

COURSE OVERVIEW EE0921 Megger Test Course & Certification

Course Title

Megger Test Course & Certification

Course Reference

EE0921

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Date/Venue

Session(s)	Date	Venue
1	Marcu 29-April 02, 2026	Meeting Plus 9, City Centre Rotana, Doha Qatar
2	May 18-22, 2026	Glasshouse Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE
3	August 16-20, 2026	Tamra Meeting Room, Al Bandar Rotana Creek, Dubai UAE
4	November 08-12, 2026	Crowne Meeting Room, Crowne Plaza Al Khobar, KSA



Course Description



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 equipment.



This course is designed to provide participants with a detailed and up-to-date overview of Megger testing. It covers the electrical insulation testing; the Megger type testing devices; the power system faults; the insulation resistance testing application and needs; the difference between insulation resistance test instruments; the factors affecting insulation resistance readings; the type of insulation resistance tests; the test voltage, equipment rating, AC testing and DC; the DC electrical test set and dying test; the effect of temperature humidity on insulation resistance; and the safety precaution during insulation test in electrical equipment.



During this interactive course, participants will learn the minimum value for insulation resistance and leakage in electrical power system; the provision for portable RCD test results; the Megger device for building wiring, power supply and connections; the communication cable with computers; the multi-voltage Megger insulation testers and voltage method; the testing of bushings, potheads and insulators; the Megger 1K.V and 10 K.V insulation test; the combined insulation, continuity, loop, RCD test and earth spike test; and the insights in typical fault condition and key measurements in troubleshooting techniques.

Course Objectives

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

- Get an International Accredited Certificate in Megger Testing
- Carryout electrical insulation testing electric insulation
- Identify Megger type testing devices and explain the importance of insulation measurement in maintenance principles
- Recognize power system faults including the different types of faults, incidence of faults on power systems equipment, effects of power system faults and causes of power system faults
- Employ insulation resistance testing application and apply testing needs
- Describe the difference between insulation resistance test instruments
- Recognize good insulation, measure insulation resistance and interpret resistance reading
- Identify the factors affecting insulation resistance readings and diagnose competent failure, installation problems or potentially an application performance issue
- Recognize the type of insulation resistance tests as well as differentiate test voltage versus equipment rating and AC testing versus DC
- Use DC electrical test set and perform dying test
- Identify the effect of temperature humidity on insulation resistance
- Apply safety precaution during insulation test in electrical equipment
- Identify the minimum value for insulation resistance and leakage in electrical power system
- Review learning provision for portable RCD test results
- Use the Megger device for building wiring, power supply and connections
- Use communication cable with computers and carryout tests using multi-voltage Megger insulation testers and set voltage method
- Test bushings, potheads and insulators and perform Megger 1K.V and 10 K.V insulation test
- Perform combined insulation, continuity, loop, RCD test and earth spike test
- Set up a maintenance program and professional software for Megger in your computer
- Illustrate insights in typical fault condition and key measurements in troubleshooting techniques
- Use data loggers and demonstrate how to write test report certificates

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 electrical equipment testing for engineers and other technical staff who are involved in the selection, installation, operation, testing, troubleshooting or maintenance of such electrical equipment.

Course Certificate(s)

- (1) Internationally recognized Wall Competency Certificates and Plastic Wallet Card 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.

* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *



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

CEUs
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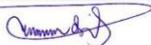
CEU Official Transcript of Records

TOR Issuance Date: 09-Nov-19
HTME No. 8667-2014-9020-2555
Participant Name: Ali Al Hajri

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
EE0921	Megger Test Course and Certification	November 05-09, 2019	30	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), 2201 Cooperative Way, Suite 600, Hemdon, VA 20171, 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: -

- 
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. Evert Louw, PE, is a **Senior Electrical Engineer** with over **20 years** of industrial experience in **Power Systems, Instrumentation, Control, Maintenance and Materials management**. He is an expert in the **Electrical Insulation Testing, Multi-Voltage Megger Insulation Testers, Commissioning, Maintenance, Power System Capacitors, Power Systems Protection, Power System Faults, Power Supply & Connections, Protection & Repair of Power Plants, AC Electrical Motor Control System, AC/DC Motors, Substations, Auxiliary**

Plants, TeleControl Equipments, HV/LV Electrical Equipment (Circuit Breakers, Switchgears, Transformers, Generators, Motors, etc) and **Process Control Systems** (DCS, SCADA PLC etc). All his experience is within **Power, Manufacturing, Oil & Gas, and Petrochemical** industries in the **USA, Canada, Europe and Asia**. Currently, he is managing a prestigious **international electrical consulting company** providing **technical & engineering services, safety requirements, testing & commissioning** for a large list of clientele. As the **Head Consultant**, he handles numerous field testing teams and the training, coaching and mentoring thereof of these groups.

