



## Subject card

Subject name and code	SCADA Systems in Automatic Control, PG_00047510						
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	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 Automatic Control -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Piotr Kaczmarek					
	Teachers	dr inż. Piotr Kaczmarek					
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	Introduction to commercial SCADA systems. Gaining practical skills of designing systems for monitoring industrial processes.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[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	The student can make software for measuring data acquisition in a high-level language.			[SU1] Assessment of task fulfilment		
	[K7_U07] can apply advanced methods of process and function support, specific to the field of study	Student can apply design tools to SCADA systems			[SU1] Assessment of task fulfilment		
Subject contents	1. Design and implementation of SCADA software in C++/C# 2. Design of system visualization in the Trace Mode software						
Prerequisites and co-requisites	Knowledge of C++/C#						
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade		
	SCADA software implemented in C++/C#	55.0%			50.0%		
	Trace Mode project	55.0%			50.0%		
Recommended reading	Basic literature	Trace Mode i InTouch documentation					
	Supplementary literature	no requirements					
	eResources addresses	Adresy na platformie eNauczanie:					

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable