

Course Overview:

Electricity Distribution Network Design covers general aspects of transmission and generation the planning and design of modern distribution systems. Computer-based planning and reliability is also important part of modern planning.

Electricity Distribution Network Design Training Course is entirely devoted to the planning and design of modern distribution systems including computer-based planning and reliability.

Course Objective:

- Understand basics concepts of electrical power system distribution planning and design
- Understand Power Distribution System Economics
- Understand General Principles of Planning
- List Distribution System Planning & Design for Engineers and Technicians
- Identify Distribution Network Planning and Design Process Steps
- Comprehend Methodologies and Strategies of Power System Distribution Systems
- Understand Distribution Transformers, Grounding and Protection
- List Basic Concepts of Distribution Surge Protection
- List Basic Concepts of Switching Rates

Course Outline:

- Introduction in protection in substations & distribution networks
- Comparison with SCADA & introduction in this system
- Reading & analyzing procedure Tripping reports reading procedure in transmission & distribution substations
- Concept on Transmission/Distribution Tripping report sample to analyze it, discusses it & the tripping reasons and the way of making recommendations/solutions.
- Ways of studying & calculating protection equipment coordination in Medium Voltage Distribution networks (Fuses, Auto reclosers, Sectionalizers, Ring Main Units, Metered Ring Main Units...etc.), in comparison with Transmission/Distribution Substations main breaker and its related protection equipment
- Connection with SCADA or remotely operation: Pros & Cons. Also, the effect of improvement on power quality.
- Procedures for merging coordination studies & building up commands within Distribution Networks operation plans
- Accredited worldwide software/programs for making drawings, explaining the connection points and manage them
- Training for using computer simulation and reading curves programs/software and the effect of them in total electrical power system

Who Should Attend:

Electricity utilities personnel, electricity utility engineers, electricity utility technicians involved in electricity distribution systems planing and design. Anyone who has responsibility for the planning, architecture, design, construction, operation, and line and substation technicians and engineers.

Training Language:

EN / AR

Training Methodology:

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation