COURSE OVERVIEW EE0463

LV (Low Voltage) & MV (Medium Voltage) Cable Jointers

Course Title
LV (Low Voltage) & MV (Medium Voltage) Cable Jointers

Course Date/Venue
June 30-July 04, 2025/Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
EE0463

Course Duration/Credits
Five days/3.0 CEUs/30 PDHs

Course Description

This practical and highly-interactive course includes practical sessions and exercises where participants carryout HV/MV cable jointing, termination, splicing and testing. Theory learnt in the class will be applied using the latest heat-shrink jointing and termination methods suitable for in-class training.

This course is designed to provide participants with a detailed and an up-to-date overview of MV/LV Cable Splicing, Jointing and Termination. It covers the different types of cables, their components and applications; the medium voltage (MV) and low voltage (LV) ratings; the various types of insulation materials and their properties; the basic procedures of cable splicing, jointing and termination and insulation resistance testing; the principles, techniques and different tools used in cable splicing; and the splicing procedure for low voltage cables and medium voltage cables.

During this interactive course, participants will learn the splice testing and cable jointing; the different tools and equipment used in cable jointing; the jointing procedure for low voltage cables and medium voltage cables and joint testing after cable jointing; the cable termination techniques and the different tools used in cable termination; the termination process for low voltage cables and medium voltage cables; the various tests performed after cable termination; the safety measures in cable splicing, jointing and termination; the safety precautions to be observed during these processes; and diagnosing and correcting common problems in cable splicing, jointing and termination.

Course Objectives

Upon the successful completion of this course, each participant will be able to:-

- Apply and gain a comprehensive knowledge on MV/LV cable splicing, jointing and termination
- Identify the different types of cables, their components and applications
- Explain medium voltage (MV) and low voltage (LV) ratings including the various types of insulation materials and their properties
- Carryout basic procedures of cable splicing, jointing and termination and insulation resistance testing
- Discuss the principles and techniques of cable splicing and identify the different tools used in cable splicing
- Employ splicing procedure for low voltage cables and medium voltage cables
- Illustrate splice testing and cable jointing as well as recognize the different tools and equipment used in cable jointing
- Apply jointing procedure for low voltage cables and medium voltage cables and joint testing after cable jointing
- Carryout cable termination techniques and identify the different tools used in cable termination
- Illustrate termination process for low voltage cables and medium voltage cables including various tests performed after cable termination
- Implement safety measures in cable splicing, jointing and termination including the safety precautions to be observed during these processes
- Diagnose and correct common problems in cable splicing, jointing and termination

Exclusive Smart Training Kit - H-STK®

*Participants of this course will receive the exclusive "Haward Smart Training Kit" (**H-STK®**). The **H-STK®** consists of a comprehensive set of technical content which includes **electronic version** of the course materials conveniently saved in a **Tablet PC**.*

Who Should Attend

This course provides an overview of all significant aspects and considerations of MV/LV cable splicing, jointing and termination for electrical engineers, instrumentation and control engineers, project engineers, maintenance engineers, power system protection and control engineers, data systems planners and managers as well as electrical, instrumentation and control technical staff.

Course Fee

US$ 6,250 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

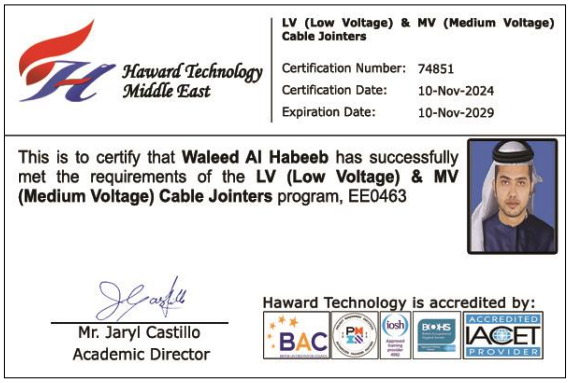
Course Certificate(s)

(1) Internationally recognized Competency Certificates and Plastic Wallet Card Certificates will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Certificates are valid for 5 years.

Recertification is FOC for a Lifetime.

Sample of Certificates

The following are samples of the certificates that will be awarded to course participants:-



(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 14-Nov-24

HTME No. 74851

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
EE0463	LV (*Low Voltage*) & MV (*Medium Voltage*) Cable Jointers	Nov 10-14, 2024	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date **3.0**

TRUE COPY

Jaryl Castillo
Academic Director

Haward Technology has been approved as an Accredited Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2018 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2018 Standard.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by

P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | E-mail: info@haward.org | Website: www.haward.org

Certificate Accreditations

Haward's certificates are accredited by the following international accreditation organizations: -

- British Accreditation Council (BAC)

  Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. Haward's certificates are internationally recognized and accredited by the British Accreditation Council (BAC). BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

