

DESIGN REQUIREMENTS FOR STRUCTURES WITHOUT FAULTS تابلطتم بويعللا نم ةيلاخلل اينابللل ءاشنال او ميمصتلل

"Design it Right the First Time: Eliminate Structural Defects Through Smart Engineering."

Schedule

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

► Available delivery methods: In-House Training

Introduction

This course explores best practices, standards, and critical techniques for designing and constructing buildings that are free from common faults and failures. It offers engineers and construction professionals a practical understanding of how to ensure structural safety, performance, and durability from concept through completion. The focus is on preventing design oversights that can lead to costly rework, failures, or long-term deterioration.

Objectives

Participants will learn to:

- Identify typical design and construction faults and how to avoid them
- Apply integrated design principles for structural integrity
- Understand quality control and assurance during construction
- Use global codes and standards to ensure compliance

Why Attend

- Avoid costly structural failures and legal liabilities
- Enhance the quality, safety, and reliability of your construction projects
- Learn proven practices for preventing material and structural defects
- Gain practical tools for fault detection and early intervention

Target Audience

- Civil & Structural Engineers
- Construction Managers & Site Supervisors
- QA/QC Engineers
- Architects & Design Consultants
- Project Developers & Inspectors

Individual Benefits

- Boost your expertise in high-quality, fault-free design
- Advance your skills in defect prevention and correction
- Improve your decision-making in field and design coordination

Organizational Benefits

- Reduce structural failures and rework costs
- Improve client satisfaction through better project delivery
- Strengthen the firm's reputation for quality and compliance

Instructional Methodology

- Expert-led sessions
- Interactive case studies
- Group analysis of real project defects
- Hands-on design exercises
- Q&A and peer discussion

Course Outline

DETAILED 5-DAY COURSE OUTLINE (Customizable) Training Hours: 07:30 AM – 03:30 PM Daily Format: 3–4 Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Understanding Structural Defects

- Common defects in reinforced concrete and steel buildings
- Case studies: what went wrong and why
- Cost and safety implications of design errors

Day 2: Foundations & Structural Systems

- Choosing the right system for the soil and structure
- Misalignments, settlements, and poor detailing
- Waterproofing and drainage considerations

Day 3: Material Compatibility & Detailing

- Choosing durable and compatible materials
- Detailing for long-term performance
- Joint design, anchorage, and thermal movement

Day 4: Design Documentation & Communication

- Coordination between architecture and engineering
- Reviewing shop drawings and construction plans
- Using BIM and digital tools to prevent errors

Day 5: Inspection, Handover & QA/QC Strategy

- Key inspection points during construction
- Final handover checklists for fault-free delivery
- Group workshop: designing a fault-free structure

Certification

Participants will receive a Certificate of Completion in Design Requirements for Fault-Free Structures from the training provider.

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?

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