



## Distribution System Training

- 8001 AC Voltage Generation
- 8002 Power Factor
- 8003 Impedance and Voltage Drop
- 8004 Three Phase Power Systems
- 8005 System Layout
- 8006 Overhead Lines
- 8007 Underground Distribution Systems
- 8008 Substations
- 8009 Distributed Generation
- 8010 Substation Transformers
- 8011 Distribution Transformers
- 8012 Fault Interrupting Devices
- 8013 Non-Fault Interrupting Devices
- 8014 Voltage Control Devices
- 8015 Fundamentals of Protection
- 8016 Overcurrent Protection
- 8017 Differential Protection
- 8018 Coordination of Protection Devices
- 8019 Overvoltage Protection
- 8020 Communication Techniques
- 8021 SCADA Systems
- 8022 Distribution Automation
- 8023 Programmable Logic Controllers
- 8024 Personnel Safety
- 8025 Insulation Testing
- 8026 Rotating Equipment Maintenance
- 8027 Transformer Maintenance
- 8028 Switchgear Maintenance
- 8029 Line Maintenance
- 8030 Maintenance Management
- 8031 Load Characteristics and Utilization
- 8032 Demand Management
- 8033 Metering
- 8034 Utility Rate Structure
- 8035 The Effects of Deregulation and Competition
- 8036 Power Quality
- 8037 Function of the Operator
- 8038 Abnormal Operating Conditions
- 8039 Service Interruptions

## Electrical Fundamentals

- 7101 Basic Electricity
- 7102 Properties of AC Circuits
- 7103 Power and Power Factor
- 7104 Three Phase System

## Transmission System Operation

- 7501 Review of Fundamentals
- 7502 Power Transmission
- 7503 System Voltage Control
- 7504 System Frequency and Tie-Line Control
- 7505 Power Dispatching
- 7506 System Security
- 7507 Operating Under Abnormal Conditions
- 7508 System Restoration
- 7509 Monitoring and control Communications
- 7510 Transmission System Protection
- 7511 The effect of Deregulation on System Operation
- 7512 Power Dispatch Under Deregulation
- 7513 Transmission Control
- 7514 Controlling to NERC Standards: Interconnection Operation
- 7516 Controlling to NERC Standards: Generation Control and Performance
- 7517 Controlling to NERC Standards: Aspects of System Operations
- 7518 Controlling to NERC Standards: Power System Transactions and Coordination

## System Protection Technology

- 2101 Elements of System Protection
- 2102 Types of Protective Relays
- 2103 Monitoring System Conditions
- 2104 Fault Characteristics
- 2105 Generator Protection
- 2106 Transformer Protection
- 2107 Bus Protection
- 2108 Motor Protection
- 2109 Line Protection
- 2110 Pilot Protection
- 2111 Protection for System Stability
- 2112 Testing and Commissioning of Protective Schemes
- 2113 Power Line Carrier
- 2114 Fault Investigation and Analysis
- 2115 Introduction to Static Relaying
- 2116 Coordination of Protective Devices
- 2117 Power Supply for Protection and Control Systems
- 2118 Energy Center Operations
- 2119 Telecommunications Protection I (HVSP Devices)
- 2120 Telecommunications Protection II Configuration & Installation
- 2121 Supervisory Control System (SCADA)
- 2122 Inadvertant Trips - Cause and Prevention
- 2123 Fault Calculations and Relay Settings

- 2124 Testing Techniques
- 2125 Programmable Logic Controllers

## Gas Turbine Power Generation

- 2501 Major Components Design and Construction
- 2502 Gas Turbine Support Systems
- 2503 Operation of Gas Turbines
- 2504 Control & Protection Systems
- 2505 Aero-Derivative Gas Turbines
- 2506 Routine Maintenance
- 2507 Major Maintenance
- 2508 Combined Cycle Operations
- 2509 Heat Recovery Steam Generator (HRSG)
- 2510 Generator and Electrical Systems

## Heat Rate Optimization

- 7801 Fundamentals of Plant Efficiency I
- 7802 Fundamentals of Plant Efficiency II
- 7803 Factors Affecting Boiler Efficiency
- 7804 Operator Controllable Losses: Boiler
- 7805 Factors Affecting Turbine Efficiency
- 7806 Operator Controllable Losses: Turbine Cycle
- 7807 Balance of Plant Operation
- 7808 Power Plant Control

## Grid Dynamics

- 1101 Control Performance Compliance
- 1102 Emergency Operations
- 1103 High Voltage, Transmission, Safety & Power System Ops
- 1104 Synchronizing Islands
- 1105 Undervoltage and Underfrequency
- 1106 Voltage Control

- 9100 - Applying Nerc Standards
- 9500 - Emergency Table Top Drill
- 9900 - System Operations Review

## Hydro Electric Power Plant Operations

- 2702 Hydro Power Stations
- 2703 Water Management
- 2705 Turbine Monitoring and Control
- 2706 The Hydro Generator
- 2709 Operation of Electrical Equipment

### Contact us at: