

PROGRAMME SPECIFIC OUTCOMES (PSOs)

1. Our Graduates will possess the knowledge and expertise to carry out the surveys needed for various Civil Engineering projects.
2. Our graduates will be able to fit into various types of Civil Engineering jobs/projects as they are trained in the various construction industry practices after graduation.
3. Our graduates will be able to use the various design and project management tools that are needed in the construction industry.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The following program educational objectives are consistent with the college and department missions.

- I. To provide our graduates a deep knowledge in Civil Engineering founded in mathematical, scientific and engineering fundamentals in order to provide quality service to the society.
- II. To develop the ability to formulate, design and implement technically sound solutions to complex real life Civil Engineering problems with functionality, safety, economy, aesthetics and environmental sustainability.
- III. To provide opportunity for our graduates to work as part of teams in multi-disciplinary areas and develop the ability to communicate and lead effectively.
- IV. To promote professionalism, with an awareness of ethics and the need for lifelong learning.

PROGRAMME OUTCOMES (POs) (Common to all branches)

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 analyse 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 modelling 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.