Course description

PXXX
Power System Studies
Planning and analysis

Course goal
The goal of the course is to familiarise the Power system studies & relays coordination to power engineers

Learning objectives
Upon completion of this course, participants will be able to:
- Understand the Modelling of Power System components and concepts of power flow studies
- Understand short circuit studies, stability studies and relay coordination

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

Topics
- Load flow – Voltage profile calculations and influencing factors, Modelling and case studies, contingency analysis
- Power system General – Fault calculation, short circuit current calculation, Short circuit Studies – Z bus matrix and symmetrical components, Balanced and unbalanced faults
- Transient stability, voltage stability
- Harmonic Analysis
- Relay Co-ordination and grading between overcurrent and protection devices
- IEEE and IEC standards
- Power system study tools
- Case studies

Course type and methods
This is an instructor led seminar. Lectures, demonstrations, design, application and calculation exercises. The language of the course is English

Duration
The duration is 3-4 days.