Title	Code
Computing science in energetics	**1010331421010310623**

Field	Year / Semester
Computer Science	**1 / 2**

Specialty	Course
-	**core**

Hours	Number of credits
Lectures: **1** Classes: **-** Laboratory: **-** Projects / seminars: **-**	**2**

	Language
	polish

Lecturer:

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Status of the course in the study program:

> Obligatory course, Faculty of Electrical Engineering, field Computer Science, first-degree stationary study.

Assumptions and objectives of the course:

> Acquainting with principles managing the delivery and the consumption of energy supplying technological processes and intelligent objects; taking the ability of the selection of realized functions by a computer system cooperating with the power grid for control the energy transfer (supplies) and with the energy receivers.

Contents of the course (course description):

> Basic knowledge of the scope of electric power engineering: three-phase alternating current, vector graph, powers in the symmetrical system, symmetrical components. The structure and functions of the electrical power engineering system. The measurement and analysis power load. Media of the data transmission. Monitoring of the parameters of the electric power transmission grid.
> Managing the energy in intelligent buildings. Visualisation of the state vector of the power system. Editing of reports. The structure and tasks of systems of managing the energy. Energy Management System- EMS in industry.
> Disrupting in the electrical power engineering system, criteria of the identification and the location of disruptions.

Introductory courses and the required pre-knowledge:

> Basic knowledge of scope of physics, mathematics and electrical engineering.

Courses form and teaching methods:

> Lecture with support of multimedia techniques.

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

> Final test.

Basic Bibliography:

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Additional Bibliography:

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