Course description
INPS-PG41
Power Generation Portal – System Operations

Course goal
The goal of this course is to understand the operation structure of control system and impart professional handling of the system focusing on system maintenance, plant operation, observation and interpretation.

Learning objectives
Upon completion of this course the participants will be able to:

- Architecture of Operation structure and function of different components of operator workplace
- Navigation within Power explorer
- Building and configuration of process graphic displays & elements
- Building control logics, understanding function codes
- Creating graphic elements
- Managing trends, alarms and events
- Configuring user security
- History configuration and archival
- Export and import of data & functionalities

Participant profile
Personnel from Operations, maintenance of control & instrumentation in power plant, plant operators system integrators, service engineers, engineering consultants

Prerequisites
Basic knowledge on process control fundamentals, understanding of windows operating system

Topics
- System Architecture and introduction
  - Base functions
  - Field interfaces
  - Hardware modules
  - Operator workstation
  - Platforms, communication and Interfaces
  - Installation settings
- System Configuration
  - Alarm configuration sub-system
  - Database configuration subsystem
  - Operator workplace configuration
  - Archiving configuration
  - Data export / import manager
  - OPC configuration
  - Mandatory registry settings
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- **Database Configuration**
  - Engineering tag database configuration
  - Trend group database configuration
  - Calculation database configuration
  - Security database configuration
  - Node database configuration
  - Alarm group configuration

- **Operator Workplace**
  - User login functions
  - Mimic and Operations
  - Static symbols and attributes
  - Dynamic symbols identification
  - Tag linking in dynamic symbols
  - Builder options
  - Modification in System setup

- **Process control and alarm processing**
  - Controlling digital element
  - Controlling analog element
  - Process value tuning
  - Types of faceplate and operation through faceplate
  - Alarm groups
  - Alarm page display
  - Alarm group buttons
  - Alarm acknowledgement
  - Historical alarm archive

- **System Options**
  - Trend groups
  - Calculation blocks
  - Data archiving
  - Report manager
  - General diagnostic commands

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**Course type and methods**
This is an instructor led course with interactive classroom discussions and associated hands-on exercises. The Language of the course is English.

**Duration**
The duration of the course is 5 days.
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## Course outline

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<td>Power explorer overview</td>
<td>Overview of rack controllers and configuration</td>
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<td>Overview of operations</td>
<td>Building tag database, group database, alarm list database</td>
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<td>Navigation in Power explorer</td>
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<td>Building history database</td>
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<tr>
<td>Overview of important folders for History</td>
<td>Overview of event explorer and Configuration</td>
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