Course description

**INTCN109**

**Operation, Testing & Pre-requisites of Installation of Compact Secondary Substation - Level 2**

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**Course goal**
The goal of the course is to learn operation, installation pre-requisites and basic maintenance of Compact Secondary Substation.

**Learning objectives**
Upon completion students will:
- Become conversant concept of CSS & its advantages over conventional substation
- Do the basic maintenance for CSS
- Understand the best practice for site testing
- Become conversant in basic trouble shooting
- Ensure the safe operation of CSS

**Participant profile**
This course is designed for service engineers, operation & maintenance personnel & consultants.

**Prerequisites**
This course is set up for engineers experienced in switchgear maintenance, operation & servicing. Students shall be able to operate the switchgear.

**Topics**
- Introduction
- Features, construction & different layouts
- Specification & applicable standards
- Features, construction & operation of HV switchgear & LT switchgear
- USP – Value to Customers
- Interlocks & padlocking facility
- Overview on protection, control & communication
- Control schematics
- Practical exercise on sample CSS
- Safety: Safe work procedures, and usage of personal protective equipment
- Manufacturer’s recommendation for maintenance
- Installation pre-requisites
- Interpanel connections
- Best practices of on-site testing & interpretation of results
- Common problems & trouble shooting
- Relay setting, operation & handling of disturbance records & events
- Overview on PowerCare & MyRemote Care tools
- Case study

**Course type and methods**
This is an instructor led seminar with class room lectures, demonstrations & factory visit. The language of the course is English.

**Course duration**
The duration of the course is three days.