

FACULTY OF ELECTRICAL
ENGINEERING**SUBJECT CARD**

Name in Polish: **Praca dyplomowa magisterska**
 Name in English: **Master's thesis**
 Main field of study (if applicable): **Electrical Engineering**
 Specialization (if applicable): **Renewable Energy Sources**
 Level and form of studies: **2nd level, full-time**
 Kind of subject: **optional**
 Subject code: **ELR043159D**
 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:		180

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. Hameyer K., Belmans R.: Numerical modeling and design of electrical machines and devices, WITT Press, Southampton, 1999
2. Di Barbra P., Savini A., Wiak S. : Field models in electricity and magnetism, Springer, 2008
3. Sadiku Matthew N.O. : Numerical techniques in electromagnetics, CRC Press, 2001
4. Jianming Jin: The finite element method in electromagnetics, John Wily & Sons, Inc., 2002
5. Bianchi Nicola: Electrical machine analysis using finite elements, CRC Taylor & Francis Group, 2005.
6. Meunier Gerard : The finite element method for electromagnetic modeling, John Wily & Sons, Inc., 2008
7. Flux 2D v. 11.1, User guide, CEDRAT, 2012

SECONDARY LITERATURE:

1. Champan S.J.: Electric machinery fundamentals, McGraw-Hill, N.Y., 2005
2. Zienkiewicz O.C., Taylor R.L., Zhu J.Z.: The finite element methods: its basis and fundamentals, Elsevier B-H, Amsterdam, 2005

SUBJECT SUPERVISOR

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MATRIX OF CORRELATION BETWEEN EDUCATIONAL EFFECTS FOR SUBJECT
ELR043159D - Master's thesis
AND EDUCATIONAL EFFECTS FOR MAIN FIELD OF STUDY **Electrical Engineering**
AND SPECIALIZATION **Renewable Energy Sources**

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	S2OZE_U12		Proj1	
PEK_U02	S2OZE_U12		Proj1	
PEK_K01	K2ETK_K04 K2ETK_K06		Proj1	