IV Year I Semester

Code: 17CE751

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FOUNDATION ENGINEERING LAB
(SKILL COURSE LAB-II)

Course Outcomes:

Upon successful completion of this course, the students will be

- Able to Analyze and Design Isolated Square footing
- Able to Analyze and Design Isolated Rectangular Footing
- Able to Analyze and Design Isolated Eccentric Footing
- Able to Analyze and Design Combined footing
- Able to Analyze and Design Strap Footing
- Able to Analyze and Design Foundation for Mutil-Storied Building

List of Modules

1. Fundamentals of STAAD Pro, Importing STAAD models to STAAD Foundation
2. Significance of SBC of soil, Design of foundation for different Structures
3. Design of Isolated Footings (Two Sample Problems),
4. Design of Combined Footings (Two Sample Problems),
5. Design of Eccentric Footings,
6. Design of Strap Footings,
7. Check for safety against One-way shear
8. Check for safety against Two-way shear,
9. Check for safety against Punching Shear, Sliding, and Overturning.
10. Detailing of Isolated Footing,
11. Detailing of Combined Footing,
12. Detailing of Eccentric Footing
13. Detailing of Strap Footings

    Software Tool to be used:

    STAAD Foundation or equivalent