- The International Accreditors for Continuing Education and Training (IACET - USA)

  Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

  Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

  Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

Accommodation

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:

Mr. Ken Steel is a **Senior Electrical & Instrumentation Engineer** with over **45 years** of extensive experience. His expertise widely covers **Electrical Motors Testing**, **Heat Tracing** & Insulation Installation & Testing, **HV Terminations**, **High & Low Voltages** on Overhead Cranes, **HV/MV Cable Splicing**, **Cable & Over Head Power Line**, **HV/MV Switchgear, HV Cable** Design, **Medium & High Voltage** Equipment, **High Voltage Circuit Breaker** Inspection & Repair, **High Voltage Power** System, **HV Equipment** Inspection & Maintenance, **HV Switchgear** Operation & Maintenance, Resin / **Heat Shrink & Cold Shrink** Joints, **HV/LV Equipment**, **LV & HV** Electrical System, **Cable** Splicing & Termination, **High Voltage** Electrical Safety, **LV**, **MV & HV Cable** Installations & Properties, **LV Substation**, **MV & LV Cable**, **UPS Systems**, **MV & LV** Direct on Line Motor Drives, **MV & LV** VSD Motor Drives, **MV & LV** Soft Starter Motor Drives, **LV Two Speed Motor Drives**, Underground **Transformer Oil Containment Tank**, **Electrical & Instrumentation Construction** Installation, 1500KW, 1000KW, 1752KW **Diesel Power Plant Installation**, **110KV Overhead Line**, **110KV Outdoor Switchgear**, 110KV/10KV 6500KVA **Transformer**, **Transformer Substation**, 1600KVA 10KV/0.4KV & 2 Off 1000KVA **Diesel Generators**, 1600KVA 10KV/0.4KV & 1650KVA **Diesel Generator**, **110KV/35KV/10KV Substation**, 110KV/10KV **Transformers**,110KV & 2 Off 6KV **Overhead Lines**, 34.5KV,13.8KV ,4.16KV & 480V **Switchgear**, 4.16KV & 480V MCC, **Transformers & Motor Drives** Substations, **Diesel Driven Generators**, **Overhead Cranes**, **Overhead Cranes & HVAC Units**, **AC & DC Drives**, **Data Logger**, **Electrical, Instrumentation & Mechanical** Installation Maintenance, Slab Mills, Pre Heat Ovens, Hydraulic Shears, Stamping Machine, Gearboxes, Rollers, Pumps, Valves, Electro Magnets & Pump House Operation, Boilers Construction And Commissioning, Valve Calibration & Testing, Level Gauges, Pressure & Flow Transmitters Installation & Calibration, Pressure & Leak Testing of Boilers, Leak Testing, SMP, Elect, I&C, F&G, HVAC & Utility Services, Nitrogen Leak Test Operations, Steam Blowing Activities, SMP, Elect, I&C, F&G, HVAC & Utility Services, PTW Issue (PA/AC), Installation & Mechanical Piping and Hydro Testing & Leak Testing of Lines Installation.

During Mr. Steel's career life, he has gained his practical experience through several significant positions and dedication as the **3GP PBF & Boilers SC Commission Support**, **SC Site Execution Superintendent**, **E&I Construction Superintendent**, **High Voltage Construction Supervisor**, **Control & Power Construction Supervisor**, **Electrical & Instrumentation Supervisor**, **Electrical Technician**, **Construction Support Electrical Engineer**, **E&I Engineer**, **Electrical/Instrumentation Site Supervisor**, **Q.A/Q.C Inspector**, **Electrical/ Instrumentation Technician**, **Maintenance Fitter Instrumentation Technician**, **Millwright**, **Apprentice Millwright** and **Senior Instructor/Lecturer** for Tengiz Chevron Oil Kazakhstan, Al Jubail Saudi Arabia, Escravos Delta state Nigeria, Lurgi S.A, SuD Chemie Sasol Catalysts, J C Groenewalds Construction (LTA), Tycon (Goodyear S.A.), Dragline Construction and Iscor Vanderbijlpark.

Mr. Steel has a **Diploma** in **Electronics Mechanic**. Further, he is a **Certified Instructor/Trainer** and delivered numerous trainings, courses, workshops, seminars and conferences internationally.

Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures
20% Practical Workshops & Work Presentations
30% Hands-on Practical Exercises & Case Studies
20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

Course Program

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

Day 1: ***Monday, 30th of June 2025***

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***Cable Basics:*** *Learning About Different Types of Cables, their Components & Applications*
0930 – 0945	*Break*
0945 – 1100	***Understanding Voltage Ratings:*** *Detailed Explanation of Medium Voltage (MV) & Low Voltage (LV) Ratings*
1100 – 1200	***Cable Insulation Materials:*** *Discuss Various Types of Insulation Materials & their Properties*
1200 – 1215	*Break*
1215 – 1330	***Basics of Cable Splicing, Jointing & Termination:*** *Explanation of these Procedures & their Importance*
1330 – 1420	***Insulation Resistance Testing:*** *Introduction to Insulation Resistance Testing & its Significance*
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2: ***Tuesday, 01st of July 2025***

0730 – 0830	***Splicing Basics:*** *Introduction to the Principles & Techniques of Cable Splicing*
0830 – 0930	***Splicing Tools & Equipment:*** *Overview of the Different Tools used in Cable Splicing*
0930 – 0945	*Break*
0945 – 1100	***Splicing Procedure for LV Cables:*** *Step-by-Step Walkthrough of the Splicing Process for Low Voltage Cables*
1100 – 1200	***Splicing Procedure for MV Cables:*** *Explanation of How Medium Voltage Cable Splicing Differs from Low Voltage*
1200 – 1215	*Break*
1215 – 1330	***Splice Testing:*** *Understanding the Tests Performed After Cable Splicing*
1330 – 1420	***Hands-On Exercise:*** *Participants will Practice Splicing a Low Voltage Cable Under Supervision*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3: Wednesday, 02nd of July 2025

0730 – 0830	***Cable Jointing Basics:*** *Introduction to the Principles & Techniques of Cable Jointing*
0830 – 0930	***Jointing Tools & Equipment:*** *Review of the Different Tools Used in Cable Jointing*
0930 – 0945	*Break*
0945 – 1100	***Jointing Procedure for LV Cables:*** *Detailed Walkthrough of the Jointing Process for Low Voltage Cables*
1100 – 1200	***Jointing Procedure for MV Cables:*** *Explanation of How Medium Voltage Cable Jointing Differs from Low Voltage*
1200 – 1215	*Break*
1215 – 1330	***Joint Testing:*** *Overview of the Tests Performed After Cable Jointing*
1330 – 1420	***Hands-On Exercise:*** *Participants will Practice Jointing a Low Voltage Cable Under Supervision*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4: Thursday, 03rd of July 2025

0730 – 0830	***Cable Termination Basics:*** *Introduction to the Principles & Techniques of Cable Termination*
0830 – 0930	***Termination Tools & Equipment:*** *Review of the Different Tools Used in Cable Termination*
0930 – 0945	*Break*
0945 – 1100	***Termination Procedure for LV Cables:*** *Step-by-Step Walkthrough of the Termination Process for Low Voltage Cables*
1100 – 1200	***Termination Procedure for MV Cables:*** *Explanation of How Medium Voltage Cable Termination Differs from Low Voltage*
1200 – 1215	*Break*
1215 – 1330	***Termination Testing:*** *Overview of the Tests Performed After Cable Termination*
1330 – 1420	***Hands-On Exercise:*** *Participants will Practice Terminating a Low Voltage Cable Under Supervision*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5: Friday, 04th of July 2025

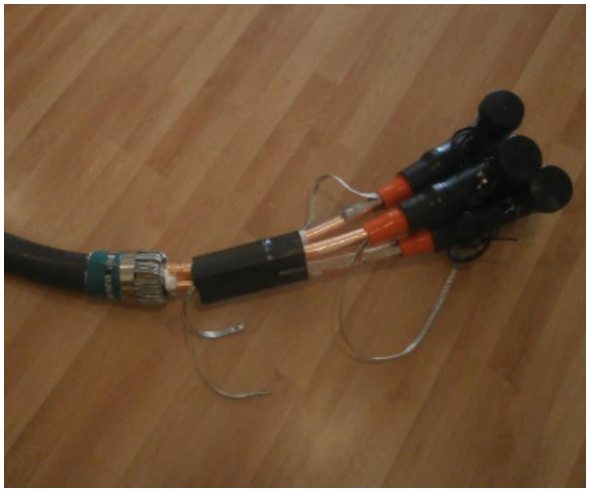
0730 – 0830	***Safety Measures in Cable Splicing, Jointing & Termination:*** *Recap of the Safety Precautions to be Observed During these Processes*
0830 – 0930	***Troubleshooting Common Issues:*** *Learn to Diagnose & Correct Common Problems in Cable Splicing, Jointing & Termination*
0930 – 0945	*Break*
0945 – 1100	***Hands-On Exercise:*** *Participants will Perform Splicing, Jointing & Termination of an MV Cable Under Supervision*
1100 – 1200	***Written Test:*** *A Written Test Covering all Course Material*
1200 – 1215	*Break*
1215 – 1300	***Course Wrap-up & Feedback:*** *Concluding the Course, Discussion on Further Learning Resources & Collecting Participant Feedback*
1300 – 1315	***Course Conclusion***
1315 – 1415	***COMPETENCY EXAM***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout splicing and jointing, termination exercises using heat-shrink kits, suitable for classroom training.








Course Coordinator

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