







Designing High Performance
Concrete Structures

Training Course For One Week In

Singapore, Mandarin Orchard Singapore

Which Be Held As Under Details:



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## Abar Solutions Petroleum Consultancy & Training Qualified From KPC Training & Consulting Services Provider

# Abar Solutions Petroleum Consultancy Invite Your Employee To Participate With Us In Special Training Course As Under Details:

Course Name		Designing High Performance Concrete Structures			
Code	Period	Language	Start	End	Location
CE 009	5 Days	English	07/08/2017	11/08/2017	Singapore , Mandarin Orchard Singapore
			04/09/2017	08/09/2017	
			09/10/2017	13/10/2017	
			13/11/2017	17/11/2017	
			18/12/2017	22/12/2017	
			15/01/2018	19/01/2018	
			12/02/2018	16/02/2018	
			12/03/2018	16/03/2018	
			23/04/2018	27/04/2018	
			14/05/2018	18/05/2018	
			11/06/2018	15/06/2018	
			09/07/2018	13/07/2018	
** The Fees Includes : Lecturer , Training Material , Training Room With One Coffee Break Daily , Certificate Of					

<sup>\*\*</sup> The Fees Includes : Lecturer , Training Material , Training Room With One Coffee Break Daily , Certificate Of Attendance In Last Day Training Course \*\*

## **Course Description**

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

# Course Objectives

- ⇒ 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
  - Reduce potential conflicts in specifications
  - Understand quality assurance methods for concrete

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Recognize and solve potential problems with concrete construction

## **Course Content & Outlines**

#### **⇒** 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

#### **⇒** Troubleshooting Concrete Failures

- Plastic Concrete
- Hardened Concrete

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