

FACULTY OF ELECTRICAL
ENGINEERING**SUBJECT CARD**

Name in Polish: **Praca dyplomowa magisterska**
 Name in English: **Master's thesis**
 Main field of study (if applicable): **Industrial Control Engineering**
 Specialization (if applicable): **Automation of Machines, Vehicles and Apparatus**
 Level and form of studies: **2nd level, full-time**
 Kind of subject: **optional**
 Subject code: **APR012159D**
 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 LEARNING OUTCOMES***relating to knowledge:**relating to skills:*

PEU_U01 xx

PEU_U02 xx

relating to social competences:

PEU_K01 xx

PROGRAMME CONTENT

Form of classes - project		Number of hours:
Proj 1	xx	180
Total hours:		180

TEACHING TOOLS USED**EVALUATION OF SUBJECT LEARNING OUTCOMES 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:

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

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

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