GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Computer Networks in Robotics, PG_00038330		
Field of study	Automation, Robotics and Control Systems		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2024/2025
Education level	second-cycle studies	Subject group	Optional subject group Subject group related to scientific research in the field of study
Mode of study	Part-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Mechatronics and High Voltage Engineering -> Faculty of Electrical and Control Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Grzegorz Redlarski	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	10.0	0.0	10.0	0.0	0.0	20

E-learning hours included: 0.0

Adresy na platformie eNauczanie:

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	20	7.0	48.0	75

Subject objectives

The aim of the course is an acquisition of the knowledge skills and competences in the field of design, administration and maintenance of computer networks used, among others, in industrial distributed systems.

Learning outcomes

Course outcome	Subject outcome	Method of verification
K7_W11	The student has knowledge of the design, administration and maintenance of computer networks used - among others - in industrial distributed systems	[SW2] Assessment of knowledge contained in presentation
K7_U07	The student is able to use specialized computer tools supporting the solution of a specific task	[SU1] Assessment of task fulfilment
K7_K02	The student has the ability to perform tasks that are part of a complex system	[SK2] Assessment of progress of work

Subject contents

1. Models of the computer networks

2. The physical and logical topologies of computer networks 4. Network and subnetworks

3. Power distributed computer systems

4. The tools to the support of the process of computer systems designing

Prerequisites and co-requisites

The basic knowledge of numeral systems (binary, decimal, hexal and octal).

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Test - lecture part	60.0%	50.0%
	Laboratory report	60.0%	50.0%
Recommended reading	Basic literature	[1] Cisco Networking Academy program, CCNA 1 and 2 Companion Guide, 3rd Edition. Cisco Systems Inc., 2004.	
	Supplementary literature	[1] Cisco Networking Academy program CCNA 3 and 4 Companion Guide, 3rd Edition. Cisco Systems Inc., 2004.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	1. Similarities and differences between models: OSI and TCP/IP 2. Basic networking devices - the essence of an action 3. The physical topology of computer networks 4. The logical topology of computer networks 5. The essence of the division of the networks into subnetworks		
Work placement	Not applicable		