Mathematical support and software for computers and computer networks

National Research Nuclear University MEPhI (Moscow Engineering Physics Institute)

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

Language of study: **Russian**
Mode of study:
Duration: **4 years**
Availability of free education: **yes**
Price: **115 600 rub.**

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The purpose of the program*:*

Preparation of highly qualified bachelors who have received special education in the field of technology for the development of cybernetic systems to provide personnel for enterprises and organizations in high-tech sectors of Russian science and industry

Annotation:

The curriculum provides enhanced training in discrete mathematics, databases and intelligent systems and technologies, technologies for the development of various cybernetic systems, models of the physical processes of nuclear systems and technologies. The central place in the curriculum of students is occupied by research work led by scientists involved in scientific projects in relevant areas of basic and applied research. This allows students to develop the ability to work in a team, think critically, generate new ideas, and demonstrate independent work skills.

Program relevance:

Software engineering is an application of a systematic, disciplined, measurable approach to the development, operation and maintenance of software. Currently, the software industry is actively developing and is a full-fledged area of the modern Russian and world economy. There are constantly not enough qualified specialists in software development, and this trend will continue in the future. Modern experts in the field of industrial software development should have extensive training in the development of system and application software for various purposes, which determines the relevance of the program.

Основные дисциплины:

Discrete Math
Introduction to Intelligent Systems and Technologies
Design and architecture of software systems
Theoretical bases of databases
Technology for programming cybernetic systems
Organization of database processing

PROFESSIONAL ACTIVITY

Alumni Competencies:

Graduates of the program have specialized practice-oriented competencies in the field of software engineering and applied mathematics. Graduates are able to effectively manage software and project development; able to develop and upgrade software and hardware for information and automated systems; when solving professional tasks, they are able to apply methods and means of obtaining, storing, processing and broadcasting information through modern computer technologies, including in global computer networks; use modern computer technology, multiprocessor supercomputers and specialized software; able to think critically and creatively, rethink accumulated experience;

capable of business communication in oral and written forms in the state language of the Russian Federation and a foreign language

Labor market demand:

Our graduates are in demand on the Russian and international labor markets and occupy leading positions in such state organizations and commercial companies, research institutes, universities and research laboratories

как:

- Rosatom
- University of Manchester, England
- University of Göttingen, Germany
- KTH Royal Institute of Technology, Sweden
- Imperial college, London
- Sberbank
- Hewlett Packard
- Mail.ru
- Yandex
- Oracle
- Samsung
- Microsoft
- Intel
- 1C
- Rosbank
- BPC

Practice and internships:

As part of the training, students practice at the largest scientific centers of the Russian Academy of Sciences, at the enterprises of the state corporation ROSATOM, as well as at large IT companies. Business communication in oral and written forms in the state language of the Russian Federation and a foreign language

Specializations within this programme