COURSE OVERVIEW EE0399
Certified HV Electrical Safety Refresher Course

Course Title
Certified HV Electrical Safety Refresher Course

Course Date/Venue
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Course Date/Venue
EE0399

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

Course Description

This practical and highly-interactive course includes real-life case studies and exercises where participants will be engaged in a series of interactive small groups and class workshops.

High voltage electrical systems require the special application of maintenance, repair, test, and safety procedures. Personnel must be trained in special precautions to ensure both personnel and workplace safety. IEC specifies essential requirements regarding protection against electric shock of persons and livestock. It deals also with the application and co-ordination of these requirements in relation to external influences, give also the various limits of the effects of 50 Hz alternating current on humans and define 4 main risk zones, and IEC application to residual current operated circuit-breakers functionally independent of, or functionally dependent on, line voltage.

OSHA requires training for all qualified employees performing operations or maintenance work, or who have access to electrical power generation, transmission and distribution installations as well as HSE personnel who are in charge of the safety and health of the employees, public and facilities.

Various IEC, OSHA, IEEE, European and NFPA safety procedures are reviewed. In this interactive course, group exercises include the development of safe-work protocols, use of lockout/tagout (LOTO), maintenance task rehearsal, and equipment preparation. Calculations of fault current, arc-flash hazards, and proper PPE selection are studied. Other technical topics covered include insulation testing (IR/PI/DAR/DD), four-wire Kelvin low-resistance testing, corona detection by ultrasonic and RF detectors, and signature analysis using an infrared imager.

This course is designed to provide participants with a detailed and an up-to-date overview of HV electrical safety. It covers the HV equipment; testing and commissioning; the electrical hazards and safety management; the de-energized and energized work; and the confined space and personnel protection.

Course Objectives

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

- Get certified on HV electrical safety
- Discuss HV equipment as well as carryout testing and commissioning
- Identify electrical hazards and employ safety management
- Review de-energized and energized work
- Apply confined space and personnel protection

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 certified HV electrical safety refresher course.

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 Date/Venue

Session(s)	Date	Venue
1	April 19-23, 2026	Meeting Room 4, Four Seasons Hotel Cairo at Nile Plaza, Corniche El Nil, Garden City, Cairo, Egypt
2	June 15-19, 2026	Ruben Boardroom, The Rubens at The Palace, Buckingham Palace Road, London, United Kingdom
3	August 30-September 03, 2026	Meeting Plus 9, City Centre Rotana, Doha, Qatar
4	September 20-24, 2026	Pierre Lotti Meeting Room, Movenpick Hotel Istanbul Golden Horn, Istanbul, Turkey
5	November 15-19, 2026	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
6	December 07-11, 2026	Salon Expo, NH Hotel Plaza de Armas, Seville, Spain
7	January 24-28, 2027	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE
8	February 08-12, 2027	Ruben Boardroom, The Rubens at The Palace, Buckingham Palace Road, London, United Kingdom
9	March 21-25, 2027	Meeting Plus 9, City Centre Rotana, Doha, Qatar

Course Fee

Doha	**US$ 6,000** per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Istanbul	**US$ 6,000** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Dubai	**US$ 5,500** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
London	**US$ 8,800** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Seville	**US$ 8,800** per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Cairo	**US$ 5,500** 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 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. Successful candidate will be certified to work on high voltage electrical power systems. Certificates are valid for 5 years.

Recertification Fee is a FOC for a Lifetime.

Sample of Certificates

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

Haward Technology Middle East

Certifies that

Abdulsatar Al Otaibi

Has successfully completed a course on

Certified HV Electrical Safety Refresher Course

and is hereby awarded 1.2 CEUs (Continuing Education Units) equivalent to 12 PDHs (Professional Development Hours)

Nov 13-14, 2021	8667-2014-9020-2555
Course Date	Certificate Number
Nov 14, 2021	Nov 14, 2026
Certificate Issuance Date	Certificate Expiry Date

Mr. Pan Marave
Course Instructor

ACTVET License No.
0588/2013

Ms. Maricel De Guzman
Academic Director

Certificate Accreditation
Please see overleaf

(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-21

HTME No. 3558-6717-5364-9527

Participant Name: Abdulsatar Al Otaibi

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
EE0399-2D	Certified HV Electrical Safety Refresher Course	13 Nov-14 Nov, 2021	12	1.2

Total No. of CEU's Earned as of TOR Issuance Date **1.2**

TRUE COPY

Maricel De Guzman
Academic Director

Haward Technology has been approved as an Authorized 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 1-2013 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 1-2013 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 | Fax: +971 2 3091 716 | 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.

