

Applied Information Science

South Ural State University

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

Language of study: **Russian**

Mode of study: **full-time**

Duration: **2 years**

Availability of free education: **yes**

Price: **161 600 rubles**

Programme webpage at the university website:

<https://www.susu.ru/en/education/masters-degree-programs/090401-applied-mathematics-and-computer-science-data-analysis-and>

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The aim of the master's program:

Training of highly qualified specialists in the field of modern methods of artificial intelligence in relation to a wide range of current problems of data analysis, knowledge representation and processing.

Area of professional competence: Development of algorithmic support for automated (including distributed) information processing and control systems, as well as computer-aided design systems and information support in the following areas:

- resource and energy conservation,
- oil and gas industry,
- development of intelligent automatic process control systems in various industries, including:
- development of algorithmic support of intelligent measuring instruments,
- development of algorithmic support systems for automatic control of technological processes in the energy sector,
- nanotechnology,

Development of algorithmic support of technological processes in metallurgy.

- analysis of industrial, commercial and consumer markets and the development of expert systems.
- Intellectual support in making management decisions in technical, economic and social sectors.

Specializations within this programme

Systems for Corporate Management

Informatics and Computer Engineering (Internet of things)

Program Description: Within "Internet of Things" master programme you would learn key aspects of the Internet of Things technology, including the IoT infrastructure design, application of cloud and mobile technologies for the development of IoT solutions, methods of IoT data gathering and analysis and cybersecurity aspects of IoT.

Program Features

Students would be able to study the cutting-edge IoT solutions from the leaders of the market. The education and project work of the students would be provided using the facilities of such Laboratories of School of Electronics Engineering and Computer Science of SUSU as "Samsung IoT Academy", "Emerson PlantWeb", "Kaspersky Research and Education Center", "Smart Home Lab", etc.

Scientific Partnerships and Collaboration:

Students of the programme would be able to participate in research activities of leading international research laboratories of South Ural State university, including the Problem-Oriented Cloud Computing Environment International Laboratory in such fields as:

- Resources scheduling and planning for IoT support in cloud and fog computing environments,
- Research and development of Digital Twins cloud solutions,
- Research on cybersecurity aspects of IoT,
- Application of cloud computing systems for smart cities.

Applied Mathematics and Computer Science (Data Analysis and Artificial Intelligence Methods)

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