



Subject card

Subject name and code	Social Aspects of Robotics & Automatic Controls, PG_00064106						
Field of study	Automatic Control, Cybernetics and Robotics						
Date of commencement of studies	February 2027	Academic year of realisation of subject			2027/2028		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study Humanistic-social subject group		
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			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Decision Systems and Robotics -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Michał Czubenko				
	Teachers		dr hab. inż. Michał Czubenko				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	15.0	15.0	45
	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	45		3.0		27.0	75
Subject objectives	The aim of the subject is to familiarize participants with philosophical, psychological, and sociological aspects of the latest technological trends in the field of robotics, automation, and IT. The subject is carried out with the help of Oxford debates (concerning specific theses), student seminar presentations, and quasi-grant projects. The subject may cover topics such as: three laws of robotics, aspects of robot autonomy, and legal issues of artificial intelligence, and many others. The subject has been modernized as part of the IDUB project.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W11] knows and understands, to an increased extent, the general principles of creation and development of forms of individual entrepreneurship and the economic, legal and other conditions of various types of activities related to the awarded qualification, including the principles of protection of industrial property and copyright law		Student has the foundations for performing technical and patent review of solutions; is able to design a project budget; knows contemporary grant programs.		[SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects		
	[K7_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications		Student has the basics of psychological and sociological knowledge in terms of the latest technologies related to ICT.		[SW1] Assessment of factual knowledge		
	[K7_K71] is able to explain the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment		Student can refer to certain socio-psychological values at work. Student can present arguments in a debate.		[SK4] Assessment of communication skills, including language correctness		
	[K7_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems		Student is able to assess the long-term social effects of the aspects of robotization.		[SU5] Assessment of ability to present the results of task [SU2] Assessment of ability to analyse information		

Subject contents	<p>Course content – lecture</p> <p>The following topics will be covered in the course:</p> <ul style="list-style-type: none"> <li>• The introduction of parity in politics and companies will make equality happen.</li> <li>• Widespread access to drugs would reduce the number of addicts.</li> <li>• The publication of false information on the Internet makes people believe it after some time.</li> <li>• Social media makes people more lonely and prone to suicidal depression.</li> <li>• The development of robotics (personal and production) will force us to use exoskeletons in the future.</li> <li>• In the near future, robots will completely replace manual workers in developed countries.</li> <li>• Electric cars are environmentally friendly.</li> </ul>								
Prerequisites and co-requisites	Basic knowledge of Robotics and Artificial Intelligence.								
Assessment methods and criteria	<table border="1" data-bbox="451 495 1477 562"> <thead> <tr> <th data-bbox="451 495 794 528">Subject passing criteria</th> <th data-bbox="794 495 1137 528">Passing threshold</th> <th data-bbox="1137 495 1477 528">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 528 794 562">Assessment of the debate</td> <td data-bbox="794 528 1137 562">60.0%</td> <td data-bbox="1137 528 1477 562">100.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Assessment of the debate	60.0%	100.0%
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Assessment of the debate	60.0%	100.0%							
Recommended reading	Basic literature	<p>Mori, Masahiro, Karl F. MacDorman, and Norri Kageki. "The uncanny valley." <i>Robotics &amp; Automation Magazine</i>, IEEE 19.2 (2012): 98-100. Inoue, Hirochika, et al. "Overview of humanoid robotics project of METI." <i>Proc. of the 32nd ISR</i> (2001). Daisuke Chugo, Sho Yokota "Introduction to Modern Robotics" CreateSpace Independent Publishing Platform (2012)</p>							
	Supplementary literature	<p>Bekey, G. "Current trends in robotics: technology and ethics." <i>Robot ethics: the ethical and social implications of robotics</i>. MIT Press, Cambridge (2012): 17-34. Balaguer, Carlos, and Mohamed Abderrahim. <i>Trends in robotics and automation in construction</i>. INTECH Open Access Publisher, 2008.</p>							
	eResources addresses								
Example issues/ example questions/ tasks being completed									
Practical activities within the subject	Not applicable								

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