

COURSE DESCRIPTION

INTCV374

Power System Studies - Comprehensive



The goal

The goal of the course is to increase the proficiency of power system engineers to model the power systems for simulation accurately and also perform planning and analysis of power system by using state-of-art software tools, hands-on. The course familiarises the participants with the different types of Power system studies that are performed for industrial and utility electrical power systems with discussion on the relevant IEEE /IEC standards.

Learning objectives

The participants will be able to:

- Get knowledge on the modeling of power system components
- Appreciate the different power system analysis and their relevance to practical problems in power system
- Gain insight into the IEEE/IEC standards related to the studies
- Understand the analysis functionalities in NEPLAN

Participant profile

Personnel from Power Utilities, Power Generation, transmission companies & industries and Consultants responsible for system design, planning and engineering of power system.

Prerequisites

Degree or diploma in engineering, basic knowledge of power system, Protection & Substation Automation and PC operations. Basic knowledge of Power System Analysis or relevant experience will be useful.

Topics

- Modeling of power system networks and different components of power systems
- Load flow studies
- Optimal power flow studies, static security assessment and improvement
- Balanced and unbalanced short circuit studies based on IEEE, IEC and G74 standards

- Power system protection: protection of generators, motors, transformers, cables, and transmission lines.
- Voltage Stability , Transient Stability Studies and Small signal stability
- Reliability evaluation of practical Composite power systems
- Harmonic analysis & Filter Design

Course type

This is a face to face class room training with maximum 20 participants. Instruction language is English.

Learning methods and tools

Lectures, demonstrations, practical exercises. **Laptop** or tablet is required to have access to the e-documentation. Demonstrations using license on training center computers.

Duration

10 days (2 weeks)

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The latest version of the course portfolio, and course schedule can be found on our

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