

Secure High-Performance Computer Systems

National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)

Degree or qualification is awarded: **Bachelor degree**

Language of study: **Russian**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **91 000 - 110 900 rubles per semester**

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Goals of the Program

The program objective is to prepare highly qualified bachelors in computer systems and technologies for the staffing of the research institutions, enterprises of nuclear and other high-tech industries.

During the program, students are actively exploring both hardware and software modern design tools for computer systems. The department has a unique laboratory "Digital circuitry" with a stand on the FPGAs which allows students to pass the entire cycle of design to form the final digital device. In the area of programming, special attention is paid to provide a high security level of the software being developed.

Basic department

Computing Systems and Technologies (No. 12)

Characteristics of the scope and objects of professional activity of future graduates

Area of professional activity includes:

- development of computer systems and networks;
- design of digital equipment on the FPGA;
- development of system and application software;
- comprehensive analysis of the security of information systems.

Brief description of the curriculum

The curriculum fully complies with the State Educational Standard-3 and with the basic disciplines includes unique disciplines of the variable part ("Automatic Machines Theory," "Discrete Mathematics," "Theory of Probability and Mathematical Statistics," "Interfaces and external devices of computing systems," "Low-level programming," "Computer and Systems Organization," "Microprocessor Systems").

Disciplines of the variable part train the graduates to be successful in all modern high-tech sectors with modern information-managing and communication technologies. The curriculum comprises the large number of subjects that can be chosen by a student according to personal preferences. The curriculum provides advanced training in the field of modern secure information technologies.

The base of industrial and/or scientific practice and employment

MEPhI, State Atomic Energy Corporation "Rosatom," Public Corporation Concern PVO Almaz-Antey, PLC MCST, Open Computer Systems Holding, Federal Financial Monitoring Agency (Federal Financial Monitoring Service), Systemprom Concern, etc.

Specializations within this programme

Objects of the professional activity

- computer systems and networks in a secure realization;
- automated systems for information processing and management;
- computer-aided design systems;
- automated systems software;
- damaging software elimination tools.