

Newsletter

Department of Mechanical Engineering



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Madhav Institute of Technology &
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Vision

"To develop innovative and creative Mechanical Engineers catering the global industrial requirements and social needs".

Mission

1. To prepare effective and responsible graduate engineers for global requirements by providing quality education.
2. To enhance knowledge through project and internship in the field of Mechanical and allied engineering.
3. To guide students in acquiring career-oriented jobs in the field of Mechanical engineering.
4. To provide academic environment of excellence, leadership, ethical values and lifelong learning to cater the need of society by sustainable solutions.

Editorial Team

- Dr. Amit Aherwar
- Dr. Ravi Kant Ranjan

Students

- Bhumika Mishra
- Arun Singh Rajawat

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

1. Graduates of the program will be able to have successful professional career.
2. Graduates of the program will be able to develop attitude of learning and become adaptable to dynamic industrial and social environment.
3. Graduates of the program will be able to design and develop mechanical system by using skills and knowledge of core competency along with allied engineering skill.
4. Graduates of the program will be able to undertake interdisciplinary research needed to build a sustainable society.

PROGRAM OUTCOMES (POs)

Mechanical and Automobile Engineering Graduates will be able to:

- PO 1** Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO 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.
- PO 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.
- PO 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.
- PO 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.

- PO 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.*
- PO 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.*
- PO 8** *Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.*
- PO 9** *Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.*
- PO 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.*
- PO 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.*
- PO 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.*

Faculty Outreach

1. Dr. C. S. Malvi and his Bhagwad Gita group have organized a visit program to SRCM Heartfulness Meditation Centre, Gwalior on 26th February 2023.



Departmental Activities

1. Deptt. of Mech. Engg. has organized an Orientation Program on 2nd of January 2023. The Director and various faculty members of the department have addressed the session. Dr. Jyoti Vimal was the coordinator of this Orientation program.



2. Deptt. of Mech. Engg. has organized a meeting of the first-year students with the faculty members on 18th January 2023. Various faculty members of the department have addressed the session. Dr. Jyoti Vimal was the coordinator of this Orientation program.



3. Deptt. of Mech. Engg. has organized a special session on “Choice or by Chance Karma Yoga” a part of NEC-Bhagwad Gita-An Introduction on 10th February 2023. Dr. C.S. Malvi was a coordinator of this program.
4. Deptt. of Mech. Engg. has organized an expert talk on “Challenges and Opportunities in Manufacturing Sectors” on 13th February 2023. MITS Alumni Dr. Ravindra Singh Rana (Associate Professor, MANIT Bhopal) was the main speaker of the program. Dr. Gavendra Norkey was the coordinator of the program.



5. Shri Mahavir Singh Kushwaha, Technical Assistant in Mechanical Engineering Department has been retired on 31st of January 2023. A felicitation program has been organized by the Department and Institute on 13th February 2023.





6. An orientation Program has been organized by the Department for the first-year students on 15th March 2023. Faculty members of the department have discussed and provide guidance on various issues with the students.



Faculty Achievement and Activities

1. Dr. C.S. Malvi has delivered a speech on the topic "Introduction on Shrimad Bhagwat Geeta" in association with the Science Club, MITS on 18th January 2023.
2. Dr. C.S. Malvi has delivered a speech on the topic "Bhagwat Geeta- An introduction" A part of NEC on 24th February 2023.
3. Dr. Nitin Upadhyaya has successfully completed AICTE 8-Traing Modules in February 2023.
4. Dr. Dinesh Rathore has successfully completed AICTE 8-Traing Modules in February 2023.
5. Dr. Surendra Kumar Chourasiya has successfully completed AICTE 8-Traing Modules in February 2023.

Student Achievement and Activities

1. Rohan Singh Rajput, a group member of 'Rashtraay team' of MITS Gwalior has performed a Nukkad Natak with his team members at AMITY College, Gwalior and won the first prize.



Research Publications

1. Dr Nitin Upadhyay Published a Book Chapter "Effect of alloying elements on the phases of high-entropy alloys". High-Entropy Alloys:

Processing, Alloying Element, Microstructure, and Properties, edited by Anil Kumar, Rituraj Chandrakar, Vikas Dubey and Marta Michalska-Domańska, Berlin, Boston: De Gruyter, 2023, pp. 89-98. <https://doi.org/10.1515/97831>

Patent

1. Dr. Nitin Upadhyay along with Ram Krishna Rathore, Dr. A K Sinha and Kinshuk Verma have got a grant on a design patent (Design No. 368616-001) titled "Drawing Scale with an Attached Drawing Pen" on 19th January, 2023.
2. Dr. M. K. Sagar and Dr. Gavendra Norkey have got a grant on a design patent (Design no. 372339-001) titled "Multiple Die Manufacturing Unit" on 29th March 2023.