JSPM University Pune
Faculty of Science and Technology
School of Mechanical and Manufacturing Sciences

M. Tech (Mechanical)

Vision:

To be the epitome of academic excellence in the mechanical and manufacturing stream, nurturing human values, pioneering contemporary research and innovations, driving industry advancements, and shaping a sustainable, technology-driven future.

Mission:

- To provide a dynamic, inclusive learning environment that stimulates creativity and research, along with leadership qualities.
- To foster the passion of life-long learning by preparing students for a productive career in a sustainable competitive, dynamic, and technologically based society.
- To equip students with contemporary skills to inculcate meaningful contributions to industry and society through impactful solutions.
- Instilling ethical principles and moral values in education, fostering a culture of respect, inclusivity and social responsibility.

Programme Educational Objectives (PEO'S)

PEO-1 Pursue careers as successful professionals in mechanical engineering technology and related fields.

PEO-2 Advance personally and professionally by accepting professional and societal responsibilities and pursing leadership roles.

PEO-3 Adhere to the highest level of professional code of ethics.

Program Outcomes (PO's)

PO 1: Understand the ability to design or analyse a system, component or process to meet desired needs within realistic, contemporary constraints such as health and safety, ethics, performance, sustainability, and economics

PO 2: Develop specialized advanced skills in mechanical engineering fields including fluid mechanics, heat transfer, material science, dynamics, vibrations, numerical methods, design, and manufacturing

PO 3: Demonstrate the ability to use techniques, skills and modern engineering tools necessary for engineering practice

PO 4: Understand the ability to create, adapt, transfer and integrate existing and emerging technologies into new products, processes, and services

PO 5: Analyse decision making, risk assessment and problem-solving skills considering both economic and other constraints

PO 6: Develop both technical and management oral presentation and written communication skills.

Program Specific Outcome (PSO's)

PSO 1: Utilize the design thinking process to solve engineering challenges creatively, fostering innovation in product design and manufacturing.

PSO 2: Analyse and improve the performance of thermal power generation units (e.g., gas turbines, steam turbines) through the integration of energy conservation methods and advanced technologies.

PSO 3: Evaluate the economic, environmental, and societal impacts of different manufacturing processes and select the most appropriate one for the design.

Programme Coordinator

Director