About Hannover

Hannover is one of the greenest cities in Germany, appreciated for its central location, short travel distances, cultural diversity and affordable prices. As the capital of the Federal State of Lower-Saxony with a population of over 500,000 people, Hannover hosts world-famous international trade fairs like CeBIT and Hannover Industry Fair. In addition, international companies such as Continental, Volkswagen, Sennheiser, TUI, among others, are based in the region of Hannover.

Currently, 28,000 students are studying Natural Sciences and Engineering, Humanities and Social Sciences as well as Law and Economics at Leibniz Universität Hannover. The University with its fields of science and technology has an excellent reputation. It is part of the TU9, the top 9 Institutes of Technology in Germany. The Faculty of Mechanical Engineering and the Faculty of Electrical Engineering belong to the largest faculties and the best funded. They excel in research and development, conducting innovative research projects in the fields of Mechatronics Measurement Systems, Energy Technology, Production Process Optimization, among others.

Application and Admission

In order to be eligible for this study programme, a bachelor degree in Mechatronics, Mechanical Engineering, Electrical Engineering, Information Technology or a related field of study is required. Applicants may apply to all Three Universities as long as they hold an European bachelor degree or a degree from anywhere else except Russia. Applicants with a Russian bachelor degree may apply only at St. Petersburg.

Application deadline:
The application deadline is 31st May every year. The study programme can only be commenced in a winter semester. It starts on 1st September in Lappeenranta.

Further information is available on following websites:
Hannover: www.et-inf.uni-hannover.de/746.html
Lappeenranta: www.et-inf.uni-hannover.de/746.html
St. Petersburg: shortlinks.de/5493

Language:
The teaching language for the entire course is English. Before and during the study programme preparatory language courses in German, Russian and Finnish are offered. Further information on these courses is available at the Language center in Hannover or at all of the participating Universities.

www.fsz.uni-hannover.de

Contact

Faculty of Electrical Engineering and Computer Science
studiendekanat@et-inf.uni-hannover.de
www.et-inf.uni-hannover.de

Admissions Office
Service Center
studium@uni-hannover.de
www.uni-hannover.de/de/studium/immatrikulation

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About Lappeenranta

Lappeenranta is a frontrunner in renewable energies and a clean living environment in Finland. It combines a safe and small-town atmosphere with full-scale urban comforts. Lappeenranta is located in the midst of a stunning landscape at the southern end of Europe’s fourth largest lake, Saimaa, offering plenty of opportunities for outdoor sports and other activities both in summer and in winter.

Lappeenranta University of Technology (LUT) is a pioneering science University in Finland, bringing together the fields of science and business since 1969. The international community of LUT is composed of 16,000 students and experts engaged in scientific research and academic education.

Clean energy and water, circular economy and sustainable business are the key questions to which LUT seeks solutions through technology and business. At LUT students can study in 16 different Master’s programmes taught in English in the areas of Energy Systems, Mechanical Engineering, Electrical Engineering, Chemical Technology, Sustainability, Information Technology, International Marketing, Finance, Sustainability and Innovations, and Supply Management.

About St. Petersburg

St. Petersburg is a wonderful city to visit. It is famous for its architecture, its unique beauty and rich culture.

The second largest city in the Russian Federation, St. Petersburg is often referred to as the ‘Cultural Capital’ of Russia, or even ‘Northern Venice’, due to its many waterways and bridges. 68 rivers and canals flow through the historic city centre in all directions, dissecting it into 42 islands, with 580 bridges between them. Many of these bridges are masterpieces of engineering and architecture. Among Paris, Rome and Venice, the historical city centre of St. Petersburg has been declared a World Heritage site by the UNESCO.
International Energy Technology Trilateral Degree Programme

The programme is designed to give a highly qualified specialisation in the field of Energy Technology. It is offered in English language by Leibniz Universität Hannover, Germany in cooperation with Peter the Great St. Petersburg Polytechnic University, Russia and Lappeenranta University of Technology, Finland.

The sector of Energy Technology is increasingly characterized by international and multinational collaborations. Thus, besides the technical expertise international experience is demanded. The master’s degree programme ‘Energy Technology’ is offered to meet these arising requirements of internationality.

