engineering Graphics	3.00	3.00	3.00	3.00	3.00	3.00
110013	Project Based Learning - I	3.00	3.00	3.00	3.00	3.00	3.00
	Second Year						
202041	Solid Mechanics	3.00	3.00	2.18	2.19	2.18	2.19
202042	Solid Modeling and Drafting	2.73	2.93	3.00	3.00	3.00	2.85
202043	Engineering Thermodynamics	3.00	3.00	3.00	3.00	3.00	3.00
202044	Engineering Materials and Metallurgy	3.00	2.88	3.00	3.00	3.00	3.00
203156	Electrical and Electronics Engineering	3.00	3.00	3.00	3.00	3.00	3.00
202045	Geometric Dimensioning and Tolerancing Lab	3.00	3.00	3.00	3.00	1.50	1.50
207002	Engineering Mathematics - III	3.00	3.00	2.68	2.68	2.68	2.62
202047	Kinematics of Machinery	2.77	3.00	3.00	3.00	2.95	2.70
202048	Applied Thermodynamics	3.00	3.00	3.00	3.00	3.00	3.00
202049	Fluid Mechanics	3.00	3.00	3.00	3.00	2.68	2.68
202050	Manufacturing Processes	3.00	3.00	3.00	3.00	3.00	3.00
202051	Machine Shop	3.00	3.00	3.00	3.00	3.00	3.00
202052	Project Based Learning - II	3.00	3.00	3.00	3.00	3.00	3.00

	Third Year						
302041	Design of Machine Elements-I	3.00	2.89	2.89	3.00	2.89	3.00
302042	Heat Transfer	3.00	3.00	3.00	3.00	3.00	3.00
302043	Theory of Machines-II	3.00	2.80	3.00	3.00	3.00	3.00
302044	Turbo Machines	2.70	2.68	3.00	3.00	2.84	2.84
302045	Metrology and Quality Control	3.00	3.00	3.00	3.00	3.00	3.00
302046	Skill Development	3.00	3.00	3.00	3.00	3.00	3.00
302047	Numerical Methods and Opt	2.93	2.93	3.00	3.00	3.00	2.85
302048	Design of Machine Elements-II	2.84	3.00	3.00	2.91	3.00	3.00
302049	Refrigeration and Air Conditioning	3.00	3.00	3.00	3.00	3.00	3.00
302050	Mechatronics	2.73	2.73	2.87	3.00	3.00	2.67
302051	Manufacturing Process-II	3.00	3.00	3.00	3.00	3.00	3.00
302052	Machine Shop-II	3.00	3.00	3.00	3.00		
302053	Seminar	3.00	3.00	3.00	3.00	3.00	3.00
	Fourth Year						
402041	Hydraulics and Pneumatics	3.00	3.00	3.00	3.00	3.00	3.00
402042	CAD CAM Automation	2.97	2.97	2.84	2.84	2.84	2.84
402043	Dynamics of Machinery	3.00	3.00	2.85	3.00	2.84	2.84
402046	Project-I	3.00	3.00	3.00	3.00	3.00	3.00
402047	Energy Engineering	3.00	3.00	3.00	3.00	3.00	3.00
402048	Mechanical System Design	3.00	2.93	3.00	3.00	3.00	3.00
402051	Project-II	3.00	3.00	3.00	3.00	3.00	3.00

Table B 3.2.2d CO – Attainment for 2020 – 21

3.3 Attainment of Program Outcomes and Program Specific Outcomes (50) Total Marks 45.00

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

"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 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.

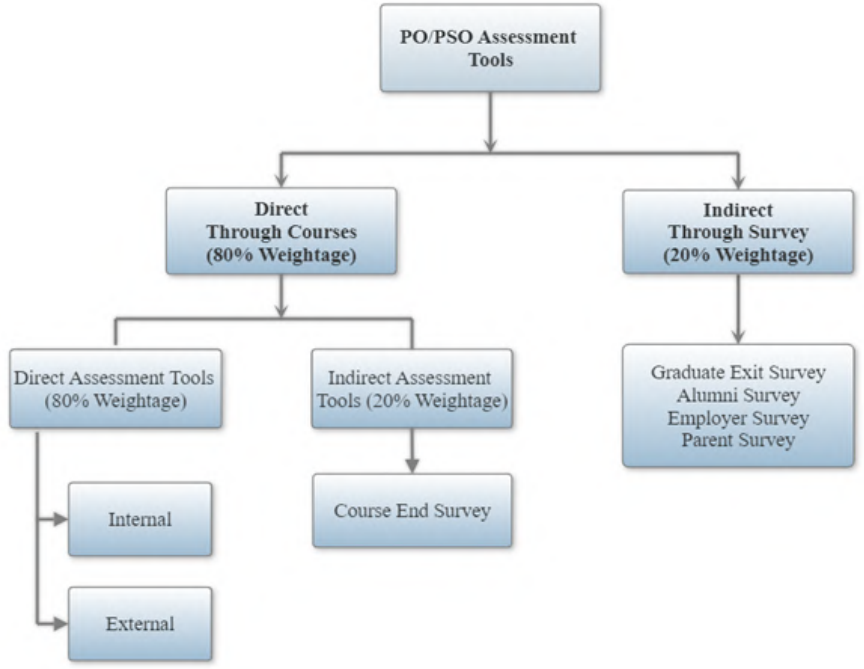
POs give useful guidance at the program level for the curriculum design, delivery and assessment of student learning. However, they represent fairly high-level generic goals that are not directly measurable. Real observability and measurability of the POs at course level is very difficult. To connect 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. 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.*
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.*

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."

PO/ PSO Assessment Tools

Direct assessment tools and indirect assessment tools are considered for assessment of POs and PSOs. Direct assessment tool used is through courses. The tools used for assessment of POs/PSOs are same which are used for assessment of COs. These tools are defined in **Table B 3.2.1a**. Indirect assessment is done through Graduate exit survey, Employer survey, Parent Survey and Alumni Survey.



PO/PSO assessment is done by giving 80% weightage to direct assessment and 20% weightage to indirect assessment. Direct assessment is based on CO attainment, where 80% weightage is given to attainment through Direct Assessment Tools and 20% weightage is given to attainment through Indirect assessment tool. Indirect assessment of Pos and PSOs is done through Graduate exit survey, Employer Survey, Parent Survey and Alumni Survey. Weightage for each survey is equal.

Target Levels for PO/PSO

The tools used for evaluation on Pos and PSOs are courses and the survey. Hence to decide the target levels of PO/PSOs, average of CO – PO/PSO mapping of all subjects and target level of surveys are consider. 80 % weightage is for average of CO – POS mapping and 20 % weightage for survey.

Attainment Levels of POs/PSOs through Courses

The various direct assessment tools used to evaluate COs and the frequency with which the assessment processes are carried out are listed in **Table – B 3.2.1a**.

Tools used to evaluate PO/PSO attainment are same as that of CO attainment. Attainment Levels for internal as well as external assessment tools are also same for PO/PSO attainment and defined as;

Attainment Level 1: 40% to 60 % students scoring more than **60%** marks out of the relevant maximum marks.

Attainment Level 2: 60% to 70 % students scoring more than **60%** marks out of the relevant maximum marks.

Attainment Level 3: More than **70%** students scoring more than **60%** marks out of the relevant maximum marks.

As the tools and criteria for defining attainment level are same for CO attainment and PO/PSO attainment levels, values of CO attainment levels are used to calculate PO/PSO attainment. Direct assessment of PO/PSO is based on CO attainment and correlation level.

Sample calculation for PO/PSO attainment is described in following three steps:

Step – 1

CO Attainment and CO – PO/PSO mapping is defined for course by correlation level low to high (1 to 3).

Course Outcomes	CO Attainment	Program Outcomes			
		PO1	PO2	PO3	PSO1
CO207002.1	2.5	3	1		
CO207002.2	2.8	3	2	1	1
CO207002.3	2.3	2	2		2
CO207002.4	1.5	2	1	1	1
CO207002.5	2.0	1	1		
CO207002.6	3.0	3	3		

Table B 3.3.1a CO - PO Mapping

Step – 2

Direct PO/PSO attainment is calculated using following formula:

PO/PSO attainment = (Level of Mapping of PO with CO X CO attainment Level) / 3

Course Outcomes	CO Attainment	Program Outcomes			
		PO1	PO2	PO3	PSO1
CO207002.1	2.5	=2.5x3/3	=2.5x1/3		
CO207002.2	2.8	=2.8x3/3	=2.8x2/3	=2.8x1/3	=2.8x1/3
CO207002.3	2.3	=2.3x2/3	=2.3x2/3		=2.3x2/3
CO207002.4	1.5	=1.5x2/3	=1.5x1/3	=1.5x1/3	=1.5x1/3
CO207002.5	2.0	=2.0x1/3	=2.0x1/3		
CO207002.6	3.0	=3.0x3/3	=3.0x3/3		

Table B 3.3.1b PO/PSO Attainment Calculations

Step – 3

Direct PO/PSO attainment is evaluate by taking average of PO/PSO attainment by each CO attainment.

Course Outcomes	CO Attainment	Program Outcomes			
		PO1	PO2	PO3	PSO1
CO207002.1	2.5	2.50	0.83		
CO207002.2	2.8	2.80	1.87	0.93	0.93
CO207002.3	2.3	1.53	1.53		1.53
CO207002.4	1.5	1.00	0.50	0.50	0.50
CO207002.5	2.0	0.67	0.67		
CO207002.6	3.0	3.00	3.00		
Average PO/PSO Attainment		1.92	1.40	0.72	0.99

Table B 3.3.1c Average PO/PSO Attainment by Course

Indirect PO/PSO attainment: Graduate Exit Survey and Alumni Survey are conducted at the end of program and 20% weightage is given to it.

Surveys are conducted for graduating students and alumni who have graduated out of the department. Relevant questionnaire in survey form to evaluate attainment of POs and PSOs. Each question is having 5 options namely Excellent, Very Good, Good, Average and Poor, which is given marks 5, 4, 3, 2, 1 respectively. These survey results are tabulated and the average values corresponding to each PO and PSO are determined. The attainment for POs/PSOs is calculated by converting average score on the scale of 0 to 3.

Graduate Exit Survey: Relevant questionnaire in graduate Exit survey form to evaluate attainment of POs and PSOs is given in section (i) and relation of POs & PSOs with questionnaire is given in section (ii).

i. **Questionnaire Format:**

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

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

Q No.	Parameters
Q1	Ability acquired by you to apply knowledge of Mathematics, Science and Engineering in real time from value added certifications, workshops and training programs conducted during your stay in college.
Q2	Ability acquired to apply engineering knowledge to design experiments, analyze and interpret data to obtain valid conclusions.
Q2	Ability acquired to apply engineering knowledge to design experiments, analyze and interpret data to obtain valid conclusions.
Q3	Ability to identify and design a solution for mechanical engineering problem with an appropriate consideration for the public health and safety and the cultural, societal, and environmental considerations.
Q4	Ability acquired to conveniently investigate complex problems using research-oriented knowledge and methods to provide appropriate solution through design-oriented courses and project.
Q5	Ability to use techniques, skills and modern engineering and IT tools necessary for engineering practice through internship, state of art labs.
Q6	Ability to grasp the impact of professional engineering solutions in the context of society and environment and apply it for sustainable development.
Q7	Ability to understand that you have about the available resources and ensure judicious use of them without affecting the environment for sustainable progress.

Q8	Ability to apply ethical principles and commitment to professional ethics and responsibilities acquired through courses, project, seminar and Gymkhana activities.
Q9	Ability acquired to lead team / work in team / work as an individual gained from the co-curricular and extracurricular activities.
Q10	Ability developed to communicate effectively, write precise reports, design documentation applying the engineering knowledge, speaking in a large group which you have acquired.
Q11	Ability to do interdisciplinary projects and carry them out in time and utilize fund in a meaningful way with the training provided by the department, through various activities of student chapter such as BAJA, SUPRA, ET.
Q12	Ability to work as a successful self-reliant engineer with the training provided by department, entrepreneurship development cell, Innovation cell and Audit courses etc.
Q13	Competencies acquired in design and develop mechanical elements and systems.
Q14	Skills developed to specify and select materials, processes to manufacture and inspect quality of industrial product.
Q15	Ability acquired to analyze and evaluate performance of thermal system.

ii. **Relation of POs and PSOs with questionnaire**

Question	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
PO/PSO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
Question	Q9	Q10	Q11	Q12	Q13	Q14	Q15	
PO/PSO	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO	

Alumni Survey: Feedback is taken from alumni. Relevant questionnaire in alumni survey form to evaluate attainment of POs and PSOs is given in section (i) and relation of POs & PSOs with questionnaire is given in section (ii).

i. **Questionnaire Format:**

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

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

Q No.	**Parameters**
Q1	Your ability to apply knowledge and design and analyse Mechanical system or process to meet desired specifications and needs.
Q2	Benefit from value added certifications, workshops and training programmes conducted during your course.

Q3	Your ability to use techniques, skills and modern engineering tools necessary for engineering practice.
Q4	Benefit from communication skills, presentation skills and leadership qualities gained from the co-curricular and extracurricular activities.
Q5	Your ability to engage in, to resolve contemporary issues and acquire lifelong learning.
Q6	Skills attained to create, select and apply appropriate techniques, resources and modern engineering and IT tools.
Q7	Extent of Ethical, social and environmental values inculcated, helping you to relate Mechanical engineering issues with societal needs.
Q8	Ability acquires to meet the industry needs.

ii. **Relation of POs and PSOs with questionnaire**

Question	**Q1**	**Q2**	**Q3**	**Q4**
PO	PO1, PO3	PO1, PO5	PO5, PO11	PO9, PO10
Question	**Q5**	**Q6**	**Q7**	**Q8**
PSO	PO12	PO2, PO4	PO6, PO7, PO8	PSO1, PSO2, PSO3

Employer Survey: Feedback is taken from employer. Relevant questionnaire in employer survey form to evaluate attainment of POs and PSOs is given in section (i) and relation of POs & PSOs with questionnaire is given in section (ii).

i. **Questionnaire Format:**

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

5: Strongly Agree, 4: Agree, 3: Moderate, 2: Disagree, 1: Strongly Disagree

Q No.	**Parameters**
Q1	AISSMS COE *Mechanical* Engineering graduate exhibits an ability to apply engineering knowledge to design and develop the product.
Q2	AISSMS COE *Mechanical* Engineering graduate has the ability to communicate effectively both written and verbal communication
Q3	AISSMS COE *Mechanical* Engineering graduate is well aware of Modern Engineering Tools
Q4	AISSMS COE *Mechanical* Engineering graduate has an understanding of ethical and social responsibility
Q5	AISSMS COE *Mechanical* Engineering graduate has desire for learning new areas, engaging in professional development, and adapting to technological changes to solve complex engineering problems

Q6	AISSMS COE *Mechanical* Engineering graduate has an ability to function as a member or leader in multi-disciplinary teams
Q7	AISSMS COE *Mechanical* Engineering graduate has an ability to manage multidisciplinary projects
Q8	AISSMS COE *Mechanical* Engineering graduate is able to provide solutions to societal problems for sustainable development
Q9	*AISSMS COE Mechanical Engineering graduate will have competencies in design and develop mechanical elements and systems.*
Q10	*AISSMS COE Mechanical Engineering graduate will have incremental skills to specify and select materials, processes to manufacture an industrial product.*
Q11	*AISSMS COE Mechanical Engineering graduate will have ability to analyze and evaluate performance of thermal system.*

i. **Relation of POs and PSOs with questionnaire**

Question	Q1	Q2	Q3	Q4	Q5	Q6
PO	PO1, PO2, PO3 PO4	PO 10	PO 5	PO 8, PO6	PO 12	PO 9
Question	Q7	Q8	Q9	Q10	Q11	
PSO	PO 11	PO 7	PSO 1	PSO 2	PSO 3	

Parent Feedback: Parent feedback is taken to signify holistic development of their ward through a conducive teaching-learning environment. Relevant questionnaire in parent feedback form to evaluate attainment of POs is given in section (i) and relation of POs with questionnaire is given in section (ii).

i. **Questionnaire Format:**

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

5: Strongly Agree, 4: Agree, 3: Moderate, 2: Disagree, 1: Strongly Disagree

Q. No.	**Parameters**
Q1	My ward has gained Engineering knowledge through teaching learning process at the institute.
Q2	My ward will be able to pursue research and higher studies.
Q3	Co-curricular and Extra-curricular activities conducted in institute helps to develop my wards communication, leadership and team work skills.
Q4	My ward is aware of social, cultural, environmental, global, public health and safety related issues and tries to resolve them.
Q5	My ward has ability to manage activities and financial issues.
Q6	My ward follows professional ethics.
Q7	My ward is able to use modern tools.

Q8	My ward converted into a lifelong learner.
Q9	My ward is capable to serve Mechanical Industry.

ii. **Relation of POs and PSOs with questionnaire**

Question	Q1	Q2	Q3	Q4	Q5
PO	PO 1	PO 2, PO 3, PO 4	PO 9, PO10	PO 6, PO7	PO11
Question	Q6	Q7	Q 8	Q9	
PO	PO8	PO 5	PO 12	PSO1, PSO2, PSO3	

For indirect PO/PSO attainment 20% weightage is given.

Total PO/PSO attainment is calculated as:

Direct Attainment by all courses X 0.8 + Indirect Attainment X 0.2

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

Institute Marks : 35.00

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
101011	1.99	1.99	PO3	PO4	0.98	PO6	PO7	PO8	PO9	1	PO11	PO12
102003	1.9	0.95	PO3	PO4	PO5	PO6	0.94	PO8	PO9	0.96	PO11	PO12
102012	2	1	1	PO4	1	PO6	PO7	PO8	PO9	1	PO11	PO12
103004	1.4	1.4	0.93	PO4	0.9	PO6	PO7	PO8	PO9	PO10	PO11	PO12
104010	2	1	1	PO4	1	PO6	PO7	PO8	PO9	PO10	PO11	PO12
107001	2.47	1.65	0.92	PO4	0.82	PO6	PO7	PO8	PO9	PO10	PO11	PO12
107002	1.6	0.98	PO3	PO4	0.98	PO6	0.72	PO8	PO9	0.8	PO11	PO12
107008	2.92	1.94	0.97	PO4	0.97	PO6	PO7	PO8	PO9	PO10	PO11	PO12
107009	2.19	1.89	0.95	PO4	PO5	PO6	0.92	PO8	0.95	0.95	PO11	PO12
110005	1.17	2	1.47	PO4	0.96	PO6	PO7	0.96	1	0.96	PO11	PO12
110013	2.33	1.33	1	PO4	2.5	1	1	PO8	2	1	1	PO12
111006	1	1	1	1	PO5	1	PO7	PO8	PO9	PO10	PO11	PO12
202041	1.64	1.4	0.87	PO4	1.37	PO6	PO7	PO8	PO9	0.82	PO11	PO12
202042	2.92	2.23	1.49	PO4	2.92	PO6	PO7	PO8	PO9	2.77	PO11	0.97
202043	3	2.83	1.67	2.5	1	PO6	1	PO8	PO9	PO10	1	1
202044	2.98	2.44	1.48	1.98	1.96	2	1	PO8	1.46	0.98	PO11	2

202045	2.5	1.33	2.33	1.5	1	PO6	PO7	PO8	PO9	2	PO11	1
202047	1.94	1.94	1.13	0.96	PO5	0.95	1	1	PO9	PO10	PO11	PO12
202048	3	2.75	2.5	2	2	2	2	2	2	1.5	2	1
202049	2.89	2.89	1.93	1.93	PO5	PO6	PO7	PO8	0.96	0.96	PO11	0.96
202050	2.5	2.17	1.67	1.75	1	PO6	1	PO8	PO9	1.5	PO11	1
202051	2.17	2	1	1	1	PO6	1	PO8	1.5	2.17	PO11	1
202052	2.67	2.5	3	PO4	3	2	PO7	2	3	3	PO11	1
203156	1.5	1	1.67	PO4	2.75	1	1.5	PO8	1.67	1	PO11	1
207002	2.77	0.92	0.89	1.79	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
302041	2.94	2.94	1.8	1.96	0.98	1	PO7	PO8	1.96	0.98	0.98	PO12
302042	3	3	1.75	1.25	PO5	2	2	2	1	1.2	2	1
302043	2.97	2.31	1.49	1.98	PO5	0.99	PO7	PO8	PO9	0.99	PO11	0.99
302044	2.84	2.84	1.9	0.95	PO5	PO6	PO7	PO8	0.95	0.95	PO11	0.96
302045	2.17	2.67	2	2	1	PO6	PO7	PO8	2	2	PO11	1
302046	2.67	2.5	3	2	2	PO6	2	2	2	3	2	2
302047	2.95	2.95	3	2	2.95	PO6	PO7	PO8	1.97	2.95	PO11	PO12
302048	2.96	2.96	2.96	PO4	2.96	PO6	3	PO8	2.94	2.95	PO11	PO12
302049	3	2.67	2.33	2.83	2.5	2	1	1	1.33	2	1	1.33
302050	2.83	1.89	1.82	1.82	1.96	PO6	PO7	PO8	PO9	2	PO11	1.82
302051	2.33	2	2.2	2	PO5	PO6	PO7	PO8	PO9	2	PO11	1
302052	2.25	2.25	1.5	1.5	2	1	PO7	PO8	1	2	PO11	1
302053	2	2	1	PO4	2	3	1	2	2	3	PO11	2
402041	3	2.17	2.17	3	2.67	3	2	3	PO9	PO10	PO11	PO12
402042	2.88	1.6	1.42	0.95	1.92	PO6	0.95	PO8	PO9	1.12	PO11	0.95
402043	2.92	2.28	1.95	2.11	2.84	PO6	1.89	PO8	1.95	PO10	PO11	1.89
402046	3	2.5	1.67	1.6	1.67	2	1.67	2	2.17	1.6	1.67	2
402047	2.67	2.5	1.67	1.25	1.5	PO6	1	PO8	PO9	PO10	PO11	1
402048	2.82	2.99	2.99	1.33	0.99	1	PO7	PO8	PO9	PO10	PO11	2.66
402051	2.75	2	2	2	1.5	1.5	2	2.5	2	2.33	2	2

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO Attainment	2.45	2.14	1.85	1.89	1.84	1.77	1.59	1.97	1.87	1.81	1.68	1.53
Direct Attainment	2.45	2.06	1.70	1.75	1.70	1.61	1.39	1.86	1.72	1.65	1.52	1.33
InDirect Attainment	2.45	2.46	2.46	2.46	2.38	2.41	2.41	2.41	2.47	2.44	2.33	2.33

PSO Attainment

Course	PSO1	PSO2	PSO3
101011	1.7	1	1
102003	1	1.4	1.9
102012	1	1	1
103004	PSO1	PSO2	PSO3
104010	PSO1	PSO2	PSO3
107001	1.1	1	1
107002	0.9	1	0.8
107008	1	1	1
107009	PSO1	1	1.9
110005	PSO1	PSO2	PSO3
110013	1	1	1
111006	1	1	1
202041	1.39	0.80	1.36
202042	1.79	PSO2	PSO3
202043	PSO1	PSO2	3.00
202044	2.48	2.15	1.98
202045	1.50	1.50	PSO3
202047	1.30	1.25	1.00
202048	2.00	1.00	2.00
202049	PSO1	PSO2	1.93
202050	1.67	1.50	1.00
202051	1.50	1.50	1.25
202052	1.00	1.00	1.00

203156	1.75	1.50	1.00
207002	0.94	0.93	0.92
302041	1.80	0.98	PSO3
302042	1.00	1.17	2.50
302043	1.49	0.98	PSO3
302044	0.95	PSO2	1.90
302045	1.00	2.00	PSO3
302046	1.00	1.00	PSO3
302047	2.95	1.97	PSO3
302048	2.96	1.97	PSO3
302049	PSO1	PSO2	2.83
302050	1.73	1.93	1.93
302051	1.50	2.00	PSO3
302052	2.00	1.33	1.67
302053	1.00	2.00	PSO3
402041	2.67	2.50	1.50
402042	1.62	1.89	PSO3
402043	1.32	1.95	PSO3
402046	2.00	2.00	1.00
402047	PSO1	PSO2	3.00
402048	2.66	1.83	PSO3
402051	2.00	2.00	1.00

PSO Attainment Level

Course	PSO1	PSO2	PSO3
CO Attainment	1.74	1.65	1.70
Direct Attainment	1.56	1.45	1.53
InDirect Attainment	2.44	2.45	2.39

4 STUDENTS' PERFORMANCE (150) Total Marks 108.58

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Table 4.1

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2021-22 (CAY)	2020-21 (CAYm1)	2019-20(CAYm2)	2018-19(CAYm3)	2017-18(CAYm4)	2016-17 (CAYm5)	2015-16 (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)	110	116	107	131	123	119	134
Number of students admitted in 2nd year in the same batch via lateral entry (N2)	0	35	46	16	24	35	30
Separate division students, If applicable (N3)	0	0	0	0	0	0	0
Total number of students admitted in the programme(N1 + N2 + N3)	110	151	153	147	147	154	164

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
2021-22 (CAY)	110	0	0	0	0
2020-21 (CAYm1)	151	113	0	0	0
2019-20 (CAYm2)	153	45	80	0	0
2018-19 (CAYm3)	147	69	67	67	0
2017-18 (LYG)	147	63	61	53	53
2016-17 (LYGm1)	154	57	67	59	59
2015-16 (LYGm2)	164	48	57	51	51

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
2021-22 (CAY)	110	0	0	0	0
2020-21 (CAYm1)	151	115	0	0	0
2019-20 (CAYm2)	153	107	149	0	0
2018-19 (CAYm3)	147	108	124	123	0
2017-18 (LYG)	147	83	106	106	106
2016-17 (LYGm1)	154	92	125	122	122
2015-16 (LYGm2)	164	93	118	118	118

4.1 Enrolment Ratio (20)

Total Marks 20.00

Institute Marks : 20.00

	N (From Table 4.1)	N1 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2021-22 (CAY)	120	110	91.67
2020-21 (CAYm1)	120	116	96.67
2019-20 (CAYm2)	120	107	89.17

Average [(ER1 + ER2 + ER3) / 3] : 92.50

Assessment : 20.00

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

Total Marks 19.90

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

Institute Marks : 8.75

Item	Latest Year of Graduation, LYG (2017-18)	Latest Year of Graduation minus 1, LYGm1 (2016-17)	Latest Year of Graduation minus 2 LYGm2 (2015-16)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	147.00	154.00	164.00
Y Number of students who have graduated without backlogs in the stipulated period	53.00	59.00	51.00
Success Index [SI = Y / X]	0.36	0.38	0.31

Average SI [(SI1 + SI2 + SI3) / 3] : 0.35

Assessment [25 * Average SI] : 8.75

4.2.2 Sucess rate in stipulated period (15)

Institute Marks : 11.15

Item	Latest Year of Graduation, LYG (2017-18)	Latest Year of Graduation minus 1, LYGm1 (2016-17)	Latest Year of Graduation minus 2 LYGm2 (2015-16)
X Number of students admitted in the corresponding First year + admitted in 2nd year via lateral entry and seperated division, if applicable	147.00	154.00	164.00
Y Number of students who have graduated in the stipulated period	106.00	122.00	118.00
Success Index [SI = Y / X]	0.72	0.79	0.72

Average SI[(SI1 + SI2 + SI3) / 3]: 0.74

Assessment [15 * Average SI] : 11.15

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

4.3 Academic Performance in Third Year (15)

Total Marks 12.02

Institute Marks : 12.02

Academic Performance	CAYm3 (2018-19)	LYG (2017-18)	LYGm1 (2016-17)
Mean of CGPA or mean percentage of all successful students(X)	9.87	7.33	7.08
Total number of successful students(Y)	123.00	106.00	122.00
Totalnumber of students appeared in the examination(Z)	124.00	106.00	125.00
API [X*(Y/Z)]:	9.79	7.33	6.91

Average API [(AP1 + AP2 + AP3)/3] : 8.01

Assessment [1.5 * AverageAPI] : 12.02

4.4 Academic Performance in Second Year (15) Total Marks 11.73

Institute Marks : 11.73

Academic Performance	CAYm2 (2019-20)	CAYm3 (2018-19)	LYG (2017-18)
Mean of CGPA or mean percentage of all successful students(X)	8.48	8.30	6.97
Total number of successful students (Y)	149.00	124.00	106.00
Total number of students appeared in the examination (Z)	153.00	124.00	107.00
API [X * (Y/Z)]	8.26	8.30	6.90

Average API [(AP1 + AP2 + AP3)/3] : 7.82

Assessment [1.5 * AverageAPI] : 11.73

4.5 Placement, Higher Studies and Entrepreneurship (40) Total Marks 24.93

Institute Marks : 24.93

Item	LYG (2017-18)	LYGm1 (2016-17)	LYGm2 (2015-16)
Total No of Final Year Students(N)	106.00	122.00	118.00
No of students placed in the companies or government sector(X)	49.00	60.00	43.00
No of students admitted to higher studies with valid qualifying scores(GATE or equivalent State or National Level tests, GRE, GMAT etc.) (Y)	15.00	11.00	20.00
No of students turned entrepreneur in engineering/technology (Z)	5.00	7.00	5.00
x + y + z =	69.00	78.00	68.00
Placement Index [(X+Y+Z)/N] :	0.65	0.64	0.58

Average Placement [(P1 + P2 + P3)/3] : 0.62

Assessment [40 * Average Placement] : 24.93

Program Name :

Assessment Year Name : CAYm1

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Bidkar Om Rajendra	71811651J	eClerx Services Limited	22/07/2021
2	Pimpale Apurva Sanjay	71812144K	Amazon Development Center India Pvt Ltd	17/08/2021
3	Detke Hritik	71811730B	HDB Financial Services Ltd.	HDBFS/21 22 HRIC45705/APPT/139024
4	Koustubh Kankal	71811912G	Pinclick Ltd	15/07/2021
5	Kale Shreeya Sanjay	71811896M	General Electric(GE) Aviation-India Pvt Ltd	13/09/2021
6	Pisal Abhishek	71812146F	Neilsoft Pvt.Ltd	HR/OFL/3/11/2021/18
7	Patil Subodh	71812118L	Accenture Ltd.	27/07/2021
8	Kale Apurva Hansraj	71811893G	Concentrix India Services Pvt. Ltd.	23/09/2021
9	Gadiya Mahek Shankesh	71811767M	Infosys Ltd.	HRD/3/T/1002475968/2122
10	Raipure Prajakta	71812155E	Tata Consultancy Services Ltd	TCL/CT/2020343462953/1428738/PUNE
11	Kulkarni Sharayu Vishnu	71811962C	Dyna-K Automotive Stamping Pvt. Ltd	DYNA-K/HRD/2021-22/06
12	Shinde Dhanashree Santosh	71925812L	Tata Electronics Pvt. Ltd	26/03/2021
13	Tadge Rutuja Mohan	71925813J	Span Filtration System Pvt.Ltd.	1/10/2021
14	Aliasgar Kaidjohar Anees	71811570J	SEB Tutorials	16/04/2018
15	Rutuja Rajendra Jadhav	71811850C	Truthread Gauges & Tools Pvt.Ltd.	TTG/HR/2021
16	Rohit Nitin Garud	71925796E	Eaton Ltd.	21/12/2021
17	Suraj Maruti Kore	71925800G	Delval Ltd.	ID CARD
18	Jaydeep Yadav	71812355H	Infosys Ltd	HRD/3T/1002635161/21-22
19	Gore Chirag Shashikant	71811806F	Snark power Pvt. Ltd	30/11/2021
20	Khaire Shlok Govind	71811929M	Twin Engineers Pvt. Ltd	03/01/2022
21	Lomesh Joshi	71811876G	Cereble Pvt Ltd	34-2021-22
22	Avinash sakahari Asabe	71925792B	Swift PLM Services Pvt. Ltd	10/11/2021
23	Pranali Kamble	71925798M	Infosys Ltd	17/02/2022
24	Jakhade Ajay sunil	71811865M	NCSI Technologies India Pvt. Ltd	28/03/2022
25	Mithilesh Vikas Jadhao	71811838D	Tata Consultancy Services Ltd.	16/12/2021
26	Ashish Madhukar Adhari	71705620B	Geotools Robotics Automation Pvt.Ltd.	12/01/2022
27	Tanmay Tushar Lashkare	71811982H	UTS Power Systems Pvt. Ltd	20/01/2022

28	Dipyash Bapu Pawar	71925808B	Econship Tech Pvt.Ltd.	04/01/2022
29	Anup Somnath Nagare	71812044C	Swift PLM Services Pvt.Ltd.	26/08/2021
30	Niraj Anilkumar Wakchaure	71925815E	Mahindra Tsubaki Pvt. Ltd	9116
31	Sontakke Abhishek Ravindra	71812266G	Tata Consultancy Services Ltd	TCSL/DT202222077381 31/03/2022
32	Komal Late	71606755c	QSPIDERS Testing Training Institute	13/12/2021
33	Abhishek Chandrakant Kumbhare	71705907D	NSEIT NSE Ltd	HR/OL/SD/07074
34	Chinmay Sunil Hoonur	71705709H	Infosys Ltd	HRD/3T/1003479366/2122
35	Jaydeo Gopal Kalankar	71811870H	Sushrut Design Pvt.Ltd	20/01/2022
36	Prathamesh Mahesh Nagare	71925804K	Accenture Ltd	27/10/2021
37	Sanket Vitthal Thombare	71812204G	Tata Consultancy Services Ltd	11/12/2021
38	Shantanu Jitendra Walke	71812350G	Tata Consultancy Services Ltd	TCSL/CT/20203560779/PUNE
39	Saurabh Singh	71812217J	Cognizant Technology Solution India Pvt. Ltd	23/09/2021
40	Sagar Ravindra Ahire	71811556C	Deabu Automotive Seat India Pvt Ltd	00172
41	Asmita Digambar Ingale	71925797C	Tata Consultancy Services Ltd	TCSL/CT20203401349/CHENNAI
42	Amol Nerkar	71925805H	Neilsoft Pvt.Ltd	HR/OFL/3/11/2021/17
43	Sumit Patil	71812120B	Neilsoft Pvt.Ltd	HR/OFL/3/11/2021/16
44	Shivam Arun Sahane	71925809L	Tata Consultancy Services Ltd	TCSL/CT/20203401330
45	Patil Madhura Pradip	71812098B	GE India Pvt. Ltd	13/09/2021
46	Momin Saquib Sajid	71812020F	TATA Technologies services Pvt. Ltd	29/11/2021
47	Mohite dhairyasheel sunil	71607078C	Ayoki Fabrication Ltd	1307/AFPL/HR/T01/OL
48	Shastrakar Tejas Milind	71925810D	Neilsoft Pvt Ltd	HR/OFL/3/11/2021/15
49	Pakhare Prathamesh Pramode	71925807D	Pentagon Space Ltd	Pentagon Space Ltd

Assessment Year Name : CAYm2

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Kanchan Kulkarni	71812036B	ARaymond Fasteners India. Pvt.Ltd.	AR/HR/2020 17/01/2020
2	Shreyad Deshmukh	71705727F	ARaymond Fasteners India. Pvt.Ltd.	AR/HR/2020 17/01/2020
3	Aditya Joshi	71705826D	ARaymond Fasteners India. Pvt.Ltd.	AR/HR/2020 17/01/2020
4	Kamble Pooja	71811905D	Piaggio Vehicles Pvt.Ltd	PVPL/KEC/PRN 25/08/2020
5	Parth Khedkar	71705882E	Johnson Controls India Pvt Ltd	09/02/2021
6	Isabel Edison	71705801J	Godrej & Boyce Mfg.Co.Ltd	HK/HR/CAMPUS OFFER 2020-21/CN-21 O2 /12/2020
7	Omkar Gurav	71705791H	Lear Automotive Corporation India Pvt Ltd	16/12/2020

8	Aditya Ghode	71705624E	Amazon Ltd	25/05/2020
9	Noopur Kaulgi	71705866C	Wipro Ltd	27/08/2020
10	Nutan Narke	71705969D	Infosys Ltd	HRD/3T/1000422601/20-21 01 December 2020
11	Sriharsha Mangena	71706165F	Infosys Ltd	HRD/3T/1000422336/20-21 30/10/2020
12	Onkar Shinde	71706131M	Industrial Metal Powder (India) Pvt.Ltd.	05/03/2021
13	Nihal Mujawar	71705954F	Cognizant Technology Solution India Pvt Ltd	28/01/2020
14	Kunal Gaikwad	71705759D	Gabriel India Ltd.	24/12/2020
15	Pragati Gaikwad	71705760H	Lear Automotive Corporation India Pvt Ltd	16/12/2020
16	Rajkumar Iyer	71607156J	Automotive Test System Ltd	22/12/2020
17	Ajil Saji	71705632F	Ajil Fibertech	ID CARD
18	Drabu Aditya Umesh Drabu	71705621L	Tata Consultancy Services Ltd	TCSL/DT/2019/5376096/PUNE
19	Bhoye Nitesh Vishnu	71811646B	Intelliswift software India Pvt Ltd	27/01/2022
20	Dhamdhere Kajal Suresh	71812035D	Infosys Ltd	HRD/3T/1000967593/20-21 28/01/2021
21	Aman Kumar Singh	71719098G	Quality Kiosk Technologies Pvt Ltd	CAM112
22	Khot Omkar Subhash	71811941L	Neilsoft Pvt Ltd	HR/OFL/3/2/2020/2
23	Jaiswal Himanshu Abhay	71705818C	Infosys Ltd.	08/01/2021
24	Dhase Shashwat Sanjay	71705738M	Electronica Hitech Machine Tools Pvt Ltd	SMS/SD/AL/010121
25	Khade Hrishikesh Sudhakar	71705871K	Lear Automotive Corporation India Pvt Ltd	21/12/2020
26	Gunaki Ganesh Gangadhar	71705790K	Capgemini Ltd	4552493/778662
27	Jadhav Aditi Ajit	71811840F	Dattachhaya Chains Pvt Ltd	05/05/2020
28	Gite Milind Pandit	71811800G	Intelliswift software India Pvt Ltd	07/10/2021
29	Anvekar Yash Gajanan	71705644K	Lear Automotive Corporation India Pvt Ltd	16/12/2020
30	Choudhary Kunal Manoj	71811695L	Neilsoft Pvt Ltd	HR/OFL/3/2/2020/4
31	Choure Prasad Pandurang	71705717J	Global Step Services PVT LTD	21/08/2020
32	Mugdha Prakash Joshi	71708643H	Tata Consultancy Services Ltd	TCSL/DT/2021/8669657/LKG
33	Jagdale Yogesh Vinayak	71705811F	Mahavir Enterprise Ltd	3312710161
34	Gundre Vishwas	71705782J	kalyani Maxion	CN082154841
35	Mulani Sahil Jahangir	71705955D	Herballife	W111137571
36	Ashwini Waghmare	71812345L	Sayali Engineering	SE/JAN/2021
37	Pakhale Shubham Jitendra	71706149D	Tata Consultancy Services Ltd	TCSL/CT20192775492/PUNE 15/02/2021

38	Shubham Pankhe	71731009E	Infosys Ltd	17/06/2022
39	Malwadkar	71705928G	Tata Consultancy Services Ltd	TCSL/DT20217591694 08/03/2021
40	Kukre Mrunal V.	71705898M	Accenture Ltd	28/05/2021
41	Wadhokar Mukul Manikrao	71706225C	Godrej & Boyce Mfg.Co.Ltd.	HK/HR/TR-2020-21/T-265 04/01/2021
42	Sawant Ajay Suresh	71812220J	TVS Supply Chain Solutions Ltd	TVSLSL/PNA/6351-407
43	Shaikh Mohammad Talha Mohammad Ahmed	71706114M	Amazon Development Center India Pvt Ltd	27/01/2020
44	Lonkar Apurva Dnyandeo	71811987J	Capegemini Technology Services India Ltd	27/05/2021
45	Lasure Sushreeta S	71811983F	TATA Motors Fiat India Pvt Ltd	02/02/2022
46	Pragati Dnyaneshawar Patil	71706020K	Skoda Auto Volkswagen India Pvt.Ltd	SAV/WIPL/2021/22/GT/21
47	Lokare Deepali Mahadev	71635806K	Wika Instrument India Pvt. Ltd	10/01/2022
48	Abhishek Mane	71812003F	walchandnagar industry Ltd	HRD/GAE/2021 17/07/2021
49	Shinde Megha Laxman	71533284J	Agnisuraksha Engineer Fire & Safety Ltd	01/06/2021
50	Mhetre Nagesh Balaji	71306975k	Hitachi System Micro Clinic Pvt Ltd	M7090 22/07/2021
51	Tejas Dattatray	71706201F	Amazon Development Center India Pvt Ltd	19/05/2020
52	Prateek Aher	71307074K	Accucia Software Pvt.Ltd.	03/08/2021
53	Sangram suryakant kharade	71706094C	state bank of India	24/08/2021
54	Manoj Rajendra More	71812024J	Team Lease Services Ltd	2313448
55	Pandhare Bajirao	71812080K	Renta Precision Component Pvt Ltd	25/11/2020
56	Swapnali Sanjay Salve	71706091J	Concentrix Pvt Ltd	06/02/2020
57	Landge Satyajeet	71706102H	Cognizent Technology Solution India Pvt Ltd	28/01/2020
58	Dhananjay kudche	71811954B	Amazon Development Center India Pvt Ltd	19/05/2020
59	Jagannath Ankush Bhojgude	71705680F	BYJU'S Learning	12/07/2021
60	Dhole Pravin Kashinath	71705744F	National Bank For Agriculture and Rural Development India Ltd	22/04/2022

Assessment Year Name : CAYm3

S.No	Student Name	Enrollment No	Employee Name	Appointment No
1	Pavan Gajanan Patil	71606578K	Bharat Forge Ltd	PD/2019 31/12/2019
2	Patil Kamlesh Mohan	71606550K	Bharat Forge Ltd	PD/2019 31/12/2019
3	Jadhav Suraj Uday	71606641G	Deloitte Consulting India Pvt.Ltd	17/02/2022
4	Barapatre Prajakta Pramod	71606569L	BYJU The Learning App	14/05/2020
5	Jadhao Bhushan Rajendra	71607126G	Infosys Ltd	HRD/1000339526/21-22
6	Kadale Sanket Prakash	71730998D	Volvo Eicher Ltd	Email

7	Aditya Bendale	71606906H	Tata Consultancy Services Ltd	TCSL/TT/2021/76530/97/PUNE
8	Kotkar Nikhil Sukdev	71606777D	Technoforce Solutions Pvt.Ltd.	11/03/2019
9	Dhame Pooja Sanjay	71606765L	Amazon Development Center India Pvt Ltd	22/01/2019
10	Jejurkar Bharat Ganpat	71606947E	Infosys Ltd	HRD/3T/19-20/12943583
11	Kulkarni Dhanaya Sudhir	71731003F	ARaymond Fasteners India. Pvt.Ltd.	AR/HR/2019
12	Dumbre Sanket Sabaji	71730994M	Neilsoft Pvt.Ltd	12 July 2019
13	Debanjan Dey	71406781E	KSB Pump	KSB
14	Mane Amar	71606600K	New York Engineers Ltd	19/11/2018
15	Patil Shrinivas Subhash	71606585B	Valio India Pvt Ltd	HR/APPT/04105
16	Pereiara Christopher Joseph	71606913L	Bharat Forge Ltd	PD/2019 31/01/2019
17	Sawant Swapnil Uday	71731013C	Infosys Ltd	28/06/2019
18	Sapkale Sushil Laxman	71547487B	Xoriant Solutions Pvt Ltd	480446 19/03/2021
19	Mankar Piyush Suresh	71731006L	Ashok Leyland Ltd	CNGT/NT/12022021/J
20	Satpute Prathamesh Nandkumar	71607119D	Infosys Ltd	HRD/3T/19-20/13101756
21	Shedge Prasad Ashok	71606664F	Bharat Forge Ltd	PD/2019/ 31/01/2019
22	Shaikh Saba Nafees	71606800B	Tata Consultancy Services Ltd	TCSL/CT/2018/2516680/PUNE
23	Shinde Divya Prakash	71606780D	Tata Consultancy Services Ltd	TCE/CORP/HR/8032/C19/308
24	Shrishrimal Rushabh Sanjaykumar	71606935M	Infosys Ltd	HRD/3T/1920/12987178
25	Sukhatankar Mitali Mahesh	71606883E	Infosys Ltd	HRD/3/T/1920/12927648
26	Walunj Raosaheb	71731018D	Eaton Technologies Pvt Ltd	25/02/2022
27	Murtarkar Abhishek Ashok	71606745F	NRB bearings Ltd	13940
28	Siddhabhatti Mukund Jitendra	71606668J	Bharat Forge Ltd	PD/2019
29	Patil Yogesh Bhagawan	71731010J	Neilsoft Pvt.Ltd	HR/OFL/7/12/2019/50
30	Patil Kedar Sunil	71606619L	ARaymond Fasteners India. Pvt.Ltd	AR/HR/2019
31	Shah Sahil Naresh	71606782L	Capgemini Technology Services India Pvt Ltd	849678
32	Supekar Nilam Ashok	71606902E	Electromechanical Handling System Ltd	17/11/2021
33	Nagure Abhishek Nanrao	71606703L	Volkswagen India Pvt Ltd	07/10/2019
34	Pagadala Yashwant Durgaprasad	71606766J	Amazon Development Center India Pvt Ltd	22/01/2019
35	Wargad Audumbar Ramdas	71607038D	ARaymond Fasteners India. Pvt.Ltd	AR/HR/2019
36	Pawar Indrajeet Prakash	71606540B	Bridgestone India Pvt.Ltd	BSID-HR&A-OL-MS-2019-09-04-01

37	Hire Amit Vilas	71635806K	High Design Technologies	28/03/2021
38	Dsouza Rosy Sebastian	71606630M	Praj Industries Limited	PIL/COHR/SMK/19-20
39	Ghorpade Hrishikesh Vikrant	71532894J	Nilgiri Hill Kookal Pvt.Ltd	Nilgiri
40	Patil Shubham Babasaheb	71606937H	Accenture Ltd.	31/10/2019
41	Nimbalkar Kaustubh Dattajirao	71606662K	Walchandnagar Industries Ltd	HRD/CERT/21
42	Kulkarni Utkarsh Rajendra	71533028E	Larson & Turbo Ltd.	ID Card
43	Ishaan Kolse	71606845B	Frost & Sullivan India Pvt.Ltd	31/10/2019

4.6 Professional Activities (20) Total Marks 20.00

4.6.1 Professional socities/ chapters and organizing engineering events (5) Institute Marks : 5.00

The department of mechanical engineering have established various professional societies/ chapters and organizes various events. Professional chapters in department are SAE, ISHRAE, FPSI, IE and IMechE.

Institute and department promote Students chapters and student associations as these student groups play a major role in organizing various curricular activities.

Some of the recent achievements of these professional chapters are:

- SAE students' chapters Team Resonance Racing participated in various vehicle development competitions and performed very well in this year 2022.
- SAE M-BAJA 2022 event Overall Rank 3
- E-BAJA - All Terrain Performance - AIR 3
- GARUDASHWA - SAE International Aero-design 2021-22 received

  Advance Class Design Report globally - 1st
  Advance Class Overall Globally - 2nd

- SAE REEV 2022 won Overall ALL INDIA RANK 2
- EFFICYCLE - Winner Best Project Plan and Design Validation Plan Award at SAE NIS Effi-cycle Season 12 "Power Enhancement Season"

As a part of continuing efforts, every year, department organize an annual event **AISSMS Engineering Today** (A National Level Students' Technical Symposium). The engineering students from all over India are invited to exhibit their talent by participating in various events, viz. poster, paper, project, quiz, Drone, Robotics, programming, model making, design, technical, cultural and sports meet. The event, are organized in collaboration with the industry and Professional bodies, which sponsors the awards for the events. AISSMS Engineering Today also gives good opportunity to the manufacturers and the service providers to exhibit their products. These activities encompass components for employability, research and social needs amongst students.

Activities conducted by various chapters are mentioned below.

Name of Professional Body/Chapter	Number of students participated			Number of activities conducted		
	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
SAE	99	20	314	1	1	2
ISHRAE	32	1376	-	3	2	-
FPSI	-	165	108	-	2	1
IE	594	372	110	11	2	1
IMechE	21	80	80	3	5	5

4.6.2 Publication of technical magazines, newsletters, etc. (5) Institute Marks : 5.00

The News Letters are being published twice in the academic year. Mr. N N Gothkhindikar, Mr M S Swami and Mr D S Kulkarni have worked as an editor for this department magazine alongwith few students' members. The department newsletter consists of achievement, awards, contributions of departmental faculty and students.

