



# CURRICULUM

(Enrollment 2019)

**APPROVED**

by Rector of Igor Sikorsky Kyiv Polytechnic Institute

Level Master

Form of study full-time  
(full-time, part-time)

Michael Zgurovsky

Speciality Electric power engineering, electrical engineering and electromechanics

Faculty (Institute) Faculty of electric power engineering and automatics

2019

Educational and professional program Electromechanical Automation Systems, Electrical Drive and Electromobility

Qualification Master in electric power engineering, electrical engineering and electromechanics

Graduation Department Department of Automation of Electromechanical Systems and Electrical Drives

Study duration 1 year 4 months

Base level Bachelor degree

## I. Schedule of educational process

YEAR	September				October				November				December				January				January				March				April				May				June				July				August							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
I																																																				
II	P	P	P	P	P	P	P	P	R	R	R	R	R	R	R	R	A																																			

Symbols: ■ Learning period E Examination P Practice R Research A Assessment H Holiday

## II. Summary table of time budget (Weeks)

YEAR	Learning period	Examination	Practice	Assessment	Research	Holiday	Total
I	36	4				12	52
II			8		10		18

## III. Practice

Type of practice	YEAR	Weeks
Pre-diploma Practice	II	8

## IV. Graduates assessment

Subjects	Form of graduates assessment (exam, graduation project)	YEAR
Master's Thesis Implementation	Defence of Master's Thesis	II

## V. Plan of Educational process

Code	Subjects	Distribution for terms (semesters)				ECTS Credits	Number of hours					
		Exams	Final tests	Course projects	Coursework		Total	Lectures/practical lessons			Self-study	
								Lectures	Practical	Laboratory		
1	2	3	4	5	6	7	8	9	10	11	12	
<b>I. GENERAL TRAINING</b>												
<b>I.1. Basic training (major courses)</b>												
ZO1	Patenting and Intellectual Property		2			3	90	36	18		36	
<b>total number of part I.1</b>			1			3	90	36	18		36	
<b>I.2. Basic training (optional courses)</b>												
ZV1	Sustainable Development Problems		2			2	60	18	18		24	
ZV2	Management		1			3	90	18	36		36	
ZV3	Practical Training in Foreign Language Professional Communication		2			3	90		72		18	
<b>total number of part I.3</b>			3			8	240	36	126		78	
<b>I.3. Science Research (optional courses)</b>												
<b>Scientific Work on Master Thesis</b>												
ZV4	I. Basics of the Scientific Research		1			2	60	9	18		33	
ZV5	II. Research Work on Master Thesis		2			2	60		18		42	
ZV6	Research Practice		3			9	270				270	
ZV7	Master Thesis					21	630				630	
<b>total number of part I.3</b>			3			34	1020	9	36		975	
<b>TOTAL IN GENERAL TRAINING</b>			7			45,0	1350	81,0	180,0		1089	
<b>II. VOCATIONAL TRAINING</b>												
<b>II.1. Vocational and practical training (major courses)</b>												
PV1	Electromechanical Systems in Green Technologies		1			5	150	54		18	78	
PV2	Numeric and Motion Control Systems	1				6,5	195	72		18	105	
PV3	Robust and Adaptive Control in Electromechanical Systems	2				4	120	54			66	
PV4	Electromechanical systems of Electric Vehicles	2		2		4,5	135	36			99	
PV5	Advanced Digital Signal Processing	1				5	150	54		18	78	
PV6	Integrated Automation Systems	2				4,5	135	36		27	72	
PV7	Interdisciplinary research of Electromechanical Systems		2			3,5	105	18	27		60	
PV8	Optimal and Intelligent Control Systems		2			5	150	54	18	18	60	
PV9	Control and Automation of Technical Systems	1		1		7	210	54		18	138	
<b>total number of part II.1</b>		6	3	2		45,0	1350	432	45	117	756	
<b>TOTAL IN VOCATIONAL TRAINING</b>		6	3	2		45,0	1350	432	45	117	756	
<b>TOTAL</b>		6	10	2		90,0	2700	513	225	117	1845	

Approved by Faculty Academic Council, Meeting protocol №\_9 from April 25, 2019

Head of the Department \_\_\_\_\_ / Sergey Peresada /

Dean of the Faculty \_\_\_\_\_ / Oleksandr Yandulsky /