



RIGA TECHNICAL UNIVERSITY

LATVIAN CENTRE OF ENGINEERING SCIENCE

ANNO 1862

RIGA TECHNICAL UNIVERSITY



- Located in **CAPITAL CITY** of Latvia - Riga
- The **oldest** technical university in Baltic states
Established in 1862
- Only engineering university in Latvia, providing engineering programmes
- Research at RTU is an integral part of study programmes
- Degree, issued by RTU, is **globally recognized**
- RTU has received European University Association Quality Mark and EU Diploma Supplement Label
- RTU is offering more than 37 study programmes in English at all levels

NOTABLE ALUMNUS



- Wilhelm Ostwald - Nobel prize winner in chemistry
- Paul Walden - world-wide known chemist / Walden inversion
- Friedrich Zander - rocketry and spaceflight pioneer
- Ignacy Moscicki - president of Poland (1922-1939)

- **Zbignevs Stankevics** - Roman Catholic Metropolitan Archbishop of Riga
- **Andris Berzins** - President of the Republic of Latvia
- Valdis Dombrovskis - former Prime Minister of the Republic of Latvia
- Ilmars Rimsevics - President of the Bank of Latvia

FOUNDED **1862**



767 ACADEMIC STAFF

502 RESEARCHERS

13 RESEARCH CENTRES

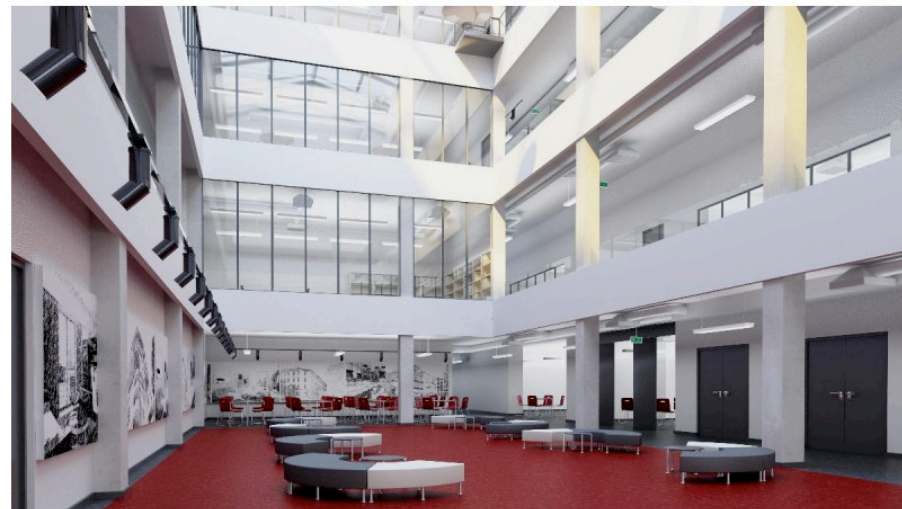


8 FACULTIES

34 INSTITUTES

134 STUDY PROGRAMS

MORE THAN
100.000
GRADUATES



16.000 STUDENTS

RESEARCH FIELDS:

ENERGY

INFORMATION &
COMMUNICATION

MATERIAL SCIENCE &
CHEMISTRY

SAFETY & SECURITY

SMART NETWORKS

STRUCTURAL UNITS

8 Faculties

- ▶ ARCHITECTURE AND URBAN PLANNING
- ▶ CIVIL ENGINEERING
- ▶ COMPUTER SCIENCE AND INFORMATION TECHNOLOGY
- ▶ ELECTRONICS AND TELECOMMUNICATIONS
- ▶ POWER AND ELECTRICAL ENGINEERING
- ▶ MATERIALS SCIENCE AND APPLIED CHEMISTRY
- ▶ TRANSPORT AND MECHANICAL ENGINEERING
- ▶ ENGINEERING ECONOMICS AND MANAGEMENT

