



Shri Vile Parle Kelavani Mandal's
Dwarkadas J. Sanghvi College of Engineering
(Autonomous College Affiliated to the University of Mumbai)

Department of Mechanical Engineering

(Accredited by NBA)

ACADEMIC REPORT AY 2024-25



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DEPARTMENT OF MECHANICAL ENGINEERING

VISION

To create academic excellence by developing competent mechanical engineers, capable of facing global challenges, with human values and skills for research and sustainable development.

MISSION

1. To impart fundamental concepts of basic sciences and allied areas of engineering and technology.
2. To enable students, to develop into competent engineering professionals.
3. To promote research activities.
4. To promote interaction and involvement with professional bodies and industries
5. To inculcate soft skills and professional ethics and mold students as socially responsible citizens.
6. To promote exposure to green technology for sustainable growth and development.

PROGRAM EDUCATIONAL OBJECTIVES

1. To prepare students with a sound engineering knowledge and a multi-disciplinary approach.
2. To enable students, to innovate, design and develop engineering systems using modern engineering practices and tools.
3. To motivate students, to interact with industry and professional bodies and participate in various professional activities.
4. To develop logical approach, analytical thinking and problem solving capabilities in students & facilitate them to undertake research/project work.
5. To impart training in soft skills and value education.

PROGRAM SPECIFIC OUTCOMES

1. Students will acquire analytical and application skills, specifically in areas of mechanical design, thermal engineering and manufacturing systems.
2. Students will be able to explore various methodologies & software and select appropriate process to bring about improvements.
3. Students will acquire soft skills, value education and competency in pursuing higher studies and finally lead a professional career while working in a global environment.
4. Students will be exposed to green technology and develop inter-disciplinary skills in mechanical systems.

ABOUT THE DEPARTMENT

- Department of Mechanical Engineering instituted in the year 2011 with undergraduate (BE) and post graduate (ME) programs permanently affiliated to the University of Mumbai.
- The department is accredited by National Board of Accreditation (NBA) for a period of three years with effect from the Academic Year 2018-19.
- The department has Ph.D. (Technology) program since 2013, which is affiliated to the University of Mumbai.
- Intake- BE : 180, ME : 18, Ph.D. : 20
- The department runs four professional student chapters viz. SAE, ISME, ISHRAE and RAS which help to enhance the skills of the student and also to add value in the process of acquiring knowledge.

ADMINISTRATION

Dr. Hari Vasudevan
Professor & Principal

Dr. Atul Dhale
Professor & Head

TEACHING STAFF

Dr. K.N. Vijaya Kumar
Professor

Dr. Ashok Tadamalle
Associate Professor

Dr. Rajendra Kavekar
Associate Professor

Dr. Vinayak H. Khatawate
Associate Professor

Dr. Rajkumar Patil
Associate Professor

Dr. Pradip Patil
Associate Professor

Dr. Sanjeev Thool
Assistant Professor

Dr. Meeta Gandhi
Assistant Professor

Dr. Sandip Mane
Assistant Professor

Dr. Ramesh R. Rajguru
Assistant Professor

Dr. Shashikant Auti
Assistant Professor

Dr. Amit Chaudhari
Assistant Professor

Dr. Naresh Deshpande
Assistant Professor

Dr. Bronin Cyriac
Assistant Professor

Dr. Makrand Rakshe
Assistant Professor

Dr. Ashwini Gotmare
Assistant Professor

Dr. Poonam Deshmukh
Assistant Professor

Dr. Ranjit Patil
Assistant Professor

Prof. Sandeep Vaity
Assistant Professor

Prof. Avadhut Samant
Assistant Professor

Prof. Prasad Shirodkar
Assistant Professor

Prof. Mehul Prajapati
Assistant Professor

Prof. (Mrs.) Trupti Markose
Assistant Professor

Prof. Rajnarayan Yadav
Assistant Professor

Prof. Vyankatesh Bagal
Assistant Professor

Prof. Dhaval Birajdar
Assistant Professor

Prof. Dharam Ranka
Assistant Professor

Prof. Vinit Katira
Assistant Professor

Prof. Rohitkumar Chaurasia
Assistant Professor

Prof. Sanket Parab
Assistant Professor

Prof. Dhananjay Shukla
Assistant Professor

Prof. Prashant Patankar
Assistant Professor

Prof. Kartik Ajugia
Assistant Professor

Prof. Pavan Rayar
Assistant Professor

Prof. Gregory Mathew
Assistant Professor

Prof. Ravikant Hattale
Assistant Professor

Prof. Rehan Siddiqui
Assistant Professor

NON-TEACHING STAFF

Mr. S. M. Shimpi Instructor	Mr. P. D. Sawant Instructor	Mr. G. M. Wadke Instructor
Mr. M. S. Devrukhkar Instructor	Mr. D. D. Telawane Instructor	Mr. Sunil Gurav Instructor
Mr. S. S. Vanne Lab. Assistant	Mrs. Vaishali Joshi Lab. Assistant	Mr. Gaurav Sapte Lab. Assistant
Mr. Suresh Mohite Lab. Attendant		

