

Title Signals and Dynamic Systems	Code 1010334141010330215
Field Control Engineering and Robotics	Year / Semester 2 / 4
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: 2 Projects / seminars: -	Number of credits 7
	Language polish

Lecturer:

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Status of the course in the study program:

Obligatory course, Faculty of Electrical Engineering, field Control Engineering and Robotics.

Assumptions and objectives of the course:

Acquaintance of the basic knowledge about signals in both time and frequency domains and its transformation in linear dynamic systems.

Contents of the course (course description):

Signals, its energy and power. Complex signals. Statistical parameters of signals. Fourier and Laplace transforms. Linear models of dynamic objects, temporal and spectral characteristics. Signals, correlation and power spectrum density in linear dynamic systems. Sampling theorem. Statistical parameters estimation based on DFT.

Introductory courses and the required pre-knowledge:

The basic knowledge of complex numbers theory, ordinary differential equations, probability theory and Basics of Automation.

Courses form and teaching methods:

Computer aided lectures and laboratory exercises.

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

Laboratory assessment and written exam.

Basic Bibliography:

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Additional Bibliography:

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