B.Tech: Electronics and Communication Engineering

Program Educational Objectives (PEOs):

Graduates of the Program will

PEO 1	Adapt the learning culture needed for a successful professional career to pursue research in line with the latest technological developments.
PEO 2	Design and develop modern electronic and communication Systems for the given requirements by considering technical, environmental and social contexts.
PEO 3	Communicate effectively, demonstrate leadership qualities and develop knowledge of societal impacts of communication technologies with professional ethics.

Program Outcomes (POs):

After successful completion of the program, the graduates will be able to

PO 1	**Engineering Knowledge:** Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
PO 2	**Problem Analysis:** Identify, formulate, 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 systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
PO 4	**Conduct Investigations of Complex Problems:** Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of 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 modelling, to complex engineering activities, with an understanding of the limitations.
PO 6	**The Engineer and Society:** Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.
PO 7	**Environment and Sustainability:** Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of, and need for sustainable development.
PO 8	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

PO 9	**Individual and Teamwork:** 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 engineering management principles and apply these to one's own work, as a member and leader in a team and to manage projects 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):

After successful completion of the program, the graduates will be able to

PSO1	Apply the knowledge of Electronics and Communications in analysing problems related to Electronics, Communications, Signal processing, VLSI and Embedded systems.
PSO2	Use modern tools and techniques to solve contemporary problems in the field of Electronics and Communication Engineering.