

PROGRAM OUTCOMES (POs) FOR B. TECH ECE PROGRAM

POs are specific statements that describe what students are expected to know and be able to do by the time of graduation. POs for a B. Tech ECE program could include:

- PO 1** : **Engineering Knowledge:** Apply knowledge of mathematics, science, and engineering fundamentals to solve complex engineering Problems.
- PO 2** : **Problems Analysis:** Identify, formulate, review research literature, and analyze complex engineering Problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO 3** : **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 public health and safety, cultural, societal, and environmental considerations.
- PO 4** : **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.
- PO 5** : **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.
- PO 6** : **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.
- PO 7** : **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.
- PO 8** : **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO 9** : **Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO 10** : **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.
- PO 11** : **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.
- PO 12** : **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) FOR B. TECH ECE PROGRAM

PSOs are statements that describe what students are expected to know and be able to do by the time of graduation. For a B. Tech ECE program, PSOs could include:

- PSO 1** : Apply knowledge of mathematics, science, and engineering principles to solve complex engineering Problems in electronics and communication domains.
- PSO 2** : Design and implement electronic circuits, systems, and components to meet specified requirements, considering economic, environmental, and societal factors.
- PSO 3** : Analyze, design, and implement digital and analog communication systems using appropriate tools and techniques.
- PSO 4** : Demonstrate proficiency in using modern engineering tools, software, and equipment to solve engineering Problems and conduct experiments.

Program Educational Objectives (PEOs)

1. Graduates will have successful careers in electrical engineering and related fields.
2. Graduates will pursue higher education and research.
3. Graduates will demonstrate professionalism, ethics, and social responsibility.