**ANNOTATION**

of educational program

**09.04.01 Computer Science and Engineering**

**Master program**: Computer Science and Engineering

**Program Name**: 09.04.01 Computer Science and Engineering

**Objectives**: the development of students' personal qualities, the implementation of competence-based approach, the formation of students' culture in general, general and vocational competencies and, therefore, satisfying the needs of society and the state in qualified specialists with higher education.

**Terms of training** in full-time education are 2 years.

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

**The area of professional activity**: includes theoretical and experimental study of the scientific and technical problems and solving hardware and software problems of computer systems and networks, automated (including distributed) information processing and control systems as well as computer-aided design and information support products. Possible jobs: research centers, government agencies, educational institutions, as well as the organization of the industry and business of various forms of ownership engaged in the creation, development and use of systems, products, services, information technology, data-processing and computer departments of banks, commercial companies and etc.

**Objects of professional activity**:

- computers, systems and networks, including protected variants;

- automated systems of information processing and management, including protected variants;

- computer-aided design and information support of industrial product life cycle;

- software of computer equipment and automated systems (programs, software and systems);

- mathematical, informational, technical, linguistic, software, ergonomic, organizational and legal support of these systems.

**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), the Federal High-Tech Medical Radiology Center of Dimitrovgrad and other enterprises subordinate the Federal Medical and Biomedical Agency of Russian, 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.