



**COURSE OVERVIEW EE0452**

**Certified Switchman: High Voltage Switching Operations**

**Course Title**

Certified Switchman: High Voltage Switching Operations

**Course Date/Venue**

November 16-20, 2025/Slaysel 02 Meeting Room, Movenpick Hotel & Resort Al Bida'a Kuwait, City of Kuwait

**Course Reference**

EE0452

**Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs



**Course Description**



***This practical and highly-interactive course includes various practical sessions where participants will be engaged in HV/LV power switching and other working practices.***



This course is designed to provide participants with a detailed and up-to-date overview of high voltage switching operations. It covers the legislation and standards of high voltage switching operations; the risk management and control as well as the proper approach to high voltage-safe systems of work, permit types and permit procedures; operating local high voltage and low voltage switchgear; developing high voltage switchgear program; controlling permit to work operations; performing switching to a switching program; coordinating and directing switching program; and working safely near live electrical apparatus.



During this interactive course, participants will learn the access procedures to work on or near electrical network infrastructure; the HV field switching operation and power system substation switching operation to a given schedule; developing high voltage switching schedule; coordinating power systems permit procedures; directing power system switching schedules; and solving the energy supply network equipment problems in a professional manner.





## Course Objectives

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

- Get certified as a “*Certified Switchman*”
- Review the legislation and standards of high voltage switching operations
- Carryout risk management and control as well as the proper approach to high voltage-safe systems of work, permit types and permit procedures
- Operate local high voltage and low voltage switchgear and develop high voltage switchgear program
- Apply control permit to work operations, perform switching to a switching program as well as coordinate and direct switching program
- Work safely near live electrical apparatus
- Apply access procedures to work on or near electrical network infrastructure
- Perform HV field switching operation and power system substation switching operation to a given schedule
- Develop high voltage switching schedule and coordinate power systems permit procedures and direct power system switching schedules
- Solve energy supply network equipment problems in a professional manner

## 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 high voltage switching operations for electrical workers and engineers working with high and low voltage switchgear in industrial facilities and networks.

## 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.





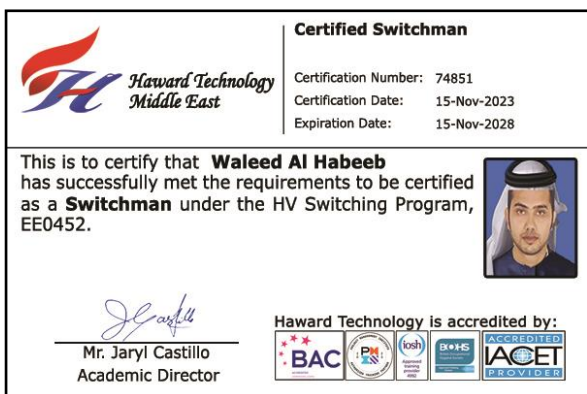
**Course Certificate(s)**

(1) Internationally recognized Competency Certificates and Plastic Wallet Cards 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 as a "Certified Switchman". 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 \* CEUs \* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \*



## Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

### CEU Official Transcript of Records

CEUs

**TOR Issuance Date:** 15-Nov-23

**HTME No.:** 74851

**Participant Name:** Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
EE0452	HV Switching	November 11-15, 2023	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




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**Certificate Accreditations**

Certificates are accredited by the following international accreditation organizations: -

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. 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 center, Haward Technology meets all of the international higher education criteria and standards set by BAC.

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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.

**Course Fee**

**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.

**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. Pan Marave, PE, MSc, BEng**, is a **Senior Electrical & Instrumentation Engineer** with over **45 years** of extensive experience in **Oil, Gas, Petrochemical, Refinery & Power** industries. His expertise includes Safety Instrumented Systems (**SIS**), Safety Integrity Level (**SIL**), Emergency Shutdown (**ESD**); **DCS, SCADA & PLC**; **Measurement (Flow, Temperature, Pressure)**; **Process Analyzers & Analytical Instrumentation**; **Process Control, Instrumentation & Safeguarding**; **Process Controller, Control Loop & Valve Tuning**; **Industrial Distribution Systems**; **Industrial Control & Control Systems, Power Systems Protection & Relaying**; **Earthing, Bonding, Grounding, Lightning & Surge Protection**; **Electric Power Substation & Systems**; **Electrical Engineering Principles**; **Motor Control Circuit**; **Electrical Fault Analysis**; **Electrical Networks & Distribution Cables**; **Circuit Breakers, Switchgears, Transformers, Hazardous Areas Classification** and **Detailed Engineering Drawings, Codes & Standards**. Furthermore, he is also well-versed in **Microprocessors Structure, Lead Auditor (ISO 9000:2000), ISO 9002, Quality Assurance, and Projects & Contracts Management**.

