



## Subject card

|   |  |  |   |                                     |  |  |     |
|---|--|--|---|-------------------------------------|--|--|-----|
| Subject name and code                       | Team Project, PG_00033399  |  |   |                                     |  |  |     |
| Field of study                              | Automation, Robotics and Control Systems   |  |   |                                     |  |  |     |
| Date of commencement of studies             | February 2023  | Academic year of realisation of subject                  |   |                                     | 2023/2024  |  |     |
| Education level                             | second-cycle studies   | Subject group  |   |                                     | Optional subject group<br>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                               | 1  | Language of instruction                                  |   |                                     | Polish   |  |     |
| Semester of study                           | 2  | ECTS credits   |   |                                     | 4.0  |  |     |
| Learning profile                            | general academic profile   | Assessment form  |   |                                     | assessment   |  |     |
| Conducting unit                             | Department of Control Engineering -> Faculty of Electrical and Control Engineering   |  |   |                                     |  |  |     |
| Name and surname of lecturer (lecturers)    | Subject supervisor   |  | prof. dr hab. inż. Roman Śmierczalski   |                                     |  |  |     |
|   | Teachers   |  | prof. dr hab. inż. Roman Śmierczalski   |                                     |  |  |     |
| Lesson types and methods of instruction     | Lesson type  | Lecture  | Tutorial  | Laboratory                          | Project  | Seminar  | SUM |
|   | Number of study hours  | 0.0  | 0.0   | 0.0                                 | 60.0   | 0.0  | 60  |
|   | 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  | 60   |   | 15.0                                |  | 25.0   | 100 |
| Subject objectives                          | Student develops a project in the field of automation and robotics. Uses the software and hardware necessary to complete the project, catalogs for equipment selection. It combines knowledge from different areas. Accept work in the group.  |  |   |                                     |  |  |     |
| Learning outcomes                           | Course outcome   |  | Subject outcome   |                                     |  | Method of verification                                     |     |
|   | K7_W14   |  | The student analyses, models and describes the operation of real control objects and designs and implements advanced control algorithms in industrial systems.  |                                     |  | [SW2] Assessment of knowledge contained in presentation    |     |
|   | K7_U13   |  | The student knows and understands the principles of teamwork, raising professional, personal and social competences, is aware of the responsibility for his or her own work and in a team, has the ability to present the results of task implementation. |                                     |  | [SU5] Assessment of ability to present the results of task |     |
|   | K7_U02   |  | The student, working alone or in a teamwork, designs control systems, using dedicated techniques, estimates the scope and time needed to complete the project.  |                                     |  | [SU1] Assessment of task fulfilment                        |     |
| Subject contents                            | Solving the problem of automation and / or robotics. Depending on your task is to develop control algorithms, design and implementation of the selected system automation and robotics, construction and solving technical issues with automation and robotics, control systems design and controls, including alarm systems and security. |  |   |                                     |  |  |     |
| Prerequisites and co-requisites             |  |  |   |                                     |  |  |     |
| Assessment methods and criteria             | Subject passing criteria   |  | Passing threshold   |                                     | Percentage of the final grade  |  |     |
|   | project evaluation   |  | 60.0%   |                                     | 100.0%   |  |     |
| Recommended reading                         | Basic literature   |  | Literature given by lecturer design, adapted to the subject matter.   |                                     |  |  |     |
|   | Supplementary literature   |  | Literature given by lecturer design   |                                     |  |  |     |
|   | eResources addresses   |  | Adresy na platformie eNauczanie:  |                                     |  |  |     |

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| Example issues/<br>example questions/<br>tasks being completed | The current implementation of the project and the implementation phase. The final presentation of the project. |
| Work placement   | Not applicable   |