

COURSE OVERVIEW EE0408(OM1) Certification Electrical & Electrical Licensing

Course Title

Certification Electrical & Electrical Licensing

Course Date/Venue

Please see page 3

Course Reference

EE0408(OM1)

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



Course Description



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

This course is designed to provide participants with a detailed and up-to-date overview of certification electrical and electrical licensing. It covers the basic electricity and HV/LV (high voltage & low voltage) installation in fertilizer industries; the theory and operation of different electrical equipment like motors, transformers, etc.; the detailed theoretical & practical sessions for HV/LV switchgear; the knowledge and skills required to safely work with energies HV/LV electric power systems; the principles and procedures for safe operation and maintenance of HV/LV systems in accordance with the latest international standards; and the safely isolation and working with equipment like transformers, switches, isolators, fuses, circuit breakers, etc.



During this interactive course, participants will learn the hazards involved while working with electricity like live testing/working, overloads, short circuits, earth faults, fires, etc.; the tools, tackles and PPE's most suitable to work with the HV/LV systems; the safety documentation and procedures for safe operations and isolations of electrical equipment; the troubleshooting while working with the electrical systems; troubleshooting while working with the electrical systems; the control system for electrical equipment; and the principles and operations of over current protection, earth fault protection, differential protection.



Course Objectives

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

- Apply and gain a comprehensive knowledge on certification electrical and electrical licensing
- Explain basic electricity and HV/LV (high voltage & low voltage) installation in fertilizer industries
- Discuss theory and operation of different electrical equipment like motors, transformers, etc.
- Employ detailed theoretical & practical sessions for HV/LV switchgear
- Identify knowledge and skills required to safely work with energies HV/LV electric power systems
- Recognize principles and procedures for safe operation and maintenance of HV/LV systems in accordance with the latest international standards
- Illustrate safely isolation and working with equipment like transformers, switches, isolators, fuses, circuit breakers, etc.
- Monitor hazards involved while working with electricity like live testing/working, overloads, short circuits, earth faults, fires, etc.
- Recognize tools, tackles and PPE's most suitable to work with the HV/LV systems
- Discuss safety documentation and procedures for safe operations and isolations of electrical equipment
- Perform troubleshooting while working with the electrical systems
- Explain control system for electrical equipment
- Identify principles and operations of over current protection, earth fault protection, differential 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 certification electrical and electrical licensing for electrical engineers, supervisors and technicians.

Accommodation

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



Course Date/Venue

| Session(s) | Date | Venue |
|------------|---------------------------|--|
| 1 | June 15-19, 2026 | Ruben Boardroom, The Rubens at The Palace, Buckingham Palace Road, London, United Kingdom |
| 2 | August 30-September, 2026 | Meeting Room 4, Four Seasons Hotel Cairo at Nile Plaza, Corniche El Nil, Garden City, Cairo, Egypt |
| 3 | September 20-24, 2026 | Pierre Lotti Meeting Room, Movenpick Hotel Istanbul Golden Horn, Istanbul, Turkey |
| 4 | November 15-19, 2026 | Meeting Plus 9, City Centre Rotana, Doha, Qatar |
| 5 | December 06-10, 2026 | Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE |
| 6 | January 24-28, 2027 | Tamra Meeting Room, Al Bandar Rotana Creek, Dubai, UAE |
| 7 | February 08-12, 2027 | Ruben Boardroom, The Rubens at The Palace, Buckingham Palace Road, London, United Kingdom |
| 8 | 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 Wall 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. 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.

Page 1 of 1

Haward Technology Middle East
Continuing Professional Development (HTME-CPD)

CEU Official Transcript of Records

TOR Issuance Date: 06-Sep-18
HTME No. PAR15510
Participant Name: Abdullah Al Neyadi

| Program Ref. | Program Title | Program Date | No. of Contact Hours | CEU's |
|--|---|-----------------------|----------------------|-------------|
| EE0408-3D-IH | Certification Electrical & Electrical Licensing | September 04-06, 2018 | 19.5 | 1.95 |
| Total No. of CEU's Earned as of TOR Issuance Date | | | | 1.95 |

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

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.

