COURSE DESCRIPTION CARD - SYLLABUS

Course name
Diploma Thesis Preparation [S1AiR2>PPDyp]

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 (e.g. online)
0

Tutorials
0

Projects/seminars
0

Number of credit points

15,00

Coordinators

dr inż. Paweł Pawłowski
pawel.pawlowski@put.poznan.pl

dr inż. Robert Bączyk
robert.baczyk@put.poznan.pl

Lecturers

Prerequisites

Knowledge: The student starting this subject should have basic knowledge acquired in the previous years of studies, enabling him to carry out a team engineering diploma thesis. Skills: The student starting this subject should have the basic skills acquired in the previous years of studies, enabling him to carry out a team engineering diploma thesis. Social competences: In addition, in terms of social competences, the student must present attitudes such as honesty, responsibility, perseverance, cognitive curiosity, creativity, personal culture, respect for other people.

Course objective

The aim of the course is to present students with the principles of preparing a diploma thesis from the substantive and editorial point of view, regulations and principles relevant to the implementation of this type of IT projects, the possibility of further training and developing awareness of the social role of a technical university graduate.

Course-related learning outcomes

Knowledge:
1. is familiar with the current state and the latest development trends in the field of automation and robotics;
2. knows the basic methods, techniques, tools and materials used to solve simple engineering tasks in the field of automation and robotics;
3. knows and understands the basic concepts and principles of the protection of industrial property and copyright; can use the resources of patent information;

Skills:
1. is able to communicate using various techniques in the professional environment and in other environments;
2. is able to develop documentation on the implementation of an engineering task in Polish and in a foreign language;
3. is able to present the results concerning the implementation of an engineering task in Polish and in a foreign language;
4. has self-education skills in order to raise and update professional competences;
5. can use information and communication techniques;

Social competences:
1. understands the need and knows the possibilities of continuous training - improving professional, personal and social competences, can inspire and organize the learning process of other people;
2. is aware of responsibility for their own work and is ready to submit to the principles of teamwork and responsibility for jointly performed tasks; can lead a small team, set goals and set priorities leading to the implementation of the task;
3. is able to properly define the priorities for the implementation of the tasks set by himself or others;
4. is aware of the need for a professional approach to technical issues, scrupulous familiarization with the documentation and environmental conditions in which devices and their components may function, adherence to the principles of professional ethics and respect for the diversity of views and cultures;
5. is aware of the social role of a technical university graduate and understands the need to formulate and transmit to the society (in particular through the mass media) information and opinions on the achievements of automation and robotics and other aspects of engineering activities; makes efforts to provide such information and opinions in a commonly understandable manner;

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment is made on the basis of the assessment of the current progress in the implementation of tasks;
Summative assessment is checking the assumed learning outcomes by assessing the presentations prepared from selected issues realized within the project: engineering thesis; this assessment also includes the ability to use information and communication techniques and the knowledge of social, economic and legal aspects as well as the risks associated with the implemented project;

Programme content

The subject of a diploma thesis is most often the implementation of a project defined by the thesis supervisor. This task may be the design, implementation and implementation of an automation system / solution in the field of automation and robotics based on the indicated technologies or the solution (including implementation and tests) of an engineering problem.

Course topics

As part of the diploma seminar, teachers supervise the content of the theses prepared by students. Students will learn the rules of editing a diploma thesis and the methodology of preparing and delivering presentations. As part of the course, students prepare two papers on the issues covered in their diploma theses. The lecturers present the students with the possibilities of further education (eg 2nd and 3rd degree studies, postgraduate studies). During the workshops related to the presentation of diploma projects, the lecturers try to make students aware of the social role of a technical university graduate, especially understanding the need to formulate and communicate to the society, in particular through the mass media, information and opinions on technological achievements and other aspects of

engineering activities.

Teaching methods

seminar; consulting in the field of implemented projects; workshops: discussions on the presented diploma projects;

Bibliography

Basic:
[1] Praca dyplomowa i egzamin dyplomowy (procedura postępowania), Wydział Automatyki, Robotyki i Elektrotechniki, materiał dostępny na stronie: https://creef.put.poznan.pl/procedura

Additional:
[1] Regulamin studiów pierwszego i drugiego stopnia uchwalony przez Senat Akademicki Politechniki Poznańskiej, Uchwała Nr 42/2020-2024 z dnia 31 maja 2021 r.
[2] Nie za krótkie wprowadzenie do systemu LaTeX 2e, T. Oetiker, T. Przechlewski, R. Kubiak et al., 2007.
[3] Elementy teorii poznania, logiki formalnej i metodologii nauk, T. Kotarbiński, DeAgostini, Ediciones Altaya Polska, 2002.

Breakdown of average student's workload

	Hours	ECTS
Total workload	375	15,00
Classes requiring direct contact with the teacher	10	1,00
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	365	14,00