Transilvania University of Braşov, Romania

Study program: Advances Electrical System

Faculty: Electrical Engineering and Computer Science
Study period: 2 years (Master)
Academic year structure: 2 semesters (14 weeks per semester)
Examination sessions (two): winter session (January/February)
summer session (June/July)

Courses per years

Year I

Nr. Crt	Course	Code	Semester I					Semester II				
			C	S	L	P	Cred	C	S	L	P	Cred
01	Numerical methods for electrical systems analysis	SEA101	1		2		6					
02	Measuring, data acquisition and processing systems	SEA102	2		1		6					
03	Electric energy quality monitoring	SEA103	1		1	1	6					
04	Dynamic models for energy conversion	SEA104	1		1	1	6					
05	Electrical power converter's control	SEA105	2		1	1	6					
06	CAD for electrical systems	SEA106						1		2		6
07	Electrical energy storage systems	SEA107						2		1		6
08	Testing to conducted electromagnetic disturbances	SEA108						1		1		6
Optional courses												
09	Energy stability analysis and management **(*)**	SEA109						2		1	1	6
10	Smart electrical grids **(*)**	SEA110						2		1	1	6
11	Electrical equipment and systems for automotive	SEA111						2		1	1	6
12	Power electronics for automotive	SEA112						2		1	1	6

Year II

Nr. Crt	Course	Code	Semester I					Semester II				
			C	S	L	P	Cred	C	S	L	P	Cred
SR Option: ADVANCED ELECTRICAL SYSTEMS FOR RENEWABLE ENERGY CONVERSION (*)												
01	CAD/CAE in power electronics	SEA201	1		1	1						6
02	Micro hydroelectric power plants	SEA202	2		1							6
03	Wind power plants	SEA203	2		1							6
04	Electronic interfaces for power systems	SEA204	1		1	1						6
05	Solar power plants and hybrid energy systems	SEA205	2		1	1						6
SA Option: ADVANCED AUTOMOTIVE ELECTRICAL SYSTEMS												
06	Hybrid/electric vehicle	SEA206										6
07	Energy management in automotive applications	SEA207										6
08	Embedded automotive systems	SEA208										6
09	Safety systems for vehicles	SEA209										6
10	Advanced mechatronic automotive systems	SEA210										6
SQ Option: ADVANCED ELECTRICAL SYSTEMS FOR ENERGY QUALITY ASSURANCE												
11	EMC and environmental policies	SEA211										6
12	Energy balance	SEA212										6
13	Financial and economics for electrical energy systems	SEA213										6
14	Prediction and diagnosis for electrical systems	SEA214										6
15	Efficient solutions for electrical energy utilization	SEA215										6
16	Research practical stage and dissertation	SEA216						10 weeks. X 16 hours = 160 hours				30

(*) – the optional courses elected in 2011/2012