MAWA EVENTS

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

Phone: +601116373203 | **Email:** info@mawaevents.net

BEST PRACTICE IN PROCESS, ELECTRICAL AND INSTRUMENTATION DRAWINGS AND DOCUMENTATION

"Enhancing accuracy, clarity, and compliance in engineering drawings and technical documentation."

Schedule

Date	Venue	Fees
13 – 14 Oct 2026	Online	USD 700 per delegate

► **Available delivery methods:** Face-to-Face & Online Training

Introduction

Accurate process, electrical, and instrumentation drawings are critical for the safe, efficient, and compliant operation of industrial facilities. Poorly prepared or outdated documentation can lead to operational errors, safety incidents, project delays, and increased maintenance costs. This training focuses on industry best practices for developing, managing, and maintaining high-quality engineering drawings and documentation throughout the asset lifecycle.

This 2-day intensive online course provides participants with a structured understanding of standards, symbols, conventions, and document control practices used in process, electrical, and instrumentation engineering. Through practical examples and interactive discussions, participants will gain the skills required to produce clear, consistent, and reliable technical documentation that supports operations, maintenance, and regulatory compliance.

Objectives

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

- Understand best practices for process, electrical, and instrumentation drawings.
- Interpret PFDs, P&IDs, electrical schematics, and instrumentation diagrams accurately.
- Apply international standards, symbols, and conventions in engineering documentation.
- Improve document control, revision management, and change tracking.
- Reduce errors and risks associated with poor technical documentation.

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Why Attend

- Improve the quality and consistency of engineering drawings.
- Reduce operational, maintenance, and safety risks.
- Learn industry standards and best practices for documentation.
- Enhance communication between engineering, operations, and maintenance teams.
- Gain practical knowledge applicable across multiple industries.

Target Audience

This program is designed for:

- Process, electrical, and instrumentation engineers.
- Maintenance and reliability professionals.
- Project engineers and technical supervisors.
- Engineering document controllers and drafters.
- Operations and commissioning personnel.

Individual Benefits

Key competencies that will be developed include:

- Ability to read and interpret complex engineering drawings accurately.
- Enhanced understanding of drawing standards and documentation practices.
- Skills in managing revisions and technical changes effectively.
- Improved technical communication and coordination.
- Increased confidence in using engineering documentation for decision-making.

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved accuracy and reliability of engineering documentation.
- Reduced rework, downtime, and safety incidents.
- Better compliance with engineering and regulatory standards.
- Enhanced collaboration between engineering and operations teams.
- More effective lifecycle management of technical documents.

Instructional Methodology

The course follows a blended online learning approach combining theory with practice:

- Strategy Briefings – Overview of best practices in process, electrical, and instrumentation drawings.
- Case Studies – Examples of documentation failures and best-in-class practices.
- Interactive Sessions – Live interpretation of drawings and diagrams.
- Practical Exercises – Reviewing and correcting sample drawings.
- Tools – Checklists, standards references, and documentation templates.

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Course Outline

Detailed 2-Day Course Outline

Training Hours: 9:00 AM – 4:00 PM Daily Format: 3–4 Learning Modules | Coffee breaks as scheduled | Lunch Break: 01:00 – 02:00

Day 1: Process and Instrumentation Drawings Best Practices

Module 1: Introduction to Engineering Drawings and Standards (09:00 – 10:30)

- Role of drawings in engineering and operations
- Overview of international standards (ISO, IEC, IEEE)
- Drawing types and hierarchy

Module 2: Process Flow Diagrams (PFDs) and P&IDs (10:45 – 12:15)

- Symbols, conventions, and tagging systems
- Interpreting process flow and control logic

Module 3: Instrumentation Drawings and Loop Diagrams (01:00 – 02:30)

- Instrument symbols and identification
- Loop diagrams and control system interfaces

Module 4: Documentation Quality and Common Errors (02:45 – 04:00)

- Typical documentation issues and risks
- Best practices for clarity and accuracy

Day 2: Electrical Drawings and Documentation Management

Module 5: Electrical Drawings and Schematics (09:00 – 10:30)

- Single-line diagrams and wiring diagrams
- Panel layouts and power distribution drawings

Module 6: Cable Schedules and Termination Drawings (10:45 – 12:15)

- Cable numbering, routing, and documentation
- Interface between electrical and instrumentation systems

Module 7: Document Control and Change Management (01:00 – 02:30)

- Revision control and version management
- Managing modifications and as-built documentation

Module 8: Best Practices Workshop and Course Review (02:45 – 04:00)

- Review of sample documentation
- Key takeaways and Q&A

Certification

Participants will receive a Certificate of Completion in Best Practice in Process, Electrical and Instrumentation Drawings and Documentation, validating their competence in interpreting, developing, and managing high-quality engineering drawings and technical documentation.

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.

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