

Engineering Courses

Distribution Systems Planning and Engineering

Training objectives:

The participants will acquire a broad knowledge of power distribution systems planning and engineering. They will learn about the basic design and operation of U.S. distribution systems, how systems are planned, and engineered to meet cost and performance objectives, equipment application considerations, and how to assess and improve distribution reliability.

The course is intended for:

Managers, engineers and technicians working for power delivery companies, equipment providers, consulting organizations, and government entities who have a vested interest in knowing how power distribution systems are planned, engineered and operated to deliver reliable, economic power, and understanding the key drivers, requirements and constraints that affect cost and performance tradeoffs.

Main features:

- Overview of power distribution systems
- Primary objectives, goals and mission
- Physical layout, primary and secondary design, service connections
- Basic operation principles
- Capacity planning
- Demand and energy, load behavior/models, forecasting
- Integrated T&D planning, long and short range planning
- Equipment application, fault calculations
- Voltage requirements
- Standards and requirements
- Voltage drop and flicker considerations, voltage regulation
- Capacitor application, voltage support, power factor correction
- Economic considerations
- Distribution economics review
- T&D costs, capital and O&M expenses, cost of losses and poor reliability
- Total owning cost concepts
- Distribution reliability
- Overcurrent and overvoltage protection review
- Reliability assessment, historical and predictive methods
- Interruption causes, measuring and improving reliability
- Storm response

Recommended prior knowledge:

Basic knowledge of electrical engineering and engineering economics.

Note: The course is held in English. Class subject to change. Class times are 8-4.

For more information visit: www.geenergyconsulting.com



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