

COURSE OVERVIEW EE0574
HV Switching & Responsible Electrical Person (REP)

Course Title

HV Switching & Responsible Electrical Person (REP)

Course Date/Venue

Session 1: April 21-25, 2024/Boardroom 1,
 Elite Byblos Hotel Al Barsha,
 Sheikh Zayed Road, Dubai, UAE
 Session 2: May 05-09, 2024/Boardroom 2,
 Elite Byblos Hotel Al Barsha,
 Sheikh Zayed Road, Dubai, UAE



Course Reference

EE0574

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 power switching and other working practices.

This course is designed to provide participants with a detailed and up-to-date overview of HV Switching & Responsible Electrical Person (REP). It covers the legislation and standards of high voltage switching operations; the proper approach to high voltage-safe systems of work; the permit types and permit procedures; the construction of switchgear and types of circuit breaker; and the safe testing and maintenance of breakers and switchgear.

During this interactive course, participants will learn the control and management of distribution systems; applying control permit to work operations; performing switching to a switching program and coordinating and directing switching program; working safely near live electrical apparatus and performing HV switching operation to a given schedule; developing high voltage switching schedule; coordinating and directing power system switching schedules; solving problems with ageing switchgear outdated mechanisms; and developing leadership and teamwork and managing stress in a professional manner.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 & Responsible Electrical Person (REP)”
- Employ proper communication, situation awareness and decision making as well as review the legislation and standards of high voltage switching operations
- Carryout proper approach to high voltage covering safe systems of work, permit types and permit procedures
- Identify the construction of switchgear, types of circuit breaker, switchgear rating and safety operation
- Carryout safe testing and maintenance of breakers and switchgear as well as the control and management of distribution systems
- Apply control permit to work operations, perform switching to a switching program and coordinate and direct switching program
- Work safely near live electrical apparatus and perform HV switching operation to a given schedule
- Develop high voltage switching schedule and coordinate and direct power system switching schedules
- Solve problems with ageing switchgear outdated mechanisms as well as develop leadership and teamwork and manage stress 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, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations of HV switching and responsible electrical person (REP) for electrical workers and engineers working with high and low voltage switchgear in industrial facilities and networks as well as for electrical personnel who are preparing to take on the role of responsible electrical person on an offshore or onshore installation.

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

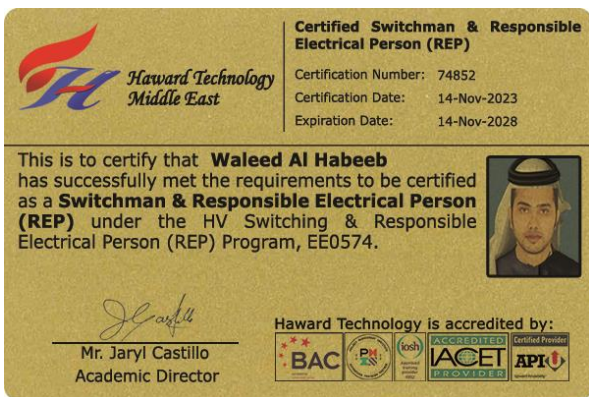
Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.

Course 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. Certificates are valid for 5 years. Successful candidate will be certified as a “*Certified Switchman & Responsible Electrical Person (REP)*”. Certificates are valid for 5 years.

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)

CEUs

CEU Official Transcript of Records

TOR Issuance Date: 14-Nov-23

HTME No. 74852

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
EE0574	HV Switching & Responsible Electrical Person (REP)	November 10-14, 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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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.

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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 centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

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 40 years of extensive experience in Oil, Gas, Petrochemical, Refinery & Power industries. His expertise includes Circuit Breaker, HV Switchgear Maintenance, HV/LV Electrical Authorisation, Basic Electricity, Electrical & Special Hazards, Personnel Protection, HV/LV Equipment, Motor Controllers, Electrical Switching Practices, Emergency Planning, Safety Management, 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 and Bachelor** 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.

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

0730 – 0800	<i>Registration & Coffee</i>
0800 – 0815	<i>Welcome & Introduction</i>
0815 – 0830	PRE-TEST
0830 – 0930	Introduction to REP
0930 – 0945	<i>Break</i>
0945 – 1030	Communication, Situation Awareness & Decision Making
1030 – 1230	Legislation & Standards
1230 – 1245	<i>Break</i>
1245 – 1420	Approach to High Voltage - Safe Systems of Work, Permit Types & Permit Procedures
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0830	Switchgear Construction
0830 – 0930	Circuit Breaker Types
0930 – 0945	<i>Break</i>
0945 – 1100	Switchgear Rating & Safety Operation
1100 – 1230	Safe Testing & Maintenance of Breakers & Switchgear
1230 – 1245	<i>Break</i>
1245 – 1420	Control & Management of Distribution Systems
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>

Day 3

0730 – 0830	Control Permit to Work Operations
0830 – 0930	Perform Switching to a Switching Program
0930 – 0945	Break
0945 – 1100	Coordinate & Direct Switching Program
1100 – 1230	Working Safely near Live Electrical Apparatus
1230 – 1245	Break
1245 – 1420	Perform HV Switching Operation to a Given Schedule
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 – 0830	Develop High Voltage Switching Schedule
0830 – 0930	Coordinate & Direct Power System Switching Schedules
0930 – 0945	Break
0945 – 1100	Problems with Ageing Switchgear Outdated Mechanisms
1100 – 1230	Leadership & Teamwork
1230 – 1245	Break
1245 – 1420	Stress Management
1420 – 1430	Recap
1430	Lunch & End of Day Four

Day 5: Practical Sessions

0730 – 0930	Practical Sessions Switching Programs • Isolation Certificates
0930 – 0945	Break
0945 – 1100	Practical Sessions (cont'd) Electrical Permit to Work • Danger Notices & Pre-Cautions
1100 – 1200	Practical Sessions (cont'd) Sanction for Test • Lock-Out & Tag-Out
1200 – 1215	Break
1215 – 1300	Practical Sessions (cont'd) Safe Key Systems • Electrical Safety Systems- Interlocks-Earthing-Isolation & Access Control
1300 – 1315	Course Conclusion Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course
1315 – 1415	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:-



<ul style="list-style-type: none"> (1) Switching Programs (2) Isolation Certificates (3) Electrical Permit to Work (4) Danger Notices & Pre-Cautions (5) Sanction for Test 	<ul style="list-style-type: none"> (6) Lock-Out & Tag-Out (7) Safe Key Systems (8) Electrical Safety Systems-Interlocks-Earthing-Isolation & Access Control (9) Fault Reports
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Course Coordinator

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