S N	Academic Year	Title	Editor	Student Members	Publisher
1	2020-21	Newsletter	Mr N N Gothkhindikar Mr M S Swami Mr D S Kulkarni	Rutuja Kalkate Tanaya Jagtap	Department of Mechanical Engineering AISSMSCOE Pune
2	2019-20			Rutuja Kalkate Shubham Bandekar	
3	2018-19			Rujuja Kalkate Tanaya Jagtap	

AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय

The newsletter of Department Mechanical Engineering

MECHPLUSE

Academic Year 2021-22 Term I

Principal: Dr.D.S.Bormane | Head of Dept.: Dr. B. D. Bachchhav

Editor Team
Mr.N N Gotkhindikar
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Our Inspiration

Shri Shahu Chhatrapati Maharaj

President, AISSMS

From Principal's Desk:

DR. D S Bormane

I'm glad to signify that with conclusion of this year academic year 2019-20, AISSMS College of Engineering has completed 28 grand years of its establishment. it gives me immense indulgence to promulgate that last year our institute had been accredited with Grade A+ by national Assessment and Accreditation Council (NAAC).

AISSMS COE as an outcome of academic excellence achieved, is again and again producing University gold medalists and top rankers in different branches of engineering. Faculty is dynamically involved in research and development.

We are going to concentrate more upon the Engineering Research activities and use those for students and society welfare. I that the College is in a position to deliver the best theoretical and practical training to the students and offer the best talent to the employers. Due to pandemic situation at end of semester mode of teaching suddenly. This sudden change is adopted by faculty & students with focus on continuous learning trough online mode.

It gives me enormous feat to present in front of you 'MECHPLUSE' Mechanical Department Newsletter. I want to congratulate Mechanical Department for dynamic activities in pandemic circumstances. I wish all the best to the aspiring students, employers and all other stake–holders in Mechanical Department achieving their goals.

"Science can amuse and fascinate us all, but it is engineering that changes the world."

—Isaac Asimov

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

Institute Marks : 10.00

Technical Events

Sr No	Name of Student	Name of Event	Date	Organised by	Award/Rank if any
2020-21					
International level					
1	Swapnil Tole	Team Garudashwa	08-Apr-21	SAEINDIA 2021	First standing in ADvanced Class Design and Fourth standing in Technical presentation
2	Anand Chavan				
3	Ratish Patil				
4	Rohit Sobale				
5	Prathamesh Orpe				
National level					
1	Arihant Wardhamane	TIFAN 2020	Jan-Feb 2021	SAE India	Selected in final round
2	Rohit Garud	TIFAN 2020	Jan-Feb 2021	SAE India	Selected in final round
3	BAJIRAO PANDARE	TIFAN 2020	Jan-Feb 2021	SAE India	Selected in final round
4	Omkar Khot	BETIC eMedha Hackathon	8-16 May, 2021	BETIC	Winner of Impact to Reality award- Team 14
5	Omkar Khot	Toycathon 2021	Jan-21	Ministry of Education, Gov of India	Selected in grand finale
6	Yash Anecha				
7	Sanket Nartwadekar				
8	Omkar Khot	Maharashtra Hackathon 2021	Apr-21	MIT USA hacking medicine 2021	Winner: Team NIDAAN
9	Atharva Joshi				
10	Team Resonance racing	Endurance	Apr-21	SAEINDIA 2021	All terrain performance award 3rd rank
11		BAJA SAEINDIA 2021			Overall award winner 4th rank
12	Sharayu Kulkarni	Vishwacon 2020	28-Nov-20	VIIT Pune	Participation
13	Dhananjay Kudche	Ace the Case	15-20 Aug 2020	IIM Calcutta	Participation
14	Lomesh Joshi	BAJA SAEINDIA 2021	25-Apr-21	Chitkara Univarcity	Participation
15	Aditya jagtap	BAJA SAEINDIA 2021	25-Apr-21	Chitkara Univarcity	Participation

16	Rohit Garud	Smart India Hackathon	1-3 Aug 2021	Smart India Hackathon	Participation
17	Chinmay Hoonur				Participation
18	Prathamesh Choudhary	Effi-cycle (Virtual event)	01 October 2020	Lovely Professional University, Jalandhar	Prize: Best project plan
19	Maithili Balkawade				
20	Adarsh Vishwakarma				
21	Yash Patil				
22	Viraj Patil				
23	Rushikesh Kajale				Category: Advanced Electric
24	Bhaskar Soman				
25	Devashri Barhate				
26	Abhishek Chavan				
27	Mrunal Desale				
28	Sanjeevani Ambike				
29	Rohan Mane	Formula Bharat 2021	Jan 23-Feb 2021,	Mathworks	Participation
30	Abhishek Manjarekar	Formula Bharat 2021	Jan 23-Feb 2021,	Mathworks	Participation
31	Yash Gulhane	Formula Bharat 2021	Jan 23-Feb 2021,	Mathworks	Participation
			2019-20		
Sr No	Name of Student	Name of Event	Date	Organised by	Award/Rank if any
			International		
1	Rajkumar Iyer	Team Garudashwa (Aerodesign)	19-21 July, 2019	SRM University	SAE International West (Advance Class):
2	Aditya Desai				Presentation: 10th globally.
3	Yash kunjir				Overall Result: 9th globally.
4	Chirag gore				Design Report: 12th globally.
5	Aayush Rawat				SAEISS Southern Section (Regular Class):
6	Aarthna Patel				Overall Result: 2nd nationally.
7	Anand Chavan				Design Report: 3rd nationally.
8	Kiran Bharmal				Presentation: 4th nationally
9	Dhanashree Shinde				
10	Swapnil Tole				

11	Mrunal Kashilkar				
12	Srushti Dalvi				
13	Aniruddha Joshi				
National					
1	Anushka Kulkarni	Krushak	21-09-2019	SAEINDIA	Participation
2	Arihant Wardhamane				
3	Asmita Ingale				
4	Bajirao Pandare				
5	Rutuja Tadge				
6	Digambar Vashikar				
7	Mandar Shevalkar				
8	Omkar Ulhare				
9	Prashant Patil				
10	Rohit Garud				
11	Rupashree Gajbe				
12	Sourabh More				
13	Tejas Shastrakar				
14	Aditya Chaugule	BAJA SAEINDIA	22-26 Jan 2020	SAE India	Suspension-Traction 11th,
15	Kedar Ashtikar				
16	Kunal Gaikwad				Maneuverability 10th,
17	Ritwik Asolkar				
18	Aditya Joshi				
19	Atharv Kulkarni				Cost Evaluation 9th,
20	Aditya Jagtap				
21	Lomesh Joshi				Overall 47th
22	Ashish Patil				
23	Tejas Tale				
24	Ranjeet Machale				
25	Gaurav Kad				
26	Pravin Kadam				

27	Parth Umbarkar				
28	Yash Kakade				
29	Rajat Dubey				
30	Ruturaj Patil				
31	Samarth Ghodake				
32	Abhishek Chavan	Effi-cycle 2019	1-5 Oct, 2019	SAEINDIA	Participation
33	Chirag Gore	Quizanthon		STES SKN College of Engg	Excellent performance
34	Dhananjay Kudche	Hopes 2K20	11-May-20	Annasaheb Dange College of Engineering	Prize in Group Discussion competition
35	Himanshu Jaiswal	Eduindex	01-Jan-20	Eduindex journal	Publication
36	Anand Chavan	Aerodesign	28-02 to 01-03, 2020	Bannari Amman	Participation
37	Aditya Chaugule	Virtual Baja SAE India 2019	12-13 July 2019	Chitkara Univ	Participation
38	Akshata Rohokale	Mindspark 2019	27-29 Sept, 2019	COE, Pune	Participation
39	Kishor Hendre	ASM International Awards 2019	19-10-2019	ASM international	3rd prize winner of ASM India 2019 - Master award
40	Kaustubh Sahasrabudhe	Indian Karting Championship-3	Feb-19	Go Cart	Overall 2nd (kart no 4)
41	Amar Mane				Overall 5th (kart no 5)
42	Mukul Wadhokar				First Runner-up in Endurance Race
43	Mahesh Wagaskar				
44	Sahil Shah				
45	Rohit Gawade				
46	Sammed Ketkale				
47	Ajay Sawant	Zeal Drag 3.0	Mar-19		Best Design Report and Presentation
48	Ranjeet Machale				
49	Ronit Magar				
50	Yukta Bharambe				
51	Bavrica Kaur Sudan				
52	Geeta Chapparwal				

53	Atharva Bharne				
54	Abhishek Chavan				
2018-19					
Sr No	Name of Student	Name of Event	Date	Organised by	Award/Rank if any
International					
1	Saquib Momin	SAE Aero Design West	05-07 Apr 2019	SAE International	Participation
2	Shubham Mandlik	Aerodesign			SAE International (Advance Class):
3	Hrishikesh Khade				
4	Yash Kunjir				
5	Tanmay Lashkare				Presentation: 5th globally
6	Chirag Gore				
7	Aniruddha Joshi				Overall Result: 13th globally
8	Ayush Rawat				
9	Aarthna Patel				SAEISS Southern Section (Micro Class)
10	Ashish Bhagwat				
11	Rajkumar Iyer				Overall Result: 2nd nationally
12	Kiran Bharmal				
13	Sakib Momil				
14	Mrunal Kashilkar				
15	Aditya Desai				
National					
1	Ashish Bhagwat	3rd SAEINDIA Sourthern Section	11-13 July, 2018	Anna University, Chennai	Participation
2	Joshi Aditya	Patentscope	24-Jan-19	WIPO	patent publication
3	Nirgun Mohite	VirtualBAJA SAEINDIA 2018	13-14 July, 2018	Chitkara Univarcity	Participation
4	Nirgun Mohite	BAJA SAEINDIA 2019	23-27 Jan 2019	NATRiP 2019	Participation
5	Rohit Garad	Mindspark 2018	28-30 Sept 2018	COE, Pune	Participation
6	Rohit Garad	mimamsa2019	13-Jan-19	IISER Pune	Participation
7	Anirudha Motegaonkar	Formula Bharat 2019	Jan 23-27, 2019	Kari Motor Spedway	Participation

8	Ajay Sawant	Indian Karting Championship-3rd edition	17-Feb-19	Nexus Motorsport	Team Resonance racing junior
9	Vishal Birajdar	Mindspark 2018	28-30 Sept 2018	COE, Pune	Participation
10	Aditya Sonar	Go-kart Design and development	10-Jun-18	Nexus Motorsport	Participation
11	Kaustubh Sahasrabudhe	National Superkarting Championship	Sep-18	SR Motorsports and Venago innovations	● 1st runner up in prototype award
12	Amar Mane				
13	Mukul Wadhokar				
14	Mahesh Wagaskar				
15	Sahil Shah				
16	Rohit Gawade				
17	Sammed Ketkale				
18	Ajay Sawant				
19	Shivam Jadhav (Captain)	Effi-cycle	Oct-18	Lovely Professional University, Jalandhar	Winner Acceleration Award(Nations fastest trike)
20	Rajan Pande (ViceCaptain)				
21	Rushikesh Yadav				
22	Siddhant Nakhale				Best Slogan Award
23	Piyusha Jondhale				
24	Jui Pawale				
25	Atul Jadhav				24th Rank among 80+ teams
26	Tejal Kadam				
27	Jasman Singh				
28	Kedar Ashtikar	BAJA SAEINDIA	23-28 Jan 2019	SAE India	Design Evaluation- 14th
29	Kunal gaikwad				
30	Tanishque Bhurke				
31	Aditya Joshi	Enduro Student India	15-19 Feb, 2019		Cost Evaluation- 17th
32	Vedant Dravid				
33	Ritwik Asolkar				
34	Aditya Chougale				Overall 29th
35	Piyush mankar				

36	Atahrva Kulkarni				Business event- 14
37	Tejas Kale				
38	Anand Mascarenhas				Design Evaluation- 17
39	Atahrva Awasare				
40	Lomesh Joshi				Maneuverability- 17
41	Alisagar Anees				
42	Shubham Jadhav				Cost eveny- 18
43	Ashish Patil				
44	Adiyta jagtap				Overall- 21
45	Abhishek Mane				
46	Nirgun Mohite				

Sports activities:

2019-20					
Sr No	Name of Student	Name of Event	Date	Organised by	Award/Rank if any
1	Aniket Pawar	Malkhamb	09-03-2019	Inter-Collegiate Competition organized by MMCOE	Gold
		Malkhamb	23th to 24th Sep 2019	Padmashri Vikhe Patil College, Pravaranagar	Gold
		Malkhamb	9TH Nov 2019 to 10th Nov 2019	MAHARASTRA AMETURE MALLAKHAMB ASSOCIATION	Gold
2	Rutuja Badade	Pistol Shooting	31/08/2019	Inter-Collegiate Competition organized by Poona college	Silver
		25mts. Pistol Shooting	20th to 21th September 2019	Poona College.	Gold
		25mts. Pistol Junior Women		62nd National Pistol Shooting	Silver
		25m Pistol Junior Women		35th Maharashtra State Shooting Championship	Silver
		25mts. Pistol Shooting	12 to 15 November 2019	Manav Rachana International Institute, Faridabad	10th Place
3	Abhishek Amin	Football		Inter-Collegiate Competition organized by AISSMS IOIT	Participated
				Amrutvahini College of Engineering, Sangamner	Participated
4	Abhishek Amin	Football		State Level Chhatrapati Shahu Football Trophy organized by AISSMS College Of Engineering	Silver
	Sahil Vyas			MIT Summit organized by MIT- WPU	Participated

	Prajwal More			Inter Colligate University organized by SPPU	Participated
	Nihal Mujawar			AVON Vista Champions Cup organized by Avon Vista	Participated
	Tanishq Badegar			Srujan cup organized by Srujan Organization	Participated
	Vivek Singh				
5	Abhishek Amin	Football		Zeal Football Tournament organized by Zeal College Of Engineering	Participated
				Yuvotsav 20 organized by PCCOE	Participated
6	Abhishek Amin	Football		Reliance Youth Foundation Tournament organized by Reliance	Participated
	Sahil Vyas			FLAME Kurukshetra organized by Flame University	Participated
	Prajwal More			MIT Vishwanath Sports meet organized by MIT-ADT	Participated
	Nihal Mujawar			ZEST organized by COEP	Participated
	Tanishq Badegar			PACE ,organized by Army Institute of Technology	Participated
	Vivek Singh			Armed Forces Medical college, Football Tournament organized by AFMC	Participated
7	Mahesh Wagaskar	Cricket (BOYS)		Engineers Cup Cricket League organized by AISSMS IOIT	Gold
	Tejas Athare			MIT Summit organized by MIT-WPU	Participated
	Akash Kakade			Inter Colligate organized by SPPU	Participated
	Mahesh Mahajan			ZEST organized by COEP	Participated
8	Abhishek Kumbhare	Table Tennis (BOYS)		Inter Colligate organized by SPPU	Participated
				MIT Summit organized by MIT-	Participated
				ZEST organized by COEP	Participated
				I^2IT Tournament organized by I^2IT	Participated
				Sympulse organized by Symbiosis College	Participated
9	Madhura Patil	Table Tennis (GIRLS)		Inter Colligate organized by SPPU	Participated
				ZEST organized by COEP	Participated
				MIT Summit organized by MIT-WPU	Participated
10	Aniket Kadam	Kabbadi		MIT Summit organized by MIT-WPU	Participated
	Soham Rathod			Inter Colligate University organized by SPPU	Participated
	Sagar Ghalme			ZEST organized by COEP	Participated
	Jagannath Bhojgude				
11	Aniket Kadam	Kabbadi		Dy Patil Akurdi Tournament organized by Dy Patil University	Participated

	Soham Rathod				
	Sagar Ghalme				
12	Swasti Joshi	Badminton Girls		Inter Colligate University organized by SPPU	Participated
	Noopur Kaulgi			MIT Summit organized by MIT-WPU	Participated
13	Rushikesh Mane	Basketball (Boys)		Inter Colligate University organized by SPPU	Participated
	Siddharth Mhaske			MIT Summit organized by MIT-WPU	Participated
	Faiz Patel			ZEST organized by COEP	Participated

2018-19

Sr No	Name of Student	Name of Event	Date	Organised by	Award/Rank if any
1	Aniket Pawar S E (Mechanical Engineering Department)	Malkhamb	17/09/2018.	Participated at Inter-Collegiate Competition organized by Abasaheb Garware College, Pune held on 17/09/2018.	
2			29-30/9/2018	He was selected to represent Pune City Zone, the competition was held from 29 th to 30 th September 2018 at Padmashri Vikhe Patil College, Pravaranagar, Ahmednagar and secured first prize	
3	Rutuja Badade S E (Mechanical Engineering Department)	Rifle Shooting	15/112018 -7 /12/2018	Secured silver medal in 25m sport pistol junior civilian team organized by organized by NATIONAL RIFLE ASSOCIATION OF INDIA.Held at Thruvananthapuram,Kerela from 15 November -7 December 2018.	Silver
4	Abhishek Amin S E (Mechanical Engineering Department)	Football	22/08/2018 to 27/08/2018.	Participated at Inter-Collegiate Competition organized by AISSMS College Of Engineering, Pune held at AISSMS Ground, Pune from	
5	Shri Mahesh Wagaskar (B.E. Mechanical)	CRICKET	01/10/2018 to 16/10/2018.	Participated at Inter-Collegiate Competition organized by PCZSC, Pune held at BMCC,Pune from 01/10/2018 to 16/10/2018.	
6	Vaibhav Patole TE mechanical	CRICKET	13-15/11/2018	selected to represent Pune City Zone, the competition was held from 13 th November 2018 to 15 th November 2018 at Sinhgad College of Commerce and Science, Kusgaon Lonavala	
7	Vaibhav Patole TE mechanical	CRICKET	01/10/2018 to 16/10/2018.	Participated at Inter-Collegiate Competition organized by PCZSC, Pune held at BMCC, Pune from 01/10/2018 to 16/10/2018.	
8	Kaustubh Nimbalkar mechanical	Table Tennis	11th Feb to 13th Feb, 2019	Tournament organized	
9	Vikram Ghodke Mechanical	Boxing	11th Feb to 13th Feb, 2019	Symbosis Boxing Tournament	winner

Cultural Activities:

2019-20					
Sr No	**Name of Student**	**Name of Event**	**Event Month**	**Name of Play/ Act**	**Achievement**
1	Ashish Adhari Harsh RathoreNeeraj Langhe	VinodottamKarandak	Second week of September	Be eke Bae	1. First prize for the play 2. Ashish Adhari : Best actor 3. Best Play first prize 4. Best Direction and screenplay
2	Ashish Adhari	Bharat Karandak	Third week of September	Be eke Bae	1. 1st Prize in Direction 2. Acting Consolation Prize
3	Ashish Adhari	DajikakaGadgilKarandak	First week of October	Be eke Bae	
2018-19					
1	RugvedShinde PrafullPandav, Pratik LahaneSwapnilSawant	FirodiyaKarandak	Third week February	Ecdysis	1. RugvedShinde:Best Flute Player, 2. SwapnilSawant: First prize solo dance
2	RugvedShinde, PushkarShinde, Harsh Rathore PrafullPandav, Pratik Lahane,SwapnilSawant	VinodottamKarandak	Second week of September	Band Baja Halad	Overall second prize for the play Ashish Adhari, Best supporting actor
3	RugvedShinde,PushkarShinde PrafullPandav, Pratik LahaneSwapnilSawant	Bharat Karandak	Third week of September	Band Baja Halad	Participated
4	RugvedShinde, PushkarShinde PrafullPandav, Pratik LahaneSwapnilSawant	DajikakaGadgilKarandak	First week of October	Band Baja Halad	Ashish Adhari, : Consolation prize for best supporting actor

Student Publications:

Sr No	Name of Authors	Title of papers	Details of conference/Journal	Award if any

1	Saurabh Bedre, Pravin Dhole, Abhishek Dyade, Yogesh Jagdale, M P Bauskar	Challenges and Opportunities in Composite Railway Sleepers	International Conference on Mechanical Engineering for Sustainable Development-2020 Organized by Mechanical Engg Dept, AISSMSCOE, Pune, Maharashtra, India (17-18 Feb 2020)	Presented paper
2	Pranav Limbekar Nihal Mujawar Anirudhha Motegaonkar Sahil Mulani	Development of Self-Energizing Fan	International Research Journal of Engineering and Technology (IRJET) Volume: 08 Issue: 04 | Apr 2021 p-ISSN: 2395-0072	Published in Journal

5 FACULTY INFORMATION AND CONTRIBUTIONS (200)

Total Marks 148.93

Institute Marks :

Name	PAN No.	University Degree	Date of Receiving Degree	Area of Specialization	Research Paper Publications	Ph.D Guidance	Faculty receiving Ph.D during the assessment year	Current Designation	Date (Designated as Prof/Assoc. Prof.).	Initial Date of Joining	Association Type	At present working with the Institution(Yes/No)	In case of NO, Date of Leaving	IS HOD?
Dr. Dinesh Yashwant Dhande	AGLPD0522D	ME/M. Tech and PhD	25/01/2018	Design Engineering	13	3		Professor	18/07/2022	15/09/2004	Regular	Yes		No
Dr. Bhanudas Dattatraya Bachchhav	AHIPB2113J	ME/M. Tech and PhD	25/10/2013	Manufacturing, Tribology	13	1		Professor	09/06/2016	01/07/2015	Regular	Yes		No
Dr. Mangesh Ravindra Phate	ATCPP2890E	ME/M. Tech and PhD	07/04/2015	Mechanical Engineering	22			Professor	23/08/2021	10/06/2016	Regular	Yes		No
Dr. Priya Shekhar Gajjal	AAQPW6227R	ME/M. Tech and PhD	27/06/2016	Design Engineering	12			Associate Professor	19/06/2017	19/06/2017	Regular	Yes		No
Dr. Manish Sheshrao Deshmukh	AJCPD7434L	ME/M. Tech and PhD	28/09/2012	Thermal Engg.	30			Associate Professor	05/12/2017	05/12/2017	Regular	Yes		No

Dr. Avinash Vishvanath Waghmare	AAKPW9692A	ME/M. Tech and PhD	08/02/2018	Heat Power		2		Associate Professor	01/06/2018	10/08/1998	Regular	Yes		No
Dr. Shrikant Vasudeo Chaitanya	AAUPC2410N	ME/M. Tech and PhD	11/09/2019	Mechanical Engineering	6	2		Associate Professor	01/01/2022	02/08/1999	Regular	Yes		Yes
Dr. Sandeep Haribhau Wankhade	AADPW3580A	ME/M. Tech and PhD	24/05/2017	Industrial Engineering	3	2		Associate Professor	01/06/2018	31/08/2005	Regular	Yes		No
Dr. Sunil Ramsing Patil	ABGPP3914K	ME/M. Tech and PhD	19/04/2022	Design Engineering	2			Assistant Professor		01/08/1994	Regular	Yes		No
Mr. Prashant Vasantrao Deshmukh	AFHPD3552J	M.E/M.Tech	25/08/1998	Design Engineering				Assistant Professor		10/08/1998	Regular	Yes		No
Dr. Chandrakishor Shrirang Choudhari	AAPPC5676F	ME/M. Tech and PhD	11/03/2019	Heat Power	6	2		Associate Professor	01/06/2021	29/07/2006	Regular	Yes		No
Mr. Rahul Ashok Marne	AHHPM7400J	M.E/M.Tech	23/12/1999	Design Engineering				Assistant Professor		02/08/1999	Regular	Yes		No
Dr. Chandrashekhar Suresh Dharankar	AFHPD7272F	ME/M. Tech and PhD	31/10/2017	Design Engineering		2		Assistant Professor		28/07/2005	Regular	Yes		No
Dr. Shirish Jaysing Navale	ADYPN5057F	ME/M. Tech and PhD	09/10/2018	Thermal Engg.				Assistant Professor		01/08/2005	Regular	Yes		No
Mr. Mangesh Umakant Gan	AKWPG2976M	M.E/M.Tech	26/05/2006	Heat Power				Assistant Professor		12/08/2006	Regular	Yes		No
Mr. Omprakash Anandrao More	AOZPM2080H	M.E/M.Tech	15/12/2005	Manufacturing				Assistant Professor		28/08/2006	Regular	Yes		No
Mr. Milind Sadashiv Swami	CFAPS8882R	M.E/M.Tech	13/07/2016	Automotive Engineering				Assistant Professor		02/02/2009	Regular	Yes		No
Mr. Gopal Pandurang Lohar	ACSPL0013L	M.E/M.Tech	30/09/2014	Heat Power				Assistant Professor		15/01/2010	Regular	Yes		No
Mrs. Margi Pritesh Shah	AGRPC5682R	M.E/M.Tech	08/02/2010	CAD/CAM				Assistant Professor		13/01/2010	Regular	Yes		No

Dr. Manoj Ramesh Dahake	ARNPD6916E	ME/M. Tech and PhD	13/05/2022	Thermal Engg.	2			Assistant Professor		10/09/2013	Regular	Yes		No
Mr. Manoj Prakash Bauskar	ANRPB5447J	M.E/M.Tech	03/03/2014	Automotive Engg	2			Assistant Professor		16/11/2010	Regular	Yes		No
Dr. Mannan Moula Sayyad	BIGPS8170J	ME/M. Tech and PhD	14/05/2018	Design Engineering				Assistant Professor		14/06/2018	Regular	Yes		No
Mr. Vipin Suresh Wagare	ACSPW6299H	M.E/M.Tech	13/08/2015	Design Engineering				Assistant Professor		18/12/2015	Regular	No	15/06/2021	No
Mr. Shivaraj Sangappa Vadgeri	AOVPV1641M	M.E/M.Tech	26/11/2015	Design Engineering	2			Assistant Professor		16/06/2016	Regular	No	15/10/2021	No
Mr. Dhananjay Sanjay Mane	AZNPM3642G	M.E/M.Tech	26/11/2015	Production Engineering				Assistant Professor		14/06/2017	Regular	No	30/11/2021	No
Mrs. Sonali Shrikant Patil	BTPPP6080A	M.E/M.Tech	20/10/2016	Design Engineering				Assistant Professor		09/06/2017	Regular	No	29/07/2022	No
Mr. Nitin Narayan Gotkhindikar	BELPG0789L	M.E/M.Tech	12/07/2014	Industrial Metallurgy				Assistant Professor		02/07/2018	Regular	Yes		No
Mr. Kundan Suresh Kolambe	DPMPK7220A	M.E/M.Tech	20/10/2016	Heat Power				Assistant Professor		01/08/2019	Regular	No	30/05/2020	No
Mr. Ganesh Bhoju Narkhede	AJTPN1764G	M.E/M.Tech	15/07/2015	Design Engineering				Assistant Professor		17/12/2015	Regular	No	31/07/2019	No
Mr. Patunkar Mandar Manohar	BIZPP6047C	M.E/M.Tech	23/07/2014	Design Engineering				Assistant Professor		01/08/2019	Regular	No	17/12/2019	No
Mr. Aditya Ramakant Takalkar	AJEPT9745Q	M.E/M.Tech	22/07/2015	Heat Power				Assistant Professor		19/12/2016	Regular	No	06/03/2019	No
Mrs. Ashwini Ashok Tonde	AKIPT0163H	M.E/M.Tech	11/03/2015	Automotive Engineering				Assistant Professor		17/12/2009	Regular	Yes		No
Dr. Dnyaneshwar Shivaji Malwad	CNAPM3521M	ME/M. Tech and PhD	23/07/2021	CAD/CAM				Assistant Professor		31/08/2021	Regular	Yes		No
Mr. Shahid Ali Ishtiyak Ahemed	AYYPA2912P	M.E/M.Tech	08/02/2012	Heat Power				Assistant Professor		08/09/2021	Regular	Yes		No

Mrs. Ashwini Milind Ramteke	BVXPR7736P	ME/M. Tech and PhD	11/11/2019	CAD/CAM				Assistant Professor		30/08/2021	Regular	No	29/07/2022	No
Mr. Pankaj Shankarrao Aglawe	AKWPA2771N	M.E/M.Tech	06/05/2013	Design Engineering				Assistant Professor		01/08/2007	Regular	Yes		No
Mr. Kaustubh Laxman Kumbhar	AXZPK8959Q	M.E/M.Tech	15/06/2015	Heat Power				Assistant Professor		22/06/2015	Regular	No	30/10/2021	No
Mr. Prakash Vasudeo Amate	ABFPA1552R	M.E/M.Tech	14/01/1999	Thermal Engg.				Assistant Professor		01/01/2000	Regular	No	30/06/2020	No
Mr. Sumant Shesherao Patil	ACKPU9292Q	M.E/M.Tech	20/10/2016	Mechanical Design				Assistant Professor		09/06/2017	Regular	Yes		No
Mr. Surajkumar Sanjayrao Khasbage	CCKPK4415K	M.E/M.Tech	20/10/2016	Automotive				Assistant Professor		16/12/2016	Regular	Yes		No
Ms.Pranjali Ravinandan Tete	ASGPT0601C	M.E/M.Tech	10/08/2016	Heat Power Engineering				Assistant Professor		27/07/2022	Regular	Yes		No

5.1 Student-Faculty Ratio (20)

Total Marks 14.00

Institute Marks : 14.00

UG

No. of UG Programs in the Department 2

Mechanical Engineering						
Year of Study	CAY (2021-22)		CAYm1 (2020-21)		CAYm2 (2019-20)	
	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	0	120	32	120	41
3rd Year	120	0	120	0	120	0
4th Year	120	0	120	0	120	0
Sub-Total	**360**	**0**	**360**	**32**	**360**	**41**
Total	**360**		**392**		**401**	

Mechanical Engineering Sandwich						
Year of Study	CAY (2021-22)		CAYm1 (2020-21)		CAYm2 (2019-20)	
	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students
2nd Year	60	0	60	42	60	18
3rd Year	60	0	60	0	60	0
4th Year	60	0	60	0	60	0
Sub-Total	**180**	**0**	**180**	**42**	**180**	**18**
Total	**180**		**222**		**198**	

Grand Total	540	614	599

PG

No. of PG Programs in the Department 2

Mechanical Automotive Engineering			
Year of Study	**CAY(2021-22)**	**CAYm1(2020-21)**	**CAYm2 (2019-20)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	18	18	18
2nd Year	18	18	18
Total	**36**	**36**	**36**

Mechanical Design Engineering			
Year of Study	**CAY(2021-22)**	**CAYm1(2020-21)**	**CAYm2 (2019-20)**
	Sanction Intake	**Sanction Intake**	**Sanction Intake**
1st Year	18	18	18
2nd Year	18	18	18
Total	**36**	**36**	**36**

Grand Total	72	72	72

SFR

No. of UG Programs in the Department 2

No. of PG Programs in the Department 2

Description	**CAY(2021-22)**	**CAYm1 (2020-21)**	**CAYm2 (2019-20)**
Total No. of Students in the Department(S)	612 **Sum total of all (UG+PG) students**	686 **Sum total of all (UG+PG) students**	671 **Sum total of all (UG+PG) students**
No. of Faculty in the Department(F)	31 **F1**	32 **F2**	34 **F3**
Student Faculty Ratio(SFR)	19.74 **SFR1=S1/F1**	21.44 **SFR2=S2/F2**	19.74 **SFR3=S3/F3**
Average SFR	20.31 **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(2021-22)	31	0
CAYm1(2020-21)	32	0
CAYm2(2019-20)	34	0

Average SFR for three assessment years : 20.31

Assessment SFR : 14

5.2 Faculty Cadre Proportion (25)

Total Marks 17.00

Institute Marks : 17.00

Year	**Professors**		**Associate Professors**		**Assistant Professors**	
	Required F1	**Available**	**Required F2**	**Available**	**Required F3**	**Available**
CAY(2021-22)	3.00	2.00	6.00	6.00	20.00	23.00
CAYm1(2020-21)	3.00	1.00	7.00	6.00	22.00	25.00
CAYm2(2019-20)	3.00	1.00	7.00	6.00	22.00	27.00
Average Numbers	3.00	1.33	6.67	6.00	21.33	25.00

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 17.00

5.3 Faculty Qualification (25)

Total Marks 15.93

Institute Marks : 15.93

	X	Y	F	FQ = 2.5 x [(10X + 4Y) / F)]
2021-22(CAY)	14	17	30.00	17.33
2020-21(CAYm1)	12	20	34.00	14.71
2019-20(CAYm2)	12	22	33.00	15.76

Average Assessment : 15.93

5.4 Faculty Retention (25)

Total Marks 20.00

Institute Marks : 20.00

Description	2020-21	2021-22
No of Faculty Retained	32	28
Total No of Faculty	34	34
% of Faculty Retained	94	82

Average : 88.00

Assessment Marks : 20.00

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

Total Marks 18.00

Institute Marks : 18.00

GOALS:

In order to improve students teaching experience aside from traditional classroom teaching, the department uses novel concepts and their subsequent execution by means of quantifiable programs with the following goals:

The department will continuously strive to:

- Enrich student learning by innovative practices.
- Develop students comprehension and expertise of creative methods and strategies.
- Broaden students perspective of emerging technologies and tools in academics, and contemporary and social issues by innovative strategies.
- Motivate students to innovatively think, formulate and perform through different club activities.

The innovative practices are made available on the department website for reference and review, the link for which is as below:

https://aissmscoe.com/mechanical-engineering/innovative-practices-for-teaching-and-learning/ (https://aissmscoe.com/mechanical-engineering/innovative-practices-for-teaching-and-learning/)

List of initiatives in teaching and learning process followed by the department:

Each and every faculty use innovative practices, knowingly or unknowingly to enhance the teaching learning experience of every student and make understand the concepts throuout the year. Some initiatives may be so small to escape attention, and might be difficult to quantify and record; but may affect the learning of students in a subtle but important way. On the other hand, some initiatives might be so impactful so as to be clearly visible as making huge strides in improving the teaching-learning process.

Given below is a listing of some of the noticeable initiatives taken by the faculty of the department. However, it should not be considered as a conclusive list; but as a part of an open ended process of continuous improvement.

1. Student Chapter activities
2. Virtual labs
3. Use of Working models/Animations/ Miniprojects/PPTs/Charts/ CASE studies
4. Online teaching and learning resources on Microsoft Teams/ Google Classrooms
5. E content on YouTube
6. Classroom quiz sessions
7. Project-Based Learning
8. Students Symposium
9. Cutting-edge initiative

1. Student Chapter activities: The department has following professional chapters which provides a good platform for the students to take active part in the various competitions, seminars and lectures arranged by the society. The activities help the students to showcase their talents in terms for team building, communications skills, team work, target work and overall development in professional activities. One faculty advisor is associated with each student chapter for mentoring, guidance and overall governance.

i. SAEINDIA collegiate club
ii. ISHERE club
iii. IMechE Student Chapter
iv. Fluid Power Society of India Club
v. Institution of Engineers Club

Figure B 5.5a Various Chapter Activities

(vi) TRIZ Chapter: The first innovation professional TRIZ Chapter in Asia under the aegis of the TRIZ Association of Asia is established in our Institute and many Faculty members learned and practiced innovative TRIZ methodologies to explain the technical concepts more effectively to the students. TRIZ insights are also used to students learning experiences and performance while carrying out In-house/Industrial Projects.

Outcomes:

- Students get exposure to design and build an off-road vehicle that will survive severe punishment of rough terrain and in some competitions, water, and compete at national/international level under the guidance of faculty advisor.
- As in real work situations, these future engineers **work together as a team** to discover and resolve technical challenges in design, test, and manufacturing, as well as business issues.
- Enhancement of presentation skills and learning by participation in various events organized by student chapters at various levels.

2. Virtual labs:

In certain labs like the dynamics of machinery lab, some relevant experiments are conducted online on web browsers with the help of simulators. Such online facilities are called as virtual labs (http://www.vlab.co.in/), and are a part of an excellent innovative initiative taken by the MHRD of India.

Outcome :

- Remote-access to simulation-based Labs in various disciplines of Science and Engineering.
- Use of virtual labs enthuse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.
- It provides a complete Learning Management System around the Virtual Labs where the students/ teachers can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self-evaluation.

3. Use of Working models/Animations/ Miniprojects/PPTs/Charts/ CASE studies :

In many relevant subjects, faculty encourage the students to make miniature working models of mechanisms and machine components. The faculty members also make use of cut sections as well as working models to enhance interest and level of learning.

- The department also has cut section of the engine parts which helps students to understand the concept in a better way. Some faculty members develop models as well as mini projects with the help of students. All the classrooms are well-equipped with high quality projectors ready for use any time.
- Each faculty has prepared powerpoint presentations which were extensively used in pandemic period for online teaching and learning. The extensive use of charts, animations and Case studies help the students to understand the concepts in easier way.

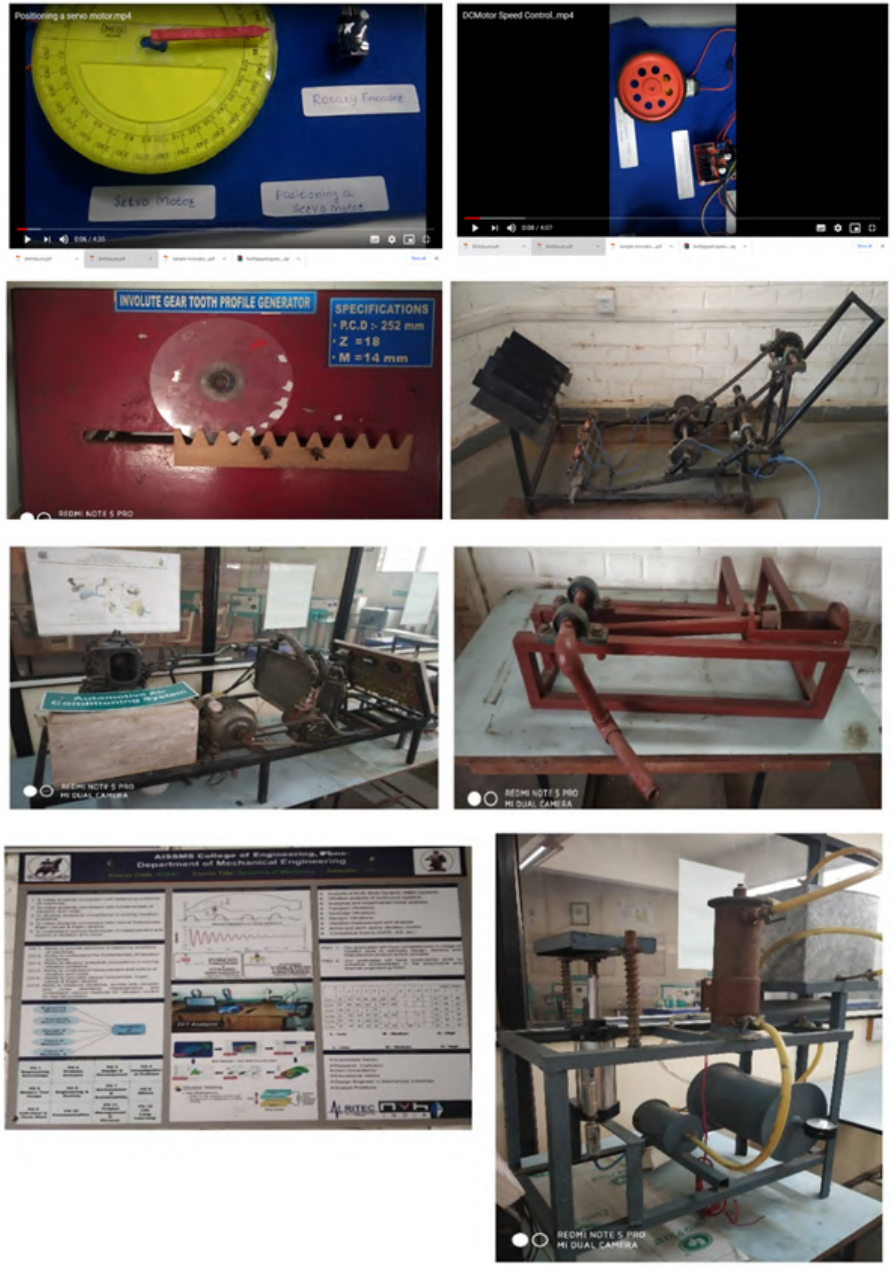


Figure B5.5b Various working models, Charts and miniprojects used by faculty members

Outcome:

- Working models and mini-projects enhances systems thinking abilities of the students. Models and model development are useful for helping students learn quantitative skills such as working, graphical analysis, visualization; and computational skills.
- Animations, Charts and Case studies help students to understand and grasp the concept easily.

4. Online teaching and learning resources on Microsoft Teams/ Google Classrooms:

Lockdown due to COVID 19 pandemic did not stop teaching Learning process at AISSMS COE Pune. Systematic efforts were put for initiating and implementation of teaching with online mode. In the initial phase of the lockdown, ZOOM platform were used for conduction of webinars, and different teaching learning activities. Other platforms like Google classroom, whattsapp, telegram were also used.

From academic year 2020-21, institute started using Microsoft Team platform for online teaching. For individual faculty and student, MS team login credentials were generated. Individual faculty created team and channel for their assigned subject (Both theory and practical's) as per the class timetable. Unit wise tests and assignments were also conducted through MS team platform. Assessment of tests and assignments also was carried out through MS teams. Study material like subject notes, PPTs, e books, previous question papers were shared by faculty on MS team. Recorded videos on MS teams are also shared with students to compensate the academic loss of students because of power failure and internet connectivity failure. Overall, every effort was put by institute for smooth conduction of academics during this lockdown period.

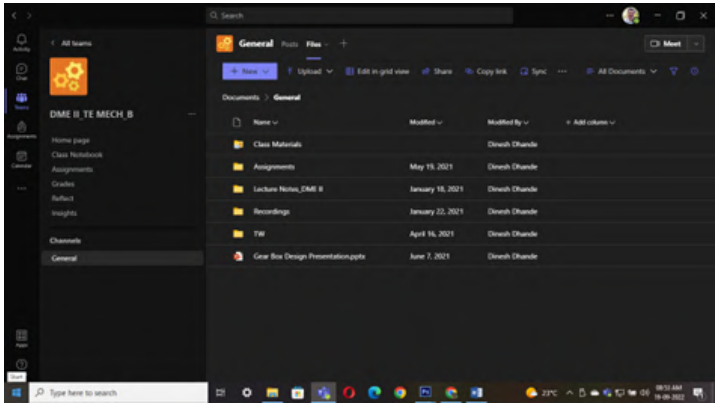
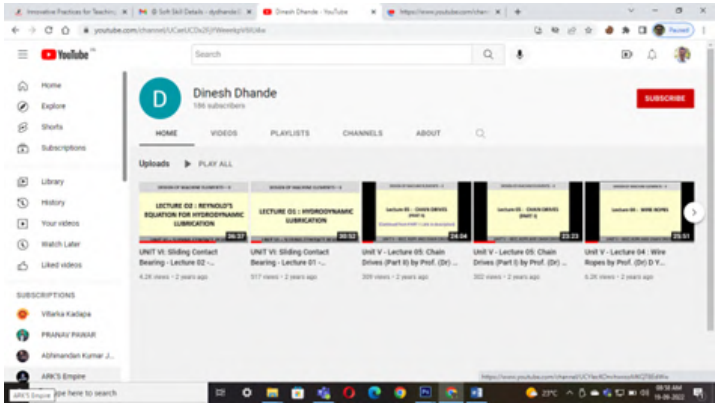


Figure B5.5c Resources shared with students on Microsoft Team platform

Outcome :

- During the pandemic period, this methodology has helped students to interact and learn the subjects effectively.
- The platforms helped the students to get the study material, interact with the faculty, solve and submit assignments and enhance their thinking ability through the tests as well as quiz sessions conducted by almost every faculty member.

5. E content on YouTube: Faculty have also created their own YouTube Channels and Google drives wherein they upload study material relevant to their own subjects. The links are shared with the students and the contents are openly accessed by all students.



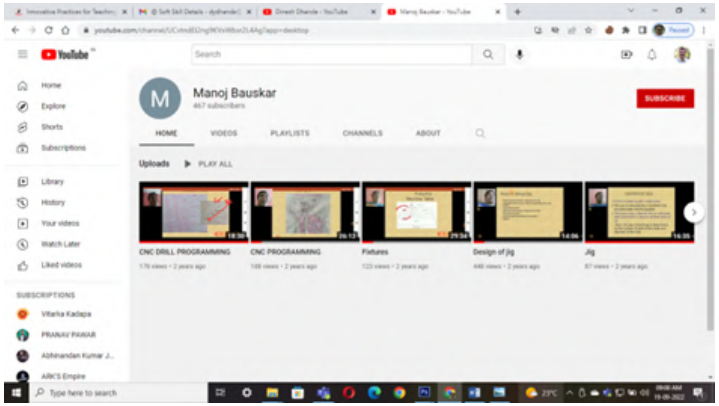


Figure B5.5d Recorded Video Lectures prepared and shared with students on You-Tube platform

Some sample video lectures can be accessed by using following links:

Links: https://www.youtube.com/channel/UCxeUCDx2FjYWeekpV6lU4w?app=desktop (https://www.youtube.com/channel/UCxeUCDx2FjYWeekpV6lU4w?app=desktop)

https://www.youtube.com/channel/UCvtndEl2ng9KVxWbxr2L4Ag?app=desktop (https://www.youtube.com/channel/UCvtndEl2ng9KVxWbxr2L4Ag?app=desktop)

Outcome:

- This has helped students to learn and understand the course in a better and effective way.
- The students can learn at their own pace and at own convenience apart from classroom learning. This provides students, the opportunity for self study.

6. Classroom quiz sessions: These help in creating interest by breaking monotony of regular classes while enhancing the learning experience.

Figure B5.5e Quiz on Robotics and Automation by MESA

7. Project-Based Learning

PBL has been introduced for SE students with the goal of motivating students to learn by working cooperatively in groups to solve a problem. PBL is a student-centered pedagogy that employs a dynamic classroom approach in which students are believed to gain a deeper understanding through active exploration of real-world challenges and problems. Students gain knowledge about a subject by investigating and responding to a complex question, challenge, or problem over time. It is an inquiry-based and active learning style. Problem-based learning will also alter the role of the teacher as a mentor in the learning process.

Outcome:

- PBL encourages students to develop a balanced, diverse approach to solving real-world problems, both on their own and in a team.

8. Students Symposium:

The department conducts **Engineering Today (MECHPULSE),** an annual national level student symposium, in the month of September every year to encourage the students organizing and participating in various events to enhance their skills. The institute also conducts **science exhibition** where the testing facilities and projects are exhibited to SE and TE students as well as students invited from nearby schools.

Figure B5.5f Science Exhibition

Figure B5.5g Engineering Today (MechPulse)

Outcome:

- Students get opportunity to enhance their technical skills by participating and competing in various technical events.

