

Electrical Grounding, Earthing & Bonding Half-Day Online Courses

Important Electrical Concepts
and Preventative Maintenance
Programs for Electrical
Grounding, Earthing & Bonding



*Our popular
half-day classes
are back!*



By E&S Grounding Solutions,
Experts in Electrical Grounding

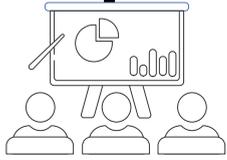


NFPA 70B Maintenance

Preventative maintenance programs are now mandatory, including maintenance and testing of your electrical grounding systems.

Does your maintenance staff know how to test grounding systems? YES or NO?

Have they been trained and received CEUs? YES or NO?



OUR ONLINE TRAINING

courses offer specialized lessons

on grounding, earthing, and bonding tailored for electrical maintenance teams.





UNDERSTANDING GROUNDING

and earthing is crucial for ensuring the safety and efficiency of electrical systems.



Proper grounding helps in protecting equipment and personnel from electric shocks.



Preventative Maintenance & Electrical Safety

Our courses will outline the preventive maintenance requirements for grounding and earthing.

Compliance ensures safety, reliability, and efficiency of electrical systems.





SAFETY SYSTEMS FOR FLAMMABLE AND EXPLOSIVE SUBSTANCES

Gas Pipes and other flammable materials must be bonded to your grounding system in very specific ways so as to prevent explosions.

Our experts at E&S Grounding Solutions are here to guide and train your team.

ONLINE GROUNDING COURSES



for maintenance teams to ensure they are well-equipped to meet the new NFPA 70B standards.

We provide online courses that have live instructors who can answer your questions during the class!

101

Grounding & Earthing - 101

This course is designed to educate the student on why grounding and earthing is important and to demonstrate the electrical 'phenomena' related to the grounded or earthed conductor system.



102

Grounding & Earthing Level - 102

This course will educate the student on types of grounding electrodes, testing of grounding systems and electrical ground faults traced from the transformer to the fault location.



105

Grounding & Earthing - 105 -extended

This course is designed to fully work through numerous different types of electrical faults and how different wiring scenarios impact the way the fault is processed and the risks of objectionable currents.



**Online
Grounding
Courses w/
Live Instructor**

**\$249 per
course**

Live instructor for each
course conducted

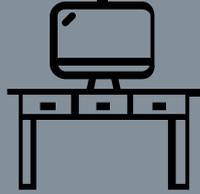
4-Hour Courses

All prices in USD



IEEE issued CEU's available for all courses for an additional \$85. All Students that complete this Course will receive an E&S Certificate of Completion, regardless if the IEEE Certificates are purchased.

ONLINE MANAGEMENT COURSES



for managers of facilities with electrical and chemical hazards.

We provide online courses that have live instructors who can answer your questions during the class!

100M

Grounding & Earthing for Managers - 100M

This course is designed to educate the manager about how electrical grounding and earthing relate to human safety, equipment reliability, data communications integrity, and corrosion reduction.



This course is designed to educate the manager about the legal risks and responsibilities related to their primary electrical safety system for personnel: the grounding, earthing, and bonding systems at their facilities. Cost-of-life analysis, regulatory responsibilities, testing protocols, test equipment, and the fundamentals of electrical faults will be discussed.

This course is delivered in a single 4-hour session.

**Online
Management
Course w/ Live
Instructor**

**\$249 per
course**

Live instructor for each
course conducted

4-Hour Course

All prices in USD



IEEE issued CEU's available for all courses for an additional \$85. All Students that complete this Course will receive an E&S Certificate of Completion, regardless if the IEEE Certificates are purchased.



Grounding & Earthing - 101

This is our Module-3 and Module-4 courses.

Electrical Circuits and the Purpose of Grounding

This module's training objective is to familiarize non-electrical personnel with the basic concepts of electrical circuits, while providing a quick refresher for those with an electrical education background. The fundamental purposes of grounding, earthing, and bonding is also covered and applicable for all levels of education and training.

Engineering Factors

One of our most popular modules! This walk-through of lightning striking a lattice tower shows the students all of the key engineering factors and electrical phenomena that occur inside of a structure when high-current strikes or fault events occur. Resistance-to-ground, GPR, GPD, leakage current, frequency spectrum and time domain, step and touch voltage hazards, and many other related topics are discussed at a basic level, providing the student an overall understanding of how grounding and earthing systems function to protect personnel and equipment.

