GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Mobile applications, PG_00061795		
Field of study	Automation, Robotics and Control Systems		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2026/2027
Education level	first-cycle studies	Subject group	
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	3.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Control Engineering -> Faculty of Electrical and Control Engineering -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Paweł Kowalski	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	10.0	0.0	0.0	20.0	0.0	30

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	30	5.0	40.0	75

Subject objectives

Introduction to the process of designing and building mobile applications for the Android operating system.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W10] has basic knowledge related to mechatronics and robotics systems	He programs microcontrollers and designs simple algorithms.	[SW3] Assessment of knowledge contained in written work and projects
[K6_U03] can prepare and present a presentation on the problems and results of an engineering task	He prepares and presents a demonstration of the developed mobile application.	[SU5] Assessment of ability to present the results of task
[K6_W06] knows the structure of computers and microprocessors and the tasks of operating systems, has basic knowledge of the basics of computer software, drivers, microprocessor technology, design of simple algorithms and the operation of information networks	He creates mobile applications for devices with the Android operating system. He integrates mobile applications with mechatronics and robotics systems.	[SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects
[K6_U01] can obtain information from literature, databases and other sources; integrate the information obtained, interpret it and draw conclusions, formulate and justify opinions	Acquires information from literature, databases, and other sources and uses it to build mobile applications.	[SU1] Assessment of task fulfilment

Subject contents

Course content – lecture
Lecture:

- Syntax of the Kotlin language.
- Handling Android Studio.

Course content – project
- Creating graphical applications for the Android operating system.

Prerequisites and co-requisites

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lecture assignment	50.0%	40.0%
	Project	50.0%	60.0%
Recommended reading	Basic literature	Kotlin docs, https://kotlinlang.org/docs/home.html Android Developer guides, https://developer.android.com/docs	
	Supplementary literature	Developer documentation for Firebase, https://firebase.google.com/docs?hl=pl	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Development of a selected application for the Android operating system.		
Practical activites within the subject	Not applicable		

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