

#### ABB UNIVERSITY COURSE DESCRIPTION

## M111

# Harmony Rack I/O with Composer



Learn the INFI 90 Open/Symphony system architecture and Harmony Control Unit hardware. Create and monitor a process control strategy utilizing Composer software.

#### Course type and methods

This is an instructor led workshop with short presentations and demonstrations, extended exercises, and hands-on sessions and discussion.

#### **Student Profile**

Students should have a basic knowledge of process control and operations concepts. Basic knowledge and usage of applications running on the Windows® operating system is also recommended.

#### **Prerequisites**

Students shall have a basic knowledge of process control fundamentals. They should also have a basic understanding of Microsoft Windows operating systems.

### **Course objectives**

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

- Incorporate Symphony/INFI 90 Open hardware into the process strategy
- Interpret conventional ABB cabinet arrangement drawings
- Recognize basic function codes
- · Establish data highway communication

- Configure and implement Multi-Function Processor (MFP), Bridge Controller (BRC) and various I/O modules along with their support equipment
- · Establish MFP/BRC redundancy
- · Perform on-line configuration
- Read the field input/output external connection drawings

#### Main topics

- Symphony/INFI 90 Open control system architecture
- Symphony/INFI 90 Open control system data communication
- · Harmony Function Code programming basics
- Symphony/INFI 90 Open control system diagnostics

#### Duration

The duration is 5 days

#### **Course Outline** Day 1 Day 2 Day 3 Day 4 Day 5 · Course overview · Review: questions and · Review: questions and • Review: questions and · Review: questions and Introductions answers answers answers answers • Symphony/INFI 90 Open • Harmony process controllers • Composer project definition • Harmony Rack I/O module • Harmony Rack I/O module • Cabinet arrangement overview Closed loop configuration hardware configuration • Symphony/INFI 90 Open loop drawings · On-line configuration • Harmony Rack I/O module · Open lab communications · Introduction to Harmony configuration Symphony/INFI 90 Open **Function Codes** node communications