Department of Computer Science and Engineering

PEO, PO and PSO

Program Educational Objectives (PEOs)

- The PEOs of CSE program describe accomplishments that graduates are expected to attain within three-five years after graduation.

- Graduates would have applied their expertise to *contemporary problem solving, be engaged professionally, have continued to learn & adapt, and have contributed to their organizations through leadership & teamwork.*

- **CSE Graduates**, within three-five years of graduation should:

  1. Demonstrate their expertise in solving contemporary problems through design, analysis, implementation and evaluation of hardware and software systems

  2. Engage in the Computer Science and Engineering profession locally and globally by contributing ethically to the competent and professional practice of Engineering or other professional careers

  3. Adapt to a constantly changing world through professional development and sustained learning

  4. Exhibit leadership and entrepreneurship skills by incorporating organizational goals and providing facilities for peer members with defined objectives

  5. Develop communication skills and show a commitment to teamwork necessary to function productively and professionally on multidisciplinary teams

Program Outcomes (POs) defined by NBA

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, 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.

Program Outcomes (POs) defined by NBA

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.

Program Specific Outcomes (PSOs)

The **CSE graduates** will have

1. Solid foundation in the principles and practices of computer science, including mathematics, science and basic engineering for design, develop, test, and maintain Hardware/Software Systems.

2. Professional skills to function as members of multi-disciplinary teams and to communicate effectively using modern tools.

3. An ability to pursue their careers in the software industry or higher studies and continue to develop their professional knowledge in the areas like Data Mining, Networking, Image Processing, AI & Machine learning, Data Science, IOT.

4. An ability to practice the profession with ethics, integrity, leadership and social responsibility.