

## CDN-Drive Technology

# SINAMICS S SET-UP and MAINTENANCE

### General Information

Course Code: CDN-DR-SNS-S1

Length: 4½ Days

### Audience

This course is for personnel responsible for installing, maintaining and commissioning SINAMICS S drive systems.

### Profile

This course provides training on Siemens` SINAMICS S drive systems family. Student will gain experience necessary to setup and maintain the operation of the SINAMICS S. The course includes an analysis of required hardware, steps for a quick startup, as well as additional application dependent steps for configuration, tuning and troubleshooting. A working knowledge of the drive communications capabilities will also be presented.

The course also covers the extensive diagnostic capabilities of the drive. Interpretations of Fault/Warning codes as well as proper troubleshooting steps are discussed. The use of the Siemens diagnostic and engineering software tools are tool is demonstrated.

The course format is a combination of instruction and hands-on exercises aimed at developing job-related knowledge and skills.

### Objectives

*Upon completion of this course, the student shall be able to:*

- Configure logic and set-up the drive for proper operation.
- Identify the use of the available programmable analog & binary Inputs/Outputs.
- Develop a logical and concise method of effectively troubleshooting indicated drive FAULTS and WARNINGS.
- Configure and operate the SINAMICS using STARTER.
- Set up PROFIBUS communications.
- Effectively optimize and troubleshoot the system.

### Topics

1. SINAMICS S120 Overview
2. STARTER project structure
3. Control Units and electronic components
4. STARTER connection to target device
5. Line and motor modules book size
6. Control word, setpoint and device trace
7. Topology
8. Chassis and Cabinet power units
9. Closed-loop control structure, SERVO mode
10. Closed-loop control structure, VECTOR mode.
11. Setpoint channel.
12. Diagnostics
13. Basic positioner
14. Drive-based safety functions (Optional)
15. Communication - Profibus DP (Optional)
16. Further drive functions