9. Cutting-edge initiative

Today's education system is rapidly evolving in order to introduce new teaching techniques and strategies that promote a culture of diversity and inclusion. Similarly, each teacher has a distinct teaching style. However, all teachers have the same goal: to instil a love of learning in their students. Department have a few Cutting-edge initiatives as given below that use modern technology

- Avishkar
- Hackathon
- Ideathon
- National innovation context
- Startup & Innovation cell

Figure B5.5h Appreciation of Uleash Hackathon 2021 winner

Figure B5.5i Winner of SMART INDIA HACKATHON (SIH) – 2019, Team AAROHAN, AISSMSCOE, Pune

Outcome :

- Students get exposure to discover and develop their entrepreneurial skills, project ideas at national level.
- Students get opportunity to present their research projects

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		
	2020-21 (CAYm1)	2019-20 (CAYm2)	2018-19 (CAYm3)
Dr S V Chaitanya	5.00	5.00	5.00
Dr B D Bachchhav	5.00	5.00	5.00
Dr M R Phate	5.00	5.00	5.00
Dr D Y Dhande	5.00	5.00	5.00
Dr Mrs P S Gajjal	5.00	5.00	5.00
Dr M S Deshmukh	5.00	5.00	5.00
Dr A V Waghmare	5.00	5.00	5.00
Dr S H Wankhade	5.00	5.00	5.00
Dr C S Choudhari	5.00	5.00	5.00
Dr S R Patil	5.00	5.00	5.00
Mr P V Deshmukh	5.00	5.00	5.00
Mr R A Marne	5.00	5.00	5.00
Dr C S Dharankar	5.00	5.00	5.00
Dr S J Navale	5.00	5.00	5.00
Mr M U Gan	5.00	5.00	5.00
Mr P S Aglawe	5.00	5.00	5.00
Mr O A More	5.00	5.00	5.00
Mrs A A Tonde	5.00	5.00	5.00
Mr M S Swami	5.00	5.00	5.00

Mr G P Lohar	5.00	5.00	5.00
Mrs M P Shah	5.00	5.00	5.00
Dr M R Dahake	5.00	5.00	5.00
Mr M P Bauskar	5.00	5.00	5.00
Mr N N Gotkhindikar	5.00	5.00	5.00
Dr M M Sayyad	5.00	5.00	5.00
Mr P V Amte	0.00	5.00	5.00
Mr G B Narkhade	0.00	0.00	5.00
Mr A R Takalkar	0.00	5.00	5.00
Mr V S Wagare	5.00	5.00	5.00
Mr K L Kumbhar	5.00	5.00	5.00
Mr S S Vaggeri	5.00	5.00	5.00
Mr D S Mane	5.00	5.00	5.00
Mrs S S Patil	5.00	5.00	5.00
Mr M M Patunkar	0.00	0.00	5.00
Mr K S Kolmbe	0.00	0.00	5.00
Sum	150.00	160.00	175.00
RF = Number of Faculty required to comply with 20:1 Student Faculty Ratioas per 5.1	30.60	34.30	33.55
Assessment [3*(Sum / 0.5RF)]	29.41	27.99	31.30

Average assessment over 3 years: 29.57

5.7 Research and Development (30) Total Marks 20.00

5.7.1 Academic Research (10)

Institute Marks : 10.00

(a) List of Publications:

CAY 2021-22				
SN	Title of paper	Author	Name of journal	ISBN /ISSN
1.	Complex assembly Analysis for Geometric and Dimensional Tolerance to obtain selective assembly from partitioned bins using a multi-objective approach to control clearance variation of IC Engine	Shrikant Chaitanya*, Dinesh Y Dhande, A K Jeevanantham	Journal of The Institution of Engineers (India): Series C (https://link.springer.com/journal/40032)	Print ISSN :2250-0545 Online ISSN:2250-0553
2.	Wear behavior of environment friendly trimethylolpropane trifoliate- based lubricant",	Bachchhav, B.D. (https://www.emerald.com/insight/search?q=Bhanudas%20Dattatraya%20Bachchhav) and Kathamore, P.S. (https://www.emerald.com/insight/search?q=Pramod%20Shivaji%20Kathamore)	Industrial Lubrication and Tribology (https://www.emerald.com/insight/publication/issn/0036-8792), Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/ILT-12-2021-0469 (https://doi.org/10.1108/ILT-12-2021-0469)	0036-8792
3.	Tribological investigations of trimethylolpropane trioleate bio-based lubricants	Kathamore, P.S. (https://www.emerald.com/insight/search?q=Pramod%20S.%20Kathamore) and Bachchhav, B.D. (https://www.emerald.com/insight/search?q=Bhanudas%20D.%20Bachchhav)	Industrial Lubrication and Tribology (https://www.emerald.com/insight/publication/issn/0036-8792), October 2021:Vol. 73 No. 7, pp. 1074-1083. https://doi.org/10.1108/ILT-05-2021-0157 (https://doi.org/10.1108/ILT-05-2021-0157)	ISSN: 0036-8792
4.	Tribological Performance of Copper-Titanium Alloy under Dry Sliding Contact	Bachchhav, B.D. (https://www.emerald.com/insight/search?q=Bhanudas%20D.%20Bachchhav) and Bagchi H. (2021)	Materials Performance and Characterization, Vol 10, no. 1 (2021): 739–750. https://doi.org/10.1520/MPC20200177 (https://doi.org/10.1520/MPC20200177)	2379-1365
5.	Analysis of Seat to Head Transmissibility of the Seated Human Body using Artificial Neural Network	Phate, M.R., Gaikwad, P.P. & Toney, S.B.	J. Inst. Eng. India Ser. C (2022). https://doi.org/10.1007/s40032-022-00819-7	2250-0545
6.	Multiresponse optimization and analysis of Al/B4Cp EDM using Grey Relational Analysis	Phate, M., Toney, S., Phate, V. et al.	Journal of Mechanical Engineering, Vol 19 (1), 39-55 (2022)	ISSN: 1823-5514)
7.	Multi-Response Optimization of Al/GrCp10 MMC Performance in WEDM Using Integrated TOPSIS-ANFIS Approach	Phate, M., Toney, S., Phate, V. et al.	J. Inst. Eng. India Ser. D (2021). https://doi.org/10.1007/s40033-021-00302-0	Electronic ISSN 2250-2130 Print ISSN 2250-2122

8.	Development of Artificial Neural Network to predict performance of Spark Ignition Engine fueled with waste pomegranate ethanol blends	Dhande, D.Y*., Gaikwad D P, Choudhari C S.	Information Processing in Agriculture	ISSN: 2214-3173
9.	Video Summarization Using Deep Learning for Cricket Highlights Generation.	Gaikwad, D*., Sarap, S., & Dhande, D. Y.	Journal of Scientific Research, 14(2), 533–544.	ISSN: 2070-0237 eISSN:2070-0245
10.	Prediction of spark ignition engine performance with bioethanol-gasoline mixes using a multilayer perception model	Dhande, D.Y*., Gaikwad D P, Choudhari C S, Sinaga, N. & Dahe, K.B.	Petroleum Science and Technology(2022) https://doi.org/10.1080/10916466.2022.2025832 (https://doi.org/10.1080/10916466.2022.2025832) .	Print ISSN: 1091-6466 Online ISSN: 1532-2459
11.	Evaluation of Emission Characteristics and Performance of Pomegranate Ethanol Blended S. I. Engine using Artificial Neural Network and Rule Learner Classifier	Dhande, D.Y*., Gaikwad D P, Choudhari C S.	Journal of The Institution of Engineers (India): Series (https://link.springer.com/journal/40032)A (2022)	Electronic ISSN 2250-2157 Print ISSN 2250-2149
12.	Experimental Investigation of Spark Ignition Engine Performance Fuelled with various Pomegranate Ethanol-Gasoline Mixtures	Dhande, D.Y., Sinaga, N. & Dahe, K.B.	J. Inst. Eng. India Ser. C (2021). https://doi.org/10.1007/s40032-021-00790-9	2250-0545
13.	Extraction of bioethanol from waste pomegranate fruits as a potential feedstock and its blending effects on a performance of a single cylinder SI engine	Dhande D.Y., Nighot D.V., Nazaruddin Sinaga, Kiran B. Dahe	Renewable and Sustainable Energy Reviews (https://www.sciencedirect.com/science/journal/13640321), 149 (https://www.sciencedirect.com/science/journal/13640321/149/supp/C), October 2021, 111349, https://doi.org/10.1016/j.rser.2021.111349 (https://doi.org/10.1016/j.rser.2021.111349)	ISSN 13640321
14	A novel tuned ant lion-grey relational dry sintered bearing for bore application.	Gajjal, P., Lathkar, G.S.	J Braz. Soc. Mech. Sci. Eng. 44, 238 (2022). https://doi.org/10.1007/s40430-022-03521-y	1678-5878
15	Optimisation using Taguchi of PEEK material in dry sliding,	Priya Gajjal, Shekhar Gajjal,	Materials Today: Proceedings, Volume 55, Part 2, 2022, Pages 419-424, https://doi.org/10.1016/j.matpr.2022.01.358.	ISSN 2214-7853
16	Fault diagnosis in an optimized rolling bearing using an intelligent approach.	Gajjal, P., Lathkar, G.S.	Arch Appl Mech (2022). https://doi.org/10.1007/s00419-022-02134-0	0939-1533

17	Mathematical Model of Planetary Gear Train for Geared Rotary Actuator	P S Gajjal, Yadnik Kude	International Journal of Mechanical Engineering, Vol. 7 No. 4 April, 2022, Pp 619 – 624, ISSN: 0974-5823	ISSN: 0974-5823
18	Experimental Investigation on Hip Implant Materials Development through Analytical and Finite Element Analysis: 3D Modelled Computed Tomography	Shailesh Pimpale, Manish Deshmukh , Rajesh Shelke , Dheeraj Deshmukh	Biointerface Research in Applied ChemistryVolume 12, Issue 3, 2022, 4103 - 4125 https://doi.org/10.33263/BRIAC123.41034125	ISSN: 2069-5837
19	Biomaterial Properties of Femur Implant on Acetabulum Erosion: A Review	Pimpale, S. S., Deshmukh, M. S., Shelke, R. T., & Deshmukh, D. S. (2021)	Journal of Biomimetics, Biomaterials and Biomedical Engineering, 51, 39–62. https://doi.org/10.4028/www.scientific.net/jbbbe.51.39	ISSN: 2296-9845
20	Experimental investigation of thermoelectric generator system	Solanki, P. M., Deshmukh, D. S., Diware, V. R., & Deshmukh, M. S. (2021)	Materials Today: Proceedings, 47, 3012–3017. https://doi.org/10.1016/j.matpr.2021.05.478	ISSN: 2214 -7853
21	Investigation of the Exhaust Discharger System to Reduce Backpressure on the Single Cylinder C. I. Engine	Manish S Deshmukh, Atul Patil, Dheeraj S Deshmukh (2021)	Turkish Online Journal of Qualitative Inquiry (TOJQI)Volume 12, Issue 10, October 2021: 213-227	E- ISSN:1309-6591
22	Optimization Technique Focused on Back-Pressure Production Occurrences of Fixed 4-Stroke Diesel Generator using ANN & DA Modeling	Manish S Deshmukh, Dheeraj S Deshmukh (2021)	Turkish Online Journal of Qualitative Inquiry (TOJQI)Volume 12, Issue 10, October2021: 194-212	E-ISSN:1309-6591
23.	Design and fatigue analysis of welded tee-joint of a thin walled tube using ANSYS workbench	Manish Deshmukh, Ganesh Awchat	International Journal of Mechanical Engineering Vol. 7 No. 1 , 2022	0974- 5823
24.	Development of an IOT-Based Solar Banana Dryer Monitoring and Control System	Pandit. S. Patil, *, Dilip R. Pangavhane, Sanjay P. Shekhawat, Dr Dheeraj S. Deshmukh and Dr M S Deshmukh	International Journal of Mechanical Engineering Vol. 7 No. 1 , 2022	0974- 5823
25	Heat Transfer Through Porous Materials (Aluminum Foam) Empirical Optimization of a Heat Exchanger	Dr. B. S. Bhaskar, Dr. M. S. Deshmukh, Dr. S.K. Choudhary, Dr. D. S. Deshmukh	International Journal of Mechanical Engineering Vol. 7 No. 1 , 2022	0974- 5823
26.	Experimental Investigation of Modified Solar system with Copper Box Substituting absorber.	Atul A. Patil, M. S. Deshmukh, D. S. Deshmukh	International Journal of Mechanical Engineering Vol. 7 No. 1 , 2022	0974- 5823
27.	Technology Involving Absorption Refrigeration Run by Solar Energy: A Review	Dr. Manish S. Deshmukh, Sudarshan S. Shinde	Design Engineering Vol 2021: Issue 09, 1970- 1980	0011- 9342

28.	Evaluation of Success Factors in Professional Business Incubation	Nitin Shekapure Sandeep Wankhade Vipin Gawai Swati Shekapure	Journal of Optoelectronics Laser,volume 41 Issue 8, 2022	ISSN:1005-0086
29.	Extraction of 3D image Data for Detecting Chest Diseases	Nitin Shekapure Sandeep Wankhade Vipin Gawai Swati Shekapure Sachin Kallurkar	Journal of Optoelectronics Laser,volume 41 Issue 8, 2022	ISSN:1005-0086
30.	Smart Technologies to Mitigate and Manage The Pandemic: Today and Tomorrow.	Choudhari C S*, Dhande D Y	SAMRIDDHI: A Journal of Physical Sciences, Engineering and Technology, 25Dec.2021, 13(02):82-6.	Print ISSN : 2229-7111 Online ISSN : 2454-5767
31.	Experimental Study on CNG Engine with Different Ventury Configuration	M.R.Dahake (https://www.sciencedirect.com/science/article/pii/S2214785321066864#!) S.E.Patil (https://www.sciencedirect.com/science/article/pii/S2214785321066864#!)	Materials Today Proceedings, Volume 55, Part 2 (https://www.sciencedirect.com/journal/materials-today-proceedings/vol/55/part/P2), 2022, Pages 388-393	ISSN: 2214 -7853
CAYm1 2020-21				
SN	Title of paper	Author	Name of journal	ISBN /ISSN
1.	Drilling of High Volume Fraction Al2O3 Metal Matrix Composites	B. D. Bachchhav, S. Salunkhe, and V. Naranje	Materials Performance and Characterization 10, no. 1 (2021): 317-327.	ISSN:2379-1365
2	Grade classification of bio-based lube oil by multi-attribute decision making methods	Pramod S.Kathamore, B.D.Bachchhav	Materials Today: Proceedings,	ISSN: 2214 -7853
3.	Effect of surface roughness on friction and lubrication regimes	B.D. Bachchhav, H. Bagchi	Materials Today: Proceedings,	ISSN: 2214 -7853
4.	Effect of high volume fraction reinforcement on electro-discharge machining of Al-Al2O3 MMC	B.D. Bachchhav, Vishal Naranje	Materials Today: Proceedings,	ISSN: 2214 -7853
5.	Response Surface Modelling and Effective Application of Adaptive Neuro-Fuzzy Inference System to Analyze Surface Roughness of Al/Gr/Cp5 MMC Machined using WEDM	Mangesh Phate, Shraddha Toney & Vikas Phate	Australian Journal of Mechanical Engineering, DOI: 10.1080/14484846.2021.1913852 (https://doi.org/10.1080/14484846.2021.1913852)	Print ISSN: 1448-4846 Online ISSN: 2204-2253
6.	Prediction and optimization of tool wear rate during electric discharge machining of Al/Cu/Ni alloy using adaptive neuro-fuzzy inference system,	Mangesh Phate, Aditya Bendale, Shraddha Toney, Vikas Phate	Heliyon, Volume 6, Issue 10,e05308, https://doi.org/10.1016/j.heliyon.2020.e05308.	ISSN 2405-8440

7.	Multi-parametric Optimization of WEDM Using Artificial Neural Network (ANN)-Based PCA for Al/SiCp MMC.	Phate, M.R., Toney, S.B. & Phate, V.R.	J. Inst. Eng. India Ser. C 102, 169–181 (2021). https://doi.org/10.1007/s40032-020-00615-1	2250-0545
8.	Modelling and investigating the impact of EDM parameters on surface roughness in EDM of Al/Cu/Ni Alloy	Mangesh Phate, Shraddha Toney & Vikas Phate	Australian Journal of Mechanical Engineering, DOI: 10.1080/14484846.2020.1790478 (https://doi.org/10.1080/14484846.2020.1790478)	Print ISSN: 1448-4846 Online ISSN: 2204-2253
9.	Modelling and critical analysis of material removal rate in WEDM of Oil Hardening Non Shrinking Die Steel (OHNS).	Phate, M., Toney, S., & Phate, V.	Engineering and Applied Science Research, 47(3), 264-274. https://ph01.tci-thaijo.org/index.php/easr/article/view/228031	2539-6218, 2539-6161
10	Optimistic Implementation of Supply Chain Management in Small & Medium Enterprise: Approach using Grey Relational Analysis (GRA).	Phate M, Toney S, Phate V.	IJIEPR. 2021; 32 (1) :65-77 DOI: 10.22068/ijiepr.32.1.65	ISSN: 2008- 4889
11	Investigation on the Impact of of Silicon Carbide and Process Parameters on Wire Cut-EDM of Al/SiCp MMC..	Phate M, Toney S, Phate V.	IJIEPR. 2020; 31 (2) :177-187 DOI: 10.22068/ijiepr.31.2.177	ISSN: 2008- 4889
12	Comparative Analysis of Abrasive Wear Using Response Surface Method and Artificial Neural Network. (2021).	Dhande, D.Y., Phate, M.R. & Sinaga, N.	J. Inst. Eng. India Ser. D, https://doi.org/10.1007/s40033-021-00250-9	E-ISSN: 2250-2130 P- ISSN: 2250-2122
13.	The study of performance and emission characteristics of a spark ignition (SI) engine fuelled with different blends of pomegranate ethanol.	Dhande, D.Y., Sinaga, N. & Dahe, K.B.	Int J Energy Environ Eng. https://doi.org/10.1007/s40095-020-00372-y	E- ISSN 2251-6832 P- ISSN 2008-9163
14.	Study on combustion, performance and exhaust emissions of bioethanol-gasoline blended spark ignition engine,	D.Y. Dhande, Nazaruddin Sinaga, Kiran B. Dahe	Heliyon, Volume 7, Issue 3, 2021,e06380, https://doi.org/10.1016/j.heliyon.2021.e06380	ISSN 2405-8440

15.	Wear behavior of sintered bearings using additives in dry sliding,	P.S. Gajjal, G.S. Lathkar,	Materials Today: Proceedings, Volume 46, Part 7, 2021, Pages 2483-2488, https://doi.org/10.1016/j.matpr.2021.01.413.	ISSN 2214-7853
16.	Performance evaluation of EN24 for planetary gear transmission of CNC bending machine	Dhanvij, N. H.; Gawande, S. H.; Gajjal, P. S.	Journal of the Brazilian Society of Mechanical Sciences and Engineering, 42(6), 298–. doi:10.1007/s40430-020-02392-5	1678-5878
17.	Enhancing User Experience for Computer Aided Design packages through Artificial Intelligence	Sachin S Kallurkar Prasad R Baviskar Sandeep H Wankhade	Design Engineering (Toronto), 2021	ISSN: 0011-9342
18.	Experimental investigation of performance and emissions of CRDI diesel engine in dual fuel mode by hydrogen induction and diesel injection coupled with exhaust gas recirculation	M.R.Dahake (https://www.sciencedirect.com/science/article/pii/S221478532101806X#!) Dr.N.Malkhede (https://www.sciencedirect.com/science/article/pii/S221478532101806X#!)	Materials Today Proceedings,Volume 46, Part 7 (https://www.sciencedirect.com/journal/materials-today-proceedings/vol/46/part/P7), 2021, Pages 2814-2819	ISSN 2214-7853
CAYm2 AY 2019-20				
SN	Title of paper	Author	Name of journal	ISBN /ISSN
1.	A new approach to control assembly variation in Selective assembly using Hierarchical Clustering.	Dr S V Chaitanya	System Reliability, Quality Control, Safety, Maintenance and Management. ICRRM 2019. Springer	978-981-13-8507-0
2.	Performance of Additives Concerning Synergistic Effect in Lube Oil	Pramod S. Kathmore, Bhanudas D. Bachchhav, Harijan H. Bagchi	International Journal of Engineering and Advanced Technology, Vol: 9, Issue: 3, pp. 1874-1878. February 2020.	ISSN: 2249 – 8958
3.	Friction and Wear Characteristics of Rubber Resin-Bonded Metallic Brake Pad Materials, Vol: 8, Issue: 6, (August 2019), pp. 1312-1316.	Kishor N. Hendre, Bhanudas D. Bachchhav	International Journal of Engineering and Advanced Technology (IJEAT)	ISSN: 2249 – 8958
4.	“Frictional Characteristics of Brake Pad Materials Alternate to Asbestos”, Vol: 9, Issue: 2, (December 2019), pp. 694-698.	K.N. Hendre, B. D. Bachchhav, H. H. Bagchi.	International Journal of Engineering and Advanced Technology (IJEAT),	
5.	Bio-based Lubricant Selection for Metal Cutting Operations Using MADM Technique, Vol. 9, Issue 6, Dec 2019, 845–858.	Kathmore P. S; Bachchhav B. D	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)	ISSN(P): 2249–6890; ISSN(E): 2249–8001

6.	Experimental Study of Hydrocarbon R290 in Water Cooler refrigeration System	C S Choudhari, S N Sapali	Journal of thermal Engineering, Vol.6, No. 1, pp. 43-49, January, 2020,	2148-7847
7.	Performance evaluation of EN24 for planetary gear transmission of CNC bending machine.	Dhanvij, N.H., Gawande, S.H. & Gajjal, P.S.	J Braz. Soc. Mech. Sci. Eng. 42, 298 https://doi.org/10.1007/s40430-020-02392-5	Electronic ISSN 1806-3691 Print ISSN 1678-5878
8.	Study of aerodynamic drag of sports utility vehicle by experimental and numerical method	Bauskar M .P., Dhande, D.Y., Vadgeri S. S., Patil, S.R.	Materials Today: Proceedings (Elsevier),	ISSN 2214-7853,2019
9.	Implementation of CFD–FSI Technique Coupled with Response Surface Optimization method for Analysis of Three-Lobe Hydrodynamic Journal Bearing	Dr D Y Dhande, Langewar G H & Pande D W	Journal of The Institution of Engineers (India): Series C	2250-0545
10.	Tribological Parametric Influence of Dry Sintered Iron Bearings	Dr P S Gajjal	Journal of Emerging Technologies and Innovative Research	ISSN-2349-5162
11	Wear Model of Dry Sintered Bearing Material by Dimensional Analysis	Dr P S Gajjal	Journal of Emerging Technologies and Innovative Research	ISSN-2349-5162
12.	Experimental investigation of forming parameters for square cup deep drawing process	C S Choudhari, S S Khasbage	Materials Today: Proceedings (Elsevier), Volume 44, Part 6 (https://www.sciencedirect.com/journal/materials-today-proceedings/vol/44/part/P6), 2021, Pages 4261-4267	ISSN 2214-7853,2019
13.	Stress Analysis of Carbon Fiber Reinforced Composite Laminate with Different Centrally Located Cutouts	Vadgeri S. S., Patil S. R.	Materials Today: Proceedings (Elsevier),	ISSN 2214-7853, 2019
14.	Finite element analysis comparison of spur gears between standard tooth profile and modified profile", ,volume 6 ,Issue 9, Sept 2019	Ajinkya Mali, Rahul Marne	International Research Journal of Engineering and Technology, (IRJET)	P-ISSN-2395-OO72
15.	Comparative evaluation of machining performance of inconel 625 under dry and cryogenic cutting conditions 810	S S Vadgeri	IOP Conference Series: Materials Science and Engineering, (2020) 012036	

(b) Number of books/book chapter published:

CAY 2021-22				
Sr. No.	Title of Book	Author	Name of Publisher	ISBN /ISSN
1.	Experimental Exploration of Effect of Hydrogen Enrichment on the Performance and Emissions of Dual Fuel Diesel Engine Equipped with CRDI by Varying Injection Duration. In: Kumar, R., Pandey, A.K., Sharma, R.K., Norkey, G. (eds) Recent Trends in Thermal Engineering. Lecture Notes in Mechanical Engineering.	Dahake, M.R., Malkhede, D.N. (2022).	Springer, Singapore. https://doi.org/10.1007/978-981-16-3132-0_2	978-981-16-3131-3
2.	Investigations of Wear Behavior of Journal Bearing Materials. In: Dubey, A.K., Sachdeva, A., Mehta, M. (eds) Recent Trends in Industrial and Production Engineering. Lecture Notes in Mechanical Engineering.	Gajjal, P., Gajjal, S. (2022).	Springer, Singapore. https://doi.org/10.1007/978-981-16-3135-1_15	978-981-16-3134-4
CAYm1 2020-21				
Sr. No.	Title of Book	Author	Name of Publisher	ISBN /ISSN
1.	Advances in Manufacturing Processes. Lecture Notes in Mechanical Engineering.	Naranje V., Sankar A.R., Salunkhe S., Bachchhav B.D. (2021)	Springer, Singapore. https://doi.org/10.1007/978-981-15-9117-4_28	Print: 978-981-15-9116-7 Online: 978-981-15-9117-4
2.	Tribological Behaviour of Bronze and Plastic Material	Dr. P S Gajjal (2020)	Lambert Publications, Dept of Higher Education, MHRD	978-81-946643-9-0
3.	Advances in Mechanical Processing and Design: Lecture notes in Mechanical Engineering : Tribo-Behaviour of Tin-Based Dry Bearing Material	Dr. P S Gajjal (2020)	Springer Nature Singapore Pte Ltd. 2021	978-981-15-7778-9
4.	Advances in Manufacturing Systems.: Lecture notes in Mechanical Engineering : Use of Sustainable Practices in Cement Production Industry: A Case Study.	Dr B D Bachchhav	Springer Nature Singapore Pte Ltd. 2021	978-981-33-4465-5
5.	FLUID MECHANICS (Second Year (SE) Mechanical Engineering - Semester 2), SPPU Pune	Dr. S. V. Chaitanya , Dr. M. M. Bhoomkar, M. S. Kore, G. S. Kondhalkar	Nirali Publications, Pune	ISBN: 9789354510526
6.	Experimental Investigation of Performance and Emissions of Single-Cylinder Diesel Engine Enriched by Hydroxy Gas for Various Compression Ratios. In: Pant, P., Mishra, S.K., Mishra, P.C. (eds) Advances in Mechanical Processing and Design. Lecture Notes in Mechanical Engineering.	Dahake, M., Patil, S., Malkhede, D. (2021).	Springer, Singapore. https://doi.org/10.1007/978-981-15-7779-6_11	Print ISBN978-981-15-7778-9
7.	Wear Behavior of Polytetrafluoroethylene and Its Composites in Dry Conditions. In: Joshi, P., Gupta, S.S., Shukla, A.K., Gautam, S.S. (eds) Advances in Engineering Design. Lecture Notes in Mechanical Engineering.	Gajjal, P., Gajjal, S.Y. (2021).	Springer, Singapore. https://doi.org/10.1007/978-981-33-4684-0_75	Print ISBN978-981-15-7778-9
CAYm2 2019-20				
SN	Title of Book	Author	Name of Publisher	ISBN /ISSN

1.	Screening of organic brake pad materials using MADM Technique: Advances in Intelligent Syst., Computing, Vol. 949, : Advanced Engineering Optimization Through Intelligent Techniques	Dr B D Bachchhav	Springer Nature	978-981-13-8195-9
2.	ICRRM 2019 – System Reliability, Quality Control, Safety, Maintenance and Management.	Chaitanya S.V., Jeevanantham A.K.	Springer, Singapore.	Print : 978-981-13-8506-3 Online: 978-981-13-8507-0
3.	Tribo-Behaviour of Dry Sintered Material	Priya Gajjal Shekhar Gajjal	LAP Lambert Academic Publishing	978-613-9-44952-1

CAYm3 2018-19

SN	Title of Book	Author	Name of Publisher	ISBN /ISSN
1.	Experimental Investigation of Maximum Cutting Force Condition in Lathe	S S Vadgeri & S R Patil	LAMBERT Publication, Germany	ISBN: 978-613-9-45019-0
2.	Springer book series - AEOTIT 2018	Dr. B D Bachchhav	Springer	ISBN - 978-9981-13-8196-6
3.	Fabrication of temperature control solar dryer	Dr. M R Phate	LAMBERT Publication, Germany	ISBN : 978-613-999230-0
4.	WEDm performance analysis of AL/GR mmc using response surface method	Dr. M R Phate	LAMBERT Publication, Germany	ISBN : 978-613-999228-7
5.	Operation Research	Dr. M R Phate	Sharp / Success	ISBN : 978-93-24457-08-2

(c) Patents Published:

Sr No	Title of the patent	Indian/ Other	Investigator details	Date of filing of patent	Application No	Present status
1	Hybrid Powered Mixed Garbage Disposal And Converter Unit	Indian	Dr M R Phate	10/09/2014	2879/MUM/ 2014	Examination
2	Kitchen Items Cleaning and Disinfecting Device using water and UV light	International Australian Patent	Dr M S Deshmukh	23/08/2020	2020101948	Granted

(d) Copyrights:

S. N	Name of the Faculty	Diary Number	Work Title	Class of Work	Registration Date	Status
1.	Mr P V Deshmukh	L-109790/2021	Weighted Method for Calculation of CO ATTAINMENT	Literary/ Dramatic	28/12/2021	Registered
2.	Mr P V Deshmukh	L-108982/2021	Calculation of course outcome attainment level for student centric methods	Literary/ Dramatic	29/09/2021	Registered
3.	Dr P S Gajjal	L-105542/2021	Directional Approach Method	Literary/ Dramatic	16/07/2021	Registered
4.	Dr M R Phate	L-99333/2021	Easy and efficient CO PO mapping process for university affiliated engineering institutes	Literary/ Dramatic	11/02/2021	Registered
5.	Dr M R Phate	17759/2018-CO/L	Formulation Of Experimental Data Based Model For The Machining Process Using Dimensional Analysis Approach.	Literary/ Dramatic	7/2/2019	Registered
6.	Dr M R Phate	L-17759/2018	Critical Analysis Of Novel Fabricated Al/Sic/B4C Metal Matrix Composites Machining Performance.	Literary/ Dramatic	24/4/2019	Registered
7.	Dr M R Phate	L-2254/2019	Analysis Of 6-DOF Human Biodynamic Model For Seated Human Posture Using Artificial Neural Network.	Literary/ Dramatic	14/5/2019	Registered
8.	Dr M R Phate	L-3963/2019	Formulation Of Experimental Data Based Model For The Machining Process Using Artificial Neural network.	Literary/ Dramatic	10/9/2019	Registered
9.	Dr M S Deshmukh	L-14307/2019	New Mathematical model for the Diesel Exhaust Particulate Filter Efficiency	Literary/ Dramatic	24/12/2018	Registered

(e)

(i) Number of PhDs in the department: 15

Name of the Faculty	Year in which PhD completed
Dr M S Deshmukh	2012
Dr B D Bachchhav	2013
Dr M R Phate	2015
Dr P S Gajjal	2016

Dr S H Wankhade	May 2017
Dr C S Dharankar	October 2017
Dr A V Waghmare	22 January 2018
Dr D Y Dhande	25 January 2018
Dr S J Navale	May 2018
Dr M M Sayyad	2018
Dr C S Choudhari	March 2019
Dr S V Chaitanya	September 2019
Dr A M Ramteke	2021
Dr D S Malwad	2021

(ii) Number of PhD awarded in assessment years: 03

Name of the Faculty	Year in which PhD awarded
Dr S V Chaitanya	September 2019
Dr. S R Patil	April 2022
Dr.M R Dahake	May 2022

(ii) Number of PhD pursuing: 03

Name of the Faculty	Name of the institute and University
Mr. P S Aglawe	COEP, Pune (SPPU)
Mr. M S Swami	AISSMS COE, Pune (SPPU)
Mrs. S S Patil	COEP, Pune (SPPU)

(iii) Number of students admitted for PhD program:

Sr. No.	Academic Year	Number of students admitted
1.	2019-20	04
2.	2020-21	12
3.	2021-22	05

5.7.2 Sponsored Research (5)

Institute Marks : 0.00

2020-21 (CAYm1)

Project Title	Duration	Funding Agency	Amount
Onion Harvesting Machine under Unnat Bharat Abhiyan Scheme	1 Year	MHRD, Unnat Bharat Abhiyan	100000.00
			Total Amount(X): 100000.00

2019-20 (CAYm2)

Project Title	Duration	Funding Agency	Amount
Tribological Performance Evaluation of Non Asbestos organic Brake Pad Materials	1 Year	IE(I) R&D Cell	25000.00
Wind Analysis of Canopy, Pitch-roof and Square Tall Building with Different Shape Using Wind Tunnel and CFD	1 Year	IE(I) R&D Cell	20000.00
Research Activities of SAE	1 Year	Cummins India Ltd	210000.00
			Total Amount(Y): 255000.00

2018-19 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

5.7.3 Development Activities (10)

Institute Marks : 10.00

- **Product Development:** A separate project lab displaying/exhibiting projects done by faculty as well as students.

3 D Printer: This setup is used for demonstration of 3 D printing technology to SE, TE and BE students. The facility is also utilised for manufacturing small parts required to build aeroplane model by SAE Aero design team of the college.

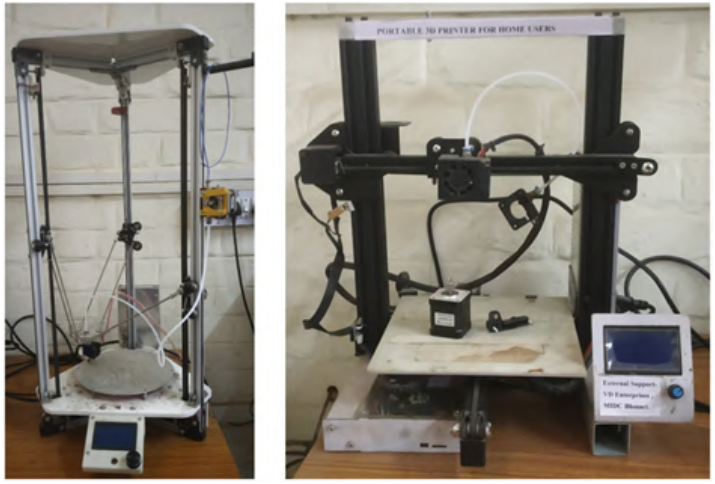


Figure B5.7.3a 3D Printer Setup

- **Research laboratories:**

(a) PG & Research Computer Laboratory: The department has computer laboratory equipped with high performance computers and high end software like ANSYS, Altair Hyperworks, MSc ADAMS that can be utilised for research purpose.

(b) Test rigs developed by faculties can be used for further research by PhD as well as PG students.

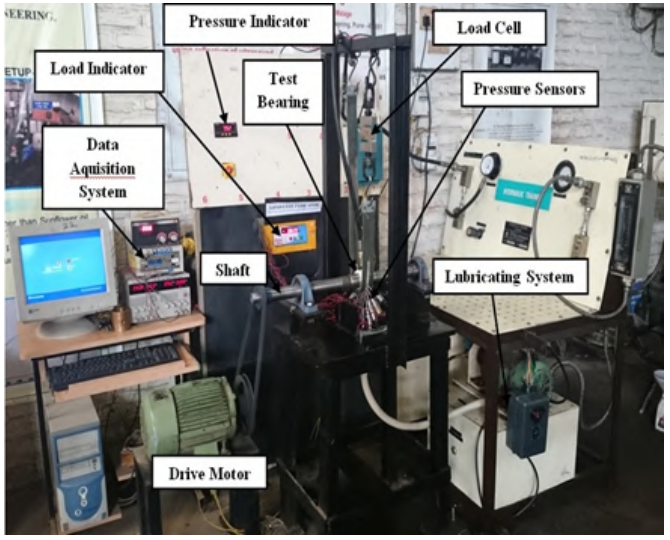


Figure B5.7.3b Journal Bearing Test Rig

- **Instructional materials:**

Faculty members have created Lab Manuals for each subject which help students to perform practical during Laboratory hours.

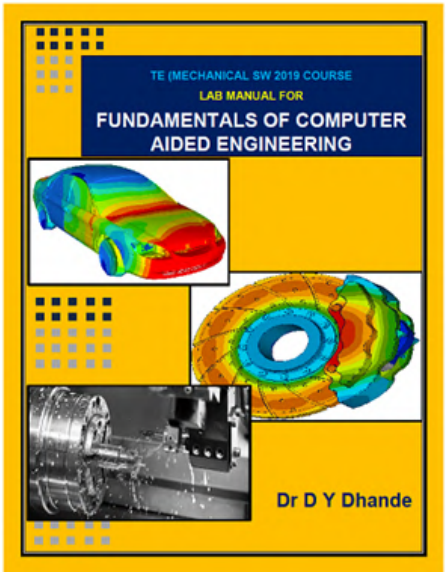


Figure B5.7.3c Sample Lab Manual

- **Working models & charts:**

a. The department has working models available for Theory of machine lab. Also relevant projects done by final year students are kept in the respective labs.
b. Charts prepared by faculty members are displayed in the respective laboratory.
c. Knowledge wall flex boards are displayed outside each laboratory.

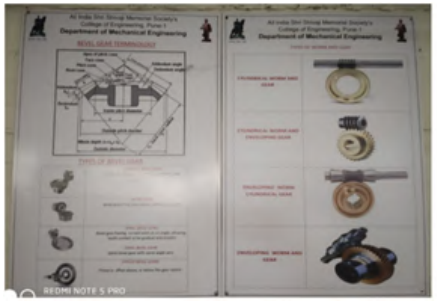
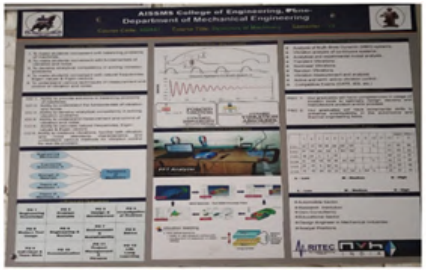


Figure B5.7.3d Wall Charts



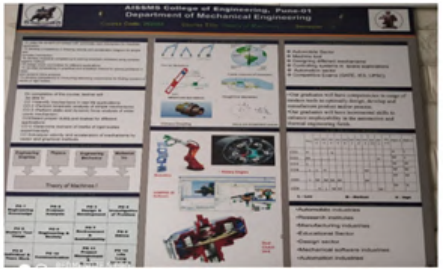


Figure B5.7.3e Knowledge Wall

5.7.4 Consultancy(from Industry) (5)

Institute Marks :

2020-21 (CAYm1)

Project Title	Duration	Funding Agency	Amount

2019-20 (CAYm2)

Project Title	Duration	Funding Agency	Amount

2018-19 (CAYm3)

Project Title	Duration	Funding Agency	Amount

Cumulative Amount(X + Y + Z) =

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

Total Marks 25.00

Institute Marks : 25.00

The college has following appraisal and development schemes for faculty:

(1) Performance based appraisal scheme (PBAS): The college has well defined faculty appraisal system. The PBA from is designed and approved by IQAC of the institute as per the guidelines laid by UGC and AICTE.

The faculty is assessed on the basis of following criteria:

- Teaching, Learning and evaluation activities (125 Marks)
- Co-curricular, Extension and Professional development related activities (50 Marks) and
- Research and Academic contributions (No limit)

The PBA form consists of various categories like teaching learning process, quality of tests and assignments, student feedback, results of previous three year, participation in professional body activities, staff and student development programs, academic achievements during that year, presentation and publication of papers in the national and international journals, participation of organization in co/extra-curricular activities, help extended to college administration, recognition, rewards received, research and consultation activity, interpersonal skills, mentor activity, loyalty and discipline etc. The category wise distribution of marks is as given in table below:

Minimum APIs required

		Assistant Professor AGP 6000	Assistant Professor AGP 7000	Assistant Professor AGP 8000	Associate Professor AGP 9000	Professor AGP 10,000
I	Teaching- learning Evaluation Relate Activities (Category I)	75/Year	75/Year	75/Year	75/Year	75/Year
II	Co-Curricular Extension and Profession related activities (Category II)	15/Year	15/Year	15/Year	15/Year	15/Year
III	Minimum total average annual Score under Categories I and II	100/Year	100/Year	100/Year	100/Year	100/Year
IV	Research and Academic Contribution (Category III)	5/Year	10/Year	15/Year	20/Year	25/Year

Implementation:

- PBA forms are submitted by each faculty member at the end of each semester.
- The PBA forms are assessed by Head of the department and Principal as per the guidelin given by IQAC.
- The faculty member discusses with head of the department as well as principal in case of any discrepancy before finalization of PBA score.
- IQAC identifies the faculty member with highest PBA score after verification of all documents and nominates the faculty member for best teacher award at society level.

Effectiveness:

The PBAS as resulted in following outcomes:

- Improved use of ICT and innovative practices in teaching and learning
- Improved research publications/copyrights and patents
- Increased industrial visits as well as expert talks.
- Improved participation in FDP/STTP/ Swayam/MOOC Courses.
- Improved industry institute interactions and MoUs.
- Improved consultancy work.

(2) Best Teacher award: The applications are invited from the faculty members are invited at the institute every year. The applications are scrutinised and assessed by the panel of experts/committee on the basis of academic performance, research activities and contribution at institute level. The top scoring faculty is awarded as best teacher with a Cash prize of Rs.50000/- and certificate.

Figure B5.8a Best Teacher (1st Rank) award to Dr M R Phate

(3) Recognition of Excellence award: The faculty members completing PhD and significant contribution in academics are awarded by the AISSMS Society every year conferring Recognition of excellence award with memento and certificate on the day of Shahu Jayanti.


AISSMS
ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY
PREMIER HERITAGE GROUP OF INSTITUTES
Certificate of Recognition
On the occasion of Shahujayanti-2019 Recognition of Excellence is hereby conferred on Dr D Y Dhande, Associate Professor in Mechanical Engineering of AISSM Society's College of Engineering, Pune-1 for being awarded as PhD in Mechanical Engineering by SPPU, Pune.
Date : 26th June, 2019
Shri. Malojiraje Chhatrapati
Hon. Secretary

Figure B5.8b Certificate of Recognition and Memento

List of rewardies

Sr No	Name of the Faculty	Year
1.	Dr A V Waghmare	2018
2.	Dr D Y Dhande	2018
3.	Dr C S Dharankar	2018
4.	Dr S J Navale	2019
5.	Dr C S Choudhari	2019
6.	Dr S V Chaitanya	2019

(4) Module co-ordinators: The department has module coordinator system for improvement in academics. Seniors faculty members are assigned as a module coordinators. The module coordinator assess the course file of every faculty members in the module and give suggestions for the improvement. Following are the modules and module co-ordinators at department level:

Module	Name of the Module coordinator
Manufacturing	Dr B D Bachchhav
Design Engineering	Prof P V Deshmukh
Thermal Engineering	Dr C S Choudhari
Allied	Dr S V Chaitanya
Project	Dr S J Navale

(5) Research Promotion Scheme: The institute has research promotion scheme which encourage the faculty to undertake research projects, consultancy work and training programs. The faculty involved is awarded with appropriate amount as per the policy decided at the institution level.

(6) Support for Higher Studies: The faculty members perusing higher studies are awarded with financial assistance of Rs.1 lakh or One month study leave as per the choice of the faculty. The faculty member is permitted to carry out research studies by adjusting the teaching load in the morning slot and rest of the time can be utilized for study.

Sr No	Name of the Faculty	Nature of Support
1.	Dr A V Waghmare	Study Leave
2.	Dr D Y Dhande	Study Leave
3.	Dr C S Dharankar	Study Leave
4.	Dr S J Navale	Study Leave
5.	Dr S V Chaitanya	Study Leave
6.	Mr. M S Swami	Financial Support

(7) Financial assistance for attending FDP/QIP/STTP/International Conferences: The faculty member is permitted on duty leave to attend the respective quality improvement program. The financial assistance is provided for payment of registration fees, travel fare and accommodation.

Sr No	Name of the Faculty	Year	Program	Nature of support
1.	Dr D Y Dhande	2019-20	One week FDP on “Introduction to Tribology” at IISc Bengluru	Financial support
2.	Mr V S Wagare	2019-20	One week FDP on “Introduction to Tribology” at IISc Bengluru	Financial support

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

Total Marks 4.00

Institute Marks : 4.00

The department has provision for visiting faculty. Following are the details of the faculty:

Year	Name of the visiting Faculty	Class and Subject	No of Contact hours
2020-21	Mr. Lokesh Bhansali, G2G innovations	BE (Elective III: FEM)	48
2021-22	(1) Mr. Mohit Mudra (2) Mr.Anwar Rashid	SE, TE, BE, BE (Skill Development)	36
2021-22	Mr D B Raut, Chief Engineer, Devise Electronics Pvt.Ltd. Mr Manas Vora, Manager Devise Electronics Pvt.Ltd.	TE (eVehicle System Design)	10

6 FACILITIES AND TECHNICAL SUPPORT (80)

Total Marks 70.00

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

Total Marks 25.00

Institute Marks : 25.00

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	Heat Engine Lab	20	1)Computerised single cylinder engine test rig, 2)Two stage reciprocating air compressor test rig 3)3Cylinder four stroke petrol engine test rig set up,4)Experimental set up for investigation on performance of S I engine fuel with hydrogen gas as an alternate fuel, 5)Air compressor	87%	S K Jogdand	Lab Assistant	ITI , BA
2	Metallurgy Lab	20	1)Universal testing machine,2)Rockwell cum Brinell hardness test, 3)Impact testing machine, 4)Poldi hardness tester, 5)Vickers hardness tester	70%	S K Jogdand	Lab Assistant	ITI , BA
3	Heat Transfer Lab	20	1)Critical heat flux apparatus, 2)Experimental set up for investigation on performance of S I engine fuel with hydrogen gas as an alternate fuel, 3)Pin fin apparatus,4)Heat conduction through composite slab,5)Forced convection 6)Vapour compression refrigeration test rig,7)Ice plant test rig,8)Air condition cycle test rig,9)Rotary air compressor (vane type)	80%	S K Jogdand	Lab Assistant	ITI , BA
4	Theory of Machines Lab	20	1)Epicyclic gear train test rig,2)Clutch test rig	70%	A A Jachak	Lab Assistant	DME, B.Tech (Mechanical)
5	Dynamics of Machinery Lab	20	1)Computerised wheel balancing machine,2)Vibration lab,3)Whirling of shaft apparatus,4)CAM analysis machine,5)Motorised gyroscope	60%	A A Jachak	Lab Assistant	DME, B.Tech (Mechanical)
6	Fluid Machinery Lab	20	1)Pelton wheel turbine test rig,2) Centrifugal pump of variable speed,3) Francis turbine test rig,4) Impact of jet apparatus	60%	S K Jogdand	Lab Assistant	ITI , BA
7	Fluid Power Lab	20	1)Hydraulic circuit trainer,2)Pneumatic circuit trainer,3)Gear pump test rig,4)Hydraulic accumulator intensifier and press	75%	S K Jogdand	Lab Assistant	ITI , BA

8	Metrology and Quality Control Lab	20	1)Optical flat monochromatic light unit,2)Auto collimeter and angle decker,3)Tool makers microscope,4)Profile projector,5)Electronic comparator twin channel	70%	S K Jogdand	Lab Assistant	ITI , BA
9	Computer Aided Design Lab	20	1)Desktop Computers make: Lenovo,2) Printer (hp 1007) (02 Nos.),3)IBM Server (1 Nos.),4)PRO/E WILDFIRE 4.0,5)MATLAB7.0,6)Auto Desk Product AutoCAD 2009,7)Master CAM X 9, 8)ANSYS Software 16.02 9)Desktop,10)Scanner,11)True on line UPS 7.5 KVA(03 No), 12)Auto Desk product AutoCAD 2009, 13)IBM Server,14)Plotter – AO size colour	100%	A A Jachak	Lab Assistant	DME, B.Tech (Mechanical)
10	Computer Aided Engineering Lab	20	1)Desktop computers, 2)Altair Hyper Works, 3)ANSYS Software 13.0 ,4)MATLAB 10,5)MATLAB 16 B academic version,6)LE Grand numeric UPS 7.5 KVA	100%	A A Jachak	Lab Assistant	DME, B.Tech (Mechanical)
11	Drawing Hall	20	1)Drawing Boards	100%	J N Khiratkar	Lab Assistant	NCTVT (LACP)
12	Basic Mechanical Engineering Lab	20	1)Models	100%	J N Khiratkar	Lab Assistant	NCTVT (LACP)
13	Workshop	20	1)Milling Machine, 2)Grinding Machine,3)Lathe Machine	80%	1)Mr M K Sanjay, 2)Mr V H Hire ,3)Mr R M Khedkar	Instructor, Instructor, Instructor	ITI,ITI,ITI
14	Project Lab	20	1)FFT Analyser with Triaxial axis Accelerometer and Array Microphone, 2)Desktop Computers make: Lenovo	100%	S K Jogdand	Lab Assistant	ITI , BA

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	Adams Software	Software	Kinematic analysis of mechanisms	SE Students	Kinematics	PO3,PO4,PO5,PSO1
2	Virtual lab	IIT Bombay Virtual labs-Nodal center	For simulation- based experiments	SE,TE and BE Students	Design, Kinematics, and Thermal engineering	PO1,PO5
3	3D Printer	Low capacity 3D printing machine	Enhancement of product development	BE Students	Product development	PO1,PSO2
4	Automobile Gearbox	Gearbox having compound gear train with helical	Understanding of gear train	SE and TE Students	Mechanical system design	PO1
5	Blower test rig	Test rig for performance testing	Analysis of blower	BE Students	Fluid power, noise and vibration	PO1
6	Chassis Dynamometer	Four wheeler chassis dynamometer	Four wheeler testing	BE Students	Testing of four wheeler	PO1
7	Roundness Testing by Using Mech. Comparator	Roundness Testing	To enhance the knowledge of GD & T	TE Students	Geometrical Dimensions	PO1
8	Cut section model of differential	Rear axle with differential four wheeler	Understand the kinematics of gearbox	SE and TE Students	Design and kinematics	PO1
9	E-Rickshaw	E-Rickshaw from Paramtech Electric Motors Pvt Ltd	Understanding working principle of electrical vehicle	TE and BE Students	Automobile engineering	PO1,PO7
10	Journal bearing test rig	To test the static performance of hydrodynamic journal bearing	Research work	TE and BE Students	Tribology /design engineering	PO1,PO3,PSO1

6.3 Laboratories: Maintenance and overall ambiance (10)

Total Marks 8.00

Institute Marks : 8.00

The department is equipped with excellent laboratories and modern equipment to meet curriculum needs. In a pendamic period, practical sessions are conducted online and videos of partical are shown to students and also available on youtube. Following is some of the silent features of maintenance and overall ambiance of laboratories.

