

Annotation

PhD program "Application of the principles and methods of cybernetics in various fields of science"

Objective of the program: The doctoral program "Application of the principles and methods of cybernetics in various fields of science" aims to prepare highly qualified specialists in field 5.2. "Electrical Engineering, Electronics and Automation", who can apply their knowledge and skills in various scientific and applied fields. The program is aimed at developing research skills, critical thinking, and the ability to solve complex problems using mathematical, computer, optimization, and systems (including modelling, control, feedback, and adaptability of dynamic systems) methods and techniques.

Main highlights:

- Development and analysis of control and optimization methods for autonomous and adaptive Cyber-Physics systems.
- Use of modern simulation, analytical and computational tools and software for modelling and analysis of processes and systems, as well as forecasting their behaviour.
- Application of artificial intelligence, machine learning, and neural networks in various scientific disciplines such as robotics, industrial automation, autonomous systems, data processing, and more.
- Development of interdisciplinary research skills and cooperation with other scientific fields.

Forms of education: Full-time (up to 3 years), part-time (up to 4 years), self-study (up to 5 years), PhD project (full-time, part-time or self-study).