Dunarea de Jos University of Galati

Faculty of Automatics, Computers, Electrical and Electronic Engineering

Domain of study	Level (BA/MA)	Study programme	Year of study (I, II)	Semester (1, 2, 3, 4)	Course title	Credit units
Electrical engineering	MA	Energy efficiency and renewable sources (EERS)	I	1	Integrated systems of electromechanical conversion	7
					Energy management and energy efficiency	8
					Renewable Energy Sources	7
					Optional 1.1	4
					Optional 1.2	4
					Optional 1.1 - 1.2 – 1 semester (choose one discipline from each package)	
					Package A	
					1. Rational use of energy in shipping	
					2. Rational distribution of electrical energy	
					3. Rational use of energy in the steel industry	
					Package B	
					1. Customer relationship management	
					2. Environmental management	
				2	Eco-design of energy conversion systems	4
					Optional 2.1	7
					Optional 2.2	6
					Optional 2.3	7
					Optional 2.4	6
					Optional 2.1 – 2.4 - 2 semester (choose one discipline from each package)	
					Package A	
					1. Electrical installations and marine drives	
					2. Modeling and simulation of power stations	
					3. Installations in the steel industry	
					Package B	

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					1. Marine Electrical Automation	
					2. Protection and automation in electrical networks	
					3. Drives and automation in steel	
					Package C	
					1. Energy audit	
					2. Sources of pollution and combat pollution	
					Package D	
					1. Electrical equipment standardization and legalization	
					2. Power quality and EMC	
Electrical engineering	MA	Energy efficiency and renewable sources (EERS)	II	3	Energy Conversion Systems	5
					Project Management	4
					Methodology and research ethics	4
					Design and implementation control structures for converter-machine systems	5
					Optional 3.1	6
					Optional 3.2	6
					Optional 3.1 – 3.2 - 2 semester (choose one discipline from each package)	
					Package A	
					1. Wind turbines and minihidro	
					2. Hydrogen and fuel cells	
					3. Intelligent power supply systems of buildings	
					Package B	
					1. Cogeneration and trigeneration systems	
					2. Solar and photovoltaic systems	
					3. Energy efficiency and heat of buildings	
				4	Practice activity and / or research and development of dissertation thesis	30
Electrical	MA	Power	I	1	Advanced control techniques	8

engineering		electronics and advanced conversion systems (PEACS)			Renewable Energy Sources	7
					Integrated systems of electromechanical conversion	7
					Energy management and energy efficiency	8
				2	Modeling and simulation of power electronic systems	8
					Signal processors and microcontrollers	5
					Real-time models for the electromechanical conversion	8
					Design principles of electrical and electronic power equipment	4
					Numerical control of static converters	5
Electrical engineering	MA	Power electronics and advanced conversion systems (PEACS)	II	3	Advanced power electronics applications	6
					Principles regarding structure of converter-machine systems	4
					Energy Conversion Systems	5
					Project Management	4
					Methodology and research ethics	5
					Optional 3.1	6
					Optional 3.1 - 3 semester (choose one discipline of 2)	
					1. Design and implementation control structures for converter-machine systems	
					2. Design and implementation control structures for converter-network systems	
				4	Scientific research and development of dissertation thesis	30
Systems engineering	MA	Advanced automatic control informatics systems (AACIS)	I	1	Data monitoring and diagnostics	7
					Adaptive systems	8
					Intelligent automatic control informatics systems	7
					Methodology and research ethics	4
					Design research in advanced automatic control	4
				2	Advanced optimization informatics systems	6

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					Advanced automatic control informatics systems for robots	7
					Robust techniques advanced automatic control	7
					Designing user interfaces in advanced automatic control	6
					Design research in advanced automatic control	4
Systems engineering	MA	Advanced automatic control informatics systems (AACIS)	II	3	Advanced programming in distributed automatic control systems	6
					Computer techniques in the automatic control of hybrid systems	7
					Structures, architectures and programming of real-time advanced automatic control	7
					Advanced automatic control systems in biotechnological processes	6
					Design research in advanced automatic control	4
				4	Design research in advanced automatic control	15
					Development dissertation	15

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Director Departament AIE,
Conf.dr.ing. Ion Voncilă