GROUNDBY, SHIELDING & SURGE PROTECTION OF ELECTRICAL EQUIPMENT
for Instrumentation & Control

OBJECTIVES:
At the end of this workshop participants will be able to:
• Apply the various methods of grounding electrical systems
• Detail the applicable national Standards
• Describe the purposes of grounding and bonding
• List the types of systems that cannot be grounded
• Describe what systems can be operated ungrounded
• Correctly shield sensitive communications cables from noise and interference
• Apply practical knowledge of surge and transient protection
• Troubleshoot and fix grounding and surge problems
• Design, install and test an effective grounding system for electronic equipment
• Protect sensitive equipment from lightning
• Apply good grounding practice to your next installation
• Minimise electrical surge problems due to lightning and surges
• Protect sensitive electronic equipment from surges and lightning
• Correctly shield sensitive systems from noise and interference

WHO SHOULD ATTEND:
• Instrumentation & Control Engineers
• Consulting Engineers
• Electrical Engineers
• Project Engineers
• Maintenance Engineers
• Electrical Contractors
• Safety Professionals
• Consulting Engineers
• Electricians
• Electrical Inspectors
• Power System Protection & Control Engineers
• Building Service Designers
• Data Systems Planners and Managers
• Electrical and Instrumentation Technicians
Few topics generate as much controversy and argument as that of grounding and the associated topics of surge protection, shielding and lightning protection of electrical and electronic systems. Poor grounding practice can be the cause of continual and intermittent difficult-to-diagnose problems in a facility. This workshop looks at these issues from a fresh yet practical perspective and enables you to reduce expensive downtime on your plant and equipment to a minimum by correct application of these principles.

This workshop is designed to demystify the subject of grounding and presents the subject in a clear, straightforward manner. Installation, testing and inspection procedures for industrial and commercial power systems will be examined in detail. Essentially this workshop is broken down into grounding, shielding and surge protection for both power and electronics systems. Grounding and surge protection for telecommunications and IT systems are examined in detail. Finally, the impact of lightning is examined and simple techniques for minimising its impact are described.

Some working knowledge of basic electrical engineering principles is required, although there will be a revision at the beginning of the workshop. Experience with grounding problems will enable the workshop to be placed in context.

This one day workshop includes practical examples, case studies and four practical exercises.

Contact us for a FREE proposal.

idc@idc-online.com • www.idc-online.com