

DEPARTMENT OF MECHANICAL ENGINEERING

MECH-GLIMPSE

Patron

- Hon. Shri. Vijayasingh A. Mane (Chairman)
- Dr. D. N. Mudgal (Executive Director)

Editors

• Prof. Dr. H. V. Shete

Co-Editor

• Prof. A. S. Patil

✤ VISION

To become a center of excellence in Mechanical Engineering, producing competent, creative, employable and dynamic Mechanical Engineers.

MISSION

- M1: To impart fundamental and advanced technology of mechanical engineering to the students.
- M2: To create an environment for the students to excel in mechanical engineering field, engage in research and development activity and participate in professional activities.
- M3: To prepare the students for team building activities with good communication skills and high ethical standards.
- **M4:** To train and motivate the students for lifelong learning, employability and entrepreneurship.

Program Educational Objective (PEOs):

The Program Educational Objectives of Mechanical Engineering Programme, within three to five years of graduation are:

- **PEO 1 :-** To impart knowledge of mathematics, basic and applied sciences to tackle complex engineering problems.
- **PEO 2 :-** To encourage students for applying their knowledge and skills for problem identification, formulation, analysis and design/ development of solutions to solve real life engineering problems with orientation to industrial sector.
- **PEO 3 :-** To prepare the students for necessary professional skills, high ethical standards, effective oral, written communication and team building activities in diverse and multidisciplinary teams.
- **PEO 4 :-** To prepare students to excel in their field, participate in professional activities and project management; get updated in current industrial trends so as to engage in research and development activities.
- **PEO 5 :-** To provide sufficient training and guidance to students for improving employability, entrepreneurship skills, industrial competency and motivation for lifelong learning.

Programme Outcomes (POs)

Mechanical 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/developpment 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.
- 13. **PSO1:**The Mechanical Engineering Graduates will be able to utilize their knowledge in the areas of mechanical design using finite element analysis.
- 14. **PSO2:**The Mechanical Engineering Graduates will be able to apply their knowledge in thermal engineering fields and green technology.
- 15. **PSO3:** The Mechanical Engineering Graduates will be able to apply their knowledge in manufacturing technology for realization of mechanical systems.

Departmental activities

• ACTIVITIES PLANNED AND ORGANIZED BY THE DEPARTMENT

Activities AY (2018-19)				
Name of the activity	Duration	Target audience		
A guest lecture on V5R20 was conducted on 17/07/2018 in the department by CADD Centre Kolhapur.	17/07/2018	BE students		
Petroleum conservation research association (PCRA) conducted a programme on conventional and non-conventional energy sources and energy conservation on 23/07/2018.	23/07/2018	TE and BE students		
A guest lecture on CAD/CAM software was conducted in the department by CADD Centre Kolhapur on 28/07/2018.	28/07/2018	TE and BE students		
A seminar on "3D printing awareness" was conducted in the department by Prof. P. H. Patil for the faculty on 28/07/2018.	28/07/2018.	Teaching staff		
A student development programme on "control techniques using MATLAB (ConTech-2018) was organized by Mechanical Engineering Students Association (MESA) in association with ISTE student chapter on 25/08/2018.Prof. Dr. Miraje A. A., Prof. Nevagi S. P., Prof. Patil P. A. were the resource persons for the programm.	25/08/2018	TE and BE students		
One of our alumni Mr.Santosh Bhosale visited the mechanical department on 21/8/2018 & shared his views related to job searching, market position, market expectation from fresh engineers.	21/8/2018	TE and BE students		
Mechanical department alumni Mr. AshishSawant from 2017 batch Visited department on 31-8-18 & interacted with BE-C students regarding job vacancy, interview techniques, soft skill required to get job. Currently he is working in Thakkar polypack Ind, Bhivandi.	31-8-18	TE and BE students		

Freshers welcome was organized on 01-09-2018	01-09-2018	SY students
Engineous 2K19 was organized in the department on 09-03-2049	09-03-2049	All students



Guest lecture by CADD Centre



Guest lecture by PCRA Faculty



Lecture on CATIA V5 R20 by CADD Centre



GATE Guidance

• Activities under MESA (Mechanical Engineering Students Association) in 2018-19



1) Inauguration of Engenious 2k19



2) Box Cricket



3) Freeze The Second



4) Paper Presentation



5) Calci-nitro



6) Chanakya Quiz Contest



7) Carrom



8) Torto Ride



9) Graphism



10) Fresher's Function



11) Farewell Function



12) Blood Donation Camp under Ready Engineers

• FACULTY ENHANCEMENT

• The Prof. Shete H. V., Head of the Mechanical Engineering department has completed PhD from VTU, Belgaum.

