

**College of Engineering, Pune-5**  
**CIVIL ENGINEERING DEPARTMENT**  
**M Tech – GEOTECHNICAL ENGINEERING**

**Programme Educational Objectives (PEO)**

- I. Provide students with a sound foundation in the basic sciences, mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze the problems related to diversified field of Geotechnical and allied civil engineering fields.
- II. Develop experimental setup for modelling of geotechnical Engineering problems along with the necessary instrumentation and synthesize the data obtained through field and laboratory tests to design geotechnical and foundation system.
- III. Create awareness among the students for the use of state of the art professional software.
- IV. Exhibit Professionalism, ethical approach, communication skills, team work on multidisciplinary projects and adapt to modern trends by engaging in lifelong learning.

**Program Outcomes (POs):**

Graduate will be able to

- a. Apply knowledge of mathematics, science and engineering to analyze geotechnical and foundation engineering problems.
- b. Identify and formulate geotechnical and foundation engineering problems reviewing available literature.
- c. Solve complex problems of analysis and design of various geotechnical and foundation system.
- d. Apply appropriate research methodology, techniques and tools to design and conduct lab as well as field experiments.

- e. Create, select and apply correct numerical technique to analyze complex geotechnical and foundation system with an understanding of the limitations.
- f. Able to function as a member or a team leader for engineering as well as multidisciplinary project.
- g. Demonstrate application of engineering and management principles for efficient handling of projects.
- h. Communicate effectively with the engineering community and society in both verbal and written form.
- i. Engage in lifelong learning to continuously improve knowledge and competency.
- j. Demonstrate professional ethics and work culture and to contribute in efficient technology transfer to the society.
- k. Examine self-actions critically and applying corrections through learning from mistakes.