

FACULTY OF ELECTRICAL  
ENGINEERING**SUBJECT CARD**

Name in Polish: **Inżynierska praca dyplomowa**  
 Name in English: **Engineering Thesis**  
 Main field of study (if applicable): **Control Engineering and Robotics**  
 Specialization (if applicable):  
 Level and form of studies: **1st level, full-time**  
 Kind of subject: **optional**  
 Subject code: **ARR041059D**  
 Group of courses: **NO**

	Lecture	Classes	Laboratory	Project	Seminar
Number of hours of organized classes in University (ZZU):				135	
Number of hours of total student workload (CNPS):				450	
Form of crediting:				crediting with grade	
For group of courses mark (X) final course:					
Number of ECTS points:				15	
including number of ECTS points for practical (P) classes :				15	
including number of ECTS points for direct teacher-student contact (BK) classes:				10.50	

**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	x	135
Total hours:		<b>135</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] K. Tchoń et al.: "Manipulatory i roboty mobilne: modele, planowanie ruchu, sterowanie", Akademicka Oficyna Wydawnicza PLJ, Warszawa 2000  
[2] M. Spong, M. Vidyasagar : "Dynamika i sterowanie robotów", WNT, Warszawa 1997  
[3] E. Jezierski: "Dynamika robotów" WNT, Warszawa 2006  
[4] Instrukcje do ćwiczeń [http://rab.ict.pwr.wroc.pl/lab\\_010/](http://rab.ict.pwr.wroc.pl/lab_010/)

**SECONDARY LITERATURE:**

- [1] J. J. Craig: „Wprowadzenie do robotyki: mechanika i sterowanie”, WNT, Warszawa 1993  
[2] R. Murray, Z. Li, S. S. Sastry: „A Mathematical Introduction to Robotic Manipulation”, CRC Press, Boca Raton 1994  
[3] Springer Handbook of Robotics: Springer-Verlag, Berlin 2008  
[4] B. Siciliano, et. al.: „Robotics”, Springer-Verlag, London 2009

**SUBJECT SUPERVISOR**

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MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT  
**ARR041059D - Engineering Thesis**  
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY **Control Engineering and Robotics**

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	K1AIR_AMP_U10		Proj1	
PEK_U02	K1AIR_AMP_U10		Proj1	
PEK_K01	K1AiR_K05		Proj1	