15.03.04 Automatics of Technological Processes and Production

Cyber-physical Systems for Technological Processes Automation

Program objective

Training specialists for ROSATOM State Atomic Energy Corporation enterprises and organizations in development and operation of control, monitoring and automation systems for nuclear and other physical facilities

Research and professional activities:

- Developing software, hardware and algorithmic means of automated processes control systems (APCS), control and monitoring systems of high-tech and knowledge-intensive productions of the nuclear industry and energy, associated with the choice of the necessary research methods;
- Providing production and technological activities for operation of existing technologies and the introduction of new high-tech developments;
- Conducting analytical, simulation and experimental research in industrial automation using the latest achievements of science and technology.

Curriculum features:

- intensive training on generally professional and special engineering subjects:
  (information technologies, programming, computer systems and networks, engineering and computer graphics, materials science, electrical engineering, electronics, microprocessor technology, automatic control systems, information-measuring systems, metrology, digital automatic control systems, physical installations, technological equipment of NPPs, APCS of NPPs, radiation monitoring systems)
  - significant amount of practical training in research and educational laboratories supplied with modern equipment at MEPhI and the leading enterprises of the nuclear industry.