



Subject card

Subject name and code	MSc Diploma Thesis I, PG_00047387						
Field of study	Automatic Control, Cybernetics and Robotics						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2023/2024		
Education level	second-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	2	Language of instruction			English		
Semester of study	3	ECTS credits			5.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Automatic Control -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Paweł Raczyński					
	Teachers	dr inż. Paweł Raczyński prof. dr hab. inż. Zdzisław Kowalczyk					
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	0.0	0
	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	0	30.0		95.0	125	
Subject objectives	Implementation of the diploma						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_W09] Knows and understands, to an increased extent, the economic, legal and other conditions of various types of activities related to the given qualification, including the principles of protection of industrial property and copyright.	The student understands the economic and legal conditions of activities related to the qualification, including the principles of industrial property protection and copyright	[SW1] Assessment of factual knowledge
	[K7_U08] while identifying and formulating engineering tasks specifications and solving these tasks, can:n- apply analytical, simulation and experimental methods,n- notice their systemic and non-technical aspects,n-make a preliminary economic assessment of suggested solutions and engineering workn	The student is able to formulate and solve engineering tasks, use analytical, simulation and experimental methods, see systemic and non-technical aspects, make an economic assessment of the proposed solutions	[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information
	[K7_K03] is ready to meet social obligations, inspire and organise activities for the social environment, initiate actions for the public interest, think and act in an entrepreneurial way	The student is able to fulfill social obligations and act for the social environment and public interest	[SK1] Assessment of group work skills [SK4] Assessment of communication skills, including language correctness [SK3] Assessment of ability to organize work
	[K7_U10] can individually plan and pursuit their own lifelong education and influence others in this aspect, also by means of advanced information and communication technologies (ICT), and communicate on specialist issues with diverse recipients, appropriately justify points of view, hold 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 plan and implement their own education, use advanced information and communication techniques (ICT) and communicate with diverse audiences, organize a debate, present and evaluate various opinions, and communicate using specialized terminology	[SU4] Assessment of ability to use methods and tools [SU3] Assessment of ability to use knowledge gained from the subject [SU2] Assessment of ability to analyse information
[K7_K02] is ready to provide critical evaluation of received content and to acknowledge the importance of knowledge in solving cognitive and practical problems	The student critically assesses the received content and the importance of knowledge in solving cognitive and practical problems	[SK5] Assessment of ability to solve problems that arise in practice	
Subject contents	Realization of the project set by the thesis supervisor		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Substantive project	50.0%	60.0%
	Formal project	50.0%	40.0%
Recommended reading	Basic literature	W.L. Brogan: Modern control theory, Prentice Hall, Englewood Cliffs, 1974. K.J. Astrom, B Wittenmark: Computer-controlled systems. Prentice Hall, Upper Saddle River, 1997 B.C. Kuo: Automatic Control Systems. Prentice-Hall, Englewood Cliffs 1987	
	Supplementary literature	J. Korbicz, J.M. Kościelny, Z. Kowalczyk, W. Cholewa, Fault Diagnosis. Models, Artificial Intelligence, Applications, Springer Verlag [ISBN 3-540-40767-7], Berlin, Heidelberg, New York, Hong Kong, London, Milan, Paris, Tokyo 2004	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		