Laboratory Maintenance:

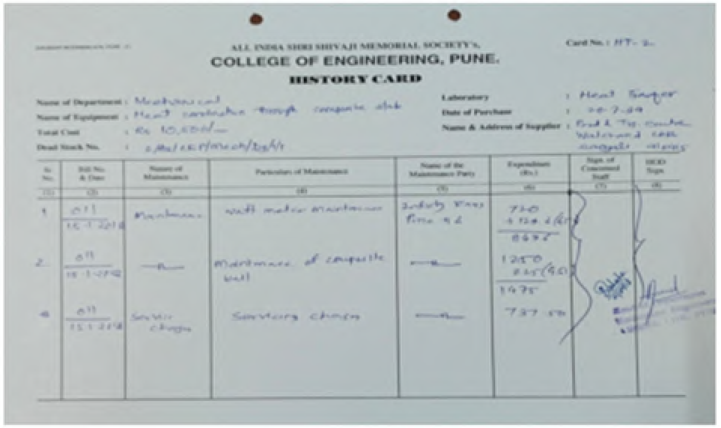
- Periodic maintenance is done for the experimental setup and laboratory equipment.
- Annual calibration of instruments is done in MQC and Metallurgy laboratories.
- A dead stock register is maintained for all the laboratories.
- History cards of equipment are maintained and are kept intact.
- The old and outdated equipment get write-off by the standard procedure.
- The care of the repairs and maintenance of all computers is taken by the system administrator of the institute.

Overall ambiance:

- Every laboratory is properly ventilated.
- Windows are provided for excellent air circulation, which is supported by several ceiling fans.
- All laboratories offer proper seating arrangements for students.
- Ambient lighting assisted by fluorescent tubes is provided. Curtains are provided for windows to ensure good visibility.
- The labs are always kept neat and clean.
- A housekeeping time table is provided to the attendant and is maintained.

HEAT TRANSFER LABORATORY

COMPUTER AIDED ENGINEERING LABORATORY

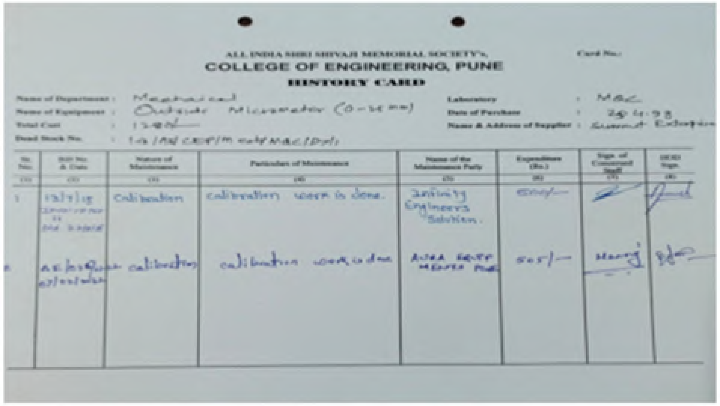


ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S,
COLLEGE OF ENGINEERING, PUNE.
HISTORY CARD

Card No.: HT-2

Name of Department : Mechanical
Name of Equipment : Heat conduction through composite slab
Total Cost : Rs 10,500/-
Laboratory : Heat Transfer
Date of Purchase : 28-7-89

Sr. No.	Bill No. & Date	Nature of Maintenance	Particulars of Maintenance	Name of the Maintenance Party	Expenditure (Rs.)	Sign. of Concerned Staff	HOD Sign.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	611 15-1-2018		watt meter maintenance		720		
2	611 15-1-2018	—	Maintenance of composite wall	—	1250 1475		
3	611 15-1-2018	Service charges	Servicing charges	—	737.50		



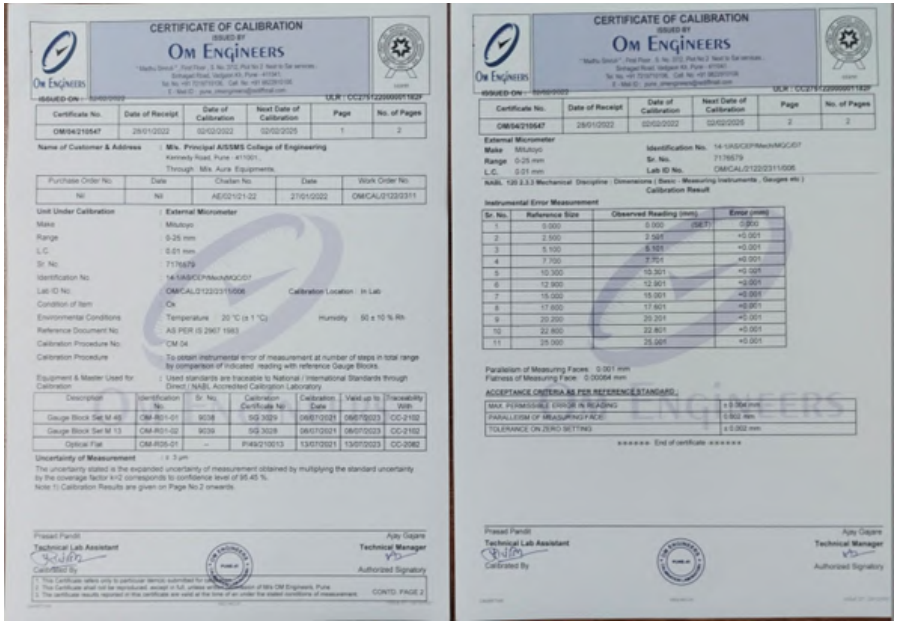
ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S,
COLLEGE OF ENGINEERING, PUNE
HISTORY CARD

Card No.:

Name of Department : Mechanical
Name of Equipment : Outside Micrometer (0-25 mm)
Laboratory : MAC

Sr. No.	Bill No. & Date	Nature of Maintenance	Particulars of Maintenance	Name of the Maintenance Party	Expenditure (Rs.)	Sign. of Concerned Staff	HOD Sign.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1		Calibration	Calibration work is done.	Infinity Engineers Solution.	5000/-		
2		calibration	calibration work is done		505/-		

HISTORY CARD



CERTIFICATE OF CALIBRATION
ISSUED BY
OM ENGINEERS

Certificate No.	Date of Receipt	Date of Calibration	Next Date of Calibration	Page	No. of Pages
OM/04/210547	28/01/2022	02/02/2022	02/02/2025	1	2

Name of Customer & Address : M/s. Principal AISSMS College of Engineering
Kennedy Road, Pune - 411001.
Through: M/s. Aura Equipments.

Purchase Order No.	Date	Challan No.	Date	Work Order No.
Nil	Nil	AE/021/21-22	27/01/2022	OM/CAL/0122/2311

Unit Under Calibration : External Micrometer
Make : Mitutoyo
Range : 0-25 mm
L.C. : 0.01 mm
Sr. No. : 7176579
Identification No. : 14-IA/SCEP/Mech/MQC/07
Lab ID No. : OM/CAL/0122/2311/006
Calibration Location : In Lab
Condition of Item : Ok
Environmental Conditions : Temperature : 20 °C (± 1 °C) Humidity : 50 ± 10 % Rh
Reference Document No. : AS PER IS 2967 1983
Calibration Procedure No. : CM 04
Calibration Procedure : To obtain instrumental error of measurement at number of steps in total range by comparison of indicated reading with reference Gauge Blocks.
Equipment & Master Used for Calibration : Used standards are traceable to National / International Standards through Direct / NABL Accredited Calibration Laboratory

Description	Identification No.	Sr. No.	Calibration Certificate No	Calibration Date	Valid up to	Traceability With
Gauge Block Set Id 46	OM-R01-01	9038	SG 3029	08/07/2021	08/07/2023	CC-2102
Gauge Block Set Id 13	OM-R01-02	9039	SG 3028	08/07/2021	08/07/2023	CC-2102
Optical Flat	OM-R05-01	--	PI49/210613	13/07/2021	13/07/2023	CC-2082

Uncertainty of Measurement : ± 3 µm
The uncertainty stated is the expanded uncertainty of measurement obtained by multiplying the standard uncertainty by the coverage factor k=2 corresponds to confidence level of 95.45 %.
Note 1) Calibration Results are given on Page No.2 onwards.

Prasad Pandit
Technical Lab Assistant
Calibrated By

Ajay Gajare
Technical Manager
Authorized Signatory

CONTD. PAGE 2

CERTIFICATE OF CALIBRATION
ISSUED BY
OM ENGINEERS

Certificate No.	Date of Receipt	Date of Calibration	Next Date of Calibration	Page	No. of Pages
OM/04/210547	28/01/2022	02/02/2022	02/02/2025	2	2

External Micrometer
Make : Mitutoyo
Range : 0-25 mm
L.C. : 0.01 mm
Identification No. : 14-IA/SCEP/Mech/MQC/07
Sr. No. : 7176579
Lab ID No. : OM/CAL/0122/2311/006
NABL 120 2.3.3 Mechanical Discipline : Dimensions (Basic - Measuring Instruments , Gauges etc)
Calibration Result

Instrumental Error Measurement

Sr. No.	Reference Size	Observed Reading (mm)	Error (mm)
1	0.000	0.000 (SET)	0.000
2	2.500	2.501	+0.001
3	5.100	5.101	+0.001
4	7.700	7.701	+0.001
5	10.300	10.301	+0.001
6	12.900	12.901	+0.001
7	15.000	15.001	+0.001
8	17.600	17.601	+0.001
9	20.200	20.201	+0.001
10	22.800	22.801	+0.001
11	25.000	25.001	+0.001

Parallelism of Measuring Faces : 0.001 mm
Flatness of Measuring Face : 0.00064 mm
ACCEPTANCE CRITERIA AS PER REFERENCE STANDARD :

MAX. PERMISSIBLE ERROR IN READING	± 0.004 mm
PARALLELISM OF MEASURING FACE	0.002 mm
TOLERANCE ON ZERO SETTING	± 0.002 mm

****** End of certificate ******

Prasad Pandit
Technical Lab Assistant
Calibrated By

Ajay Gajare
Technical Manager
Authorized Signatory

CALIBRATION REPORT

6.4 Project laboratories (5)

Total Marks 4.00

Institute Marks : 4.00

The department has very well-developed project laboratory with adequate facilities to help students to complete their projects. Many projects successfully completed by the students in project laboratory. Other than project laboratory students are used different facilities which are available in the department other laboratories. Some high-end software's are also used by students for their projects which are available in the department. The laboratory used by the students during their project hours and in their free time. As and when required project laboratory and facilities required for projects are available in the department after college hours.




6.5 Safety measures in laboratories (10)

Total Marks 8.00

Institute Marks : 8.00

Sr. No	Laboratory Name	Safety Measures
1	Heat Engine Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations. condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.

2	Metallurgy Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.
3	Heat Transfer Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.
4	Theory of Machines Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.
5	Dynamics of Machinery Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.
6	Fluid Machinery Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.
7	Fluid Power Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.
8	Metrology and Quality Control Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.
9	Computer Aided Design Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition All computers in the laboratories are protected with latest updated antivirus.

10	Computer Aided Engineering Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. All computers in the laboratories are protected with latest updated antivirus.
11	Drawing Hall	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available.
12	Basic Mechanical Engineering	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.
13	Workshop	Students use apron while working on the machine. All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain all machines and different shops and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment/machines from power fluctuations.
14	Project Lab	All power supply lines are properly insulated and covered. First aid kit is available. Fire extinguisher is available. Lab assistant maintain equipment and keep them in safe operating condition. Equipment are provided with fuses to safeguard the equipment from power fluctuations.

7 CONTINUOUS IMPROVEMENT (50)

Total Marks 44.00

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

Total Marks 18.00

Institute Marks : 18.00

POs Attainment Levels and Actions for Improvement- (2020-21)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.62	2.45	Attainment is 93.65% of target value. The courses which need attention are: Solid Mechanics, Engineering Mathematics – III, Fluid Mechanics, Turbo Machines and Mechatronics. The students faced difficulty to understand basic concepts of the courses.
Action 1: Extra classes for Lateral entry students conducted. Action 2: Additional practice of unsolved problems from book and university question papers of previous exams. Action 3: Conduction of activities viz. Quiz and use of video lectures like NPTEL, youtube.com, coursera.			
PO 2 : Problem Analysis			

PO 2	2.28	2.14	Attainment is 93.77% of target value. Some courses have scope of improvement viz. Solid Mechanics, Fluid Mechanics, Kinematics of Machinery, Design of Machine Elements-I. These courses need better understanding through practical knowledge and sound basics.
Action 1: Faculty to guide students to use identified online study material available like MOOCs courses which are self-paced. Action 2: Few regular and lateral entry Students have less orientation in basics of engineering mathematics hence numerical/analysis based courses to be revised through tutorials on complex problems with increased level of difficulty. Action 3: Providing Video lectures and animations (v-lab) to strengthen the ability to identify and formulate poorly defined Problems.			
PO 3 : Design/development of Solutions			
PO 3	1.98	1.85	Attainment is 93.35% of target value. There is room for improvement for some courses. viz. Turbo Machines, CAD CAM Automation, Fluid Mechanics. These kinds of courses need more practice and students need more practice on calculations and derivations related questions.
Action 1: Apprehending that students need to assimilate the concepts; hands-on practice is to be imparted to upbear the students' understanding through course conduction. Action 2: Conduction of Extra classes for Lateral entry and weak students. Action 3: Students are to be provided with a question bank and made to practice unsolved problems from books as well.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	2.02	1.89	Attainment is 93.85% of target value. There is a need to concentrate on Engineering Mathematics – III, Mechatronics, Fluid Mechanics. It is essential to prepare mindset towards investigation if the problems seem difficult for few students
Action 1: Hands-on learning through the Projects and Practicals. Action 2: Insights to be shared during course conduction with students regarding the literature survey. Action 3: To put emphasis on simulations through lab/virtual platforms.			
PO 5 : Modern Tool Usage			
PO 5	1.98	1.86	The target is attained by 93.75%. To strengthen the courses Design of Machine Elements-I, Solid Mechanics, Solid Modeling and Drafting and CAD CAM Automation; following action are to be taken:
Action 1: Encourage students to use modern online softwares and tools related to the courses being taught. Various advanced practicals/softwares which are available online are promoted to students to make them industry ready. Action 2: Some advanced tools to be taught/facilitated (through MOOCs) to understand the real time tools being used in actual practice. Action 3: To conduct additional activities like introduction to recent tools and technologies and programming languages like Python, Aurdino, R-Programming, Latex etc.			
PO 6 : The Engineer and Society			
PO 6	1.90	1.77	The target is attained upto 93.35%. The courses Kinematics of Machinery and Theory of Machines 2 have scope where students need to indulge in applying their learned knowledge in practical circumstances; maybe in small groups .
Action 1: Activities related to social awareness and social benefits to be organized and maximum students to be motivated to do it at formal/informal platforms. Action 2: Efforts through Student chapters and NSS exposing students to societal problems and needs. Action 3: Undertaking Techno-social activities (viz. industrial safety, waste disposal) as Students can contribute to societal development and while preparing for that they themselves also assimilate the studied concepts.			
PO 7 : Environment and Sustainability			

PO 7	1.74	1.62	The attainment of the target is met by 93.20%, the courses Design of Machine Elements-I and CAD CAM Automation have a compelling need to make students aware about the Sustainable Development Goals (SDG). Capturing the attainment of the same is a challenge as being an affiliated Institute curriculum is not designed accordingly. Reasons for the same are absence of chance to frame questions in University exams and Partial student participation.
Action 1: Students to be made aware about the need of sustainable development through embedding these concepts in the course conduction. Action 2: Impact of Sustainability to be emphasized and practiced during NSS and Student chapters activities through webinars and expert lectures on the topics like innovations in engineering for sustainability.			
PO 8 : Ethics			
PO 8	2.09	1.97	The gap in this PO is less as the target is met by 94.35%. The ethics have to largely taken care of at all Course delivery particularly in Project and Seminar for report writings.
Action 1: Dissemination of ethical practices through Seminars, Projects and related courses and awareness about plagiarism. Action 2: Organizing awareness webinars on technical standards, codes of ethics; Quiz, Projects, Mini projects, Seminars, Technical Paper Presentation, Students' symposium, Engineering Today, Guest Lectures, plagiarism tests on Project contents etc.			
PO 9 : Individual and Team Work			
PO 9	1.98	1.88	Target is attained by 94.66%. Attempts to be made for enhancement of the courses Engineering Materials & Metallurgy, Fluid Mechanics and Project.
Action 1: Rubrics to be designed to tap the efforts to map participation of maximum students in co-curricular and extra-curricular activities. Students to be motivated to participate in online activities at national/international level. Action 2: Organizing Group assignments, mini projects, group discussion through enhanced activities of Projects, Mini-projects, Project Based Learnings and Student Social/Professional Chapters.			
PO 10 : Communication			
PO 10	1.94	1.83	94.24% is the attainment of the Target. Increasing the participation of students in Team work activities is needed to boost effective communication in the courses Fluid Mechanics and Design of Machine Elements-I and Design of Machine Elements-II.
Action 1: Written and Spoken Communication to be attempted to improve through conduction of Soft skill training meticulously designed and delivered by external experts. Action 2: Courses in the curriculum to be utilized to enhance the Presentations preparation and delivery through the report writing in Projects and Journals. Action 3: Encouraging students for conduction and participation of activities viz. Engineering Today, Shivanjali, Ashwamedh, Sports, Hackathon etc.			
PO 11 : Project Management and Finance			
PO 11	1.82	1.68	This PO is attained by 92.62% of the target, to strengthen the Project course, following actions are suggested.
Action 1: Concepts of managing Project and finances to be imbibed in the courses and students to be guided accordingly. Same to be get practiced through Projects, Mini-projects, Project based learning. Action 2: Conduction of co-curricular activities and encouraging students to get involved for conduction and participation in the activities viz. National level quiz, webinar on Industrial Engineering and Management, Supply Chain Management, Production Planning and Control.			
PO 12 : Life-long Learning			
PO 12	1.68	1.55	Target achieved by 92.02%. Students need to realize that learning is a never ending process, hence need to concentrate on the courses Mechatronics, Design of Machine Elements-I and Mechanical System & Design; through the following actions.
Action 1: Importance of self-learning and finding resources to be explained during courses. Action 2: Motivating students to learn through MOOCs viz. Swayam, Coursera, Udemy, Linkedin, EDx portals, Honour courses, Audit courses etc. Some course Faculty to facilitate self-learning through becoming Mentors on the same courses which students undergo on MOOCs.			

PSOs Attainment Levels and Actions for Improvement- (2020-21)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Our graduate will have competencies in design and develop mechanical elements and systems.			
PSO 1	1.87	1.73	Attainment is 92.51% of target value. Courses which need to be pondered are Solid Mechanics, Solid Modeling & Drafting and Numerical Method & Optimization. As the Institute is affiliated to University, there are limitations on framing questions in university papers. Students do not get much opportunity to practically design for actual/ industrial project(s).
Action 1: Expert lectures to overcome the lacunae of students' awareness about mechanical elements and systems. Action 2: Facilitating the knowledge gain through mini-projects, projects, Project based learning, internship, industrial visits.			
PSO 2 : Our graduate will have incremental skills to specify and select materials, processes to manufacture an industrial product.			
PSO 2	1.78	1.64	Attainment is 92.13% of target value. The course which needs consideration is Workshop practices, Engineering Materials & Metallurgy and Manufacturing Processes-2. Students have theoretical knowledge and have limitations to perform in the practical industrial concerns.
Action 1: Facilitating, promoting and motivating students to undergo Internship Action 2: Organizing Industrial visits and conduction of Expert lectures by inviting Alumni, Industrial professionals, Entrepreneurs to make students aware about the actual industrial practices.			
PSO 3 : Our graduate will have ability to analyze and evaluate performance of thermal system.			
PSO 3	1.86	1.70	Target attainment is 91.39%. Efforts needed to develop the ability to analyze and evaluate performance of thermal system through the courses Energy Engineering, Heat Transfer and Applied Thermodynamics.
Action 1: Conduction of Expert lectures for making students develop the ability to analyze and evaluate performance of thermal systems Action 2: Organization of Industrial visits.			

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

Total Marks 10.00

Institute Marks : 10.00

AISSMS COE has established a well-defined Internal Quality Assurance System and every effort has been taken to address all the quality attributes of technical education for the overall professional and holistic development of students. Variety of academic, administrative, co-curricular and extra-curricular activities are carried out at Institute and department level which helps in improving the quality of education imparted.

For the sustenance and continuous improvement in quality for achieving academic excellence, the Institute has adopted certain quality management strategies and has developed methodology for auditing different academic and administrative quality aspects.

Academic and Administrative Audit (AAA) is one of the major quality aspects of the institutes internal quality assurance system. Academic auditing is done to keep track and improve of the teaching and learning process.

A committee for program evaluation and quality improvement exists within the Department - Program Assessment and Quality Improvement committee (PAQIC). PAQIC committee consist of Head of Department as Chairman, Module Coordinators, Industry Institute Coordinator and Exam Coordinator.

PAQIC oversees academic audits at the department level on syllabus coverage, laboratory work completed, students performance in internal and external exams, and activity planning based on feedback, such as course end surveys and exit surveys.

PAQIC verifies course coordinators course files as well as other outcome-oriented documents for each course, such as test papers and assignments to ensure that questions satisfy the desired learning level as per Blooms taxonomy..

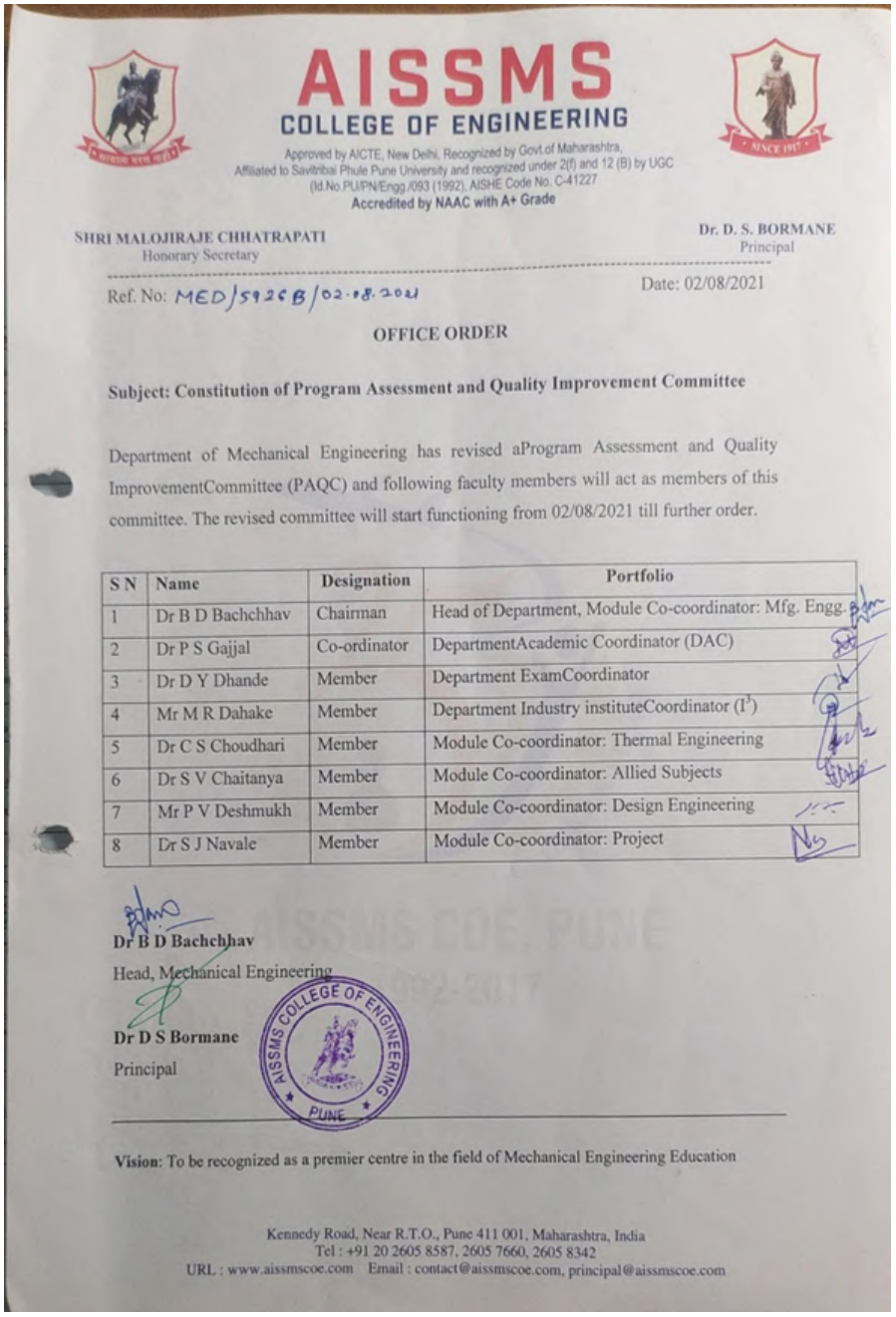
PAQIC committee also monitors conduction of supporting activities like Industrial Visits, Expert Lectures, Workshops, Projects, Internships etc.

PAQIC meeting is conducted twice in semester, one at the beginning and the other in the mid semester, in which the requisite suggestions may be given. The compliance required is brought to the notice of the concerned person or team and corrective action is suggested and monitored again at a predetermined interval.

Table B7.2a: Meeting schedule

Term	Meeting 1	Meeting 2
Term I (2021-2022)	At the start of semester - Action taken for Term I (2020-2021) analysis - Decide action plan for the Term I (2021-2022)	In the mid of Term I (Current Year) - Monitoring of action suggested and effective implementation at course level. Term I (2021-2022)
Term II (2021-2022)	At the start of semester - Action taken for Term II (2020-2021) analysis - Decide action plan for the Term II (2021-2022)	In the mid of Term II (Current Year) - Monitoring of action suggested and effective implementation at course level. Term II (2021-2022)

The PAQIC is constituted as follows:



AISSMS
COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi, Recognized by Govt.of Maharashtra,
Affiliated to Savitribai Phule Pune University and recognized under 2(f) and 12 (B) by UGC
(Id.No.PU/PN/Engg./093 (1992), AISHE Code No. C-41227
Accredited by NAAC with A+ Grade

SHRI MALOJIRAJE CHHATRAPATI
Honorary Secretary

Dr. D. S. BORMANE
Principal

Ref. No: MED/5926B/02.08.2021

Date: 02/08/2021

OFFICE ORDER

Subject: Constitution of Program Assessment and Quality Improvement Committee

Department of Mechanical Engineering has revised aProgram Assessment and Quality ImprovementCommittee (PAQC) and following faculty members will act as members of this committee. The revised committee will start functioning from 02/08/2021 till further order.

S N	Name	Designation	Portfolio
1	Dr B D Bachchhav	Chairman	Head of Department, Module Co-coordinator: Mfg. Engg.
2	Dr P S Gajjal	Co-ordinator	DepartmentAcademic Coordinator (DAC)
3	Dr D Y Dhande	Member	Department ExamCoordinator
4	Mr M R Dahake	Member	Department Industry instituteCoordinator (I^3)
5	Dr C S Choudhari	Member	Module Co-coordinator: Thermal Engineering
6	Dr S V Chaitanya	Member	Module Co-coordinator: Allied Subjects
7	Mr P V Deshmukh	Member	Module Co-coordinator: Design Engineering
8	Dr S J Navale	Member	Module Co-coordinator: Project

Dr B D Bachchhav
Head, Mechanical Engineering

Dr D S Bormane
Principal

AISSMS COLLEGE OF ENGINEERING PUNE

Vision: To be recognized as a premier centre in the field of Mechanical Engineering Education

Kennedy Road, Near R.T.O., Pune 411 001, Maharashtra, India
Tel : +91 20 2605 8587, 2605 7660, 2605 8342
URL : www.aissmscoe.com Email : contact@aissmscoe.com, principal@aissmscoe.com

Figure B7.2a Constitution of PAQIC

Figure B7.2b Compliance report

AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय
Accredited by NAAC with "A+" Grade

Action taken report

DEPARTMENT OF MECHANICAL ENGINEERING

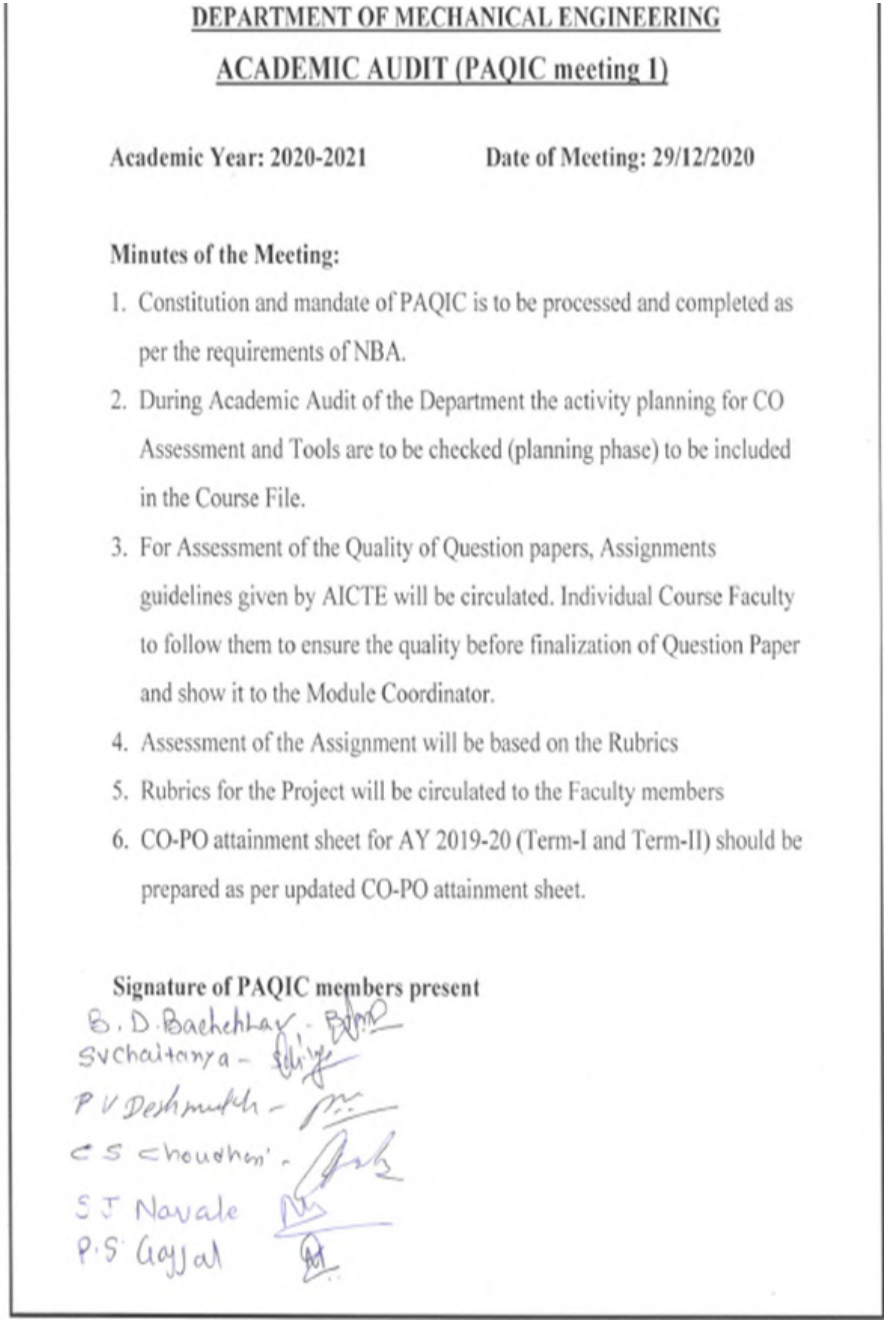
Academic and Administrative Audit for A.Y. 2020 - 2021

Sr No.	Initiatives taken by IQAC	Action taken by department	Remark
01	Conduction of academic audit for A.Y. 2019-20	Academic audit AY 2019-20 conducted on 07/01/ 2021	Satisfactory
02	Submission of AAA compliance report for A. Y. 2019-20	AAA Compliance report AY 2019-20 submitted on 16/01/2021	
03	Uploading of annual report 2019 -20 on website	AY 2019-20 uploaded on website	
04	Google link for data collection related to students' achievements for A.Y.2020-21	Google link shared	
05	Sharing of folders on google drive for the collection of supporting documents for 2020-21	folders shared on google drive	
06	Sharing of Annual Report Format for academic year 2020 - 21	Annual report AY 2020-21 shared	
07	Conduction of activities with reference to celebration of "StartUp Innovation week – 2020-21	Activities with reference to celebration of "StartUp Innovation week – 2020-21" were conducted	
08	Planning and preparation/conduction of Induction Lecture series at the start of academic year for SE/TE/BE classes	Induction lecture for TE BE was conducted.	

Head
Department of Mechanical Engineering
Head of Department
Mechanical Engineering
AISSMS, COE, PUNE.

A sample of the Minutes of Meeting is:

AISSMS
COLLEGE OF ENGINEERING
ज्ञानम् सकलजनहिताय
Accredited by NAAC with "A+" Grade



DEPARTMENT OF MECHANICAL ENGINEERING

ACADEMIC AUDIT (PAQIC meeting 1)

Academic Year: 2020-2021 **Date of Meeting: 29/12/2020**

Minutes of the Meeting:

1. Constitution and mandate of PAQIC is to be processed and completed as per the requirements of NBA.
2. During Academic Audit of the Department the activity planning for CO Assessment and Tools are to be checked (planning phase) to be included in the Course File.
3. For Assessment of the Quality of Question papers, Assignments guidelines given by AICTE will be circulated. Individual Course Faculty to follow them to ensure the quality before finalization of Question Paper and show it to the Module Coordinator.
4. Assessment of the Assignment will be based on the Rubrics
5. Rubrics for the Project will be circulated to the Faculty members
6. CO-PO attainment sheet for AY 2019-20 (Term-I and Term-II) should be prepared as per updated CO-PO attainment sheet.

Signature of PAQIC members present

B. D. Bachchhav
SVChaitanya
P V Deshmukh
C S Choudhari
S J Navale
P S Gajjal

Figure B7.2d Minutes of Meeting

The flowchart shows the Process of Setting of question paper, evaluation and effective process implementation by PAQIC:

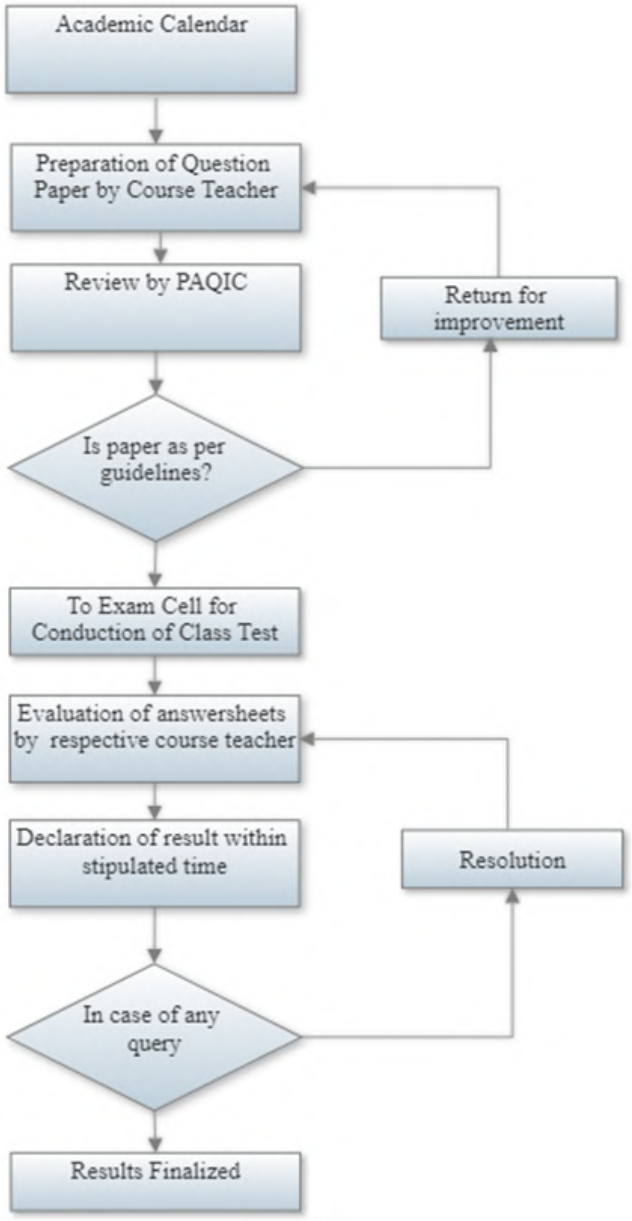
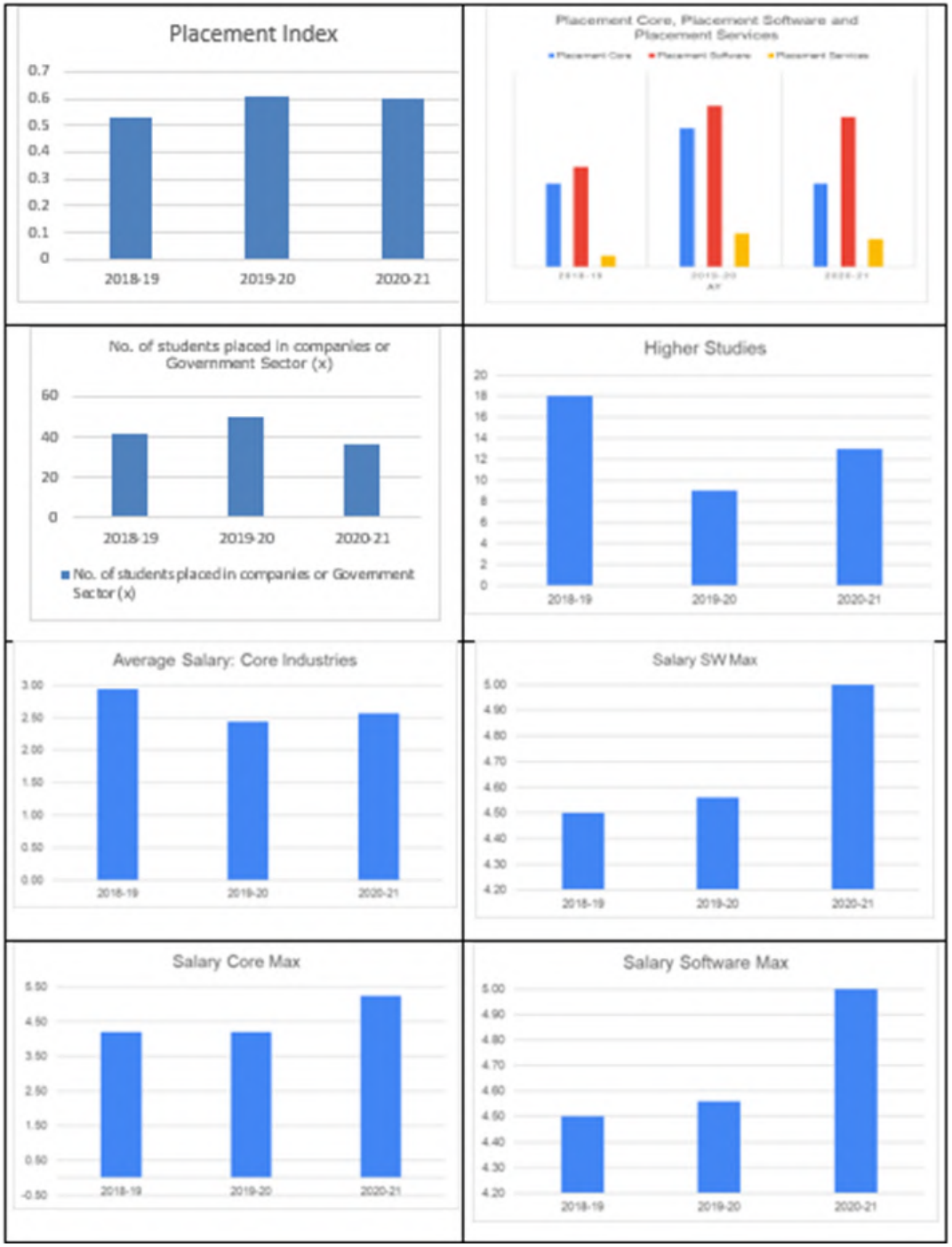


Figure B7.2e Process of Setting of question paper, evaluation and effective process implementation by PAQIC

7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10) Total Marks 8.00

Institute Marks : 8.00

Item	2018-19	2019-20	2020-21
Total No. of Final Year Students (N)	118	122	106
No. of students placed in companies or Government Sector (x)	43	60	49
No. of students admitted to higher studies with valid qualifying sCores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (y)	18	09	13
No. of students turned entrepreneur in engineering/technology (z)	02	05	02
x + y + z =	63	74	64
Placement Index : (x + y + z)/N	0.534	0.607	0.604
Average placement= (P1 + P2 + P3)/3	0.581		


Placement Index
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2018-19
2019-20
2020-21
Placement Core, Placement Software and Placement Services
No. of students placed in companies or Government Sector (x)
60
40
20
0
2018-19
2019-20
2020-21
No. of students placed in companies or Government Sector (x)
Higher Studies
20
18
16
14
12
10
8
6
4
2
0
2018-19
2019-20
2020-21
Average Salary: Core Industries
3.00
2.50
2.00
1.50
1.00
0.50
0.00
2018-19
2019-20
2020-21
Salary SW Max
5.00
4.90
4.80
4.70
4.60
4.50
4.40
4.30
4.20
2018-19
2019-20
2020-21
Salary Core Max
5.50
4.50
3.50
2.50
1.50
0.50
-0.50
2018-19
2019-20
2020-21
Salary Software Max
5.00
4.90
4.80
4.70
4.60
4.50
4.40
4.30
4.20
2018-19
2019-20
2020-21

Placement: number, quality placement, core industry, pay packages etc.

1. **Number**

The Placement number is increasing year on year. The pandemic has taken a toll and the situation is becoming very turbulent day by day and students are in a state of turmoil. Still a decent number of students are guided and facilitated to achieve their chosen path of career viz. Placements in Government & Corporate sectors, Higher education and Entrepreneurship.

The placement in the AY 2019-20 increased by 7% as compared to 2018-19, but due to the pandemic it went down in the year 2020-21.

2. **Quality placement**

The Placements are improving year on year as the Maximum salary offered are increasing in core as well as software industries. The type of industries based on the brand name are also increasing. The Industries from all strata are recruiting the students and students have a variety of choices from Core, Software, Service segments. Many students are getting opportunities to join startups in order to have a feel and experience in order to use the gained knowledge to begin with their own startups.

3. **Core industry**

The Placements in the core company is becoming better and core Industries of high reputation in the society are recruiting students. This gives students an experience to work with renowned MNCs, at the same time good SMEs are also recruiting students on a regular basis. This develops trust between the Industry as well as Students. There are some industries which offer Sandwich Trainings as well as Internships to students. This is creating a strong bond and mutual benefits are being reaped. Students can plan their career path in a structured manner and can select the relevant electives offered by the University. Their choices are now more informed, guided and experienced.

4. **Pay packages**

The Pay packages are one of the important parameters of selecting the companies, but the students are also looking for challenging roles and reputation in the society. Hence many good students take higher studies or entrepreneurship as the career option. The packages and perks are on a higher side day by day and as the pandemic situation is opening up more interest is being seen from recruiters with high pay packages.

