

Title Exploitation of technical systems	Code 1010321251010320161
Field Electrical engineering	Year / Semester 3 / 5
Specialty -	Course core
Hours Lectures: 2 Classes: - Laboratory: 1 Projects / seminars: -	Number of credits 3
	Language polish

Lecturer:

PhD Maria Zielińska
Institute of Electrical Engineering and Electronics
60-965 Poznań, ul. Piotrowo 3a
tel. +48 061 665 23 88
e-mail: Maria.Zielinska@put.poznan.pl

Faculty:

Faculty of Electrical Engineering
ul. Piotrowo 3A
60-965 Poznań
tel. (061) 665-2539, fax. (061) 665-2548
e-mail: office_deef@put.poznan.pl

Status of the course in the study program:

Obligatory subject, Faculty of Electrical Engineering, Field: Electrical Engineering, Study: undergraduate studies.

Assumptions and objectives of the course:

The knowledge of theoretical and practical exploitation problems of technical systems and objects.

Contents of the course (course description):

Basic operational notions. Operational models and systems. Reliability of technical objects
Control of the technical object operation. Standardization acts. Statics and dynamics of selected electric drive systems
Heating and cooling of driving machines under various operation modes.
Power engineering of driving systems. Methods of engine power determination at various loads
Motion of a traction vehicle as an example of the equation of moments of an electromechanical system. Principles of calculation, research, and simulation of electric drive systems.
Determination of engine power at various loads and the environment temperature deviating from its standard level. Execution of a selected simulation exercise.

Introductory courses and the required pre-knowledge:

Basic of Electrical Engineering, Theory of Electrical Motors and Drives.

Courses form and teaching methods:

Lectures and laboratories simulations.

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

Test after the course and laboratory reports.

Basic Bibliography:

-

Additional Bibliography:

-