



MATHEMATICAL MODELING IN TECHNICAL SYSTEMS

MASTER'S PROGRAMME DEGREE



PROGRAM ADVANTAGES

- ✓ Comprehensive development of students' research skills, the possibility of their participation in scientific projects in cooperation with enterprises of the rocket and space industry.
- ✓ The opportunity to improve the skills of mathematical modeling and application of computer technology, to master additional chapters of applied mathematics and computer science.
- ✓ The possibility to obtain skills of designing and creating programs in modern programming languages.
- ✓ The use of the most modern means and technologies of education.



STUDYING PROCCESS

120 educational credits.
lectures, practical classes and self-study
several practices.



MATHEMATICAL AND SIMULATION MODELING

- Mathematical bases of simulation modeling.
- Applied tasks of mathematical modeling.
- Mathematical bases of protection of the information and information safety.



INTELLIGENT SYSTEMS AND PROGRAMMING

- Expert and intelligent decision making systems.
- Artificial intelligence theory.
- Artificial intellect in modeling space systems.
- Parallel and distributed programming.
- Instrumental means of intellectual systems.
- Basics of pattern recognition in aircraft control.
- Web-programming.



DISTRIBUTED INFORMATION TECHNOLOGIES

- Information technology analysis.
- Object databases.
- Object-oriented CASE technologies.
- Distributed object technologies.
- Algorithmic bases of multimedia technologies.
- Workshop on applying the results of space activities in various branches of national economy.
- Workshop on application of technologies for targeted monitoring of the Earth's surface from space.



STUDENTS FEEDBACK



STRATIENKO ARTEM NIKOLAYEVICH, MOSCOW



I am studying at RUDN Master's degree and I like everything here: interesting classes, excellent equipment of audiences, and excellent organization of educational process. Teachers are always happy to help and answer all the questions. Under their leadership, I am engaged in simulation modeling of applied tasks of the knowledge-intensive sector. I wanted to note strong programming backed by practical cases from real-world challenges. Learning is interesting, and the friendly attitude of teachers and the opportunity to scientific work are an excellent motivator to attend classes. ”



**MADUMAROV MUKHRIDDIN MUHAMMAD UGLI
(UZBEKISTAN)**

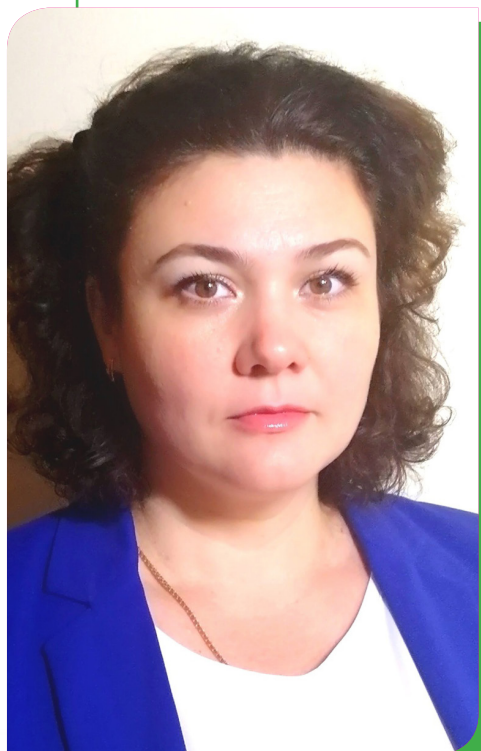


After graduating from bachelor's degree, I decided to do programming. On the question of where to go, I was advised to the direction “Fundamental informatics and information technologies” in RUDN – strong mathematics and programming. I entered the university, and I like to learn here. Many interesting disciplines, creative work of students is actively supported, teachers always come to contact: try to find common interests in scientific activity, invite to participate in conferences. RUDN has excellent extracurricular activities, many additional scientific and cognitive activities. During these 2 years we have learned disciplines related to machine learning, mechanics, WEB-programming, have gone deep into mathematical foundations of information protection and information security. ”



HEAD OF THE PROGRAMME

SALTYKOVA OLGA ALEXANDROVNA



Assistant of Professor of the Department
of Mechanics and Mechatronics.

Ph.D, docent.

RESEARCH INTERESTS:

Mathematical Modeling, Nonlinear Dynamics,
Numerical Methods, Information Technology,
Mechanics.