**ANNOTATION**

Educational program

**230106.65 (09.05.01) Application and operation of automated systems of special-purpose**

**Specialization**: Mathematical, computer and information support of computers and automated systems

**Program Name**: 230106.65 (09.05.01) Application and operation of automated systems of special-purpose

**Objectives**: preparation of highly qualified graduates in the field of automated data processing and control systems that meet modern requirements for security and data protection taking into account the interests of defense companies, the energy sector of economy, research institutions and government agencies.

**Terms of training** in full-time education are 5 years.

**Graduate Departments**: Department of Information Technology.

**The area of professional activity**: the organization of the use of automated systems in accordance with the purpose; management of engineering and technical personnel, providing operation of automated systems for special purposes; participation in research projects in the field of creation of new methods and technologies for processing, storage, conversion and transmission of information; carrying out development work on the designing of automated systems for special purposes, including hardware, mathematical, computer, information technology; execution of production and technological control over the process of production and supply of automated systems for special applications. The specificity of the area of professional activity is the extensive use of information technology in various fields of science and technology in the design, installation and maintenance of software and information resources of automated systems of processing information.

**Objects of professional activity**: automated systems; methods and means of designing, modeling, experimental investigation and management of automated systems for special purposes; research and development work in the field of automated systems; engineering and technical personnel engaged in technical maintenance of automated systems; normative documents on the organization of production and quality control of products in the field of automated systems for special purposes; computers, systems and networks; mathematical, informational, technical, linguistic, software, ergonomic, organizational and legal support of automated systems of information processing and management (ASIPM).

**Features of the curriculum**: based on the fundamental training of students in core subjects, as well as scientific and practical experience of the department obtained during the execution of real projects to create automated systems of information processing and management (ASIPM) for various sectors of the national economy and defense industry. Students acquire skills of formalization of intellectual tasks; the use of standard software products, oriented to the solution of scientific, engineering and technological problems. Much attention is paid to the study of the theory and practice of development and management of projects to create ASIPM. The curriculum includes intensive training in the disciplines of physics and mathematics cycle, circuit design disciplines, programming, operating systems, databases, data protection, network technology, design and operation of automated systems. The curriculum includes a large amount of research work. Competencies acquired by the students prepare future graduates for successful work in all high-tech areas, where modern information technologies are used.

**The list of enterprises for practical training and employment of graduates**: industrial practice is conducted in accordance with the "Program Manufacturing Practices" on the basis of Research Institute of Atomic Reactors, Sosny Research and Development Company Ltd, SimbirSoft Ltd, AIS Gorod Ltd, Zenit-himmash, Dimitrovgrad Auto Aggregate Plant “DAAZ”, Priz Ltd (Dimitrovgrad), Radiopharmaceutical plant (Dimitrovgrad), Dimitrovgrad High-Tech Radiological Medical Center and other enterprises subordinate FMBA of Russia, as well as machine-building enterprises of the region and other organizations that use information technology in accordance with the direction and the profile of the preparation. These companies and organizations are the places of employment of graduates.