## **Program Outcomes (POs)**

- PO 1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialisation for the solution of complex engineering problems.
- PO 2: Problem analysis: Identify, formulate, research literature, and analyse 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 public health and safety, and 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 modelling 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 the 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 the 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 work, as a member and leader in a team, to manage projects and in multidisciplinary environments
- PO 12: Life-long learning: Recognise 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 Educational Objectives (PEOs)**

- PEO1: The Mechanical Engineering students should be able to engage in the design and to develop the components and equipments in the field of mechanical engineering industries and other allied industries.
- PEO2: The graduates should be able to apply the knowledge of mechanical engineering to solve problems of social relevance and pursue higher education studies and research in the field of materials science, machine design, manufacturing and thermal/fluid engineering.
- PEO3: The graduates will work effectively as individuals and as team members in interdisciplinary projects
- PEO4: The graduates should be able to engage in lifelong learning, to become an entrepreneur, apply ethics and adapt to changing professional and societal requirements.

## **Program Specific Outcomes (PSOs)**

## PSO1:

The students should be able to identify, analyze and solve mechanical engineering problems in the area of manufacturing technology, machine design, thermal/fluid engineering and interdisciplinary courses.

- PSO2: The students should be able to pursue higher studies and research in the area of material science, manufacturing, machine design, industrial management and thermal/fluid engineering.
- PSO3: The students should be apply ethics and professional values in addressing social issues
- PSO4: The students should be able to become technocrats and entrepreneurs and to solve community problems related to mechanical systems by imparting technological inputs and managerial skills