SIEMENS

SINAMICS and SIMOTICS - Basics of Drive Technology (DR-GAT)

Short Description

This course provides extensive basic information for activities in the field of electrical drive technology. The topics are addressed in a general manner, independently of specific products. In further courses on SINAMICS converters, you will be able to more easily realize details and understand their context.

Objectives

This is an advantage both in commissioning and diagnostics, and when configuring and planning drive systems.

Target Group

Sales personnel
Project managers, project assistants
Startup engineers, configuration engineers
Service personnel
Maintenance personnel

Content

• Electronic components: diode, thyristor, transistor, IGBT
• DC converter: design and function
• Rectifier and inverter operation
• Gating angle, commutation, inverter commutation failure
• AC converter: design and function
• Rectifier, DC link, inverter
• Pulse width modulation, pulse-edge and space-vector modulation
• Line connection: active power and reactive power, harmonics
• Line-side and motor-side components: reactors, filters, fuses
• Mechanics: equations of motion, energy balance, gear ratio
• Motors (DC, Synchronous, Induction): design, function and equivalent circuit diagram
• Measuring systems for sensing speed and position
• Control technology, Controller and control loops, optimization criteria

Prerequisites

- Basic knowledge in electrical engineering
- Technical requirements

Type

Face-to-face training

Duration

5 days

Language

en