



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 scientific 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 9 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																			E	E	H	H																														
II																			E	E	H	H	P	P	P	P	P	P	R	R	R	R	R	R	R	R	R	R	R	R	A											

Symbols: Learning period (yellow), Examination (E), Practice (P), Research (R), Assessment (A), Holiday (H)

II. Summary table of time budget (Weeks)

YEAR	Learning period	Examination	Practice	Assessment	Research	Holiday	Total
I	36	4				12	52
II	18	2	5		12	2	39

III. Practice

Type of practice	YEAR	Weeks
Pre-diploma Practice	II	5

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
I. GENERAL TRAINING											
I.1. Basic training (major courses)											
ZO1	Patenting and Intellectual Property		2			3	90	36	18		36
ZO2	Process Control	3				6	180	54	36		90
ZO3	Robust and Adaptive Control Systems	3			3	6	180	54	18		108
total number of part I.1		2	1		1	15	450	144	72		234
I.2. Basic training (optional courses)											
ZV1	Sustainable Development Problems		2			2	60	18	18		24
ZV2	Pedagogics		3			2	60	18	12		30
ZV3	Innovation management		1			3	90	18	36		36
ZV4	Practical Training in Foreign Language Professional Communication		2,3			4,5	135		108		27
total number of part I.3			5			11,5	345	54	174		117
I.3. Science Research (optional courses)											
	Scientific Work on Master Thesis										
ZO1	I. Basics of the Scientific Research		1			2	60	9	18		33
ZO2	II. Research Work on Master Thesis		2,3			5,5	165		18		147
ZO3	Research Practice		4			9	270				270
ZO4	Master Thesis					21	630				630
total number of part I.3			4			37,5	1125	9	36		1080
TOTAL IN GENERAL TRAINING		2	10		1	64	1920	207	282		1431
II. VOCATIONAL TRAINING											
II.1. Vocational and practical training (major courses)											
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	Electrodynamics Methods in Electrical Engineering and Electromechanics		3			5	150	36	18	18	78
PV4	Robust and Adaptive Control in Electromechanical Systems	2				4	120	54			66
PV5	Electromechanical systems of Electric Vehicles	2		2		4,5	135	36			99
PV6	Advanced Digital Signal Processing	1				5	150	54		18	78
PV7	Integrated Automation Systems	2				4,5	135	36		27	72
PV8	Interdisciplinary research of Electromechanical Systems		2			3,5	105	18	27		60
PV9	Scientific Interdisciplinary research of Electromechanical Systems	3				6	180	18	36		126
PV10	Optimal and Intelligent Control Systems		2			5	150	54	18	18	60
PV11	Control and Automation of Technical Systems	1		1		7	210	54		18	138
total number of part II.1		7	4	2		56	1680	486	99	135	960
TOTAL IN VOCATIONAL TRAINING		7	4	2		56	1680	486	99	135	960
TOTAL		9	14	2	1	120	3600	693	381	135	2391

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

Head of the Department _____ / Sergey Peresada /

Dean of the Faculty _____ / Oleksandr Yandulsky /