COMMITTEES

SAE

Dr. K.N. Vijaya Kumar
Prof. Rajnarayan Yadav
Prof. Vinit Katira
Prof. Rohit Chaurasia
Dr. Shashikant Auti
Prof. Ravikant Hattale
Prof. Greegory Mathew
Dr. Bronin Cyriac
Prof. Dharam V. Ranka
Dr. Ramesh Rajguru
Prof. Prashant Patankar

ISME

Prof. Sanket Parab

ISHRAE

Prof. Dhaval Birajdar
Prof. Vyankatesh Bagal

TIME-TABLE COMMITTEE

Prof. Rohit Chaurasia
Dr. Ranjit Patil
Dr. Poonam Deshmukh

PLACEMENT COORDINATOR

Prof. Rohit Chaurasia

EXAM COORDINATOR

Prof. Karthik Ajugia
Prof. Dhaval Birajdar

U. G. COORDINATOR

Dr. Bronin Cyriac

P. G. COORDINATOR

Prof. Greegory Mathew

Ph.D. COORDINATOR

Dr. Vinayak Khatwate

RAS

Prof. Pavan Rayar

PROJECT COORDINATOR

Prof. Vinit Katira
Dr. Ramesh Rajguru
Dr. Makrand Rakshe

NBA COORDINATOR

Prof. Prashant Patankar- PC
Dr. Ramesh Rajguru

NAAC COORDINATOR

Prof. Prashant Patankar
Prof. (Mrs.) Trupti Markose

HONOURS/MINORS COORDINATOR

Dr. Sanjeev Thool

CURRICULUM COORDINATOR

Dr. Atul Dhale

I.P.D. COORDINATOR

Dr. Meeta Gandhi., Prof. Mehul Prajapati
Prof. (Mrs.) Trupti Markose

INTERNSHIP COORDINATOR

Prof. Ranjit Patil, Prof. Vyankatesh bagal

F.E. COORDINATOR

Dr. Vinayak Khatwate , Prof. Prasad Shirodkar

CULTURAL COMMITTEE

Prof. Ravikant Hattale

SPORTS/CULTURAL COMMITTEE

Dr. Ramesh Rajguru

ALUMNI COORDINATOR:

Dr. Shashikant Auti, Prof. Dharam R.

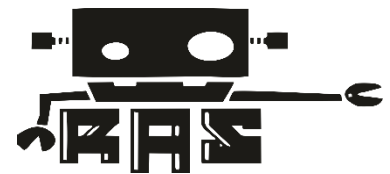
WORKSHOPS/ CONFERENCE ORGANIZED BY THE DEPARTMENT

Sr. No.	Date	Name of Activity/event	Details in 2-3 lines
1	18 th March 2023 to 2 nd April 2023	VAP course on MATLAB Mechanical applications.	Dr.Suhas Deshmukh, 20 students participated.

STUDENT CHAPTERS

Department of Mechanical Engineering organizes various co-curricular activities in-line with its vision of creating competent Mechanical Engineers capable of facing global challenges. The Department motivates students to participate in various national and international competitions and exhibit proficiency. By creating a competitive ambience exclusively suited for their development, the department inspires students to push their limits. This year too, students brought accolades to the department by winning awards in competitions of International and National repute. Under the guidance of the Head of Department Dr. K N Vijaya Kumar and faculty members, the future engineers of DJSCE are set to make a difference to the society.

The various student chapters of SAE, ISME, ISHRAE and RAS regularly organizes Seminars, Workshops and Guest Lectures to motivate students to go beyond the university curriculum and to create awareness about the trending developments in the Mechanical field. Following is a brief description of activities conducted by various Student Chapters.



ACHIEVEMENTS



FORMULA BHARAT 2024

- 8th Overall Rank
- 5th Business Plan
- 5th Cost Event
- 11th Design Event





E-BAJA SAE INDIA 2024

- 2nd Sales Report

A-BAJA SAE INDIA 2024

- 2nd Overall





GO-KART DESIGN CHALLENGE 2024

AIR 5 OVERALL, 4TH IN DESIGN, 4TH IN AUTOCROSS AND SKIDPAD.



