14.03.02 Nuclear Physics and Technologies

Cyber-physical, Nuclear and Electrophysical Instrumentation

Program objective

Training of highly qualified specialists in the development and operation of innovative nuclear, cyberphysical and electrophysical devices, facilities and systems that are widely used in nuclear power, oil and gas geophysics, inspection systems, medicine, radiation control.

Curriculum features

- Matlab for Nuclear Physics Problems
- Automation of Test Equipment in a Physical Experiment
- Introduction to Neutron Physics
- Introduction to Particle and Radiation Physics
- Information and Measurement Systems of Nuclear Power Facilities
- Microprocessor Technology
- Fundamentals of Radiometry and Spectrometry
- Vacuum and Gas-filled Devices Production
- Fundamentals of Nuclear Instrumentation
- Control and Detection Technology for Radioactive Materials
- Nuclear and Nanosecond Electronics