COURSE OVERVIEW EE0628

NFPA 70E: *Standard for Electrical Safety in the Workplace*

Course Title

NFPA 70E: *Standard for Electrical Safety in the Workplace*



Course Date/Venue

Session 1: January 24-28, 2027/Meeting Plus 9, City Centre Rotana, Doha, Qatar
Session 2: July 25-29, 2027/Meeting Plus 9, City Centre Rotana, Doha, Qatar

Course Reference

EE0628

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description







This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.

This course is designed to provide participants with a detailed and up-to-date overview of electrical safety in the workplace in accordance with NFPA 70E standards. It covers the safety related work practices and procedures; the general requirements for electrical safety-related practices; establishing an electrically safe work condition; the work involving electrical hazards; and the safety-related and general maintenance requirements for various electrical equipment and facilities for substations, switchgears assemblies, switchboards, panel boards, motor control centres and disconnected switches.

During this interactive course, participants will learn the premises wiring; the controller equipment, fuses and circuit breakers; the rotating equipment, hazardous locations, batteries and battery rooms; the portable electric tools and equipment; the personal safety and protective equipment; the safety requirements for special equipment; and the safety related work practices for electrolytic cells, batteries and battery rooms, lasers, power electronic equipment research and development laboratories and capacitors.

Course Objectives/Outcomes & Benefits for the Participants

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

- Apply the latest electrical safety procedures and practices in the workplace in accordance with the international practice of NFPA 70E
- Carryout safety related work practices and procedures
- Identify the general requirements for electrical safety-related practices
- Establish an electrically safe work condition and recognize the work involving electrical hazards
- Recognise the safety-related and general maintenance requirements for various electrical equipments and facilities including substations, switchgears assemblies, switchboards, panelboards, motor control centers and disconnected switches
- Illustrate premises wiring and identify controller equipment, fuses and circuit breakers, rotating equipment, hazardous locations, batteries and battery rooms, portable electric tools and equipment
- Use personal safety and protective equipment as well as apply safety requirements for special equipment
- Employ safety-related work practices for electrolytic cells, batteries and battery room, lasers, power electronic equipment, research and development laboratories and capacitors

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 is designed for supervisors, engineers, inspectors, safety officers, construction workers and electrical maintenance and installation technicians that work on or around electrical equipment or installation which have voltage of 50 or more. This course is designed to meet the safety training requirements of OSHA 29 CFR 1910.332 and the National Electric Code.

Course Fee

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.

Accommodation

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

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

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.