Sr. No	Faculty Name	Name of the topic	Name of the organizer and place	ISSN-NO.
1.	R. A. Patil	Modeling and optimization of WEDM: A review	K. K. Wagh Engg. College, Nashik	
			International Conference on Manufacturing Excellence (ICMAX- 2019	
2.	P. A. Patil	Material handling equipment selection: classification of equipments and attributes	IJIRST	

• Journal publications

• Workshops/ seminars attended

Sr. No.	Name of the faculty	Name of the programm	Schedule of the
		Soft commuting to shripping for	programm 13-15
1	Dr. Chata Hannaad Wahladaa	Soft computing techniques for	
1	Dr. Shete Hanmant Virbhadra	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
2	Dr. Chapgaon Ashok Narsimha	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
3	Dr. Miraje A. A.	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
4	Mr. Aitavade Eknath Nivrutti	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
5	Mr. Pasale Rahul Anil	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
6	Mr. Patil Rohit Prabhakar	modeling and optimization in	March
		Mechanical Engineering	2019
7	Mr. Saraikar Harshad Arjunrao	Soft computing techniques for	13-15

		modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
8	Mr. Nevagi Sandeep Pandurang	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
9	Mr. Jadhav Nagsen Datta	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
10	Mr. Bhapkar Sandeep Shrikantrao	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
11	Mr. Todkar Santosh Sadashiv	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
12	Mr. Patil Rahul Adagonda	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
13	Mr. Suryawanshi Vijaysingh B.	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
14	Mr. Reddy Mahadeva Gurunath	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
15	Mr. Uthale Avinash Ashokrao	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
16	Mr. Patil Ankush Sudam	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
17	Mr. Petkar Sangram Sanjay	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
18	Mr. Doijad Vijay Vilas	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
19	Mr. Rabade Amol Balawant	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
20	Mr. More Idrajeet Dinkar	modeling and optimization in	March
	Ĩ	Mechanical Engineering	2019
01		Soft computing techniques for	13-15
21	Mr. Sanadi Atulkumar Gulab	modeling and optimization in	March

		Mechanical Engineering	2019
		Soft computing techniques for	13-15
22	Mr. Dafade Sakharam Vithoba	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
23	Mr. Patil Pratik Ashok	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
24	Mr. Patole Sagar Mansing	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
25	Mr. Mulla Taufiq Allauddin	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
26	Mr. Nirmale Aviraj Pandit	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
27	Mr. Kanunje Amit Pramod	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
28	Mr. Ladgaonkar Pramod Sarjerao	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
29	Mr. Sutar Maheshkumar Arjun	modeling and optimization in	March
		Mechanical Engineering	2019
		Soft computing techniques for	13-15
30	Mr. Prashant H. Patil	modeling and optimization in	March
		Mechanical Engineering	2019

- NAFEMS, U.K., India awarded meritorious prize for engineering project contest to Mr. Swaroop Parab and Mr. Shubham Daiv supervised by Dr. Duradundi S. Badkar for the project "Special purpose drilling machine" on 20/07/2018.
- Maharashtra state engineering design award (First prize) at 21st ISTE students national annual convention was awarded to our students Shubham Mahesh Daiv, Swaroop Ramdas parab for the project titled "Design and Manufacturing of special purpose drilling machine". The project was guided by Dr. Badkar D. S.

• Student Achievements / Participation in Technical Event

Sr. No.	Name of the students	Achievement Details
1.	Mr. Swaroop Parab, Mr. Shubham Daiv	NAFEMS, U.K., India awarded meritorious prize for engineering project contest to Mr. Swaroop Parab and Mr. Shubham Daiv supervised by Dr. Duradundi S. Badkar for the project "Special purpose drilling machine" on 20/07/2018.
2.	Mr. Swaroop Parab, Mr. Shubham Daiv	Maharashtra state engineering design award (First prize) at 21 st ISTE students national annual convention was awarded to our students Shubham Mahesh Daiv, Swaroop Ramdas parab for the project titled "Design and Manufacturing of special purpose drilling machine". The project was guided by Dr. Badkar D. S.

