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

Subject contents	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		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exam	50.0%	100.0%
Recommended reading	Basic literature	"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	
	Supplementary literature	https://en.wikipedia.org/wiki/User_interface_design	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	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?		
Work placement	Not applicable		