COURSE OVERVIEW EE0452
Certified Switchman: High Voltage Switching Operations

Course Title
Certified Switchman: High Voltage Switching Operations

Course Date/Venue
Session 1: September 08-12, 2024/Club B Meeting Room, Ramada Plaza by Wyndham Istanbul City Center, Istanbul, Turkey
Session 2: December 09-13, 2024/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

Course Reference
EE0452

Course Date/Venue
Five days /3.0CEUs/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

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 Fee

Istanbul	**US$ 6,000** per Delegate + **VAT**. This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Abu Dhabi	**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.

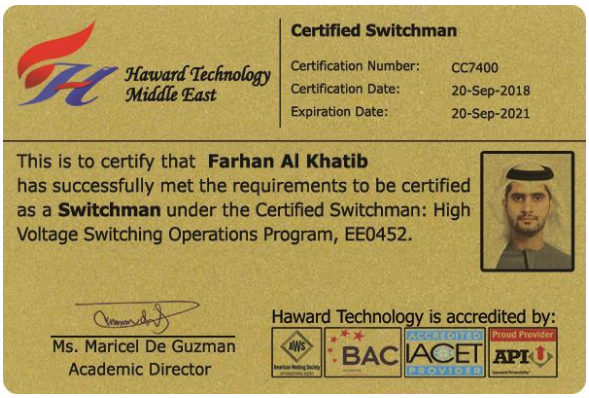
Course Certificate(s)

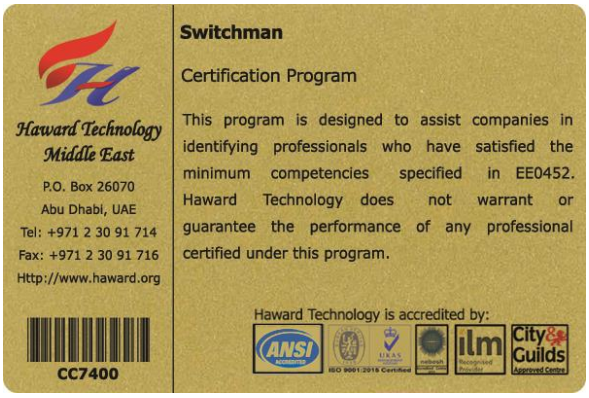
(1) Internationally recognized Wall Competency Certificates and Plastic Wallet Card Certificates will be issued to participants who have successfully completed the course and passed the exam at the end of the course. Successful candidate will be certified as a "*Certified Switchman*". Certificates are 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 Middle East

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Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 20-Sep-18

HTME No. PAR10475

Participant Name: Farhan Al Khatib

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
EE0452	Certified Switchman: High Voltage Switching Operations	September 16-20, 2018	30.0	3.0

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

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), 1760 Old Meadow Road, Suite 500, McLean, VA 22102, 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

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Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

- 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.

- 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.

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. Anouar Dhifallah, MSc, BSc, is a **Senior Electrical Engineer** with over **20** years of extensive experience within the **Oil**, **Gas**, **Petrochemical**, **Refinery** & **Power** industries. His expertise widely covers in the areas of **MV Substation Maintenance**, **HV/MV Cable Splicing**, **Cable & Over Head Power Line**, **HV/MV Switchgear, HV Cable** Design, **Cable** Splicing & Termination, **Cable** Jointing Techniques, **LV & MV** Switchgears & Circuit Breakers, **HV/LV Equipment**, **High Voltage Electrical Safety**, **LV & HV Electrical System**, **HV Equipment** Inspection & Maintenance, **HV Switchgear** Operation & Maintenance, **LV Distribution Switchgear & Equipment**, **Electrical Safety**, **Electrical** Maintenance, Inspection, Testing & **Risk** Assessment, **Electrical Generator** Protection, **Electrical Generator** Testing & Maintenance, Programmable Logic Controller (**PLC**), Distribution Control System (**DCS**), **Temperature**, **Flow & Level** Measurement, **Pneumatic & Hydraulic** Technologies, **Substation Automation** Systems & Application, Testing & Maintenance of **Electrical Substations**, **Electrical Substation 33/11KV** Design, Electrical **Power Substation** Maintenance, **Substation** Quality Control & Site Inspection, **Electrical Forecasting** Techniques, **Transformer** Maintenance & Testing, **Electrical Quality Control & Site Inspection**, **Electrical Installation Works** Designs & Supervision, **Electrical Equipment** Inspection, Testing & Troubleshooting, **Lighting Installation** Design, **Electric Distribution** System, **Load Forecasting** Methods, **Transmission** & **Distribution** Analysis, **Circuit Breakers** Inspection & Maintenance, **Protective Relaying**, **Electrical & Control** System, **Switchgears**, **Transformers**, **Medium & High Voltage Equipment**, **Circuit Breakers**, **Cable & Overhead Line** Troubleshooting & Maintenance, **High Voltage Circuit Breaker** Inspection & Repair, **High Voltage Power** System, **Electrical Standards**, **Electrical Drawing & Schematics**, **Voltage Distribution**, **Power Distribution**, **Filters**, **Automation System**, **Electrical Variable Speed Drives**, **Power** Systems, **Power Generation**, **Diesel Generators**, **Power Stations**, Uninterruptible Power Systems (**UPS**), **Battery Chargers**, **AC & DC Transmission**, **CCTV** Installation, **Data & Fire Alarm** System, **Security** Systems, **Evacuation** Systems and **Electrical Motors & Variable Speed Drives**, Renewable Energy and Installation & Control of Electrical and Electronic devices.

