Course - Digital electronics 3: Application circuits

Includes:

- 1 Experiment card with 2 single-bit and 2 4-bit adders

- 1 Experiment card with 8-bit multiplexer/demultiplexer

- CD-ROM with Labsoft browser and course software

Course contents:

- Introduction to the function of binary half and full adders

- Design and investigation of 1-bit half- and full adders

- Design and investigation of a 4-bit full adder with parallel output

- Design and investigation of a 4-bit full adder (serial output) with shift register

- Introduction to the design and function of multiplexers and demultiplexers

- Introduction to the function of data and address buses

- Investigation of multiplexer/demultiplexer circuits by measurement

- Investigation of a multiplexer/demultiplexer circuit with binary counter

- Fault simulation (3 simulated faults activated by relay)

- Course duration 3 h approx. (fault finding 0.5 h approx.)