



**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE**  
**National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"**

**CURRICULUM**

(Enrolment 2021)

**APPROVED**

by University Academic Council by  
 Igor Sikorsky Kyiv Polytechnic Institute  
 \_\_\_\_\_ 2021  
 Meeting protocol № \_\_\_\_\_  
 Head of Academic Council  
 \_\_\_\_\_ Mykhailo ILCHENKO

Level Master

Speciality Automation and Computer Integrated Technologies

Education and Profesional program  
Automation and computer-integrated technologies of cyber-energy systems

Graduation Department Automation of heat-and-power engineering processes

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

Faculty Heat Power Engineer  
Master in Automation and  
Computer-Integrated  
Technologies

Qualification  
 Study duration 1 year 4 months

Base level Bachelor degree

**I. Schedule of educational process**

YEAR	September				October					November					December				January					February					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	P	P	P	P	P	P	P	P	P	R	R	R	R	R	R	A	A	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
Practice	3	8

**IV. Graduates assessment**

Bachelor Thesis	Form of graduates assessment (exam, graduation project)	YEAR
Master Thesis	Graduation project	2

**V. Plan of Educational process**

Code	Educational Components	Distribution for terms (semesters)				ECTS Credits	Number of hours				
		Exams	Final tests	Individual task	Module test		Total	Lectures/practical lessons			Self-study
								Lectures	Practical	Laboratory	
1	2	3	4	5	6	7	8	10	11	12	13
<b>1. Compulsory educational Components</b>											
<b>1.1. General training cycle</b>											
GC1	Intellectual property and patent science		1		1	3	90	36	18		36
GC2	Sustainable innovative development		1		1	2	60	18	18		24
GC3	Practical course of foreign language business communication		2	1	1	3	90		72		18
GC4	Management of startup projects		2		2	3	90	18	36		36
GC5	Modern Automatic Control Theory	1			1	4	120	18		36	66
<b>Total number of part 1.1</b>		<b>1</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>15</b>	<b>450</b>	<b>90</b>	<b>144</b>	<b>36</b>	<b>180</b>
<b>1.2. Vocational training cycle</b>											
VC1	Modern methods and algorithms of automatic control systems		2	2	2	4.5	135	18		36	81
VC2	Automation of industrial productions		1		1	4	120	18		36	66
VC3	Course work on automation of industrial production		1			1	30				30
VC4	Programming in automated control systems	1		1	1	6.5	195	18		72	105
VC5	Technologies of modern cyberphysical systems	1		1	1	6	180	36		36	108
<b>Research (scientific) component</b>											
VC6	Scientific Research		1,2			4	120	9	36		75
VC7	Practice		3			14	420				420
VC8	Master Thesis Implementation					12	360				360

<b>Total number of part 1.2</b>		<b>2</b>	<b>6</b>	<b>3</b>	<b>4</b>	<b>52.0</b>	<b>1560</b>	<b>99</b>	<b>36</b>	<b>180</b>	<b>1245</b>
<b>TOTAL IN SELECTIVE educational Components</b>		<b>3</b>	<b>10</b>	<b>4</b>	<b>9</b>	<b>67</b>	<b>2010</b>	<b>189</b>	<b>180</b>	<b>216</b>	<b>1425</b>
<b>2. SELECTIVE educational Components</b>											
<b>2.2. Vocational training cycle (Selective subjects from Faculty catalogue)</b>											
VS1	Educational Component 1 F-Catalog	2			2	5	150	18		36	96
VS2	Educational Component 2 F-Catalog	2			2	5	150	18		36	96
VS3	Educational Component 3 F-Catalog	2			2	5	150	18		36	96
VS4	Educational Component 4 F-Catalog		2		2	4	120	18		36	66
VS5	Educational Component 5 F-Catalog		2		2	4	120	18		36	66
<b>Total number of part 2.2</b>		<b>3</b>	<b>2</b>		<b>5</b>	<b>23</b>	<b>690</b>	<b>90</b>		<b>180</b>	<b>420</b>
<b>TOTAL IN SELECTIVE educational Components</b>		<b>3</b>	<b>2</b>		<b>5</b>	<b>23</b>	<b>690</b>	<b>90</b>		<b>180</b>	<b>420</b>
<b>TOTAL</b>		<b>6</b>	<b>12</b>	<b>4</b>	<b>14</b>	<b>90</b>	<b>2700</b>	<b>279</b>	<b>180</b>	<b>396</b>	<b>1845</b>

Head of SMC \_\_\_\_\_ / Anatoliy ZHUCHENKO /

Head of the Department \_\_\_\_\_ / Volodymyr VOLOSCHUK /      Dean of the Faculty \_\_\_\_\_ / Yevhen PYSMENNYI /