**Department of Electrical and Electronics Engineering**

### PROGRAM LEARNING OUTCOMES (PLOs)

**PLO1. Engineering Knowledge and Skill:** Apply the knowledge of mathematics, science, electrical engineering fundamentals, and an electrical engineering specialization to the solution of complex electrical engineering problems.

**PLO2. Problem Analysis:** Identify, formulate, review research literature, and analyze complex electrical engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

**PLO3. Design and development of Solutions:** Design solutions for complex electrical 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.

**PLO4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysisand interpretation of data, and synthesis of the information to provide valid conclusions.

**PLO5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex electrical engineering activities with an understanding of the limitations.

**PLO6. 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.

**PLO7. Effective 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.

**PLO8. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PLO9. 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.

**PLO10. Environment and sustainability:** Understand the impact of the professional electrical engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**PLO11. Professional Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**PLO12. 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.