KEY FACTS

▶ Admission requirements	Candidates are required to hold a Bachelor, Specialist or Master degree specific subject area, all applicants must demonstrate English language proficiency at B+ level.
▶ Admission tests	Examination in the field of informatics and computer science and interview in English language with programme coordinator.
▶ Admission procedure	Applicants may find additional information concerning admission at the official web-sites of SPbSPU www.spbstu.ru and www.spbstu-eng.ru.
▶ Programme starts	Winter semester — October 1
▶ Length of programme	2 years
▶ Degrees awarded	Master of science (MSc)
▶ Tuition fees	Tuition fees — 190 000 RUR for 1 year.

St. Petersburg State Polytechnical University
Institute of Information Technologies and Control
Control Systems and Technologies Department

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MASTER OF SCIENCE IN INFORMATION SCIENCE AND COMPUTER ENGINEERING

INTELLIGENT SYSTEMS

International Master Degree Programme in English language

Key information about the study programme in Saint-Petersburg , Russia

2013

www.spbstu-eng.ru

Why Master of Science in Information Science and Computer Engineering Programme at St. Petersburg State Polytechnical University?

- Graduates of this programme have great opportunities to be employed in Russian and international engineering and automation companies as well as to continue their education in international PhD programmes.
- In two years candidates may receive two diplomas: from SPbSPU and from University of Hannover (Germany).
- Unique opportunities for international mobility.
- Master degree programme "Intelligent systems" is fully delivered in English.
- World-class professors from SPbSPU and University of Hannover (Germany).

St. Petersburg State Polytechnical University

In 2010 SPbSPU became a "National Research University", also known as Polytech — a recognized Russian leader in the field of higher engineering and economic education. Nobel Prize winners P. L. Kapitsa, N. N. Semenov, Zh. I. Alferov — are just a few names among hundreds of talented scientists whose activities are connected with Polytech.

The Institute of Information Technologies and Control offers multilevel education in field of computer technologies development and control systems. Educational process is based on advanced fundamental training in fields of informatics and programming, microelectronics, information security, automatic control systems, system analysis and control, distributed computing and computer networks, information measuring systems, ecological monitoring systems, computational mathematics and modelling.

Curriculum

- Intelligent Systems
- Methods of Optimization
- Knowledge Management and Knowledge Engineering
- Software Development Technology
- Modern Problems of Computers and Information Science
- Mathematical Modeling and Simulation
- Computing Systems
- History and Methodology of Informatics and Computer Science
- Neuroinformatics and Neurotechnologies
- Micro- and Nanosystems*
- Machine Dinamics*

SCIENTIFIC AND RESEARCH WORK

- Scientific and Research Work
- Project theses based on Scientific and Research Work
- Master's Theses Completion

ELECTIVE COURSES: ONE DISCIPLINE SHOULD BE CHOSEN FROM EACH GROUP:

Group A
- Intelligent Computing
- Distributed Databases

Group B
- Cognitive and Multiagent Systems
- Intelligent Control Systems

Group C
- Softwaretools*
- Computer Security Systems

Group D
- Production of Electronic Systems*
- Speech Technologies

Group E
- Electrical Drives*
- Image Processing

THE FINAL CERTIFYING EXAMINATION

All disciplines marked by * are necessary for obtaining the degree of Master of Science in Mechatronics (University of Hannover (Germany)).

MSc Intelligent Systems

The programme is conducted with the participation of key professors of SPbSPU and University of Hannover (Germany).

All lectures and examinations are conducted in English.

Objective of the programme

The objective of the programme is to prepare Master of Science that possess knowledge of state-of-art and new trends of automation and intelligent robotics and skills in developing control systems and technologies.

KEY ADVANTAGES

1. Upon successful completion of the course according to this programme, students have opportunity to get two diplomas of a Master's degree:
   - Master's degree in Information Science and Computer Engineering (from the SPbSPU) and
   - Master of Science degree in Mechatronics (from University of Hannover (Germany)).

2. Practical training, laboratory works and research work are conducted in laboratories equipped with modern facilities provided by companies Siemens AG, Festo Didactic, Oracle and etc.

3. The Programme is realised in cooperation with leading Russian and international companies (Siemens, SAP, General Motors, State Unitary Enterprise "Vodokanal of St. Petersburg", LLC "KINEF") and branches of the Russian Academy of Sciences in organising internships, project activities and employment assistance

Duration and format

Two years (4 semesters). This programme allows realising the model "two diplomas in two years". First and second semesters take place in SPbSPU, third and fourth semesters take place in University of Hannover (Germany).

Total workload

120 credits at the minimum.

TEACHING METHODS

Lectures and seminars, case studies, practical studies connected with the subject of lectures, an applied research project.

PARTNERS AND ORGANIZATIONAL PRACTICE

1. The University of Hannover (Germany), officially the Gottfried Wilhelm Leibniz Universität Hannover, short Leibniz Universität Hannover (LUH), is a public university located in Hannover, Germany. Founded in 1831, it is one of the largest and oldest science and technology universities in Germany.

2. Siemens AG is a German multinational engineering and electronics conglomerate company headquartered in Munich, Germany. It is the largest Europe based electronics and electrical engineering company.

3. SAP AG is a German multinational software corporation that makes enterprise software to manage business operations and customer relations. Headquartered in Germany, with regional offices around the world, SAP is the market leader in enterprise applications in terms of software and software-related service

4. General Motors Company is an American multinational automotive corporation headquartered in Detroit, Michigan, and among the world's largest automakers by vehicle unit sales, employing 202,000 people and doing business in some 157 countries.