

**UNIVERSITY OF ORADEA**  
**FACULTY OF ELECTRICAL ENGINEERING AND INFORMATION TECHNOLOGY**  
 Licence's Degree Program: **AUTOMATICS AND APPLIED INFORMATICS**  
 Fundamental Field: **ENGINEERING SCIENCES**  
 Undergraduate Field: **CONTROL SYSTEMS ENGINEERING**  
 Duration of studies / no. of credits: **4 years/240 credits**  
 Type of education: **Full-time learning (IF)**

Valid from academic year  
 2023-2024  
 Beginning with 1<sup>st</sup> year of  
 study

**CURRICULUM \*\***  
**Year of study I**

Code	Disciplines*	Type	Sem. I [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	<b>OBLIGATORII IMPUSE</b>										
IETI-0002	Linear algebra, analytical and differential geometry	FD	2	2	-	-	56	Ex	4	44	
IETI-0003	Mathematical Analysis	FD	2	2	-	-	56	Ex	4	44	
IETI-0013	Physics	FD	2	2	-	-	56	Ex	4	44	
IETI-0783	Computer programming and programming languages I	FD	2	-	2	-	56	Vp	4	44	
IETI-0990	Mechanics	DD	2	-	1	-	42	Ex	4	58	
IETI-0769	Applied informatics	FD	2	-	2	-	56	Vp	5	69	
IETI-1086	Analysis and synthesis of digital devices	DD	2	-	1	-	42	Vp	3	33	
	<b>TOTAL</b>		<b>14</b>	<b>6</b>	<b>6</b>	<b>-</b>	<b>364</b>		<b>28</b>	<b>336</b>	
	<b>OBLIGATORII OPȚIONALE</b>										
IETI-0548	Modern languages I	CD	-	1	-	-	14	Vp	2	36	
	<b>TOTAL</b>		<b>-</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>14</b>		<b>2</b>	<b>36</b>	
IETI-0999	Physical Education and Sport I	CD	-	1	-	-	14	A/R	1	11	
	<b>FACULTATIVE</b>										
IETI-0518	History of science and civilization	CD	2	1	-	-	42	Vp	3	33	

Code	Disciplines*	Type	Sem. II [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	<b>OBLIGATORII IMPUSE</b>										
IETI-0009	Special mathematics	FD	2	2	-	-	56	Ex	4	44	
IETI-1085	Theory of probability and mathematical statistics	FD	2	1	-	-	42	Vp	3	33	
IETI-0785	Computer programming and programming languages II	FD	2	-	2	-	56	Ex	5	69	
IETI-0262	Electrotechnics I	DD	2	1	1	-	56	Ex	5	69	
IETI-0991	Linear electronic circuits I	DD	2	-	1	-	42	Ex	4	58	
IETI-0193	Computer aided graphics	FD	2	-	2	-	56	Vp	3	19	
IETI-0799	Operating systems in automation	SD	2	-	1	-	42	Vp	4	58	
	<b>TOTAL</b>		<b>14</b>	<b>4</b>	<b>7</b>	<b>-</b>	<b>350</b>		<b>28</b>	<b>350</b>	
	<b>OBLIGATORII OPȚIONALE</b>										
IETI-0549	Modern Languages II	CD	-	1	-	-	14	Vp	2	36	
	<b>TOTAL</b>		<b>-</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>14</b>		<b>2</b>	<b>36</b>	
IETI-1000	Physical Education and Sport II	CD	-	1	-	-	14	A/R	1	11	

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**CURRICULUM \*\***  
**Year of study II**

