



## Microprocessor Based Relay Testing & Maintenance 36 Hours

### Who Should Attend

Technicians with two (2) or more years of relay testing experience, including the use of phase shifters and/or digital test sets; field engineers responsible for setting these relays; supervisors and others with the responsibility of ensuring system reliability.

### Description

Students will learn operating principles and construction of microprocessor based relays used in generation, plants and industrial systems. Minimal time is spent on theory in order to allow more practical lab exposure. Students will have the opportunity to use a variety of field test equipment on protective relays from various manufacturers.

### Outline

1. A Brief Overview of Protective Relay
  - a. IEEE Numbers
  - b. Protective Functions
  - c. Typical Relay Control Schemes
2. General Electric/Multilin Relays
  - a. Establish Communication from Computer to Relay
  - b. Download Settings
  - c. Changing Settings
  - d. Output and Input Operating Elements
  - e. Identifying Protective Functions
  - f. Testing Protective Functions
3. Basler Relays
  - a. Establish Communication from Computer to Relay
  - b. Download Settings
  - c. Changing Settings
  - d. Output and Input Operating Elements
  - e. Identifying Protective Functions
  - f. Testing Protective Functions
4. Schweitzer Relays
  - a. Establish Communication from Computer to Relay
  - b. Download Settings
  - c. Changing Settings
  - d. Identifying Protective Functions
  - e. Testing Protective Functions
5. Beckwith Relays
  - a. Establish Communication from Computer to Relay
  - b. Download Settings
  - c. Changing Settings
  - d. Identifying Protective Functions
  - e. Testing Protective Functions

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