

Division: *School of Electronic Engineering and Computer Science*

Academic programme: *09.03.04 Software Engineering, Engineering of Information and Intelligent Systems*

Mode of study: *full-time*

Programme length: *4 years*

Programme level: *Bachelor's degree*

Language of instruction: *Russian*

Programme description:

The Engineering of Information and Intelligent Systems programme is aimed at providing training of professional programmers in the field of artificial intelligence and big data processing. The curriculum mainly consists of courses relevant to computer disciplines. Much attention is paid to the development of intelligent information systems.

During the process of training, students master a big number of modern programming languages, including: Python, C, C++, C#, Java, HTML, XML, SQL, UML, etc.

Leading Russian and international specialists in the field of information technologies and artificial intelligence participate in the training of students. Some courses are taught by the representatives of commercial companies involved in software development. In the course of training, students master modern methods of artificial intelligence, development of neural networks and data mining. Theoretical training is combined with a big number of practical tasks. Students take internships in real IT companies.

Graduates of the Engineering of Information and Intelligent Systems programme will be prepared for software development, which requires the use of state-of-the-art artificial intelligence techniques and big data processing. Graduates can participate in software development at all stages of the life cycle (from planning and coordination with the customer to installation and commissioning). Quite often graduates' professional activity includes several types of work: design and analytical, programming, management and consulting. A graduate can hold the position of a machine learning analyst, specialist in information technology department, programmer, system administrator, system analyst, database administrator, web programmer, expert consultant on modern information systems, etc.

Main programme-specific classes:

- *Technologies of Development of Information and Intelligent Systems;*
- *Fundamentals of Machine Learning;*
- *Deep Learning;*
- *Data Mining;*
- *Computer Vision and Natural Language Processing Using Methods of Artificial Intelligence;*
- *Information Security and Programming of Secure Information Systems;*
- *Supercomputers and Parallel Programming;*
- *Web Programming;*
- *Local and Global Computer Networks;*
- *Software Development Processes;*
- *Team Development of Software;*
- *Cloud Computing.*

Programme manager: *Leonid B. Sokolinskiy, Doctor of Sciences (Physics and Mathematics), Professor, Head of the Department of System Programming*