

Classrooms and laboratories of the Department of Applied Hydroaeromechanics and Mechanotronics for lectures, laboratory and practical classes

№	Auditorium, build	Number of workplaces (**) Equipment	Specialized didactic equipment	Disciplines (lectures)	Disciplines (laboratory / practical workshops, consultations)
1	300-1 , build 1, Area: 119 m2 Lecture auditory Educational and scientific laboratory of The Discrete Control Systems The 1st prize “The Best Classroom’2009”	Lecture (65) Practice (24) Lab work (24) Whiteboard; kit of magnetic pics for electrical diagrams; kit of magnetic pics for the pneumatic/ hydraulic diagrams; the overhead projector with transparencies	8 didactic stands FESTO “Blue Line” with equipment, supply power units and compressors FESTO Didactic kits: Pneumatics P111, P121, P122, Electro-pneumatics EP211, EP222, EP232 (Germany), Hydraulic unit with transparent models for the flow visualization Cutted models of hydraulic and pneumatic units	Fundamentals of Mathematical Modeling of Multi-Physics Systems Discrete-logic Automatic Control Systems Fundamentals of Hydraulic Control Systems Units Design of Automated Mechanical Systems Hydraulic Control Systems Features of Automated Mechanical Systems Design Hydraulic drive with proportional control Machine-building hydraulic drive Electric hydraulic drive	Discrete-logic Automatic Control Systems , Pneumatic automation, Electro-pneumatic automation, Elective disciplines
2	300-a , build 1, Area: 42 m2 Lecture and practical auditory Educational and scientific laboratory of Electro-Hydroautomatics and Hydraulic Drive	Lecture (24) Practice (24) Lab work (16) Two-section white magnetic board,	4 didactic stands FESTO “Blue Line” with equipment, supply power units and pump stations FESTO Didactic kits: Hydraulics H411, H412, Electro-hydraulics EH511, EH521, EH522 (Germany),	Hydraulic Control Systems Machine-building hydraulic drive Electric hydraulic drive Fundamentals of Hydraulic Control Systems	Discrete-logic Automatic Control Systems Fundamentals of Hydraulic Control Systems Hydraulic Control Systems Machine-building

		applications, display screen, cadascop	Cutted models of hydraulic units		hydraulic drive Electric hydraulic drive Fundamentals of Hydraulic Control Systems Discrete-logic Automatic Control Systems Elective disciplines
3	277-1 , build 1, Area: 184,2 m2	Lecture (100) (Holding streaming lectures and events) White magnetic board, applications, display screen		Fundamentals of Computer Aided Design and Engineering Fundamentals of Industrial Electric Drive Technology of Mechanical Engineering Fundamentals of Mathematical Modeling of Multi-Physics Systems Discrete-logic Automatic Control Systems	
4	299-2 , build 1, Area: 25,4 m2	Lecture (24) Practice (24) White magnetic board, applications, display screen, cadascop		Computer Aided Design and Engineering Scientific work on the topic of master's thesis	Consultations
5	299-3 , build 1, Area: 25,6 m2	Lecture (24) Practice (24) White magnetic board, applications, display screen, cadascop		Electric Drive with Programmable Control Scientific work on the topic of master's thesis	Consultations
6	299-5 , build 1, Area: 33 m2	Lecture (24)	Computer classroom, models of hydraulic drive devices and	Fundamentals of Mathematical Modeling	Fundamentals of Computer Aided

