

Title CAD of electronic circuits	Code 1018011610108300084
Field Electronics and Telecommunications	Year / Semester 3 / 6
Specialty -	Course core
Hours Lectures: 1 Classes: - Laboratory: 2 Projects / seminars: -	Number of credits 0
Language polish	

Lecturer:

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Status of the course in the study program:

Obligatory course for students of Electronics and Telecommunications

Assumptions and objectives of the course:

To have knowledge how to work with electronic CAD programs

Contents of the course (course description):

Electronic circuit design: steps, tasks, a final result. Models of basic electronic devices (resistor, capacitor, inductor, voltage and current sources, diode, bipolar transistor, operational amplifier. Basic analog analysis: AC sweep, DC sweep, and transient analysis. Advanced analysis: parametric, FFT, noise, statistic (Worst Case and Monte Carlo), optimization. Simulation of digital and analog-digital circuits. Work with SPICE and APLAC.

Introductory courses and the required pre-knowledge:

Basic knowledge about analog and digital electronic.

Courses form and teaching methods:

Lectures illustrated by PowerPoint presentation.
Exercises in computer laboratory.

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

Laboratory - execution exercises and reports
Lecture - execution individual project in SPICE and APLAC

Basic Bibliography:

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Additional Bibliography:

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