**Bachelor of Technology- Electronics and Communication Engineering *(2025-29)***

## Program Educational Objectives (PEOs)

**PEO1:** To make graduates of the electronics and communication engineering program capable of contributing towards development of Smart and Digital India by solving complex problems in the fields of Electronics and Communication Engineering through research and innovations.
**PEO2:**To transform graduates of the electronics and communication engineering program into successful professionals in designing and developing products and services of global standards, pursuing higher studies, being entrepreneurs, and doing research.
**PEO3:** To enable graduates of the electronics and communication engineering program to acquire the skills required to solve complex societal problems through a rational and flexible approach.
**PEO4:** To prepare electronics and communication engineering graduates to work effectively in teams, adapt to diverse environments and contribute to sustainable technology development in India and globally to address local and international challenges.

## Program Outcomes (POs)

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

**PO2: Problem Analysis:** Ability to 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:** Ability to 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 the cultural, societal, and environmental considerations.

**PO4: Conduct Investigations of Complex Problems:** Ability to conduct investigation into complex problems using 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:** Ability to 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: Engineer and Society:** Ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to professional engineering practice.

**PO7: Environment and Sustainability:** Ability to recognize and incorporate the diversity and commonalities of engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

**PO8: Ethics:** Ability to apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

**PO9: Individual and Team Work:** Ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**PO10: Communication:** Ability to 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 to the teams to manage projects and interdisciplinary teams.

**PO12: Life-long Learning:** Ability to 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)**

**PSO 1:** Capability to analyze and apply modern tools and techniques for integrating electronics hardware and softwares.
**PSO 2:** Inculcating attitude to design and develop electronics & communication systems using the concepts of embedded technologies, fabrication and IoTs for contemporary needs.
**PSO 3:** Emphasizing the integration of AI/ML in embedded technologies, SoC, digital communication, automation and intelligent decision-making for current and future innovations in the program.