



# SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

## Vision

To be a globally recognized school through excellence in teaching, learning and research for creating Computer Science professionals, leaders and entrepreneurs of future contributing to society and industry for sustainable growth.

## Mission

- To build computational skills through hands-on and practice-based learning with measurable outcomes.
- To establish a strong connect with industry for in-demand technology driven curriculum.
- To build the infrastructure for meaningful research around societal problems.
- To nurture future leaders through research-infused education and lifelong learning.
- To create smart and ethical professionals and entrepreneurs who are recognized globally.

## B.Tech. CSE Programme Programme Outcomes (POs)

- 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.

## B.Tech. CSE Programme Educational Objectives (PEOs)

1. The graduates shall demonstrate professional advancement through expanded leadership capabilities and technical accomplishment providing solutions to local and global societal issues through mindful engagement.
2. The graduates shall undertake higher education or global certifications or exhibit impactful research accomplishment.
3. The graduates shall extend global expertise in technology development and deployment by becoming an entrepreneur, consultant and innovator.
4. Graduates shall embrace ethics and lifelong learning to adapt to a fast-changing world and enhance global employability in diverse work environments.

## B.Tech. CSE Programme Specific Outcomes (PSOs)

- Apply acquired skills in software engineering, networking, security, databases, intelligent systems, cloud computing and operating systems to adapt and deploy innovative software solutions for diverse applications.
- Apply diverse IT skills to design, develop, and evaluate innovative solutions for business environments, considering risks, and utilizing interdisciplinary knowledge for efficient real-time projects benefiting society.