

## SIMOCRANE Maintenance, TIA-Portal - SINAMICS (CR-MAINT-TIA)

### Korte beschrijving

Cranes Maintenance with TIA Portal offers a course aimed for maintenance supervisors & technicians. This In specialized training environment with real life sized motors, drives and other components as used on cranes.

### Doelen

This practical course is guiding attendants to work on SINAMICS infeeders, inverters, motors and brakes of the actual rating as found on modern cranes.

Due to a special configuration of the training system 2 motors of original rating can be operated at full speed, voltage and current. For 1 motor typical loading will be simulated using the second motor as load simulator. A full-sized Bubenzer disk brake is installed to practice tuning of the drive for proper brake setting and - release.

Handling of infeed and inverter faults is practiced to the extend of component level repair and system recovery.

The SINAMICS infeed and inverters are controlled from a SIMATIC S7-400 via PROFIBUS just as on the real crane control system.

The SIMOCRANE Crane Management System is available on the training system.

### Doelgroep

Maintenance supervisors, maintenance technicians of container terminals, ports, steel mills.

Technical personnel from crane builders and service companies involved in crane control system service and maintenance.

### Inhoud

This course contents is:

- SIMATIC S7-400 and S7-300; Setup communication to the SIMATIC S7 PLC and check the proper functioning of the PLC. Restore the original program to the PLC.
- PROFIBUS communication; Troubleshooting PROFIBUS communication, understanding how PROFIBUS is working and how it is implemented on a crane.
- DRIVE-CliQ communication; Check the DRIVE-CliQ connections, use the topology in SCOUT to do this. Understand the DRIVE-CliQ rules for cranes.
- Ethernet communication; Troubleshooting Ethernet communication, understanding how Ethernet is working and how it is implemented on a crane.
- SINAMICS control unit CU320-2
- SINAMICS infeed AIM and ALM
- SINAMICS motormodule, sensormodule, etc
- SIMOTION; Function of the module's. How to troubleshoot the modules. What to do in case of replacing a module.
- SIMOCRANE basic application; Functionality of SIMOCRANE, how to troubleshoot. How to use the software tools, STARTER tool, SCOUT, SIMATIC manager.
- SIMOCRANE - CMS (crane management system); How to use the system.
- Ground fault detection in IT network with Bender sensing module; How to use and test the Bender sensing module.
- Simulation and monitoring realistic drive loading
- Exercises and trouble shooting on the real size system
- SINAMICS failure handling and repair; Use multimeter to diagnose. Replace components. (F.I: PowerPacks, Controllers, Sensor Module)

### Vereiste voorwaarden

prerequisites to this course is basic knowledge of SIMATIC S7 and cranes and drives.

### Soort

Face-to-face-training

### Duur

5 dagen

### Taal

en

### Prijs

2.850 EUR