



## Subject card

Subject name and code	SCADA Systems in Automatic Control, PG_00048448						
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		Polish		
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		
	Trace Mode project		55.0%		50.0%		
	SCADA software implemented in C++/C#		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