

Title Applications of Computers I Computer-based Measuring Systems	Code 1018011610108000087
Field Electronics and Telecommunications	Year / Semester 3 / 6
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 0
	Language polish

Lecturer:

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Status of the course in the study program:

-Obligatory course

Assumptions and objectives of the course:

-Students should obtain the knowledge of measurement systems: components, interface standards, transmission technologies and sensors. Experiments in laboratory include programming of measurement systems in professional programming languages: LabVIEW , VEE and C++.

Contents of the course (course description):

-Arrangement of measurement systems, sensors, intelligent sensors, measuring converters, conditioners, computer-based measuring systems, measuring boards for PC, serial interfaces, interface of RS-232C, parallel interfaces, interface of IEEE-488, PXI- and VXI-system, measuring systems with an radio transmission, programming languages for measurement systems. Distributed measurement systems and smart sensors. Virtual instruments. Measurements of temperature and mechanical stress.

Introductory courses and the required pre-knowledge:

-fundamentals of electronics, introduction to computer science, programming in C-language.

Courses form and teaching methods:

-Lectures illustrated with PowerPoint, laboratory exercises

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

-Examinations and exercises.

Basic Bibliography:

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Additional Bibliography:

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