Protective Relay Maintenance, Advanced (PRMA)

Electromechanical protective relays are commonly used to protect lines and substation equipment against overloads, faults and abnormal conditions. As power systems become more complex and the fault current varies with changes in generation and system configuration, relays become difficult to apply and set for all contingencies. Since transmission lines are also the links to adjacent lines or connected equipment, relay protection must be compatible with connected protection systems as well. Through proper testing and maintenance, technicians can help ensure the integrity of the protection scheme and minimize damage to equipment and grid interruptions when faults do occur.

Who Should Attend
This hands-on course is intended for electricians, technicians and engineers responsible for testing, maintenance and calibration of electromechanical protective relays that protect utility transmission lines and substation equipment.

Learning Objectives

- Identify electromechanical relay components

- Interpret AC and DC relay schemes

- Perform as found/left tests and calibrate relays with the following functions (ANSI device numbers): Distance (21); Sync Check (25); Directional Overcurrent (67/67G); [Transformer] Differential (87T)

- Targets and Indicators

- Explain the application of these relay functions

- Utilize a relay test set to perform direct injection testing and interpret results

Requirements
The student should have basic knowledge of AC/DC electricity. In addition, students must bring a scientific calculator. Technicians that successfully complete this course will be certified to maintain electromechanical relays that protect utility lines and substation equipment. This certification is valid for 3 years from the date of issue.

Protective Relay Maintenance, Advanced Course Outline

Course Duration: 4.5 days
Credits: 3.6 CEUs
Level of Involvement: Hands-on

Schedule: 8:00am – 4:30pm, the final day ends at 12:00pm
Course Number: 140
Tuition USD: $1745