Partial List of recruiters:

Sr No.	Recruiter name	Type of recruiter
1.	Tata Electronics Pvt. Ltd.	Core
2.	GE India Industrial Pvt. Ltd.	Core
3.	Dyna-K Automotive Stamping Pvt. Ltd.	Core
4.	Truthread Gauges & Tools Pvt. Ltd.	Core
5.	UTS Power Systems Pvt. Ltd.	Core
6.	Cereble Pvt. Ltd	Core
7.	Geotools Robotics Automation Pvt. Ltd.	Core
8.	Snark power Pvt. Ltd.	Core

9.	Ayoki Fabrication Pvt. Ltd.	Core
10.	Deabu Automotive Seat India Pvt. Ltd	Core
11.	Delval Ltd.	Core
12.	Mahindra Tsubaki Pvt. Ltd	Core
13.	Sushrut Design Pvt. Ltd.	Core
14.	Twin Engineers Pvt. Ltd.	Core
15.	HDB Financial Services Ltd.	Services
16.	Span Filtration System Pvt. Ltd.	Services
17.	TATA Technologies Services Ltd.	Services
18.	NCSI Technologies India Pvt. Ltd.	Software
19.	Accenture Ltd.	Software
20.	Amazon Development Center India Pvt. Ltd	Software
21.	Cognizant Technology Solution India Pvt. Ltd.	Software
22.	NSEIT NSE Ltd.	Software
23.	Infosys Ltd.	Software
24.	Tata Consultancy Services Ltd	Software
25.	Swift PLM Services Pvt. Ltd.	Software
26.	Neilsoft Pvt. Ltd	Software
27.	eClerx Services Limited.	Software
28.	Concentrix India Services Pvt. Ltd	Software
29.	Eaton Ltd.	Software
30.	Infosys Ltd	Software

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

Total Marks 8.00

Institute Marks : 8.00

Item		2021-22	2020-21	2019-20
National Level Entrance Examination	No of students admitted	13	15	16
JEE	Opening Score/Rank	95	86	89
	Closing Score/Rank	49	71	57
State/ University/ Level Entrance Examination/ Others	No of students admitted	97	101	89
MHCET	Opening Score/Rank	96	93	95
	Closing Score/Rank	46	3	1
Name of the Entrance Examination for Lateral Entry or lateral entry details	No of students admitted	0	35	48
DTE	Opening Score/Rank	0	96	95
	Closing Score/Rank	0	73	63
Average CBSE/Any other board result of admitted students(Physics, Chemistry&Maths)		0	50	68

8 FIRST YEAR ACADEMICS (50)

Total Marks 42.37

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

Total Marks 4.00

Institute Marks : 4.00

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

Name of the faculty member	PAN No.	Qualification	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Teaching load (%)			Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
							CAY	CAYm1	CAYm2			
Mr. Avinash Ba	ADKPT2264N	M.Sc	31/05/2002	Mathematics	Assistant Professor	02/11/2011	100	100	100	Yes	Regular	
Mrs. Amruta M	BPQPK4039H	M.E/M.Tech	13/02/2015	Hydraulics	Assistant Professor	03/08/2017	100	100	100	Yes	Regular	
Ms. Almas Aml	BAZPA5708B	M.E/M.Tech	20/10/2016	Power Electronics and Drives	Assistant Professor	01/08/2016	100	100	100	Yes	Regular	
Ms. Bhagyashr	APPBH8183H	M.E/M.Tech	14/05/2014	Electrical Power System	Assistant Professor	09/06/2014	100	100	100	Yes	Regular	
Dr. Amol Bhaus	APGPP5534B	M.Sc. and PhD	16/03/2019	Complex analysis	Assistant Professor	11/09/2003	100	100	100	Yes	Regular	
Dr. Deepak Vitl	AALPN3241K	M.Sc. and Ph.D. (Chemistry)	27/07/2011	Chemistry	Associate Professor	02/08/1999	100	100	100	Yes	Regular	

Dr. Nana Namc	ADFPS7941A	M.Sc. and PhD	18/02/2017	Material Science and Electronics	Associate Professor	01/08/1997	100	100	100	Yes	Regular	
Dr. Shalaka Ab	AGJMV6542M	M.Sc. and PhD	15/12/2008	Physics	Assistant Professor	12/04/2012	100	100	100	Yes	Regular	
Dr. Supriya Kis	AAWPU7621F	M.Sc. and PhD	17/04/2002	Physics solar Energy	Associate Professor	27/07/2007	100	100	100	Yes	Regular	
Dr. Vrashali Sh	BWRPK4787Q	M.Sc. and PhD	30/06/2017	Chemistry	Assistant Professor	11/01/2011	100	100	100	Yes	Regular	
Mrs. Merilyn Al	BLOPD2938J	M.E/M.Tech	22/06/2012	STRUCTURAL ENGINEERING	Assistant Professor	01/08/2008	100	100	100	Yes	Regular	
Ms. Mamta Sur	ASMPN7252R	M.Sc	14/06/2016	Mathematical	Assistant Professor	22/08/2016	100	100	100	Yes	Regular	
Mr. Prashant G	BABPK6456Q	M.E/M.Tech	09/10/2017	Mechanical Design Engineering	Assistant Professor	28/08/2013	100	100	100	Yes	Regular	
Ms. Suvidha Ba	AYKPP8835Q	M.E/M.Tech	05/08/2013	Construction Management	Assistant Professor	09/06/2017	100	100	100	Yes	Regular	
Mr. Sudhir Puru	ADOPB4881H	M.E/M.Tech	16/08/2006	Electronics	Assistant Professor	10/08/1998	100	100	100	Yes	Regular	
Mr. Sagar Tuka	BNOPG3636C	M.E/M.Tech	20/10/2016	Design Engineering	Assistant Professor	09/06/2017	100	100	100	Yes	Regular	
Mr. Vijay Rajar	ABGPP4008E	M.E/M.Tech	05/07/2000	Power Engineering	Assistant Professor	01/08/1997	100	100	100	Yes	Regular	
Mr. Vikas Vittha	APCPK6533K	M.E/M.Tech	28/12/2006	Power systems	Assistant Professor	01/01/2001	100	100	100	Yes	Regular	
Mr. Yogesh Bal	AJCPK9511H	M.E/M.Tech	08/03/1999	Design Engineering	Assistant Professor	02/07/2013	100	100	100	Yes	Regular	
Mr. Yogesh Ra	APOPC0505P	M.E/M.Tech	05/02/2011	Production Engineering	Assistant Professor	29/11/2010	100	100	100	Yes	Regular	
Ms. Sonal Sanj	BPEPA1114B	M.E/M.Tech	24/11/2016	Information Technology	Assistant Professor	09/06/2017	0	100	100	Yes	Regular	
Mr. Prafulla Ra	AELPA0656D	B.E/B.Tech	11/12/1993	E TC	Assistant Professor	26/12/1997	0	100	100	No	Regular	31/03/2021
Ms. Smita Anil	AKCPT4060F	M.E/M.Tech	13/08/2016	Data Science	Assistant Professor	09/06/2017	100	0	100	Yes	Regular	
Dr. Mahadeo K	ADFPN4603G	M.Sc. and PhD	27/02/2009	Integral transform and hyperfunction	Associate Professor	11/09/2001	100	100	0	Yes	Regular	

Dr. Pankaj Dine	CBDPB8339M	M.Sc. and Ph.D. (Chemistry)	26/07/2021	Chemistry	Assistant Professor	22/03/2021	100	100	0	Yes	Regular	
Mr. Aslam Yusu	ABJPK3426E	M.E/M.Tech	06/07/2007	Electronics	Assistant Professor	01/08/1997	100	0	0	Yes	Regular	
Mr. Ravi Vilas (	BRKPG6999J	M.E/M.Tech	01/07/2014	E TC	Assistant Professor	08/03/2021	0	100	0	No	Regular	31/08/2021
Ms. Smita Popa	EKMPK1545L	M.Sc	10/06/2016	Mathematics	Assistant Professor	09/06/2017	0	0	100	No	Regular	31/05/2020
Ms. Neha Raju	AQPPJ1731L	M.Sc	12/05/2020	Mathematics	Assistant Professor	18/03/2021	0	44	0	No	Regular	31/08/2021
Ms. Sonali Arju	BKAPJ5766P	M.Sc	30/04/2016	Mathematics	Assistant Professor	25/06/2018	0	0	44	No	Regular	12/02/2021
Mr. Sudhir Tuka	DPRPS0355M	M.Sc	10/07/2017	Mathematics	Assistant Professor	11/06/2019	0	0	15	Yes	Regular	
Mr. Ashish Vish	BIDPM0763J	ME/M. Tech and PhD	07/02/2018	Chemical Engineering	Assistant Professor	16/11/2010	0	0	38	Yes	Regular	
Mr. Gopal Panc	ACSPL0013E	M.E/M.Tech	30/09/2014	Heat power	Assistant Professor	15/01/2010	0	0	25	Yes	Regular	
Mr. Pravin Sud	ALSPT3276C	M.E/M.Tech	10/04/2010	Chemical Engineering	Assistant Professor	04/10/2010	0	0	25	Yes	Regular	
Mr. Prashant V	AFHPD3552J	M.E/M.Tech	25/08/1998	Design Engineering	Assistant Professor	10/08/1998	0	0	38	Yes	Regular	
Dr. Nitin Gajan	BGQPS5598L	ME/M. Tech and PhD	30/09/2021	Industrial Engineering	Assistant Professor	16/01/2003	50	100	100	Yes	Regular	
Mr. Mandar Arv	ABPPK9819F	M.E/M.Tech	10/05/2010	Industrial Engineering	Assistant Professor	30/04/2016	0	100	100	Yes	Regular	
Mr. Sachin Shr	ARVPK9757E	M.E/M.Tech	01/05/2010	Industrial Engineering	Assistant Professor	25/07/2005	100	0	0	Yes	Regular	
Mr. Sumedh Ne	AGYPC6572F	M.E/M.Tech	18/12/2002	PRODUCTION ENGINEERING	Assistant Professor	28/07/2005	38	0	0	Yes	Regular	
Ms. Yogita Kas	AATPF2323G	M.E/M.Tech	26/09/2011	Mechanical Engineering	Assistant Professor	21/10/2008	25	0	0	Yes	Regular	
Dr.Manjusha S	AAXPJ2874Q	M.Sc. and PhD	30/03/1988	Chemistry	Professor	17/03/1993	33	33	0	No	Regular	31/05/2022
Ms. Bhushra R	AAEPQ9304R	B.E/B.Tech	01/06/2003	Computer Engineering	Assistant Professor	21/08/2006	0	50	50	No	Regular	31/03/2021

Ms. Bhagyashr	DDHPP5351Q	M.E/M.Tech	30/05/2015	E TC	Assistant Professor	10/06/2019	0	100	100	No	Regular	17/02/2021
Mrs.Shital Gan	ACEPW6853B	M.Sc	07/09/2016	Organic Chemistry	Assistant Professor	24/09/2020	0	0	100	No	Regular	21/01/2021
Mr. Anil Pundlil	AAWPD2135P	B.E/B.Tech	08/07/1991	Mechanical Engineering	Assistant Professor	01/08/1995	0	50	50	No	Regular	31/03/2021
Mr. Mohan Lali	AISPC6863B	M.E/M.Tech	05/07/2012	Production Engineering	Assistant Professor	13/11/2008	100	0	0	Yes	Regular	
Mr. Veejhay Dil	AEXPD7961G	M.E/M.Tech	10/05/2000	Industrial Engineering	Assistant Professor	05/08/2005	25	100	100	Yes	Regular	
Ms. Supriya M(	BFVPB1547Q	M.E/M.Tech	30/10/2016	Cyber security	Assistant Professor	09/06/2017	0	0	100	No	Regular	07/11/2020
Mrs. Bhakti An	AIFPC8828D	M.E/M.Tech	28/11/2014	Computer Engineering	Assistant Professor	15/06/2015	100	0	0	Yes	Regular	
Mr. Prashant G	BCRPM3156P	M.Sc	28/07/2011	Organic Chemistry	Assistant Professor	01/01/2020	0	0	25	No	Contractual	30/05/2020

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)
2019-20(CAYm2)	660	33	20	5.00
2020-21(CAYm1)	660	31	21	5.00
2021-22(CAY)	660	29	23	4.00
Average	0	0	0	0

8.2 Qualification of Faculty Teaching First Year Common Courses (5) Total Marks 2.00

Institute Marks : 2.00

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]
2019-20	6	22	33	2.00
2020-21	7	17	33	2.00
2021-22	8	19	33	2.00

Average Assessment: 2.00

8.3 First Year Academic Performance (10)

Total Marks 6.37

Institute Marks : 6.37

Academic Performance	2021-22	2020-21	2019-20
Mean of CGPA or mean percentage of all successful students(X)	8.84	5.81	7.09
Total Number of successful students(Y)	115.00	86.00	105.00
Total Number of students appeared in the examination(Z)	116.00	107.00	131.00
API [X*(Y/Z)]	8.76	4.67	5.68

Average API[(AP1+AP2+AP3)/3] : 6.37

Assessment [1.5 * Average API] : 6.37

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 Process Details

Our institute is affiliated with Savitribai Phule Pune University (SPPU). We are following the teaching-learning as per the university guideline. To strengthen our teaching-learning (TL) process, we believe that outcome-based education (OBE) is important to identify the strength and weaknesses and to decide the plan for continuous improvement. This process helps us to identify our strengths and weakness and attain proficiency in the teaching-learning process.

For assessment of our teaching-learning process, we use direct and indirect tools. The direct assessment of each outcome is through internal and external tools. Some indirect tools are also used for the assessment. The indirect tools provide valuable insights and feedback on students views of what they are learning.

Course Outcomes (COs) Statements are indicating what a student will be able to do after the successful completion of a course. Every course has defined Course Outcomes. The CO statements are defined by considering the course content covered in each unit of a course. For every course there are 6 COs framed. The keywords used to define COs are based on Bloom’s Taxonomy.

The department carried out an assessment process to gather and prepare data to evaluate the attainment of course outcomes and program outcomes. Attainment is the action of attaining a standard result towards the achievement of expected goals.

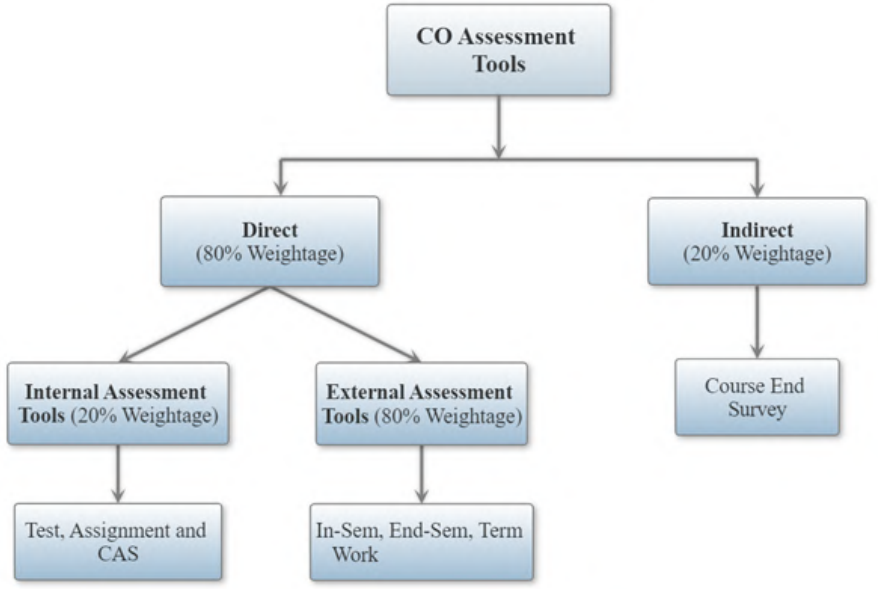


Fig: 8.4.1 (a)

Course Outcome is evaluated based on the performance of students in internal assessments and in external assessment (university examination) of a course. Internal assessment contributes 20% and university assessment contributes 80% to the total attainment of a CO.

Theory:

Internal Tests and Assignments: Internal tests and assignments serve to encourage students to keep up with course content covered in class. Each course is divided into six units and one test on each unit is conducted to evaluate students' performance. Three assignments are given (based on two units each).

The questions are framed in such a way that it should satisfy Bloom's Taxonomy, wherein each question paper is mapped to the respective course outcome of the course, which is evaluated based on the set attainment levels by the department.

University Examination: In-semester and End-semester examinations are conducted by the university. In-semester examination covers two units of the course and end-semester examination covers the remaining four units of the course. In-semester examination satisfies two COs and End-semester examination satisfies four course outcomes for a particular course.

Practical:

Lab courses provide students direct knowledge with course concepts and the opportunity to explore methods used in their discipline. All the students are expected to learn the practical aspects of the course and develop the necessary skills to become professionals. Students' performance is evaluated using Continuous Assessment Sheet (CAS). Parameters used in CAS are Regularity, Experiment write up and his/her Performance during conduction of each experiment.

University Examination: Term work marks are assigned to the students based on their overall performance (CAS) and marks are uploaded on university portal for final result.

CO Assessment Tools:

Direct assessment method, i.e., using internal and external assessment tools are considered for evaluation of CO. For the evaluation and assessment of CO's, different tools as defined above are used. Course Outcome is evaluated based on the performance of students with internal assessments and external assessment (university examination) tools for respective courses.

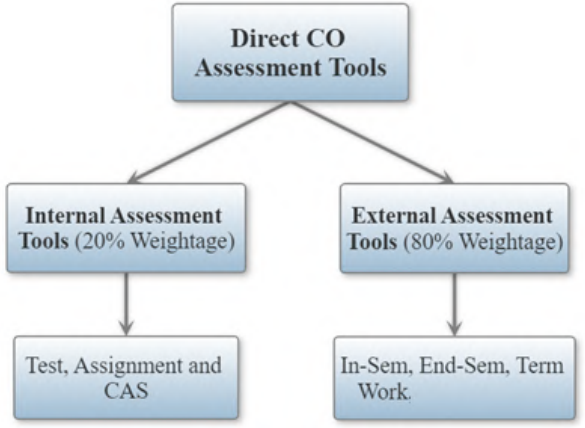


Fig: 8.4.1 (b)

The particulars of Assessment tools used and its frequency for the evaluation of Course Outcomes, Program Outcomes and Program Specific Outcomes are given in the Table: 8.4.1 (a)

Sr. No.	Assessment Tool	Description	Evaluation of Course Outcomes	Related POs	Frequency of assessment per term

Internal Assessment Tools					
1.	Test	Written examination	Questions in the test are mapped with CO of respective course.	Mapped POs with the CO	Six (One for each CO)
2.	Assignment	Set of questions are given to solve.	Questions in the assignment are mapped with two CO of respective course.	Mapped POs with the COs	Three (one for Two COs)
3	Continues Assessment Sheet (CAS)	Assessment of students during practical	Based on the COs mapped with the experiments / assignments	Mapped POs with the COs	For each experiment/ assignment during practical.
External Assessment Tools					
4	In-Sem Exam	Written examination	Questions in the exam are mapped with COs which corresponds to first two units of the respective course.	Mapped POs with first two COs	Once (Mid of the Term)
5	End-Sem Exam	Written examination	Questions in the exam are mapped with COs which corresponds to remaining four units of the respective course.	Mapped POs with remaining four Cos	Once (End of the Term)

6	Term Work	Based on the continuous assessment during practical sessions (through CAS)	Based on the COs mapped with the experiments / Assignments	Mapped POs with the COs	Once (End of the Term)

Table: 8.4.1 (a)

Attainment Levels

Course outcomes of all courses are assessed with the help of assessment tools and attainment level is calculated. Targets are set in terms of percentage of students getting more than the defined percentage of marks. Attainment is measured in terms of actual percentage of students getting defined percentage of marks. Attainment Levels for internal as well as external assessment tools are defined as:

Attainment Level 1: Students scoring less than 60% marks out of the relevant maximum marks.

Attainment Level 2: 60% to 70% students scoring more than 60% marks out of the relevant maximum marks.

Attainment Level 3: More than 70% students scoring more than 60% marks out of the relevant maximum marks.

A. Evaluation of CO Attainment by Internal Assessment Tool

Internal assessment tools such as Test, Assignment and Continuous Assessment Sheet are used to calculate CO attainment level.

Fig: 8.4.1 (c)

i. CO – Assessment Tool Mapping and evaluation

For the evaluation of the student's performance in terms of CO attainment, each internal assessment tool is mapped with COs.

Consider a particular course having Six Course Outcomes (CO.1 to CO.6) and the assessment tools for each CO and maximum marks (MTi and MAi) as in below table. Considering performance of students and target values, ATi and AAi are the CO attainment by each tool.

Assessment Tool -->	Test-1	Test-2	Test-3	Test-4	Test-5	Test-6	Assig.-1	Assig.-2	Assig.-3	CAS
COs Mapped	CO.1	CO.2	CO.3	CO.4	CO.5	CO.6	CO.1, CO.2	CO.3, CO.4	CO.5, CO.6	CO.1 to CO.6
Maximum Marks	MT1	MT2	MT3	MT4	MT5	MT6	MA1	MA2	MA3	MCS
CO Attainment Level	AT1	AT2	AT3	AT4	AT5	AT6	AA1	AA2	AA3	ACS

Table 8.4.1 (b) – Mapping of Assessment Tools

As multiple tools are used for assessment of each Course Outcome, Final CO attainment of each CO will depend on CO attainment by each tool. Final CO attainment of CO.1 depends on CO attainment through multiple assessment tools such as Test – 1, Assig. – 1 and CAS.

Final CO attainment of CO.1

ACO.1 = f(AT1, AA1, ACS)

Similarly

ACO.2 = f(AT2, AA1, ACS) and

ACO.6 = f(AT6, AA3, ACS)

ii. Weightage and Attainment Levels

Final CO attainment of each CO is calculated by weighted average method. Maximum marks allocated for each tool are considered for deciding the weight of corresponding tool. If an assessment tool is used for two or more COs, equal distribution of maximum marks is considered. Assig.-1 is assessment tool for CO.1 and CO.2, maximum marks are distributed equally to each CO i.e. AT1/2 for each CO.

CO	Assessment Tool, Weightage and Attainment Level			Total
CO.1	Test-1	Assig.-1	CAS	
Marks for CO.1	MT1/1	MA1/2	MCS/6	MCO1
Weightage	WT1 = MT1 / (1*MCO1)	WA1 = MA1 / (2*MCO1)	WCS = MCS / (6*MCO1)	1
CO Attainment	AT1	AA1	ACS	
Final CO Attainment =		WT1*AT1 + WA1*AA1 + WCS*ACS		
CO.6	Test-6	Assig.-3	CAS	
Maximum Marks	MT6/1	MA3/2	MCS/6	MCO6
Weightage	WT6 = MT6 / (1*MCO6)	WA3 = MA3 / (2*MCO6)	WCS = MCS / (6*MCO6)	1
CO Attainment	AT6	AA3	ACS	
Final CO Attainment =		WT6*AT6 + WA3*AA3 + WCS*ACS		

Table 8.4.1 (c) Evaluation of CO attainment

Final CO Attainment for particular CO using multiple internal assessment tools is calculated as

Final CO Attainment = Σ weightage* CO attainment

B. CO Attainment Levels by External Assessment Tools:

CO attainment by the external assessment tools (defined in the university syllabus structure) is calculated by weighted average method.

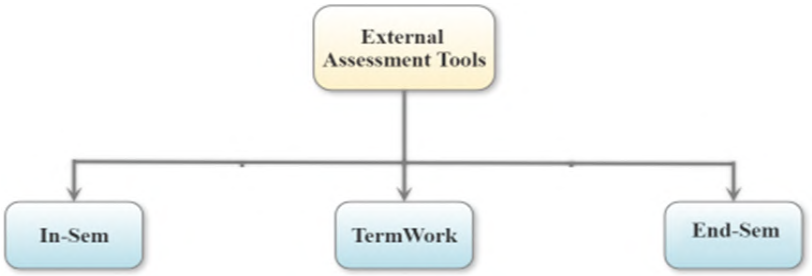


Fig:8.4.1 (d)

i. CO – Assessment Tools Mapping

For the evaluation of the student's performance in terms of CO attainment, each external assessment tool is mapped with COs.

Mapping					End-Sem with weightage	
	Tools					
CO	In-Sem	Marks	TW	Marks	End-Sem	Marks
CO.1	Yes	15	Yes	25		
CO.2	Yes	15	Yes			
CO.3			Yes		Yes	17
CO.4			Yes		Yes	18
CO.5			Yes		Yes	17
CO.6			Yes		Yes	18
					Total	70
Grand Total= 30+25+70=125 marks						

Table 8.4.1 (d) – Assessment tool Mapping

Weightage for each CO is different as marks allocated for each CO are different in End Sem examination.

Considering mapping of each external assessment tool and marks allocated, weightage is calculated for each assessment tool. Weighted average method is used to calculate final attainment of each CO as defined earlier in case of internal assessment tools.

C. CO Attainment Level for Course

Multiple tools are used for the evaluation and assessment of COs. Internal assessment tools used are Tests, Assignments and CAS. External assessment tools are university exams.

While calculating the CO attainment for each CO, 20% weightage is given to internal assessment tools and 80% weightage is given to external assessment tools.

D. CO Attainment Level for Course

Multiple tools are used for the evaluation and assessment of COs. Direct assessment tools are Internal assessment tools and external assessment tools are university exams having 80% weightage. While calculating the CO attainment by direct assessment tools for each CO, 20% weightage is given to internal assessment tools and 80% weightage is given to external assessment tools.

Weightage for CO attainment by indirect assessment tool (Course End Survey) is 20 %.

Thus, CO attainment using all the tools is

Fig:8.4.1 (e)

Course Outcomes of all courses are listed in the Table 8.4.1 (e)

CO STATEMENTS
Subject: 107001 – Engineering Mathematics – I
CO1: Ability to understand Mean value theorems and its generalizations leading to Taylors and Maclaurin's series useful in the analysis of engineering problems
CO2: Ability to undersand the Fourier series representation and harmonic analysis for design and analysis of periodic continuous and discrete systems
CO3: Ability to deal with derivative of functions of several variables that are essential in various branches of Engineering.

CO4: Ability to apply the concept of Jacobian to find partial derivative of implicit function and functional dependence. Use of partial derivatives in estimating error and approximation and finding extreme values of the function.
CO5: Ability to know the essential tool of matrices and linear algebra in a comprehensive manner for analysis of system of linear equations, finding linear and orthogonal transformations
CO6: Ability to know the essential tool of matrices and linear algebra in a comprehensive manner for analysis of system of linear equations, finding linear and orthogonal transformations
Subject: 107002: Engineering Physics
CO1: Develop understanding of interference, diffraction & polarization; connect it to few engineering applications
CO2: Learn basics of Lasers & optical fibers & their use in some industrial applications
CO3: Understand concepts & principles in quantum mechanincs .Relate them to some applications of physics
CO4: Understand theory of semiconductros & their applications in some semiconductor devices.
CO5: Summmarize fundamentals of magnetism & supercondcutivity to explore the technological applications
CO6: Comprehend use of concepts of physics for non-destructive testing. Learn some properties of nanomaterials & their application
Subject: 107009: Engineering Chemistry
CO1: On Completion of course , learner will able to apply the different methodologies for analysis of water and techniques involved in softning of water as commodity.
CO2: On completion of course, learner will be able to select appropriate electro-technique and method of material analysis.
CO3:Demonstrate the knoweldge of advanced engineering materials for various engineering applications.
CO4:On completion of course learner will be able to, Analyse fuel and suggest use of alternative fuels.
CO5: On completion of course, learner will be able to identify chemical compound based on their structure.
CO6:On completion of course , learner will be able to, explain causes of corrosion and methods of minimizing corrosion.

Subject: 102003 - Systems in Mechanical Engineering
CO1 : Describe and compare the conversion of energy from renewable and non renewable energy sources
CO2 : Explain basic laws of thermodynamics, heat transfer and their applications
CO3 : List down the types of road vehicles and their specifications
CO4 : Illustrate various basic parts and transmission system of a road vehicle
CO5 : Discuss several manufacturing processes and identify the suitable process
CO6 : Explain various types of mechanism and its application
Subject: 103004: Basic Electrical Engineering
CO1: Differentiate between electrical and magnetic circuits and derive mathematical relation for self and mutual inductance along with coupling effect.
CO2: Calculate series, parallel and composite capacitor as well as characteristics parameters of alternating quantity and phasor arithmetic
Co3: Derive expression for impedance, current, power in series and parallel RLC circuit with AC supply along with phasor diagram.
CO4: Relate phase and line electrical quantities in polyphase networks, demonstrate the operation of single phase transformer and calculate efficiency and regulation at different loading conditions
Co5: Apply and analyze the resistive circuits using star-delta conversion KVL, KCL and different network theorems under DC supply
CO6: Evaluate work, power, energy relations and suggest various batteries for different applications, concept of charging and discharging and depth of charge.
Subject: 104010-Basic Electronics Engineering
CO1: Explain the working of P-N junction diode and its circuits.
CO2: Identify types of diodes and plot their characteristics and also can compare BJT with MOSFET
CO3: Build and test analog circuits using OPAMP and digital circuits using universal/basic gates and flip flops
CO4: Use different electronics measuring instruments to measure various electrical parameters.

CO5: Select sensors for specific applications.
CO6: Describe basic principles of communication systems.
Subject:110005: Programming and Problem Solving
CO1: Identify and define problem solving aspect and various data types and its operations.(Knowledge)
CO2: Describe and Implement various logical constructs of Python Language. (Understand, Apply)
CO3: Inculcate & Apply built-in functions to optimize the code. (Apply)
CO4: Analyse and improve reusability of code for real time problems using Python concepts.(Analyse)
CO5: Understand & Compare object oriented concepts with other programming paradigms.(Evaluate)
CO6: Design and Develop efficient model using Python.(Create)
Subject:101011: Engineering Mechanics
CO1: Determine resultant of various force systems.
CO2: Determine centroid, moment of inertia and solve problems related to friction.
CO3: Determine reactions of beams, calculate forces in cables using principles of equilibrium
CO4: Solve trusses, frames for finding member forces and apply principles of equilibrium to forces in space
CO5: Calculate position, velocity and acceleration of particle using principles of kinematics
CO6: Calculate position, velocity and acceleration of particle using principles of kinetics and Work, Power, Energy
Subject: 107008 – Engineering Mathematics – II
CO1: Ability to learn the effective mathematical tools for solutions of first order differential equations.

CO2: Ability to apply mathematical tools to model physical processes such as Newton's law of cooling, electrical circuit, rectilinear motion, mass spring systems, heat transfer etc.
CO3: Ability to understand advanced integration techniques such as Reduction formulae, Beta functions, Gamma functions, Differentiation under integral sign and Error functions needed in evaluating multiple integrals and their applications
CO4: Ability to trace the curve for a given equation and measure arc length of various curves.
CO5: Ability to learn the concepts of solid geometry using equations of sphere, cone and cylinder in a comprehensive manner.
CO6: Ability to learn the evaluation of multiple integrals and its application to find area bounded by curves, volume bounded by surfaces, Centre of gravity and Moment of inertia.
Subject: 102012: Engineering Graphics
CO1 : Draw the fundamental engineering objects using basic rules and able to construct the simple geometries.
CO2 : Construct the various engineering curves using the drawing instruments.
CO3 : Apply the concept of orthographic projection of an object to draw several 2D views and its sectional views for visualizing the physical state of the object.
CO4 : Apply the visualization skill to draw a simple isometric projection from given orthographic views precisely using drawing equipment.
CO5 : Draw the development of lateral surfaces for cut section of geometrical solids.
CO6 : Draw fully-dimensioned 2D, 3D drawings using computer aided drafting tools.
Subject:110013: Project Based Learning
CO1: Identify real life problems through rigorous literature survey from socital need point of view
CO2:Analyze the indentified problem through technological perspective
CO3:Proposed suitable solution to contribute society using fundamental knowledge of engineering through modern tools
CO4:Use of technology to demostrate proposed work in oral & written form
CO5:Develop ability to work as an individual and as a team member

CO6:Inculcate attitude of individul and team work for life long learning
Subject:111006 -Workshop Practice
CO1:Familiar with safety norms to prevent any mishap in workshop.
CO2:Handle appropriate hand tool, cutting tool and machine tools to manufacture a job.
CO3:Understand the construction, working and functions of machine tools and their parts.
CO4:Know simple operations (Turning and Facing) on a centre lathe.

Table 8.4.1 (e) – Attainment for 2020 – 21

Assessment tools and processes used for measuring the attainment of each of the Program Outcomes

“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 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.

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. 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.
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.

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."

PO Assessment Tools

Direct assessment tools and indirect assessment tools are considered for assessment of POs and PSOs. Direct assessment tool used is through courses. The tools used for assessment of POs are same which are used for assessment of COs. These tools are defined in Table B 8.4.1a.

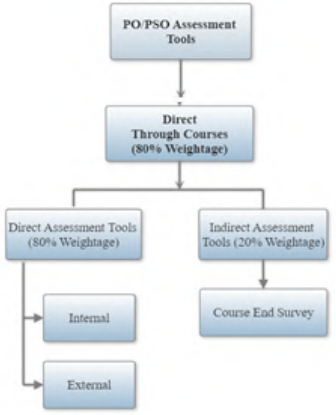


Fig:8.4.1 (f)

PO/PSO assessment is done by giving 80% weightage to direct assessment and 20% weightage to indirect assessment. Direct assessment is based on CO attainment, where 80% weightage is given to attainment through Direct Assessment Tools and 20% weightage is given to attainment through Indirect assessment tool. Indirect assessment of Pos is done through Graduate exit survey, Employer Survey, Parent Survey and Alumni Survey. Weightage for each survey is equal.

Target Levels for PO

The tool used for evaluation on POs is courses and the survey. Hence to decide the target levels of PO, average of CO – PO mapping of all subjects and target level of survey are consider. 80 % weightage is for average of CO – POs mapping and 20 % weightage for survey.

Attainment Levels of POs through Courses

The various direct assessment tools used to evaluate COs and the frequency with which the assessment processes are carried out are listed in Table – B 8.4.1 (a).

Tools used to evaluate PO attainment are the same as that for CO attainment. Attainment Levels for internal as well as external assessment tools are also the same for PO attainment and are defined as;

Attainment Level 1: 40% to 60 % students scoring more than 60% marks out of the relevant maximum marks.

Attainment Level 2: 60% to 70 % students scoring more than 60% marks out of the relevant maximum marks.

Attainment Level 3: More than 70% students scoring more than 60% marks out of the relevant maximum marks.

As the tools and criteria for defining attainment level are same for CO attainment and PO attainment levels, values of CO attainment levels are used to calculate PO attainment. Direct assessment of PO is based on CO attainment and correlation level.

Sample calculation for PO attainment is described in the following three steps:

Step – 1

CO Attainment and CO – PO mapping is defined for the course by correlation level low to high (1 to 3).

Course Outcomes	CO Attainment	Program Outcomes			
		PO1	PO2	PO3	PSO1
CO207002.1	2.5	3	1		
CO207002.2	2.8	3	2	1	1
CO207002.3	2.3	2	2		2
CO207002.4	1.5	2	1	1	1
CO207002.5	2.0	1	1		
CO207002.6	3.0	3	3		

Table – 8.4.1 (f) CO - PO Mapping

Step – 2

Direct PO attainment is calculated using the following formula:

PO attainment = (Level of Mapping of PO with CO X CO attainment Level) / 3

Course Outcomes	CO Attainment	Program Outcomes			
		PO1	PO2	PO3	PSO1
CO207002.1	2.5	=2.5x3/3	=2.5x1/3		
CO207002.2	2.8	=2.8x3/3	=2.8x2/3	=2.8x1/3	=2.8x1/3
CO207002.3	2.3	=2.3x2/3	=2.3x2/3		=2.3x2/3
CO207002.4	1.5	=1.5x2/3	=1.5x1/3	=1.5x1/3	=1.5x1/3
CO207002.5	2.0	=2.0x1/3	=2.0x1/3		
CO207002.6	3.0	=3.0x3/3	=3.0x3/3		

Table – 8.4.1 (g) PO Attainment Calculations

Step – 3

Direct PO attainment is evaluated by taking an average of PO attainment by each CO attainment.

Course Outcomes	CO Attainment	Program Outcomes			
		PO1	PO2	PO3	PSO1
CO207002.1	2.5	2.50	0.83		
CO207002.2	2.8	2.80	1.87	0.93	0.93
CO207002.3	2.3	1.53	1.53		1.53
CO207002.4	1.5	1.00	0.50	0.50	0.50
CO207002.5	2.0	0.67	0.67		
CO207002.6	3.0	3.00	3.00		
Average PO/PSO Attainment		1.92	1.40	0.72	0.99

Table 8.4.1 (h) Average PO Attainment by Course

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

Attainment of Course Outcomes of all first year courses

ACADEMIC YEAR 2020-21

Course Code	Subjects	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
107001	Engineering Mathematics-I	3.00	3.00	2.16	2.15	2.25	2.26
107002	Engineering Physics	2.93	2.93	2.20	2.28	2.05	2.06
102003	Systems in Mechanical Engineering	2.84	2.84	2.87	2.87	2.87	2.87
103004	Basic Electrical Engineering	3.00	3.00	3.00	3.00	2.40	2.40
110005	Programming and Problem Solving	3.00	2.66	3.00	3.00	2.40	2.40
111006	Workshop Practice	3.00	3.00	3.00	3.00		
107008	Engineering Mathematics-II	2.70	2.70	2.50	2.50	2.70	2.60
107009	Engineering Chemistry	2.73	3.00	3.00	2.85	2.50	2.70
104010	Basic Electronics Engineering	2.70	2.70	2.70	2.70	2.70	2.70
101011	Engineering Mechanics	3.00	3.00	3.00	3.00	3.00	2.87
102012	Engineering Graphics	3.00	3.00	3.00	3.00	3.00	3.00
110013	Project Based Learning	2.40	2.40	2.40	2.40	2.40	2.40

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
107001	2.47	1.65	0.83	PO4	0.83	PO6	PO7	PO8	PO9	PO10	PO11	PO12
107002	1.61	0.98	PO3	PO4	0.98	PO6	0.73	PO8	PO9	0.80	PO11	PO12
102003	1.91	0.95	PO3	PO4	PO5	PO6	0.95	PO8	PO9	0.95	PO11	PO12
103004	1.40	1.40	0.93	PO4	0.90	PO6	PO7	PO8	PO9	PO10	PO11	PO12
110005	1.17	2.00	1.47	PO4	0.96	PO6	PO7	0.96	1.00	0.96	PO11	PO12
111006	1.00	1.00	1.00	1.00	PO5	1.00	PO7	PO8	PO9	PO10	PO11	PO12
107008	2.62	1.75	0.87	PO4	0.87	PO6	PO7	PO8	PO9	PO10	PO11	PO12
107009	2.16	1.82	0.93	PO4	PO5	PO6	0.92	PO8	0.93	0.93	PO11	PO12
104010	1.80	0.90	0.90	PO4	0.90	PO6	PO7	PO8	PO9	PO10	PO11	PO12
101011	1.99	1.99	PO3	PO4	0.98	PO6	PO7	PO8	PO9	1.00	PO11	PO12
102012	2.00	1.00	1.00	PO4	1.00	PO6	PO7	PO8	PO9	1.00	PO11	PO12
110013	1.87	1.07	0.80	PO4	2.00	0.80	0.80	PO8	1.60	0.80	0.80	PO12

PO Attainment Level

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	1.83	1.38	0.97	1.00	1.05	0.90	0.85	0.96	1.18	0.92	0.80	0
CO Attainment	1.83	1.38	0.97	1.00	1.05	0.90	0.85	0.96	1.18	0.92	0.80	0

PSOs Attainment:

Course	PSO1	PSO2	PSO3
	PSO1	PSO2	PSO3

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- (2020-21)

POs	Target Level	Attainment Level	Observations
PO 1 : Engineering Knowledge			
PO 1	2.03	1.83	Attainment is 90.15% of the target value. Subjects showing lower attainment values are EM-I, Physics, and PBL. The Students faced difficulty to understand the basic concepts of the courses.
Action 1 Conduct Expert Lecture & Extra Test/Quiz to enhance basic engineering knowledge. Action 2 Provide a question bank to improve engineering knowledge. Action 3 Encourage students to choose interdisciplinary problems in Project Based Learning			
PO 2 : Problem Analysis			
PO 2	1.49	1.38	Attainment is 92.62% of the target value. Subjects showing lower attainment values are EM-I, and PBL. These courses need better understanding through practical knowledge.
Action 1 To give more problems to improve understanding of the subject.			
PO 3 : Design/development of Solutions			
PO 3	1.07	0.97	Attainment is 90.65% of the target value. Subjects showing lower attainment values are EM-I, and PBL. These kinds of courses need more practice. Students need to practice on calculations and derivations related question.
Action 1 Organize an industrial visit to get familiar with engineering problems Action 2 Students are encouraged to take on projects related to societal and environmental considerations.			
PO 4 : Conduct Investigations of Complex Problems			
PO 4	1.00	1.00	Attained 100%
None			
PO 5 : Modern Tool Usage			
PO 5	1.17	1.05	Attainment is 89.74% of the target value. Subjects showing lower attainment values are EM-I, and PBL.
Action 1 Effective utilization of modern tools like Vlab, Google Quiz, PPT, YouTube Videos, google website, NPTEL video lectures, MS Teams Action 2 Encourage students to use modern online software ,Simulation software			
PO 6 : The Engineer and Society			
PO 6	1.00	0.90	Attainment is 90% of the target value. PBL is showing a lower attainment value.
Action 1 Activities related to techno-social and project based learning to be organized through NSS and student chapters.			
PO 7 : Environment and Sustainability			
PO 7	1.00	0.85	Attainment is 85% of the target value. Subjects showing lower attainment values are PBL and Physics.
Action 1 Awareness through Lab Activity and Field Visit to explore the knowledge of Environment & Sustainability			
PO 8 : Ethics			

PO 8	1.00	0.96	Attainment Level is 96% of the target level.
Action 1 Organize expert lectures/ motivational talk to overcome above observation			

PO 9 : Individual and Team Work

PO 9	1.33	1.18	Attainment Level is 88.72% of the target level.
Action 1 Evaluation of student performance through Group activities/presentations.			

PO 10 : Communication

PO 10	1.00	0.92	Attainment Level is 92% of the target level. PBL is showing a lower attainment value. Increasing the participation of students in team work activities to boost effective communication.
Action 1 Encourage students to improve verbal & written communication through practical activities/Group Discussion/Presentations/Reports			

PO 11 : Project Management and Finance

PO 11	1.00	0.80	Attainment Level is 80% of the target level. PBL is showing a lower attainment value.
Action 1 To create awareness among the students through project management principles			

PO 12 : Life-long Learning

PO 12	1	0.86	Attainment Level is 86% of the target level.
Action 1 More number of self learning assignments to be given. Action 2 Students are to be encourage to join and participate student professional chapter activities.			

PSOs Attainment Levels and Actions for Improvement- (2020-21)

PSOs	Target Level	Attainment Level	Observations
PSO 1 : Our graduate will have competencies in design and develop mechanical elements and systems.			
PSO 1	1.13	1.07	The target value is attained with 94.69%. Following courses need to be taken special efforts Mathematics -I, Physics, Systems in Mechanical Engineering.
Action 1: To get more practice mechanical engineering based basic application Action 2: To improve the understanding through visualization attained through Mechanical based Simulations and Animations of simple mechanisms			
PSO 2 : Our graduate will have incremental skills to specify and select materials, processes to manufacture an industrial product.			
PSO 2	1.11	1.04	The attainment of the target is 94.54%. The courses such as Systems in Mechanical Engineering, Physics, Chemistry need to be focused.
Action 1: To conduct activities like Quiz, Debate, Poster competitions related to above subjects. Action 2: To get prepared models and charts videos related to process to manufacturing and industrials products. Action 3: To provide virtual industrial visits.			
PSO 3 : Our graduate will have ability to analyze and evaluate performance of thermal system.			
PSO 3	1.25	1.18	The attainment is 94.40%. The following courses need special attention.
Action 1: To organize sessions related to Thermal system applications such as Power Plant Engineering, Thermal Plant, Energy Engineering related. Action 2: To conduct technical activities such as Model making, Quiz through professional chapters viz. Indian Society for Heating Refrigeration and Air conditioning Engineers (ISHRAE), Solar Society of India (SESI).			

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

Counselling and Mentoring encompasses a broad set of skills, approaches and techniques that are essentially aimed at helping students with problem solving, problem management, resolving past issues, working towards developmental aims and goals for the future, which include improving performance and meeting career and personal aspirations.

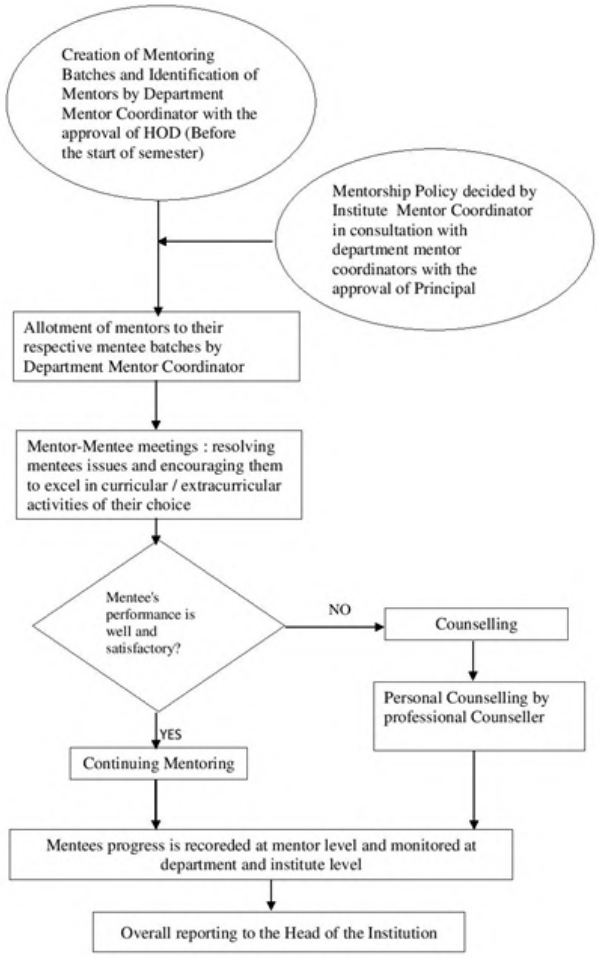


Fig 9.1.1 Mentoring Process

The counselling and mentoring process is developed 1. To help students to overcome emotional challenges, 2. To assist a student to know him/herself better his/her interest, abilities, attitudes and opportunities, 3. To work out a plan (behavioural therapy) for solving his difficulties, 4. To assist students in planning for career choices.

Functioning:

- Each faculty acts as a mentor in the counselling & mentoring process.
- A mentor is responsible for guiding about 20 students of a class.
- The mentor listens to the problems of the mentee, both academic and personal, which hinder their learning abilities.
- In the mentoring sessions, students raise their difficulties/problems regarding academics/general facilities/hostel facilities with their respective mentors.
- If the mentor/course coordinator/GFM/HOD observes or finds a student who needs professional counselling, his case is forwarded to the Professional Counselling agency through the Counselling & Mentoring Coordinator.

Post Counselling:

- Feedback and Behavioural improvements are observed from the student seeking professional counselling.
- Record of a case study report is asked from the mentor mentioning the positive changes and improvement observed for the student.

Role of Department Mentor Coordinator:

- To distribute required formats to the department mentors.
- To maintain the list of the students and respective mentors.
- To monitor the records of mentors on a regular basis and report to the HOD.
- To collect the records from all the mentors at the end of every semester & retain them in the department.
- To handover the mentor records of earlier semester to next mentors at the beginning of semester through HOD
- To conduct the meeting once in the month within the department and maintain the minutes.

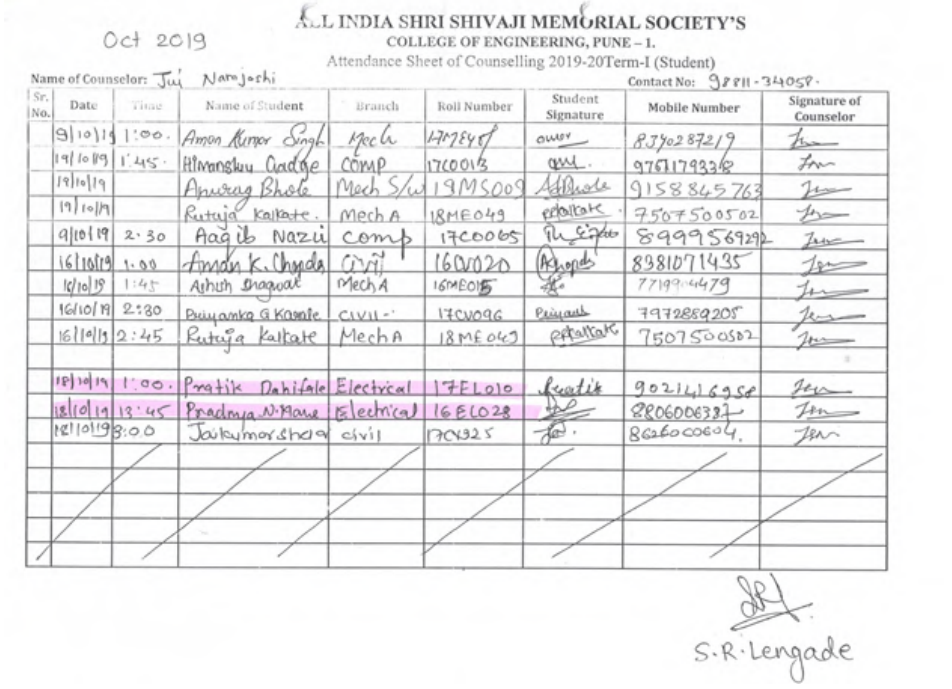
Roles and Responsibilities of Mentors:

- To collect the list of allotted students and formats for updating the students' record.
- To collect the "Student Information" from the respective GFM.
- To establish the contact with the parents through telephonic discussion, appraise them about the development of their ward.
- To conduct meetings with students fortnightly.
- To act as a Counsellor, Guide and Philosopher of the student.
- To encourage the student to have open dialogue.
- To record the observations about student viz. achievements, doubts, fears, grievances, etc.
- To evaluate the student's ability, strengths and weaknesses.
- To help the student to overcome their weaknesses and strengthen the abilities to excel in his/her defined objectives.
- To submit the files complete in all respect to HOD at the end of term.
- To report the weak cases to the Students Counselling Cell, as well as those cases wherever special assistance is required, through HOD.

Table 9.1.1: Mentor-Mentee Allotment for Academic Year 2021-22

Sr. No.	Class/Division/Batch	No. of Mentee	Name of Mentor (Term I)	Name of Mentor (Term II)
1	SE Mech/A/A	25	Dr B D Bachchhav	Mr M U Gan
2	SE Mech/A/B	25	Dr. S.V. Chaitanya	N N Gotkhindikar
3	SE Mech/A/C	26	Mr. P V Deshmukh	Dr M R Dahake
4	SE Mech/B/A	25	Dr M M Sayyad	Mr O A More
5	SE Mech/B/B	25	Dr. D. S. Malwad	Dr. S J Navale
6	SE Mech/B/C	27	Mr G P Lohar	Mrs A T Thombare
7	TE Mech/A/A	21	Dr S R Patil	Dr D S Malwad
8	TE Mech/A/B	21	Dr C S Choudhari	Mr P V Deshmukh
9	TE Mech/A/C	21	Dr S J Navale	Mr Shahid Ali
10	TE Mech/A/D	22	Mr O A More	Mr M P Bauskar
11	TE Mech/B/A	21	Mr. M. R. Dahake	Mr. R A Marne
12	TE Mech/B/B	21	Mr. Shahid Ali	Mrs A T Thombare
13	TE Mech/B/C	21	Mr R A marne	Mr G P Lohar
14	TE Mech/B/D	21	Mrs S S Patil	Dr D Y Dhande
15	BE Mech/A/A	18	Dr C S Dharankar	Dr. C S Choudhari
16	BE Mech/A/B	18	Dr A V Waghmare	Dr M R Phate

17	BE Mech/A/C	18	Mrs M P Shah	Dr S V Chaitanya
18	BE Mech/A/D	19	Dr M S Deshmukh	Mr P S Aglawe
19	BE Mech/B/A	19	Mr M U Gan	Dr P S Gajjal
20	BE Mech/B/B	19	Dr S H Wankhade	Dr S H Wankhade
21	BE Mech/B/C	19	Mr P S Aglawe	Dr A M Ramteke
22	BE Mech/B/D	21	Dr M S Deshmukh	Dr M S Deshmukh



ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S
COLLEGE OF ENGINEERING, PUNE – 1.
Attendance Sheet of Counselling 2019-20Term-I (Student)

Oct 2019

Name of Counselor: Jui Narojshi Contact No: 9881-34058.

Sr. No.	Date	Time	Name of Student	Branch	Roll Number	Student Signature	Mobile Number	Signature of Counselor
	9/10/19	1:00.	Aman Kumar Singh	Mech	17ME49		8390287219	
	14/10/19	1.45.	Himanshu Gadge	COMP	17C0013		9761793348	
	14/10/19		Anurag Bhole	Mech S/w	19MS009		9158845763	
	14/10/19		Rutuja Kalkate.	Mech A	18ME049		7507500502	
	9/10/19	2.30	Aaqib Nazir	comp	17C0065		8999569292	
	16/10/19	1.00	Aman K. Chyada	Civil	16C020		8381071435	
	16/10/19	1:45	Ashish Agrawal	Mech A	16ME015		7719[illegible]479	
	16/10/19	2:30	Priyanka G Kamble	CIVIL	17CV096		7972859205	
	16/10/19	2:45	Rutuja Kalkate	Mech A	18ME049		7507500502	
	18/10/19	1:00.	Pratik Dahifale	Electrical	17EL010		9021416958	
	18/10/19	13:45	Pradnya N. Mane	Electrical	16EL028		8806006387	
	18/10/19	3:00	Jaikumar shaw	civil	17CV325		8626006604.	

S.R. Lengade

Fig. 9.1.2 Attendance sheet of Counselling sessions

AISSMS COE

Counseling Session report of Student.

