Course description
IN-RB01
Robot Operation & Safety

Course goal
The goal of the course is to improve the ability of run the Robot cell, Program Modification and responsible for engineering, commissioning, operation and Maintenance of Robotics for Automation.

Learning objectives
Upon completion of this course, students will be able to:
- understand the use of Robot operational Safety and Handling
- understand the critical elements of operation & maintenance of Robots
- Calibration
- General troubleshooting

Participant profile
Personnel from Production and operations Engineering Department, Consultants responsible for engineering, commissioning, operation and Maintenance of substations

Prerequisites
Degree or diploma in engineering, basic knowledge of Automation Product

Topics
- Programme Theme, overview
- Introduction of ABB Robot and their types, Robot Specification: Payload, Reachability, Robot Controller and Operation panel
  Manipulator Overview, Flex Pendant Overview
- Safety Overview and Run Chain
- Jogging, Axis Mode, Linear Mode, Reorientation
- Description of Robot Coordinate system, Base, World, Tool, WorkObject
- Tool Center Point and Defining the TCP
- Motion Instruction MoveJ, MoveL, MoveC,
- Hand-on exercise & Practices
- RAPID Program structure, Routines, Modules, Program Data
- Input and Output Signals
- Logical Instruction /Program Flow Instructions COPACT IF, IF AND THEN, PROCALL

Topics
- ModPos or Teaching of Program
  Program EDIT by Copy / Paste
- Saving and loading of user programs,
- Saving and Loading the system parameters
- Taking Backup of the Robot system and restore the system, Installation
- Calibration and Revolution counter update
- Maintenance & troubleshooting, SMB Battery replacement
- Question & Answer, summarizing
Course type and methods
This is an instructor led seminar with practical exercises. The language of the course is English.

Course Duration
The duration of the course is Two days.
## Course Outline

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