

ARTIFICIAL INTELLIGENCE SYSTEMS IN ELECTROMECHANICAL SYSTEMS

COURSE SYLLABUS ABSTRACT

Specialty 7-06-0716-03 "Instrument making"

Profilization "Control and control in electromechanical systems"

Advanced higher education

	STUDY MODE	
	full-time	part-time
Year	1	3
Semester	2	3
Lectures, hours	34	8
Practical classes (seminars), hours	16	4
Laboratory classes, hours	16	4
Exam, semester	2	3
Contact hours	66	16
Independent study, hours	150	200
Total course duration in hours / credit units	216 / 6	

1. Summary of Training Discipline

The main goal of the discipline is to form an idea of the main methods of using artificial intelligence elements in the design, analysis and operation of electrical equipment of electromechanical systems.

2. Training results

As a result of mastering the academic discipline, the student must

Know modern tools, software and hardware platforms and software tools used for modeling electromechanical systems;

Be able to choose and use modern information and communication and intelligent technologies, tool environments, software and hardware platforms and software tools for building and analyzing artificial intelligence systems;

To pass a skill of using modern information and communication and intelligent technologies, tool environments, software and hardware platforms and software tools to solve the problems of building electromechanical systems.

3. Competencies

Know universal algorithmic programming languages, methods of mathematical description of automatic control systems (ACS), MatLab Simulinc mathematical modeling package, be able to apply modern programming technologies

4. Requirements and forms of midcourse evaluation and summative assessment

Current certification - an oral exam using personal computers to complete an individual task.

Interim certification - passing testing with an assessment of the obtained practical skills on the development of design documents.