

## **PROGRAM OUTCOMES (PO) for MECHANICAL ENGINEERING**

**Knowledge of Mechanical Engineering:** Apply the knowledge of mathematics, physics, engineering fundamentals, and engineering specialization to solve of complex engineering problems.

**Identification of problem:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, basic sciences, and engineering sciences.

**Research methodology:** 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.

**Use of appropriate tools for problem solving:** Create, select, and apply appropriate techniques, resources, and modern engineering and technical soft computing tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

**Relationship amongst the 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.

**Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of need for sustainable development.

**Principle of ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**Working with the team effectively:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**Communication with the community:** Communicate effectively on complex engineering activities with the engineering community and with society at large. Some of them are, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**Playing as a team leader and an effective manager:** 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.

**Learning never ends:** Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.