

Course Overview:

Renewable Energy Integration focuses on incorporating renewable energy, distributed generation, energy storage, thermally activated technologies, and demand response into the electric distribution and transmission system. A systems approach is being used to conduct integration development and demonstrations to address technical, economic, regulatory, and institutional barriers for using renewable and distributed systems.

Course Objective:

- Understand the grid flexibility to renewable energy integration
- Determine the various types of renewable energy
- Explain the different types of solar panels and wind farms
- Understand the various type of energy storage systems
- Apply and gain an in-depth knowledge on smart grid and renewable energy integration

Course Outline:

- Overview of the Electric Power System
- Electric Network Systems Design and Operations
- Smart Grid Overview
- Grid Impact of Variable Generation at High Penetration Levels
- Generation and Transmission Planning for Renewables
- Energy Forecasting as a Way to Integrate Renewable Energies
- Energy Storage

Who Should Attend:

- Electrical Engineers
- Electrical supervisors
- Power Engineers
- Material Engineers

Training Language:

Eng/Ar

Training Methodology:

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