

SCHOOL OF ELECTRICAL ENGINEERING

AND COMPUTER SCIENCE (EECS)

South Ural State University (national research university)

EECS Today



200 teachers and staff



35 years-average employee age



>25
professors and doctors of science



10 departments



30
laboratories and scientific-educational centers



658 TFlops total peak power of supercomputers LSM SUSU



>700 M rub total investment in research projects SUSU (2014-2016)

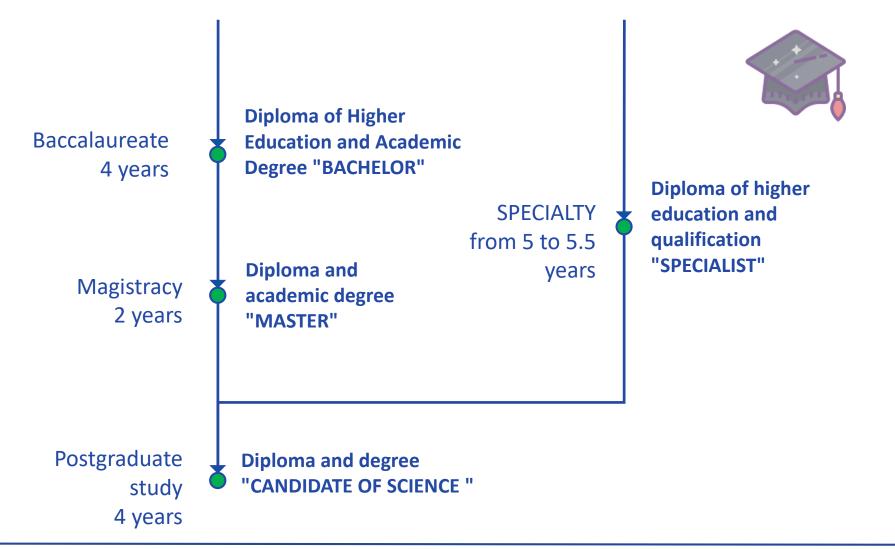


>20 grants of students and PhD-students



7
victories at the World
RadioScience
Championship (callsign
UK9AAN)

Education system







Automation and Control



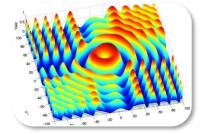
Automatic Control Systems



Information-measuring Equipment



Design and Manufacture of Radio Equipment



Computational Mathematics and High-Performance Computing



Information and communication technologies



Information Security



Information and Analytical Maintenance of Management in Social and Economic Systems



System Programming



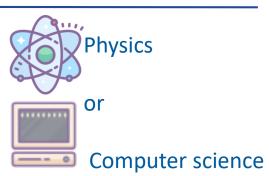
Computers

How to enroll

1. Pass exams







2. Choose direction

| | Physics |
|--|--|
| Control and Device equipment | Radionics |
| Device equipment | Information and communication technology and communication systems |
| Traffic control systems and navigation | Design and technology of electronic means |
| Engineering Systems Management | Electronic systems and complexes |

Computer science

Computer Science and Engineering

Information Security

Software engineering

Fundamental Computer Science and Information Technology

3. Become a student!



EECS Laboratories:





The newest systems

Emerson PlantWeb

allow to explore energy
accounting systems and
power regulation systems,
management methods
with fuzzy logic, neural
networking and forecasting.

EECS Laboratories:

Endress + Hauser



Advanced solutions at the management technological process and control and measurement equipment; means automation from leading producer corporation **Endress + Hauser** (Switzerland).





EECS Laboratories:



Education and research at the information security of technological process management systems for leading Urals and Russian companies

