



Subject card

Subject name and code	Advanced Computer Architectures, PG_00047895						
Field of study	Informatics						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2023/2024		
Education level	first-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	3	Language of instruction			Polish		
Semester of study	6	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Geoinformatics -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Jerzy Demkowicz				
	Teachers		dr inż. Jerzy Demkowicz				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	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	30		2.0		18.0	50
Subject objectives	The main goal of the lecture is acquaintance with advanced aspects of pipe, VLIW architectures as well as low level EFI stack.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W04] Knows and understands, to an advanced extent, the principles, methods and techniques of programming and the principles of computer software development or programming devices or controllers using microprocessors or programmable elements or systems specific to the field of study, and organisation of systems using computers or such devices		The use of virtual machines and the implementation of any computer architecture		[SW1] Assessment of factual knowledge		
	[K6_U41] can produce, test or evaluate software using modern programming platforms, tools, languages and paradigms of different levels, as well as use software packages supporting scientific and research processes as well as business decision-making processes and teamwork		Ability to create software for various ISA platforms		[SU1] Assessment of task fulfilment		

Subject contents	1. ARM, MIPS, DLX processor design process 2. OpenSparc, Leon open VHDL technology 3. EFI shell - modern low level API 4. RAID 5. SATA, eSATA, PCI technology		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Lab	51.0%	50.0%
	Lecture	51.0%	50.0%
Recommended reading	Basic literature	Compute Architecture A Quantitative Approach , 4th.ed, 2007 - Hennessy & Patterson	
	Supplementary literature	Manuals available during the course	
	eResources addresses	Adresy na platformie eNauczanie: Zaawansowane Architektury Komputerowe 2024 - Moodle ID: 35873 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=35873	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		