

## SINAMICS and SIMOTICS - Basics of Drive Technology (DR-BASIC)

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### Kurzbeschreibung

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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.

### Ziele

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

### Zielgruppe

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

### Inhalte

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- 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

### Teilnahmevoraussetzung

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- Basic knowledge in electrical engineering
- [Technical requirements](#)

### Typ

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Präsenztraining

### Dauer

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5 Tage

### Sprache

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