



SCMS SCHOOL OF ENGINEERING & TECHNOLOGY, KARUKUTTY

DEPARTMENT OF CIVIL ENGINEERING

Programme: B. Tech. in Civil Engineering

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

Within a few years of graduation, the candidate is expected to have achieved the following objectives:

PEO 1 – Knowledge Attainment: Graduates shall attain sound technical competency and knowledge in various fields of Civil Engineering leading to a successful career.

PEO 2 – Social Responsibility: Graduates shall use the acquired skills and knowledge to solve complex Civil Engineering problems for the betterment of the society.

PEO 3 – Integrity and Ethics: Graduates shall conform to professional ethics and contribute to uphold the integrity of their profession

PEO 4 –Communication Skills: Graduates shall develop strong technical communication skills and intra and inter personal skills which would help inculcate in them team spirit, management and leadership qualities.

PROGRAMME OUTCOMES (POS)

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 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.

PO 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.

PO 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.

PO 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.

PO 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.

PO 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.

PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 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.

PO 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.

PO 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.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

PSO1 – Graduates shall demonstrate good understanding of engineering fundamentals and demonstrate sound knowledge in analysis, design and laboratory investigations in various domains of Civil Engineering.

PSO2 – Graduates will exhibit a passion for continuous self-learning and/ or pursue higher studies and engineering research.

PSO3 – Graduates will possess ability to interact and function within multidisciplinary teams with competence in modern tool usage.