	<p>Lecture and practical auditory</p> <p>Educational and scientific laboratory of Computer-Aided Design and Engineering</p>	<p>Practice (24)</p> <p>Lab work (12)</p> <p>White magnetic board, applications, display screen, multi-media</p>	<p>units (Hydrosila Group), models of structural elements of mechanical systems</p> <p>Demo versions: Fluidsim, NX-8, MathLab</p>	<p>of Multi-Physics Systems Computer Aided Design and Engineering Features of Automated Mechanical Systems Design</p> <p>Elective disciplines of hydraulic profile</p>	<p>Design and Engineering Units Design of Automated Mechanical Systems</p> <p>Elective disciplines of hydraulic profile</p> <p>Elective disciplines of logistics profile</p>
7	<p>299-6 , build 1, Area: 38,6 m2</p> <p>Lecture and practical auditory</p> <p>Educational and scientific laboratory of Physically Heterogeneous Mechatronics Systems</p>	<p>Lecture (24)</p> <p>Practice (24)</p> <p>Lab work (12)</p> <p>White magnetic board, applications, display screen</p>	<p>Didactic equipment FESTO, 10 didactic sets, equipment Siemens Discrete Automation Technology (Germany)</p>	<p>Elective disciplines of mechatronic profile</p>	<p>Elective disciplines</p>
8	<p>299-7 , build 1, Area: 28,3 m2</p> <p>Lecture and practical auditory</p> <p>Educational and scientific laboratory of Electrical and Electronic Components of Mechatronics Systems</p>	<p>Lecture (24)</p> <p>Practice (24)</p> <p>Lab work (12)</p> <p>White magnetic board, applications, display screen</p>	<p>Didactic equipment FESTO, 10 didactic sets, equipment Siemens Analog Automation Technology (Germany)</p>	<p>Elective disciplines of mechatronic profile</p>	<p>Elective disciplines</p>
9	<p>04-1 , build 1, Area: 64,6 m2</p> <p>Lecture and practical auditory</p> <p>Laboratory of Hydraulics</p>	<p>Practice (24)</p> <p>Lab work (24)</p> <p>White magnetic board, applications, display screen</p>	<p>Hydraulic equipment (hydrostatics, hydrodynamics)</p> <p>Reynolds, Conditional rest, Hydrostatics, Local resistance, Longitudinal resistance, Holes and nozzles, Centrifugal pump</p>	<p>Fluid and Gas Mechanics</p> <p>Elective disciplines of hydraulic profile</p>	<p>Fluid and Gas Mechanics</p> <p>Elective disciplines of hydraulic profile</p>

10	05-1 , build 1, Area 76,1 m2 Lecture and practical auditory Educational and scientific laboratory of Compressor Machines	Lecture (24) Practice (24) Lab work (24) White magnetic board, applications, display screen, multi-media, laboratory computers	Didactic stand compressor manufactured by Nicmas (2016) Piston compressor PKS-1,75 Didactic stand of compressor manufactured by Nicmas (2016), Screw compressor BB-3,5/10 U2 Models of compressor parts and units	Fluid and Gas Mechanics Compressor machines Master's thesis defense Elective disciplines of hydraulic profile	Elective disciplines of hydraulic profile Consultations, scientific seminars
11	06-1a , build 1, Area: 76,3 m2 Lecture and practical auditory Educational and scientific laboratory of Volume Hydraulic Machines	Lecture (24) Practice (24) Lab work (20) White magnetic board, applications, display screen	5 didactic stands with control systems and a complex of measuring equipment, models of equipment (3 didactic stands manufactured by Hansa Flex, 2018)	Hydraulic Control Systems Volumetric hydraulic and pneumatic machines and hydraulic transmissions Machine-building hydraulic automation Electrohydroautomation in mechatronic systems	Hydraulic Control Systems Hydraulic and pneumatic actuators of mechatronic systems Volumetric hydraulic and pneumatic machines and hydraulic transmissions
12	06-16 , build 1, Area: 82,1 m2 Lecture and practical auditory Educational and scientific laboratory of Hydraulic Automatics	Lecture (24) Practice (24) Lab work (20) White magnetic board, applications, display screen	4 didactic stands with control systems and a complex of measuring equipment, models of equipment (2 didactic stands manufactured by Hansa Flex, 2018)	Fundamentals of Hydraulic Control Systems Hydraulic Control Systems	Hydraulic Control Systems Machine-building hydraulic automation Electrohydroautomation in mechatronic systems
13	08-1 , build 1, Area: 26,8 m2 Educational and scientific laboratory of Aerodynamics	Lab work (8)	2 wind tunnels with means of measuring pressure and speed, control system, models of aerodynamic research objects, complex of measuring equipment		Elective disciplines of hydraulic profile
14	120-a , build 1, Area: 54,7 m2	Lecture (24)	1 didactic stand "Blactina line" FESTO with equipment, power	Fundamentals of Mathematical Modeling	

