



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 form 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