GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Industrial User Interfaces - Project, PG_00049216		
Field of study	Automatic Control, Cybernetics and Robotics		
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	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Decision Systems and Robotics -> Faculty of Electronics, Telecommunications and Informatics		
Name and surname of lecturer (lecturers)	Subject supervisor	mgr inż. Marek Grzegorek	
	Teachers	mgr inż. Marek Grzegorek	

Lesson types and methods of instruction

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

Familiaraze students with selected I / O devices

Paying attention to the diversity of interfaces

Presentation of a general interface design scheme

Indicate the directions of further development of interfaces

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U02] can perform tasks related to the field of study as well as formulate and solve problems applying recent knowledge of physics and other areas of science	Student knows how to verify clarity, ease of use and compatibility with given application of user interfaces to assure good user experience.	[SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment
[K7_U03] can design, according to required specifications, and make a complex device, facility, system or carry out a process, specific to the field of study, using suitable methods, techniques, tools and materials, following engineering standards and norms, applying technologies specific to the field of study and experience gained in the professional engineering environment	Student knows how to design and implement user interface, using proper tools for given application.	[SU2] Assessment of ability to analyse information [SU1] Assessment of task fulfilment

<table>
<tr><td>Subject contents</td><td>Introduction: principles of assessment, which is an interface, history
Devices interaction 1
Devices interaction 2
Styles of human-computer interaction, text interface
The graphical interface, the categories of controls
Presentation of controls, functions
Menus, windows, icons and tiles
direct manipulation
forms
Acoustic signals and natural language
multimedia Systems
Virtual reality
Augmented reality
Interface Design 1
Interface Design 2</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>exam</td><td>50.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>"Podstawy interfejsów użytkownika", Witold Malina, Mariusz Szwoch, PWNT Gdańsk 2015

https://en.wikipedia.org/wiki/User_interface

https://pl.wikipedia.org/wiki/Interfejs_%28urz%C4%85dzenie%29</td></tr><tr><td>Supplementary literature</td><td>https://en.wikipedia.org/wiki/User_interface_design</td></tr><tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr></table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>What is user interface?

What style of interaction are used?

What are elements of interface?

What are the general rules for the design of user interface?</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
</table>