MAWA EVENTS

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

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

BASIC ELECTRICAL ENGINEERING

"Building a Strong Foundation in Electrical Principles for Practical Applications"

Schedule

Date	Venue	Fees (Face-to-Face)
06 – 07 Oct 2026	Doha, Qatar	USD 1995 per delegate

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

Introduction

Understanding the fundamentals of electrical engineering is essential for professionals in the power, electronics, and automation industries. This 2-day intensive course introduces participants to basic electrical concepts, principles, and practical applications, providing a solid foundation for further learning and professional growth.

Through interactive lectures, practical examples, and hands-on exercises, participants will gain essential knowledge in electrical circuits, power systems, and electrical components. This course equips attendees with the skills to apply electrical engineering principles effectively in their work environment.

Objectives

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

- Understand fundamental electrical engineering concepts and terminology
- Analyze basic electrical circuits using standard methods
- Recognize and operate common electrical components and devices
- Apply principles of voltage, current, resistance, and power in practical scenarios
- Develop problem-solving skills related to electrical systems
- Ensure safe practices when working with electrical equipment

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Why Attend

- Gain a strong foundation in electrical engineering concepts
- Understand practical applications for real-world electrical systems
- Enhance problem-solving and analytical skills in electrical engineering
- Improve efficiency and safety in handling electrical equipment
- Prepare for advanced electrical engineering training and certifications

Target Audience

This program is designed for:

- Junior engineers and technicians in electrical and electronics fields
- Maintenance and operations personnel in electrical systems
- Engineering students seeking practical exposure to electrical principles
- Professionals from related disciplines requiring foundational electrical knowledge

Individual Benefits

Key competencies that will be developed include:

- Understanding electrical circuits, components, and systems
- Ability to perform basic electrical calculations and analysis
- Knowledge of electrical safety practices and procedures
- Practical skills in using electrical measuring instruments
- Problem-solving capabilities in everyday electrical applications

Organizational Benefits

Upon completing the training course, participants will demonstrate:

- Improved operational efficiency and safety in electrical tasks
- Reduced errors and risks in electrical system handling
- Enhanced technical skills applicable across departments
- Better support for maintenance, troubleshooting, and installation activities
- Strengthened overall technical competency within the team

Instructional Methodology

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

- Strategy Briefings – Core concepts and principles of electrical engineering
- Case Studies – Real-world examples of electrical systems and applications
- Workshops – Hands-on exercises in circuit analysis, component identification, and electrical measurements
- Peer Exchange – Group discussions on challenges and practical solutions
- Tools – Practical use of electrical instruments and templates for circuit analysis

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Course Outline

Detailed 2-Day Course Outline

Training Hours: 7:30 AM – 3:30 PM Daily Format: 3–4 Learning Modules | Coffee breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Fundamentals of Electrical Engineering

Module 1: Basic Electrical Concepts (07:30 – 09:30)

- Voltage, current, resistance, and power
- Ohm’s Law and fundamental relationships

Module 2: Electrical Components and Devices (09:45 – 11:15)

- Resistors, capacitors, inductors, switches, and relays
- Function and practical applications

Module 3: Basic Circuit Analysis (11:30 – 01:00)

- Series and parallel circuits
- Calculation of voltage, current, and resistance

Module 4: Workshop – Circuit Practice (02:00 – 03:30)

- Hands-on exercises in building and analyzing simple circuits
- Using multimeters and measuring instruments

Day 2: Practical Applications and Power Systems

Module 1: AC and DC Systems (07:30 – 09:30)

- Differences between AC and DC
- Applications in power systems and devices

Module 2: Electrical Power Fundamentals (09:45 – 11:15)

- Power, energy, and efficiency calculations
- Basics of transformers and electrical machines

Module 3: Safety and Maintenance (11:30 – 01:00)

- Electrical safety standards and precautions
- Maintenance of electrical equipment

Module 4: Workshop – Practical Exercises & Wrap-Up (02:00 – 03:30)

- Troubleshooting simple circuits and systems
- Q&A and application of learned concepts

Certification

Participants will receive a Certificate of Completion in Basic Electrical Engineering, validating their foundational knowledge and practical skills in electrical circuits, systems, and safety practices.

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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