

SRI VELLAPPALLY NATESAN COLLEGE OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

Programme Educational Objectives (PEOs) for 2018-2019

On completion of the programme students will have:

- 1. Become competent and engaged engineering professionals, applying their technical and managerial skills in the planning, design, construction, operation or maintenance of the built environment and global infrastructure, and utilizing their skills to analyze and design systems, specify project methods and materials, perform cost estimates and analyses, and manage technical activities in support of civil engineering projects.
- 2. Initiated an active program of life-long learning, including studies leading to professional licensure or an advanced degree in engineering that provides for continued development of their technical abilities and management skills, and attainment of professional expertise.
- 3. Developed their communication skills in oral, written, visual and graphic modes when working as team members or leaders, so they can actively participate in their communities and their profession.
- 4. Established an understanding of professionalism, ethics, quality performance, public policy, safety, and sustainability that allows them to be professional leaders and contributors to society when solving engineering problems and producing civil engineering solutions.
- 5. Understood the possibilities of having entrepreneurial skills and innovative ideas.
- 6. Become capable to do projects based on subject knowledge as well as on the lines of research.



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Programme Outcomes (POs) for 2018-2019

On completion of the programme students will have:

- 1. An ability to select and apply the knowledge, techniques, skills and modern tools of the discipline to broadly-defined engineering technology activities
- 2. An ability to select and apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require the application of principles and applied procedures or methodologies
- 3. An ability to conduct standard tests and measurements; to conduct, analyze, and interpret experiments; and to apply experimental results to improve processes
- 4. An ability to design systems, components, or processes for broadly-defined engineering technology problems appropriate to program educational objectives
- 5. An ability to function effectively as a member or leader on a technical team
- 6. An ability to identify, analyze, and solve broadly-defined engineering technology problems
- 7. An ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature
- 8. An understanding of the need for an ability to engage in self-directed continuing professional development
- 9. An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity
- 10. A knowledge of the impact of engineering technology solutions in a societal and global context
- 11. An understanding of the scope of entrepreneurship and innovative solutions
- 12. An ability to carry out engineering projects.
- 13. An understanding of research and related activities.



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Programme Specific Outcomes for 2018-2019

At the end of the course the student will also be able to-

- 1. Utilize principles, hardware, and software that are appropriate to produce drawings, reports, quantity estimates, and other documents related to civil engineering
- 2. Conduct standardized field and laboratory tests related to civil engineering
- 3. Utilize surveying methods appropriate for land measurement and/or construction layout
- 4. Apply fundamental computational methods and elementary analytical techniques in subdisciplines related to civil engineering
- 5. Plan and prepare documents appropriate for design and construction
- 6. Perform economic analyses and cost estimates related to design, construction, operations and maintenance of systems associated with civil engineering
- 7. Select appropriate engineering materials and practices
- 8. Perform standard analysis and design in at least three sub-disciplines related to civil engineering