

Course syllabus

Department of Civil Engineering, Indian Institute of Technology Madras

CE4670 - Case studies in Structural Engineering

Credit Distribution: C:9 L:3 T:0 P:0 E:0 O:6 TH:0

Course Type: Theory

Description: The course aims to develop knowledge of various aspects of structural engineering applications through self-study, and by exploring case study method of learning. - The course aims to enable the students to appreciate past work, to understand how to extract information from past experiences, and to express through formal methods of report writing and oral presentation.

Course Content:

Buildings: collection of information of selected buildings, including conceptual design, analysis, detailing, construction methods and special aspects.

Bridges and other non-building structures: collection of information of selected structures, including conceptual design, analysis, detailing and construction methods and special aspects.

Failure studies: collection of information of selected structural failures, including investigation and impact of failure.

Professional Code of Conduct: Learning from past case studies.

Textbooks: NIL

Reference Books:

- Billington, D.P., The Tower, and The Bridge: The New Art of Structural Engineering, Princeton University Press, 1985.
- Billington, D.P., The Art of Structural Design - A Swiss Legacy, Yale University Press, 2003.
- Previous case study reports prepared by faculty and students.

Prerequisite: NIL