Basic Protective Relaying

This five-day course is designed to provide the participant with a thorough background of power equipment protection using electromechanical relays. Topics include relaying philosophy and power system analysis at the block diagram level. Also, operating and testing of overcurrent relays, voltage relays, instrument transformers, and synchronism check relays.

I. Relay Systems
   · The Power System
   · Function of Relays
   · Backup Relaying
   · Definition and Basic Types of
     · Protective Relays
   · Relay System Requirements
   · Relay Characteristics
   · Relay Applications

II. Relay Systems
   · Functions of Protective Relaying
   · Classes of Relays
   · Basic Relay Requirements
   · Bus Arrangements
   · Line Arrangements

III. Voltage Relays
   · Overvoltage Relays
   · Sensitive Overvoltage
   · Undervoltage Relays
   · Combination Over/Undervoltage
   · Undervoltage and Phase Sequence Relays
   · Special Applications
   · Voltage Balance Relay

IV. Transducers
   · Description
   · Typical Transducer Specifications
   · Applications
   · Adjustments