

M.Tech. Design Engineering

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)

Graduates in Mechanical Engineering with Design Specialization will be able to:

- Design machines, components, and processes to fulfill desired specifications and constraints.
- Apply design engineering principles and concepts to create high-quality designs that meet industry needs
- Analyze and solve practical problems in industry and society using modern engineering technologies.



PROGRAMME OUTCOMES (PO'S)

After undergoing this programme, a student will have:

- Ability to demonstrate sound domain knowledge from a wider perspective to become successful professionals.
- Ability to identify, formulate and solve mechanical design problems.
- Ability to conceptualize the design aspects and evaluate them to select optimal feasible solutions considering safety, environment, and other realistic constraints.
- Ability to independently carry out research/investigation and development work to solve practical problems related to mechanical design.
- Ability to perform in multidisciplinary teams with sound interpersonal and management skills with a commitment to lifelong learning
- Ability to demonstrate research skills to critically analyze complex mechanical design problems for synthesizing new and existing information for their solutions
- Ability to demonstrate skills to use modern engineering tools, software, and equipment to analyze and solve complex engineering problems.
- Ability to exhibit the traits of professional integrity and ethics and demonstrate the responsibility to implement the research outcome for sustainable development of the society.
- Ability to communicate effectively to comprehend and write effective reports following engineering standards.
- Ability to use modern tools for the design and analysis of static and dynamic systems and mechanisms
- Ability to demonstrate the skill of a good researcher to work on a problem, starting from scratch, to research into literature, methodologies, techniques, tools, and conduct experiments and interpret data.



- Ability to exhibit the traits of good academicians and engage in independent and reflective lifelong learning.

PROGRAMME SPECIFIC OUTCOMES (PSO'S)

After successful completion of Mechanical Engineering program, the graduates will be able to:

- Use advanced and recent design principles for designing machine components for various applications.
- Carryout modeling and simulations using advanced softwares.
- Design and analyze mechanical components used as a structural member and also carry out vibrational analysis.


Programme Coordinator


Director