MTBM

EV CHARGING INFRASTRUCTURE DESIGN & PLANNING TRAINING

MTBM Group Sdn. Bhd. (1600656-M)

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Course Title: EV Charging Infrastructure Design & Planning Training

Course Validity: 2 Days

Validity: Not Applicable

HRD Corp Scheme: Claimable

INTRODUCTION

This training provides participants with essential knowledge to design, plan and assess Electric Vehicle (EV) charging infrastructure for residential, commercial and public installations. It covers charger types, load calculation, electrical design considerations, site planning, and regulatory requirements. Participants will learn design methodology, layout planning, component selection and compliance needs required for successful EV charging system deployment.

OBJECTIVE(S):

- Understand EV charging infrastructure components and design principles
- Learn load assessment, electrical sizing and power requirements
- Strengthen skills in site planning and charger placement
- Understand Malaysia regulatory and approval requirements
- Learn design integration with electrical systems and protection devices
- Improve competency in layout planning and cable routing
- Understand commissioning, testing and documentation needs

TARGET GROUP(S):

- Engineers, technicians & planners
- EV charging installers & EPC contractors
- Facility managers & building operators
- Developers & consultants involved in EV projects
- Organisations deploying EV charging solutions

ENTRY REQUIREMENT(S):

- Able to read, write, and communicate in Malay/English

TOPIC(S):

1. Introduction to EV Charging Infrastructure and System Types
2. Load Assessment, Power Demand and Electrical Sizing
3. Charger Selection, Standards and Compatibility Requirements
4. Site Planning, Charger Placement and Accessibility Considerations
5. Electrical Design Integration, Cabling and Protection Systems
6. Malaysia Regulatory Requirements and Approval Processes
7. Infrastructure Commissioning, Testing and Verification Needs
8. Documentation, Layout Drawings and Project Planning Requirements

LIST OF REFERENCE BOOK(S):

- Suruhanjaya Tenaga (ST) EV Charger Installation Guidelines
- IEC & ISO EV Charging Standards
- OEM EV Charger Engineering Documents
- Electrical Installation & Safety Standards
- Malaysia Public Charging Infrastructure Guidelines

LIST OF TEACHING AID(S):

- LCD projector
- Computer
- Whiteboard with accessories

METHODOLOGY(S):

- Lecture
- Case studies
- Design planning exercises
- Group discussions
- Infrastructure layout review

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TRAINING SCHEDULE

Day 1

Time	Activity / Topic
8:30 am – 9:00 am	Registration and Introduction
9:00 am – 9:45 am	Topic 1: Introduction to EV Charging Infrastructure
9:45 am – 10:30 am	Topic 2: Load Assessment & Electrical Sizing
10:30 am – 10:45 am	**Morning Tea Break**
10:45 am – 11:30 am	Topic 3: Charger Selection & Standards
11:30 am – 12:30 pm	Topic 4: Site Planning & Charger Placement
12:30 pm – 1:30 pm	**Lunch Break**
1:30 pm – 2:30 pm	Practical: Load Calculation & Design Exercise
2:30 pm – 3:30 pm	Case Study: EV Charging Layout Review
3:30 pm – 3:45 pm	**Afternoon Tea Break**
3:45 pm – 5:00 pm	Workshop: Drafting an EV Charger Layout Plan

TRAINING SCHEDULE

Day 2

Time	Activity / Topic
8:30 am – 9:00 am	Recap of Day 1 & Q&A
9:00 am – 9:45 am	Topic 5: Electrical Design Integration & Protection Systems
9:45 am – 10:30 am	Topic 6: Malaysia Regulatory Requirements & Approvals
10:30 am – 10:45 am	**Morning Tea Break**
10:45 am – 11:30 am	Topic 7: Infrastructure Commissioning & Testing
11:30 am – 12:30 pm	Practical: Testing Documentation & Verification
12:30 pm – 1:30 pm	**Lunch Break**
1:30 pm – 2:30 pm	Topic 8: Documentation, Drawings & Project Planning
2:30 pm – 3:30 pm	Design Review: Multi-Charger Installation Scenarios
3:30 pm – 3:45 pm	**Afternoon Tea Break**
3:45 pm – 5:00 pm	Final Review, Q&A & Closing