MAWA EVENTS

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

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RESIDENTIAL BUILDING ENVELOPE AND STRUCTURE ASSESSMENT

"Ensuring Durability, Safety, and Efficiency – From Foundation to Façade"

Schedule

Venue	Fees
In-House	ASK FOR THE QUOTATION

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

Introduction

This course provides a comprehensive understanding of how to assess the integrity and performance of residential building envelopes and structural systems. Participants will explore methodologies to identify defects, evaluate materials, detect deterioration, and propose corrective measures that align with modern codes and sustainability goals.

Objectives

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

- Understand the components and functions of building envelopes and structural systems
- Conduct systematic assessments of structural integrity and envelope performance
- Identify common defects in roofs, walls, windows, and foundations
- Utilize appropriate diagnostic tools and inspection techniques
- Develop reports with actionable repair and maintenance strategies

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Why Attend

- To gain practical skills in diagnosing and addressing common structural and envelope failures
- To ensure building safety, occupant comfort, and long-term performance
- To reduce maintenance costs and extend the life cycle of residential structures
- To comply with modern energy efficiency and building code requirements

Target Audience

- Civil and structural engineers
- Architects and building inspectors
- Facility and property managers
- Real estate developers and consultants
- Maintenance engineers and contractors

Individual Benefits

- Stronger technical and inspection skills
- Ability to identify risks and deterioration early
- Improved capacity to deliver sound structural recommendations
- Enhanced knowledge of building performance and sustainability

Organizational Benefits

- Increased safety and durability of residential assets
- Reduced risk of liability from structural failures or defects
- Cost savings through proactive maintenance and risk mitigation
- Improved asset valuation and market confidence

Instructional Methodology

- Lectures supported with visual documentation and failure case studies
- Hands-on assessment tools and checklist demonstrations
- Group discussions and field-based learning examples
- Problem-solving activities and diagnostic simulations
- Final workshop with reporting and remediation planning

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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: Fundamentals of Residential Structures

- **Module 1 (07:30 – 09:30):** Overview of Residential Structural Systems and Building Envelopes
- **Module 2 (09:45 – 11:15):** Load Paths and Material Behavior in Residential Structures
- **Module 3 (11:30 – 01:00):** Failure Modes in Residential Buildings

Day 2: Assessment Tools and Standards

- **Module 4 (07:30 – 09:30):** Inspection Tools and Techniques for Envelopes and Structures
- **Module 5 (09:45 – 11:15):** International Codes and Guidelines (IBC, ASTM, ISO)
- **Module 6 (11:30 – 01:00):** Reporting Protocols and Risk Grading

Day 3: Building Envelope Assessment

- **Module 7 (07:30 – 09:30):** Roofing Systems – Defects and Moisture Intrusion
- **Module 8 (09:45 – 11:15):** Walls, Windows, and Openings – Thermal Bridging & Seal Failures
- **Module 9 (11:30 – 01:00):** Waterproofing, Insulation, and Energy Efficiency Checks

Day 4: Structural Integrity Assessment

- **Module 10 (07:30 – 09:30):** Foundation & Basement Inspection – Cracks, Settlement, Drainage
- **Module 11 (09:45 – 11:15):** Slabs, Columns, and Beams – Deflection and Reinforcement Issues
- **Module 12 (11:30 – 01:00):** Structural Rehabilitation Techniques and Case Studies

Day 5: Workshop and Action Planning

- **Module 13 (07:30 – 09:30):** Simulation: Performing a Complete Building Envelope Audit
- **Module 14 (09:45 – 11:15):** Writing Assessment Reports and Recommending Remedial Actions
- **Module 15 (11:30 – 01:00):** Final Group Presentations & Certification Ceremony

Certification

Participants will receive a **Certificate of Completion** upon finishing the training.

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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