

**COURSE OVERVIEW EE0670**

**Practical Electrical Wiring Standards and Regulations**

**Course Title**

Practical Electrical Wiring Standards and Regulations

**Course Date/Venue**

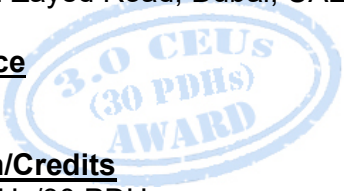
Session 1: July 07-11, 2025/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE  
 Session 2: December 14-18, 2025/Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE



**H-STK<sup>©</sup> INCLUDED**

**Course Reference**

EE0670



**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.***



There is a steady progress towards the harmonization of the electrical wiring standards. This is reflected in the **IET standard 60364**, the **European Harmonization Document HD384** and the **UK IEE Wiring Regulations 17th Edition**, now also known as British Standard **BS7671**, all of which share a common format.



This course is designed to provide up to date information and training on the current edition of IET BS7671, Requirements for Electrical Installations. It will consist of in depth teaching on all aspects of the regulations and their application with many practical examples and sample design calculations. The course includes references to safety, maintenance, inspection and testing. In addition it provides a summary of some of the basic principles necessary for a good understanding of electrical installation technology.

### Course Objectives

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

- Apply and gain an in-depth knowledge on the practical electrical wiring standards of IET BS7671 & IEC 60364
- Identify the structure and scope of the wiring regulations and emphasize the importance for safety
- Analyze cable protection and demonstrate the selection and erection of equipment
- Explain the earthing arrangements and the special installations or location of electrical wirings
- Illustrate the inspection and testing methodology of electrical wiring and the maintenance considerations
- Review and carryout sample design calculations of an electrical wiring system

### 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 practical electrical wiring standards for engineering managers, maintenance managers, superintendents, supervisors, electrical engineers, instrumentation & control engineers, electrical design staff, maintenance and shutdown planning staff, foremen and other technical staff.

### 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

**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)**


Internationally recognized certificates will be issued to all participants of the course who completed a minimum of 80% of the total tuition hours.

**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 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.

**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. Ahmed Abozeid** is a **Senior Electrical & Instrumentation Engineer** with over **30 years** of **Onshore & Offshore** experience within the **Oil & Gas** and **Power** industries. His wide expertise covers **HV Cable Design, Cable Splicing & Termination, Cable Jointing Techniques, High Voltage Electrical Safety, HV/MV Cable Splicing, High Voltage Circuit Breaker Inspection & Repair, High Voltage Power System Safe Operation, High Voltage Safety, High Voltage Transformers, Safe Operation of High Voltage & Low Voltage Power Systems, Electric Distribution System Equipment, ABB 11KV Distribution Switchgear, Rotork Operation & Maintenance, Power System Protection and Relaying, Electrical Motors & Variable Speed Drives, Motor Speed Control, Power Electronic Converters, Control Valve, Flowmetering & Custody Transfer, Meters Calibration, Installation & Inspection, Crude Metering & Measurement Systems, Flow Meter Maintenance Troubleshooting, AC Converters Section, Electromagnetic Compatibility (EMC), Motor Failure Analysis & Testing, Machinery Fault Diagnosis, Bearing Failure Analysis Process Control & Instrumentation, Process Control Measurements, Control System Commissioning & Start-Up, Control System & Monitoring, Power Station Control System, Instrumentation Devices, Process Control & Automation, PID Controller, Distributed Control Systems (DCS), Programmable Logic Controllers (PLC), ABB PLC & DCS System, Gas Analyzers, Simulation Testing, Load Flow, Short Circuit, Smart Grid, Vibration Sensors, Cable Installation & Commissioning, Calibration Commissioning and Site Filter Controller. Further, he is also well-versed in **Fundamentals of Electricity, Electrical Standards, Electrical Power, PLC, Electrical Wiring, Machines, Transformers, Motors, Power Stations, Electro-Mechanical Systems, Automation & Control Systems, Voltage Distribution, Power Distribution, Filters, Automation System, Electrical Variable Speed Drives, Power Systems, Power Generation, Power Transformers, Diesel Generators, Power Stations, Uninterruptible Power Systems (UPS), Battery Chargers and AC & DC Transmission.** He is currently the **Project Manager** wherein he manages, plans and implements projects across different lines of business.**

Mr. Ahmed worked as the **Electrical Manager, Electrical Power & Machine Expert, Electrical Process Leader, Team Leader, Electrical Team Leader, Technical Instructor, and Instructor/Trainer** from various companies such as the Lafarge Nigeria, Egyptian Cement Company, ECC Training Center, Alrajhi Construction & Building Company and Ameria Cement Company, just to name a few.

Mr. Ahmed has a **Bachelor's** degree in **Electrical Engineering**. Further, he is a **Certified Instructor/Trainer, Certified TQUK Level 3 Vocational Achievement (RQF) Assessor** and has delivered numerous trainings, seminars, courses, workshops and conferences internationally.