IDRL S7E6 2023 IIT GANDHINAGAR, 2023

- 6th position nationally

IDRL S7E8 SVP CET, NAGPUR 2nd position nationally

AEROTHON 2024, BANGALORE

- AIR 2 Design Report Presentation





SAE AERO DESIGN WEST 2024, TEXAS

MICRO CLASS

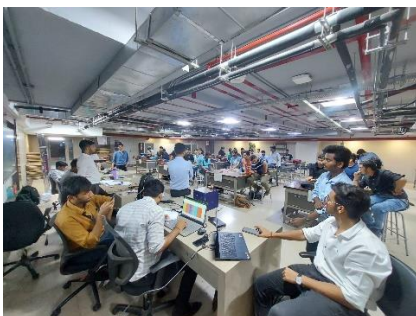
- Design Report - 1st Worldwide
- Technical Presentation – 3rd Worldwide
- Overall - 6th Worldwide

REGULAR CLASS

- Design Report – 2 nd Worldwide
- Overall – 5th Worldwide



- The Indian Society of Manufacturing Engineers (ISME) hosted an event DJ NIRMITI 2023 for students of all branches.



PERFORMANCE IN END SEMESTER EXAMINATIONS

S.E. SEM IV

RESULT ANALYSIS OF MAY 2025 EXAMINATIONS

No. of Students Appeared	199
No. of Students Passed	193
Percentage Result	96.98%
CGPA	No. of Students
O (9-10)	13
A (8-9)	75
B (7-8)	75
C (6-7)	24
D (5-6)	6
E (4-5)	0
Failed	6

T.E. SEM VI

RESULT ANALYSIS OF MAY 2025 EXAMINATIONS

No. of Students Appeared	176
No. of Students Passed	171
Percentage Result	97.15%
CGPA	No. of Students
O (9-10)	6
A (8-9)	52
B (7-8)	61
C (6-7)	40
D (5-6)	10
E (4-5)	2
Failed	5

B.E. SEM VIII

RESULT ANALYSIS OF MAY 2025 EXAMINATIONS

No. of Students Appeared	105
No. of Students Passed	101
Percentage Result	96.19%
CGPA	No. of Students
O (9-10)	2
A (8-9)	35
B (7-8)	38
C (6-7)	22
D (5-6)	4
E (4-5)	0
Failed	4

PLACEMENTS



Shri Vile Parle Kelvani Mandal's
Dwarkadas J. Sanghvi College of Engineering

(Autonomous College Affiliated to the University of Mumbai) NAAC
Accredited with "A" Grade (CGPA : 3.18)

Department of Mechanical Engineering

Placement 2024-2025



Sr. No	Company Name	CTC (LPA)	No. of Students Placed
1	Mahanagar Gas Limited	7.8	4
2	Godrej	7.75	8
3	The Innovative story	7	2
4	Raychem RPG	6.8	3
5	Technip Energies	6.5	2
6	Tecnimont	6.5	2
7	Siemens	6.5	4
8	Frootle India	6.24	3
9	Blue Star Limited	6.13	4
10	Saffron Stays	6	1
11	Worley	5.8	3
12	Kansai Nerolac	5.5	3
13	Jasmino	5.3	1
14	H&K India	5	2
15	Gandhi Automation	5	1
16	Oberoi Realty	5	6
17	Care Pal	5	1
18	Concast India	4.8	1
19	LTTS	4.2	1
20	Ace Tech	4	1
21	Pidilite	4	1
22	Axis	4	1
23	Tata Consultancy Services	4	1
24	A1 fence	3.5	1
	Total Number of Offers Including Multipal offers		57

...and counting

RESEARCH WORK OF THE FACULTY MEMBERS

PATENTS FILED

Application No.	Title	Application Status
379458-001	CHASSIS FOR ELECTRIC MOTORCYCLE	

PUBLICATIONS

Name of the Author(s)	Title of the paper	Name of the Journal / Conference	Year of publication	DOI of the Publications
Dr. Sandip Mane	Enhancing the structural integrity and load-bearing capacity of 3D-printed ABS polymer materials using innovative approach		August 2025	
Dr. Sandip Mane	Enhancing thermal comfort and indoor air quality through energy optimization with neural network		November 2025	
Dr. Sandip Mane and Dr. Rajkumar patil	Analysis of the Surface Quality Characteristics in Hard Turning Under a Minimal Cutting Fluid Environment		January 2025	
Dr. Sandip Mane, Dr. Rajkumar Patil and Dr. Amit Chaudhary	Analysis of Thermal Aspect in Hard Turning of AISI 52100 Alloy Steel Under Minimal Cutting Fluid Environment Using FEM		March 2025	
Dr. Sandip Mane and Dr. Rajkumar patil	Development of a Tendon-Driven Continuum Robot for Medical Applications		February 2025	
Dr. Sandip Mane and Dr.	Effect of cutting parameters and tool coating on residual stress and cutting temperature in dry hard turning of AISI		June 2025	

