



## Subject card

|   |  |  |  |                                     |  |            |     |
|---|--|--|--|-------------------------------------|--|------------|-----|
| Subject name and code                       | Social and Psychological Aspects of Robotics & Automatic Controls, PG_00048422   |  |  |                                     |  |            |     |
| Field of study                              | Automatic Control, Cybernetics and Robotics  |  |  |                                     |  |            |     |
| Date of commencement of studies             | February 2023  |  | Academic year of realisation of subject  |                                     | 2023/2024  |            |     |
| Education level                             | second-cycle studies   |  | Subject group  |                                     | Obligatory subject group in the field of study<br>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   |                                     | 2.0  |            |     |
| 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  | 30.0   | 0.0  | 0.0                                 | 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 aim of the course is to familiarize participants with the philosophical, psychological and sociological aspects of the latest technological trends in the field of robotics, control systems and IT. The classes are based on oxford debates on specific topics. Content such as the three laws of robotics, aspects of robot autonomy, and legal issues of artificial intelligence, and many others may be discussed on the course. The course was modernized as part of the IDUB project.  |  |  |                                     |  |            |     |
| 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<br>[SU2] Assessment of ability to analyse information |            |     |
|   | [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_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  |            |     |
| Subject contents                            | <div>The following topics will be covered in the course:</div> <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.   |  |  |                                     |  |            |     |

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| Assessment methods and criteria                                | Subject passing criteria | Passing threshold   | Percentage of the final grade |
|  | Assessment of the debate | 60.0%   | 100.0%                        |
| Recommended reading  | Basic literature         | 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) |                               |
|  | Supplementary literature | 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.   |                               |
|  | eResources addresses     | Adresy na platformie eNauczanie:  |                               |
| Example issues/<br>example questions/<br>tasks being completed |                          |   |                               |
| Work placement   | Not applicable           |   |                               |