INT568 Freelance System Engineering

Using the fundamentals of a distributed control system, learn to engineer a Freelance system and become familiar with configuration and commissioning.

**Workshop goal**
The goal of this course is to engineer a Freelance system and to become familiar with configuration and commissioning tasks.

**Participant profile**
This training is targeted to Freelance users and system integrators who need to get a comprehensive overview about the Freelance system capabilities.

**Prerequisites and recommendations**
Students shall know the fundamentals of working with Distributed Control Systems and have basic knowledge of IEC 61131-3 programming and of working with Microsoft Windows.
Workshop Objectives
Upon completion of this workshop, the student will be able to:

- Describe the network structure in the Freelance architecture
- Describe the functionality of the major system components
- Describe the structure of application programs i.e. variables, programs, tasks
- Configure and maintain objects in Freelance Engineering
- Configure the AC 700F controller with local I/O's
- Configure the AC 900F controller and establish field- bus connectivity to corresponding Remote IO’s
- Create and maintain standard and user specific function blocks
- Load the controller and work in online mode
- Create and modify standard displays
- Manage and configure alarm and events
- Setup trends and configure historical data collection

Main topic
- AC 700F and AC 900F Hardware
- OPC communication
- Applications with Function Block Diagram (FBD) and Structured Text (ST)
- User function blocks
- Standard displays
- Trends
- Alarm and events
- Logs and reports
- Free graphics
- Sequential Function Charts
- Import / export
- Bulk data handling
- System documentation

Course Outline
<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Course overview</td>
<td>• Applications with Function Block Diagram (FBD) and Structured Text (ST)</td>
<td>• Alarm and events</td>
<td>• System Connectivity</td>
</tr>
<tr>
<td>• Freelance system architecture</td>
<td>• Standard displays and Trends</td>
<td>• Logs and reports</td>
<td>• Bulk Data Manager</td>
</tr>
<tr>
<td>• Engineering</td>
<td></td>
<td>• Free graphics</td>
<td>• Import/Export</td>
</tr>
<tr>
<td>• Application structures</td>
<td></td>
<td>• Sequential Function Charts (SFC)</td>
<td>• System Documentation</td>
</tr>
<tr>
<td>• Advanced configuration and commissioning</td>
<td></td>
<td>• User function blocks</td>
<td></td>
</tr>
</tbody>
</table>

Days
- Tuesday, 8:00 AM - 5:00 PM
- Wednesday, 8:00 AM - 5:00 PM
- Thursday, 8:00 AM - 5:00 PM
- Friday, 8:00 AM - 12:00 PM

Location
ABB India Limited
Registered Office
Plot No. 5 & 6, 2nd Stage
Peenya Industrial Area IV
Peenya, Bengaluru – 560 058
Karnataka, India

Registration
Enrollments are on first come, first serve basis.
To express interest, please write to ABB Energy Industries India at in-energyindustries@abb.com

Duration
The duration is 4 days