

**DEPARTMENT OF MECHANICAL ENGINEERING**  
**V R SIDDHARTHA ENGINEERING COLLEGE: VIJAYAWADA (AUTONOMOUS)**  
**B.TECH (ME)**

**PROGRAM OUTCOMES:**

PO1	Engineering knowledge: Apply the knowledge of mathematics, science, Engineering fundamentals, and Engineering specialization to the solution of Complex Engineering problems.
PO2	Problem analysis: Identify, formulate, research literature, and analyze engineering problems to arrive at substantiated conclusions using first principles of Mathematics, natural, and Engineering sciences.
PO3	Design/ development of solutions: Design solutions for complex engineering problems and design system components, processes to meet the specifications with consideration for the public health & safety, and the cultural, societal, and Environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	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.
PO6	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.
PO7	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.
PO8	Ethics: Apply ethical principles and commit to professional ethics and Responsibilities and norms of the engineering practice.
PO9	Individual and team work: Function effectively as an individual and as a member Or leader in teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively with the engineering community and with society at large. Be able to comprehend and write effective reports documentation. Make effective presentations, and give and receive clear Instructions.
PO11	Project management and finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a Member and leader in a team. Manage projects in multidisciplinary environments.
PO12	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.

**Program Specific Outcomes:**

PSO1	Apply their Knowledge in the domain of thermal systems to solve engineering Problems using modern technological tools.
PSO2	Develop and implement new ideas related to product design and manufacturing for societal and industrial needs using modern CAD/CAM/ CAE Tools.