GEOTECHNICAL DESIGN SOFTWARE LAB

(Skill based lab Elective-IV)

Course Code: 20CE11S8

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Pre-requisites: Geotechnical Engineering- I

Course Outcomes:

At the end of the course, the student will be able to:

CO1: Analyse a soil slope and a retaining wall (L4)
CO2: Analyse footings (L4)
CO3: Determine settlement of structures (L3)
CO4: Analyse deep excavations and embankments (L4)
CO5: Analyse a tunnel (L4)

(Any 12 out of 14 experiments)

LIST OF EXPERIMENTS: -

1. Analysis of a soil slope.
2. Analysis of retaining wall.
3. Analysis of rectangular and circular spread footings, strip foundations.
4. Analysis of pile foundation.
5. Determination of consolidation settlement.
6. Analysis of Deep excavation.
7. Analysis of transient flow of homogenous and zoned embankments.
8. Analysis of phases of tunnel construction.
9. Analysis of a gabion wall.
10. Verify cantilever retaining wall design.
11. Design of a gravity retaining wall.
12. Verification of mechanically stabilized earth walls.
13. Verification of segmental retaining walls reinforced by geogrids.
14. Design of a soil-nailed wall.

References:

1. Manuals of different commercial application software relevant to above exercises.