Institute **Vision**

Promoting Prosperity of mankind by augmenting Human Resource Capital through Quality Technical Education & Training.

Institute **Mission**

Accomplish Excellence in the field of Technical Education through Education, Research and Service needs of society.

Department of Mechanical Engineering **Vision**

To become a center of excellence in educating students to become successful Mechanical Engineers.

Department of Mechanical Engineering **Mission**

M1. To empower the students with the fundamentals for a successful career in the field of Mechanical engineering.

M2. To continue their education through post-graduation, Research & Development.

M3. To provide service to the society.

Program Educational Objectives (PEOs)

PEO1. Graduates shall have successful careers as Mechanical Engineers, lead & manage teams.

PEO2. Graduates shall be professional in engineering practice and socially responsible.

PEO3. Graduates shall be pursuing advanced education, research and engage in the process of life-long learning.

Program Outcomes (POs)

Engineering Graduates will be able to:

PO1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3. **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 the public health and safety, and the cultural, societal, and environmental considerations.

PO4. **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.

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 diverse teams, and in multidisciplinary settings.

PO10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with 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.

PO11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and 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 (PSOs)

The graduates after completion of the programme will be able to:

PSO1. Design Mechanical Engineering systems using classical and state of the art tools.

PSO2. Apply the principles of energy conversion in Design and development of Thermal systems.

PSO3. Identify and select appropriate manufacturing processes, tooling, machinery and apply quality control methods for production of various components and systems.