

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, III, IV)	Semester (1, 2, 3, 4, 5, 6, 7, 8)	Course title	Credit units
Electrical engineering	BA	Electromechanics (EM)	I	1	Linear algebra, analytic geometry and differential	5
					Mathematical Analysis	6
					Chemistry	4
					Computer Programming and Programming Languages I	5
					Computer-Aided Graphics	3
					Methods and technology	4
					English language	2
					Physical Education and Sport	1
				2	Advanced Mathematics	5
					Physics	5
					Materials Mechanics and Strength	4
					Computer Programming and Algorithms II	5
					Physical Essentials of Electro-Techniques	6
					Techniques of Communication	2
English language	2					
Physical Education and Sport	1					
Electrical engineering	BA	Electromechanics (EM)	II	3	Elements of Mechanical Engineering	3
					Probabilities and Statistics	4
					Electric Circuits Theory	6
					Analogic and Digital Electronics I	4
					Electrotechnical Materials	5
					Numerical Methods	4
					Sources of Energy	3
					Physical Education and Sport	1
					Electromagnetic Field Theory	5
					Systems Theory and Automatic Control	5

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				4	Analogic and Digital Electronics II	4
					Power Electronics Converters	5
					Quality and Reliability	2
					Electrical and Electronic Measurements	5
					Physical Education and Sport	1
					Training in Industry	3
Electrical engineering	BA	Electromechanics (EM)	III	5	Programmable Micro-Controllers and Regulators	5
					Electrical Equipment	6
					Electromechanical Converters	6
					Transducers Interfaces and Data Acquisition	5
					Management	3
					Circuit Simulation	5
				6	Electric Power Generation, Transport and Delivery	5
					Electrical Drives	5
					Electromagnetic Compatibility	3
					Hydraulic and Pneumatic Drives	3
					Electrical Systems in Industry	4
					Design of Electromechanical Systems	4
					Automation of Electromechanical Systems	3
Specialty practice	3					
Electrical engineering	BA	Electromechanics (EM)	IV	7	Exploitation of electrical machines	6
					Electric traction	6
					Optional 1.1	4
					Optional 1.2	4
					Optional 1.3	4
					Optional 1.4	4
					Business and Company Management	2
					Optional 1.1 - 1.4 - 7 semester (4 of 8 are selected)	

					1. Household appliances	
					2. Electromechanical Microsystems	
					3. Electrotechnologies	
					4. Flexible Lines and Robots	
					5. Naval electromechanical equipment	
					6. Installations on ships	
					7. Electromechanical equipment autonomous vehicle	
					8. Electric propulsion systems autonomous vehicle	
				8	Business Law	2
					Design of Manufacturing and Maintenance Technologies	4
					Electrothermal Conversion Systems	5
					Electromechanical drive systems	5
					Optional 2.1	5
					Optional 2.2	5
					Graduation Paper Practical Work	4
Optional 2.1-2.2 - 8 semester (it choose 2 of 4)						
1. Modeling and Simulation of Electromechanical Systems						
2. Computer Aided Design of Electromechanical Systems						
3. Power Quality						
4. Data monitoring and diagnostics						
Electrical engineering	BA	Power electronics and electrical drives (PEED)	I	1	Linear algebra, analytic geometry and differential	5
					Mathematical Analysis	6
					Chemistry	4
					Computer Programming and Programming Languages I	5
					Computer-Aided Graphics	3
					Methods and technology	4
					English language	2
					Physical Education and Sport	1

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				2	Advanced Mathematics	5
					Physics	5
					Materials Mechanics and Strength	4
					Computer Programming and Algorithms II	5
					Physical Essentials of Electro-Techniques	6
					Techniques of Communication	2
					English language	2
					Physical Education and Sport	1
Electrical engineering	BA	Power electronics and electrical drives (PEED)	II	3	Elements of Mechanical Engineering	3
					Probabilities and Statistics	4
					Electric Circuits Theory	6
					Analogic and Digital Electronics I	4
					Electrotechnical Materials	5
					Numerical Methods	4
					Sources of Energy	3
					Physical Education and Sport	1
				4	Electromagnetic Field Theory	5
					Systems Theory and Automatic Control	5
					Analogic and Digital Electronics II	4
					Power Electronics Converters	5
					Quality and Reliability	2
					Electrical and Electronic Measurements	5
Physical Education and Sport	1					
Training in Industry	3					
Electrical engineering	BA	Power electronics and electrical drives (PEED)	III	5	Programmable Micro-Controllers and Regulators	5
					Electrical Equipment	5
					Electromechanical Converters	6
					Transducers Interfaces and Data Acquisition	5