Presently, Mr. Marave is the **Technical Advisor of Chamber of Industry & Commerce** in Greece. Prior to this, he gained his thorough practical experience through several positions as the **Technical Instructor, Engineering Manager, Electronics & Instruments Head, Electrical, Electronics & Instruments Maintenance Superintendent, Assistant General Technical Manager** and **Engineering Supervisor** of various international companies such as the **Alumil Mylonas, Athens Papermill, Astropol** and the **Science Technical Education**.

Mr. Marave is a **Registered Professional Engineer** and has **Master's** and **Bachelor's** degrees in **Electrical Engineering** from the **Polytechnic Institute of New York** and **Pratt Institute of New York (USA)** respectively. Further, he is a **Certified Instructor/Trainer, a Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)** and an active member of the **Technical Chamber** and the **Institute of Electrical and Electronics Engineer (IEEE)** in Greece. He has presented and delivered **numerous international** courses, conferences, trainings and workshops worldwide.

**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: Sunday, 16<sup>th</sup> of November 2025**

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	<b>PRE-TEST</b>
0830 – 0900	Legislation & Standards
0900 – 0915	Risk Management & Control
0915 - 0930	Approach to High Voltage - Safe Systems of Work, Permit Types & Permit Procedures





0930 – 0945	Break
0945 – 1030	<b>Operate Local HV Switchgear</b>
1030 – 1100	<b>Operate Local LV Switchgear</b>
1100 – 1130	<b>Develop HV Switchgear Program</b>
1130 – 1245	Break
1245 – 1330	<b>Control Permit to Work Operations</b>
1330 – 1420	<b>Perform Switching to a Switching Program</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day One

**Day 2: Monday, 17<sup>th</sup> of November 2025**

0730 – 0815	<b>Coordinate &amp; Direct Switching Program</b>
0815 – 0845	<b>Working Safely near Live Electrical Apparatus</b>
0845 – 0930	<b>Apply Access Procedures to Work on or Near Electrical Network Infrastructure</b>
0930 – 0945	Break
0945 – 1015	<b>Perform HV Field Switching Operation to a Given Schedule</b>
1015 – 1145	<b>Perform Power System Substation Switching Operation to a Given Schedule</b>
1145 – 1230	<b>Develop High Voltage Switching Schedule</b>
1230 – 1245	Break
1245 – 1315	<b>Coordinate Power Systems Permit Procedures</b>
1315 – 1345	<b>Coordinate &amp; Direct Power System Switching Schedules</b>
1345 – 1420	<b>Solve Problems in Energy Supply Network Equipment</b>
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Two

**Day 3: Tuesday, 18<sup>th</sup> of November 2025**

0730 – 0930	<b>Practical Sessions</b> Switching Programs
0930 – 0945	Break
0945 – 1100	<b>Practical Sessions (cont'd)</b> Isolation Certificates
1100 – 1230	<b>Practical Sessions (cont'd)</b> Isolation Certificates (cont'd)
1230 – 1245	Break
1245 – 1420	<b>Practical Sessions (cont'd)</b> Electrical Permit to Work
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Three

**Day 4: Wednesday, 19<sup>th</sup> of November 2025**

0730 – 0930	<b>Practical Sessions (cont'd)</b> Danger Notices & Pre-Cautions
0930 – 0945	Break
0945 – 1100	<b>Practical Sessions (cont'd)</b> Sanction for Test
1100 – 1230	<b>Practical Sessions (cont'd)</b> Sanction for Test (cont'd)



1230 – 1245	Break
1245 – 1420	<b>Practical Sessions (cont'd)</b> Lock-Out & Tag-Out
1420 – 1430	<b>Recap</b>
1430	Lunch & End of Day Four

**Day 5: Thursday, 20<sup>th</sup> of November 2025**

0730 – 0930	<b>Practical Sessions (cont'd)</b> Safe Key Systems
0930 – 0945	Break
0945 – 1100	<b>Practical Sessions (cont'd)</b> Electrical Safety Systems- Interlocks-Earthing-Isolation & Access Control
1100 – 1200	<b>Practical Sessions (cont'd)</b> Electrical Safety Systems- Interlocks-Earthing-Isolation & Access Control (cont'd)
1200 – 1215	Break
1215 – 1245	<b>Practical Sessions (cont'd)</b> Fault Reports
1245 – 1300	<b>Course Conclusion</b> Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course
1300 – 1400	<b>COMPETENCY EXAM</b>
1400 – 1415	Evaluation of Competency Exam
1415 – 1430	Presentation of Course Certificates
1430	Lunch & End of Course



**Practical Sessions (Online-Virtual)**

This practical and highly-interactive course includes the following practical sessions using Haward’s HV Switchgears:-



- |                                   |  |
|-----------------------------------|--|
| (1) Switching Programs            | (6) Lock-Out & Tag-Out   |
| (2) Isolation Certificates        | (7) Safe Key Systems   |
| (3) Electrical Permit to Work     | (8) Electrical Safety Systems-Interlocks-Earthing-Isolation & Access Control |
| (4) Danger Notices & Pre-Cautions | (9) Fault Reports  |
| (5) Sanction for Test             |  |

**Course Coordinator**

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