# Advanced Concrete Technology for Durable and Sustainable Civil Infrastructure Training program

### Introduction:

Premature deterioration of civil infrastructure has created a colossal backlog of ageing concrete structures. Professionals need to design structures that can exceed their service life even in harsh environments and with minimum maintenance and repair. This, however, requires a solid understanding of concrete technology and the interaction between structures and their environment.

This seminar consists of several workshops which provide state-of-the art knowledge on durable and sustainable concrete, including mineral additions and chemical admixtures that enhance the workability, strength, and durability of concrete. The workshops will also enhance your decision-making process regarding various concrete products, construction procedures and performance test methods.

### Who Should Attend?

- Project Managers
- Civil & Asset Engineers
- Construction & Quality Engineers
- Design Engineers
- Technicians & Technologists
- Plant & Facility Engineers
- Business Owners

# After participating to this seminar, you will be able to do the following:

- Apply modern concrete technology in concrete projects
- Develop performance specifications for concrete projects
- Create more durab 2018 Training plans Best technology solution (BTS) Company. le and sustainable concrete mix designs
- Select suitable test methods to evaluate concrete performance
- Interpret quality control data results for fresh and hardened concrete

## **Course Outline:**

- Cement chemistry, hydration & microstructure
- Supplementary cementitious materials
- Concrete chemical admixtures
- Workability of fresh concrete
- Concrete mixture design
- Concrete test methods & quality control
- Modern concretes: HPC, SCC, FRC, UHPC, mass concrete and thermal stress, pervious concrete & shotcrete
- Service life prediction
- Concrete construction sustainability

