PROGRAM OUTCOMES (POs)

An engineering program defines a set of specific program outcomes that relate to its educational objectives, listed below. We regularly review the courses in our curriculum to make sure that all these are covered, and try to measure whether our students are successfully attaining the following goals:

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, 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 EDUCATIONAL OBJECTIVES

- **PEO 1:** To enrich graduates with fundamental knowledge of Physics, Chemistry and advanced mathematics with their solid foundation in Mechanical Engineering subjects.
- **PEO 2:** To provide graduates to design the solution of mechanical engineering problems relevant to mechanical engineering design through the process of formulating, executing & evaluating a design solution as per need with socio-economic impact consideration and related constraints.
- **PEO 3:** To provide graduates with experience in learning and applying tools to solve theoretical and open ended mechanical engineering problems.
- **PEO 4:** To provide a contemporary grounding in professional responsibility in mechanical engineering including ethics, global economy, emerging technologies and job related skills such as written and oral communication skills and to work in multidisciplinary team.
- **PEO 5:** Prepare graduates to be interested, motivated, and capable of pursuing continued life-long learning through beyond curriculum education, short courses and other training programme in interdisciplinary areas.

PROGRAM SPECIFIC OUTCOME

1. Engage professionally in industries or as an entrepreneur by applying manufacturing and management practices.
2. Ability to implement the learned principles of mechanical engineering to analyze, evaluate and create more advanced mechanical systems or processes.