• Industrial visits organized in AY 2018-19

ODD SEMESTER 2018-19					
1	TE (C)	MFE	BUDHALE & BUDHALE SONS PVT LTD	08-09-2018	
2	TE (B)	MFE	PRABHA ENTERPRISES, KOLHAPUR	08-09-2018	
3	TE (A)	MFE	PRABHA ENTERPRISES, KOLHAPUR	05-10-2018	
4	TE (A)	TOM	II GEAR MASTER, KOLHAPUR	11-10-2018	
5	TE(B)	TOM	II GEAR MASTER, KOLHAPUR	11-10-2018	
6	BE(C)	AE	MAHINDRA TRENDY WHEELS PVT. LTD.	29-08-2018	
7	BE(A)	RAC	GURU ICE FACTORY, VATHAR	27-09-2018	
8	BE(B)	RAC	GURU ICE FACTORY, VATHAR	27-09-2018	
9	BE(C)	RAC	WARANA DUDH SANGH AMRUTNAGAR	05-10-2018	
			EVEN SEMESTER 2018-19		
10	TE (A)	IFP	DYNAMICS & HYDRAULICS, SHIROLI	23-02-2019	
11	TE (B)	IFP	MAHALAXMI ISPAT, GOKUL SHIRGAON	23-02-2019	
12	TE (C)	IFP	MAHALAXMI ISPAT, GOKUL SHIRGAON	23-02-2019	
13	TE (B)	ICE	CHOUGULE INDUSTRIES, PETH NAKA	27-02-2019	
14	TE (B)	CIM	CHOUGULE INDUSTRIES, PETH NAKA	27-02-2019	
15	TE (A)	MD II	SHREE KRISHNA GEARS, 15-03-2019 SHIROLI		
16	TE (B)	MD II	SHREE KRISHNA GEARS, SHIROLI	23-03-2019	
17	TE (C)	MD II	SHIVPRASAD INDUSTRIES KOLHAPUR	30-03-2019	
18	TE (C)	ICE	WAID GARAGE & SAI AUTO 10-04-2019 SERVICES		
10	TE (A)	IFP	DYNAMICS & HYDRAULICS, 23-02-2019 SHIROLI		
11	TE (B)	IFP	MAHALAXMI ISPAT, 23-02-2019 GOKUL SHIRGAON		
12	TE (C)	IFP	MAHALAXMI ISPAT, 23-02-2019 GOKUL SHIRGAON		
13	TE (B)	ICE	CHOUGULE INDUSTRIES, PETH NAKA27-02-2019		
14	TE (B)	CIM	CHOUGULE INDUSTRIES, PETH NAKA	27-02-2019	
15	TE (A)	MD II	SHREE KRISHNA GEARS, 15-03-2019 SHIROLI		

TE (B)	MD II	SHREE KRISHNA GEARS,	23-03-2019
		SHIROLI	
TE (C)	MD II	SHIVPRASAD INDUSTRIES	30-03-2019
		KOLHAPUR	
TE (C)	ICE	WAID GARAGE & SAI AUTO	10-04-2019
		SERVICES	
TE (A)	IFP	DYNAMICS & HYDRAULICS,	23-02-2019
		SHIROLI	
TE (B)	IFP	MAHALAXMI ISPAT,	23-02-2019
		GOKUL SHIRGAON	
TE (C)	IFP	MAHALAXMI ISPAT,	23-02-2019
		GOKUL SHIRGAON	
TE (B)	ICE	CHOUGULE INDUSTRIES,	27-02-2019
		PETH NAKA	
TE (B)	CIM	CHOUGULE INDUSTRIES,	27-02-2019
		PETH NAKA	
TE (A)	MD II	SHREE KRISHNA GEARS,	15-03-2019
		SHIROLI	
	TE (C) TE (C) TE (A) TE (B) TE (C) TE (B) TE (B)	TE (C)MD IITE (C)ICETE (A)IFPTE (B)IFPTE (C)IFPTE (B)ICETE (B)CIM	SHIROLITE (C)MD IISHIVPRASAD INDUSTRIES KOLHAPURTE (C)ICEWAID GARAGE & SAI AUTO SERVICESTE (A)IFPDYNAMICS & HYDRAULICS, SHIROLITE (B)IFPMAHALAXMI ISPAT, GOKUL SHIRGAONTE (C)IFPMAHALAXMI ISPAT, GOKUL SHIRGAONTE (B)ICECHOUGULE INDUSTRIES, PETH NAKATE (B)CIMCHOUGULE INDUSTRIES, PETH NAKATE (A)MD IISHREE KRISHNA GEARS,