Code	Disciplines*	Type	Sem. III [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	<b>OBLIGATORII IMPUSE</b>										
IETI-0132	Object Oriented Programming	SD	2	-	1	-	42	Ex	4	58	
IETI-0479	Systems theory I	DD	2	2	-	-	56	Ex	5	69	
IETI-0993	Measurements and transducers	DD	2	-	1	-	42	Ex	3	33	
IETI-0263	Electrotechnics II	DD	2	1	1	-	56	Ex	5	69	
IETI-0116	Digital Electronics I	DD	2	-	1	-	42	Ex	3	33	
IETI-0992	Linear electronic circuits II	DD	2	-	1	-	42	Vp	4	58	
IETI-0210	Numerical methods	FD	2	-	2	-	56	Vp	4	44	
	<b>TOTAL</b>		<b>14</b>	<b>3</b>	<b>7</b>	<b>-</b>	<b>336</b>		<b>28</b>	<b>364</b>	
	<b>OBLIGATORII OPȚIONALE</b>										
IETI-0542	Foreign Language III	CD	-	1	-	-	14	Vp	2	36	
	<b>TOTAL</b>		<b>-</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>14</b>		<b>2</b>	<b>36</b>	
IETI-1003	Physical Education and Sport III	CD	-	1	-	-	14	A/R	1	11	

Code	Disciplines*	Type	Sem. IV [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	<b>OBLIGATORII IMPUSE</b>										
IETI-0480	Systems theory II	DD	2	2	1	-	70	Ex	4	30	
IETI-0117	Digital Electronics II	DD	2	-	1	-	42	Ex	3	33	
IETI-1087	Signal processing	SD	2	-	1	-	42	Vp	3	33	
IETI-0264	Industrial electrotechnics	SD	2	-	1	-	42	Ex	3	33	
IETI-0360	Computer Architectures	DD	2	-	1	-	42	Ex	3	33	
IETI-0445	Computer aided design in automation	SD	2	-	1	1	56	Vp	4	44	
IETI-0318	Power electronics	SD	2	-	1	-	42	Ex	3	33	
IETI-1017	Domain practice	DD	-	-	-	-	90	Cv	4	10	
	<b>TOTAL</b>		<b>14</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>426</b>		<b>27</b>	<b>249</b>	
	<b>OBLIGATORII OPȚIONALE</b>										
	PACHET 1										
IETI-0544	Foreign Language IV	CD	-	1	-	-	14	Vp	2	36	
	PACHET 2										
IETI-1108	Academic Ethics and Integrity	CD	1	-	-	-	14	Vp	1	11	
IETI-0487	Communication	CD	1	-	-	-	14	Vp	1	11	

	<b>TOTAL</b>		<b>1</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>28</b>		<b>3</b>	<b>47</b>	
IETI-1006	Physical Education and Sport IV	CD	-	1	-	-	14	A/R	1	11	
	<b>FACULTATIVE</b>										
IETI-0573	Sociology	CD	2	1	-	-	42	Vp	3	33	

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**Head of department ,  
Professor Dr. Helga SILAGHI**

**RECTOR,  
Professor Dr. BUNGĂU Constantin**

**DEAN,  
Professor dr. HATHAZI Francisc Ioan**

CURRICULUM \*\*  
 Year of study III

Code	Disciplines*	Type	Sem. V [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
IETI-0148	Microprocessor' s systems I	DD	2	-	1	-	42	Ex	4	58	
IETI-0994	Modelling, identification and simulation	DD	2	-	2	-	56	Vp	5	69	
IETI-1041	Electric servosystems	SD	2	-	1	-	42	Ex	3	33	
IETI-0996	Electrical machines and drives I	DD	2	-	2	-	56	Ex	5	69	
IETI-0424	Experimentally systems identification	SD	2	-	2	-	56	Ex	5	69	
	TOTAL		10	-	8	-	252		22	298	
	OBLIGATORII OP "IONALE										
	PACHET 1										
IETI-0421	Electro-hydro-pneumatic equipments in automation	SD	2	-	2	-	56	Vp	4	44	
IETI-0131	Real time programming	SD	2	-	2	-	56	Vp	4	44	
	PACHET 2										
IETI-0478	Web technologies	DD	2	-	2	-	56	Vp	4	44	
IETI-0449	Computer networks	DD	2	-	2	-	56	Vp	4	44	
	TOTAL		4	-	4	-	112		8	88	
	FACULTATIVE										
IETI-0804	Foreign language V	CD	-	2	-	-	28	Vp	2	22	

