

THENI MELAPETTAI HINDU NADARGAL URAVINMURAI



NADAR SARASWATHI COLLEGE OF ENGINEERING & TECHNOLOGY



Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

ISO 9001 : 2015 Certified Institution

Vadapudupatti, Annanji (po), Theni - 625 531,
Tamilnadu, India.

Department of Civil Engineering

Program Specific Outcomes

To Ensure Graduates :

- Capable of designing and building Civil Engineering-based systems in the context of environmental, economical, and societal requirements and serve the community as ethical and responsible professionals.
- Able to use Knowledge in various domains in Civil Engineering to identify research gaps and hence to provide solutions, Innovations and engage in lifelong learning for professional growth.

Program Educational Objectives

Graduates Will Be Able To :

- Cultivate the necessary skills and knowledge for students to excel in Civil Engineering roles within both domestic and international corporations.
- Enhance students' ability to synthesize data and technical concepts, and proficiently utilize modern engineering tools for effective problem-solving in Civil Engineering.
- Foster an environment that encourages lifelong learning, graduate studies, and collaborative efforts on multi-disciplinary projects throughout their professional journey.

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PROGRAMME OUTCOMES (Po's)

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 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.