

**Course Overview:**

The proposed short course is designed to introduce LOAD FLOW Analysis and Short optimum operation strategies of power system required attaining high levels of Performance. The course will be valuable to engineers and technicians to get better understanding of the new state – of- the art LOAD FLOW Analysis and Short Circuit Calculation

**Course Objective:**

- Learn how to model various types of power system equipment.
- Learn about various methods for solving the power flow, the intrinsic characteristics and when to apply them.
- Then apply the power flow to typical power system problems, including contingency analysis and transfer analysis.
- Learn about dynamic simulation, the primary tool for assessing power system stability. Stability studies require a detailed representation of control

**Course Outline:**

- Advanced POWER FLOWS AND STEADY
- STATE ANALYSIS
- MODELING COMPONENTS OF THE POWER FLOW
- EXERCISES ON POWER FLOW MODELING,READING, CHANGING, CHECKING POWER
- FLOW MODELS
- EXERCISES ON READING, CHANGING
- CHECKING POWER FLOW MODELS
- POWER FLOW SOLUTIONS
- EXERCISES IN POWER FLOW SOLUTIONS
- CONTINGENCY ANALYSIS
- EXERCISES ON CONTINGENCY ANALYSIS
- BATCHING CONTINGENCY ANALYSIS AND
- INTEGRATING RESULTS
- FURTHER EXERCISES ON CONTINGENCY
- LINEAR POWER FLOW ANALYSIS
- EXERCISES ON LINEAR POWER FLOW ANALYSIS
- CONTROL OF POWER SYSTEMS
- BASIC GENERATOR CONTROL LOOPS

**Who Should Attend:**

All engineers involved in the power sectors and substation operation and maintenance, and also in the factories, Operations analysts, new transmission analysts and enterprises.

**Training Language:**

Eng/Ar

**Training Methodology:**

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