



Subject card

Subject name and code	Wind Power Plants, PG_00042323							
Field of study	Electrical Engineering							
Date of commencement of studies	October 2023	Academic year of realisation of subject			2023/2024			
Education level	second-cycle studies	Subject group						
Mode of study	Part-time studies	Mode of delivery			at the university			
Year of study	1	Language of instruction			Polish			
Semester of study	2	ECTS credits			2.0			
Learning profile	general academic profile	Assessment form			assessment			
Conducting unit	Department of Electrical Power Engineering -> Faculty of Electrical and Control Engineering							
Name and surname of lecturer (lecturers)	Subject supervisor		prof. dr hab. inż. Zbigniew Lubośny					
	Teachers							
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM	
	Number of study hours	10.0	0.0	0.0	0.0	0.0	10	
	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	10		6.0		34.0	50	
Subject objectives	Get knowledge related to wind energy plants and cooperation of the plants with electric power systems,							
Learning outcomes	Course outcome	Subject outcome			Method of verification			
	K7_W01	Has knowledge related to mathematics, related to numerical methods for solving electrotechnical problems.			[SW1] Assessment of factual knowledge			
	K7_U03	Can retrieve knowledge from various sources of information. Can define directions of future selflearning.			[SU4] Assessment of ability to use methods and tools			
	K7_U02	Can prepare and present presentation related to technical issues.			[SU5] Assessment of ability to present the results of task			
K7_W02	Has knowledge related to measurement methods used in electric grid.			[SW1] Assessment of factual knowledge				
Subject contents	Wind energy - development, resources. Calculation of energy resources in a given location for a given type of wind farm. Wind farm constructions. Wind farms. Ways of the wind farms connection to the power system. Control of the power plant and wind farms.							
Prerequisites and co-requisites	No needed							
Assessment methods and criteria	Subject passing criteria	Passing threshold			Percentage of the final grade			
	Coloquium	60.0%			100.0%			
Recommended reading	Basic literature	Lubośny Z.: Farmy wiatrowe w systemie elektroenergetycznym. WNT Warszawa 2009. 2. A. Flaga: Inżynieria wiatrowa. Podstawy i zastosowania. Wydawnictwo Arkady 2008. 3. T. Boczar: Wykorzystanie energii wiatru. Wydawnictwo PAK, Warszawa 2010.						
	Supplementary literature	Lubośny Z.: Elektrownie wiatrowe w systemie elektroenergetycznym. WNT Warszawa 2006. 2. Poradnik inżyniera elektryka. WNT Warszawa 2011 (tom 3), 2007 (tom 2).						
	eResources addresses	Adresy na platformie eNauczanie:						

Example issues/ example questions/ tasks being completed	Calculate energy produced by a given wind turbine during a year.
Work placement	Not applicable