



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Preparation for scientific research [S1AiR2>PdBN]

Course

Field of study

Automatic Control and Robotics

Year/Semester

4/7

Area of study (specialization)

–

Profile of study

general academic

Level of study

first-cycle

Course offered in

Polish

Form of study

full-time

Requirements

compulsory

Number of hours

Lecture

0

Laboratory classes

0

Other

0

Tutorials

0

Projects/seminars

15

Number of credit points

2,00

Coordinators

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Lecturers

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, cognitive 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 didactic 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 research 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 develop his/her professional, personal, and social competences.
2. A student is aware of a society role of technical university's alumni 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

The course covers the topics explaining the manners of making research works, introduces into a methodology of research in the area of automation and robotics, and also presents current research trends and selected research projects and results achieved on the faculty.

Course topics

- 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.
- Presentation of research works selected from particular institutes of the faculty.

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	50	2,00
Classes requiring direct contact with the teacher	15	0,50
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation)	35	1,50