- 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. Sydney Thoresson, PE, BSc, is a **Senior Electrical & Instrumentation Engineer** with over **30 years** of extensive experience within the **Petrochemical**, **Utilities**, **Oil**, **Gas** and **Power** industries. His specialization highly evolves in **Process Control Instrumentation**, **Process Instrumentation & Control**, **Process Control**, **Instrumentation**, **Troubleshooting** & Problem Solving, Process **Instrumentation** and Control Techniques, **Instrumentation** for Process Optimization and Control, Process Automation and **Instrumentation** Systems Integration, Troubleshooting in Process Control Systems**,** Process Control & Safeguarding, **Troubleshooting Instrumentation** and Control Systems, GC Processes **Troubleshooting** and Control Systems, Practical **Troubleshooting** and Repair of Electronic Circuits**,** Process Control, **Troubleshooting** & **Problem Solving.** Process Control (**PCI**) & Safeguarding, **Control Loop & Valve Tuning**, **Controller Maintenance** Procedures, High Integrity Protection Systems (**HIPS**), **Instrument Calibration & Maintenance**, **Instrumented Safety Systems**, **Compressor Control & Protection**, **Control Systems**, Programmable Logic Controllers (**PLC**), **SCADA System**, **PLC & SCADA** - Automation & Process Control, **PLC & SCADA** Systems Application, T**Wonderware** and **Adrioit,** Safety Instrumented Systems (**SIS**), Safety Integrity Level (**SIL**), Emergency Shutdown (**ESD**), **Emergency Shutdown** System, Variable Frequency Drive (**VFD**), **Process Control & Safeguarding**, **Field Instrumentation**, **Instrumented Protective Devices** Maintenance & Testing, Instrumented Protective Function (**IPF**), **Refining & Rotating Equipment**, **Equipment Operations**, **Short Circuit Calculation**, **Voltage Drop Calculation**, **Lighting Calculation**, **Hazardous Area Classification**, **Intrinsic Safety**, **Liquid & Gas Flowmetering**, **Custody Measurement**, **Ultrasonic Flowmetering**, **Loss Control**, **Gas Measurement**, **Flowmetering & Custody Measurement**, **Multiphase Flowmetering**, **Measurement and Control**, **Mass Measuring System Batching** (**Philips**), Arc Furnace Automation-Ferro Alloys, Walking Beam Furnace, Blast Furnace, Billet Casting Station, Cement Kiln Automation, Factory Automation and Quality Assurance Accreditation (**ISO 9000** and **Standard BS 5750**). Further, he is also well-versed in **Electrical Safety**, **Electrical Hazards Assessment**, **Electrical Equipment**, **Personal Protective Equipment**, Log-Out & Tag-Out (**LOTO**), **ALARP & LOPA** Methods, Confined Workspaces, Power **Quality**, Power **Network**, Power **Distribution**, **Distribution Systems**, **Power Systems Control**, **Power Systems Security**, Power **Electronics**, Electrical **Substations**, **UPS** & **Battery System**, **Earthing & Grounding**, Power **Generation**, **Protective Systems**, **Electrical Generators**, **Power** & **Distribution Transformers**, **Electrical Motors**, **Switchgears**, **Transformers**, **AC** & **DC Drives**, **Variable Speed Drives** & **Generators** and **Generator Protection**. He is currently the **Projects Manager** wherein he manages projects in the field of electrical and automation engineering and in-charge of various process hazard analysis, fault task analysis, FMEA and HAZOP study.

During Mr. Thoresson's career life, he has gained his thorough and practical experience through various challenging positions and dedication as the **Contracts & Projects Manager**, **Managing Director**, **Technical Director**, **Divisional Manager**, **Plant Automation Engineer**, **Senior Consulting Engineer**, **Senior Systems Engineer**, **Electrical & Instrumentation Engineer**, **Consulting Engineer**, **Service Engineer** and **Section Leader** from several international companies such as **Philips**, **FEDMIS**, **AEG**, **DAVY International**, **BOSCH**, **Billiton** and **Endress/Hauser**.

Mr. Thoresson is a **Registered Professional Engineering Technologist** and has a **Bachelor's** degree in **Electrical & Electronics Engineering** and a **National Diploma** in **Radio Engineering**. 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 International Society of Automation (**ISA**) and the Society for Automation, Instrumentation, Measurement and Control (**SAIMC**). He has further delivered numerous trainings, courses, seminars, conferences and workshops worldwide.

Training Methodology

Our courses employ an interactive, learner-centred methodology that integrates theoretical knowledge with practical application. The training is delivered through a suitable combination of some or all of the following methods, selected according to the course content and learning objectives:

- Instructor-led presentations and facilitated discussions
- Practical workshops and participant presentations
- Hands-on exercises and real-world case studies
- Equipment demonstrations and technical drawings
- Hardware- and software-based simulations
- Gamification & Role Play in soft-skills courses only
- Virtual Reality (VR) and Augmented Reality (AR)
- Instructional videos and other relevant training resources

This blended approach encourages active participation, strengthens practical skills and supports the effective application of acquired knowledge in the workplace.

Learning Design & Customization

This course can be customized to the exact requirements of clients. Haward Technology is so proud of our huge capabilities in tailoring our courses to the training needs of our valued clients.

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 – 0930	***Introduction to NFPA 70E***
0930 - 1030	***Safety Related Work Practices***
1030 – 1045	*Break*
1045 – 1200	***Definitions***
1200 - 1300	***Application of Safety-Related Work Practices & Procedures***
1300 - 1315	*Break*
1315 - 1420	***General Requirements for Electrical Safety -Related Work Practices***
1420 - 1430	***Recap***
1430	*Lunch & End of Day One*

Day 2

0730 – 0900	***Establishing an Electrically Safe Work Condition***
0900 - 1030	***Work Involving Electrical Hazards***
1030 - 1045	*Break*
1045 – 1200	***Safety-Related Maintenance Requirements***

1200 - 1300	***General Maintenance Requirements***
1300 – 1315	*Break*
1315 - 1420	***Substations, Switchgear Assemblies, Switchboards, Panelboards, Motor Control Centers & Disconnect Switches***
1420 - 1430	***Recap***
1430	*Lunch & End of Day Two*

Day 3

0730 – 0900	***Premises Wiring***
0900 - 1030	***Controller Equipment***
1030 - 1045	*Break*
1045 – 1200	***Fuses & Circuit Breakers***
1200 - 1300	***Rotating Equipment***
1300 – 1315	*Break*
1315 - 1420	***Hazardous (Classified) Locations***
1420 - 1430	***Recap***
1430	*Lunch & End of Day Three*

Day 4

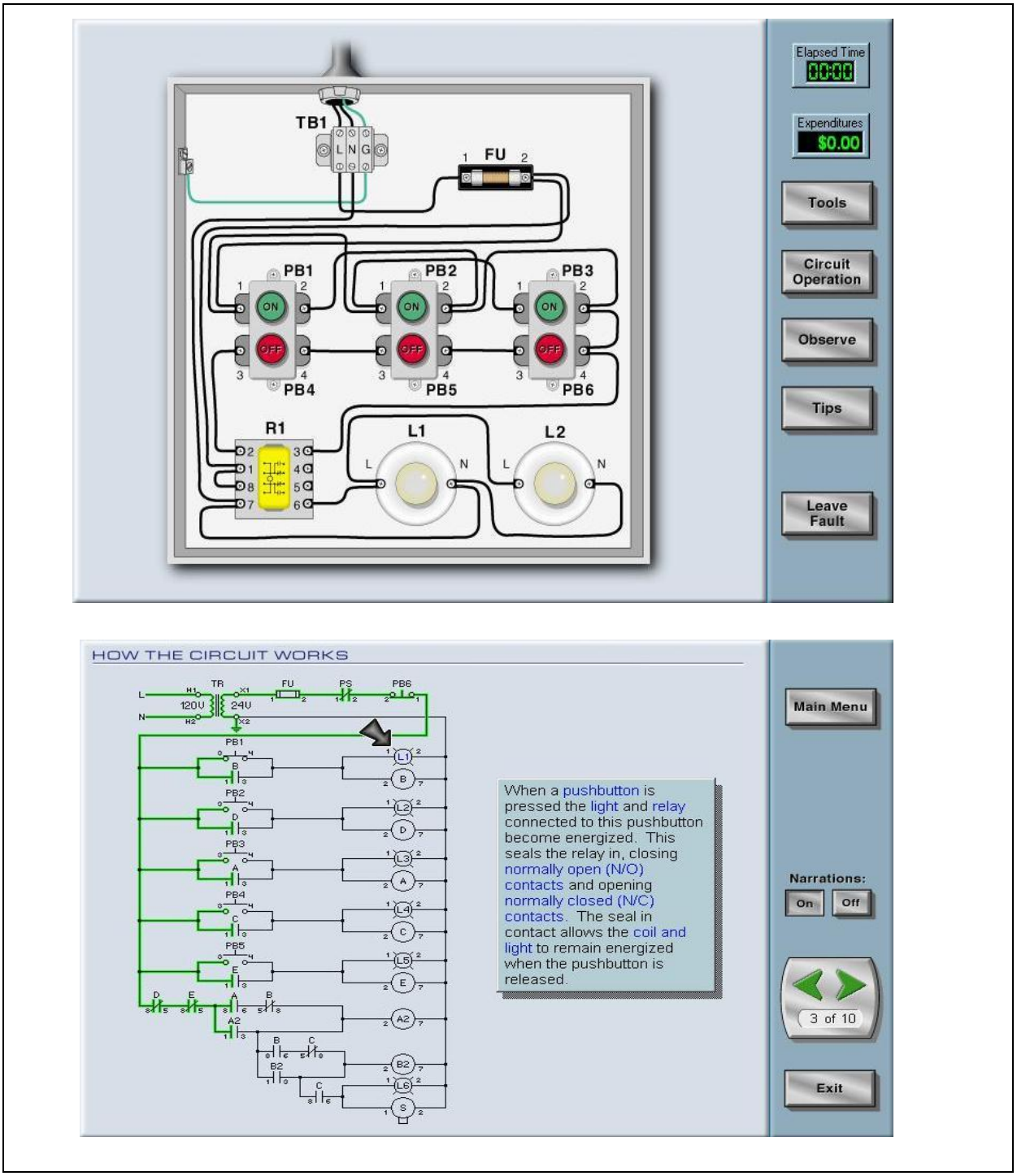
0730 – 0900	***Batteries & Battery Rooms***
0900 - 1030	***Portable Electronic Tools & Equipment***
1030 - 1045	*Break*
1045 – 1200	***Personal Safety & Protective Equipment***
1200 - 1300	***Safety Requirement for Special Equipment***
1300 – 1315	*Break*
1315 - 1420	***Safety-Related Work Practices for Electrolytic Cells***
1420 - 1430	***Recap***
1430	*Lunch & End of Day Four*

