Title	Code
Microprocessor Systems	**1010324491010320599**

Field	Year / Semester
Computer science	**5 / 9**

Specialty	Course
Microprocessors systems programming	**core**

Hours	Number of credits
Lectures: **8** Classes: **-** Laboratory: **-** Projects / seminars: **8**	**4**

	Language
	polish

Lecturer:

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Faculty:

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Status of the course in the study program:

Obligatory subject, Faculty of Electrical Engineering, extramural undergraduate studies, field: Computer Science, specialty: Programming of microprocessor systems.

Assumptions and objectives of the course:

Acquisition of knowledge about the architecture of microprocessors and microcomputer systems. Acquisition of theoretical and practical skills in programming microcontrollers in assembler and C language and design of microprocessor systems in industrial applications and in the vehicle.

Contents of the course (course description):

The base of architecture of microprocessors, single chip microcontrollers and microprocessor systems. Architecture of Intel 8051. Cooperation microprocessor system with the environment. System bus. Decoding addresses. Memory. Design principles of systems memory map. Design of input/output subsystems and memory. Applications microcontrollers in industrial and automotive. Input/output ports. Serial interfaces. Interrupt systems. Microprocessor systems programming in C language. The main technical problems of programming microcontrollers.

Introductory courses and the required pre-knowledge:

Basic knowledge of digital technology, programming and arithmetic of calculating machines.

Courses form and teaching methods:

The lecture supported by multimedia presentation, design on a laboratory class.

Form and terms of complete the course - requirements and assessment methods:

Exam - written test, passing a personal project.

Basic Bibliography:

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Additional Bibliography:

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