PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO1- Technical Skills

To enable students acquire mathematical, scientific and engineering skills required for life-long learning via progress towards the successful completion of an advanced degree, professional development & industrial training course(s) and to carry research

PEO2- Employable Skills

To prepare students to meet the industrial needs and embed the knowledge such that the students become enough efficient in the design and development of required software and create solutions for automation of real time scenarios throughout their career

PEO3- Leadership Quality

To instill confidence and train students in soft skills, leadership abilities in understanding the ethical and social responsibilities in their professional lives and to become successful entrepreneurs

PEO4 - Self Learning

To make scholarly contributions in acquiring knowledge as demonstrated by publishing papers/ technical reports, applying for patents, delivering effective presentations, and contributing through innovative ideas

PEO5 - Problem Solving

To enhance technical knowledge, using modern tools for the new technologies and advance professionally as a result of his/her ability to solve complex technical problems

PEO6- Professional Ethics

To prepare students work in multidisciplinary teams on problems whose solutions lead to significant societal benefit

PROGRAMME OBJECTIVES (POs)

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.