

Title <b>Computing science in energetics</b>	Code <b>1010331441010310638</b>
Field <b>Computer Science</b>	Year / Semester <b>2 / 4</b>
Specialty -	Course <b>core</b>
Hours Lectures: <b>1</b> Classes: -    Laboratory: <b>1</b> Projects / seminars: -	Number of credits <b>3</b>
	Language <b>polish</b>

**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: of managing the energy in industrial plants and urbanised areas; of using databases for the optimization of the consumption of energy; of applying decision support systems in power system.

**Contents of the course (course description):**

Methods and technique of controlling the power consumption and the energy by the end user of energy. Automation of controlling the power supply. Integration of measuring systems and databases. Applying the embedded systems and IT techniques in intelligent buildings. Managing the consumption of energy in intelligent buildings. Editing of energy reports. Analysis of typical systems of managing the energy (EMS and DMS).  
Integration of systems of operation and controlling the electric power systems.

**Introductory courses and the required pre-knowledge:**

Basic knowledge of the scope of the computing science and electrical engineering and the work of electrical power engineering systems.

**Courses form and teaching methods:**

Lecture with using simulators and laboratory exercises supported with the use of simulation programs.

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

The current control of the activity and the final test.

**Basic Bibliography:**

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**Additional Bibliography:**

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