GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	BSc Diploma Seminar II, PG_00067088		
Field of study	Automatic Control, Cybernetics and Robotics		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2028/2029
Education level	first-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	4	Language of instruction	Polish
Semester of study	7	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Intelligent Interactive Systems -> Faculty of Electronics Telecommunications and Informatics -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Michał Czubenko	
	Teachers	prof. dr hab. inż. Michał Mrozowski	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	15.0	15
	E-learning hours included: 0.0						

Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	15	1.0	9.0	25

Subject objectives	In the first semester, the focus is on planning and conceptualizing the diploma project. The objectives and scope of the diploma seminar, organization of classes, method of conducting documentation and the expected structure of the diploma project are discussed. Students become familiar with patterns of well-prepared work, analyze sample projects from previous years and learn how to properly formulate objectives, define the scope of the project and plan tasks. At this stage, a rough implementation schedule is also created, potential threats and project risks are identified, and the main products and results of the project are indicated. Students prepare slides and documentation for the initial presentation, during which they present their design assumptions and an overview of solutions to the group. Listening to other presentations and participating in the discussion serves to inspire each other and exchange constructive feedback. At the end of the semester, students prepare a semester report that documents the initial phase of the project - plan, technical assumptions, risk analysis and an overview of existing solutions.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_K02] is ready to critically assess possessed knowledge and acknowledge the importance of knowledge in solving cognitive and practical problems	The student is able to clearly and logically present his/her own results and those of his/her co-authors of an engineering project, while critically analyzing the methods, tools and knowledge used in relation to the technical problem being solved, understanding the role of reliable knowledge in formulating accurate conclusions and engineering decisions.	[SK5] Assessment of ability to solve problems that arise in practice [SK2] Assessment of progress of work
[K6_U10] can individually plan their own lifelong education, also by means of advanced information and communication technologies (ICT), and communicate with people from their environment, firmly justify their point of view, participate in debates, present, assess and discuss different opinions and points of view, as well as use specialist terminology related to the field of study in communication	The student is able to independently plan and present a method of carrying out an engineering task using appropriate ICT tools, communicate clearly and objectively with the environment using specialist terminology, justify his/her position, participate in a debate and analyse and evaluate various technical concepts in the context of a substantive discussion.	[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools
[K6_K03] is ready to meet social obligations, co-organise activities for the social environment, initiate actions for the public interest, think and act in an entrepreneurial way	The student responsibly plans his/her own work, taking into account the input and needs of other team members, is able to co-organize project activities with their impact on the social environment in mind, and is able to initiate solutions that are conducive to the public interest, demonstrating a proactive and entrepreneurial attitude.	[SK1] Assessment of group work skills [SK2] Assessment of progress of work
[K6_K01] is ready to cultivate and disseminate models of proper behaviour in and outside the work environment; make independent decisions; critically evaluate actions of their own, teams they lead and organisations they are part of; take responsibility for results of these actions; responsibly perform professional roles, including:n - observing rules of professional ethics and require it from others,n - care for the achievements and traditions of the professionn	The student demonstrates readiness to responsibly fulfill the role of an engineering designer, planning and conducting design work in accordance with the principles of professional ethics and care for the quality, reliability and transparency of documentation. Is able to independently make design decisions, critically evaluate their own actions and the actions of teams, participate in substantive discussions with respect for professional standards and accept responsibility for the effects of proposed solutions.	[SK3] Assessment of ability to organize work [SK5] Assessment of ability to solve problems that arise in practice

Subject contents

Students focus on conceptual, formal and organizational preparation for the implementation of engineering work. The classes aim to develop the ability to plan complex design tasks, critically analyze available solutions and consciously define the goals, methods and scope of work in the context of the current state of knowledge and technology.
During the seminars, formal requirements for diploma theses, the structure and content of engineering documentation, work patterns and principles of good design practice are discussed. A key element of the semester is the preparation by students of a preliminary project concept, including: defining the goals, scope and expected results of the work, defining the main tasks, developing a schedule of activities and identifying risks. An integral part of the Final Report of Semester I is the development of the State of the Art (SOTA) section, i.e. an overview of the current state of knowledge and existing technological solutions in the area of the project's subject matter. The purpose of SOTA is to indicate existing methods, tools and technologies, their advantages and limitations, as well as to justify the choice of the approach adopted in a given project. This analysis is critical in nature and provides the basis for further design decisions.
Additionally, at the end of the semester, students prepare a presentation of the design assumptions, which they present to the group. These presentations serve to train communication skills, shape the attitude of responsibility for substantive statements and develop the ability to evaluate and comment on the concepts of other teams. The seminar also enables the development of competences in the field of professional ethics, teamwork and reflection on the impact of engineering projects on the social and environmental environment. The semester ends with the submission of a final report that documents all of the above aspects: technical assumptions, action plan, risk analysis, SOTA review, results of the work to date and an outline of further implementation of the project in the following semester.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
presentations	60.0%	100.0%

Recommended reading

Basic literature	Bibliography selected individually by the tutor for each diploma project
Supplementary literature	Bibliography selected individually by the tutor for each diploma project

	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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