GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Monographic Lectures of Wireless Technologies, PG_00048671					
Field of study	Electronics and Telecommunications					
Date of commencement of studies	February 2023		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		Polish	
Semester of study	3		ECTS credits		2.0	
Learning profile	general academic profile		Assessment form		assessment	
Conducting unit	Department of Microwave and Antenna Engineering -> Faculty of Electronics, Telecommunications and Informatics					
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Michał Mrozowski				
	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	15.0	0.0	0.0	0.0	0.0	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	2.0	33.0	50

Subject objectives	The aim of the course is to familiarize students with various aspects of the use and deployment of wireless technologies and electronic devices used in these technologies.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_W03] Knows and understands, to an increased extent, the construction and operating principles of components and systems related to the field of study, including theories, methods and complex relationships between them and selected specific issues - appropriate for the curriculum.	Knows the theory of microwave filters, and their mathematical and circuit models.	[SW1] Assessment of factual knowledge
	[K7_W06] Knows and understands, to an increased extent, the basic processes taking place in the life cycle of devices, facilities and technical systems.	the problems associated with the implementation of microwave filters in available technologies	[SW1] Assessment of factual knowledge
	[K7_W04] Knows and understands, to an advanced extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study, and organisation of systems using computers or such devices	A student is aware of the problems related to numerical modeling of microwave filters and methods of their implementation in the available tools for their professional design	[SW1] Assessment of factual knowledge

Subject contents	Lecture whose contents varies each year - lectures may be delivered by invited speakers (including foreign), practitioners from industry - the course can be monothematic, delivered by one lecturer or divided into blocks (delivered by several lecturers)
	In 2020 the topic is microwave filters and the course is given in English by a visiting professor. Roberto Gomez-Garcia
	Module 0: Introduction to Microwave Filters
	- Module I: Basic Definitions and Responses
	- Module II: Basic Synthesis Techniques - Module III: Impedance Scaling and Frequency Mappings - Module IV: Microwave Resonators: Basic Technology Options - Module V: Transmission-Line-Based Bandpass Filter Design - Module VI: Introduction to Signal-Interference Filtering

Prerequisites and co-requisites	

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Participation	66.0%	50.0%
	Final test	50.0%	50.0%

Recommended reading	Basic literature	Students are given handouts prepared by the lecturer
	Supplementary literature	Not defined
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	nie definiuje się

Work placement	Not applicable