



## + 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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## Contact Us

Sensia LLC  
Energy Tower IV  
15th Floor  
11750 Katy Freeway  
Houston, TX 77079

 +1-866-7SENSIA (+1-866-773-6742)

 [hello@sensiaglobal.com](mailto:hello@sensiaglobal.com)