Grounding & Earthing - 102

This is our Module-5 and Module-6 courses.

Introduction to Electrodes and Ground Faults

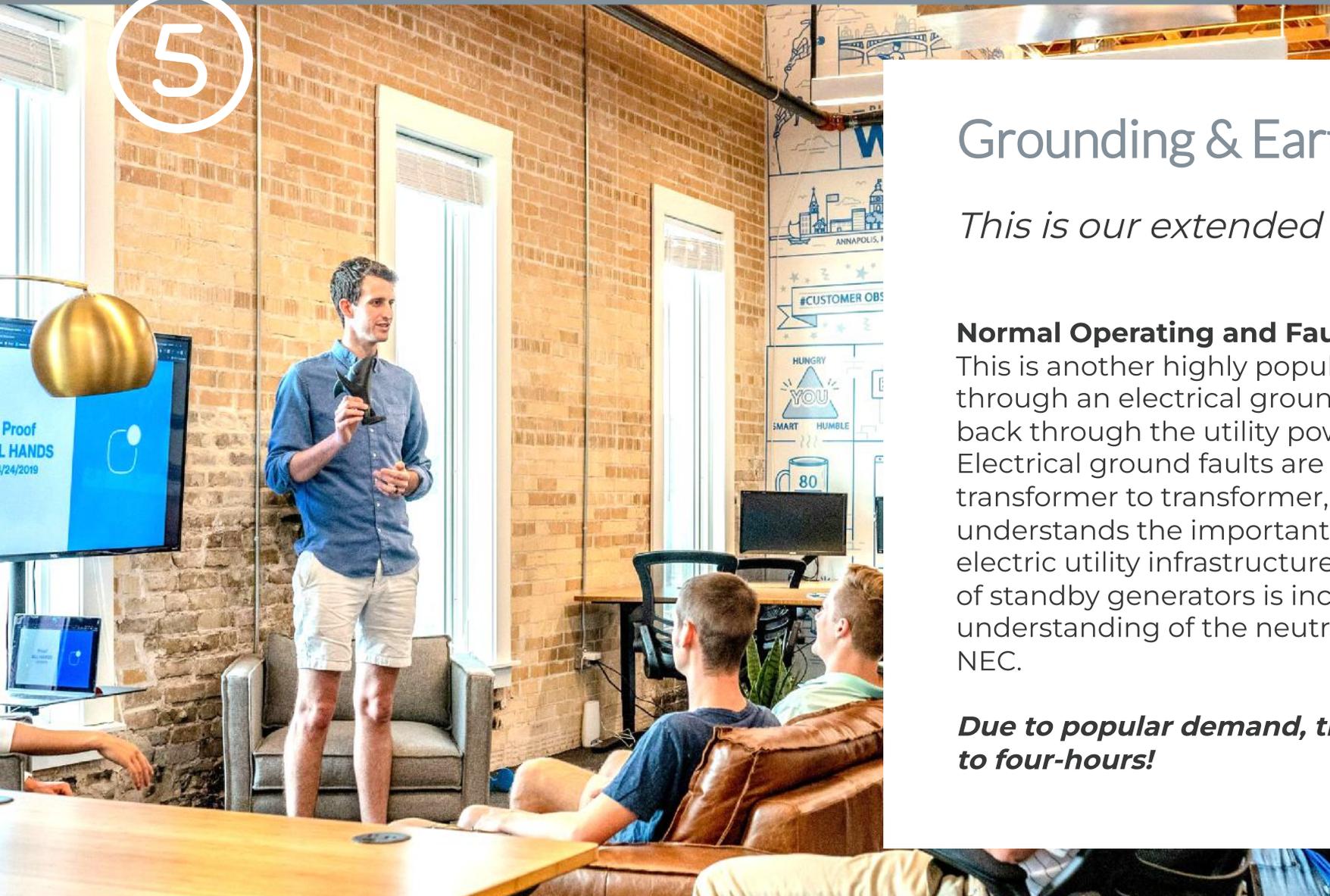
This module is a compressed version of Modules 15 and 16 (the two-module course). It is designed to provide the student with a summarized understanding of the various electrodes as designated under the National Electrical Code and other regulatory Codes. Ground rods, plates, concrete-encased (Ufer) electrodes, water pipes, electrolytic electrodes, and more are covered.

