Protected computational systems and software development

National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)

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

Language of study: **Russian**
Mode of study: **full-time**
Duration: **4 years**
Availability of free education: **yes**
Price: **115 600 rubles per semester**

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Basic information

The "Protected computational systems and software development" is the new bachelor's program in MEPhI. The program is devoted to train the highly qualified researches with deep theoretical and practical skills in the field of computer science including methods of Big data analysis, machine learning, information security, software development and etc.

Acquirements

The bachelors develop the following competencies that allows them to grow constantly in the different field of professional activities:

- critical and algorithmic thinking

- working in scientific team

- deep mathematical skills

- data analysis skills

skills of interpretation of obtained results

Competitive strengths

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.

Career opportunities

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.

The objects of professional activity of graduates are:

- 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.

The educational program provides scientific research and industrial practices in the enterprises of high-tech industries, including the State Corporation "Rosatom", State Concern Systemprom, as well as in a number of commercial structures.

Specializations within this programme