**09.04.02 Information systems and technologies**

**Program Summary**

**Program title:** Information systems and technologies in science and instrument making.

**Program goals**: training of graduate students in computer science and information technologies, in the field of research, development, implementation and maintenance of information systems and technologies for scientific and industrial organizations of nuclear and other high-tech industries, forming universal and specialized competencies that contribute to the social mobility and competitiveness of the graduates in the labour market.

**Duration of study**: full-time education-2 years.

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

**Areas of expertise**: design, production and technological, administration and management, research, innovation, maintenance and operation of computer systems and networks, systems of information processing and management, CAD systems and information support products, research, development, implementation and maintenance of information systems and technologies, high-performance computer systems and technologies.

**Objects of professional activity**: information processes, technologies, systems and networks, instrumental (software, technical, organizational) support; the ways and methods of designing, debugging, production and use of information technologies and systems in the areas of: engineering, instrument engineering, science, technology, education, medicine, administration, law, business, entrepreneurship, commerce, management, banking systems, security information systems, process control, mechanics, technical physics, power industry, nuclear power industry, power electronics, metallurgy etc., as well as enterprises of various profiles and all kinds of activities of information society.

**Curriculum features**: the curriculum complies with NRNU MEPhI higher education standards taking into account the requirements of Rosatom state corporation as the main employer of graduates of. The educational trajectory of the graduate student is formed taking into account their choice of disciplines. Professional courses are aimed at exploring issues of information security, parallel computing, information processing technology, open source software, basics of optimization, systems administration, engineering services.

Research work of students is carried out in close connection with the work conducted at the department and in the offices of the Russian federal nuclear center – VNIIEF.

Graduates of the department receive training for solving a wide range of tasks in the interests of scientific research and production organizations of the nuclear and other high-tech industries.

**Enterprises for internship and employment of graduates**: Russian Federal Nuclear Center VNIIEF; enterprises of Rosatom state corporation.