

PRACTICAL HIGH VOLTAGE CABLE **JOINTING AND** TERMINATION



COURSE OVERVIEW

This training course is designed to provide participants with the technical knowledge and hands-on skills required for safe and effective jointing and termination of high voltage (HV) cables, typically rated from 11kV up to 66kV. The course covers cable construction, types, insulation, stress control, jointing materials and procedures, termination techniques, and applicable safety and testing standards. It is ideal for professionals involved in installation, maintenance, and inspection of HV cable systems.

DATES, VENUES AND FEES



Note: Fee is per participant + 5% VAT (if applicable). Groups from the same company can enjoy a **discounted** price.

WHO SHOULD ATTEND?

This course is appropriate for a wide range of professionals but not limited to:

- High voltage jointers and electrical technicians
- Utility and power distribution personnel
- Electrical maintenance and installation engineers
- EPC contractors and field service technicians
- Commissioning engineers and inspectors
- Health and safety professionals in the electrical sector

CONTACT US NOW

+971 (4) 4539841 - 42 - 43 WhatsApp: +971 52 398 7781

Millennium Solutions Training Center FZ-LLC Block 2B, 1st Floor, Office 134, Knowledge Park, Dubai, UAE Email: info@mstcme.com Website: www.mstcme.com





ACCREDITATION



This training course is certified by CPD.

The CPD Certification Service is the leading independent CPD accreditation institution operating across industry sectors to complement the Continuing Professional Development policies of professional institutes and academic bodies. The CPD Certification Service provides support, advice, and recognised independent CPD accreditation compatible with global CPD principles. CPD is the term used to describe the learning activities professionals engage in to develop and enhance their abilities and keep skills and knowledge up to date. CPD Units are only awarded to programmes after each programme is scrutinised to ensure integrity and quality according to CPD standards and benchmarks.

COURSE CERTIFICATE

MSTC certificate will be issued to all attendees completing a minimum of 80% of the total tuition hours of the course.

CPD internationally recognized certificate will be issued for all participants who will meet the course requirements. CPD certificates will be issued within a month of the successful completion of the course.

TRAINING METHODOLOGY

- Expert-led sessions with dynamic visual aids
- Comprehensive course manual to support practical application and reinforcement
- Interactive discussions addressing participants' real-world projects and challenges
- Insightful case studies and proven best practices to enhance learning

LEARNING OBJECTIVES

By the end of this course, participants should be able to:

- Understand the design and construction of HV cables and their components.
- Identify different jointing and termination techniques for various types of HV cables.
- Apply proper preparation, insulation, and stress control procedures.
- Perform safe and accurate cable jointing and termination tasks according to standards.
- Conduct basic electrical tests for verification and troubleshooting.
- Implement safety practices and quality control measures in high voltage environments.

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COURSE OUTLINE

DAY 1

Introduction to High Voltage Cable Systems and Safety

- Pre test .
- Overview of HV cable types (XLPE, PILC, EPR) and applications
- Cable construction, insulation systems, and materials
- Common causes of HV cable failure
- International standards and best practices (IEC, IEEE, BS)
- Workplace safety practices and PPE for HV cable work
- Job planning, risk assessment, and permit to work systems

DAY 2

Cable Preparation and Handling Techniques

- Cable selection, inspection, and preparation procedures
- Proper storage, bending radius, and handling of HV cables
- Core identification and screen preparation
- Stripping and cleaning insulation and semiconductive layers
- Moisture control and cleanliness requirements
- Case study

DAY 3

Cable Jointing Methods and Procedures

- Joint types: heat shrink, cold shrink, resin, and mechanical
- Selecting the correct jointing kits for XLPE and PILC cables
- Stress control mechanisms and joint insulation techniques
- Cable earthing and screen continuity
- Case study

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DAY 4

Termination of High Voltage Cables

- Types of terminations: indoor, outdoor, GIS, and transformer
- Installation procedures for terminations (heat shrink & cold shrink)
- Creepage distance, sealing ends, and stress control tubing
- Use of surge arresters and link boxes
- Case study

DAY 5

Testing, Inspection, Fault Finding, and Quality Assurance

- Pre-commissioning tests: insulation resistance, VLF, DC testing
- Partial discharge and tan delta testing principles
- Fault diagnosis and typical issues in joints/terminations
- Documentation, inspection checklists, and QA/QC processes
- Case study
- Final review
- Post test

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