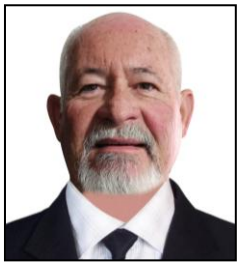
Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation 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

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 **30 years** of extensive experience. His expertise widely covers the Introduction to **Solar Energy Systems**, Solar Power System Components and Configuration, Introduction to **Solar** Inverters and Batteries, Understanding **Electrical** Circuits for **Solar** Installations, Hands-On Workshop: Build a Simple Solar Setup, **Solar Energy and Electrical Safety Essentials**, Basic Troubleshooting of **Solar PV Systems**, **Energy Efficiency and Solar Integration** Basics, Step-by-Step **Solar Installation** Practices, **Solar Energy** for Technicians and Field Operators. Further, he is also well-versed in **Process Control Instrumentation**, **Process Instrumentation & Control**, **Process Control**, **Instrumentation**, , **Instrumentation** for Process Optimization and Control, Process Automation and **Instrumentation** Systems Integration, Troubleshooting in **Process Control Systems, Process Control** & Safeguarding, Troubleshooting & **Problem Solving**, **Process Instrumentation** and Control Techniques, Troubleshooting **Instrumentation** and Control Systems, GC Processes Troubleshooting and Control Systems, Programmable Logic Controllers (**PLC**), **SCADA System**, **PLC & SCADA** - Automation & Process Control, **PLC & SCADA** Systems Application, Technical **DCS/SCADA,** Distributed Control System (**DCS**) Principles, Applications, Selection & Troubleshooting**, 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.

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

0730 – 0800	*Registration & Coffee*
0800 – 0815	*Welcome & Introduction*
0815 – 0830	***PRE-TEST***
0830 – 0930	***HV Equipment***
0930 – 0945	*Break*
0945 – 1100	***HV Equipment (Cont'd)***
1100 – 1230	***HV Equipment (Cont'd)***
1230 - 1245	*Break*
1245 - 1420	***Testing & Commissioning***
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0830 – 0930	***Testing & Commissioning (Cont'd)***
0930 – 0945	*Break*
0945 – 1100	***Testing & Commissioning (Cont'd)***
1100 – 1230	***Electrical Hazards***
1230 - 1245	*Break*
1245 - 1420	***Electrical Hazards (Cont'd)***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0830 – 0930	***Electrical Hazards (Cont'd)***
0930 – 0945	*Break*
0945 – 1100	***Safety Management***
1100 – 1230	***Safety Management (Cont'd)***
1230 - 1245	*Break*
1245 - 1420	***De-Energized Work***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

0830 – 0930	***De-Energized Work (Cont'd)***
0930 – 0945	*Break*
0945 – 1100	***De-Energized Work (Cont'd)***
1100 – 1230	***Energized Work***
1230 - 1245	*Break*
1245 - 1420	***Energized Work (Cont'd)***
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day5

0730 – 0930	***Confined Space***
0930 – 0945	*Break*
0945 – 1100	***Confined Space (Cont'd)***
1100 – 1215	***Personnel Protection***
1215 - 1230	*Break*
1230 – 1245	***Personnel Protection (Cont'd)***
1245 – 1300	***Course Conclusion***
1300 – 1400	***COMPETENCY EXAM***
1400 – 1415	*Evaluation of Competency Exam*
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

Practical Sessions

This practical and highly-interactive course includes real-life case studies and exercises:-

Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org