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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 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 **30 years** of extensive experience in **Oil, Gas, Petrochemical, Refinery & Power** industries. His expertise includes **Earthing, Bonding, Grounding, Lightning & Surge Protection, Hazardous Areas Classification** and Detailed Engineering Drawings, **Motor Controllers, Motor Control Circuit, Basic Electricity, Electrical & Special Hazards, CEMS Operations and Maintenance, ABB 11KV Distribution Switchgear, Electrical Switching Practices, HV Switchgear Maintenance, Operation & Maintenance of Rotork make MOVS, Maintaining Instrument Air Compressors, Circuit Breaker, HV/LV Electrical Authorisation, Personnel Protection, HV/LV Equipment, 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, Electric Power Substation & Systems, Electrical Engineering Principles, Electrical Fault Analysis, Electrical Networks & Distribution Cables, Circuit Breakers, Switchgears, Transformers, 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.



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 | <i>Basic Electricity and HV/LV (High Voltage & Low Voltage) Installation in Fertilizer Industries</i> |
| 0930 – 0945 | <i>Break</i> |
| 0945 – 1100 | <i>Theory & Operation of Different Electrical Equipment like Motors, Transformers, etc.</i> |
| 1100 – 1230 | <i>Detailed Theoretical & Practical Sessions for HV/LV Switchgear</i> |
| 1230 – 1245 | <i>Break</i> |
| 1245 – 1420 | <i>Detailed Theoretical & Practical Sessions for HV/LV Switchgear (cont'd)</i> |
| 1420 – 1430 | Recap |
| 1430 | <i>Lunch & End of Day One</i> |

Day 2

| | |
|-------------|---|
| 0730 – 0930 | <i>Knowledge & Skills Required to Safely Work with Energies HV/LV Electric Power Systems</i> |
| 0930 – 0945 | <i>Break</i> |
| 0945 – 1100 | <i>Principles & Procedures for Safe Operation & Maintenance of HV/LV Systems in Accordance with the Latest International Standards</i> |
| 1100 – 1230 | <i>Safely Isolation & Working with Equipment like Transformers, Switches, Isolators, Fuses, Circuit Breakers, etc.</i> |
| 1230 – 1245 | <i>Break</i> |
| 1245 – 1420 | <i>Safely Isolation & Working with Equipment like Transformers, Switches, Isolators, Fuses, Circuit Breakers, etc. (cont'd)</i> |
| 1420 – 1430 | Recap |
| 1430 | <i>Lunch & End of Day Two</i> |





Day 3

| | |
|-------------|---|
| 0730 – 0930 | <i>Hazards involved while Working with Electricity like Live Testing/Working, Overloads, Short Circuits, Earth Faults, Fires, etc.</i> |
| 0930 – 0945 | <i>Break</i> |
| 0945 – 1100 | <i>Hazards involved while Working with Electricity like Live Testing/Working, Overloads, Short Circuits, Earth Faults, Fires, etc. (cont'd)</i> |
| 1100 – 1230 | <i>Tools, Tackles & PPE's Most Suitable to Work with the HV/LV systems</i> |
| 1230 – 1245 | <i>Break</i> |
| 1245 – 1420 | <i>Tools, Tackles & PPE's Most Suitable to Work with the HV/LV systems (cont'd)</i> |
| 1420 – 1430 | Recap |
| 1430 | <i>Lunch & End of Day Three</i> |

