



## **EV SAFETY & EMERGENCY RESPONSE TRAINING**



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**Course Title:** EV Safety & Emergency Response Training

**Course Validity:** 2 Days

**Validity:** Not Applicable

**HRD Corp Scheme:** Claimable

## **INTRODUCTION**

This training provides essential knowledge on Electric Vehicle (EV) safety, hazard identification and emergency response procedures. Participants will learn how to manage risks related to high-voltage (HV) systems, battery fires, thermal runaway, charging system failures and rescue operations. The course strengthens preparedness for responding to EV-related incidents safely and effectively.

## **OBJECTIVE(S):**

- Understand EV safety hazards and high-voltage risk controls
- Learn safe work practices around EV batteries and electrical components
- Strengthen competency in identifying EV fire and thermal runaway indicators
- Learn proper emergency response steps for EV crashes and incidents
- Understand isolation, shutdown and rescue procedures
- Improve knowledge of PPE, fire suppression and safety tools
- Enhance preparedness for workplace and roadside EV emergencies

**TARGET GROUP(S):**

- EV technicians and workshop personnel
- Emergency responders & safety officers
- Facility and fleet managers
- Automotive service providers
- Organisations operating or maintaining EVs
- Security & emergency response teams

**ENTRY REQUIREMENT(S):**

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

**TOPIC(S):**

1. Introduction to EV Safety and Hazard Awareness
2. High-Voltage System Risks and Electrical Safety Zones
3. EV Battery Fire Risks, Thermal Runaway and Fire Behaviour
4. EV Shutdown, Isolation and Emergency Power-Off Procedures
5. Personal Protective Equipment (PPE) and EV Safety Tools
6. EV Fire Response, Extinguishing Methods and Scene Management
7. EV Accident Response, Rescue Procedures and First Aid Considerations
8. Reporting, Documentation and Post-Incident Requirements

**LIST OF REFERENCE BOOK(S):**

- EV Fire & Emergency Response Guidelines (NFPA / IEC)
- OEM EV Safety & Shutdown Manuals
- Electrical Safety Standards (Local & International)
- High-Voltage Incident Response Manuals
- EV Battery Safety Documentation

**LIST OF TEACHING AID(S):**

- LCD projector
- Computer
- Whiteboard with accessories

**METHODOLOGY(S):**

- Lecture
- Case studies
- Emergency response drills
- Practical demonstrations
- Group discussions

## 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 Safety & Hazard Awareness
9:45 am – 10:30 am	Topic 2: High-Voltage System Risks & Safety Zones
10:30 am – 10:45 am	<b>Morning Tea Break</b>
10:45 am – 11:30 am	Topic 3: Battery Fire Risks & Thermal Runaway Behaviour
11:30 am – 12:30 pm	Practical: Identifying HV Components & Risk Points
12:30 pm – 1:30 pm	<b>Lunch Break</b>
1:30 pm – 2:30 pm	Topic 4: EV Shutdown & Emergency Power-Off Procedures
2:30 pm – 3:30 pm	Demonstration: HV Isolation Techniques
3:30 pm – 3:45 pm	<b>Afternoon Tea Break</b>
3:45 pm – 5:00 pm	Workshop: Hazard Assessment Scenarios

## 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: PPE & EV Safety Tools
9:45 am – 10:30 am	Topic 6: EV Fire Response & Extinguishing Methods
10:30 am – 10:45 am	<b>Morning Tea Break</b>
10:45 am – 11:30 am	Topic 7: Accident Response, Rescue Procedures & First Aid
11:30 am – 12:30 pm	Practical: Emergency Response Drill
12:30 pm – 1:30 pm	<b>Lunch Break</b>
1:30 pm – 2:30 pm	Topic 8: Reporting, Documentation & Post-Incident Steps
2:30 pm – 3:30 pm	Incident Case Review & Lessons Learned
3:30 pm – 3:45 pm	Afternoon Tea Break
3:45 pm – 5:00 pm	Final Review, Q&A & Closing