Testing of Ground Systems

This module covers the testing and measurement of grounding and earthing systems for two of three major testing methodologies. Students learn the concepts of how to properly conduct ground continuity measurements (2-point) and resistance-to-ground measurements (3-point), in detailed review. The measurement of soil resistivity (4-point) is not discussed (refer to Module 9 for this method). This module is primarily theory and understanding what the results indicate. Practical application of the tests is covered within Module 9.



5



Grounding & Earthing - 105 extended

This is our extended Module-11 course.

Normal Operating and Fault Currents

This is another highly popular module! In this module, the student is walked through an electrical ground fault from the load in a typical home, all the way back through the utility power system to the source power generation. Electrical ground faults are investigated through an electrical system, from transformer to transformer, and substation to substation, so that the student understands the important role that grounding and earthing plays in the electric utility infrastructure. A review of transfer switches and the grounding of standby generators is included. The student should achieve a basic understanding of the neutral-to-ground bond requirements found in the NEC.

Due to popular demand, this course has been extended from two-hours to four-hours!

100M

Grounding & Earthing for Managers - 100M

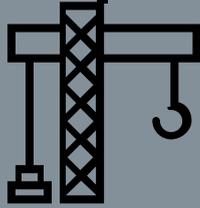
This is our Module-2 and Module-26 courses.

Grounding and Earthing System for Managers

This module is designed for the manager and executive in charge of facilities with high-voltage systems. Topics include cost-of-life, legal liabilities, regulatory responsibilities, maintenance policies, cost-benefit analysis for facility infrastructure, and other high-level discussions related to electrical systems. This training should help the facility manager make better-informed decisions related to grounding and earthing systems.

Grounding & Earthing Concepts (Extended): Webinar

This module incorporates Module 1 and Module 4. This new Module 26 (requested by popular demand) provides an introduction to several grounding and earthing core concepts, and the driving Engineering Principles associated with these concepts. This Module also includes: the purpose of grounding and earthing, the electrical systems that comprise an electrical grounding/earthing system, the sphere-of-influence theory, basic information about electrodes, the types of testing related to grounding and earthing, and the basic components that make up grounding and earthing networks.



CUSTOM COURSES HELD IN-PERSON AT YOUR FACILITY

Do you prefer in-person training at your facility?

An Engineer from E&S Grounding Solutions will travel to your site and provide on-site courses at your facility to your personnel. We recommend class sizes of 20 persons or less to maximize the students learning.

Save money by having our instructors come to your facility!