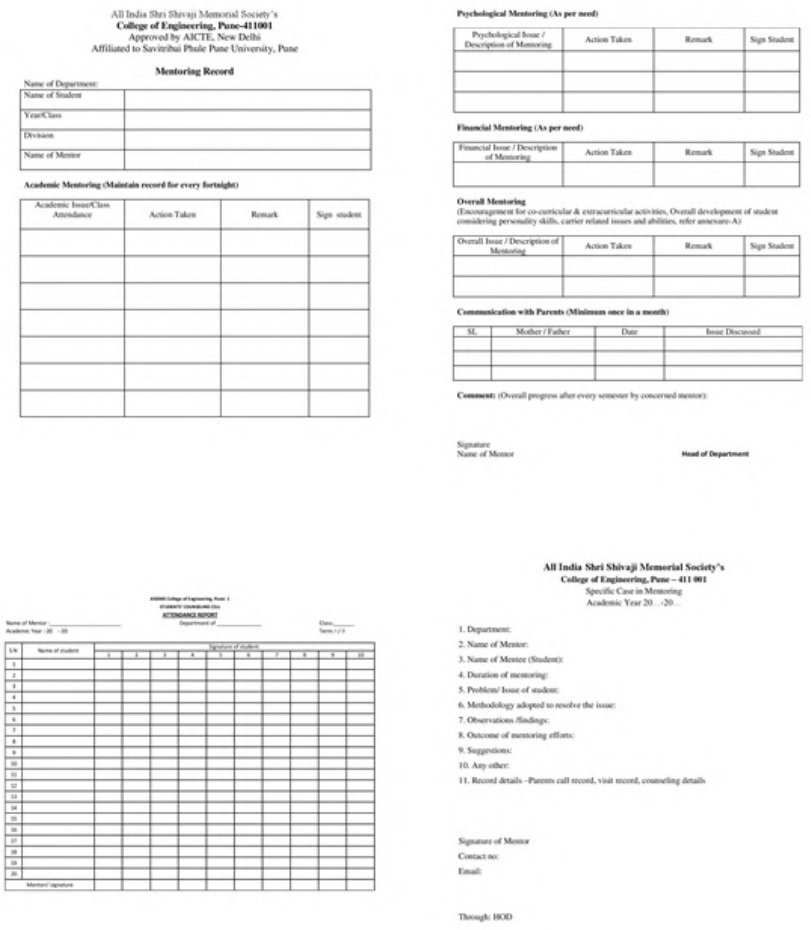
Client name: Priyanka Karale.

(Remedial Counseling for emotional issues)

Client showed anxiety symptoms and was reluctant to come for counseling. Counselor tried to help client talk about his issues regarding her studies and expectations related to that from family and self. Relaxation techniques were administered and taught to the client which she was directed to use whenever anxiety was trigger was observed. Client seemed hopeful about handling her problems when she left.

102, Mayur Apartments, 77, MayurColony,Kothrud, Pune, Maharashtra 411029.
Contact: 9623086665, 9405969996
www.holistichealingindia.org, ihhipune@gmail.com

Fig. 9.1.3 Counselling session report



All India Shri Shivaji Memorial Society's
College of Engineering, Pune-411001
Approved by AICTE, New Delhi
Affiliated to Savitribai Phule Pune University, Pune

Mentoring Record

Name of Department:

Name of Student	
Year/Class	
Division	
Name of Mentor	

Academic Mentoring (Maintain record for every fortnight)

Academic Issue/Class Attendance	Action Taken	Remark	Sign student

Psychological Mentoring (As per need)

Psychological Issue / Description of Mentoring	Action Taken	Remark	Sign Student

Financial Mentoring (As per need)

Financial Issue / Description of Mentoring	Action Taken	Remark	Sign Student

Overall Mentoring
(Encouragement for co-curricular & extracurricular activities, Overall development of student considering personality skills, carrier related issues and abilities, refer annexure-A)

Overall Issue / Description of Mentoring	Action Taken	Remark	Sign Student

Communication with Parents (Minimum once in a month)

SL	Mother / Father	Date	Issue Discussed

Comment: (Overall progress after every semester by concerned mentor):

Signature
Name of Mentor

Head of Department

ATTENDANCE REPORT

Name of Mentor: _____ Department of _____ Class:_____
Academic Year: 20 – 20 Term: I / II

SN	Name of student	Signature of student									
		1	2	3	4	5	6	7	8	9	10
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
	Mentors' signature										

All India Shri Shivaji Memorial Society's
College of Engineering, Pune – 411 001
Specific Case in Mentoring
Academic Year 20…-20…

1. Department:
2. Name of Mentor:
3. Name of Mentee (Student):
4. Duration of mentoring:
5. Problem/ Issue of student:
6. Methodology adopted to resolve the issue:
7. Observations /findings:
8. Outcome of mentoring efforts:
9. Suggestions:
10. Any other:
11. Record details –Parents call record, visit record, counseling details

Signature of Mentor
Contact no:
Email:

Through: HOD

Fig. 9.1.4 Various Mentoring forms

Mentoring system supports to get a feedback of students regarding facilities such as internet, classroom/lab cleanliness, drinking water, canteen etc. through mentor-mentee interactions.

Mentor monitors students (mentees) regularity in the classes. This monitoring supports to teaching learning system. Monitoring is done through SMS, calling to parents and by the way of ERP.

In a nutshell, mentoring helps to student to get professional guidance, to choose a right career and performing well in the academics.

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

Total Marks 10.00

Institute Marks : 10.00

Student's feedback about teaching a course is collected for all courses twice in a semester through the ERP system.
Frequency of Feedback: Per Semester Mid Term and End Term
Mid Term feedback is taken after the first 30 to 40 days of teaching. Corrective actions are taken after this feedback. End Term feedback is taken at the end of the semester.

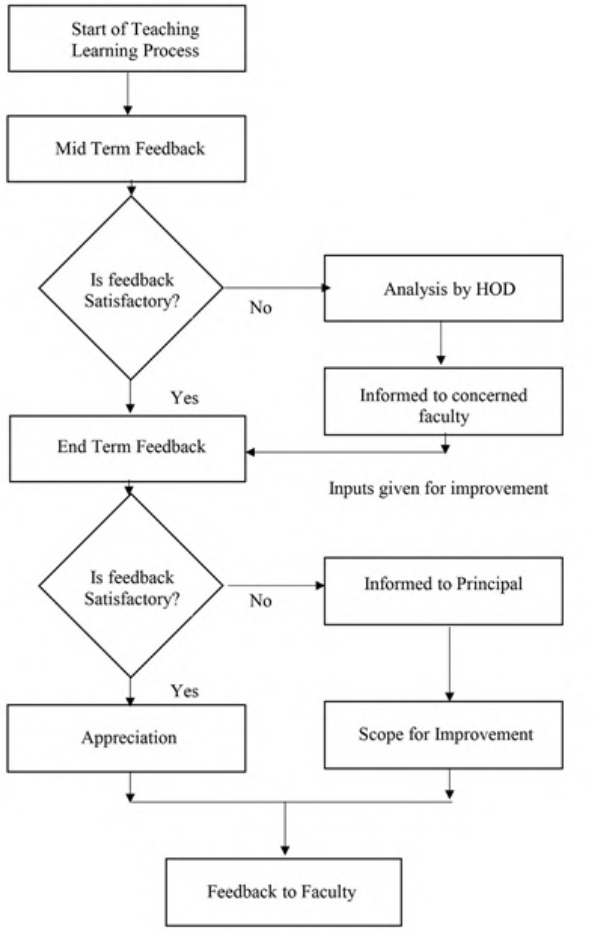


Fig. 9.2.1 Feedback process

Following questionnaire is set for feedback.

1. Has the teacher covered the entire syllabus as prescribed by university, college, board?
2. Has the teacher covered relevant topics beyond syllabus?
3. Effectiveness of teacher in terms of technical content /course content, communication skills and use of teaching aids
4. Pace on which contents were covered
5. Motivation and inspiration for students to learn
6. Support for the development of students skill practical demonstration, hands on training
7. Clarity of expectations of students
8. Feedback provided on students' progress
9. Willingness to offer help and advice to students

A rubric is followed to access the syllabus covered by the faculty, pace of teaching, topic covered etc.is shared with students through ERP for evaluation of the faculty. Each question is assessed on a 5 to 1 scale. (5- Excellent, 4- Very Good, 3- Good, 2- Satisfactory and 1- Non-satisfactory). At the end of the feedback collection process, reports are generated in ERP showing a performance index. The method of obtaining feedback performance index is as follows.

Let total N students in a class participate in the feedback process and n_1, n_2, n_3, n_4 and n_5 be the number of students giving feedback as Excellent, Very Good, Good, Satisfactory and Non-satisfactory, respectively. Each question in the questionnaire is assessed on a 5 to 1 scale (5- Excellent, 4- Very Good, 3- Good, 2- Satisfactory and 1- Non-satisfactory). The method of obtaining feedback performance index is as follows.

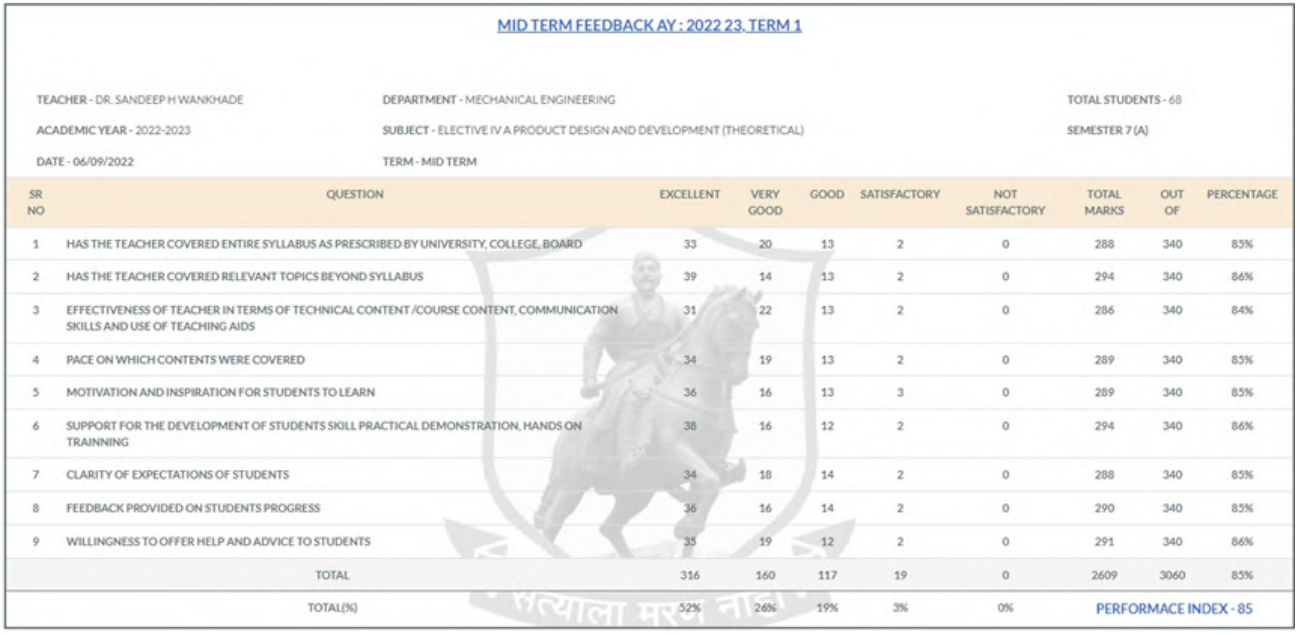
$$N=n_1+n_2+n_3+n_4+n_5$$

Total marks obtained for a question = $5\times n_1+4\times n_2+3\times n_3+2\times n_4+1\times n_5$

Maximum marks = $5\times N$

Feedback obtained = (Total marks obtained for a question/ Maximum marks)*100%

The procedure is repeated to get feedback obtained for all questions in the questionnaire. The performance index is simply an average of the percentage feedbacks thus obtained. This index is mentioned in the feedback report.



MID TERM FEEDBACK AY : 2022 23, TERM 1

TEACHER - DR. SANDEEP H WANKHADE | DEPARTMENT - MECHANICAL ENGINEERING | TOTAL STUDENTS - 68

ACADEMIC YEAR - 2022-2023 | SUBJECT - ELECTIVE IV A PRODUCT DESIGN AND DEVELOPMENT (THEORETICAL) | SEMESTER 7 (A)

DATE - 06/09/2022 | TERM - MID TERM

SR NO	QUESTION	EXCELLENT	VERY GOOD	GOOD	SATISFACTORY	NOT SATISFACTORY	TOTAL MARKS	OUT OF	PERCENTAGE
1	HAS THE TEACHER COVERED ENTIRE SYLLABUS AS PRESCRIBED BY UNIVERSITY, COLLEGE, BOARD	33	20	13	2	0	288	340	85%
2	HAS THE TEACHER COVERED RELEVANT TOPICS BEYOND SYLLABUS	39	14	13	2	0	294	340	86%
3	EFFECTIVENESS OF TEACHER IN TERMS OF TECHNICAL CONTENT /COURSE CONTENT, COMMUNICATION SKILLS AND USE OF TEACHING AIDS	31	22	13	2	0	286	340	84%
4	PACE ON WHICH CONTENTS WERE COVERED	34	19	13	2	0	289	340	85%
5	MOTIVATION AND INSPIRATION FOR STUDENTS TO LEARN	36	16	13	3	0	289	340	85%
6	SUPPORT FOR THE DEVELOPMENT OF STUDENTS SKILL PRACTICAL DEMONSTRATION, HANDS ON TRAINNING	38	16	12	2	0	294	340	86%
7	CLARITY OF EXPECTATIONS OF STUDENTS	34	18	14	2	0	288	340	85%
8	FEEDBACK PROVIDED ON STUDENTS PROGRESS	36	16	14	2	0	290	340	85%
9	WILLINGNESS TO OFFER HELP AND ADVICE TO STUDENTS	35	19	12	2	0	291	340	86%
	TOTAL	316	160	117	19	0	2609	3060	85%
	TOTAL(%)	52%	26%	19%	3%	0%	PERFORMACE INDEX - 85		

Fig. 9.2.2 Faculty feedback report

Faculty are provided with letters of appreciation or improvement based on performance index. This index is used for measuring quality of teaching & learning. For the performance index of 75 and more, appreciation letters are issued by the Head of the Department. For a lower index, the Head of the Department issues improvement letters.

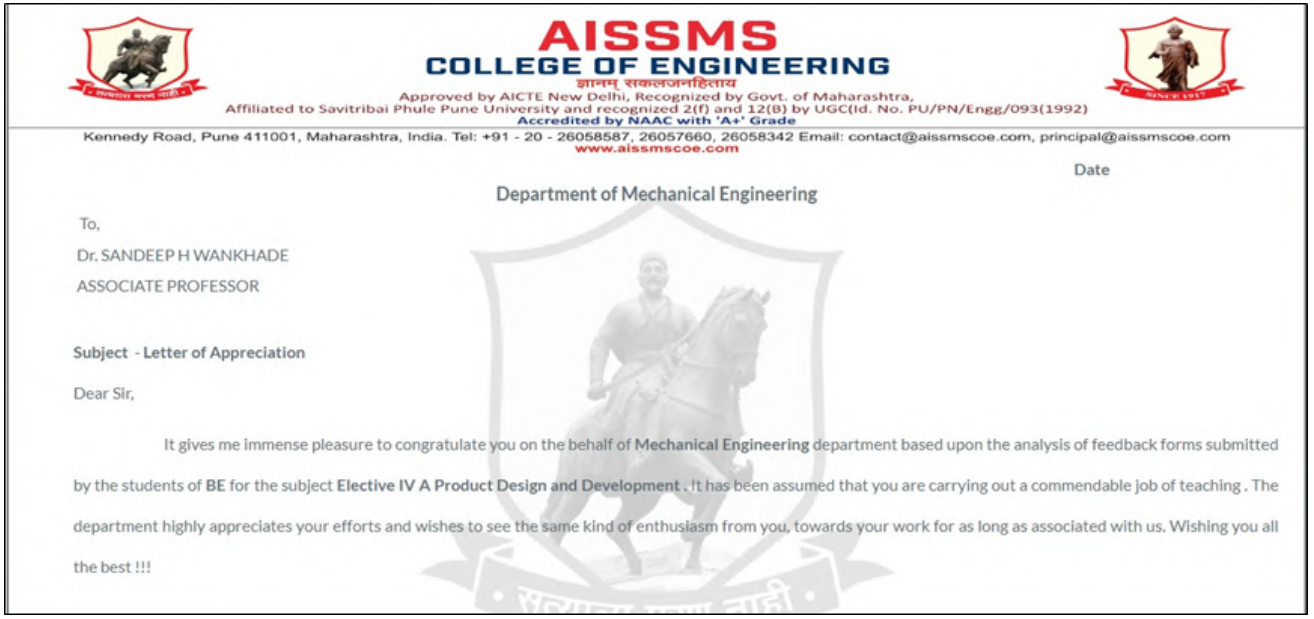
Table 9.2.1: Faculty feedback AY 2021-22 (Term I)

Sr. No.	Name of Faculty	Class/Div/Course	No. of Students	Feedback (%)
1	Dr B D Bachchhav	SE Mech S/W/ME	81	82
2	Dr B D Bachchhav	BE Mech/A/AMP	69	69
3	Dr B D Bachchhav	BE Mech/B/AMP	71	90
4	Dr A V Waghmare	BE Mech S/W/H&P	73	88
5	Dr C S Choudhari	TE/Mech/A/RAC	71	85

6	Dr C S Dharankar	BE Mech S/W/MV	73	81
7	Dr D Y Dhande	TE/Mech/B/DME-II	78	82
8	Dr M R Phate	BE Mech/A/MSD	69	77
9	Dr M S Deshmukh	TE Mech/B/RAC	78	83
10	Dr P S Gajjal	BE Mech/SW/MSD	73	92
11	Dr S J Navale	SE Mech/A/AT	86	80
12	Mrs A T Thombre	SE Mech/B/KOM	85	82
13	Mr D S Mane	SE Mech/B/MP	85	88
14	Mr D S Mane	BE Mech/B/IE	71	90
15	Mr K L Kumbhar	SE Mech/SW/FM	81	68
16	Mr M P Bauskar	TE Mech/B/MP-II	78	80
17	Mrs M P Shah	BE Mech/SW/FEA	73	87
18	Mr M R Dahake	SE Mech/B/AT	85	84
19	Mr M S swami	BE Mech/SW/EAM	73	85
20	Mr M S swami	BE Mech/B/EE	71	87
21	Mr M U gan	SE Mech/A/FM	86	77
22	Mr M U gan	SE Mech/B/FM	85	81
23	Mr P S Aglawe	TE Mech/A/NMO	71	81
24	Mr S R Patil	SE Mech/SW/KOM	81	75
25	Mrs. S. S. Patil	TE/Mech/A/MP-II	71	82
26	Mr S S Vadgeri	BE MEch/B/MSD	71	90
27	Dr S V Chaitanya	BE MEch/A/IE	69	76
28	Mr A P Desale	BE MEch/SW/EE	73	73
29	Mr A P Desaale	BE Mech/A/EE	69	75
30	Mr R A marne	TE Mech/A/DME-II	71	81
31	Mr P V Deshmukh	BE Mech/A/PDD	69	86
32	Mr P V Deshmukh	BE Mech/B/PDD	71	78
33	Mr N N Gotkhindikar	SE Mech/A/MP	86	82
34	Mr. V S Wagare	TE Mech/B/NMO	78	77
35	Mr. O A More	TE Mech/A/MTX	71	75
36	Mr. O A More	TE Mech/B/MTX	78	86
37	Dr M M Sayyad	SE Mech/A/KOM	86	79

Reward / Corrective measures:

1. Faculty members with more than 75% feedback were motivated to continue their hard work and explore the scope of further improvement.
2. Faculty members with less than 75% feedback were asked to discuss any kind of problem or issue being faced by them in subject content, preparation and delivery of lecture. They were motivated to attend faculty development programs in order to improve modes of teaching. They were also advised to go through video lectures available online.



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COLLEGE OF ENGINEERING
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Accredited by NAAC with 'A+' Grade
Kennedy Road, Pune 411001, Maharashtra, India. Tel: +91 - 20 - 26058587, 26057660, 26058342 Email: contact@aissmscoe.com, principal@aissmscoe.com
www.aissmscoe.com

Date

Department of Mechanical Engineering

To,
Dr. SANDEEP H WANKHADE
ASSOCIATE PROFESSOR

Subject - Letter of Appreciation

Dear Sir,

It gives me immense pleasure to congratulate you on the behalf of **Mechanical Engineering** department based upon the analysis of feedback forms submitted by the students of **BE** for the subject **Elective IV A Product Design and Development** . It has been assumed that you are carrying out a commendable job of teaching . The department highly appreciates your efforts and wishes to see the same kind of enthusiasm from you, towards your work for as long as associated with us. Wishing you all the best !!!

Fig. 9.2.3 Reward measure- appreciation letter

9.3 Feedback on facilities (5)

Total Marks 5.00

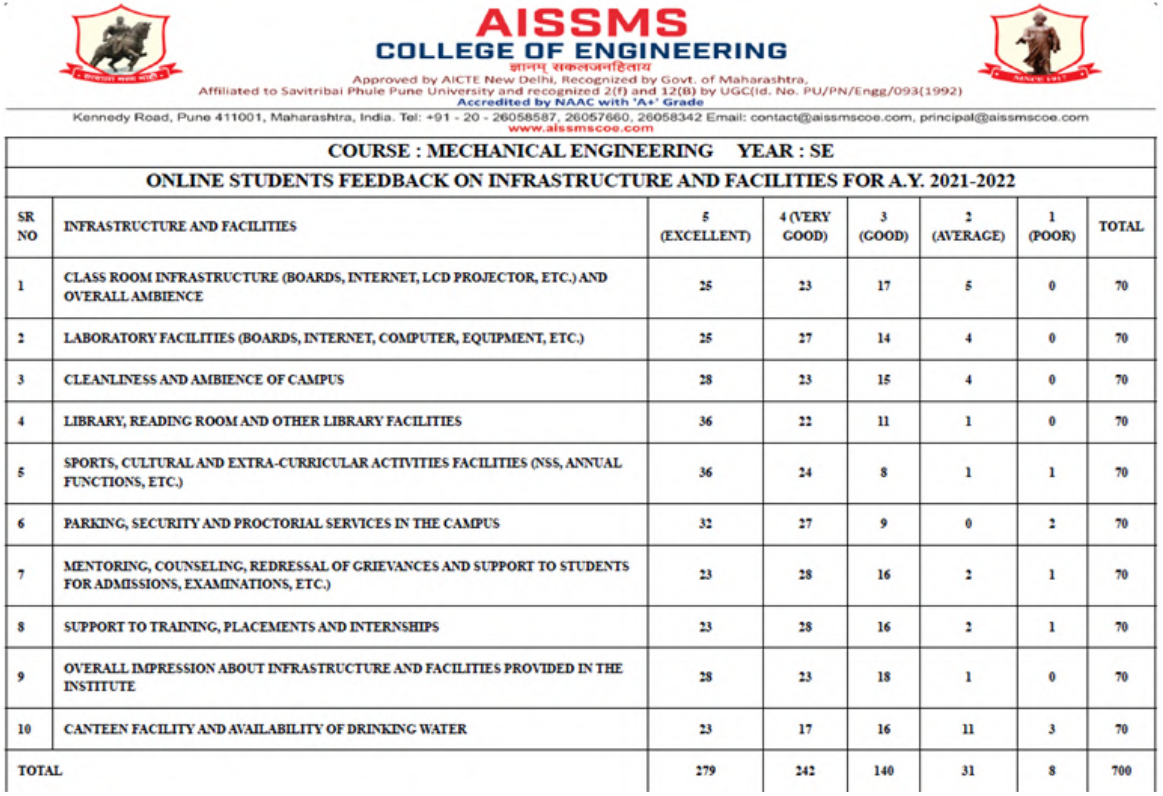
Institute Marks : 5.00

Different facilities are provided to the students to enhance their overall development. A few of them are cultural, sports, and technical events consisting of workshops, seminars, etc. Very good infrastructure facilities are also provided to the students. Every year at the end of the second semester, i.e. in the months of March and April, a feedback form is delivered to the students through ERP, and the students fill it out. The feedback form questions are structured in such a way that the institute can receive clear feedback on how to enhance the facilities. Corrective actions are being made to ensure that students have adequate facilities for the coming academic year.

Questionnaire of the feedback is based on the following components:

1. Class room infrastructure (boards, internet, LCD projector, etc.) and overall ambience
2. Laboratory facilities (boards, internet, computer, equipment, etc.)
3. Cleanliness and ambience of campus
4. Library, reading room and other library facilities
5. Sports, Cultural and Extra-curricular activities facilities (NSS, Annual functions, etc.)
6. Parking, security and proctorial services in the campus
7. Mentoring, Counselling, Redressal of grievances and support to students for admissions, examinations, etc.)
8. Support to training, placements and internships
9. Overall impression about infrastructure and facilities provided in the institute
10. Canteen facility and availability of drinking water

Following is a sample of Infrastructure and Facility feedback taken through ERP:



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www.aissmscoe.com

COURSE : MECHANICAL ENGINEERING YEAR : SE

ONLINE STUDENTS FEEDBACK ON INFRASTRUCTURE AND FACILITIES FOR A.Y. 2021-2022

SR NO	INFRASTRUCTURE AND FACILITIES	5 (EXCELLENT)	4 (VERY GOOD)	3 (GOOD)	2 (AVERAGE)	1 (POOR)	TOTAL
1	CLASS ROOM INFRASTRUCTURE (BOARDS, INTERNET, LCD PROJECTOR, ETC.) AND OVERALL AMBIENCE	25	23	17	5	0	70
2	LABORATORY FACILITIES (BOARDS, INTERNET, COMPUTER, EQUIPMENT, ETC.)	25	27	14	4	0	70
3	CLEANLINESS AND AMBIENCE OF CAMPUS	28	23	15	4	0	70
4	LIBRARY, READING ROOM AND OTHER LIBRARY FACILITIES	36	22	11	1	0	70
5	SPORTS, CULTURAL AND EXTRA-CURRICULAR ACTIVITIES FACILITIES (NSS, ANNUAL FUNCTIONS, ETC.)	36	24	8	1	1	70
6	PARKING, SECURITY AND PROCTORIAL SERVICES IN THE CAMPUS	32	27	9	0	2	70
7	MENTORING, COUNSELING, REDRESSAL OF GRIEVANCES AND SUPPORT TO STUDENTS FOR ADMISSIONS, EXAMINATIONS, ETC.)	23	28	16	2	1	70
8	SUPPORT TO TRAINING, PLACEMENTS AND INTERNSHIPS	23	28	16	2	1	70
9	OVERALL IMPRESSION ABOUT INFRASTRUCTURE AND FACILITIES PROVIDED IN THE INSTITUTE	28	23	18	1	0	70
10	CANTEEN FACILITY AND AVAILABILITY OF DRINKING WATER	23	17	16	11	3	70
TOTAL		279	242	140	31	8	700

Figure-9.3.1 Sample Infrastructure and Facility feedback taken through ERP

Based on the feedback, various corrective actions have been taken such as improvement in canteen facility, purified water supply, internet bandwidth, cleanliness, stationary availability, facility for co-curricular and extra-curricular facilities.

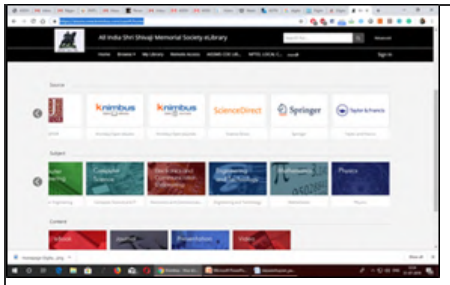
9.4 Self-Learning (5)

Total Marks 5.00

Institute Marks : 5.00

Institute has provided a large scope to students to learn on their own as per their interest. This is in the form of online and offline, on campus and off campus. AICTE's NPTEL platform has attracted students a lot at par with regular courses. Students can register online and learn at their pace. Online platforms such as Coursera, edX, IIRS are made available to students. Subscribed E-resources are IEEE, ASCE, ASME, J-GATE, McGraw Hill and Science Direct.

Table 9.4.1: Self-Learning facilities: Details of Digital Library/Remote Access

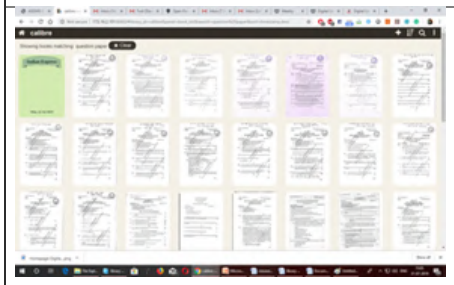


Knimbus Digital Library and Remote Access - https://aissms.new.knimbus.com/user#/home (https://aissms.new.knimbus.com/user#/home)

The AISSMS COE Library has subscribed to Digital Library. Remote Access to E resources facility is available under the platform.

Faculty Publications Repository -- http://172.16.0.71:8080/jspui/ (http://172.16.0.71:8080/jspui/)

Faculty Publications are archived under Dspace Repository. Department wise faculty publications can accessed through this link in College LAN



Calibre Digital Library - http://172.16.2.101:8080/ (http://172.16.2.101:8080/)

The Calibre Digital Library has been set up for E books and previous year question papers students.

Link for DELNET Service - http://www.delnet.in/# (http://www.delnet.in/) http://164.100.247.26/ (http://164.100.247.30/)

Facilities available:

- Interlibrary Loan - Required books /Articles can be borrowed from member Library
- Free access to digital resources eBooks
- Remote access is available.

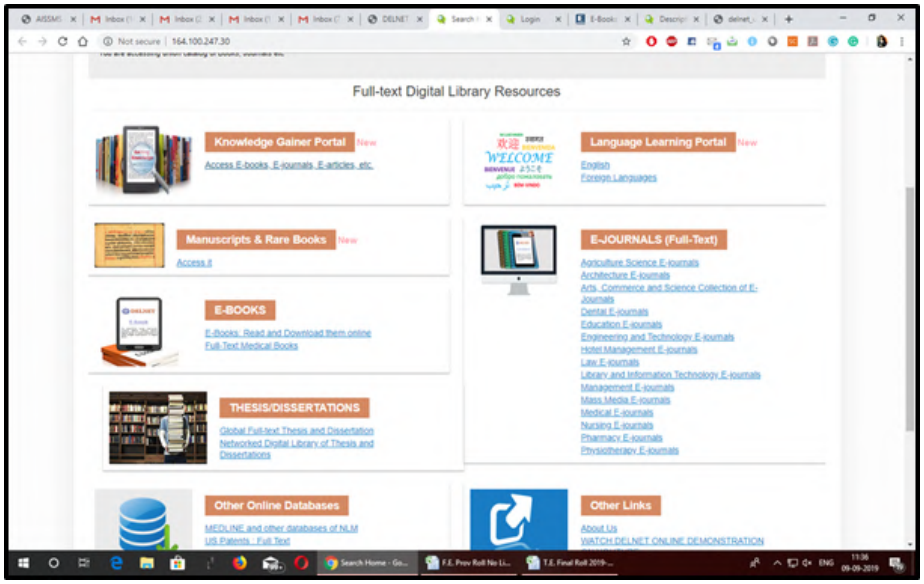


Fig. 9.4.1 Full-text digital library resources

Table 9.4.2: Seminar/Webinar and invites lectures AY 2019-20

Sr. No	Topic	Resource person	Date
1	Supply Chain Management	Mr. Vinayak Kasabekar, DY Manager, Shafeller India	10 April 2020
2	Production Planning And Control	Mr. Rohit Kshirsagar, Assistant Manager, Kirlosker Pumps	1 May2020
3	Additive Mfg.	Mr. Avinash Khare, IMTMA, Chinchwad	8/8/2019
4	Role and Effect on Industries of Robotics and Automation in coming years	Gautam Doshi, Advisor, Indian Machine Tool Manufacturers Association (IMTMA)	3/10/2019
5	Welding Technology	Mr. Sagar Naikade, Valmont India, Quality Engineer,	08/07/2019
6	MSA system	Mr S A Mandhare	26/07/2019
7	ARAI Pune	Mr S S Tikar	05/10/2019
8	Fundamentals of Dynamic Analysis	Mr. Nitin Badhe, Sr. Technical Specialist- Global NVH, ALTAIR INDIA Pvt Ltd, Pune	15/10/2019
9	How to Enter in Artificial Intelligence	Mr. Ajit Deshpande (Advanced Analytics, FinTech)	01/10/2019

10	Applications of CFD in Heat transfer Analysis	Dr Vivek Vitankar	24/09/2019
11	Robotics Process Automation	Mr Quayam Akhatar	25/09/2019
12	Energy and Environment	Dr Prasad Khandagale, R & D Head, Henkel, Pune 9822683341	04/10/2019

Table 9.4.3: NPTEL RESULTS

Course Run	Present	Gold	Elite	Silver	Successful	Participation	Topper
Jan-Apr 2022	137	02	13	03	17	137	9

Table 9.4.4: edX Courses, Jan 2021

Invitations sent	Learners joined	Enrolled learners (at least one course)	Active learners	Course completion
930	535	210	80	22

Table 9.4.5: Coursera E learning Platform- Usage and enrolment record

Invitations sent	Learners joined	Enrolled learners	Total learning hours	Lesson taken	Course rating
2924	2019	1870	40126	71410	4.7

Table 9.4.6: IIRS Training Program

Invitations sent	Learners joined	Enrolled learners	Total learning hours	Lesson taken	Course rating
2924	2019	1870	40126	71410	4.7

Table 9.4.7: Details of students completed the courses

	No. of Students registered			No of students successfully completed		
	2019-20	2020-21	2021-22	2019-20	2020-21	2021-22
Webinar/Seminar	4866	2219		4866	2219	-
Swayam/NPTEL Courses	2195	3178	2554	161	107	169
edX Courses	-	210	-	-	22	-

Fig. 9.4.2 NPTEL Certificate: Sample

9.5 Career Guidance, Training, Placement (10)

Total Marks 10.00

Institute Marks : 10.00

Centre for Information Training and Placement (CITP), a common section has been formed to cater Trainings, Placements and for Career guidance to students by taking help of Alumni strength and interaction with industry. The CITP has a well-established infrastructure to cater the said services. The career guidance to students is done at well-structured one to one mentoring and through professional counselling. Pre-placement and industry specific trainings are carried out at every stage of their undergraduate studies. Student's inclination towards a career is identified at first year level. In their second year studies, communication and soft skills are honed. Aptitude required for employment in general is prepared at third year level. Company specific training with contemporary knowledge is enhanced in the final year of their study. The CITP respects "One student one job policy".

The policy is elaborated as follows:

1. The companies visiting the campus are divided into IT/Software companies (product, service based) and Core Companies (Non IT/Software) (Manufacturing, service providers).
2. Companies are invited and scheduled on the basis of following parameters:
    a. Eligibility criteria, opportunities for all.
    b. Job profile and growth prospects.
    c. The package being offered by the company.
    d. Past record of recruitment at AISSMS COE.
    e. Feedback from the students regarding the company.
3. If a company prefers to have a common selection process for our institute students along with nearby Engineering institutes, the selection drive is conducted either by our institute or by the other institute after discussion with participating institutes.
4. If the market situation and job scenario necessitate a revision in the Placement Policy, it will be done in a manner so as to maximize the benefit to the student community as a whole.

A. ELIGIBILITY & REGISTRATION

1. UG, PG & PhD scholars' placement will happen round the year.
2. All students who expect to graduate from the Institute by the end of the academic year and are seeking employment, may register for campus placements.

3. Registration for all programmes will be done before the start of academic year.
4. Campus placement is a facility provided for the students. Registration is not compulsory. Students not interested in placement are advised not to register for placement.
5. Each registered student will be given access to the placement notices, company announcements and to upload resumes.

B. RESUME

1. Students are advised to read the announcements made, go through the company website and apply only if interested.
2. Students are expected to follow the institute resume template available in the placement website for preparing the resumes.
3. The details given in the resume have to be genuine and any student found violating this rule will be disallowed from the placement for the rest of the academic year.
4. Students have to upload and submit their resumes on the website to individual companies well before the deadline. Resume once submitted cannot be modified.
5. Students are advised to avoid last minute uploading, as it may lead to delays and some may even be left out.

C. PRE-PLACEMENT TALKS (PPT)

1. Notices of the PPT will be published in the placement website well in advance. Students should be available 15 minutes before the scheduled start of the PPT.
2. Students interested in a particular company, can attend its PPT.
3. Students must go through the complete selection process of a particular company.
4. Any clarification regarding salary break-up, job profile, place of work, bond details, etc. must be sought from the companies during PPT or interview.
5. **DRESS CODE:** Students must be formally dressed whenever they participate in any interaction with a company. CITP reserves the right to refuse permission to a student to attend the selection process/PPT, if they do not dress up formally.

D. PLACEMENT PROCESS

1. It is the responsibility of the student to check announcements / notices / updated information / shortlisted names, etc. on the Placement Website. Students are expected to be punctual.
2. **ATTENDANCE & PUNCTUALITY**:
    a. A student who applies and gets shortlisted is bound to go through the entire selection process unless rejected midway by the company. Any student who withdraws deliberately in the middle of a selection process will be disallowed from placement for the rest of the academic year.
    b. LATECOMERS FOR APTITUDE TEST / GD / INTERVIEW will not be allowed to appear for the selection process.
3. **DISCIPLINE:**
    a. Students should maintain discipline and show ethical behaviour in every action they take during the placement process. Any student found violating the discipline rules set by the company or defaming the Institute's name will be disallowed from the placements.
    b. Students found cheating or misbehaving in the selection process (Test / GD / Interview) will be disallowed from the placements for the rest of the academic year.
    c. Dress code should be maintained.

E. JOB OFFERS

1. **PRE-PLACEMENT OFFERS**: The following rules are applicable to companies that make PPO through the CITP Office.
    a. The offer of PPO (by the company) and its acceptance (by the student) shall be through CITP office only.
    b. Once a student accepts a PPO, he / she shall be de-registered from placement process.
2. **MULTIPLE OFFERS**: Each student is eligible for one CORE and one NON-CORE job offer only.
    a. If a student receives more than one offer in a session/day and if there is a delay in the announcement of results by some companies, the student is bound to accept/reject the job offers of the company whose results are declared in time.
    b. If the results are declared on the same session / day, the student may choose from the offers in hand and inform the CITP office of his/her choice, within 24 hrs of announcement of results.
3. Every student who is selected by a company is out of placement thereafter i.e. deregistered from the placement website.
4. RELEASE OF OFFER: All companies are requested to release the Offer and hand over to CITP office after the completion of the recruitment session.
5. Offer Acceptance: The students should inform the acceptance/rejection of offer within 24 hours (on the day following the release of offer letter/mail). The company shall be intimated of the offer acceptance/rejection within three days of release of offer.
6. WAITLIST: In case of those students who are placed and waitlisted by other companies, they will be given 2 days to accept the offer on hand.

   The Placement Office in the meantime will inform the company where he/she is waitlisted about his present offer.

   The company that has waitlisted the students is required to release the offer within 24 hours, failing which the name of the student will be removed from the waitlist.

7. OFFER OF JOB: Announcement on the website will be considered as firm offer. Offers received from companies must be collected as per timings in circular / notice. The responsibility of going through the offer letter and taking actions therein such as submission of documents lies entirely with the student. All offers (made by the companies) shall be through this office only. This office will not be in a position to resolve problems, if any, that may arise with respect to offers made directly to the student by the company.
8. Second option is given to selected student if forthcoming offer is doubled the existing package or more than 8 LPA.

F. MISCELLANEOUS

1. MEDICAL TEST: The CITP office assumes that every selected student will pass the medical test. If there is a rejection at this stage, the student registration will be renewed and the student becomes eligible again to seek placement through this office. Students should go through and understand instructions related to medical test carefully. The same should also be adequately clarified during PPT/interview.
2. IDENTITY CARDS: Students must bring their identity cards with them whenever they go through a placement process.
3. For all matters not covered by the above regulations, the CITP Office will use its discretion to take appropriate decisions. The decision taken by this office shall be binding on all students/scholars.

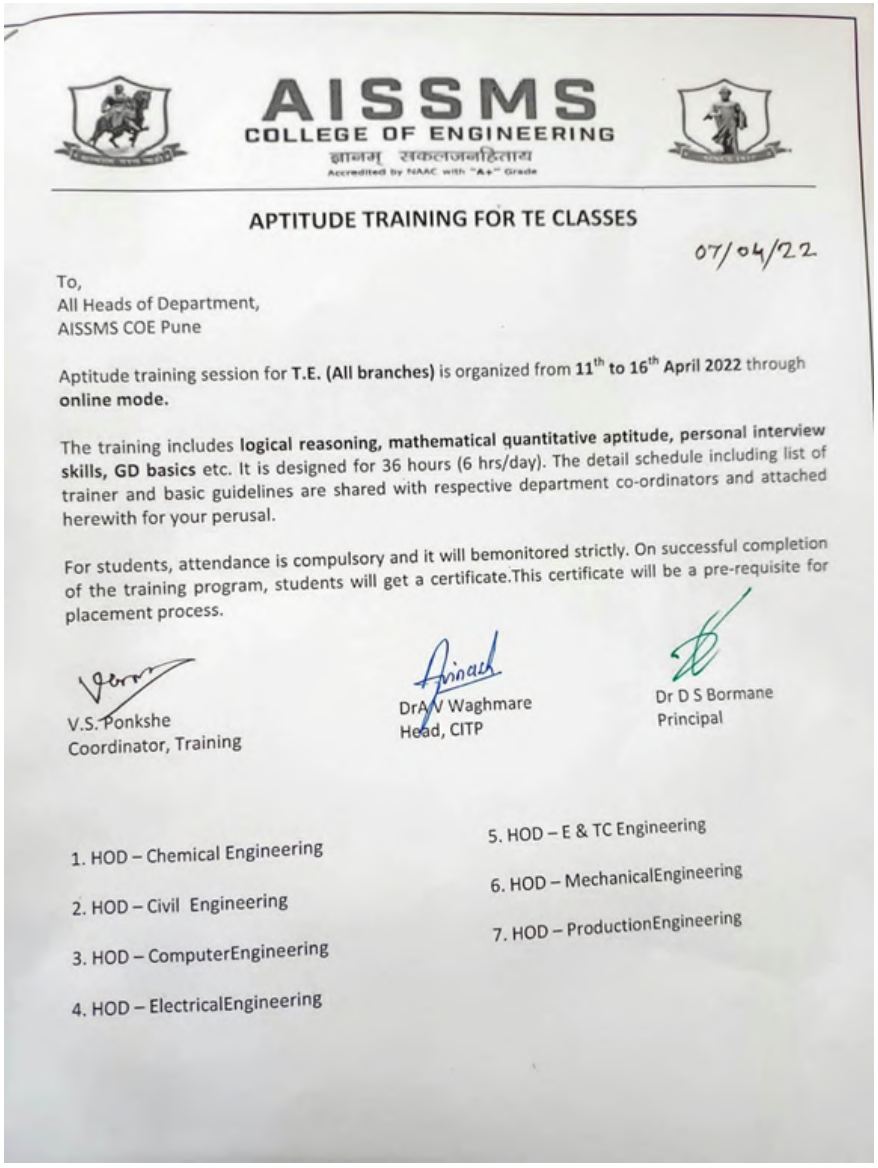
Table 9.5.1 Summary of Placements

Program		2019-20			2020-21			2021-22		
	Intake	Students	Placed	Offers	Students	Placed	Offers	Students	Placed	Offers
Chemical Engineering	**60**	75	23	27	75	12	14	67	5	5
Civil Engineering	**120**	130	0	0	140	3	4	153	0	0
Computer Engineering	**120**	133	75	114	150	119	193	141	84	185
Electrical Engineering	**60**	66	19	19	78	27	40	77	31	37
Electronics and Telecommunication Engineering	**60**	51	9	9	64	45	80	62	31	53
Mechanical Engineering	**120**	149	45	57	139	34	45	151	53	70
Mechanical Engineering [Sandwich]	**60**	58	14	16	71	32	37	78	8	8
Production Engineering [Sandwich]	**60**	65	19	19	71	16	19	73	4	4

Innovative TRIZ-based training enables students to improve their performance in terms of understanding the technical concepts (basic as well as advanced) in a deeper and appropriate way. at a higher cognitive level. This prepares them to perform more effectively in interviews (HR and Technical rounds).

Role of Department in Career Guidance to Students

Apart from the efforts taken by CITP, the department also works on its level to provide career guidance to students. Classes for GATE are organized by the department from mid-December to January. This is a sample of time table of GATE classes conducted during the academic year 2021-22 for TE and BE students. Revision of important concepts had been carried out subject-wise. Problems that appeared in previous years' question papers were also discussed and solved.



AISSMS
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APTITUDE TRAINING FOR TE CLASSES

07/04/22

To,
All Heads of Department,
AISSMS COE Pune

Aptitude training session for **T.E. (All branches)** is organized from **11th to 16th April 2022** through **online mode.**

The training includes **logical reasoning, mathematical quantitative aptitude, personal interview skills, GD basics** etc. It is designed for 36 hours (6 hrs/day). The detail schedule including list of trainer and basic guidelines are shared with respective department co-ordinators and attached herewith for your perusal.

For students, attendance is compulsory and it will bemonitored strictly. On successful completion of the training program, students will get a certificate.This certificate will be a pre-requisite for placement process.

V.S. Ponkshe
Coordinator, Training

Dr A V Waghmare
Head, CITP

Dr D S Bormane
Principal

1. HOD – Chemical Engineering
2. HOD – Civil Engineering
3. HOD – ComputerEngineering
4. HOD – ElectricalEngineering
5. HOD – E & TC Engineering
6. HOD – MechanicalEngineering
7. HOD – ProductionEngineering

Fig. 9.5.1 Notice for aptitude training classes

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Soft Skill Training Sessions - Online
A.Y. 2021-22 (Term - II)

Class: T.E. **From - 11/04/22 to 16/04/22**

	Department	Division	Faculty Co-ordinator (with mobile no)	Name of GFM (with mobile no)	Name of Trainer	Contact No	Email
1	Chemical		Prof P.M. Warke (9823103089)		Pranav Thorat	7977889404	pr.thorat91@gmail.com
2	Civil	A	Prof V.S. Chavan (9767193755)	S A Chavhan (9960430643)	Pratiksha Tilekar	9604433127	pratikshatilekar85@gmail.com
3		B		Dr D V Wadkar(9730020695)	Chetan Manurkar	7773984154	chetanmanurkar92@gmail.com
4	Computer	A	Prof Monali Deshmukh (7030990816)	Mr. A. P. Kadam (94210 89450)	Shruti Purandare	9422616758	shrutip41@gmail.com
5		B		Mrs. Shikha Phachouly (77688 64108)	Jay Prakash	9542956419	vakatijayaprakash@gmail.com
6	Electrical		Prof V.S. Ponkshe (9284519408)	Prof V.S. Ponkshe (9284519408)	Musharraf	8793327574	mushimh@gmail.com
7	E & TC		Prof S. B. Dhekle (9049996452)		Mangesh Rethrekar	9112880561	mangeshretharekar@gmail.com
8	Mechanical	A	Prof Ansari (8983153332)	DSM (9921618501)	Mohit Mundra	9571091011	mail4mohitmundra@gmail.com
9		B		RAM (9822190513)	Anwar Rashid	7385180479	anwar.rashid0102@gmail.com
10	Mech S/W		Prof M.P. Bauskar (9730923304)	completed			
11	Production		Prof S.S. Kallurkar (8007959797)	Prof S.S. Kallurkar (8007959797)	Sandip Bhoyar	9923106220	sandip_bhoyar@yahoo.co.in

Fig. 9.5.2 Soft skills training schedule

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DATE: 8th Nov 2020

[DEPARTMENT OF MECHANICAL ENGINEERING]

NOTICE: FOR GATE 2021 ASPIRANTS

T.E & B.E (MECHANICAL) & (MECHANICAL SANDWICH) STUDENTS FOR ACADEMIC YEAR 2020-21

Qualifying in GATE is a mandatory requirement for seeking admission and financial assistance to Postgraduate Programs (Master's and Doctoral) with the Ministry of Education (MoE) and other Government Scholarships Assistantships, subjected to the admission criteria of the admitting institute. The valid GATE score is also used by Public Sector Undertakings (PSUs) for their recruitment and by several other universities in India and abroad for the admissions.

In view of above subject Department of Mechanical engineering is organizing GATE 2021 exam preparation course. Interested Third year & Final year (Mechanical) & (Mechanical Sandwich) students are hereby informed to participate in GATE 2021 sessions which will be held from month of December-January by the subject expertise. Each session will be of minimum 2 hours in the concerned domain. The course will have pure emphasis on success enrichment in GATE 2021 exam over the said period.

Kindly furnish your information with the following G-form attached.

Link for enrollment: (Paste the link in browser)

https://forms.gle/yGVGzvHrBaLRVjJp6

Best of luck!

