SIEMENS

Basics of NC and Drives (NC-NCAN)

Short Description

This course teaches the fundamentals of CNC and drives engineering. Practical exercises on our training equipment are an important part of the course.

Objectives

This course teaches the fundamentals of CNC and drives engineering. Practical exercises on our training equipment are an important part of the course.
On completion of the course, you will be familiar with the design and principle of operation of a machine tool with CNC control and drives. You will have laid sound foundations for succecssful use of your knowledge on Your machines. A fundamental understanding of the whole system will enable you to precisely describe problems on your machine tool and solve them together with Your partners. Application of the knowledge gained will boost your machine's productivity and reduce standstill times.
Attendance at this course is a prerequisite for attending our advanced SINUMERIK service and commissionung courses. We recommend a period of 2 to 4 months to gain practical experience before attending the advanced courses.

Target Group

Commissioning engineers
Engineering personnel
Service personnel
Maintenance personnel
Sales personnel for SINUMERIK systems

Content

Structure and tasks of a CNC control
Components of a machine tool
Operating modes and operator functions
Fundamentals of parts programming
Meaning of compensations, parameters, setting data and machine data
Fundamentals of data backup
Introduction to drive engineering and closed-loop control technology
Principle of position control, speed control and current control
Methods for the recording of internal signals
Overview of the feed drive and the main spindle drive
VDI interface and interface signals
Practical exercises on training models with digital drives

Prerequisites

Basic knowledge of PLC programming.

Note

The exercises are carried out on training models with SINUMERIK 840D sl. The contents of the course are also applicable to the SINUMERIK ONE.

Type

Face-to-face training

Duration

10 days

Language

en

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