COURSE DESCRIPTION CARD - SYLLABUS

Course name
Preparation for scientific research

Course

Field of study
Automatic Control and Robotics
Area of study (specialization)

Level of study
First-cycle studies
Form of study
full-time

Year/Semester
4/7
Profile of study
general academic
Course offered in
Polish
Requirements
compulsory

Number of hours

Lecture
0
Laboratory classes
0
Other (e.g. online)
0
Tutorials
0
Projects/seminars
6

Number of credit points

1

Lecturers

Responsible for the course/lecturer:
dr hab. inż. Maciej Marcin Michałek, prof. PP
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Faculty of Automatic Control, Robotics and Electrical Engineering
Piotrowo Street 3A, 60-965 Poznań

Responsible for the course/lecturer:
prof. dr hab. inż. Piotr Skrzypczyński
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Piotrowo Street 3A, 60-965 Poznań

Prerequisites

A student starting the course should have the knowledge, skills, and competences learned during the previous years of study, which can be applied to make scientific research in the field of automation and robotics. In the area of social competences the student should present the following positive attitudes: honesty, responsibility, perseverance, congnitive curiosity, creativity, personal culture, respect for other people.

Course objective

The main objective of the course is discussion the fundamental methodological rules of scientific research work in the field of automation and robotics, and also presentation of selected research results

obtained in the institutes serving the dydactic process for the Automatic Control and Robotics field of study.

Course-related learning outcomes

Knowledge

1. A student is familiar with the current state of newest development trends in the area of automation and robotics.
2. A student knows fundamental rules of a scientific reserach work and knows selected methods, techniques, and tools used for solving research problems in the area of automation and robotics.
3. A student knows the types of research activities.

Skills

1. A student is able to acquire scientific information from the professional literature, from data bases, and other sources, also in a foreign language.
2. A student is able to discuss on research topics in the area of automation and robotics in a professional community.

Social competences

1. A student understands the needs and knows possibilities of life-long learning in order to continuously develope his/her professional, personal, and social competences.
2. A student is aware of a society role of technical university's allumni and understands the need for clearly formulating and presenting to the society the opinions and information about the achievements in the field of automation and robotics, and about other aspects of the engineering activities.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The final rating: upon the presence of a student and his/her activity in discussions during the classes.

Programme content

- Types of research activities and their characteristics.
- Elements of scientific research methodology in the field of automation and robotics.
- Acquisition of scientific knowledge and information in the area of automation and robotics.
- Current research trends and selected research results in the field of automation and robotics.

Teaching methods

- Multimedia presentations, discussions, Q&A sessions.

Bibliography

Basic

[1] Jak być uczonym. Wydanie II, Michał Heller, Copernicus Center Press, 2017

Additional

[2] Poradnik kwalifikowania zadań w projektach B+R o charakterze społeczno-ekonomicznym. Do definicji ustawy o zasadach finansowania nauki, NCBR, Warszawa, 2018

Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1
Classes requiring direct contact with the teacher	6	0,5
Student's own work (literature studies, preparation of questions and topics for expected discussions during classes) [1]	19	0,5

[1] delete or add other activities as appropriate