GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Reception of Radio Signals II, PG_00047456		
Field of study	Electronics and Telecommunications		
Date of commencement of studies	February 2022	Academic year of realisation of subject	2022/2023
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	1	Language of instruction	English
Semester of study	2	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Radiocommunication Systems and Networks -> Faculty of Electronics, Telecommunications and Informatics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Małgorzata Gajewska	
	Teachers	dr inż. Andrzej Marczak	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	15.0	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	8.0	25

Subject objectives

Acquainted with theory of digital radio receipt.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U06] can analyse the operation of components, circuits and systems related to the field of study; measure their parameters; examine technical specifications; interpret obtained results and draw conclusions	Student is able to analyze the operation of elements, systems and systems related to the field of study and measure their parameters and examine technical characteristics, interpret the results obtained and draw conclusions.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject [SU4] Assessment of ability to use methods and tools
[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.	Student knows and understands in greater depth the structure and principles of operation of components and systems related to the field of study, including theories, methods and complex relationships between them, as well as selected specific issues - specific to the curriculum.	[SW1] Assessment of factual knowledge

Subject contents

1. Measurements of sensitivity and selectivity in a paging system receiver 2. Measurements of noise figure in FM receiver 3. Measurements of signal performance in satellite system 4. Measurements of receiver filter characteristics with the use of vector network analyzer 5. Measurements of spectrum and parameters of phase modulated signals 6. Measurement of signals in UMTS

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Activity	0.0%	10.0%
Practical exercise	50.0%	90.0%

Recommended reading	Basic literature	1. Tomasi W., Advanced Electronic Communications Systems, Prentice Hall, 1992. 2. Mitola J., Software Radio Architecture, John Wiley & Sons, 2000. 3. Schaub K. B., Kelly J., Production Testing of RF and System-on-a-Chip Device for Wireless Communications, Artech House, 2004. 4. Proakis J. G., Digital Communications, McGraw-Hill, 1989.
	Supplementary literature	No requirements
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	