

## **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.