Rajkumar patil	52100 steel using finite element method			
Dr. Sandip Mane and Dr. Rajkumar patil	Assessment of Reliability Allocation Methods for Electronic Systems: A Systematic and Bibliometric Analysis		January 2025	
Dr. Sandip Mane, Dr. Rajkumar Patil, Prof. Dhaval B., Prof. Rohit C. And Dr. Shashikant Auti	Bibliometric Analysis of Hydrogen-Powered Vehicle Safety and Reliability Research: Trends, Impact, and Future Directions		June 2025	
Prof. Kartik Ajugia	Geometrical, Numerical and Materialistic Parameters used for studying and reducing Tube-Side Flow Inconsistency in Tube and Shell Heat Exchangers: An Overview		January 2025	
Dr. Rajkumar Patil	Comparative Analysis of Methods Used to Solve Class Imbalance Problem in Dataset for CNN-based Fault Diagnosis of Solar Photovoltaic Panels		June 2025	
Dr. Rajkumar Patil	Reliability analysis and life cycle costing of rooftop solar photovoltaic (PV) system operating in a composite environment		April 2025	
Dr.Hari Vasudevan and Dr. Vinayak H Khatawate	Numerical Investigation of Chassis Torsional Stiffness for Formula Student Vehicles		June 2025	
Dr.Hari Vasudevan and	Stress and Strain Distribution Patterns Around Centrally Elongated Notch in Flat Plate.		June 2025	

Dr.Vinayak H Khatawate				
Dr.Hari Vasudevan, Dr.Vinayak H Khatawate and Prof. Dharam Ranka	Improving occupational health outcomes and enhancing job satisfaction by the design and development of a passive overhead exoskeleton in industries		June 2025	
Dr.Hari Vasudevan and Dr. Ramesh Rajguru	A study of micro hardness in the machining of Inconel 625 using TiAlSiN coated tools under dry cutting conditions		July 2024	
Dr.Hari Vasudevan	Gap-Coupled Designs of Hexagonal Microstrip Antennas on Thinner Substrate Using Cavity-Backed Structure.		July 2024	
Dr. Rajkumar Patil	Enhancing Security in Smart Renewable Energy Grids Through Proxy Signcryption Approach		November 2024	
Dr. Sanjeev Thool	Fabrication, experimentation and numerical simulation of micro channel heat sink for enhancing thermal performance of electronic devices		July 2024	
Dr. Sanjeev Thool	Experimental and computational analysis of riser tubes of modified simple solar water heater with different twisted inserts		December 2024	
Dr. Rajkumar Patil	Reliability and Criticality Analysis of a Large-scale Solar Photovoltaic System using Fuzzy-Fault Tree Analysis Approach		September 2024	
Dr. Rajkumar Patil	A Methodology for Improving the Quality of the Research Article Publications in Engineering Institutions in India: A Case Study		August 2024	
Dr. Rajkumar Patil	Life Cycle Testing and Reliability Analysis of Prismatic Lithium-iron-phosphate Cells		December 2024	

Dr. Rajkumar Patil and Dr. Shashikant Auti	Investigating the Reliability of Heating, Ventilation, and Air Conditioning Systems Utilized in Passenger Vehicles		November 2024	
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FACULTY TRAINING PROGRAMMES ORGANIZED BY THE DEPARTMENT

Sr. No.	STTP	Title of the STTP	Date	Resource Persons
1	ISTE approved one week Short Term Training Programme	Research Funding, Publications, and IPR: A Journey from Fundamentals to Advanced Methodologies	10th June 2024 - 14th June 2024	Dr. Suhas Deshmukh, Dr. Akash Awale, Dr. Kiran Bhole, Dr. Sudeep Thepade, Dr. Nilesh Ware.

INDUSTRIAL VISIT ORGANIZED BY THE DEPARTMENT

Sr. No.	Date	Name of Company	No of students visited
1	29/08/2024	Super Technofab Pvt. Ltd (Kela Industries)	90
2	30/08/2024	BEST Undertaking bus workshop, Wadala, Mumbai	52
3	31/08/2024	Kokoyu Camlin Pvt. Ltd., Patalganga	34
4	11/10/2024	Central Railway Workshop, Matunga	29
5	24/10/2024	Tata-Cummins Components Plant, Phaltan	56
6	21/01/2025	Auro Engineering	20
7	04/03/2025	United Rubber Industries	38
8	04/03/2025	Giacomini India Pvt. Ltd., Bhandup	33

