



PRACTICAL GUIDE TO ELECTRICAL WIRING, INSPECTION, TROUBLESHOOTING AND REPAIRING

October 25 & 26, 2021 (Monday & Tuesday)
8.45 am – 5.00 pm **FMM Institute, Perak**



Practical Guide to Electrical Wiring, Inspection, Troubleshooting and Repairing module provides an understanding on how to perform simple single phase wiring such as lighting circuits, power circuits, DOL Starters and inspect the installation. Also the module will define on the troubleshooting aspects when any abnormality occurs and finally rectifying the circuit and put it back in order. Participants will also understand on how to work safely in a system following all the Safety Guidelines.

.... COURSE CONTENTS....

MODULE 1: UNDERSTAND THE ELECTRICAL SYSTEM IN THEORY

- What is Electricity
- Generation, Transmission and Distribution of Electrical Power
- Single Phase and Three Phase Circuits
- Types of Circuits and arrangement of Circuits

MODULE 2: OHMS LAW

- Power Formula and Calculations
- Resistance in Series and Parallel
- Power – kW, HP, kVA
- How to size up an equipment
- Able to size up cables and breakers for an installation

MODULE 3: ELECTRICAL TEST EQUIPMENT

- AVO Meter
- Insulation Resistance Megger
- Earth Megger
- Clamp Meter
- Understand on how to use and read the Electrical Meters

MODULE 4: TYPES OF ELECTRICAL FAULTS

- Open Circuit
- Short Circuit
- Earth fault

MODULE 5: PRACTICAL SESSION

- 1-way switch circuit
- 2-way switch circuit
- Radial Circuit for power points
- Ring Circuits for Power Points
- Direct-On-Line Starter

MODULE 6: TROUBLE SHOOTING AND RECTIFICATION

- Practical viewing and understanding of Main Switch Board

.... OBJECTIVES....

- This 2-day Training is aimed on understanding the wiring installation in a Domestic and Industrial environment.
- With proper Safety understanding, the risk of Electrical related accidents can be reduced and eventually eliminated.
- This Training will focus on Electrical Wiring Installation – Single Phase and Three Phase Starter – How to perform the wiring.
- Understand the various terms used in an installation, perform simple troubleshooting and rectification.
- Ability to differentiate the various circuits in an installation and calculate the cable and breaker size.

.... LEARNING OUTCOMES....

Upon completion of the course, participants should be able to:

- understand the various circuits in an installation – Domestic and Industry.
- demonstrate Safety during electrical work.
- demonstrate simple troubleshooting techniques and rectification.

.... WHO SHOULD ATTEND....

Junior Engineers and Technicians in the Maintenance and Facilities field who perform Preventive Maintenance on Facilities, Equipment and Machinery.

.... TRAINING METHODOLOGY....

Practical Guide to Electrical Wiring – Various Single Phase wiring circuits and DOL Starter wiring. Simulate a fault and troubleshoot the fault and rectify.

For further details, please contact
Ms Nicole / Ms Divya / Pn Eda / Ms Harvindar
 (05) 548 8660 (05) 548 8221
 fmmperak@fmm.org.my

.... TRAINER....

MR BALASUBRAMANIAM A/L SANYASI is an experienced Instructor with more than 30 years' experience in the Industry. He has been working in the Electrical, Facilities & Maintenance field for more than 30 years and has vast knowledge in this area. He holds an Executive Diploma in Facilities and Building Maintenance Management from Universiti Teknologi Malaysia, an Executive Masters in Facilities & Building Maintenance Management from Open University Malaysia and a Diploma in Electrical Engineering from Butterworth Institute of Technology. Mr Balasubramaniam who is a competent Chargeman, is currently holding "Penjaga Jentera Voltan Tinggi" Sekatan BO 33kV, a registered Asean Engineering Technologist, a Certified Technician in Electrical & Electronics Technology with Malaysia Board of Technologist and also a Qualified Technician in Building & Construction Technology registered with Malaysia Board of Technologist. He is a registered trainer with PSMB.

MR BALASUBRAMANIAM had been a Chargeman AO Trainer since 2000 and a Technical Trainer since 2008 having conducted numerous trainings such as Trouble Shooting Skills, Electrical Maintenance, Preventive Maintenance, Facilities Systems. He is also conducting "Executive Diploma in Facilities & Building Maintenance Management" for University Teknologi Malaysia. He is the Secretary of Technological Association of Malaysia, Penang Branch. He has worked with various Multinationals in Managerial positions, namely Hitachi Metals Electronics Perai, Advanced Disk Technology/Hoya Electronics Kulim, Johnson Controls Malaysia Sdn. Bhd, Boral Plasterboard (Lafarge) Malaysia Sdn. Bhd, Sony Electronics Perai. Currently he is the Facilities Senior Engineer in a multinational company.

.... COURSE DETAILS....

Date **October 25 & 26, 2021 (Monday & Tuesday)**
Time **8.45am – 5.00pm**
Venue **FMM Institute Perak**
No 1, Lorong Raja DiHilir, 30350 Ipoh, Perak
Medium of Instruction **English**
CPD: **14 hours**
Fees : **MEMBERS RM689.00/pax**
NON-MEMBERS RM848.00/pax
(Fees inclusive of Service Tax at 6%, Course Materials, Refreshment, Lunch and Certificate of Attendance)

.... ADMINISTRATIVE DETAILS....

DISCLAIMER

The FMM Institute reserves the right to change the facilitator, date and to vary / cancel the course should unavoidable circumstances arise. All efforts will be taken to inform participants of the changes.

REGISTRATION

- Upon **Faxing/Mailing** the completed **Registration Form** to FMM Institute, you are **deemed** to have read and **accepted** the terms and conditions. The **course** would also be **deemed** as **confirmed** unless informed otherwise.
- Will be based on First-Come-First served basis.

PAYMENT

- Cheques** made in favour of "**FMM Institute**" should be forwarded to FMM Institute Perak.
- For **SBL-KHAS Scheme**, an **Attendance of 100%** is a **must**, in any case, **employers will be billed in full**.
- FMM Institute SST Registration No. **W10-1901-32000105**

CANCELLATION

- Must be in Writing with Reasons
- 7 days before the course – No payment charged
- 3 – 6 days before the course - 50% payment charged
- < 3 days before the course – Full payment charged
- Participants who did not turn-up will be charged full payment
- Replacements can be accepted at no additional cost

~ Registration Form ~

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Closing Date: OCTOBER 18, 2021

FMM Institute

No 1, Lorong Raja DiHilir, 30350 Ipoh, Perak

Fax: 05-5488221

Dear Sir / Madam, please register the following participant(s) for the above programme.

	Name	Designation	NRIC
1.			

2.

3.

(Please attach a separate list if space is insufficient)

We hereby confirmed that *(Please tick (✓) in appropriate box):-*

We **will be claiming under SBL-Khas Scheme** and full payment would made to FMM Institute in the event that no disbursement from HRDF under any circumstances

We will **NOT BE CLAIMING under SBL-Khas Scheme**. Enclosed cheque/bank draft No _____ for RM _____ being payment for _____ participant(s) made in favour of the "**FMM Institute**".

Submitted by: _____

Name:

Designation:

Company:

Tel:

Fax:

Address:

Email:

FMM Membership No _____