### Course Program



The following program is planned for this course. However, the course instructor 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 – 0745	<i>Registration &amp; Coffee</i>
0745 – 0800	<i>Welcome &amp; Introduction</i>
0800 – 0815	<b>PRE-TEST</b>
0815 – 0930	<b>Introduction to Regulations</b> <i>Structure of International and UK Wiring Regulations • Foundation Electrical Principles and Terminology • Scope of Regulations • Requirements for Safety</i>
0930 - 0945	<i>Break</i>
0945 – 1100	<b>Protection for Safety</b> <i>Shock • Direct and Indirect Contact</i>
1100 – 1230	<b>Protection for Safety (cont'd)</b> <i>Effects of Shock on the Human Body • Principles of Shock Protection</i>
1230 - 1245	<i>Break</i>
1245 – 1420	<b>Protection for Safety (cont'd)</b> <i>Calculation of Disconnection Times • Extra Low Voltage Systems</i>
1420 - 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day One</i>

**Day 2**

0730 – 0930	<b>Cable Protection</b> <i>Over-current • Cable Sizing • Neutral Conductors • Selecting Protective Devices</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<b>Cable Protection (cont'd)</b> <i>Calculation of Adiabatic Heating Effect • Effect of Harmonic Currents – Thermal Effects • Parallel Cables</i>
1100 – 1230	<b>Selection &amp; Erection of Equipment</b> <i>Wiring Systems • Switchgear • Characteristics and Limitations of Fuses and Circuit Breakers</i>
1230 – 1245	<i>Break</i>
1245 – 1420	<b>Selection &amp; Erection of Equipment (cont'd)</b> <i>Breaking Capacity • Coordination and Discrimination Between Devices • Calculation of Fault Levels</i>
1420 - 1430	<b>Recap</b>
1430	<i>Lunch &amp; End of Day Two</i>

**Day 3**

0730 – 0930	<b>Earthing Arrangements</b> <i>Calculation of Protective Conductor Sizes</i>
0930 – 0945	<i>Break</i>
0945 – 1100	<b>Earthing Arrangements (cont'd)</b> <i>Bonding Requirements</i>
1100 – 1230	<b>Earthing Arrangements (cont'd)</b> <i>Supplies for Safety Services</i>

1230 - 1245	Break
1245 - 1420	<b>Special Installations or Locations</b> Locations of Increased Shock Risk
1420 - 1430	<b>Recap</b>
1430	Lunch & End of Day Three

**Day 4**

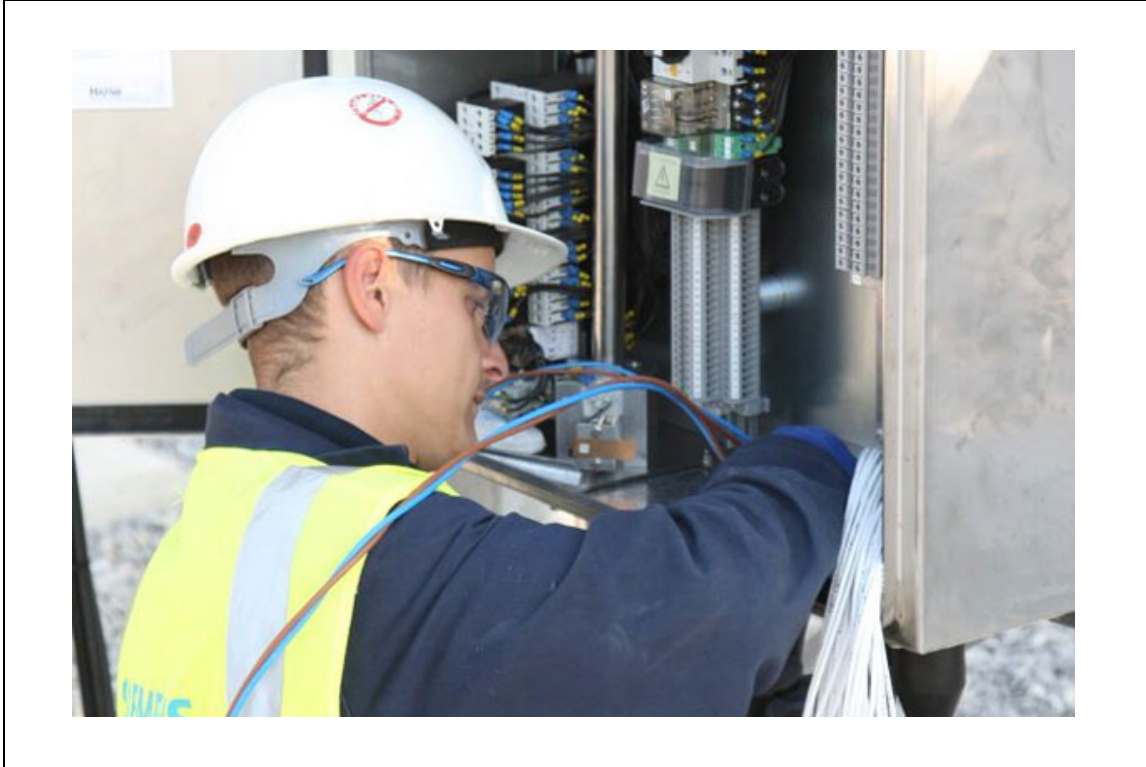
0730 - 0930	<b>Inspection &amp; Testing</b> Test Instruments
0930 - 0945	Break
0945 - 1100	<b>Inspection &amp; Testing (cont'd)</b> Certification
1100 - 1230	<b>Maintenance Considerations</b>
1230 - 1245	Break
1245 - 1420	<b>Maintenance Considerations (cont'd)</b>
1420 - 1430	<b>Recap</b>
1430	Lunch & End of Day Four

**Day 5**

0730 - 0930	<b>Sample Design Calculations</b>
0930 - 0945	Break
0945 - 1100	<b>Sample Design Calculations (cont'd)</b>
1100 - 1230	<b>Sample Design Calculations (cont'd)</b>
1230 - 1245	Break
1245 - 1345	<b>Summary</b>
1345 - 1400	<b>Course Conclusion</b>
1400 - 1415	<b>POST-TEST</b>
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**

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