	Lecture and practical auditory Educational and scientific laboratory of Modeling and Design of Intelligent Mechanical Systems of Mechatronics	Practice (24) Lab work (12) White magnetic board, applications, display screen	supplies, kmpressor. 5 didactic stands "Mechatronics" Siemens (Germany). Demo versions: Fluidsim, NX-8, MathLab	of Multi-Physics Systems Features of Automated Mechanical Systems Design Elective disciplines of mechatronic profile	Elective disciplines of mechatronic and logistics profile
15	126 , build 1, Area: 80 m2 Lecture and practical auditory Educational and scientific laboratory of Mechatronics	Lecture (24) Practice (24) Lab work (24) White magnetic board, applications, display screen	double-sided didactic stand "Blactina line" FESTO with equipment, sensors, power supply, kmpressor. Didactic kits: PLC control systems E311, E321 (Germany) PLC FEC Compact (2), FEC Standard (5), FC 100 (1), SIEMENS S7-1200 (1), 5 modular industrial stations (Festo), didactic stand with control system and stepper motor, didactic stand "Silver line" with the set "Proportional hydraulics", models of equipment (Germany).	Hydraulic drive with proportional control , Features of Automated Mechanical Systems Design, Modular industrial systems, Structural-modular synthesis of mechatronics systems,	Discrete-logic Automatic Control Systems Units Design of Automated Mechanical Systems Hydraulic drive with proportional control , Features of Automated Mechanical Systems Design, Modular industrial systems, Structural-modular synthesis of mechatronics systems Elective disciplines
16	626 , build 7, Area: 78,1 m2 Lecture and practical auditory Laboratory of Hydraulics	Lecture (24) Practice (24) Lab work (24) White magnetic board, applications, display screen	Hydraulic equipment (hydrostatics, hydrodynamics) Conditional calm, Flow measurement, Measurement of pressure, Hydrostatics, Local resistance, Longitudinal resistance, Orifices and nozzles	Fluid and Gas Mechanics Elective disciplines of hydraulic profile	Fluid and Gas Mechanics Machine-building hydraulics Elective disciplines of hydraulic profile

Providing disciplines of professional education under the Bachelor's program Educational and professional program "Automated and robotic mechanical systems" with auditorium and laboratory facilities, didactic tools, teaching materials

EC Educational component	Discipline, number of credits	Responsible teacher	Equipment	Methodological support	Auditoriums /laboratories /classrooms
ПО 20	Fundamentals of Computer Aided Design and Engineering, 6	Ihor Hryshko	Computer classroom	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 299-5
ПО 21	Fundamentals of Mathematical Modeling of Multi-Physics Systems, 5,5	Oleksandr Uzunov	Computer classroom, Operating models of mechanical, pneumatic and hydraulic devices	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1, Laboratory 120-1, Laboratory 300-a, Laboratory 299-5
ПО 22	Discrete-logic Automatic Control Systems, 6	Oleksandr Gubarev Konstantin Belikov	Didactic stands of pneumatics, electropneumatics, electrohydraulics, models of actuators	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1, Laboratory 126-1, Laboratory 300-a, Laboratory 300-1
ПО 23	Fundamentals of Industrial Electric Drive , 5	Vasyl Lukavenko Andriy Zilinskyi	Didactic stands of electric drive, electric automation, electromechanical systems, models of devices	Links in Silabus, Methodical cabinet of the Department of Machine Design KPI library	Auditorium 249-1, Laboratory 229-19
ПО 24	Fundamentals of Hydraulic Control Systems, 3	Oleksandr Luhovskyi	Didactic stands, models of devices	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1, Laboratory 06-16, Laboratory 300-a

