



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Protection of intellectual property rights resulting from R&D works

Course

Field of study

automatic control and robotics

Area of study (specialization)

intelligent control systems

Level of study

Second-cycle studies

Form of study

full-time

Year/Semester

1/2

Profile of study

general academic

Course offered in

polish

Requirements

compulsory

Number of hours

Lecture

15

Laboratory classes

Other (e.g. online)

Tutorials

Projects/seminars

15

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

PhD eng. Dominik Łuczak

Responsible for the course/lecturer:

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Engineering

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Prerequisites

Knowledge: Students starting this subject should have knowledge of automation and robotics corresponding to level 6 of the Polish Qualifications Framework.

Skills: The student should have the ability to solve basic problems in the field of automation and robotics as well as the ability to obtain information from specified sources. He should also understand the need to expand his competences and be ready to cooperate in a team.

Social competences: In addition, in the area of social competences, the student must exhibit such qualities as honesty, responsibility, perseverance, cognitive curiosity, creativity, personal culture, respect for other people.



Course objective

1. To provide students with knowledge regarding the understanding of the economic, legal and social aspects of intellectual property protection resulting from research and development.
2. Developing students' intellectual property protection skills.
3. Developing the importance of knowledge of norms and recommendations related to the protection of intellectual property associated with R&D works by students.

Course-related learning outcomes

Knowledge

1. The student has the knowledge necessary to understand the economic, legal and social aspects of engineering activities and the possibilities of their application in practice; [K2_W14]
2. has knowledge of running a business, engineering project management and quality management; [K2_W15]
3. knows and understands the basic concepts and principles of intellectual property and copyright protection, is able to use patent information resources; [K2_W16]
4. knows the rules and procedures for creating individual entrepreneurship in automation and robotics; [K2_W17]

Skills

1. The student is able to communicate using various techniques in a professional environment and in other environments, also in a foreign language; [K2_U3]
2. is able to identify non-technical aspects, including environmental, economic and legal ones when formulating and solving tasks involving the design of automation and robotics systems; [K2_U14]

Social competences

1. Student posiada świadomość odpowiedzialności za pracę własną oraz gotowość podporządkowania się zasadom pracy w zespole i ponoszenia odpowiedzialności za wspólnie realizowane zadania; potrafi kierować zespołem, wyznaczać cele i określać priorytety prowadzące do realizacji zadania; [K2_K3]
2. jest gotów do myślenia i działania w sposób przedsiębiorczy; [K2_K5]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Formative assessment:

a) in the scope of lectures:

based on homework assignments and answers to questions about the material discussed in previous lectures,

b) in the scope of the project:



based on assessment of knowledge and understanding of current issues presented in the course of the subject.

Summative rating:

a) in the scope of lectures, verification of assumed learning outcomes is carried out by:

- i. assessment of knowledge and skills demonstrated at the written test in the form of a test
- ii. discussion of passing results.

b) within the scope of the project, verification of assumed learning outcomes is carried out by:

- i. assessment of student's preparation for individual tasks,
- ii. continuous assessment, at every stage of project implementation - rewarding the increase in the ability to use known principles and methods,
- iii. final evaluation of a project partly prepared during classes and also after their completion.

Obtaining additional points for activity during classes, in particular for:

- i. independent preparation and submission of a patent application in the UPRP for an object / service not provided for in the subject program,
- ii. effectiveness of applying the acquired knowledge while solving a given problem,
- iii. comments related to the improvement of teaching materials.

Programme content

The lecture program includes the following topics:

1. What is intellectual property? What is intellectual property and why should it be protected. Types of intellectual property protection resulting from the result of R&D works (patents, industrial designs, utility models, know-how, copyright). Legal basis for industrial protection. Owner of property rights.
2. Patentability requirements. Planning intellectual property protection during R&D works. Protection against disclosure of the essence of the solution.
3. Construction of a patent document. Preparation of documentation for UPRP, EPO and PCT procedure.
4. Submission of an invention for protection, schedule and strategies. Planning intellectual property protection resulting from the result of R&D works. Defining the scope of planned protection and type of protection.
5. Patent claims - construction and conduct of proceedings. Preparation of the patent description for the results of R&D works. The essence of the solution / invention, specification of patent claims.



6. Patent infringement and enforcement. Stages of obtaining the exclusive right and procedural costs. Stages of patent application assessment by the Patent Office of the Republic of Poland. Patent upkeep. Security charges.

7. Examination of patents and the state of the art. Demonstration of the lack of barriers in the protection of intellectual property of the result of R&D works. Analysis of the freedom of action and the technological environment. Analysis of the state of the art - innovation and imitation, patent base analysis, International Patent Classification, patent keywords.

