

INDUSTRIAL ELECTRONIC AND ELECTRICAL TECHNOLOGY

2 Days Program

Date : 18 & 19 June 2025 (Wed & Thu)

**Venue : Wyndham Grand Bangsar
Kuala Lumpur Hotel**

HOW WILL YOU BENEFIT

Upon completion of this programme, the participants will be able to:

- Identify different electronic components
- Test and confirm service ability of components
- Comprehend the function of various components in electronic circuits
- Basic understanding of electrical, 1 (single) phase, 3 phase and DC power supply
- Trouble shooting in electrical and electronic
- Design and test basic electronic circuits
- Carry out soldering effectively to remove and replace components in circuits

WHO SHOULD ATTEND?

This program is suitable for Technician, Supervisors, Operators, Line Leaders and Engineers.

METHODOLOGY

This stimulating program will maximizes the understanding and learning through lecture, discussion, case studies and practical activities.

COURSE CONTENT

Module 1 – Basic Fundamentals of Electronic

- Introduction On Electronics
 - Safety first
 - ⇒ Electrical Safety and electronic
 - ⇒ ESD control on electronic components.

Module 2 - Overview Of Electrical and Use of Multimeter

- Explanation on ohm's law
- How to use a digital and analog multimeter
- Explanation on AC, DC series and Parallel circuit
- Understand on how to design electrical circuit AC/DC

Module 3 - The Understanding of Electronic Components

- Resistor
 - Color Coding, calculation and measuring resistor with digital multimeter
 - Variable resistor
 - Understanding of coding system, how it works and how to test and troubleshoot it using an analog meter FUSE and LED
 - How it works, testing and troubleshooting
- Transistors
 - Understand the types of transistors
 - Understanding the use of transistors in semiconductors.
 - How a transistor is designed from wafer sawing to chip to die attached to wire attached. To understand why transistors fail.
 - What is it function and understanding by its code BC 547, BC 337, BC 257, FOR TRANSISTORS How it works, testing and troubleshooting

Module 4 - The Understanding of Electronic Components - Continue

- Transformer
 - Explanation in step up, step down and isolation transformer
 - How it functions and how to troubleshoot it with and without power on

- Diode And Bridge Rectifier
 - Understanding of numbering code and specification
 - How it works and how to troubleshoot it with an analog multi meter
 - How it functions, understand the coding number
 - The importance of voltage regulator in power supply circuit

Module 5 - The Understanding of Electronic Components -Continue

- Zener Diode
 - Understanding of numbering code and specification
 - How it functions and how to test and troubleshoot it with an analog multimeter
- Capacitor
 - Introduction on different types of capacitor, calculation, safety and how to test and troubleshoot it with a digital capacitance meter

Module 6 – Electronic Trouble Shooting

- Coil / Inductor
 - How it works and the correct method for testing and troubleshooting
- Integrated Circuit (IC)
 - Explain the types of IC
 - How it functions, understand the coding number
 - The importance of voltage regulator in power supply circuit

Module 7 - Understand power supply

- Understand how a power supply works and how to troubleshoot it.
- Troubleshooting, understand electronic circuit and understand soldering techniques

Module 8 - Practical Electronic & Electrical

- Introduction to Disassembly of parts from electronic board
- Test on soldering skills and trouble shooting skills
- Test on electrical trouble shooting