

Modern State of Artificial intelligence

Moscow Institute of Physics and Technology (National Research University)

Degree or qualification is awarded: **Master of Applied Mathematics and Computer Science**

Language of study: **English**

Mode of study: **full-time**

Duration: **2 years**

Availability of free education: **yes**

Price: **350 000 RUB**

Programme curator: **Miller Kirill Evgenievich**

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Description of the program:

Introduction to Artificial Intelligence

The course introduces students to the current state of machine learning and artificial intelligence, from classical algorithms to deep learning approaches and the latest advances in artificial intelligence. As a result, students develop a sustainable basis for further growth in the field of AI.

Computer vision

Our visual perception provides us with a wealth of information about the world around us. Techniques for efficiently processing visual information and extracting knowledge from it are required for applications such as computational photography, unmanned cars and aircraft. Despite the rapid progress of the last decade, this is still a field full of opportunities for development. So now is a great time to dive into it, armed with classic image processing techniques combined with deep learning.

Reinforcement learning

Reinforcement learning is a relatively young but very promising field in artificial intelligence. It regularly sees new advances and discoveries. Artificial agents started with tic-tac-toe, but today they already outperform humans at chess, StarCraft and assembling a real 3D Rubik's Cube. It's not just games: reinforcement learning techniques are used in computer vision, expert systems, natural language processing, including machine translation, and so on..

Natural Language Processing

Understanding natural language processing (NLP) is one of the keys to seamless human-machine interaction. New developments in this area are leading to tangible improvements in search engines, chatbots, machine translation, and the development of AI in general. NLP is one of the most lucrative areas, and there is always room for improvement and learning.

Software development and cloud computing

Building a successful artificial intelligence system requires good models, efficient and well-written code, and professional hardware and teamwork skills. All this requires practice. Implementing models, deploying them on various systems, including embedded systems (on smartphones), and building data

lines are steps that are necessary to create quality software. Students will go through them one by one.

Who is teaching:

Courses are delivered in English by highly qualified trainers and recognised experts in the field, including Andrey Raigorodskiy, Radoslav Neichiev, Alexander Dainiak, Vladislav Goncharenko, Anastasia Yanina, Maxim Zhukovskiy and Yuri Efimov

When to apply:

The deadline for submission of documents - 18 September

What exams do you need to take:

«Mathematics and combinatorics»

What documents do you need to present:

Passport, with notarised translation into Russian

Higher education diploma with supplement, with notarised translation into Russian

CV

Motivation letter

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Specializations within this programme