

Microcontroller/ Microprocessor Basics - Face-to-Face Training

Objectives

You learn about the function and operation of microcontrollers and microprocessors.

Participants

Hardware developers, software developers

Requirements

None.

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Content

8, 16 and 32 Bit Microcontroller Applications

Comparison: Microprocessors vs. Microcontrollers

Microcontroller Set-up

Function and Operation

- CPU set-up and pipeline
- CPU working register
- Basic instruction set of a microcontroller
- Stack - function and access

Memory Access to RAM (Data Memory) /ROM (Program Memory)

Address Space/ Program Model

- Von Neumann architecture
- Harvard architecture

Basics: Microcontroller Programming

- Assembler
- Comparison: microcontroller-C vs. ANSI-C
- Function of a linker/locator

Basic On-chip Periphery

- Input/output - ports
- Timer - capture/compare
- Synchronous/asynchronous serial interface

Interrupt Controller

Function

- Interrupt vectors and service routines

Hands-on Exercise

- Using a microcontroller

FACE-TO-FACE TRAINING

Price *

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Duration

4 days

Training code: E-μC-BASE

* Price per attendee, in Euro plus VAT

Face-To-Face - German

Duration

3 days

Coaching

Our coaching services offer a major advantage: our specialists introduce their expertise and experience directly in your solution process, thus contributing to the success of your projects.

We will be happy to provide you with further information or submit a quotation tailored to your requirements.