MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

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CONCRETE STRUCTURAL DESIGN FOR INDUSTRIAL PROJECTS TRAINING

"Design Safe, Efficient, and Durable Concrete Structures for Industrial Applications Using Modern Engineering Principles."

Schedule

Venue (InHouse)	Fees
At Your Organization Premises	Ask For The Quotation

► **Available delivery methods:** In-House Training

Introduction

Industrial projects require robust and efficient concrete structures that can withstand heavy loads, harsh environments, and long-term usage. The Concrete Structural Design for Industrial Projects Training provides engineers and designers with comprehensive knowledge and practical skills to design, analyze, and optimize concrete structures for industrial applications.

This course covers structural analysis, design principles for beams, columns, slabs, and foundations, use of reinforced concrete, load considerations, and compliance with international standards such as ACI, Eurocode, and local building codes. Participants will learn to combine theoretical design methods with practical, real-world considerations for industrial facilities, including factories, warehouses, plants, and heavy machinery installations.

Objectives

By the end of this course, participants will be able to:

- Understand fundamental concepts of concrete structural design.
- Analyze loads and structural behavior specific to industrial projects.
- Design reinforced concrete beams, columns, slabs, and foundations.
- Apply serviceability, durability, and safety considerations in designs.
- Use modern design codes, including ACI, Eurocode, and local regulations.
- Incorporate industrial-specific design requirements such as heavy equipment and dynamic loads.
- Optimize structural design for cost-efficiency and material utilization.
- Use design software and tools for accurate calculations and documentation.

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Why Attend

Industrial structures demand high levels of safety, reliability, and durability. This training equips engineers, designers, and project managers with the skills to create structurally sound concrete designs that meet modern standards. Participants will gain both theoretical knowledge and practical skills to design industrial facilities efficiently, reduce risks, and ensure compliance with regulations.

Target Audience

This course is suitable for:

- Civil and Structural Engineers
- Design Engineers and Draftsmen
- Project Managers and Construction Supervisors
- Industrial Plant Designers
- Engineering Consultants and Architects
- Students or professionals specializing in structural or industrial design

Individual Benefits

- Acquire expertise in designing concrete structures for industrial projects.
- Learn to apply international codes and standards in practical designs.
- Improve problem-solving, analytical, and design decision-making skills.
- Enhance career opportunities and professional credibility.
- Gain confidence in executing industrial structural projects safely and efficiently.

Organizational Benefits

- Improve structural integrity and safety of industrial facilities.
- Optimize material usage and reduce construction costs.
- Ensure compliance with international standards and local regulations.
- Enhance efficiency and reliability of in-house engineering teams.
- Reduce design errors and potential operational risks.
- Support long-term durability and sustainability of industrial projects.

Instructional Methodology

The training uses a hands-on and interactive approach including:

- Case studies of real industrial concrete projects
- Step-by-step design calculations and analysis exercises
- Software demonstrations for structural modeling and design
- Group discussions and collaborative problem-solving exercises
- Assignments focused on industrial design challenges
- Continuous feedback and Q&A sessions for individual learning

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Course Outline

Module 1: Introduction to Concrete Structures in Industrial Projects

Module 2: Load Analysis – Dead, Live, Environmental, and Dynamic Loads

Module 3: Design of Beams and Slabs – Reinforced and Prestressed Concrete

Module 4: Column and Foundation Design for Industrial Applications

Module 5: Serviceability, Durability, and Safety Considerations

Module 6: Design of Industrial Floors, Tanks, and Heavy Load Foundations

Module 7: Compliance with ACI, Eurocode, and Local Building Codes

Module 8: Material Selection and Optimization Techniques

Module 9: Software Applications in Concrete Structural Design

Module 10: Capstone Project – Designing a Complete Industrial Concrete Structure

Certification

Upon successful completion, participants will receive a Certificate in Concrete Structural Design for Industrial Projects, validating their ability to design safe, durable, and efficient concrete structures for industrial facilities.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

In-House / Customized Training Interested in running this course for your team? Please contact us:	TEL: **+601116373203**	EMAIL: **info@mawaevents.net**

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