**Abstract of the programme**

**230106.65 (09.05.01)** **Application and operation**

**of special purpose automated systems**

1. **Specialty**: 230106.65 Application and operation of special purpose automated systems

Specialization: *Software, mathematical and information support of computing machinery and automated systems*

2. **Summary of the programme**: training specialists in the field of information technologies, mainly at nuclear enterprises and possessing the competences facilitating social mobility and stability in labour market.

Training course duration: *5 years of full-time education.*

Qualification: *engineer*.

Basic department: the department of applied mathematics of OTI NRNU MEPhI.

3. **Characteristic of graduates’ professional activity field and objects**: the field of graduates’ professional activity includes participation in research work in the field of creation of new methods and technologies of information processing, storage, transformation and transfer; carrying out experimental-design work on development of special purpose automated systems, including hardware, software, mathematical, information support; organization of special purpose automated systems application according to their designated purpose; management of the engineering staff operating special purpose automated systems; exercising of production and technical control of the process of special purpose automated systems production and delivery; *the objects of graduates’ professional activity are* special purpose automated systems; methods and means of design, modeling, experimental investigation and management of special purpose automated systems; scientific research and development work in the field of special purpose automated systems creation; engineering staff which is engaged in technical operation of automated systems; standard documentation on the organization of production and quality control in the field of special purpose automated systems creation; computers, complexes, systems and networks; mathematical, information, technical, linguistic, program, ergonomic, organizational and legal support by special purpose automated systems.

4. **Target programmes:** “Programme of innovative development of Rosatom State Corporation”.

5. **Summary of the curriculum**: the curriculum includes the disciplines helping to receive the extended physics and mathematics education, general training in the field of information technologies and programming. The main special disciplines are electrical engineering, electronics and circuit design; computer and peripherals; programming; networks and telecommunications; databases; information security; technology of software development; a series of disciplines on various programming technologies. A block of special disciplines is focused on training specialists for work at the enterprises of Rosatom State Corporation.

6. **Practical training**: the programme provides for three types of practical training: educational, industrial, pre-graduation and educational research.

Educational practice: for 4 weeks in the 4th term along with theoretical training.

Industrial practice: for 4 weeks after the 6th and 8th terms at enterprises.

Pre-graduation practice: for 16 weeks after the 9th term.

The basic enterprises are FSUE “Mayak” Production Association (Rosatom State Corporation), USDI "VNIPIET" (Rosatom State Corporation), FSUE Southern Urals Biophysics Institute (FMBA RF), JSC “Uralskiye kabelnye seti – Ozersk”, Ozersk district administration and others.