

Title The computerization of projecting in electrical engineering	Code 1010321241010320156
Field Electrical Engineering	Year / Semester 2 / 4
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: - Projects / seminars: -	Number of credits 2
Language polish	

Lecturer:

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Status of the course in the study program:

Obligatory subject, Faculty of Electrical Engineering, Field: Electrical Engineering, Profile: Electric and Computer Systems of Vehicles, Full time undergraduate studies.

Assumptions and objectives of the course:

Computer science realization of chosen numeric methods and methods of practical optimizations in the electrotechnics. The creation of applications helping the projection and creations of technical recordses in the area of the electric engineering.

Contents of the course (course description):

The construction of computational algorithms acroamatical of numeric methods. Computer science realization of project calculations in the range: dissolvings of parley of algebraical linear equations and non-linear in using to the analysis of electric circuits lineal and non-linear. The resolution of ordinary differential equations and their parley with initial conditions, describing unestablished states in electric circuits. The resolution of partial differential equations with conditions wharfage and first, describing the problem electric, magnetical and thermal. Bases of the optimization. Computing algorithms project-. Rules of the creation of technical recordses. Examples of projecting of chosen devices and electric systems.

Introductory courses and the required pre-knowledge:

Mathematics, in this the infinitesimal calculus, integral and numeric methods; bases of the electrotechnics; bases of the electromagnetism; electrical power; the construction and the exploitation of electric machines. Bases of computer science and software of computers.

Courses form and teaching methods:

The lecture illustrated with slides.

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

The written-oral examination.

Basic Bibliography:

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Additional Bibliography:

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