Day 4

| | |
|-------------|--|
| 0730 – 0930 | <i>Safety Documentation & Procedures for Safe Operations & Isolations of Electrical Equipment</i> |
| 0930 – 0945 | <i>Break</i> |
| 0945 – 1100 | <i>Safety Documentation & Procedures for Safe Operations & Isolations of Electrical Equipment (cont'd)</i> |
| 1100 – 1230 | <i>Troubleshooting while Working with the Electrical Systems</i> |
| 1230 – 1245 | <i>Break</i> |
| 1245 – 1420 | <i>Troubleshooting while Working with the Electrical Systems (cont'd)</i> |
| 1420 – 1430 | Recap |
| 1430 | <i>Lunch & End of Day f Four</i> |

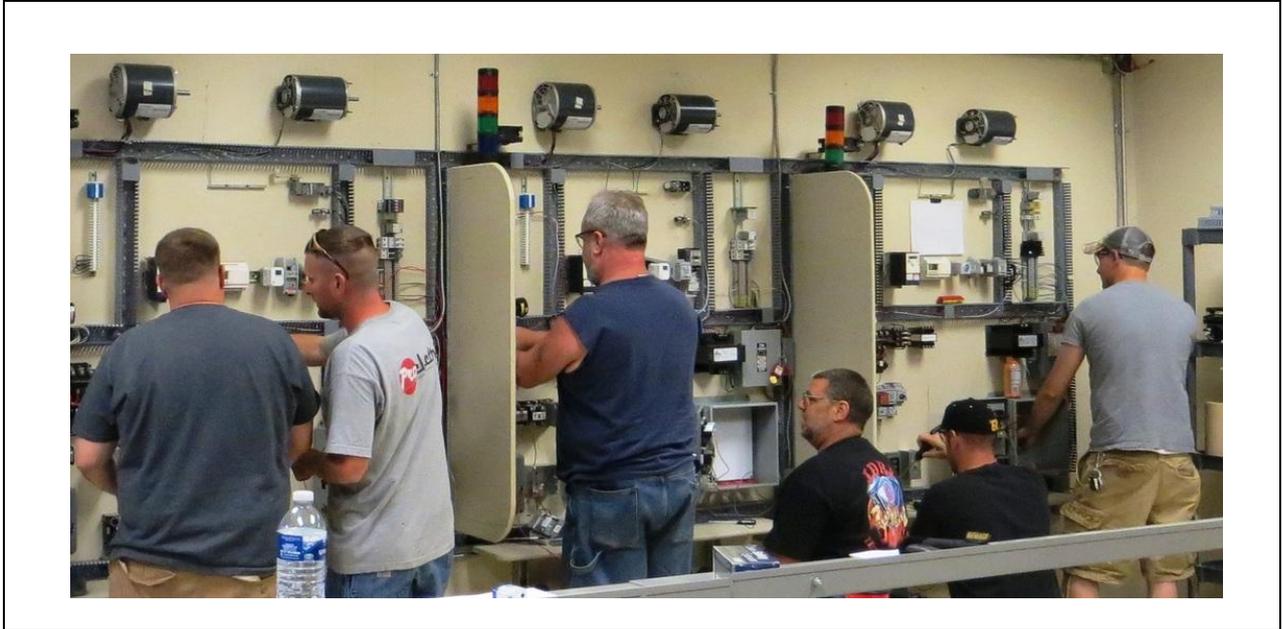
Day 5

| | |
|-------------|---|
| 0730 – 0930 | <i>Control System for Electrical Equipment</i> |
| 0930 – 0945 | <i>Break</i> |
| 0945 – 1030 | <i>Control System for Electrical Equipment (cont'd)</i> |
| 1030 – 1200 | <i>Principles & Operations of Over Current Protection, Earth Fault Protection, Differential Protection</i> |
| 1200 – 1215 | <i>Break</i> |
| 1215 – 1330 | <i>Principles & Operations of Over Current Protection, Earth Fault Protection, Differential Protection (cont'd)</i> |
| 1300 – 1315 | Course Conclusion |
| 1315 – 1415 | COMPETENCY EXAM |
| 1415 – 1430 | <i>Presentation of Course Certificates</i> |
| 1430 | <i>Lunch & End of Course</i> |



Practical Sessions

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



Course Coordinator

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