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Title Code 1010331451010320643 **Fundamentals of Microprocessor Technology** Field Year / Semester **Computer Science** 3/5 Specialty Course core Number of credits Hours 3 Classes: -Laboratory: 2 Projects / seminars: Lectures: -Language polish

Lecturer:

Institute of Electrical and Electronics Industry

Faculty:

Faculty of Electrical Engineering

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Status of the course in the study program:

Obligatory subject, Faculty of Electrical Engineering, full time undergraduate studies, field: Computer Science.

Assumptions and objectives of the course:

The objective of the course is to gain thorough knowledge of the theoretical and practical issues related to the construction of electronic components and systems, including microprocessor and computer ones, and the fundamentals of their design and programming.

Contents of the course (course description):

Acquaintance with the architecture of an exemplary microcontroller 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 timer'ów and system interrupts, serial, AC converter. Implementation support external devices such as LCD, LED, matrix keyboard. Implementation of an exemplary microprocessor system design 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:

Project classes.

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

Tests in a written/oral form, projects.

Basic Bibliography:

Additional Bibliography:

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