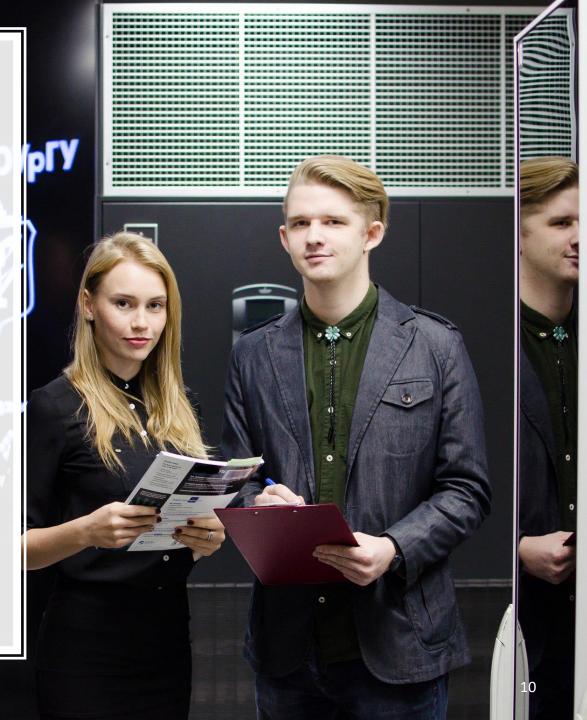




- √3 supercomputers
- ✓ Supercomputer

 Tornado SUSU 473.6

 TFLOPS
- ✓ Intel Xeon X5680 6x3,33 GHz and Intel Xeon Phi 61x1,1 GHz
- √8-th power in Russia



International scientific laboratories

Self-diagnosis and self-control devices and systems laboratory



The leader - Professor Manus Henry (University of Oxford, UK) - engages in research in the field of signal processing, measurement technique and self-technical systems

Laboratory of problem-oriented cloud environments



The leader - Professor Andrei
Tchernykh (Center for Scientific
Research and Higher Education,
Ensenada, Mexico) - engages in
research in the field of distributed
computing and cloud computing
technologies.

EECS industrial partners







COMPANY





Interaction with well-known partners

The possibility of future employment

Cooperation with international scientific organizations









Endress + Hauser





International activities



LUT Lappeenranta University of Technology

Masters double degree program



Joint PhD Study



• Universities of Europe, Russia and Jordan

• More than 50 participants

• The countries of Europe, Russia, Jordan, Latin America

Professors





50





Lectures of world-class scientists at EECS

- Course «Open key cryptology»
 Professor Frank Leprevost (University of Luxembourg)
- Course «Fundamental of quantum computing» Professor Jaewan Kim (Korea Institute of Advanced Study)
- Course «Self-diagnosis and self-monitoring devices and systems»
 Professor Manus Henry (University of Oxford, UK)
- Course «Fundamental of computer vision»
 Professor Arto Kaarna (Lappeentanta University of Technology, Finland)
- Course «Multi-Objective Modelling and Optimization of Scientific and Industrial Applications on Distributed Computing Infrastructures»

Professor Radu Prodan (Innsbruck University, Austria)

Course «Green computing»

Professor Andrei Tchernykh (Center for Scientific Research and Higher Education, Ensenada, Mexico)

Course «Mathematical Foundations of humancentric interface»

Professor Janet Read (University of Central Lancashire)





Innovations from the first year of study

More than 30 students of EECS are innovative competitions winners. Each nationwide competition "UMNIK" winner gets **500 000 rubles** on implementation its own project at the IT and device engineering.

- The winners competition "UMNIK 2017":
 - Nicholai Dudarev (PhD-student, Department of ICT): design volumetric-modular technologies hf and microwave devices
 - Daria Kletsko (PhD-student ,Department of ICT): design technologies for creation hearing perceptions on basis phenomenon radiosound
 - Igor Suhinsky (student of System Programming Department): design of system analysis defects fields of view patient by perimetry from using points virtual reality
- Kirill Tatarkin (student of Information-measuring equipment Department): design prototype medical stand "standing frame" with virtual reality element
- Elizaveta Shulga (student of System Programming Department): design of advanced system CCTV for cars-, moto-, bike- parks on basis of automatic linking object and owner
- Yekaterina Yungaytis (PhD-student, Department of Design and Manufacture of Radio Equipment): research and design Antennasmast devices glide path beacon



Participate and win!

 Global Game Jam - World championship on the development of computer games. 2018 year: 90 participants, 24 finished games in 48 hours!

 Individual championship on programming among freshmen: Start your journey in the Olympiad programming!

 Take training Olympiad school programming and take part in the world championship ACM!





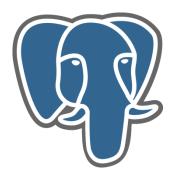
Where to go to work?





















People for Process Automation



Become a part of EECS



Questions?



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https://vk.com/susu_eecs



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