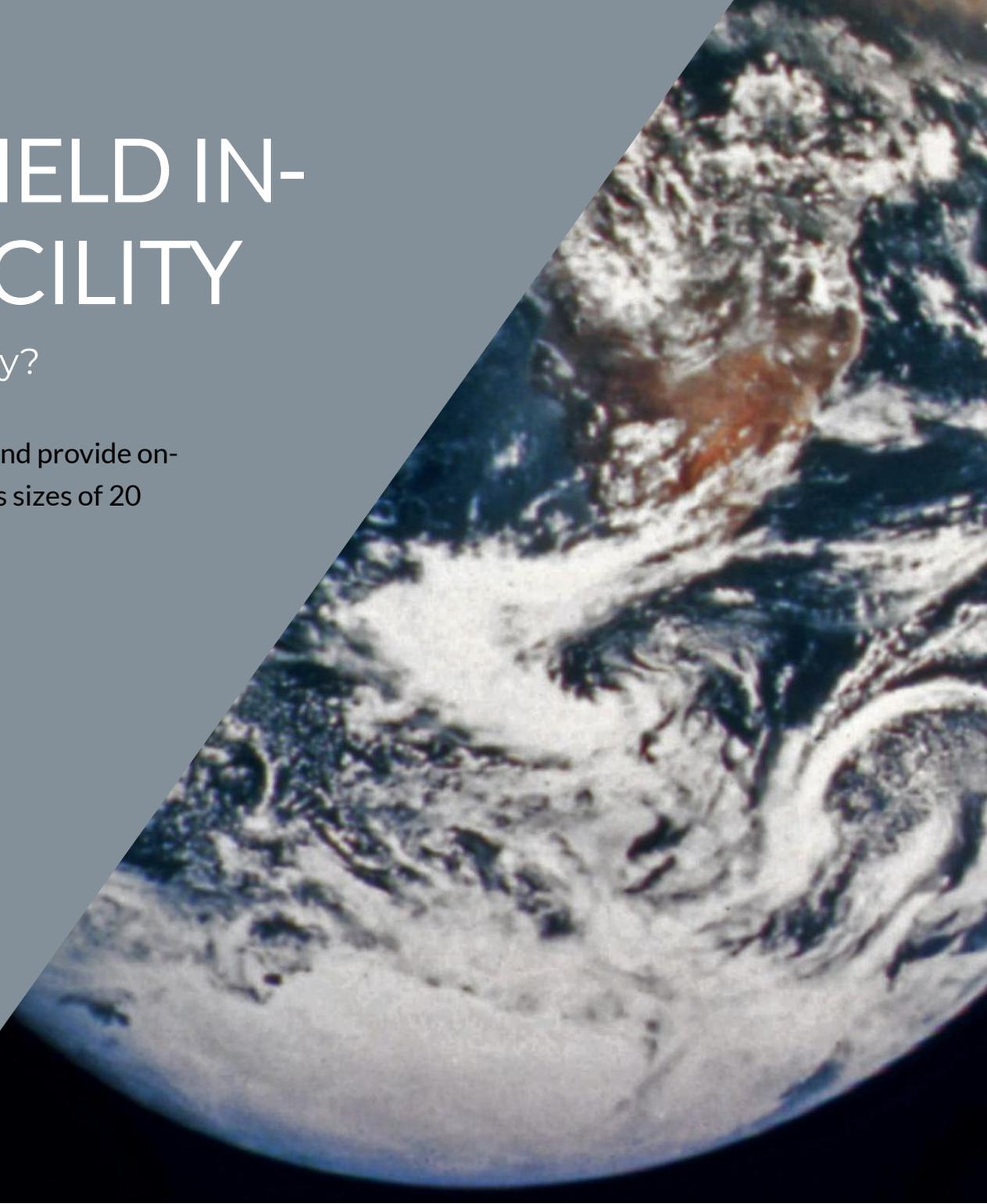
We will travel to your site, anywhere on the globe, to train your personnel at your facility!



IEEE issued CEU's available for all courses for an additional \$85 per person

All prices in USD

Contact us today for pricing.



White Paper: 10 Key Checkpoints for Complex Grounding Systems

Unlock expert insights with E&S Grounding Solutions!

Regular Price: \$79.00

Limited Time Offer: Only \$39.95!



Discount!

Can I get it for free?

All purchasers of one of our comprehensive Online Courses will receive a complimentary copy of our exclusive "10 Tips Guide" – a valuable resource packed with practical advice, cost-saving information, and electrical safety tips for today's Electrical Engineers and Electricians!

Not enrolled in the course? No problem!

This essential guide can also be purchased separately for \$39.95, giving everyone access to top-tier electrical grounding and earthing knowledge.

All prices in USD

Enhance your electrical safety and engineering understanding today with E&S Grounding Solutions!



About US

At E&S Grounding Solutions, we provide honest training designed to educate your employees on grounding systems and human-safety in high-voltage electrical environments.

97%

ABOVE AVERAGE
RATING BY OUR
STUDENTS

80%

SUPERIOR RATING
BY OUR
STUDENTS

11

CATAGEORIES
RATED BY OUR
STUDENTS

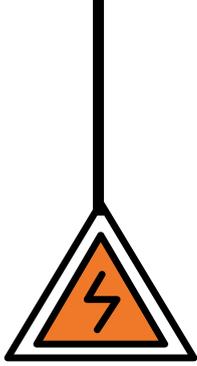
NO HIDDEN SALES PITCH

E&S has no
products to sell your
team.

IEEE CERTIFICATES

Optional CEU's or
PDH's directly from
IEEE are available for
all courses.





E&S GROUNDING SOLUTIONS

has over 20 years of experience in electrical grounding and earthing systems, providing innovative solutions and training worldwide.



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Email to Schedule a Video Appointment