The design class program includes:

1. Analysis of the technological environment. Analysis of the state of the art in the field of automation, robotics and electrical engineering in UPRP, Espacenet and Google Patents. Analysis of available patent descriptions, analysis of patent claims, utility models and industrial designs.

2. Freedom of action and patentability. Analysis of the state of the art for a selected topic.

a. Search and analysis of the UPRP database, Espacenet, Google Patents. Taking into account the International Patent Classification, keywords in Polish and English.

b. Searching and analyzing databases of scientific and industry publications in the field of automation, robotics and electrical engineering.

c. Search and analysis of the Patent Office Bulletin (BUP) in the field of automation, robotics and electrical engineering.

3. Development of a report on the state of the art analysis.

4. Identifying a new, innovative and implementable invention or a new form for an industrial design.

5. Development of the draft sketch.

a. an indication of the essence of the solution or the significant features of the form.

b. preparing a description of the technological solution.

c. preparation of necessary illustrations with a description.

Teaching methods

1. Lecture: presentation and discussion of source data, multimedia presentation illustrated with literature data

2. Project classes: familiarization with the requirements of patent protection, iterative preparation of an application to the Polish Patent Office, taking into account the requirements for patents.

Bibliography



Basic

1. Jak skutecznie patentować, NCBR, 2016 (online)
https://www.ncbr.gov.pl/fileadmin/user_upload/pUBLIKACJE/Ewaluacje/jak_skutecznie_patentowac.pdf
f [2020-04]
2. Poradnik wynalazcy, A. Pyrza, 2009 (online) <https://uprp.gov.pl/sites/default/files/inline-files/Poradnik%20wynalazcy.%20Procedury%20zg%C5%82oszeniowe%20w%20systemie%20krajowym%20C%20europejskim%20mi%C4%99dzynarodowym.%20Wydanie%20II%20-%20uzupe%C5%82nione.pdf>
3. Zarządzanie własnością intelektualną w przedsiębiorstwie i na uczelni, IBnGR, 2010 (online)
<http://www.ibngr.pl/Publikacje/Ksiazki-IBnGR/Zarzadzanie-wlasnoscia-intelektualna-w-przedsiębiorstwie-i-na-uczelni>
4. Przewodnik dla eksperta ochrona własności intelektualnej, NCBR, 2017 (online)
https://www.ncbr.gov.pl/fileadmin/user_upload/import/tt_content/files/przewodnik_ochrona_wlasnosci_intelektualnej.pdf
5. Ustawa z dnia 20 lipca 2018 r. - Prawo o szkolnictwie wyższym i nauce (online in Internetowym Systemie Aktów Prawnych)
6. Ustawa z dnia 30 czerwca 2000 r. Prawo własności przemysłowej (online in Internetowym Systemie Aktów Prawnych)
7. Ustawa z dnia 4 lutego 1994 r. o prawie autorskim i prawach pokrewnych (online in Internetowym Systemie Aktów Prawnych)
8. Poznan University of Technology regulations regarding intellectual property.

Additional

1. Łuczak D., Janik T., patent nr PAT.225406, „Termoanemometr jednokierunkowy wyznaczający zwrot”, o udzieleniu patentu ogłoszono: 28.04.2017 WUP 04/17.
2. Łuczak D., Janik T., patent nr PAT.224740, „Termoanemometr”, o udzieleniu patentu ogłoszono: 31.01.2017 WUP 01/17
3. Brock S., Łuczak D., Pajchrowski T., „Zespół mechaniczny zwłaszcza do testowania napędów bezpośrednich w szczególności odpornych układów sterowania napędów bezpośrednich”, patent nr PAT.222240, o udzieleniu patentu ogłoszono: 29.07.2016 WUP 07/16
4. Wynalazki w działalności małych i średnich przedsiębiorstwach, 2012 (online)
https://uprp.gov.pl/sites/default/files/2019-12/Wynalazki_w_dzialalnosci_malych_i_srednich_przedsiębiorstw_2012.pdf
5. Wynalazki i patenty. Czerpiąc z przeszłości, kreuj przyszłość, 2012 (online)
https://uprp.gov.pl/sites/default/files/2019-12/czerpiac_z_przeslosci_2012.pdf



6. Bezpłatne publikacje na UPRP <https://uprp.gov.pl/pl/publikacje/publikacje-bezplatne>

Breakdown of average student's workload

	Hours	ECTS
Total workload	60	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for project classes, preparation for tests, project preparation) ¹	30	1,0

¹ delete or add other activities as appropriate