

| STUDY MODULE DESCRIPTION FORM | | |
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| Name of the module/subject Control Engineering and computing science in industry and | | Code 1010325341010324814 |
| Field of study Electrical Engineering | Profile of study (general academic, practical) (brak) | Year /Semester 2 / 4 |
| Elective path/specialty Electrical and Computer Systems in | Subject offered in: Polish | Course (compulsory, elective) obligatory |
| Cycle of study: Second-cycle studies | Form of study (full-time, part-time) part-time | |
| No. of hours Lecture: 9 Classes: - Laboratory: - Project/seminars: - | | No. of credits 1 |
| Status of the course in the study program (Basic, major, other) (brak) | | (university-wide, from another field) (brak) |
| Education areas and fields of science and art technical sciences | | ECTS distribution (number and %) 1 100% |
| Responsible for subject / lecturer: Dr inż. Jerzy Frąckowiak email: jerzy.frackowiak@put.poznan.pl tel. 616652382 Elektryczny ul. Piotrowo 3A, 60-965 Poznań | | |
| Prerequisites in terms of knowledge, skills and social competencies: | | |
| 1 | Knowledge | Basic knowledge of automation, control theory, PLCs and microcontrollers. |
| 2 | Skills | The ability to understand and interpret the messages conveyed and effective self. |
| 3 | Social competencies | Awareness of the need to broaden their competence. |
| Assumptions and objectives of the course: Knowledge of PLC cooperation with microcontrollers. | | |
| Study outcomes and reference to the educational results for a field of study | | |
| Knowledge: | | |
| 1. knowledge of PLC cooperation with microcontrollers - [K_W08++] | | |
| 2. selected interrupt PLC and microcontroller - [K_W08++] | | |
| Skills: | | |
| 1. use the acquired knowledge to work PLCs and microcontrollers - [K_U15++] | | |
| 2. capacity for independent thinking and creative action - [K_U15++] | | |
| Social competencies: | | |
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| Assessment methods of study outcomes | | |
| Lecture: - final test. | | |
| Course description | | |
| PLCs - serial port, free port transmission mode, the selected interrupt PLC and microcontroller. | | |

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| Basic bibliography: | | |
| 1. Kamiński K.: "Programowanie w Step 7 Microwin", GRYF, Warszawa 2006 | | |
| 2. Dokumentacja sterownika S7-1200 firmy Siemens. | | |
| Additional bibliography: | | |
| 1. Bubnicki Z.: "Teoria i algorytmy sterowania", Wydawnictwo Naukowe PWN, Warszawa 2002. | | |
| Result of average student's workload | | |
| Activity | Time (working hours) | |
| 1. participation in lectures | 8 | |
| 2. consultations for lectures | 6 | |
| 3. preparation for the completion of lectures | 10 | |
| 4. credit lecture | 1 | |
| Student's workload | | |
| Source of workload | hours | ECTS |
| Total workload | 25 | 1 |
| Contact hours | 15 | 1 |
| Practical activities | 0 | 0 |