**09.04.01 Computer science and computing machinery**

**Program Summary**

**Program title**: Automated information processing and management.

**Program goals**: training of graduate students in the development of technical hardware and software, computer systems and networks, automated (including distributed) systems of information processing and management, computer-aided design and information support of products, 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**: research and innovation, design, production and technological, organizational and administrative, pedagogical, related to computers, 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.

**Objects of professional activity**: computers, complexes, systems and networks, including those with secure execution; automated systems of information processing and management, including those with secure design; 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.

**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. The educational trajectory of the graduate student is formed taking into account their choice of disciplines. Core courses aim to explore issues of programming, metrology and standardization, information security, parallel computing, computer organization, open source software, system software, technology design component of computers, microprocessor systems.

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.