CURRICULUM FOR TRILATERAL PROGRAM ENERGY TECHNOLOGY

1st semester (30 credits) – Lappeenranta University of Technology (Finland)

Core studies:
Academic Writing in English (3 ECTS)
Fluid machinery (4 ECTS)
Fundamentals of Computational Fluid Dynamics (6 ECTS)

Elective Courses:
Advanced Topics in Modelling of Energy Systems (6 ECTS)
Bioenergy (3 ECTS)
Design of an Electrical Machine (6 ECTS)
Energy Systems Engineering (6 ECTS)
Steam Boilers (6 ECTS)
Maintenance Management (4 ECTS)
Solid Waste Management Technology (7 ECTS)

see course details on: https://weboodi.lut.fi/oodi/vl_kehys.jsp?Kieli=6&MD5avain=&vl_tila=2&Opas=312&Org=16194548

2nd semester (30 credits) – Peter the Great St. Petersburg Polytechnic University (Russia)

Electrical Machines (3 ECTS)
Modeling of Vaporization Processes (3 ECTS)
Network Problems and Electrical Systems Technology (3 ECTS)
Numerical Methods in Heat and Mass Transfer II (3 ECTS)
Project Work (4 ECTS)
Thermal Power Plants (4 ECTS)
Turbine-driven Compressors (4 ECTS)

Practical Module: (6 ECTS):

ELECTIVE COURSES:
Designing Energy Efficient Buildings (2 ECTS)
Electrical Power Systems (2 ECTS)
Energy Efficient HVAC Systems (2 ECTS)
Project Management (2 ECTS)
Power System Protection (2 ECTS)

see course details on: http://english.spbstu.ru/education/programs/double-degree-programs/energy-technology/

3rd semester (30 ECTS) – Leibniz University of Hanover (Germany)

• Combustion Technology (block course)
• Electric Power Systems I
• Electrical Energy Storage
• Electrical Machines and Drives
• Electrothermal Processing (Electrotechnologies)
• Power Electronics

Advanced Turbomachinery (start: WS 2020/21)

see course details on: https://www.dbs.uni-hannover.de/et-inf/modkat/lvk/index.php

4th semester (30 ECTS)

• Scientific and Research Work. Master Thesis Completion. Final Examination (30 ECTS)

The master thesis will be written at the home university. The thesis must be defended. The defensive must be attendant by academic staff of all three partner universities. The primary supervisor should be from the institution where the master thesis is performed. The secondary supervisors should be from the other two partner universities.