GATE 2021 Coordinator

N. N. Gotkhindikar

HOD Mechanical

Dr. B.D.Bachchhav

Fig. 9.5.3 Notice for GATE aspirants' classes

Syllabus & Teaching Plan:

Sr. No	Subject	Faculty Name	Date	Remark
1	General Aptitude(Numerical Ability)			Self-study
2	Manufacturing engineering			
	I] Engineering Materials	NNG & MSS	21.12.2020 & 22.12.2020	
	II] Casting, Forming & joining processes	BDB	23.12.2020	
	III] M/C ing & M/C tool operations	SSP & DSM	24.12.2020 & 26.12.2020	
	IV]Metrology & Inspection	MPB	27.12.2020	
	V] CIM	MPS	28.12.2020	
3	Applied Mechanics & Design			
	I] Mechanics of materials (SOM)	PSG	29.12.2020	
	II] Theory of machines	ATT & SRP	30.12.2020 & 02.01.2021	
	III] Engineering Mechanics	MMS	03.01.2021	
	IV] Machine Design	RAM & DYD	04.01.2021 & 05.01.2021	
	V] Vibration	CSD	06.01.2021	
4	Engineering Mathematics	MKN	07.01.2021 & 16.01.2021, 17.01.2021	
5	Fluid Mechanics & Thermal Sciences			
	I] Fluid Mechanics	MUG	08.01.2021	
	II] Heat Transfer	MRD & SJN	09.01.2021 & 10.01.2020	
	III] Thermodynamics	GPL	11.01.2021	
	IV] RAC	CSC & MSD	12.01.2021 & 13.01.2021	
6	Industrial Engineering			
	I] Production Planning & control	SVC	14.01.2021	
	II] Operational Research	MRP	15.01.2021	

Fig. 9.5.4 GATE aspirants' teaching plan

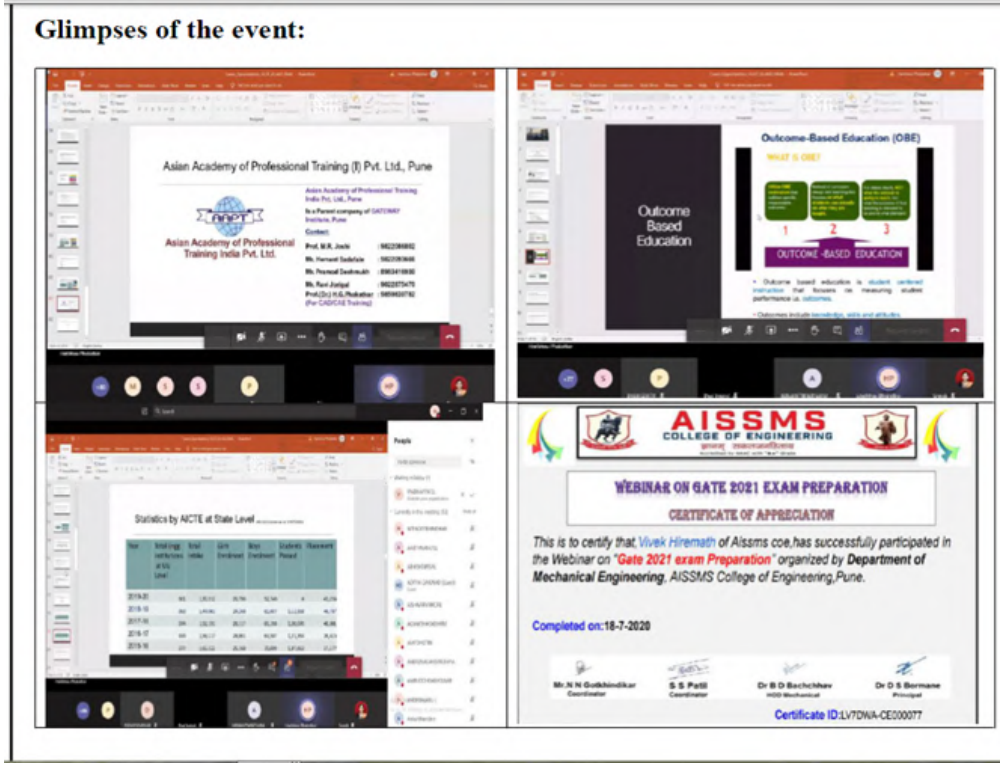


Fig. 9.5.5 Glimpses of GATE awareness sessions

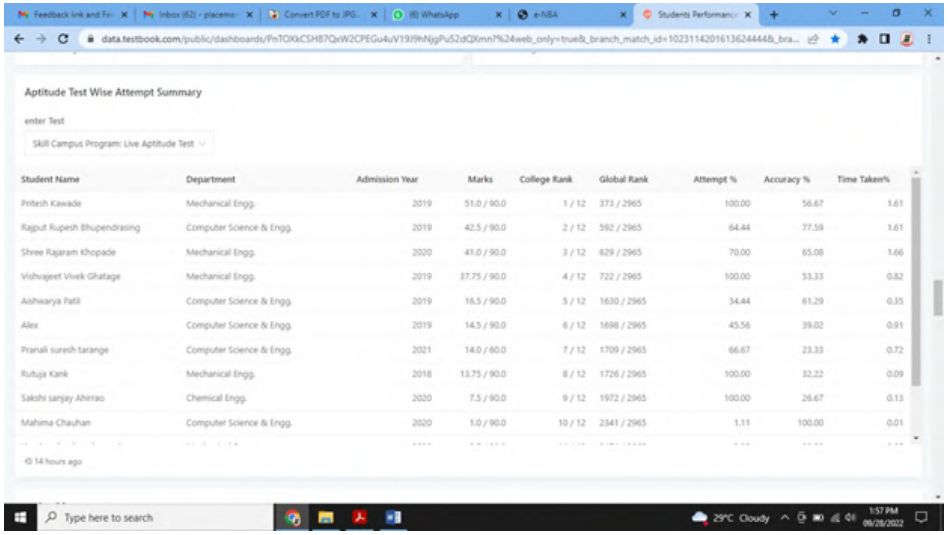


Fig. 9.5.6 Aptitude testwise summary by Skill Campus Program

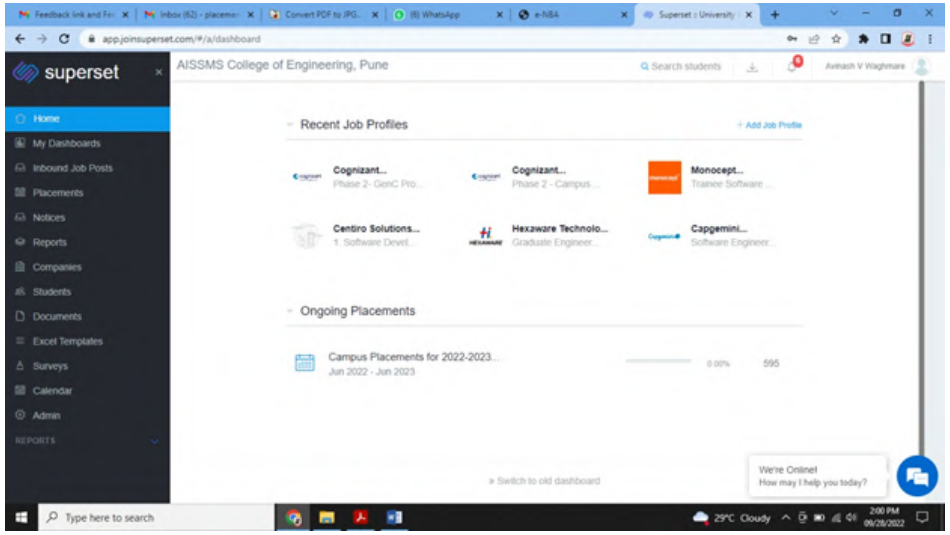


Fig. 9.5.7 Dashboard of superset

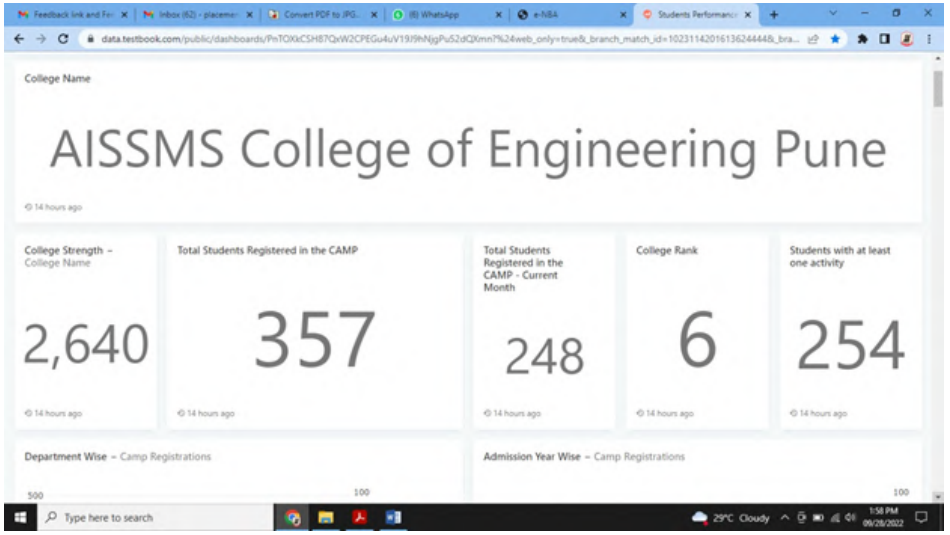


Fig. 9.5.8 Placement drive registration on testbook

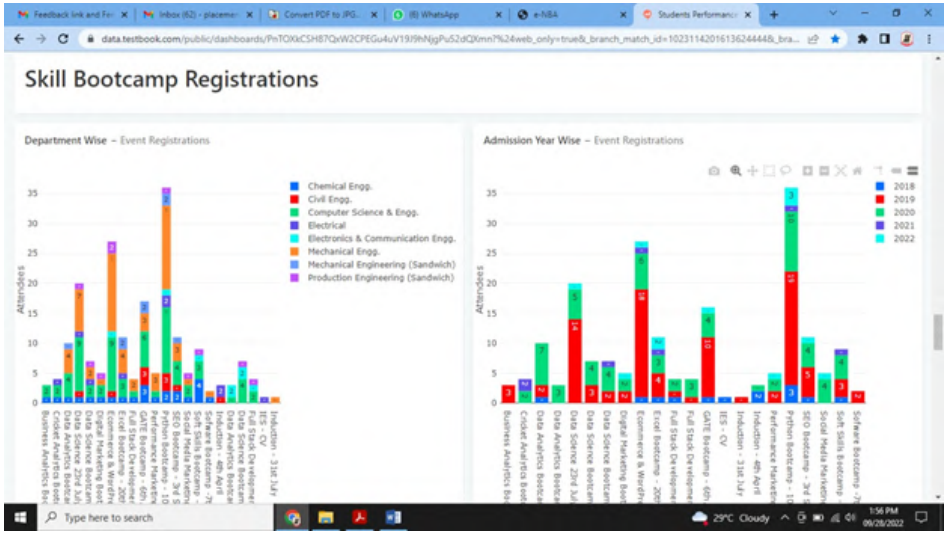


Fig. 9.5.9 Skill Bootcamp registrations by Skill Academy

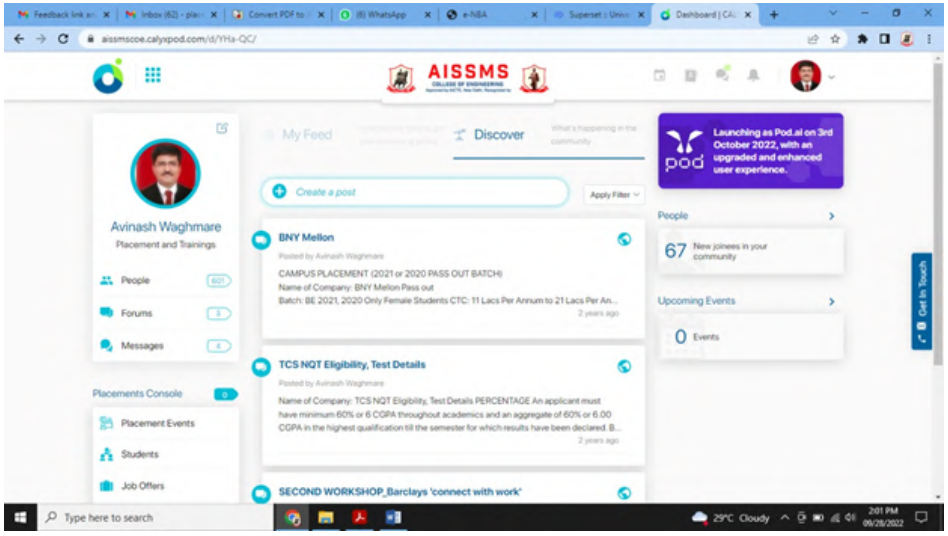


Fig. 9.5.10 Calyxpod facility used for placement and training activities

9.6 Entrepreneurship Cell (5)

Total Marks 5.00

Institute Marks : 5.00

The Entrepreneurship & Skill Development Cell at AISSMS College of Engineering has been formed to focus on preparing successful entrepreneurs especially techno-preneurs for the society. The objective is to inculcate Indian cultural values amongst prospective entrepreneurs. The activities are carried out to enhance the eternal spirit of entrepreneurship amongst the students in addition to the basic necessity of academics. The entrepreneurial activities aren't new for the Institute. Many Alumni have established their enterprises and have shown sustainability in business and entrepreneurship. The academic departments have carried out entrepreneurial activities for educating and motivating students in respective areas in techno-entrepreneurship. A dedicated cell was formed as a requirement to inculcate current trends in Entrepreneurship Development in the prospective techno-preneurs. The E&SD Cell has been continually taking efforts to motivate the students to start with entrepreneurial thinking. Cell has conducted

- An Entrepreneurship Awareness Camp sponsored by DST.

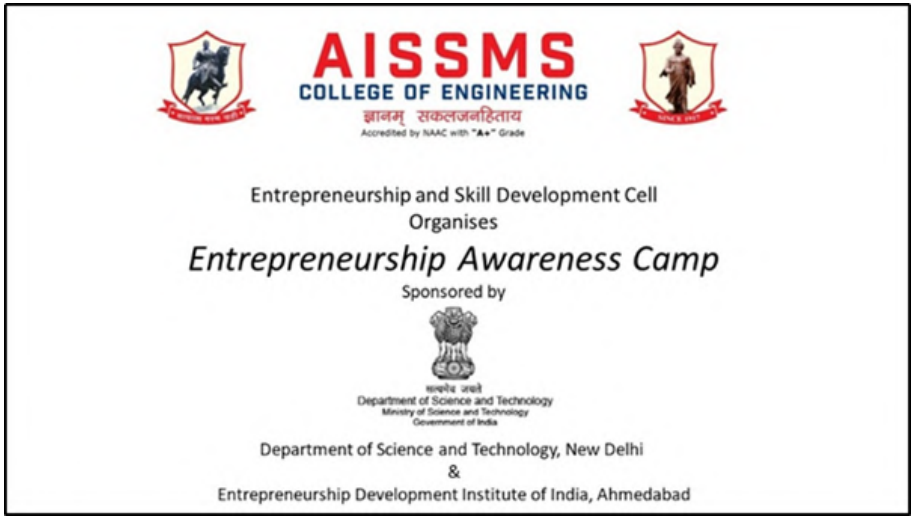


Fig. 9.6.1 Entrepreneurship Awareness Camp

- MoU with Bharatiya Yuva Shakti Trust

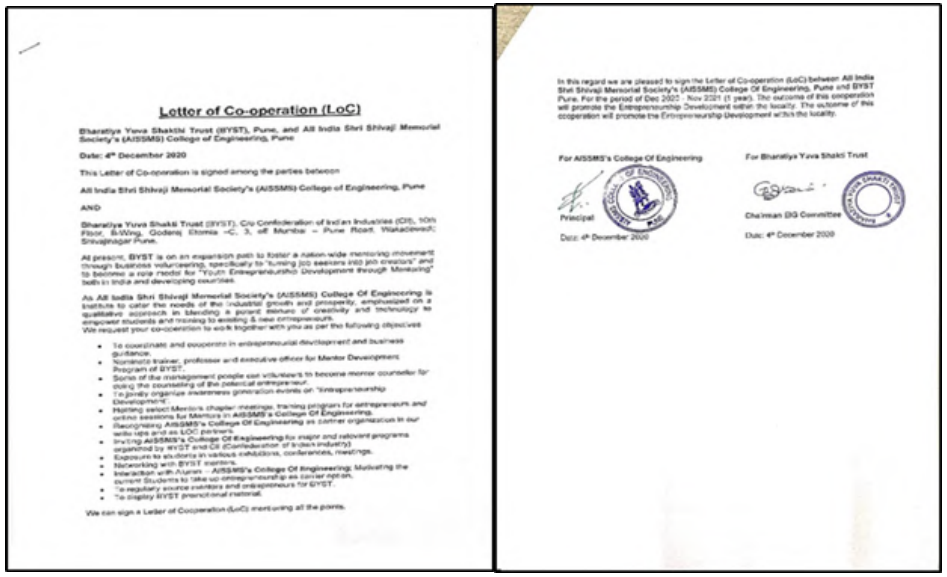
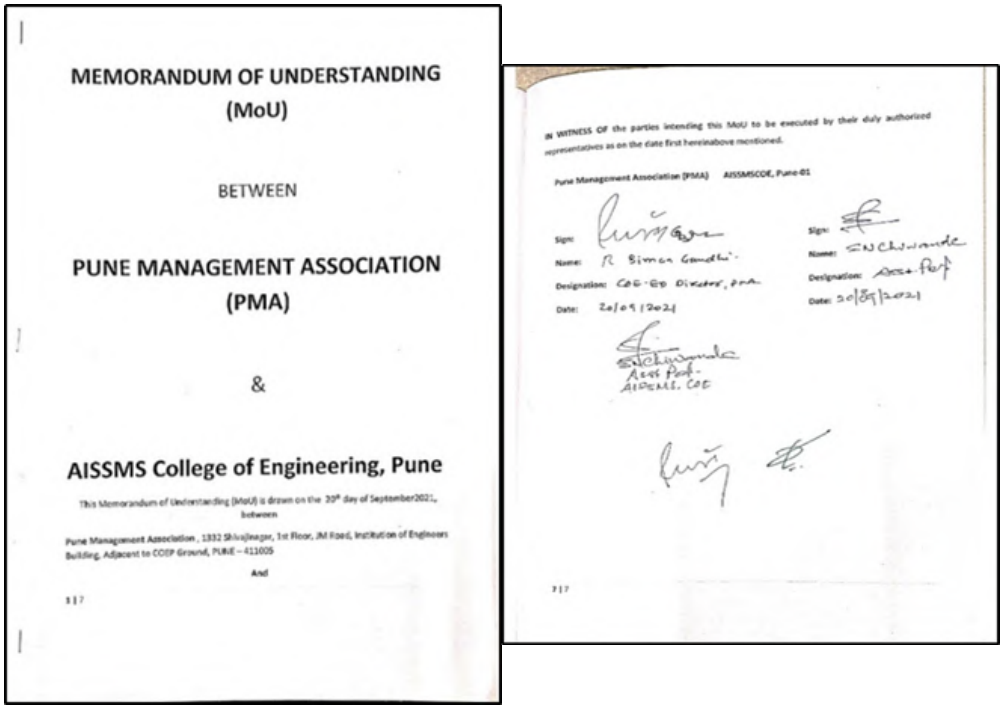


Fig. 9.6.2 MoU with Bharatiya Yuva Shakti Trust



MEMORANDUM OF UNDERSTANDING
(MoU)

BETWEEN

PUNE MANAGEMENT ASSOCIATION
(PMA)

&

AISSMS College of Engineering, Pune

This Memorandum of Understanding (MoU) is drawn on the 20th day of September2021, between

Pune Management Association , 1332 Shivajinagar, 1st Floor, JM Road, Institution of Engineers Building, Adjacent to COEP Ground, PUNE – 411005

And

1 | 7

IN WITNESS OF the parties intending this MoU to be executed by their duly authorized representatives as on the date first hereinabove mentioned.

Pune Management Association (PMA) AISSMSCOE, Pune-01

Sign:
Name: R. Simon Gandhi
Designation: COE-ED Director, PMA
Date: 20/09/2021

Sign:
Name: S N Chaware
Designation: Asst Prof
Date: 20/09/2021

S N Chaware
Asst Prof.
AISSMS. COE

7 | 7

Fig. 9.6.3 MoU with Pune Management Association

Activities organized by Cell

AISSMS
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Entrepreneurship and Skill Development Cell

Activities Carried Out With The Cell				
First Half (01 July 2020 to 31 December 2020)				
Sr. No.	Details of Activity conducted	Name of Chief guest/ Coordinator	Date and duration	Total Number of Students participated
1	Mystery behind successful entrepreneur	Mr Sachin Patil	24/10/2020	65
2	Webinar on Design Thinking for Entrepreneurs	Ms Garima Gurjar	26/10/2020	90
3	Webinar on "Presentation Skills"	Dr. Pragya Bajpai	03/11/2020	100
4	Interaction with Entrepreneur	Mr. Sharad Tandle	4/11/2020	0 20 (Faculty)
5	MoU with BYST	Mr Biman Gandhi	5/12/2020	0 08 (Faculty)
6	Webinar on "Communication Skills	Dr. Pragya Bajpai	05/11/2020	100
7	Webinar on "E-tendering"	Mr. Kiran Ghorpade	06/11/2020	150
8	Idea Generation and Evaluation	Mr. Biman Gandhi	31/12/2021	56

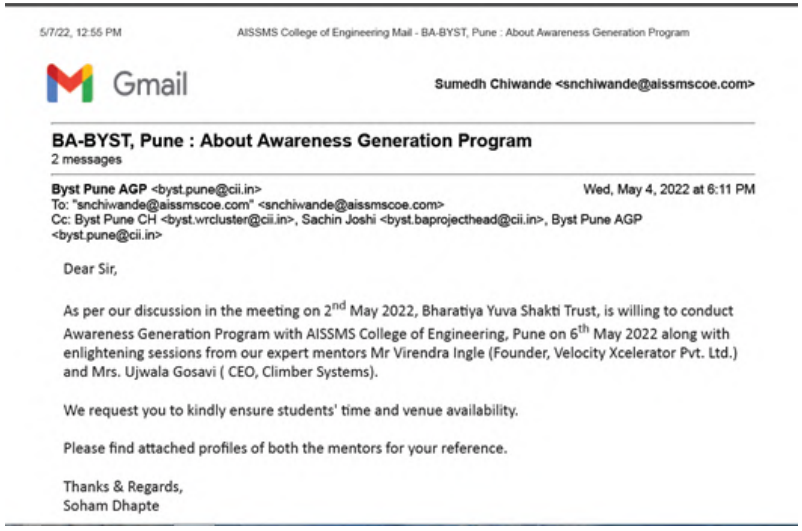
Fig. 9.6.4 (a) Activities organized by Entrepreneurship Cell

Second Half (01 January 2021 to 30 June 2021)				
Activities Carried Out With The Cell				
S N	**Details of Activity conducted**	**Name of Chief guest/ Coordinator**	**Date and duration**	**Total Number of Students participated**
1	Entrepreneur Online Learning (EOL) Program - BYST	BYST Mentors	27/01/2021 to 28/01/2021 Two Days	14
2	FE Induction – Introduction to Entrepreneur	Mr S N Chiwande & Mr M S Swami	04/02/2021 to 05/02/2021 Two Hours each	556
3	Awareness Generation Program BYST	Mrs Ujwala Gosavi	24/2/2021 2 Hour	50
4	Interaction with our own young startup Entrepreneurs	Mr. O Dahiwal Mr S Mangrulkar , Mr. Sumit Ghodke	25/02/2021 Half Day	83 and 07(Faculty)
5	Expert Talk	Mrs. Sujata Chandra	04/03/2021 Half Day	70 and 10 (Faculty)
6	Webinar on "Preparation for being industry ready"	Mr G Zadge & Mr C Bhutada	20/03/2021	80
7	Webinar on "Soft Skill: A must have asset for Engineers"	Dr. Utpal Ganatra	20/03/2021	120
8	Awareness Generation Programmes (AGP) and Counselling Session	BYST, Pune Mentors	26/03/2021& 27/03/2021 Two days	05
9	Webinar on Career Success Mantra	Mr Rajesh D Kamath	01/05/2021	100
10	One week STTP on "2D & 3D Modelling in STAAD Pro"	Mr R. Udhyasankar	10/05/2021 to 14/05/2021 05 days	300

S N Chiwande
ESD-Cell

Fig. 9.6.4 (b) Activities organized by Entrepreneurship Cell

Fig 9.6.5 Glimpses of events by Enrepreneurship cell



5/7/22, 12:55 PM AISSMS College of Engineering Mail - BA-BYST, Pune : About Awareness Generation Program

Gmail Sumedh Chiwande <snchiwande@aissmscoe.com>

BA-BYST, Pune : About Awareness Generation Program
2 messages

Byst Pune AGP <byst.pune@cii.in> Wed, May 4, 2022 at 6:11 PM
To: "snchiwande@aissmscoe.com" <snchiwande@aissmscoe.com>
Cc: Byst Pune CH <byst.wrcluster@cii.in>, Sachin Joshi <byst.baprojecthead@cii.in>, Byst Pune AGP <byst.pune@cii.in>

Dear Sir,

As per our discussion in the meeting on 2nd May 2022, Bharatiya Yuva Shakti Trust, is willing to conduct Awareness Generation Program with AISSMS College of Engineering, Pune on 6th May 2022 along with enlightening sessions from our expert mentors Mr Virendra Ingle (Founder, Velocity Xcelerator Pvt. Ltd.) and Mrs. Ujwala Gosavi (CEO, Climber Systems).

We request you to kindly ensure students' time and venue availability.

Please find attached profiles of both the mentors for your reference.

Thanks & Regards,
Soham Dhapte

Fig. 9.6.6 Notice of BYST awareness generation program

Fig. 9.6.7 Glimpses of BYST awareness generation program

Table 9.6.1: No. of student entrepreneurship in AY 2020-21

Sr. No.	Department	Number of Student Entrepreneurship
01	Omkar Lande	Pratima Developers
02	Chinmay Deshpande	Steradix Solutions

Table 9.6.2 No. of student entrepreneurship in AY 2019-20

Sr. No	Name of student	Details of entrepreneurship
01	Hrishikesh Bangar	Heilsa Technologies
02	Ajil Saji	Ajil Fibertech
03	Saurabh Bedre	Dynamic Hydrotek
04	Saurabh Kodlangare	S K Classes
05	Yadnesh Kulkarni	Speed Cut CNC solutions

Table 9.6.3 No. of student entrepreneurship in AY 2018-19

Sr. No	Name of student	Details of entrepreneurship
01	Dhumal Vishal	Vaishnavi Enterprises
02	Apte Pradyumna	Propriety trader

Success stories

Name of Company: Ajil Fibreteck

Founder / Founders Name: Mr. SAJI AJIL SAJI VARKEY

Sector - Service / Product: Industrial Machinery Manufacturing

Brief about company:

AJIL FIBRETECH is a foremost name betrothed in the business of Manufacturing, Service Providing and Supplying a broad range of Ambulance manufacturing as per AIS-125, FRP Cabins, FRP Toilet Cabin, MS Portable Cabins, Special purpose vehicle monocoque and chassis, customised caravans on monocoque and chassis, FRP Mudguard, FRP Bus Stop Shelters, FRP Swimming Pool, FRP Dustbin, FRP Chamber Cover, FRP Bench, FRP Biogas Tank, FRP Sheet, FRP Street Light, FRP Urinal, FRP Dome and Vehicle Fabrication Service. Using supreme quality raw material and contemporary tools and machinery in their manufacturing process, the entire assortment of products provided by us are well tested to uphold their sturdiness and perfection.

How AISSMS Helped him/her while academics:

Regular Teaching, Guardian Faculty Member, Batch Mentoring are pillars of students skills development. This gives students an opportunity to develop interest and build career orientation with regular learning. Our college decided to increase the number of Entrepreneurs from college days itself. So Students have the courage to take part in various activities like Engineering Today (Technical Events) Shivanjali (Social Gathering) Ashwamegh (Sports Competition). These events increase students communication and team building skills. Also AICTE events help students to showcase their talent at State and national events. Interaction with alumni, experts and entrepreneurs allows students to explore ideas with support. Following is the list of entrepreneurs reflecting the success stories.

Fig. 9.6.8 Details of a student entrepreneur

Name of Company: Heilsa Technologies

Founder / Founders Name: Mr. Hrishikesh Bangar

Sector - Service / Product: Hospitals and Health Care

Brief about the company: Heilsa Technologies Private Limited is a Private incorporated on 28 June 2020. It is classified as Non-govt company and is registered at Registrar of Companies, Pune. Its authorized share capital is Rs. 1,000,000 and its paid up capital is Rs. 100,000. It is involved in Manufacture of optical instruments and photographic equipment. Heilsa Technologies Private Limiteds Annual General Meeting (AGM) was last held on N/A and as per records from Ministry of Corporate Affairs (MCA), its balance sheet was last filed on N/A. Heilsa Technologies Private Limiteds Corporate Identification Number is (CIN) U33208PN2020PTC191557 and its registration number is 191557.Its Email address is akshay.jagtap21@gmail.com and its registered address is SECTOR NO.7, PLOT NO. 247 PCNTDA, BHOSARI PUNE Pune MH 411026 IN. Current status of Heilsa Technologies Private Limited is - Active.

Fig. 9.6.9 Details of a student entrepreneur

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

Institute Marks : 10.00

Institute supports students in co-curricular and extra-curricular activities. Institute runs various clubs such as drone club, robotics club, motorsports club, coding club, aero design club and so on. These students are supported financially and non-financially by the institute. Peer to peer learning, learning from alumni, result oriented activities, modern tool and software usages are the outcomes of these activities.

Students Symposium 'AISSMS Engineering Today': Every Year, the institute organizes technical competitions and symposia. These events provide students an opportunity to prepare technical papers, Quiz, Model Making, Robo-race, Science exhibition. Students also participate as volunteers in the organization of such events.

Cultural Activities: AISSMS COE conducts a state-level cultural and sports event "Ashwamedh", "Shahu Trophy" every year. The Students of various colleges throughout the state participate in the event. Annual social gathering "Shivanjali" is the most awaited event for students.

AISSMS COE students actively participate at various levels and win prizes continuously in cultural and literary events organized by other organisations. Events are Firodiya Karandak, Purushottam Karandak, Dnyanottam Karandak, Kaware Trophy etc.

A strong unit of **NSS (National Service Scheme)** organises various activities leading toward energy saving, environmental protection, rural development, sanitation, flood relief, conservation of natural resources, womens health, rural irrigation, youth development etc. The NSS team also works on state/central government schemes. Institution has also adopted a few villages where the NSS team is instrumental.

Table 9.7.1: Student participation in Co-curricular activities

Sr. No.	Name of the student	Name of the event	Date	Organised by	Award/Rank if any
AY 2021-22					
1	Ashish karande	Techo-Genesis 2022 (International Level Project Exhibition Cum Competition/Workshop on PCB Design/Mobile & Laptop Repair/Digicode")	18-23 April 2022	MIT ADT University	Participation
2	Sudip Dongare				
3	Saurabh jaurat				
4	Titiksha jagtap				
5	Team Garudashwa	International Aerodesign competition	04-11 April, 2022	SAE International	4th Rank in Technical Presentations Globally Advanced design: score 42.2180 Technical presentation: score 41.8833
6	Team Garudashwa	International Aerodesign competition	04-11 April, 2022	SAE International	stood first in Technical Presentation

7	Team Garudashwa	m-Baja Static event	04-11 April, 2022	SAE International	2nd runner up - Manufacturing Award
8	Team Resonance Racing	REEV Virtuals 2022	09-04-22	SAE India	1st runner up
9	Shubham landage	REEV Virtuals 2022	09-04-22	SAE India	Distinguished Student Presenter
10	Team Resonance Racing	REEV 2021-2	09-04-22	SAE India	Group 4 Winners
11	Ameya Gandhi	University Thesis Program	30-Nov-21	Konecranes	Selected for next phase
12	Abhishek Chavan				
13	Monali Patil				
14	Aashutoshsingh Pardeshi				
15	Ashish Karande				
16	Sudip Dongre				
AY 2020-21					
1	Vinaya Gholap	tcs sustainathon	Jan21	TCS	Consolation award
2	Pratik kenche				
3	Divya Dhamal				
4	Tejas Lot				
5	Team Krushak	TIFAN 2020	Jan-Feb 2021	SAE India	Selected in final round
6	Omkar Khot	BETIC eMedha Hackathon	8-16 May, 2021	BETIC	Winner of Impact to Reality award- Team 14
7	Omkar Khot	Toycathon 2021	Jan21	Ministry of Education, Gov of India	Selected in grand finale

8	Yash Anecha				
9	Sanket Nartwadekar				
10	Omkar Khot	Maharashtra Hackathon 2021	Apr 21	MIT USA hacking medicine 2021	Winner: Team NIDAAN
11	Atharva Joshi				
12	Team Resonance racing	Endurance	Apr 21	SAEINDIA 2021	All terrain performance award 3rd rank
13		BAJA SAEINDIA 2021			Overall award winner 4th rank
14	Sharayu Kulkarni	Vishwacon 2020	28-Nov-20	VIIT Pune	Participation
15	Dhananjay Kudche	Ace the Case	15-20 Aug 2020	IIM Calcutta	
16	Abhishek Chavan	Smart India Hackathon	'1-3 Aug 2020	Smart India Hackathon	
17	Lomesh Joshi	BAJA SAEINDIA 2021	25-Apr-21	Chitkara Univarcity	
18	Aditya jagtap	BAJA SAEINDIA 2021	25-Apr-21	Chitkara Univarcity	
19	Rohit Garud	Smart India Hackathon	1-3 Aug 2021	Smart India Hackathon	Participation
20	Chinmay Hoonur		1-3 Aug 2021	Smart India Hackathon	
21	Prathamesh Choudhary	Effi-cycle (Virtual event)	Oct 2020	Lovely Professional University, Jalandhar	Prize: Best project plan Category: Advanced Electric

22	Maithili Balkawade(Vice Captain)				
23	Adarsh Vishwakarma				
24	Yash Patil				
25	Viraj Patil				
26	Rushikesh Kajale				
27	Bhaskar Soman				
28	Devashri Barhate				
29	Abhishek Chavan				
30	Mrunal Desale				
31	Sanjeevani Ambike				
AY 2019-20					
1	Rajkumar Iyer	Team Garudashwa	19-21 July, 2019	SRM University	SAE International West (Advance Class): • Presentation: 10th globally. • Overall Result: 9th globally. • Design Report: 12th globally. SAEISS Southern Section (Regular Class): • Overall Result: 2nd nationally. • Design Report: 3rd nationally. • Presentation: 4th nationally
2	Aditya Desai				
3	Yash kunjir				
4	Chirag gore				
5	Aayush Rawat				
6	Aarthna Patel				
7	Anand Chavan				

8	Kiran Bharmal				
9	Dhanashree Shinde				
10	Swapnil Tole				
11	Mrunal Kashilkar				
12	Srushti Dalvi				
13	Aniruddha Joshi				
14	Akshata Rohokale	Mindspark 2019	27-29 Sept, 2019	COE, Pune	Participation
15	Kishor Hendre	ASM International Awards 2019	19-10-2019	ASM international	3rd prize winner of ASM India 2019 - Master award
16	Kaustubh Sahasrabudhe Amar Mane Mukul Wadhokar Mahesh Wagaskar Sahil Shah Rohit Gawade Sammed Ketkale Ajay Sawant Ranjeet Machale	Indian Karting Championship-3	Feb-19	Go Cart	● Overall 2nd (kart no 4) ● Overall 5th (kart no 5) ● First Runner-up in Endurance Race

17					
18					
19	Ronit Magar	Zeal Drag 3.0	Mar-19		● Best Design Report and Presentation
20	Yukta Bharambe				
21	Bavrica Kaur Sudan				
22	Geeta Chapparwal				
23	Atharva Bharne				
24	Abhishek Chavan				
25	Anushka Kulkarni	Krushak	21-09-19	SAEINDIA	Participation
26	Arihant Wardhamane				
27	Asmita Ingale				
28	Bajirao Pandare				
29	Rutuja Tadge				
30	Digambar Vashikar				
31	Mandar Shevalkar				
32	Omkar Ulhare				
33	Prashant Patil				

34	Rohit Garud				
35	Rupashree Gajbe				
36	Sourabh More				
37	Tejas Shastrakar				
38	Yash Kunjir	Aerodesign	19-21 July 2019	Ø SAE International West (Advance Class)	• Presentation: 10th globally • Overall Result: 9th globally • Design Report: 12th globally
39	Chirag Gore			Ø SAEISS Southern Section (Regular Class)	• Overall Result: 2nd nationally. • Design Report: 3rd nationally. • Presentation: 4th nationally.
40	Aditya Chaugule	BAJA SAEINDIA	22-26 Jan 2020	SAE India	Suspension-Traction 11th, Maneuverability 10th, Cost Evaluation 9th, Overall 47th
41	Kedar Ashtikar				
42	Kunal Gaikwad				
43	Ritwik Asolkar				
44	Aditya Joshi				
45	Atharv Kulkarni				
46	Aditya Jagtap				
47	Lomesh Joshi				
48	Ashish Patil				
49	Tejas Tale				

50	Ranjeet Machale				
51	Gaurav Kad	BAJA SAE India	22-26 Jan 2020	SAE India	Suspension-Traction 11th, Maneuverability 10th, Cost Evaluation 9th, Overall 47th
52	Pravin Kadam				
53	Parth Umbarkar				
54	Yash Kakade				
55	Rajat Dubey				
56	Ruturaj Patil				
57	Samarth Ghodake				
58	Abhishek Chavan	Effi-cycle 2019	1-5 Oct, 2019	SAEINDIA	Participation
59	Saurabh Supe	MYCOLORS all India Drawing and Painting Competition	01-May-20	MYCOLOrs	
60	Chirag Gore	Quizanthon		STES SKN College of Engg	Excellent performance
61	Dhananjay Kudche	Hopes 2K20	11-May-20	Annasaheb Dange College of Engineering	Prize in Group Discussion competition
62	Himanshu Jaiswal	Eduindex	01-Jan-20	Eduindex journal	Publication

Cultural Activities: AISSMS COE conducts a state-level cultural and sports event “Ashwamedh”, “Shahu Trophy” every year. The Students of various colleges throughout the state participate in the event. Annual social gathering "Shivanjali" is the most awaited event for students.

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A strong unit of **National Service Scheme (NSS)** organises various activities leading toward energy saving, environmental protection, rural development, sanitation, flood relief, conservation of natural resources, womens health, rural irrigation, youth development etc. The NSS team also works on state/central government schemes. Institution has also adopted a few villages where the NSS team is instrumental.

Table 9.7.2: No. of Students participated in cultural activities

	No. of Students participated		
	2019-20	**2020-21**	**2021-22**

NSS-National Service Scheme	12	-	
Engineering Today (Annual Technical Symposium)	47	-	
Shivanjali (Annual Cultural Event)	-	-	

Table 9.7.3: Activities conducted under NSS AY 2020-21

Sr. No.	Activity	Chief Guest
01	Global Level Poster Making Competition	Dr. Savita Kulkarni
02	World Environment Day(Webinar)	Dr. Shivaji Pancharne
03	Tree Plantation	Hon.Chandrakant Jiwade
04	QUIZ- Ek Bharat Shreshta Bharat	Dr. Arun Bhamre
05	Spitting Kills Campaign	Hon. Shivaji Pacharne
06	Kargil Vijay Divas (Webinar)	Maj.Gen. Shashikant Pitre
07	Raksha Bandhan	Hon. Bhaskar Kumbharde
08	Swayamsiddha Hackathon 2020	Dr. Virendra Kumar Vijay
09	Independence Day	Hon. Gopal Malvi
10	National Education Policy 2020 (Webinar)	Hon. Prabhakar Desai
11	Mahatma Gandhi Jayanti	Dr. Kumar Saptarshi
12	World Food Day(Webinar)	Hon. Vineet Jadhav
13	QUIZ- World Food Day	Hon. Santosh Chavan
14	Food Distribution Drive	Hon. Sheshraj Patil
15	Be Your Own Lakshmi (Webinar)	Hon. Shikha Mittal.
16	Be Vocal Buy Local	Hon. Jayashri Kumbharde
17	QUIZ -Constitution Day	Hon. Sujata Bhamre
18	World AIDS Day (Awareness Drive)	Hon. Vrushali Gadhave
19	We the Change- Aamhi Bharatache Lok (Webinar)	Dr. Sunjay Awte
20	QUIZ- Armed Force Flag Day	Hon. Uma Patil
21	Human Rights Day	Hon. Dilip Ghorpade
22	Tree Plantation (Kalyan)	Sarpanch- Shri Rajesh Dimble
23	Cleanliness Drive (Kalyan)	Sarpanch- Shri Rajesh Dimble
24	Survey regarding Science and Technology Lab (Kalyan)	Sarpanch- Shri Rajesh Dimble
25	Site Visit for Water Reservoir (Kalyan)	Sarpanch- Shri Rajesh Dimble

26	Awareness- Tobbaco Deaddiction	Sarpanch- Shri Rajesh Dimble
27	Pledge- Majhi Vasundhara	Sarpanch- Shri Rajesh Dimble
28	Health Check-up Camp- Kalyan	Sarpanch- Shri Rajesh Dimble
29	Women Literacy- Kalyan	Sarpanch- Shri Rajesh Dimble
30	Mask Distribution- Kalyan	Sarpanch- Shri Rajesh Dimble
31	Resperiometer Distribution- Kalyan	Sarpanch- Shri Rajesh Dimble
32	Tree Plantation- Kalyan	Sarpanch- Shri Rajesh Dimble
33	Cleanliness Drive- Kalyan	Sarpanch- Shri Rajesh Dimble
34	Corona Awareness- Kalyan	Sarpanch- Shri Rajesh Dimble
35	Survey of Water Reservoir- Kalyan	Sarpanch- Shri Rajesh Dimble
36	Survey for Town planning- Kalyan	Sarpanch- Shri Rajesh Dimble
37	Best out of Waste Competition- Paste reduction.	Hon. Manisha Patil
38	Debate - The changing mind-set if youth.	Hon. Mangala Malvi
39	Webinar- Role of youth in Adult Education.	Hon. Sunita Katam
40	Student Literacy- Kalyan	Sarpanch- Shri Rajesh Dimble
41	Tobacco Deaddiction Awareness- Kalyan	Sarpanch- Shri Rajesh Dimble
42	Road Safety Program	Hon. Dr. D. S. Bormane
43	Polio Vaccination Drive	Hon.Usha (Mai) Dhore, Mayor (PCMC)
45	SPPU Foundaation Day	Hon.Padmasghri Ravindra Kolhe
46	Student Activity	Hon. Sunil Dimble
47	Explanation of Science Experiments	Hon. Sunil Dimble
48	Health Check up Camp	Principal, Dr.D.S. Bormane
49	Aazadi ka amrut mahotsav	Hon. Chandrakant Patil, Hon. Mdan Mohan Goyal.
50	SPPU Blood Donation Camp	Hon. Nana Patekar
51	Symbol of Knowledge	Padmashree Dr. Milind Kamble
52	Tree Plantaion Drive	Hon. Swati Jiwade
53	Natural wellness & freedom from poison	Hon. Siddharth Apte
54	Tobbaco: A threat to progress	Hon. Sanjay Seth
55	Tobbaco Addiction: Poetry Compitition	Dr.D. S. Bormane
56	Shivswarajya Din	Hon. Dr. Ganesh Raut
57	Symbol of Knowledge - 02	Hon. Dr. Rajendra Singh

Table 9.7.4: Activities conducted under NSS AY 2019-20

Sr. No.	Activity	Chief Guest
1	Yoga Day	Smt. Kailash Patel
2*	Chh. Shahu Maharaj Jayanti	Chh. Malojiraje
3*	Tobacco Free Campaign	Dr. D. S. Bormane
4	Tree Plantation (Campus)	Dr. D. S. Bormane
5	Kargil Vijay Divas	Shri. Nandkumar Choure
6	Yuva Mhiti Dut	Dr. D. S. Bormane
7	Energy Saving prog	Madhu Babu
8	Kolhapur Flood (Collection Drive)	Dr. D. S. Bormane
9	Fit India	Dr. D. S. Bormane
10	Disaster Management	Shri V R Patil
11	Blood Donation Camp	Chh. Malojiraje
12	Science Exhibition Program	Dr. Wagmare GMRT
13	NSS Day Celebration	Dr. Shivaji Pacharne
14	Tobacco rally ,Shanivarwada	Dr N Shejwal
15*	Tobacco Rally(Kondhanpur)	Shri. P.B. Nangare sir
16*	Kondhanpur Oxygen Park	Shri H L Kamble
17	Kalyan Plastic Free Village	Dr N Shejwal
18*	Tobacco free Pledge(Kondhanpur)	Dr N Shejwal
19#	Kalyan Water Reservoir Survey	Shri. P. B. Nangre
20*	Tree Plantation (Kalyan)	Shri Mandhare
21*	Women Hygiene (Kondhanpur)	Mrs. H. L. Kamble
22	Energy Saver Award Program (Kondhanpur)	Shri. Mahesh Pawar
23	Energy Saver Award Program (SSPMS)	Sangeeta Jagtap
24	Energy Saver Award Program (R.M.School)	Dr. N. N. Shejwal
25#	Energy Saver Award Program (Sangavi, Hujurpaga)	Dr. N. N. Shejwal
27#	Dustbin Distribution Prog (Malvandi Dhore)	Mrs. Ranjana Dhore
28#	Gramsabha Malvandi Dhore	Mrs. Ranjana Dhore
29#	Best College Award (SPPU)	Dr. Nitin Karmalkar
30#	Uttkal University (Orissa) Visit At Kasar Sai	Dr. Pareda
31#	Maharashtra- Orissa Cultural Program	Chh. Malojiraje
32#	Road Safety Program	PSI Deccan
33#	Tobacco free India	PSI Deccan
34	Marathi Bhasa Din	Mrs. Rucha Thhate

35	R.O Installation Survey	Mrs. Ranjana Dhore
36	Survey of Soak Pits	Mrs. Jalkute, Gramsevak
37	School Program	Mrs. Ranjana Dhore
38	Installation Of R.O. Plant	Mr. Balu Dhore
39	Poshan Pandharwada	Dr. N. N. Shejwal


AISSMS


IQAC OFFICE


ग्रामपंचायत कार्यालय


HELP DESK

Fig. 9.7.1 Glimpses of various activities conducted by NSS

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 :
Service to Society through quality education
Mission :
1) Generation of national wealth through education and research. 2) Imparting quality technical education at the cost affordable to all strata of the Society. 3) Enhancing the quality of life through sustainable development. 4) Carrying out high quality intellectual work. 5) Achieving the distinction of highest preferred Engineering College in the eyes of the stake holders.

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

Institute Marks : 10.00

10.1.2 Governing Body, Administrative Setup, Functions of Various Bodies, Service Rules, Procedures, Recruitment and Promotional Policies (

AISSMS College of Engineering has well established organizational structure to execute out smooth functioning of administrative and academic processes. Various bodies are formulated which constitutes the organization chart. The governing body is the highest decision making body constituting members of the management, Principal and nominated faculty members. College Development Committee (formerly Local Management committee) includes representatives of members of society, Principal, three members elected from teaching faculty and one member of non-teaching staff. The constituents of the organization structure are as follows: Every department has Department Advisory Board (formerly Department Advisory Committee) to direct policies to excel students in academics and in work environments. It comprises one member each from industry, research establishment, and academic institute of repute, alumni, student, and parents and from management. Principal, Heads of the Departments, sectional heads and co-coordinators of various committees have adequate participation in making decisions in academic and administrative processes under their preview.

Members of Governing body, College development committee, Internal quality assurance cell and institute level committees are shown in the tables below:

Governing Body

Table No. 10.1.1 Constitution of Governing Body

Governing Body of Institute	
Chairman	To be nominated by the society
Member	Two to five members (Industrialist / Technologist / Educationalist) to be nominated by the society
Member	Nominee of the affiliating university
Member	Nominee of AICTE (Ex – Officio)
Member	Nominee of State Government
Member	Industrialist / Technologist / Educationalist from the region to be nominated by State Government.
Member Secretary	Principal of the college.
Member	Two faculty members to be nominated from the regular staff, one at the level of professor and one at the level of Assistant Professor.

