

Title <b>Fundamentals of Microprocessor Technology</b>	Code <b>10103222210103201101</b>
Field <b>Electrical Engineering</b>	Year / Semester <b>1 / 2</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>1</b> Classes: -    Laboratory: <b>1</b> Projects / seminars: -	Number of credits <b>3</b>
	Language <b>polish</b>

**Lecturer:**

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**Status of the course in the study program:**

Obligatory subject, Faculty of Electrical Engineering, field: Electrical Engineering, full time graduate studies.

**Assumptions and objectives of the course:**

Improving the theoretical and practical skills related with constructing, design and operation of microprocessor systems.

**Contents of the course (course description):**

The course covers learning new processors and systems solutions microprocessor ?classification, schemes. Analysis and Synthesis of industrial systems with PLCs, new concepts of microprocessor control systems and measurement, including the industrial network. Examples of microprocessor control systems - the choice of material by students.

Laboratory: Getting to know the architecture of an exemplary microcontroller new technology and microcontroller programming in C in terms of handling internal and external devices. Fundamentals of C51 language specification, the implementation of internal operating systems such as selected timers and system interrupts, serial transmission, AC converter. Implementation of an exemplary project of microprocessor system collaboration with an external device.

**Introductory courses and the required pre-knowledge:**

Basic knowledge of electrical engineering, electronics and digital-circuit engineering.

**Courses form and teaching methods:**

The lecture supported by multimedia presentation, project classes.

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

Tests in a written form, pass written / verbal, credit Laboratory.

**Basic Bibliography:**

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**Additional Bibliography:**

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