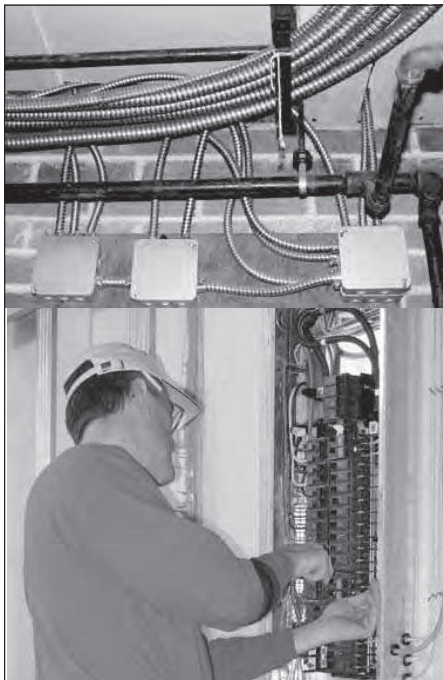

ELECTRICAL WIRING STANDARDS - IEE BS7671 2008 EDITION



WHAT YOU WILL LEARN:

- The essentials of the BS7671 standard
- How to find your way around BS7671
- Harmonisation issues with European standards
- Principles and practice of shock protection
- Calculation of circuit impedances
- Discrimination between devices
- Cable sizing
- Earthing and bonding
- Inspection and testing requirements
- Certification requirements

WHO SHOULD ATTEND:

- Electrical Engineers
- Electrical Trades Persons
- Electrical Apprentices
- Engineering Managers
- Maintenance Managers
- Private Electrical Contractors
- Building Services Engineers
- Graduate Electrical Engineer Trainees
- Electrical Design Staff
- Maintenance and Shutdown Planning Staff

The Workshop

Internationally there is a steady progress towards the harmonisation of the electrical wiring standards. This is reflected in the IEC standard 60364, the European Harmonisation Document HD384 and the UK IEE Wiring Regulations 17th Edition, now also known as British Standard BS7671:2008, all of which share a common format.

Pre-requisites

A basic working knowledge of electrical principles and low voltage installations is required. If you are unsure about your level of knowledge, we can provide pre course reading if necessary. Those with previous experience of working with the wiring regulations will be able to refresh and update their knowledge.

Objectives

This workshop is designed to provide up to date information and training on the current edition of BS7671:2008 and the 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 workshop 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.

The Program

INTRODUCTION TO REGULATIONS

- Structure of International and UK Wiring regulations
- Foundation electrical principles - terminology and definitions
- Scope of regulations
- Requirements for safety

PROTECTION FOR SAFETY

- Shock - direct and indirect contact
- Effects of shock on the human body
- Electrical hazards
- Calculation of disconnection times
- Voltage disturbances

CABLE PROTECTION

- Over current - cable sizing - neutral conductors
- Selecting protective devices
- Calculation of adiabatic heating effect
- Effect of harmonic currents
- Parallel cables
- Thermal effects

SELECTION AND ERECTION OF EQUIPMENT

- Wiring systems
- Switchgear
- Characteristics and limitations of fuses and circuit breakers
- Breaking capacity
- Coordination and discrimination between devices
- Calculation of fault levels

EARTHING ARRANGEMENTS

- Calculation of protective conductor sizes
- Bonding requirements
- Supplies for safety services

SPECIAL INSTALLATIONS OR LOCATIONS

- Locations of increased shock risk

INSPECTION AND TESTING

- Test instruments
- Certification

MAINTENANCE CONSIDERATIONS

SAMPLE DESIGN CALCULATIONS

SUMMARY AND OPEN DISCUSSION