

## **POWER PROTECTION RELAY SYSTEMS**

### **TARGET AUDIENCE**

Electrical personnel involved with the operation and maintenance of power system protection schemes

### **COURSE DURATION**

5-days

60% Practical

40% Theoretical

### **COURSE AIMS**

To promote a clear understanding of the operating principles, techniques and setting procedures, for power protection relays. To undertake test procedures on the different types of relays using both primary and secondary injection testing methods. Provision of information and instruction in the safe operating procedures for electrical protection schemes, interpretation of protection fault indications and appropriate corrective actions, along with the maintenance of HV and LV protection relays will be addressed

### **COURSE CONTENT**

- Faults and fault level
  - Principles of discrimination
  - Current transformers
  - Voltage transformers
  - Earth fault and earth leakage protection
  - Differential protection
  - Generation protection
  - Transformer protection
  - Motor protection
  - Practical exercises
  - Plotting of CT magnetization curves
  - Assembly and primary testing of a differential protection scheme
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- Secondary testing of overcurrent IDMT relays
- Secondary testing of a micro processor motor protection relay
- Primary testing of a transformer restricted earth fault protection scheme
- Primary testing of a standby earth fault relay
- Secondary testing of a generator field failure relay

**CERTIFICATION**

If desired by the client, a City and Guilds certificate may be awarded to successful course delegates

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