# + AADvance Comprehensive System Training

**Duration:** 5 days

**Delivery Format:** Instructor-led, classroom-based

**Summary:** This course provides an overview of AADvance® Hardware, software, configuration, program development and troubleshooting. The course consists of a mixture of lectures, demonstration and hands-on lessons.

**Audience/Who should attend:** Personnel responsible for designing, configuring programming, and troubleshooting an AADvance system.

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# Objectives

After completing the course, the student should be able to :

+ Find and use available resources when designing, implementing and supporting an AADvance system.
+ Identify fail-safe and fault-tolerant architectures.
+ Determine the components used in the system.
+ Install and wire an AADvance System
+ Create, modify, test, download and update projects using SIS Workstation.
+ Create functions and function blocks.
+ Pass safety-critical data between controllers.
+ Understand and configure the different communication capabilities.
+ Utilize the version control features.
+ Troubleshoot a system, replace modules and update the firmware of AADvance processors and IO modules.

# Prerequisite(s)

+ General knowledge of Programmable Logic Controllers (PLCs).
+ General understanding of network communications
+ Background in industrial electronic control principles and practices.
+ General understanding of Functional Safety, Functional Safety Management and the application of IEC 61511 or equivalent standard


# Student Materials

To enhance and facilitate the student learning experience, the following materials are provided in a printed format:

+ Student Manual: Copy of slides presented during the training.
+ Lab Manual: Provides learning activities and hands-on practice.

# Language

The training course is presented in English.
All student materials are provided in English.

# Agenda

Day 1

+ Course Overview
+ AADvance System Overview
+ Communications Architectures
+ Identifying AADvance Components
+ Installing and Wiring an AADvance System

Day 2

+ Developing a Program
+ Simulating and Testing a Project
+ Downloading and Monitoring a Project
+ Creating and Using Functions and Function Blocks

Day 3

+ Updating a Running Project
+ Managing AADvance Version Source Control
+ Importing and Exporting AADvance Elements
+ Archiving and Restoring an AADvance Project
+ Protecting an AADvance Project
+ Configuring Communications
+ Mapping Binding Between AADvance Controllers

Day 4

+ Configuring OPC Communications
+ Configuring Modbus Communications
+ Configuring P2P Communications
+ Configuring CIP Communications
+ Configuring SOE
+ Configuring HART

Day 5

+ Troubleshooting an AADvance System
+ Updating AADvance Controller Firmware
+ What's New and Coming
+ Integrated Practice – Developing an AADvance Project

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