ПО 25	Units Design of Automated Mechanical Systems, 4	Konstantin Belikov Andriy Zilinskyi	Computer classroom, models of devices	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1 Laboratory 299-5 Laboratory 126-1
ПО 26	Course Project in Units Design of Automated Mechanical Systems, 1,5	Konstantin Belikov Andriy Zilinskyi	No need	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Laboratory 299-5 Laboratory 126-1
ПО 27	Technology of Mechanical Engineering, 3,5	Volodymyr Korenkov.	Computer classroom , didactic stands of mechanical engineering technology	Links in Silabus, Methodical cabinet of the Department of Mechanical Engineering Technologies KPI library	Auditorium 300-1 Laboratory 214-18
ПО 28	Coursework in Technology of Mechanical Engineering, 1	Volodymyr Korenkov.	No need	Links in Silabus, Methodical cabinet of the Department of Mechanical Engineering Technologies KPI library	Auditorium 300-1 Laboratory 214-18
	Certificate program of «Hydropneumatic automation of smart systems» (56 ECTS credits)		Didactic stands of hydro-pneumatic automatic machine, models of devices, computer classroom, research stands	Links in the Silabus of elective disciplines, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1, Laboratory 05-1, Laboratory 06-1a, Laboratory 06-16, Laboratory 08-1, Laboratory 120-1, Laboratory 300-a Laboratory 299-5
	Certificate program of «Mechatronic and robotic systems in mechanical		Didactic stands of mechatronics, models of	Links in the Silabus of elective disciplines,	Auditorium 300-1, Laboratory 299-5

	engineering» (56 ECTS credits)		devices, computer classroom, research stands	Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Laboratory 120-1, Laboratory 126-1, Laboratory 300-a
	Certificate program of «Logistics systems engineering» (56 ECTS credits)		Didactic stands of logistics direction, models of devices, computer classroom, research stands	Links in the Silabus of elective disciplines, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1, Laboratory 299-5, Laboratory 229-19, Laboratory 120-1, Laboratory 126-1, Laboratory 300-a
Providing disciplines of professional education under the Master's program Educational and professional program "Automated and robotic mechanical systems" with auditorium and laboratory facilities, didactic tools, teaching materials					
EC Educational component	Discipline, number of credits	Responsible teacher	Equipment	Methodological support	Auditoriums /laboratories /classrooms
	Computer Aided Design and Engineering	Serhii Strutynskyi	Computer classroom	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 299-5
	Hydraulic Control Systems	Oleksandr Luhovskyi	Didactic stands, models of devices	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1, Laboratory 06-16, Laboratory 300-a

	Course Project in Hydraulic Control Systems	Oleksandr Luhovskyi	No need	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1 Laboratory 06-16, Laboratory 300-a
	Features of Automated Mechanical Systems Design	Oleh Levchenko	Didactic stands, models of devices	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-1 Laboratory 126-1, Laboratory 300-a
	Electric Drive with Programmable Control	Konstantin Belikov	Didactic stands, models of devices	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-a Laboratory 126-1
	Course Project in Features of Automated Mechanical Systems Design	Oleksandr Uzunov Ihor Hryshko	No need	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Laboratory 120-1, Laboratory 300-a Laboratory 299-5
	Hydraulic drive with proportional control	Oleh Levchenko	Didactic stands, models of devices	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechanotronics KPI library	Auditorium 300-a Laboratory 126-1

	Scientific work on the topic of master's thesis. Part 1: Fundamentals of scientific research Part 2. Research work on the topic of master's thesis	Oleksii Niezhentsev	No need	Links in Silabus, Methodical cabinet of the Department of Applied Hydroaeromechanics and Mechatronics KPI library	Auditorium 299-3 Auditorium 300-a
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