

**VISION, MISION, PEO, PSO, PO of Electronics Engineering**

**Vision of the Department:**

To excel in all department aspects and raise the standard of the institute through contribution to the socio-economic development of the nation by providing high-quality technical education to students.

**Mission of the Department:**

**M1**: To provide students an environment of academic freedom that will ensure the exchange of ideas and the dissemination of knowledge in this discipline through effective teaching.

**M2**: To infuse scientific temper in the students and promote research in Electronics Engineering.

**M3**: To train the students as knowledge-based engineers, scientists, technocrats, administrators, entrepreneurs, and academicians with social and professional ethics and leadership qualities to meet the challenges in the Electronics Engineering field through logical and innovative thinking for the betterment of mankind.

**PEO (Program Educational Objective) of the Department:**

**PEO 1**: To prepare learners with a strong foundation required to identify, solve Electronics Engineering problems and to design Electrical and Electronics system.

**PEO2**: To inculcate research and development ability and to prepare students for successful career in industry and to work as part of teams on multidisciplinary projects.

**PEO3**: To inculcate life-long learning capabilities and to introduce them to professional ethics and code of professional practice.

**Program Specific Outcomes (PSO):**

**PSO1**: To apply the knowledge of mathematics, physics, electronics to solve complex engineering problems in Electronic Devices and Circuits, VLSI, Embedded systems, digital systems, microprocessors, Analog & Digital communication and other associated topics.

**PSO2:** To develop all round personality with multiple skills like leadership, verbal and written communication, team work, to be sensitive and responsible towards society.

**PSO3**: Apply the contextual knowledge of Electronics Engineering to assess social, environmental, health, safety, legal and cultural issues with professional ethics and function effectively as an individual or a leader in a team to manage different projects in multidisciplinary environments as the process of life-long learning.

**PO: (Program Outcome)**

Engineering Graduates will be able to:

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

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

**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 the public health and safety, and the cultural, societal, and environmental considerations.

**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.

**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.

**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.

**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.

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

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

**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.

**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.

**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.