



CE220 Aug 3:0

Design of Sub-structures

Instructor

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Teaching Assistant

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Department: Civil Engineering

Course Time: Tue Thu 10:00 - 11:30

Lecture venue: GTLH

Detailed Course Page:

Announcements

Brief description of the course

Enable the students to design shallow and deep foundation based on Indian Standard Codes. Any MTech,

MTech (Research) or Ph D students of Civil Engineering

Prerequisites

None

Syllabus

Design considerations, field tests for bearing

capacity and settlement estimates, selection of

design parameters. Structural design

considerations. Codes of practice. Design of

spread footings, combined footings, strap

footings, ring footings, rafts, piles and pile caps

and piers.

Course outcomes

Evaluation of bearing capacity from field and laboratory testing, designing of shallow and deep foundations for various loading conditions.

Grading policy

Assignments (20%), Mid term test (30%) and Term end exam (50%)

Assignments

Evaluation of safe bearing capacity based on field and laboratory test results, design of isolated, combined, strap footings, raft foundation, pile foundation and well foundation

Resources

Bowles, J.E. Foundation analysis and design.5th Edn., McGraw Hill, 1996

Indian Standard Codes