Engineering Materials For Buildings and Bridges Course

Venue Information

Venue: London UK

Place:

Start Date: 2026-04-14

End Date: 2026-04-18

Course Details

Net Fee: £4750.00

Duration: 1 Week

Category ID: CACETC

Course Code: CACETC-27

Syllabus

Course Syllabus

Course Description

The goal of this course is to provide participants with an advanced understanding of the properties of traditional and emerging materials used in buildings and bridges. Upon completion of the course.

Course Objective

Each participant should be able to:

- Recognize and understand the engineering properties of materials used in the construction of bridges and buildings
- Select the appropriate material to achieve particular design goals
- Understand the advantages, disadvantages and limitations of such materials

Course Outline

Day One

- High-performance concrete
- Self-consolidating concrete
- Fibre-reinforced concrete

Day Two

- Lightweight concrete
- Polymer modified concrete
- Sprayed concrete (shotcrete)

Day Three

- Epoxy-coated steel reinforcement
- Galvanized steel reinforcement
- Emerging corrosion resistant steel reinforcement
- Fibre-plastic reinforcement (FRP)
- Hybrid reinforcement new technology

Day Four

- Specifications and standards for engineering materials
- Laboratory and field testing
- Smart materials and smart structures
- Novel materials and emerging applications

Day Five:

- Examples and case studies