Code	Disciplines*	Type	Sem. VI [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
IETI-0149	Microprocessor' s systems II	DD	2	-	1	-	42	Vp	4	58	
IETI-0430	Control systems engineering I	DD	2	-	1	-	42	Ex	3	33	
IETI-0440	Microcontrollers in automatics	SD	2	-	2	-	56	Ex	4	44	
IETI-0997	Electrical machines and drives II	DD	2	-	2	1	70	Ex	5	55	
IETI-1038	Specialty practice	SD	-	-	-	-	90	Cv	4	10	
	TOTAL		8	-	6	1	300		20	200	
	OBLIGATORII OP "IONALE										
	PACHET 1										
IETI-1039	Programmable logic controllers and microprogramming	DD	2	-	2	1	70	Ex	4	30	
IETI-0123	Software engineering	DD	2	-	2	1	70	Ex	4	30	
	PACHET 2										
IETI-0802	Automatic systems	DD	2	-	1	-	42	Vp	3	33	
IETI-1088	Dynamic systems with discrete events	DD	2	-	1	-	42	Vp	3	33	
	PACHET 3										
IETI-0504	General Economics	CD	2	1	-	-	42	Vp	3	33	
IETI-0497	Business law	CD	2	1	-	-	42	Vp	3	33	
	TOTAL		6	1	3	1	154		10	96	
	FACULTATIVE										
IETI-0638	Work science and human resources	CD	2	2	-	-	56	Vp	3	19	
IETI-0805	Foreign language VI	CD	-	2	-	-	28	Vp	2	22	

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CURRICULUM \*\*  
 Year of study IV

Code	Disciplines*	Type	Sem. VII [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
IETI-0454	Adaptive and optimal systems	SD	2	-	2	-	56	Vp	4	44	
IETI-0431	Control systems engineering II	DD	2	-	2	1	70	Ex	6	80	
IETI-0453	Robotics	DD	2	-	2	-	56	Ex	5	69	
IETI-0423	Automatic systems reliability	SD	2	-	-	1	42	Ex	4	58	
IETI-0552	Management	CD	2	-	1	-	42	Vp	3	33	
	TOTAL		10	-	7	2	266		22	284	
	OBLIGATORII OP "IONALE										
	PACHET 1										
IETI-0434	Process interfaces	SD	2	-	1	-	42	Vp	3	33	
IETI-0267	Virtual instrumentation	SD	2	-	1	-	42	Vp	3	33	
	PACHET 2										
IETI-0418	Energy quality in electrical drives systems	SD	2	-	1	1	56	Ex	5	69	
IETI-0462	Command and control systems for electrical drives	SD	2	-	1	1	56	Ex	5	69	
	TOTAL		4	-	2	1	98		8	102	
	FACULTATIVE										
IETI-0439	Scientific research methodology	SD	2	-	-	1	42	Vp	3	33	

Code	Disciplines*	Type	Sem. VIII [hours / week]				Total of hours / sem.	Type of Exami- nation	Cre- dits	IS [hours / sem.]	Condi- tioning
			C	S	L	P					
	OBLIGATORII IMPUSE										
IETI-0419	Industrial robots control	SD	2	-	1	1	56	Vp	4	44	
IETI-0426	Control systems informatics	SD	3	-	1	1	70	Ex	5	55	
IETI-0806	Practice for diploma project development	SD	-	-	-	-	60	Vp	6	90	
IETI-1045	Diploma project elaboration	SD	-	-	-	4	56	Vp	4	44	
	TOTAL		5	-	2	6	242		19	233	
	OBLIGATORII OP "IONALE										
	PACHET 1										
IETI-0473	Industrial informatic systems	SD	2	-	2	-	56	Vp	4	44	
IETI-0425	Biomedical informatics	SD	2	-	2	-	56	Vp	4	44	
	PACHET 2										
IETI-0433	Artificial Intelligence	SD	3	-	1	-	56	Ex	3	19	
IETI-0471	Fuzzy systems and neuronal networks	SD	3	-	1	-	56	Ex	3	19	
	PACHET 3										
IETI-0467	Advanced control systems	SD	3	-	2	-	70	Ex	4	30	
IETI-0463	Distributed control systems	SD	3	-	2	-	70	Ex	4	30	
	TOTAL		8	-	5	-	182		11	93	
	FACULTATIVE										
IETI-0432	Production systems engineering	SD	2	2	-	-	56	Vp	3	19	
IETI-0435	Inventions	SD	2	2	-	-	56	Vp	3	19	

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