GLOBAL TRAINING INSTITUTE

Electrical Protection Systems: Design and Implementation



GTI - Coordination Office and International Relations (Accredited Programs)

Course Description

A focused program on the design and implementation of electrical protection systems, emphasizing real-world applications and fault prevention strategies.

Who Should Attend

- Electrical Engineers and Supervisors
- Protection and Control Engineers
- Utility and Industrial Electrical Personnel
- Maintenance and Operations Staff

Course Objectives

- Understand the significance of protection systems in electrical networks.
- Review grounding systems and their impact on protection strategies.
- Learn relay coordination for effective protection.
- Analyze the characteristics of various protection devices and their applications.
- Develop skills for designing robust protection schemes for different electrical setups.
- Explore the latest technologies in protection systems, including smart relays.
- Understand regulatory standards and compliance requirements in protection design.
- Gain hands-on experience with practical case studies and simulations.
- Improve troubleshooting skills for identifying weak points in protection schemes.

Course Content

- Introduction to Electrical Power Systems
- Basics of Protection System Design
- Functionality and Operation of Protection Equipment
- Protection Coordination Techniques
- Over-current, Voltage, and Frequency Protection
- Understanding Differential Protection Relays
- Testing and Maintenance of Protection Systems
- Case Studies and Practical Applications
- Emerging Technologies in Protection Systems
- Regulatory Standards and Compliance