Eurocode 2 for building designers (2-days)
Course outline

Introduction

Eurocode 2 is the new design standard for the design of elements in concrete buildings. This course will provide background to the provisions in the code and explain how to apply them to building structures. Practical workshop sessions allow delegates to get to grips with the details and be confident of using Eurocode 2 for real projects.

Aims & Objectives:

On completion of this course delegates will have a knowledge of the principles of Eurocode 2 and be able to apply them to building structures.

After this course delegates will:

- Have an understanding of the content of Eurocode 2 for building structures
- Be able to find their way around Eurocode 2
- Have an understanding of the content of Eurocode 2 for buildings, including:
  - Materials
  - Durability
  - Structural Analysis
- Know how to apply Eurocode 2 to:
  - Beams
  - Slabs
  - Columns
  - Foundations
  - Flat Slabs
- Know how to design for:
  - Flexure
  - Shear
  - Axial loading
  - Torsion
  - Punching shear
  - Strut-and-tie
  - Deflection
- Have an appreciation of precast, plain and lightweight concrete provisions
- Have an knowledge of the differences with BS 8110

Course Outline:

- Introduction to Eurocode 2 and relationship to other Eurocodes and European Standards
- Basis of design, combinations of actions with design exercise
- Materials, durability, structural analysis
- Ultimate limit state
  - Flexural design with design exercise
  - Shear design with design exercise
  - Punching shear with design exercis
  - Axial resistance with design exercise
  - Strut-and-tie
- Serviceability limit state
  - Deflection with design exercise
  - Crack control
- Foundations with design exercise
- Detailing of structural elements with design exercise
- Overview of precast, plain and lightweight concrete
- Review of design aids and guidance

Further information

This course is intended for Structural Engineers. Some knowledge of concrete design and Eurocodes 0 and 1 would be useful but not essential. A calculator and pencil are essential, but other required materials will be provided.

Course Duration:

2 days (12 hours) CPD