GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Social and Psychological Aspects of Robotics & Automatic Controls - Seminar, PG_00047421		
Field of study	Automatic Control, Cybernetics and Robotics		
Date of commencement of studies	October 2022	Academic year of realisation of subject	2023/2024
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	2	Language of instruction	English
Semester of study	3	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Decision Systems and Robotics -> Faculty of Electronics, Telecommunications and Informatics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Michał Czubenko	
	Teachers	dr inż. Michał Czubenko	

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	0.0	0.0	15.0	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	1.0	9.0	25

Subject objectives

The basic aim of the course is to acquaint participants with the philosophical, psychological and sociological aspects of robotics and automation. In particular, issues such as: three laws of robotics, transfer of natural systems to mechanized systems, humanoid currents in robotics, autonomy of robots, and legal issues related to autonomous robots will be raised.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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
[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 the aspect of RiA.	[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.	[SK4] Assessment of communication skills, including language correctness

Subject contents

The subject will cover issues such as:
- the progressive development of artificial intelligence and its impact on society
- humanoid robotics
- can robots have emotions
- development of robotization in the context of human support
- development of vehicle autonomy and its effects
- the loss of society in social media

Prerequisites and co-requisites

Basic knowledge of Robotics and Artificial Intelligence.

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td></td><td>60.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>Mori, Masahiro, Karl F. MacDorman, and Norri Kageki. "The uncanny valley." Robotics & Automation Magazine, IEEE 19.2 (2012): 98-100.
Inoue, Hirochika, et al. "Overview of humanoid robotics project of METI." Proc. of the 32nd ISR (2001).
Daisuke Chugo, Sho Yokota "Introduction to Modern Robotics" CreateSpace Independent Publishing Platform (2012)</td></tr>
<tr><td>Supplementary literature</td><td>Bekey, G. "Current trends in robotics: technology and ethics." Robot ethics: the ethical and social implications of robotics. MIT Press, Cambridge (2012): 17-34.
Balaguer, Carlos, and Mohamed Abderrahim. Trends in robotics and automation in construction. INTECH Open Access Publisher, 2008.</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2"></td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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