

COURSE DESCRIPTION

INTCV476

Power system Studies and Relay coordination



The goal

The goal of the course is to familiarize the participants with the different types of Power system studies that are performed for industrial and utility electrical power systems. The module emphasizes the criticality of the modeling of the different power system elements for the studies and the methods of extracting this data from the field. The module also explains how the analysis results are to be interpreted and comparing the outcomes of the studies with reference to the relevant IEEE 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 power system software, NEPLAN

Participant profile

Electrical Engineers, Design, EPC, testing and commissioning personnel, consultants and engineers from generation companies, industries having IPPS and CPPs, utilities, industries and process plants, Academia, Students of Electrical /Power System.

Prerequisites

Engineering degree, technical college qualifications or equivalent. Basic knowledge of Power System Analysis or relevant experience will be useful.

Topics

- Load flow, Voltage profile calculations and influencing factors, Modelling and case studies, contingency analysis
- Transient stability and voltage stability analysis
- Harmonic Analysis

- Power system General– Fault calculation, short circuit current calculation Short circuit Studies, Z bus matrix and symmetrical components, Balanced and unbalanced faults
- Relay Co-ordination and grading between overcurrent and short circuit devices
- Power system study tools NEPLAN® and Case studies

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. Please bring your own device

Duration

4 days

To Register:

LMS:-MyLearning

Sign In: check <u>IE browser setting</u> Click SIGN IN to Sign-up or Log-in with your ABB account.

Search: please enter course number INTCV476 into the search field. (Please check the language filter EN)

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

ABB PowerTEC Webpage:

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