

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE,
MADANAPALLE
(UGC- AUTONOMOUS)**

DEPARTMENT OF MECHANICAL ENGINEERING

Programme: M.Tech. –MACHINE DESIGN (MD)

PROGRAMME EDUCATIONAL OBJECTIVES

The graduates will

PEO1: Excel as design professionals, managers, academicians, researchers and entrepreneurs.

PEO2: Design components and systems for required mechanical properties using the state of art engineering methods and computational tools.

PEO3: Engage in lifelong learning to adapt to socio-economic-technological developments and work successfully in teams with ethical behaviour.

PROGRAMME OUTCOMES

At the end of the programme graduates will be able to:

PO1: Design mechanical engineering systems to required specifications, demonstrating in-depth understanding with an ability to evaluate, analyze and synthesize existing and new knowledge.

PO2: Apply the knowledge to a design problem effectively and critically analyze complex engineering problems, taking decisions when there is not a unique answer.

PO3: Think laterally and originally to develop optimal and feasible innovative designs.

PO4: Provide design solutions, both individually or in a team, to unfamiliar problems demonstrating research skills and applying appropriate methodologies.

PO5: Apply knowledge, appropriate techniques and modern computer aided tools to design complex mechanical systems with an understanding of their limitations.

PO6: Work in a multi-disciplinary and collaborative environment.

PO7: Design mechanical systems considering the economic and financial feasibility.

PO8: Communicate effectively to the engineering community and society.

PO9: Engage in independent life-long learning with a high level of enthusiasm and commitment to improve knowledge and competence continuously.

PO10: Understand the responsibility and contribute to the community for sustainable development of society.

PO11: Observe and examine critically the outcomes of one's actions and make corrective measures subsequently, and learn from mistakes without depending on external feedback.