09.04.01 Informatics and Computer Engineering

High-Performance Computer Systems and Innovative Technologies

Partner university: Daulet Serikbayev East Kazakhstan Technical University (Kazakhstan)

The program is created for the interests of informatization of high-tech industries in the context of the globalization of the world information space. It facilitates gaining competencies in high-performance computing, including the use of hybrid supercomputer technologies, the development of digital equipment using advanced FPGA design methods and tools. Program alumni also possess competencies in information systems architecture, development of secure systems and application software (including for mobile devices) using CASE technologies.

Curriculum features

- architecture of operating systems
- administration and security of operating systems
- design of secure information systems
- information and coding theory
- schematic database of digital devices
- hybrid supercomputer technologies
- distributed ledger technologies
- parallel computing

Key research areas

- development of computer systems and networks;
- design of digital equipment on FPGA;
- software development;
- a comprehensive analysis of information security .