Day 5

0730 – 0900	***Safety Requirements Related to Batteries & Battery Rooms***
0900 – 1000	***Safety-Related Work Practices: Lasers***
1000 - 1015	*Break*
1015 – 1115	***Safety-Related Work Practices: Power Electronic Equipment***
1115 – 1215	***Safety-Related Work Requirements: Research & Development Laboratories***
1215 – 1230	*Break*
1230 - 1345	***Safety-Related Requirements for Capacitors***
1345 - 1400	***Course Conclusion***
1400 – 1415	***POST-TEST***
1415 – 1430	*Presentation of Course Certificates*
1430	*Lunch & End of Course*

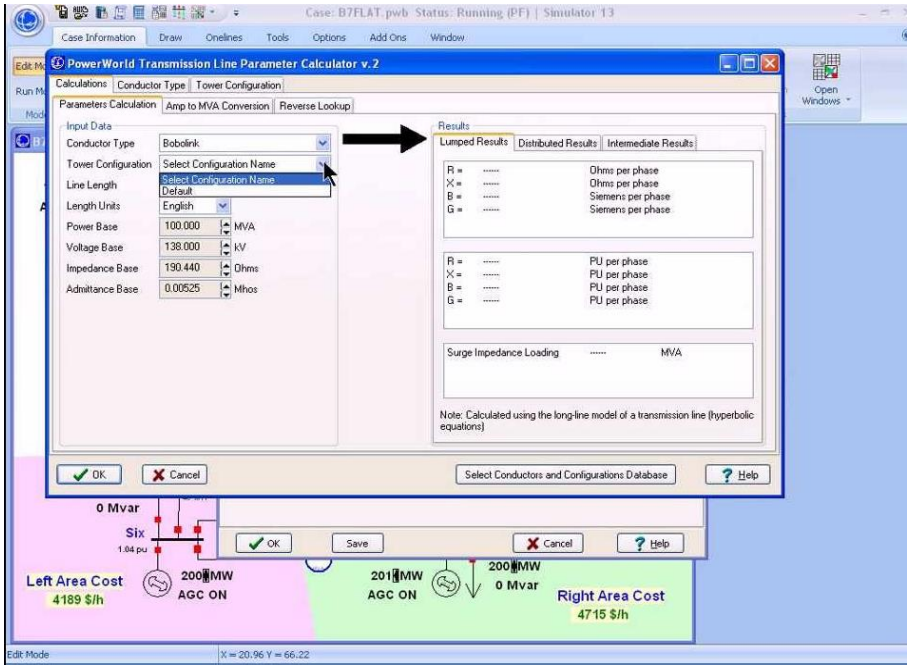
Simulators (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art simulators “Simutech Troubleshooting Electrical Circuits V4.1”, “Power World”, “GE Multilin Relay 469” and “GE Multilin Relay 750”





Simutech Troubleshooting Electrical Circuits V4.1



Power World Simulator





GE Multilin Relay 469 Simulator





GE Multilin Relay 750 Simulator

Course Coordinator
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