					Management	3
					Analysis and synthesis of electrical circuits	3
					Design of power electronic circuit	3
				6	Electric Power Generation, Transport and Delivery	5
					Electrical Drives	5
					Electromagnetic Compatibility	3
					Hydraulic and Pneumatic Drives	3
					Static converters command	5
					Dynamic regime of electrical machines	3
					Signal processing	3
Specialty practice	3					
Electrical engineering	BA	Power electronics and electrical drives (PEED)	IV	7	The Control of Electrical Driving System	6
					Electric traction	5
					Control of Fast Processes	5
					Business and Company Management	2
					Optional 1.1	6
					Optional 1.2	6
					Optional 1.1 - 1.2 – 7 semester (it choose 2 of 6)	
					1. Modeling and simulation of static converters	
					2. Optimum structures of static conversion	
					3. Advanced applications of static converters	
				4. Forward control of static converters		
				5. Data Communications		
				6. Computer-Aided Design of Static Converters		
				8	Business Law	2
Optional 2.1	6					
Optional 2.2	6					
Optional 2.3	6					

					Optional 2.4	6
					Graduation Paper Practical Work	4
					Optional 2.1-2.4 - 8 semester (two disciplines are chosen each of the 3 sub package with the same structure (courses, applications))	
					Sub package 1	
					1. Modeling, identification and simulation of electrical drives	
					2. Static Converters for Power Quality Improvement	
					3. Computer-Aided Design of Electrical Drives	
					Sub package 2	
					1. Servo-mechanisms	
					2. Advanced Control of Electrical Drives	
					3. Optimal Control of Electrical Drives	
Systems engineering	BA	Automation and Applied Informatics (AAI)	I	1	Mathematical Analysis	4
					Linear algebra, analytic geometry and differential	4
					Computer Programming in C	5
					Modeling physicochemical processes	5
					Computer-Aided Graphics	3
					Electrotechnics	6
					Optional 1.1	2
					Optional 1.2	1
					Optional 1.1 - 1.2 – 1 semester (choosing one discipline of the 2 of each package)	
					Package A	
					1. English language	
					2. French language	
					Package B	
					1. Physical Education	
2. Team sport						

				2	Advanced Mathematics	5
					Object-oriented programming languages	5
					Physics	5
					Numerical methods, parallel and distributed computing	5
					Mechanics	3
					Mechatronics and Robotics	4
					Optional 2.1	2
					Optional 2.2	1
					Optional 2.1 - 2.2 - 2 semester - is the continuation of disciplines in each particular package choosing in 1 semester	
Systems engineering	BA	Automation and Applied Informatics (AAI)	II	3	Programming in assembler language	4
					Operating systems	4
					Analog Electronics	4
					Programming in Java	4
					Digital Electronics	5+2
					Data processing techniques	4
					Optional 1.1	2
					Optional 1.2	1
					Optional 1.1 - 1.2 – 1 semester (choosing one discipline of the 2 of each package)	
					Package A	
				1. English language		
				2. French language		
				Package B		
				1. Physical Education		
				2. Team sport		
				4	Structure and computer architecture	4
Computer Networks	4					
Algorithms and programming techniques	3					

					Database	4
					Electronic Measurements and Transducers	4
					Basics of automated systems I	5
					Practice (3 weeks)	3
					Optional 2.1	2
					Optional 2.2	1
					Optional 2.1 - 2.2 – 2 semester - is the continuation of disciplines in each particular package choosing in 1 semester	
Systems engineering	BA	Automation and Applied Informatics (AAI)	III	5	Systems theory in structural approach	4
					Microprocessor Systems	4+2
					Basics of automated systems II	5
					Dynamic systems with discrete event	4
					Adjustable electric machines and drives	2
					Data acquisition systems	4
					Optional 1.1	5
					Optional - 1 semester (choose one discipline of the two disciplines of package A)	
				Package A		
				1. Modeling of robotic manipulators and mobile robots		
				2. Basics of artificial intelligence		
				6	Microcontrollers and PLCs	4
					User interface design	3+1
					Systems identification	4
					Computer optimization techniques	3+1
Systems theory in frequencial approach	5					
Practice (3 weeks)	4					
Optional 2.1	5					
Optional - 2 semester (choose one discipline of the two disciplines						

				of package B)		
				Package B		
				1. Robot simulators		
				2. Neural systems		
Systems engineering	BA	Automation and Applied Informatics (AAI)	IV	7	Programmable Logic Controllers (PLCs)	4+1
					Automated Systems Engineering	5+1
					Reliability and diagnosis automatic systems	5
					Adaptive control techniques	5
					Management and Marketing	4
					Optional 1.1	5
					Optional - 1 semester (choose one discipline of the two disciplines of package A)	
					Package A	
					1. Automatic control of mobile robots and robotic manipulators	
					2. Neural techniques in process automatic control	
			IV	8	Real-time operating systems	4
					Data communication in distributed systems	4
					Optimal control techniques	4
					Digital signal processors	4
					Practice Diploma Project (2 weeks)	4
					Optional 2.1	5
					Optional 2.2	5
					Optional 2.1 - 2.2 – 2 semester - (choose one discipline of the two disciplines from each sub package of package B)	
					Package B	
					Sub package 1	
1. Control of nonlinear systems						
2. Multi-agent systems and process control applications						

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					<i>Sub pachage 2</i>
					1. Automatic control systems for flexible lines and robots
					2. Fuzzy techniques in process automatic control

20.12.2016

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