Table No. 10.1.2 List of Governing Body Members for the year 2020-21

Sl. No.	Name	Designation
1	Shri Suresh Pratap Shinde	Chairman (Society)
2	Shri Malojiraje Chhatrapati	Honorary Secretary (Society)
3	Shri Sunil Hambirrao Mohite	Member (Society)
4	Shri Rushiraj Balasaheb Tekawade	Member (Society)
5	Shri Rahul Nanasaheb Yadav	Member (Society)
6	Dr AmitDutta	Member (AICTE, Regional Officer) Ex-Officio
7	Dr (Smt) Sharmila Chaudhari	Member (Savitribai Phule Pune University Nominee)

8	Dr D R Nandanwar	Member (Govt. of Maharashtra) Industrialist/Technologist/ Educationalist
9	Shri P N Jumle	Member (Ex-Officio)
10	Dr (Mrs) Ashwini Avinash Godbole	Member (Teaching)
11	Shri Ganesh Chandrakant Chikute	Member (Teaching)
12	Dr Dattatraya Shankar Bormane	Member Secretary (Principal)

Table No. 10.1.3 Number of meetings of Governing Body

S.N.	Academic Year	Number of Meetings
01	2021-22	01
02	2020-21	01
03	2019-20	02

COLLEGE DEVELOPMENT COMMITTEE

Table No. 10.1.4 Constitution of College Development Committee

	College Development Committee of Institute
Chairmen	Chairperson of the management or his nominee ex-officio chairperson
Member	Secretary of the management or his nominee
Member	One head of department to be nominated by the principal
Member	Three teachers in the college elected by full time amongst themselves out of whom one shall be women
Member	One nonteaching employee, elected by regular nonteaching staff

Member	Four local members nominated by management in consultation with principal from the field of education industry, research and social service of whom at least one shall be alumnus
Member	Coordinator, IQAC of the college
Member	President and secretary of college student council
Member Secretary	Principal of the college

Table No. 10.1.5 List of College Development Committee members (2020-21)

Sr No.	Name	Designation
1	Shri Suresh Pratap Shinde	Chairman (Society)
2	Shri Malojiraje Chhatrapati	Honorary Secretary (Society)
3	Dr (Mrs) Ashwini Avinash Godbole	Member (Head of Department-Teaching)
4	Shri Diwakar Haribhau Joshi	Member (Teaching)
5	Shri Laxman Shivaji Godse	Member (Teaching)
6	Ms Vismita Devidas Nagrale	Member (Woman - Teaching)
7	Shri Santosh Prabhakar Pimpale	Member (Non Teaching)
8	Shri Rahul Nanasaheb Yadav	Member (Society)
9	Shri Nikhil Ashok Khanse	Member (Society)
10	Shri Rishiraj Balasaheb Tekawade	Member (Society)
11	Shri Sunil Hambirrao Mohite	Member (Society)
12	Dr Chandrakishor Shrirang Choudhari	Member (Co-ordinator IQAC : Teaching)
13	Ms Anjali Chaudhari	Member (General Secretary of the College Students Council)
14	Dr Dattatraya Shankar Bormane	Member Secretary (Principal)

Table No. 10.1.6 Number of meetings of Governing Body

S.N.	Academic Year	Number of Meetings
01	2019-20	02
02	2020-21	01
03	2021-22	01

Table No. 10.1.7 Members of Internal Quality Assurance Cell (2020-21)

Sr No	Category	Post	Name & Designation of Committee members
1	Chairperson	Head of the Institution	Dr Dattatraya Shankar Bormane, Principal
2	Coordinator	Assistant Professor in Mechanical Engineering	Dr Chandrakishor Shrirang Choudhari, Associate Professor in Mechanical Engineering
3	Administrative officers	Head of Department	Dr Sandeep Haribhau Wankhade, Associate Professor in Production Engineering
		Head of Department	Dr (Mrs) Ashwini Avinash Godbole, Professor in Electrical Engineering
		Co ordinator, NAAC Steering Committee	Dr Daulappa Guranna Bhalke, Professor in E&TC Engineering
		Administrative Officer	Mr Abhijit Bhawanrao Bhonsle, Administrative Officer
		Registrar	Mr Santosh Prabhakar Pimpale Registrar
4	Faculty	Civil Engineering	Dr (Mrs) Vidya Nitin Patil, Associate Professor in Civil Engineering
		Computer Engineering	Dr (Mrs) Shabnam Farook Sayyad, Assistant Professor in Computer Engineering
		Mechanical Engineering	Dr Avinash Vishvanath Waghmare, Associate Professor in Mechanical Engineering
		Chemistry	Dr Deepak Vitthal Nighot, Associate Professor in Chemistry

5	Management member	Joint Secretary, AISSMS	Mr Suresh Pratap Shinde Honorary Joint Secretary, AISSM Society, Pune - 5
6	Industry	Ex. MD, Kirloskar Oil Engines Limited, Pune	Mr R R Deshpande
7	Employer	HR Regional Head, TCS, Pune	Mr Shekhar Kamble
8	Parent	Manager, Quality Assurance, ITW (I), Pvt, Ltd, Pune	Mr Hemant Jadhav
9	Student	General Secretary, General Students Association	

Table No. 10.1.8 Number of meetings of IQAC

S.N.	Academic Year	Number of Meetings
01	2021-22	02
02	2020-21	02
03	2019-20	02

Service rules, Policies and procedures

Institute follows all the defined service rules and policies and code of conduct laid down by AICTE, UGC, Government of Maharashtra and SPPU, for recruitment and promotion of staff. Pay scale, annual increments and other benefits to staff are being given as per the AICTE and Government of Maharashtra norms.

A. For recruitment of faculty, Institute seeks permission from Savitribai Phule Pune University, Pune and reservation cell of Maharashtra State for the advertisement for recruitment of faculty. Interviews are conducted through staff selection committee appointed by University.
B. For the ad-hoc recruitment, Institute advertises the posts through newspapers and website. Local staff selection committee as per SPPU norms is appointed for selection of faculty through interview procedure.
C. Every employee of the institute is aware of the service, recruitment and promotion rules and code of conduct. These rules are available with registrar of the institute and also communicated to staff through HODs and published on staff notice boards.

Recruitment norms link:

https://aissmscoe.com/wpcontent/uploads/2022/05/Faculty-Recruitment-Norms-2022-23.pdf (https://aissmscoe.com/wpcontent/uploads/2022/05/Faculty-Recruitment-Norms-2022-23.pdf)

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

10.1.3 Decentralisation in Working And Grievance Redressal Mechanism

We at AISSMS COE believe in decentralization of activities and delegation of authorities is the key concept in the success achieved by the institute on different platforms. Basically, overall working methodology at institute level is student centric and involvement of each and everyone in the decision-making at their respective levels is ensured through decentralization and delegation of powers. There are various bodies, committees and key administrative positions at institute and department level. In order to ensure transparency in the working of all these committees, code of conduct and process manual is available with all key administrative officers and central library of the institute.

Various portfolio in charges have been delegated powers for taking administrative decisions.

Table No. 10.1.9 Faculties delegated with administrative powers

S.N.	Name of Faculty member	Decision Authority
01	Dr D S Bormane	Principal
02	Dr C S Choudhari	Coordinator, IQAC
03	Dr Naniwadekar	H.O.D. (Chemical Engineering)
04	Dr P B Nangare	H.O.D. (Civil Engineering)
05	Dr Athawale	H.O.D. (Computer Engineering)
06	Dr (Mrs) A A Godbole	H.O.D. (Electrical Engineering)
07	Dr D G Bhalke	H.O.D. (Electronics and Telecommunications)
08	Dr S V Chaitanya	H.O.D. (Mechanical Engineering)
09	Dr D V Nighot	H.O.D. (First year Engineering)
10	Dr Shekhapure	H.O.D. (Production Engineering)
11	Mr A B Bhonsale	Administrative officer

In addition to this, various Institute Level administrative committees have been formed for effective administration.

Details of coordinator and committee members are published on institute website. (https://aissmscoe.com/wp-content/uploads/2021/01/ILC-for-website-update.pdflink (https://aissmscoe.com/wp-content/uploads/2021/01/ILC-for-website-update.pdflink)). Also, functions and responsibilities of the committees are also available on the institute website.

https://aissmscoe.com/wp-content/uploads/2022/09/Objectives-and-functions-of-ILCs.pdf (https://aissmscoe.com/wp-content/uploads/2022/09/Objectives-and-functions-of-ILCs.pdf)

Coordinators of all the institute level committees are delegated with administrative powers for effective functioning of respective committee.

Table No. 10.1.10 Various Institute level administrative committees and coordinators

Academic Development Cell			
1	Academic Monitoring	Coordinator	Dr. S. R. Parekar
2	Faculty Development and Academic Collaborations	Coordinator	Dr. S. V. Chaitanya
3	Management Information System	Coordinator	Mr. V. B. Gawai

4	Library Development	Coordinator	Dr Mrs. V. B Dandawate
5	NBA/NAAC Preparations	Coordinator	Dr. M. R. Phate
6	Students Association	Coordinator	Dr S. J .Navale
7	Students Chapters(Professional Bodies)	Coordinator	Mr. N. P Mawale
Centre for Information, Training and Placements Head: Dr A V Waghmare			
8	Placements	Coordinator	Placement Officer
9	Training	Coordinator	Mr. V. S. Phonkshe
10	Counselling and mentoring	Coordinator	Mrs. S. R. Lengade
11	Industry Institute Interaction (III)	Coordinator	Dr. P. B. Nangare
12	Entrepreneurship and Skill Development	Coordinator	Mr. S. N. Chiwande
13	Alumni Engagement	Coordinator	Dr. D. V. Wadkar
14	Competitive Examinations	Coordinator	Mr. A. Y. Kazi
Infrastructure and Facility			
15	Infrastructure and Facility	Coordinator	Dr. S. R. Patil
Gymkhana			
16	Cultural In charge	Coordinator	Mrs. K. N. Kulkarni
17	Magazine In charge, Media	Coordinator	Mrs. S. J. Pachouly
18	Physical Director, Sports In charge, Media	Coordinator	Dr. M. M. Kondhare
19	National Service Scheme	Coordinator	Dr. N. N. Shejwal
20	Students Welfare and Development	Coordinator	Dr. A. B. Patil
Administration Cell			
21	Budget Preparations (Purchase and maintenance)	Coordinator	Dr D S Bormane Principal
22	Admissions	Coordinator	Mr V R Patil
23	Examinations	Coordinator	Dr. D. V. Nighot
Media Interface and Outreach Cell			

24	Website	Coordinator	Mr. N. R. Talhar
Research, Innovation and Development Cell			
25	Research, Innovation and Development Cell	Coordinator	Dr D G Bhalke
Grievance and Redressal Cell			
26	Internal Grievance Redressal	Coordinator	Dr. M. S. Deshpande
27	Women Grievance, Vishakha (Internal Complaint Committee)	Coordinator	Dr. P. S. Gajjal
28	Anti-Ragging	Coordinator	Mr V R Patil

Other than the above mentioned committees, at department level, committees are formed for the smooth and efficient management of activities at department level. The committees are constituted by the HOD in consultation with faculty.

For effective implementation of various initiatives and for effective decentralisation, committees such as department advisory board and program assessment and quality improvement committees are formed at department level.

Table No. 10.1.11 Department advisory board members

S.N.	Name of member	Representation	Designation and organisation
1	Dr. B D Bachchhav	Chairman Academics	HOD, AISSMS COE
2	Dr. Sujit Pardeshi	Member Academics	BOS SPPU Pune, COEP
3	Dr. Dineshsingh Thakur	Member Academics	Professor DIAT,PUNE
4	Mr. Chndrakant Jiwade	Member Parent	Industry Person, Toshiwa Pvt. Ltd.,Aurangabad
5	Dr. C S Choudhari	Member Academics	Mechanical Sandwich Coordinator, AISSMS COE
6	Dr. S V Chaitanya	Member	Module Co-ordinator
7	Mr. P V Deshmukh	Member	Module Co-ordinator
8	Dr. S J Navale	Member	Module Co-ordinator
9	Mr. Shubham Bandekar	Member	Student, AISSMS COE
10	Dr. P S Gajjal	Member	Departmental academic Co-ordinator, AISSMS COE

11	Dr A V Waghmare	Member	Placement Co-ordinator, AISSMS COE

Table No. 10.1.12 PAQIC members

S.N.	Name of Member	Representation	Designation
1	Dr. B D Bachchhav	HOD, Module Co-ordinator I	Chairman
2	Dr. P S Gajjal	Departmental academic Co-ordinator	Coordinator
3	Dr. D Y Dhande	Departmental exam Co-ordinator	Member
4	Dr. M R Dahake	Departmental Industry Institute Co-ordinator	Member
5	Dr. C S Choudhari	Module Co-ordinator II	Member
6	Dr. S V Chaitanya	Module Co-ordinator III	Member
7	Mr. P V Deshmukh	Module Co-ordinator IV	Member
8	Dr. S J Navale	Module Co-ordinator V	Member

Grievance redressal is systematically carried out by various team of faculty members acting as committees under the guidance of Principal of the institution. List of faculty members who are administrators'/ decision makers/committee members for various responsibilities are shown in the tables given below.

A Grievance Redressal Committee (GRC) at the College level is constituted for providing guidance and counselling on the problems related to faculty, staff and students.

The Committee redresses all kinds of grievances, academic or non - academic.

Table No. 10.1.13 Members of Grievance Redressal Committee (GRC)

S. N.	Faculty Name and Designation	Post
01	**Dr (Mrs) M S Deshpande, Professor in Chemistry**	**Coordinator**
02	Mr P B Nangare, Assistant Professor in Civil Engineering	Member
03	Ms M V Waghmare, Assistant Professor in Civil Engineering	Member
04	Mr S V Chaitanya, Assistant Professor in Mechanical Engineering	Member
05	Ms S S Chauhan, Finance Officer	Member
06	General Secretary (Student Member)	Member

Grievance Redressal committee shall meet within a week from the date of receipt of any petition/complaint from anybody and take necessary action as deem fit and initiate necessary action for solving problem.

Mechanism of Grievance Redressal committee

a. An aggrieved stakeholder who has the grievance or grievances shall make a written complaint first to the Head of the Department (HOD). The HOD after verifying the facts, will try to redress the grievance within a reasonable time. If the stakeholder is not satisfied with the solution of the HOD, then the written complaint should be forwarded to the Principal through HOD. The Principal then refers the complaint to the Internal Grievance Redressal Committee.
b. On receiving the complaint from the Principal, Internal Grievance Committee meeting is called by the Chairman. The complaint is studied by the Committee. The Committee at all levels observes the law of natural justice.
c. The Committee arranges meeting with the aggrieved party first, he/she expresses their views. Similarly meeting with all aggrieved members is scheduled. Thus all the concerned, are given opportunity, one by one to express their viewpoint. Each one is requested to give their say in writing. The committee gives a patient hearing to both sides and counselsthem. The committee also enlightens them based on their SWOC.
d. After verifying the facts based on factual data and after deliberations, the report of the committee's findings and remedial measures is prepared and submitted to Principal Sir.
e. Final decision is communicated to the both parties through the Principal.
f. The Committee, if needed, may recommend to the Principal, necessary corrective action as it may deem fit, to ensure avoidance of recurrence of similar grievance.

Note: The staff / student can lodge their grievance through online link available on Institute's website too (http://aissmscoe.com/academics/online-grievance-redressal/)

Anti-Ragging Committees:

With reference to AICTE (Prevention and Prohibition of ragging in Technical Education, Universities including Deemed to be Universities imparting technical education) Regulations 2009 and as per as per the clause No.6(a) of this AICTE Regulations - 2009, Anti-Ragging Committee is formed comprising of experts, faculty members, parents, students, etc to look into any kind of ragging matter reported to them from time to time. The Committee takes immediate action in the matter reported to them, following all the guidelines given in the referred AICTE Regulation - 2009. The Committee also take review of the activities of Anti-Ragging Squad and suggest measures to effectively monitor the anti-ragging activities.

Anti Ragging Committee for The academic year 2019-20

Table No. 10.1.12 Members of anti ragging committee

Sr No	Name	Designation	Post
1	Dr D S Bormane	Principal	Chairman
2	Shri Suresh P Shinde	Businessman	Civil administration
3	Shri M M Mujawar	P I	Ex Officer Member
4	Shri Harsh Dudhe	Reporter, Maharashtra Times News Papers Ltd,Pune	Media Member
5	Shri V R Patil	Assistant Professor in Mechanical Department	Member
6	Mrs S J Pachouly	Assistant Professor in Computer Engineering Department	Member
7	Mrs Seema Chaudhari	Parent Representative	Member
8	Anjali Chaudhari	Student : GS	Member

9	Shri A B Bhonsle	Administrative Officer	Member

ANTI RAGGING COMMITTEE (SQUAD)

With reference to AICTE (Prevention and Prohibition of ragging in Technical Education, Universities including Deemed to be Universities imparting technical education) Regulations 2009 and as per as per the clause No.6(a) of this AICTE Regulations - 2009, Anti-ragging Squad is formed to look in to the matters of ragging.

The squad will continuously maintain vigil in the College campus and monitor the activities of the students. If any activity of students is found suspicious then immediate action is to be taken. The squad will conduct patrolling of canteen area, parking area, the College building and Ladies hostel. The patrolling of outside area near to College will also be done.

The students can contact Committee members at any time regarding any kind of problem faced by them from any students in the Campus or outside the campus. Also, students can personally meet any of the above members in the College during working hours.

Table No. 10.1.14 Members of anti ragging squad

Sr. No.	Faculty Name and Designation	Post
01	**Mr V R Patil, Assistant Professor & Head, First Year Engineering**	**Coordinator**
02	Dr M K Nikam, Associate Professor in Engineering Mathematics	Member
03	Dr S K Upasani, Associate Professor in Chemistry	Member
04	Mr A J Kadam, Assistant Professor in Computer Engineering	Member
05	Mr A B Bhonsle, Administrative Officer	Member
06	Dr M M Kondhare, Physical Director	Member

Vishakha (Sexual Harassment Committee)

Table No. 10.1.15 Members of Vishakha

Sr. No.	Faculty Name and Designation	Post
01	**Dr (Mrs) P S Gajjal,** Associate Professor in Mechanical Engineering	**Coordinator**
02	Ms S J Pachouly, Assistant Professor in Computer Engineering	Member
03	Ms V S Dandawate, Librarian	Member
04	Mr S S Pimpale, Registrar	Member
05	Mr M D Bhalerao, Senior Clerk	Member
06	Mr D S Kulkarni, Technical Assistant	Member

The complaint received by Principal office from any ladies' staff members or student will be forwarded to the above committee. The said committee will look into the complaint and call the concerned complainant personally for hearing the grievance. The Chairman of the committee will forward their report in the sealed envelope to the Principal within one week from the date of receipt of complaint.

10.1.4 Delegation of financial powers (10)

Institute Marks : 10.00

10.1.4 Delegation of financial powers

Financial powers are delegated to the Principal of the institute and principal is the one of the signing authorities for financial transactions. Provision of petty cash of Rs. 20,000 is also made with the Principal and head of departments also can make expenses using petty cash with the approval of the principal.

Table No. 10.1.16 Utilisation of petty cash in Rs.

Petty cash utilisation					
2019-2020		**2020-2021**		**2021-2022**	
Sanctioned amount	Utilised amount	Sanctioned amount	Utilised amount	Sanctioned amount	Utilised amount
148757.00	148695.00	150543.00	146403.00	127503.00	127441.00

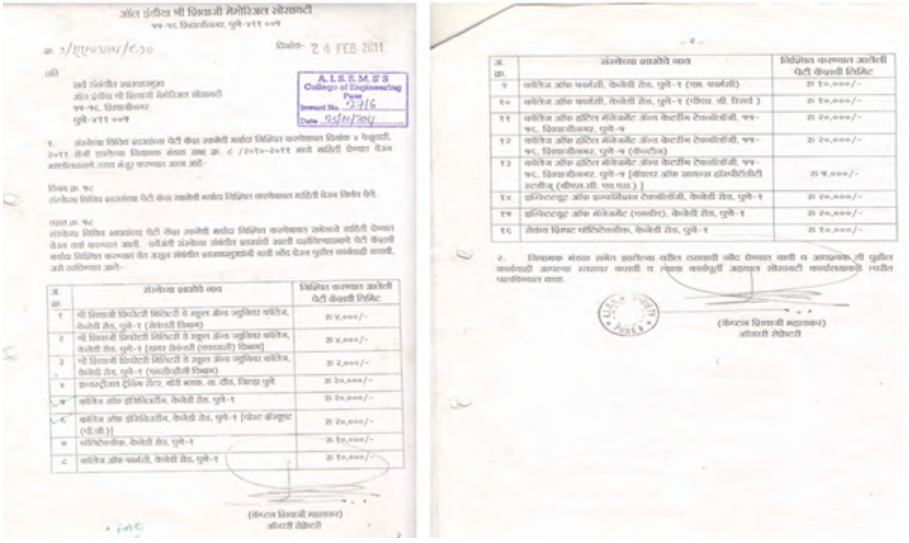

Fig. 10.1.1 Petty cash facility allotted to institutes

10.1.5 Transparency and availability of correct/unambiguous information in public domain (5) Institute Marks : 5.00

10.1.5 Transparency and availability of correct /unambiguous information in public domain

1. Unambiguous information is displayed on all general notice boards including department notice boards, Center for information, training and placement cell (CITP), student section, library, and other important areas.

2. Copies of official notices are circulated to the entire faculty, technical and non-technical staff and students.

3. The institute website is continuously updated for disseminating all the information about policies, students, faculty and relevant information. Institute website is www.aissmscoe.com (http://www.aissmscoe.com/).

10.1.17 URLs for information available on institute website

S.N.	Name of document	URL of document on website
1	Vision, mission, goals and core values of the institute	https://aissmscoe.com/about-us/college-profile/
2	Admissions	https://aissmscoe.com/admission/admission-enquiry/
3	AICTE Approval Letters	https://aissmscoe.com/aicte-approvals/
4	Mandatory disclosure	https://aissmscoe.com/mandatory-disclosure/
5	Stakeholders feedback	https://aissmscoe.com/stakeholders/
6	AICTE essentials	https://aissmscoe.com/aicte-essentials/
Faculty Profile		
7	Department of Chemical Engineering	https://aissmscoe.com/chemical-engineering/faculty/
8	Department of Civil Engineering	https://aissmscoe.com/civil-engineering/faculty/
9	Department of Electrical Engineering	https://aissmscoe.com/ electrical-engineering/faculty/
10	Department of Electronics and Telecommunication	https://aissmscoe.com/electronics-engineering/faculty/
11	Department of First Year Engineering	https://aissmscoe.com/first-year-engineering/faculty/
12	Department of Mechanical Engineering	https://aissmscoe.com/ mechanical -engineering/faculty/
13	Department of Production Engineering	https://aissmscoe.com/production-engineering/faculty/
Annual Reports		
14	Department of Chemical Engineering	https://aissmscoe.com/chemical-engineering/annual-reports/
15	Department of Civil Engineering	https://aissmscoe.com/ civil-engineering/annual-reports/

16	Department of Electrical Engineering	https://aissmscoe.com/ electrical-engineering/annual-reports/
17	Department of Electronics and Telecommunication	https://aissmscoe.com/electronics-engineering/annual-reports/
18	Department of First Year Engineering	https://aissmscoe.com/first-year-engineering/annual-reports/
19	Department of Mechanical Engineering	https://aissmscoe.com/ mechanical - engineering/annual-reports/
20	Department of Production Engineering	https://aissmscoe.com/production-engineering/annual-reports/

Fig. 10.1.2 Best Professional College of SPPU

Fig. 10.1.3 Best Principal Award by ISTE

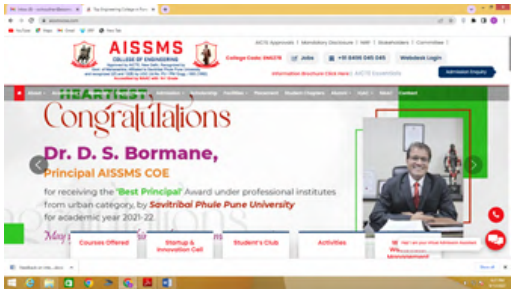

Fig. 10.1.4 Best Principal Award by SPPU

Fig. 10.1.5 Winner of prestigious “Firodiya Trophy” for drama

10.2 Budget Allocation, Utilization, and Public Accounting at Institute level (30) Total Marks 30.00

10.2.1 Adequacy of budget allocation (10) Institute Marks : 10.00

10.2.1 Adequacy of budget allocation

The college has a well formulated financial policy which ensures effective and optimal utilization of finances for academic, administrative and development purpose which help ultimately in realizing the institute's vision and mission.

Institute has made the necessary provision in the books of account towards efficient use of available fund for each academic year. As per the guidelines of the management and Principal, Variance report of sanctioned budget and actual expenditure are regularly maintained.

The Institute has a well-defined procedure to monitor effective and efficient utilization of available financial resources for infrastructure development and academic processes. Every year, the budget is prepared well in advance after taking into consideration the requirement of every Department. Each Department prepares the budget based on the requirement such as equipment, computer as well as consumable required for next academic session. Principal puts up the budget in Governing Body meeting and after discussion and necessary corrections/modifications; Governing Body recommends the budget for approval. The budget is reviewed by the management and approved after necessary changes. As and when required, the institute makes a provision for advance additional fund. The Principal and the Head of Departments discuss the requirement and decide the priorities while allotting financial resources for various purposes; and also ensure optimum use of available financial resources. The Governing body studies the annual expenditure, scrutinizes the budget and provides feedback for efficient use of financial resources. The Institute has standardized procedure for sanctioning of funds for various activities and also for settlement of advance and passing of bills for payment.

The Management has given complete support to Principal for organization of various co-curricular & extracurricular activities like technical events, sponsoring of faculty & staff for various skill development programs, providing financial support for attending conferences, workshops, pursuance of higher education etc. Financial support is also provided for participation of students at various national and international level events like Baja, Supra, Effi-cycle, Go-Kart, Aero-design and different clubs like Robotics and Drone.

The Society has constituted a separate purchase Committee comprising of Management representative, Principal & college concerned staff. The purchase procedure such as calling quotation, technical bid, preparing comparative statement, negotiation meetings are followed for effective and efficient use of available financial resources. The committee ensures that suitable equipment with right specification is procured at competitive and optimal prices.

Financial audits are conducted by a chartered accountant every financial year to verify the compliance with established processes.

Apart from this the college also provides financial assistance to student for participation at various national & state level cultural & Sports competition. We are very proud to say that due to the financial freedom given by the management in organization of various sports & Cultural events at institute level and participation of our student in various national & State level culture & Sports competition our students have shown excellent performance in these events.

10.2.2 Utilization of allocated funds (15) Institute Marks : 15.00

10.2.2 Utilisation of allocated funds

Each department HOD after receiving the approved budget convene a meeting and discuss the step by step procedure for procuring the equipment and consumables required for the department Faculty who are in charge of the laboratories and course coordinators are nominated to involve in the purchase of equipment's. The nominated faculty members identify the companies/ agencies to receive the quotations and then prepare a comparative statement. The comparative statement will be submitted to the purchase Committee to get approval from the management and then place orders to procure the items. The HOD periodically monitor and take necessary efforts to see that the purchase of items is complete in all respects and the allocated funds are fully utilized.

10.2.3 Availability of the audited statements on the institute's website (5) Institute Marks : 5.00

10.2.3 Availability of the audited statements on the institute website

Audited statements are uploaded on institute website and are available for public.

https://aissmscoe.com/mandatory-disclosure/ (https://aissmscoe.com/mandatory-disclosure/)

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 2021-22

Total Income 384514955.00				Actual expenditure(till…): 337150209.65			Total No. Of Students 3030
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
383581137.00	0	0	933818.00	329543094.65	7607115.00	0	111270.70

Table 2 - CFYm1 2020-21

Total Income 374544068.00				Actual expenditure(till…): 300948858.43			Total No. Of Students 3112
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
373411482.00	0	0	1132586.00	291096339.43	9852519.00	0	96705.93

Table 3 - CFYm2 2019-20

Total Income 319073736.52				Actual expenditure(till…): 356936441.63			Total No. Of Students 2815
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
317338255.00	0	0	1735481.52	330815515.52	26120926.11	0	126798.03

Table 4 - CFYm3 2018-19

Total Income 311756516.00				Actual expenditure(till…): 359356147.59			Total No. Of Students 2916
Fee	Govt.	Grants	Other sources(specify)	Recurring including salaries	Non Recurring	Special Projects/Anyother, specify	Expenditure per student
310308435.00	0	0	1448081.00	317150317.48	42205830.11	0	123235.99

Items	**Budgeted in 2021-22**	**Actual Expenses in 2021-22 till**	**Budgeted in 2020-21**	**Actual Expenses in 2020-21 till**	**Budgeted in 2019-20**	**Actual Expenses in 2019-20 till**	**Budgeted in 2018-19**	**Actual Expenses in 2018-19 till**
Infrastructure Built-Up	33535208.00	32066113.00	32312734.00	29716580.00	51005208.00	49970510.11	69365208.00	69395393.11
Library	4325000.00	4099379.00	5510000.00	5500268.00	3925000.00	3296066.00	4325000.00	4399036.00
Laboratory equipment	5950000.00	4805267.00	8000000.00	7864601.00	6100000.00	5202903.00	8100000.00	6548410.00

Laboratory consumables	700000.00	231398.00	700000.00	542036.00	1000000.00	935167.00	1400000.00	1300678.00
Teaching and non-teaching staff salary	227150000.00	226611240.00	208550000.00	207828775.00	205000000.00	204913144.00	203488000.00	203408950.00
Maintenance and spares	4200000.00	3419956.60	2750000.00	2591638.00	5450000.00	5312396.00	4900000.00	4878388.00
R&D	4200000.00	1723831.00	1400000.00	392884.00	3700000.00	1136690.00	4600000.00	1496623.42
Training and Travel	2850000.00	2750408.62	6020000.00	5330814.00	8300000.00	8328591.00	8065202.00	7763844.00
	580000.00	184210.00	280000.00	58504.00	5430000.00	5331466.00	3580000.00	3792752.00
Others, specify	46577240.88	46296208.49	33143792.00	25400338.23	51789792.00	51947991.84	44676590.00	40778027.36
Total	**330067448.88**	**322188011.71**	**298666526.00**	**285226438.23**	**341700000.00**	**336374924.95**	**352500000.00**	**343762101.89**

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 2021-22

6589000.00		Actual expenditure (till…): 6278099.00		Total No. Of Students 582
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
600,000.00	5,989,000.00	588,525.00	5,689,574.00	10787.11

Table 2 :: CFYm1 2020-21

4919000.00		Actual expenditure (till…): 3302072		Total No. Of Students 576
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1,700,000.00	3,219,000.00	1153052	2149020	5732.76

Table 3 :: CFYm2 2019-20

10273000.00		Actual expenditure (till…): 9675718		Total No. Of Students 519
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
3,500,000.00	6,773,000.00	3459347	6216371	18643.00

Table 4 :: CFYm3 2018-19

6586000.00		Actual expenditure (till…): 6091968		Total No. Of Students 556
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
1,200,000.00	5,386,000.00	1444753	4647215	10956.78

Items	Budgeted in 2021-22	Actual Expenses in 2021-22 till	Budgeted in 2020-21	Actual Expenses in 2020-21 till	Budgeted in 2019-20	Actual Expenses in 2019-20 till	Budgeted in 2018-19	Actual Expenses in 2018-19 till
Laboratory equipment	600000.00	588525.00	1700000.00	1153052.00	3500000.00	3459347.00	1200000.00	1166568.00
Software	3000000.00	3047997.00	1000000.00	128724.00	1650000.00	1633674.00	300000.00	252846.00
Laboratory consumable	25000.00	460.00	50000.00	53588.00	100000.00	4350.00	100000.00	62746.00
Maintenance and spares	300000.00	286295.00	300000.00	201024.00	300000.00	168657.00	600000.00	690355.00
R & D	1800000.00	1675112.00	300000.00	298384.00	1300000.00	1136690.00	1500000.00	806268.00

Training and Travel	720000.00	634710.00	1500000.00	1453800.00	2073000.00	2073000.00	2016000.00	1935000.00
	144000.00	45000.00	69000.00	13500.00	1350000.00	1200000.00	870000.00	900000.00
Total	**6589000.00**	**6278099.00**	**4919000.00**	**3302072.00**	**10273000.00**	**9675718.00**	**6586000.00**	**5813783.00**

10.3.1 Adequacy of budget allocation (10)

Institute Marks : 10.00

10.3.1 Adequacy of budget allocation

- As per the regular purchase process of the financial year, requirement of the department is considered for the preparation of the annual budget.
- Before the commencement of the financial year details of the purchase requirement (recurring and non-recurring details) are collected from the laboratory in-charge of the department.
- Budget proposal is finalized by the Head of the Department by considering annual intake of the students, university curriculum, industry requirement, laboratory & infrastructure development. The requirement Budget of the equipment, computers, software, consumables, maintenance & furniture etc. is finalized. Apart from this, budget proposals are prepared for co-curricular, extra-curricular and extension activities for the overall development of students.
- Head of the Department submits the proposal of the budget to the Principal and the same is put up in the College Development Committee (CDC) and Governing Body (GB) meeting and after discussion and necessary corrections/modifications, College Development Committee and Governing Body recommends the budget for approval.
- The budget is reviewed by the management and approved after necessary changes.
- The budget allocated by the institute to the department is adequate to cater the need of the department to upgrade the laboratory in terms of equipment, consumables, software, computers, maintenance-spare and furniture etc. and for conducting curricular and extra-curricular activities.

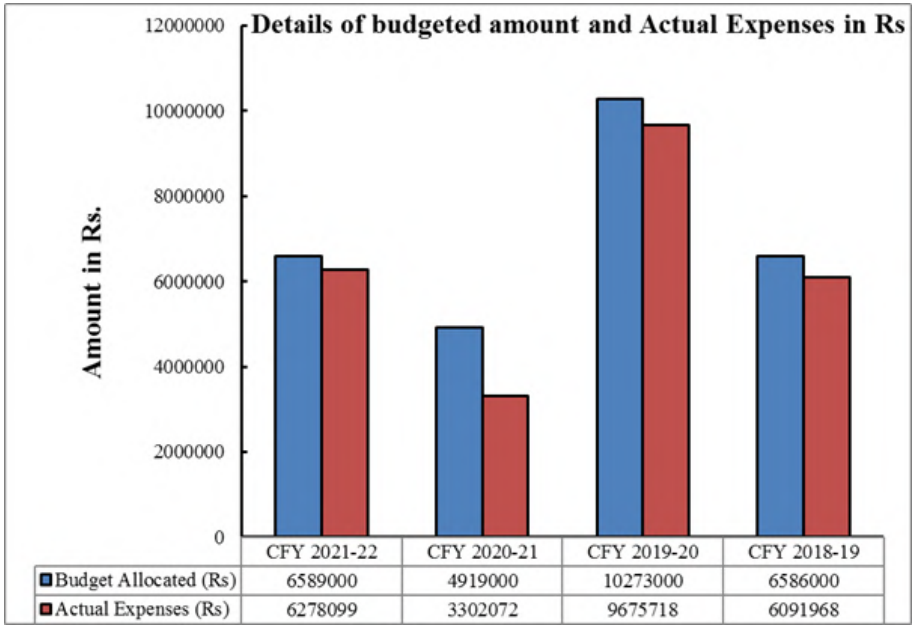

Fig. 10.3.1 Budgeted and actual expenses

10.3.2 Utilization of allocated funds (20)

Institute Marks : 20.00

10.3.2 Utilization of allocated funds

The Funds allocated to the department are effectively utilized and are adequate as per the departmental academic requirement. As per the requirement of the University curriculum and industry needs, all the laboratories of the department are being upgraded regularly by purchasing new equipment and accessories and upgrading existing equipment.

Allocated budget for the department is properly utilized in the financial year as per requirement.

10.4 Library and Internet (20) Total Marks 20.00

10.4.1 Quality of learning resources (hard/soft) (10) Institute Marks : 10.00

10.4 Library and Internet (20)

10.4.1 Quality of learning resources

The Learning Resource Center, the Central Library of AISSMS College of Engineering with its state-of-the-art facilities and excellent resources plays proactive role in providing excellent user services, optimal use of resources supporting quality enhancement in teaching-learning, research and extension. keeping pace with the developments in the ICTs, Institute library works as a digitized knowledge Center for accessibility with print and e-resources and provides focused services to the students and faculty. The Library has significant collection of books, journals, e-books, e-journals, secondary sources, databases, digital primary sources.

Integrated Library Management System (SLIM21) is used to manage different functions of library for improving accessibility to students. Institute Central Library is using commercial software as well as Open Source software for Automation of Library Services. With SLIM21 retrieval of information becomes easy and even a catchy phrase in the description of the catalogued item can be used for searching. SLIM21 supports flexible workflow to cover activities related to acquisition of books, serials control, and funds monitoring.

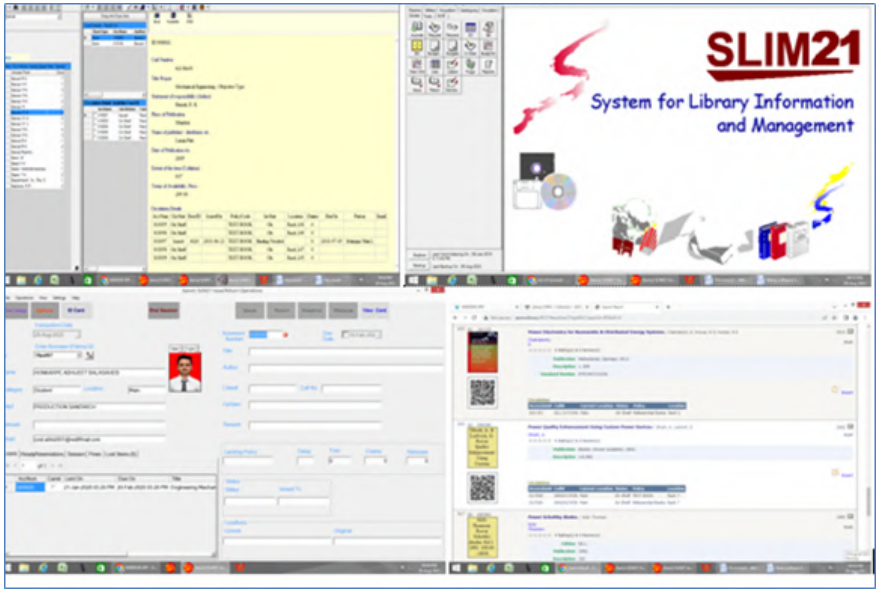

Figure 10.4.1: SLIM Software Screenshots

With the growing popularity of e-resources, library is gradually migrating from print documents to e-resources. Qualified and experienced staff plays important role in providing easily accessible and cost-effective information services. Institute library has subscribed / implemented learning and e-learning resources as shown in below tables.

Table 10.4.1: Learning resources available in Library

Learning Resources	Number of resources
Books	36942
E Journals	1014
e-Journals/e-Books	15000
List of print journals/Magazine	91
List of Newspapers	12
CD/DVD	867

Table 10.4.2 : Expenditure in last three years on learning resources

Year	No of New Titles added	No of new Editions added	No of new volumes added	Expenditure
CFY -2019-20	17	9	99	96197.00
CFY-2020-21	428	314	1324	650064.00
CFY- 2021-22	87	36	277	199492

Table 10.4.3 : Expenditure in last three years on E-Journals Subscription

Year	Number of E Journals	Expenditure
CFY 2019-20	612	2624635
CFY 2020 -21	1016	2493007
CFY 2021-22	1016	2810777

Institute Library has made following online resources available to the staff and students.

Table 10.4.4: Various online resources available in AISSMS COE Library

AISSMS E Resource	Contents	Link
Science Direct	275 E Journals Access	https://www.sciencedirect.com/

IEEE	169 eJournal Backfile Access-Since 2000)	https://ieeexplore.ieee.org/Xplore/home.jsp
ASME Digital Library	27 E Journals	https://www.asme.org/
ASCE Digital Library	35 E journals	https://www.asce.org/
Access Engineering	365 E journals/ E Books Access	https://www.accessengineeringlibrary.com/user/login
SPRINGER	149 E Journals	https://link.springer.com/
DELNET	Access Millions of Networked Library Resources through DELNET, 2,20,00,000+ Books available for loan, 5,000+ Full-text E-journals, 1,00,000+ Thesis/Dissertations	http://164.100.247.26/
Knimbus	25000+ ebooks	https://aissms.knimbus.com/user#/home
NDL	Includes all disciplines	https://ndl.iitkgp.ac.in/
List of Open Access Resources	Access to all open access resources	https://aissmscoelibrary.weebly.com/open-access-resources.html
S Chand Ebooks	Access to 112 E-Text Books	https://ebooks.schandgroup.com
New Age Ebooks	Access to 50 E Books	https://digital.elib4u.com/
Person E books	Access to 104 E - Text Books	https://elibrary.in.pearson.com/
Calibre Digital Library	Access to 1012 Free Ebooks	Available in LAN

For the easy access, all the online resources are subscribed as IP Based access subscription. This helps users to access any resource from any computer connected in the AISSMSCOE Campus LAN and also through WiFi enabled devices. This helps users for searching multiple database at a stretch. Remote off campus access facility is created and this can be used by students from home.

Library user tracking students and faculty

Library user tracking for students and faculty is done through ERP system. daily visit to library reports can be download through ERP system

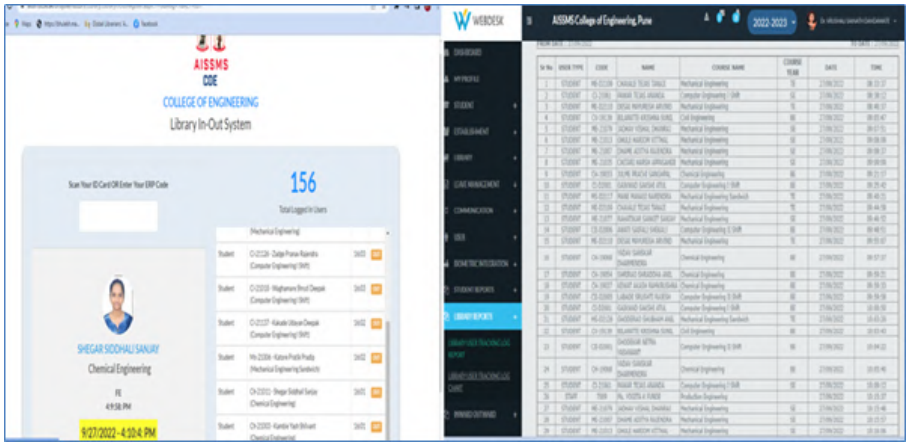

Figure 10.4.2: Screenshot of Library user tracking system

Book Purchase System Process

Library books requirement is collected through a book requisition form which is made available to all faculty through the google drive link. List of books requested by faculty are send for quotation to the supplier, after that purchase order is placed to the supplier with Head of Department and Principal approval.

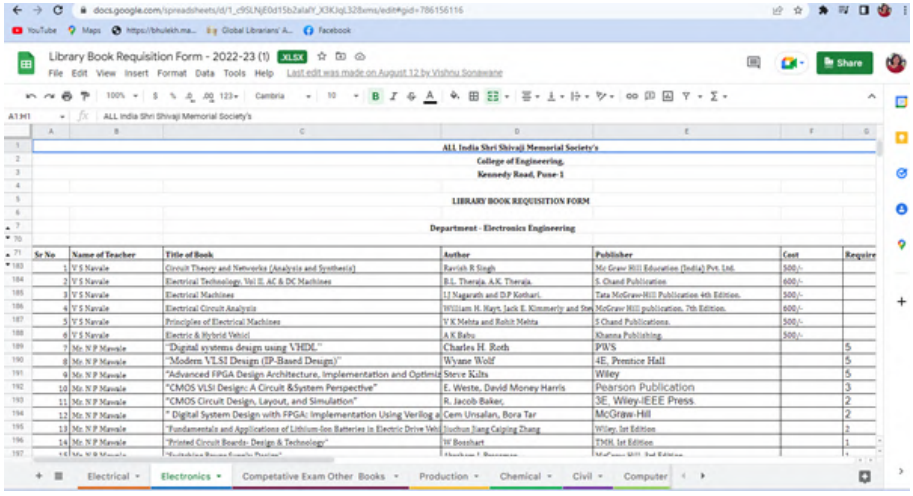

Figure 10.4.3: Screenshot of Library book requisition form

Support to students for self-learning

Institute Library supports students for self-learning activities by creating and making available various platforms for learning. Following resources are accessible to the students:

- 9000 + NPTEL Videos
- 100+ Subjects NPTEL Text Content
- 1500+ E-Books

- Access to previous year question papers
- Access to Ekeeda Learning platform
- Access to IIRS training programs
- Access to Coursera (During Covid pandemic period)
- Access to Edx platform (During Covid pandemic period)
- Organization of book exhibitions, Author meets, E resources training program for students
- Use of SLIM webopac for book search and reissue and reservation process

Digital library has been established by library for the effective use of these self-learning resources. Question point service, “Ask a Librarian” is a unique online service available where queries and reference questions from students are responded within 24 hours. Additional facilities created in the library for improving accessibility and support to students for self-learning.

- Ask-A-Librarian - Question Point Online Reference Service.
- Wi-Fi accessible across the Library.
- Library e-resources Remote Access (off-campus access) through Knimbus remote access platform.
- User Training, Sensitization and Information Literacy programs.
- Research Data Management, Publishing support, Style Manuals.
- Workshops/Programs on research methods Tools.
- Plagiarism Check tools (Turnitin) and services.
- Institutional Repository Dspace for faculty publication
- Faculty publication platform Vidwan
- Print, Scan Services.
- Access to previous year question papers and syllabus
- Mobile App facility available

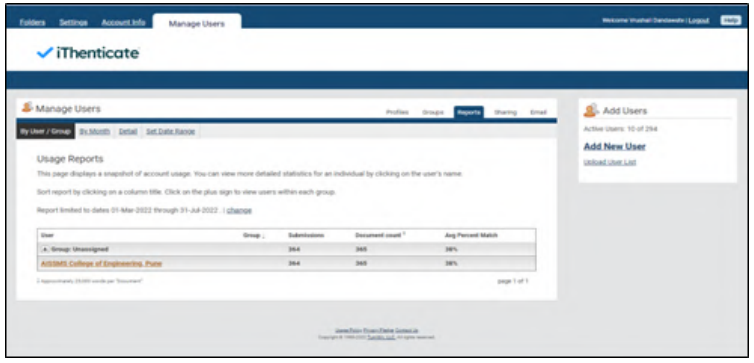

Figure 10.4.4: Plagiarism Software Screenshots

Figure 10.4.5: Library WebOPAC Screenshots

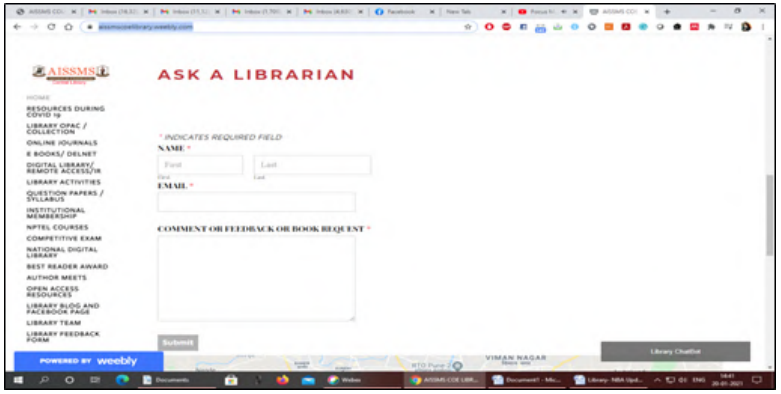

Figure 10.4.6: Ask A Librarian service

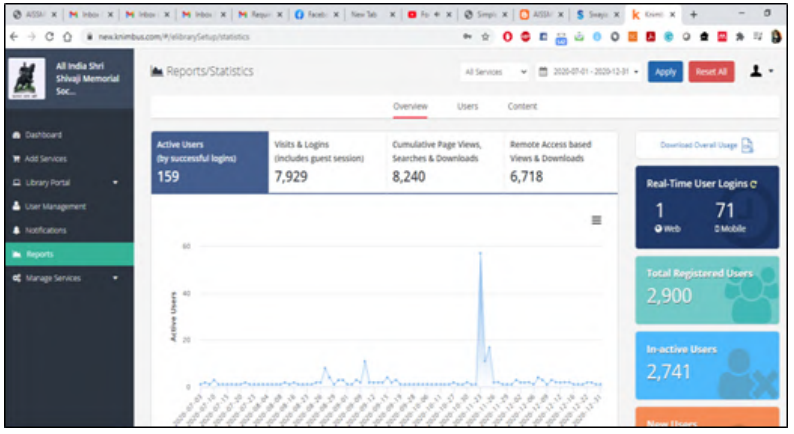

Figure 10.4.7 : Use of remote access facility

Figure 10.4.8: Reprography Machine and I card printing facility Information Kiosk

10.4.2 Internet (10)

Institute Marks : 10.00

Name of the Internet provider	Tata Tele Services Ltd
Available band width	500 Mbps
WiFi availability	Yes
Internet access in labs, classrooms, library and offices of all Departments	Internet access in available in all the labs, classrooms, library and offices of all departments and administrative office.
Security arrangements	Layer 3 Firewall (SOPHOS XGS 3300 HW APPLIANCE WITH 8GE). Each user is assigned with user id and password. Antivirus software is installed on all computers and laptops of the institute. CCTV are also put in labs.

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	Our graduate will have competencies in design and develop mechanical elements and systems.
PSO2	Our graduate will have incremental skills to specify and select materials, processes to manufacture an industrial product.
PSO3	Our graduate will have ability to analyze and evaluate performance of thermal system.

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

Dr. DATTATRAYA SHANKAR

Name : BORMANE

Designation : PRINCIPAL

Signature :

Seal of The Institution :

Place : PUNE

Date : 28-09-2022 20:08:52