Technical expertise is taught in an international environment. The 1st semester takes place in Lappeenranta, the 2nd semester in St. Petersburg and the 3rd semester in Hannover. The Master Thesis can be written at the home University. In each semester the participants can receive 30 ECTS in approved courses at each University following lectures held in English.

Successful graduates from the study programme will be awarded three degrees:

1. Master of Science (MSc) in Technology (Energy Technology) from Leibniz Universität Hannover, Germany
2. Master of Science (MSc) in Technology (Energy Technology) from Lappeenranta University of Technology, Finland
3. Master of Science (MSc) in Technology (Power Plant Engineering) from Peter the Great St. Petersburg Polytechnic University, Russia

Curriculum for Trilateral Programme

1st SEMESTER

LAPPEENRANTA
- Turbomachinery (4 ECTS)
- Academic Writing in English (4 ECTS)
- Numerical Methods in Heat Transfer (6 ECTS)
- Turbomachinery in Renewable Energy (5 ECTS)

ELECTIVE COURSES:
- Energy Systems engineering (6 ECTS)
- Bioenergy (3 ECTS)
- Nuclear Reactor Design (6 ECTS)
- Maintenance Management (4 ECTS)
- Steam Boilers (6 ECTS)
- Basic Course on Environmental Management and Economics (5 ECTS)
- Advanced Topics in Modelling of Energy Systems (6 ECTS)
- Design of an Electrical Machine (6 ECTS)

ST. PETERSBURG
- Network Problems and Electrical Systems Technology (5 ECTS)
- Electrical Machines (3 ECTS)
- Thermal Power Plants (4 ECTS)
- Renewable Energy: Resources and Technologies in Turbine-Driven Compressors (4 ECTS)
- Practical Module (6 ECTS):
  - Modelling of Vaporization Processes (3 ECTS)
  - Numerical Methods in Heat and Mass Transfer II (3 ECTS)
- Project Work (4 ECTS)

ELECTIVE COURSES:
- Energy Efficient HVAC Systems (2 ECTS)
- Project Management (2 ECTS)
- Designing Energy-Efficient Buildings (2 ECTS)
- Electrical Power Systems and Electric Power Transmission (2 ECTS)
- Technical Superconductivity (2 ECTS)

HANNOVER
- Electrical Machines and Drives (5 ECTS)
- Power Electronics (5 ECTS)
- Electrical Supply Systems (5 ECTS)
- Electrothermal Processes (5 ECTS)
- Aeroacoustics and Aeromechanics of Turbomachinery (5 ECTS)
- Combustion Technology (5 ECTS)
- Fuel Cells and Fuel Cell Systems (5 ECTS)

3rd SEMESTER

LAPPEENRANTA
- Network Problems and Electrical Systems Technology (3 ECTS)
- Power Electronics (5 ECTS)
- Electrical Supply Systems (5 ECTS)
- Electrothermal Processes (5 ECTS)
- Aeroacoustics and Aeroelasticity of Turbomachinery (5 ECTS)

ELECTIVE COURSES:
- Electrical Machines (3 ECTS)
- Thermal Power Plants (4 ECTS)
- Renewable Energy: Resources and Technologies in Turbine-Driven Compressors (4 ECTS)
- Practical Module (6 ECTS):
  - Modelling of Vaporization Processes (3 ECTS)
  - Numerical Methods in Heat and Mass Transfer II (3 ECTS)
- Project Work (4 ECTS)

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HANNOVER
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- Electrothermal Processes (5 ECTS)
- Aeroacoustics and Aeromechanics of Turbomachinery (5 ECTS)
- Combustion Technology (5 ECTS)
- Fuel Cells and Fuel Cell Systems (5 ECTS)

3rd SEMESTER

HOME UNIVERSITY
- Electrical Machines and Drives (5 ECTS)
- Power Electronics (5 ECTS)
- Electrical Supply Systems (5 ECTS)
- Electrothermal Processes (5 ECTS)
- Aeroacoustics and Aeromechanics of Turbomachinery (5 ECTS)
- Combustion Technology (5 ECTS)
- Fuel Cells and Fuel Cell Systems (5 ECTS)