Course Introduction

This course will cover the design of electrical installations for, and specification of, electric vehicle charging installations. The course will cover the requirements detailed in Section 722 of BS 7671:2018 and the IET Code of Practice for Electric Vehicle Charging Equipment Installation, 3rd Edition.

It provides an understanding of the key requirements for protection against electric shock, including the selection and use of earthing systems, and introduces vehicle-as-storage, wireless power transfer (WPT) and smart infrastructure installations.

Course Prerequisites

Learners will be expected to have a working knowledge of BS 7671 - 18th Edition Certificate in the Requirements for Electrical Installations, and have access to copies of:

- IET Wiring Regulations (18th Edition) BS 7671:2018
- IET Guidance Notes 1, 3 and 7 (8th Edition)

Key features

- Graham Kenyon is an expert in the field who works closely with the IET and authored the Code of Practice relating to this course
- All course content aligns with BS 7671:2018 and the 3rd Edition of the IET Code of Practice for Electric Vehicle Charging Equipment Installation

Learning outcomes

- Understand how to specify electric vehicle charging installations
- Understand how to design electrical installations containing electric vehicle charging and supply equipment
- Understand the steps involved in the planning, installation and commissioning of electric vehicle charging equipment installations
- Understand key risks and hazards for various types of installation, and how to address them, including installations for: dwellings; commercial and industrial premises; on-street; and filling stations
Expert multidisciplinary e-courses for engineers at all career stages

Course Units
- Overview of vehicle charging modes and equipment – Part 1
- Overview of vehicle charging modes and equipment – Part 2
- BS 7671: Requirements for EV Charging Installations
- Issues to Overcome
- General Arrangements prior to Installation – Part 1
- General Arrangements prior to Installation – Part 2
- Earthing Arrangements
- TN-C-S (PME) and public TN-S Systems
- Electrical Separation and Whole Installation
- IT Charge-Point Conversion Options for TN-C-S Systems
- Where it might be possible to use TN-C-S to supply charge points
- Installations for Dwellings – Part 1
- Installations for Dwellings – Part 2
- On-Street Installations
- Commercial and Industrial Installations – Part 1
- Commercial and Industrial Installations – Part 2
- Explosive Atmospheres
- Inspection, Testing and Maintenance Requirements
- Vehicle as Storage Part 1 – Introduction
- Vehicle as Storage Part 2 – Parallel Operation
- Vehicle as Storage Part 2 – Island-Mode Operation
- Vehicle as Storage Part 4 – Other Considerations
- Integration and SMART Infrastructure
- Wireless Power Transfer (WPT) Installations
- Final Assessment

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Who should take this course?
This course has been designed for those who are new to EV Charging Installations or for those requiring a better understanding of electric vehicle charging equipment installations. Learners using this course could be from any background or industry sector, from apprentices through to senior managers.

Cost effective and flexible
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- Applying the 18th Edition IET Wiring Regulations: The Onsite Guide Training Course
- 18th Edition Certificate in the Requirements for Electrical Installations – Full Course
- 18th Edition Certificate in the Requirements for Electrical Installations – Update Course
- Connected and Autonomous Vehicles – Pre-order Only

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