During Mr. Anouar's career life, he has gained his practical experience through several significant positions and dedication as the **Electrical & Instrumentation Department Head**, **Technical Services Manager**, **Senior Electrical Engineer**, **Electrical Instructor** and **Instructor/Trainer** from various companies, colleges and institutes like the Technical School of Zarzis, Rancho Santiago College, Al Baha Technical College, **ARAMCO**, **PDO** and Tunisie Telecom Co.

Mr. Anouar has a **Master's** degree in **Electronics & Telecommunication Engineering** and a **Bachelor's** degree in **Electrical & Instrumentation Engineering**. Further, he is a **Certified Instructor/Trainer**, a **Certified Coach** from the International Coaching Federation (ICF) 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 – 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	***Operate Local HV Switchgear***
1030 – 1100	***Operate Local LV Switchgear***
1100 – 1230	***Develop HV Switchgear Program***
1230 – 1245	*Break*
1245 – 1330	***Control Permit to Work Operations***
1330 - 1420	***Perform Switching to a Switching Program***
1420 – 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

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

Day 3

0730 – 0930	***Practical Sessions*** *Switching Programs*
0930 – 0945	*Break*
0945 – 1100	***Practical Sessions (cont'd)*** *Isolation Certificates*
1100 – 1230	***Practical Sessions (cont'd)*** *Isolation Certificates (cont'd)*

1230 – 1245	*Break*
1245 – 1420	***Practical Sessions (cont'd)*** *Electrical Permit to Work*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

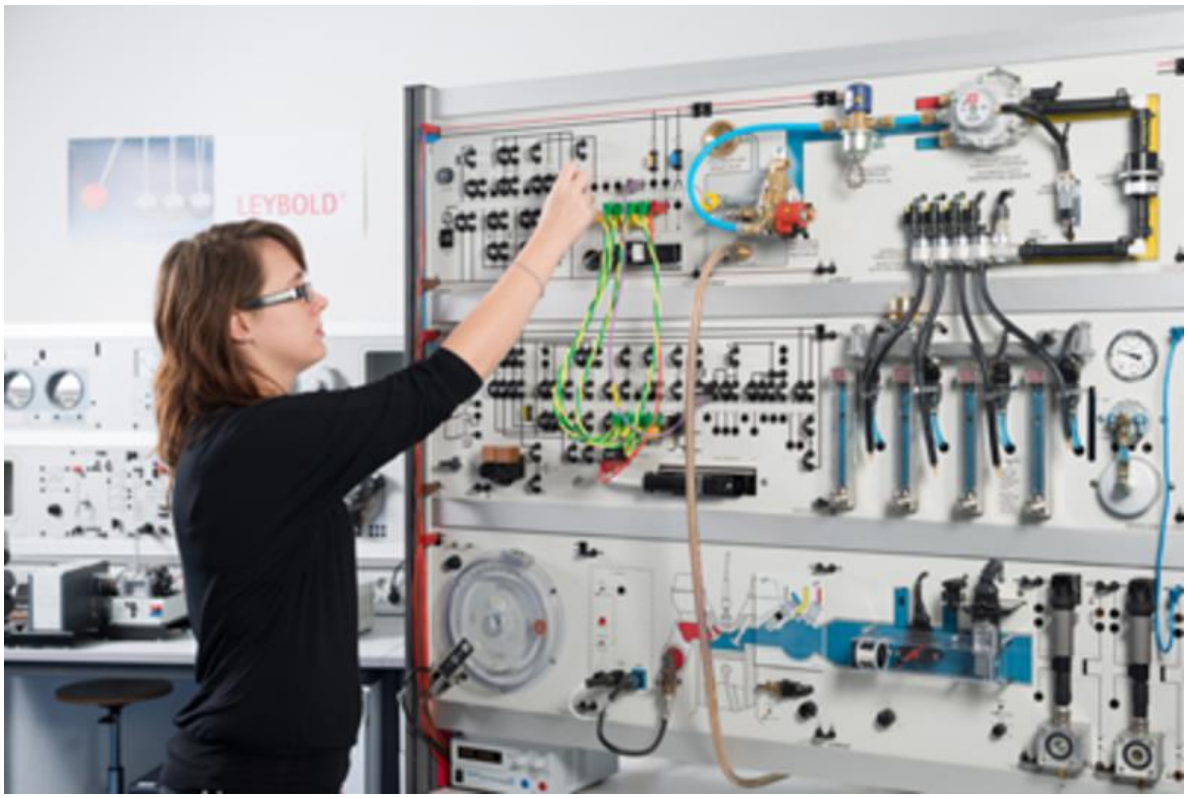
0730 – 0930	***Practical Sessions (cont'd)*** *Danger Notices & Pre-Cautions*
0930 – 0945	*Break*
0945 – 1100	***Practical Sessions (cont'd)*** *Sanction for Test*
1100 – 1230	***Practical Sessions (cont'd)*** *Sanction for Test (cont'd)*
1230 – 1245	*Break*
1245 – 1420	***Practical Sessions (cont'd)*** *Log-Out & Tag-Out*
1420 – 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

0730 – 0930	***Practical Sessions (cont'd)*** *Safe Key Systems*
0930 – 0945	*Break*
0945 – 1100	***Practical Sessions (cont'd)*** *Electrical Safety Systems- Interlocks-Earthing-Isolation & Access Control*
1100 – 1200	***Practical Sessions (cont'd)*** *Electrical Safety Systems- Interlocks-Earthing-Isolation & Access Control (cont'd)*
1200 – 1215	*Break*
1215 – 1245	***Practical Sessions (cont'd)*** *Fault Reports*
1245 – 1300	***Course Conclusion*** *Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course*
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 the following practical sessions using Haward's HV Switchgears:-



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

Course Coordinator

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