Designing High Performance Concrete Structures Course

Venue Information

Venue: London UK

Place:

Start Date: 2026-06-02

End Date: 2026-06-06

Course Details

Net Fee: £4750.00

Duration: 1 Week

Category ID: CACETC

Course Code: CACETC-23

Syllabus

Course Syllabus

Course Description

This course will introduce you to state-of-the-art technologies and methodologies for designing and specifying concrete subjected to extreme conditions.

Course Objective

At the end of this seminar you will be able to:

- Understand the basics of quality concrete construction
- Provide design details to minimize concrete deterioration
- Develop project specifications to improve concrete durability
- Fully utilize the latest technology in concrete materials and construction methods

Concrete in Extreme Conditions

- Freeze-Thaw
- Chemical Attack
- Marine Environments
- Abrasion and Erosion
- High Strength Concrete
- Self-Consolidating Concrete
- Mass Concrete
- Roller-compacted Concrete
- Pervious Concrete
- Ultra-thin Whitetopping

Design Details to Reduce Corrosion

- Crack Control
- Concrete Cover
- Materials and Mix Design

Characteristics

- Membranes and sealers
- Cathodic Protection

Fundamentals of Quality Concrete

- Materials
- Batching and Delivery
- Quality Control and Quality Assurance

Construction Methods

- Handling and Placing Concrete
- Finishing and Curing Concrete
- Hot and Cold Weather Concrete
- Construction Scheduling

Specifying Concrete for High Performance

- Prescriptive versus

Performance-based Specifications

- Performance Criteria
- Construction Execution
- Pre-qualification Testing
- Acceptance Testing