The Program Educational Objectives (PEOs) for the BE, Civil Engineering Program are:

*(With effect from 1.11.2018)*

**PEO 1:** To produce engineering graduates who can excel in their professional career and/or higher education by acquiring knowledge in mathematical, computing and engineering principles.

**PEO 2:** To produce engineering graduates who can analyse any real life problem and design safe, economical and socially acceptable structures.

**PEO 3:** To produce engineering graduates who can exhibit attitude, professionalism, ethics, ability to communicate with team members and adapt to the latest trends by engaging themselves in life-long learning.

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**PO, The Program Outcomes for BE Civil Engineering**

**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 problem.

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

3. **Design/development of solution:** Design solution 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 interpretations 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.

**PSOs (With effect from 1.11.2018):**

1. Plan, analyse, design, estimate the cost and execute all kinds of civil engineering structures.
2. Use modern construction techniques as well as equipment and apply the principles of economics and management so as to complete the project within the specified time and budget.
3. Maintain and rehabilitate the existing structures