**09.03.01 Computer science and computer engineering**

**Program Summary**

**Program title:** Computing machines, complexes, systems and networks

**Program goals:** to prepare highly qualified specialists in the field of computing technology and information technology, application and systems programmers for research and industrial organizations of the nuclear weapons complex, nuclear and other high-tech industries.

**Duration of full-time program** - 4 years; part-time form of training - 5 years.

**Department**: Department of computing and information technology of SPTI NRNU MEPhI.

**Areas of expertise**: design and engineering, design and technology, research and innovation activity, scientific and pedagogical, installation and commissioning, service and maintenance, organizational and management related to computer systems and networks, automated systems of information processing and management, CAD systems and information support products, software, automated systems, high-performance computer systems and technologies, including the structural units of RFNC-VNIIEF.

**Objects of professional activity**: computers, complexes, systems and networks; automated systems of information processing and management; computer-aided design and information support of life cycle of industrial products; software computer technology and automated systems (programs, software systems and systems); mathematical, information, technical, software, ergonomic, organizational and legal support of these systems. Graduates are in demand in all branches of science and industry, as professionals providing information support and ensure the functioning of computer equipment at the enterprises of a wide profile.

**Curriculum features**: the curriculum is built on the basis of the Federal state educational standard of generation 3+ taking into account the professional requirements of ITMF RFNC-VNIIEF. The curriculum includes both compulsory and elective courses constituting 48.4% of total curriculum. This allows the student to actively participate in the formation of their educational trajectory. Professional course aims to explore issues of programming, metrology and standardization, information security, parallel computing, computer organization, open source software, system, technology design component of computers, microprocessor systems. Graduates of this program may work in a wide range of industries in various regions of the country.

**Companies for internship and graduate employment**: laboratory, research and engineering divisions of RFNC-VNIIEF.