Previously, Mr. Louw was the **Manager** of **Sabur** at their headquarter for many years, where he took control of all operations including **electrical consulting, testing & commissioning service** to different industries and municipalities. He also took charge of **Power projects** (electrical generation and distribution) and was responsible for **projects engineering and commissioning supervision** including **system conceptual, functional and wiring diagrams** for **Power, PLC controls, HMI and SCADA**. Before that, he was the **Senior Engineer & Head of Protection** for **Eskom**, where he was in charge of **Process Control & Instrument** specifications, SAMA diagram design, Loop drawings, schematics and **PLC and DCS** interfaces. Further, he was also in charge of Planning maintenance activities and strategies as Preventive, Corrective, Predictive, Quality and Safety inspections, Materials planning, Specific plans development etc.

Mr. Louw is a **Certified Instructor/Trainer** and a well-regarded member of the **Institute of Transportation Engineers (ITE)** and has attended **numerous courses** in engineering and management during his long career life.

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

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.
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.
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.
Al Khobar	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 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 – 0900	<i>Introduction, Overview & Discussion of Objectives</i>
0900 – 0930	Complete Guide to Electrical Insulation Testing Electric Insulation
0930 – 0945	<i>Break</i>
0945 – 1100	Testing Devices (Megger Type)
1100 – 1130	Why Insulation Measurement are Important in Maintenance Principles?
1100 – 1215	Power System Faults <i>Different Types of Faults • Incidence of Faults on Power System Equipment • Effects of Power System Faults • Causes of Power System Faults</i>
1215 – 1230	<i>Break</i>
1230 – 1330	Insulation Resistance Testing Application & How we Apply to your Testing Needs
1330 – 1420	The Difference Between Insulation Resistance Test Instruments
1420 – 1430	Recap
1430	<i>Lunch & End of Day One</i>

Day 2

0730 – 0830	What is the Good Insulation?
0830 – 0930	What Makes Insulation Go Bad
0930 – 0945	<i>Break</i>
0945 – 1100	How Insulation Resistance is Measured?
1100 – 1130	How to Interpret Resistance Reading?
1130 – 1215	The Factors Effecting Insulation Resistance Readings
1215 – 1230	<i>Break</i>
1230 – 1330	How to Diagnose a Problems (is it a Competent Failure, Installation Problems, or Potentially an Application Performance Issue)
1330 – 1420	Type of Insulation Resistance Tests
1420 – 1430	Recap
1430	<i>Lunch & End of Day Two</i>



Day 3

0730 - 0830	Test Voltage versus Equipment Rating
0830 - 0930	AC Testing versus DC
0930 - 0945	<i>Break</i>
0945 - 1100	Using of DC Electrical Test Set
1100 - 1130	Dying Test
1130 - 1215	Effect of Temperature Humidity on Insulation Resistance
1215 - 1230	<i>Break</i>
1230 - 1330	Safety Precaution during Insulation Test in Electrical Equipment's
1330 - 1420	What is the Minimum Value for Insulation Resistance & Leakage in Electrical Power System
1420 - 1430	Recap
1430	<i>Lunch & End of Day Three</i>

Day 4

0730 - 0830	Learning Provision for Portable RCD Test Results
0830 - 0930	Using the (Megger) Device Practical in the Following Exercises & How Often Should You Test?
0930 - 0945	<i>Break</i>
0945 - 1100	Building Wiring
1100 - 1130	Power Supply & Connections
1130 - 1215	Using the Communication Cable with Computers
1215 - 1230	<i>Break</i>
1230 - 1330	Tests Using Multi-Voltage Megger Insulation Testers, Set Voltage Method <i>Use the Guard Terminal in the Insulation Tests</i>
1330 - 1420	Test the Bushings, Potheads & Insulators
1420 - 1430	Recap
1430	<i>Lunch & End of Day Four</i>

Day 5

0730 - 0830	Megger 1 K.V & 10 K.V Insulation Test
0830 - 0930	Do Combined Insulation, Continuity, Loop, RCD Test & Earth Spike Test
0930 - 0945	<i>Break</i>
0945 - 1100	Setting Up a Maintenance Program & Set Up Professional Software for Megger in Your Computer
1100 - 1200	Learning Insights in Typical Fault Condition & Key Measurements in Troubleshooting Techniques
1200 - 1215	<i>Break</i>
1215 - 1230	Using Data Loggers
1230 - 1300	How to Write Test Report Certificates
1300 - 1315	Course Conclusion
1315 - 1415	COMPETENCY EXAM
1415 - 1430	Presentation of Course Certificates
1430	<i>Lunch & End of Course</i>



Simulator (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 electrical insulation testing using the “Insulation Resistance Tester”, suitable for classroom training.





UT501A Your Ideal Choice

Suitable for measuring insulation resistance of various electrical equipment and insulation materials such as transformers, motor, cable, switch electric appliances, etc, maintenance, testing and verification of various electrical equipment

Transformer Measurement



Motor Measurement





Cable Measurement



Electrical Appliances Measurement



More Functional and Safer



Insulation resistance

LCD Backlight Light

Alarm Buzzer

Low Battery Indication

1999 Counts

AC Voltage

Auto Discharge

Alarm Light

High Voltage Indication

Over Load Indication

Test Voltage Display

Auto Range

Insulation Resistance Tester

Course Coordinator

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