

FACULTY OF ELECTRICAL  
ENGINEERING**SUBJECT CARD**

Name in Polish: **Praca dyplomowa magisterska**  
 Name in English: **Master's thesis**  
 Main field of study (if applicable): **Control Engineering and Robotics**  
 Specialization (if applicable): **Automation of Machines, Vehicles and Apparatus**  
 Level and form of studies: **2nd level, full-time**  
 Kind of subject: **optional**  
 Subject code: **ARR042159D**  
 Group of courses: **NO**

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU):				180	
Number of hours of total student workload (CNPS):				540	
Form of crediting:				crediting with grade	
For group of courses mark (X) final course:					
Number of ECTS points:				18	
including number of ECTS points for practical (P) classes :				18	
including number of ECTS points for direct teacher-student contact (BK) classes:				12.60	

**PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES****SUBJECT OBJECTIVES****SUBJECT EDUCATIONAL EFFECTS***relating to knowledge:**relating to skills:*

PEK\_U01      xx

PEK\_U02      xx

*relating to social competences:*

PEK\_K01      xx

**PROGRAMME CONTENT**

Form of classes - project		Number of hours:
Proj 1	xx	180
Total hours:		<b>180</b>

**TEACHING TOOLS USED****EVALUATION OF SUBJECT EDUCATIONAL EFFECTS ACHIEVEMENT**

Evaluation <i>F – forming (during semester) P – concluding (at semester end)</i>	Educational effect number	Way of evaluating educational effect achievement
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**PRIMARY AND SECONDARY LITERATURE****PRIMARY LITERATURE:**

- [1] Bubnicki Z., Teoria i algorytmy sterowania, PWN, Warszawa 2002.
- [2] Kaczorek T., Teoria układów regulacji automatycznej, WNT, Warszawa 1977.
- [3] Kaczorek T., Teoria sterowania, T.1. Układy liniowe ciągłe i dyskretne, PWN, Warszawa 1977.
- [4] Kaczorek T., Teoria sterowania, T.2. Układy nieliniowe, procesy stochastyczne. oraz optymalizacja statyczna i dynamiczna, PWN, Warszawa 1981.
- [5] Kaczorek T., Teoria sterowania i systemów. wyd.2 popr., PWN, Warszawa 1996.

**SECONDARY LITERATURE:**

- [1] Philippe de Larminat, Yves Thomas., Automatyka-układy liniowe. T. I, II, III.
- [2] Zbiór zadań i problemów z teorii sterowania. pod red. Zdzisława Bubnickiego, Oficyna Wyd. PWr, Wrocław 1979

**SUBJECT SUPERVISOR**

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MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
**ARR042159D - Master's thesis**  
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY **Control Engineering and Robotics**  
AND SPECIALIZATION **Automation of Machines, Vehicles and Apparatus**

Subject educational effect	Correlation between subject educational effect and educational effects defined for main field of study and specialization (if applicable)	Subject objectives	Programme content	Teaching tool number
PEK_U01	S2AMPU_U14		Proj1	
PEK_U02	S2AMPU_U14		Proj1	
PEK_K01	K2AiR_K04 K2AiR_K06		Proj1	