Course - Microcomputer technology 1: Fundamentals of computer technology

Includes:

- 1 Experiment card with plexiglass cover, 32-bit CPU MC68332, emulator for Intel 8085 microprocessor and external access to address bus, data bus and ports, LED display of logic levels of address bus, data bus and ports

- RS 232 serial interface for connecting external components

- 40-pin extension interface with complete access to address bus, control bus and data bus

- CD-ROM with Labsoft browser and course software

Course contents:

- Introduction to the architecture of a microcontroller

- Explanation of how a microprocessor works and of its components (ALU, registers, stack, command decoder, program counter)

- Identification of hardware components on the experiment card

- Introduction to the design of an Intel 8085

- Introduction to the memory system for a microprocessor

- Introduction to the various microcomputer buses

- Read-out of data on address, control and data buses

- Introduction to the instruction set of the CPU

- Writing programs for simple computing operations

- Tracing and analysis of individual programs

- Explanation of differences between linear and branched programs

- Writing your own assembler programs

- Course duration 5 h approx.