34 Institutes, 1 independent institute, 44 departments,
48 professor's groups, 27 laboratories, 19 centers



RESEARCH FIELDS

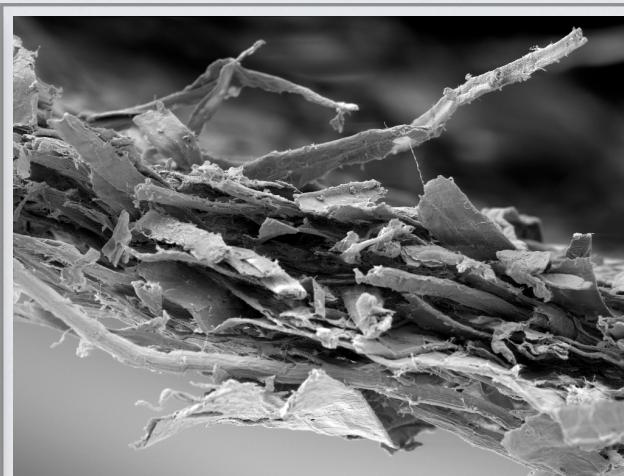
ENERGY & ENVIRONMENT

Renewable and Alternative Sources of Energy & technologies for their Conversion

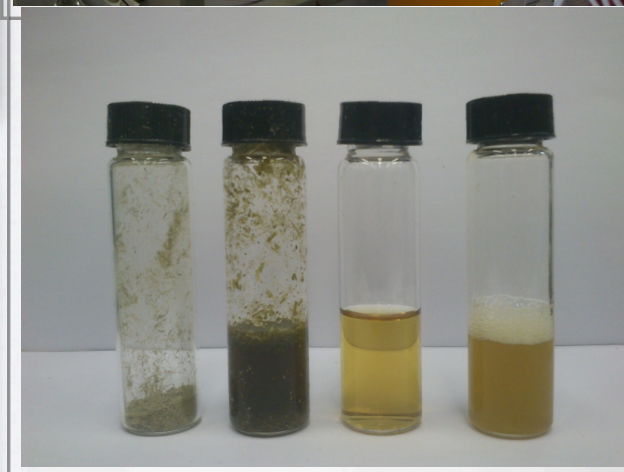
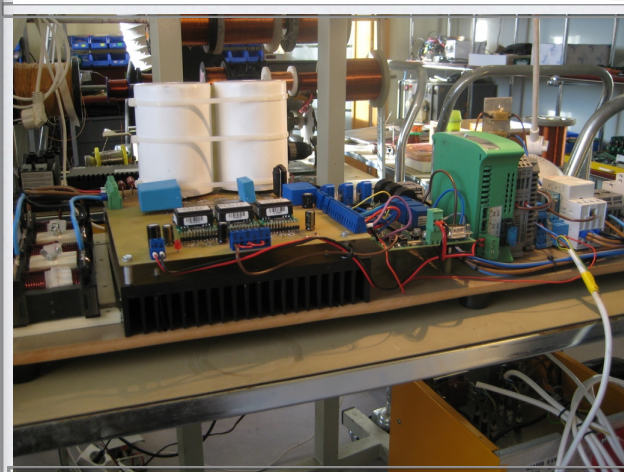
Energy saving and Efficiency

Environmental Technologies

Environmental Management



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Date(m/d/y): 05/22/08 Det: SE Detector Riga Technical University



SMART NETWORKS

High Capacity Automatics

Power Supply for Transportation, Electrical Grids

Communications in Optical Grids, Smart Lighting Grids

Cleaning of Water Supply systems

CITIES & DEVELOPMENT

Interaction of Multifactor in Landscape Development

Real Estate Process Prognoses

TRANSPORTS

Unmanned Aircraft Design, Aviation Control Systems

Aeronautics & Space Technologies, Vehicles Design, Railways Transport

Transport Economics and Logistics

RESEARCH FIELDS

MATERIALS, PROCESSES & TECHNOLOGIES

Sol-gel (optics, power supply)
Surfaces of Polymercomposits

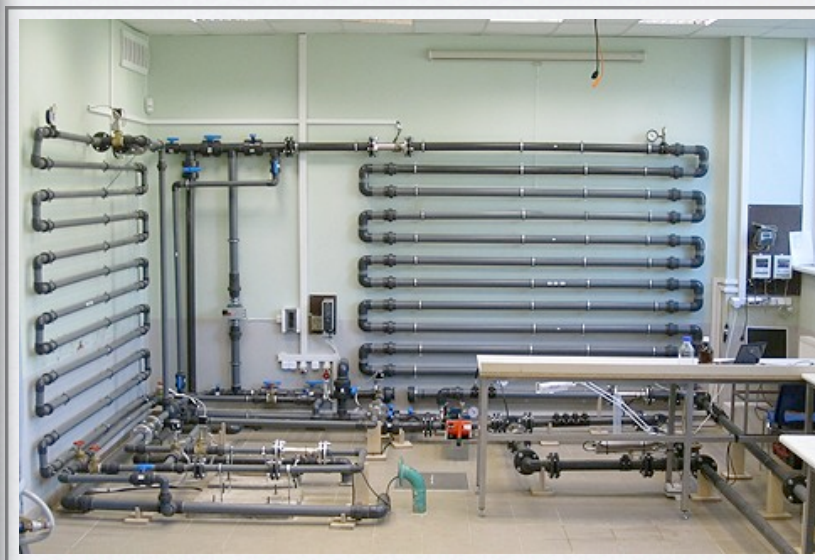
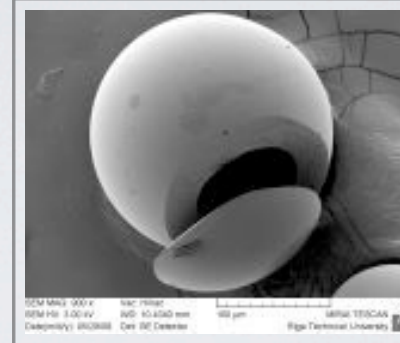
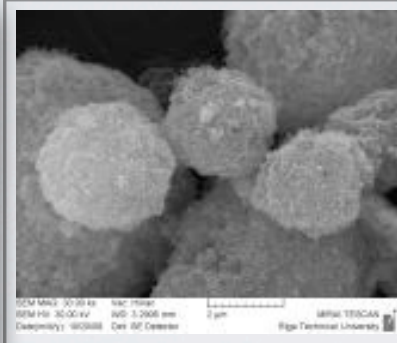
Arterial Implants, Composite
Materials (planes, ships)

Biomaterials, Electrochemical
Surface Coverage

Nanoparticles, Organic Synthesis &
Quality Control

Microclimate Regulated Clothing

Bionano & Microsensors,
Superelastic Pressure Sensors



INFORMATION & COMMUNICATION

Modeling (vehicle,
groundwater) & Imitation

Artificial Intelligence,
Intelligent Robotics

Viable Systems Approach

Hybrid Simulation-Based
Optimization Tools

SAFETY & SECURITY

Electrical Controls, Power
Quality & Delivery Safety

Water Safety & Security,
Cyberphysical systems,
Customs & Border Protection

RESEARCH CENTRES

EMC Research Centre

Biomaterial Research and Development Centre

Water Research Centre

Laboratory of Polymer Testing

Research Laboratory for Fuel Quality Control

Laboratory for Analytical Control of Environmental Pollution Construction

Materials Laboratory

Laboratory for Road Building Materials

Laboratory for Concrete Mechanics

Laboratory for Non-destructive Testing Methods Environment Modelling Centre

Research Laboratory for Machine and Mechanism Dynamics Institute of

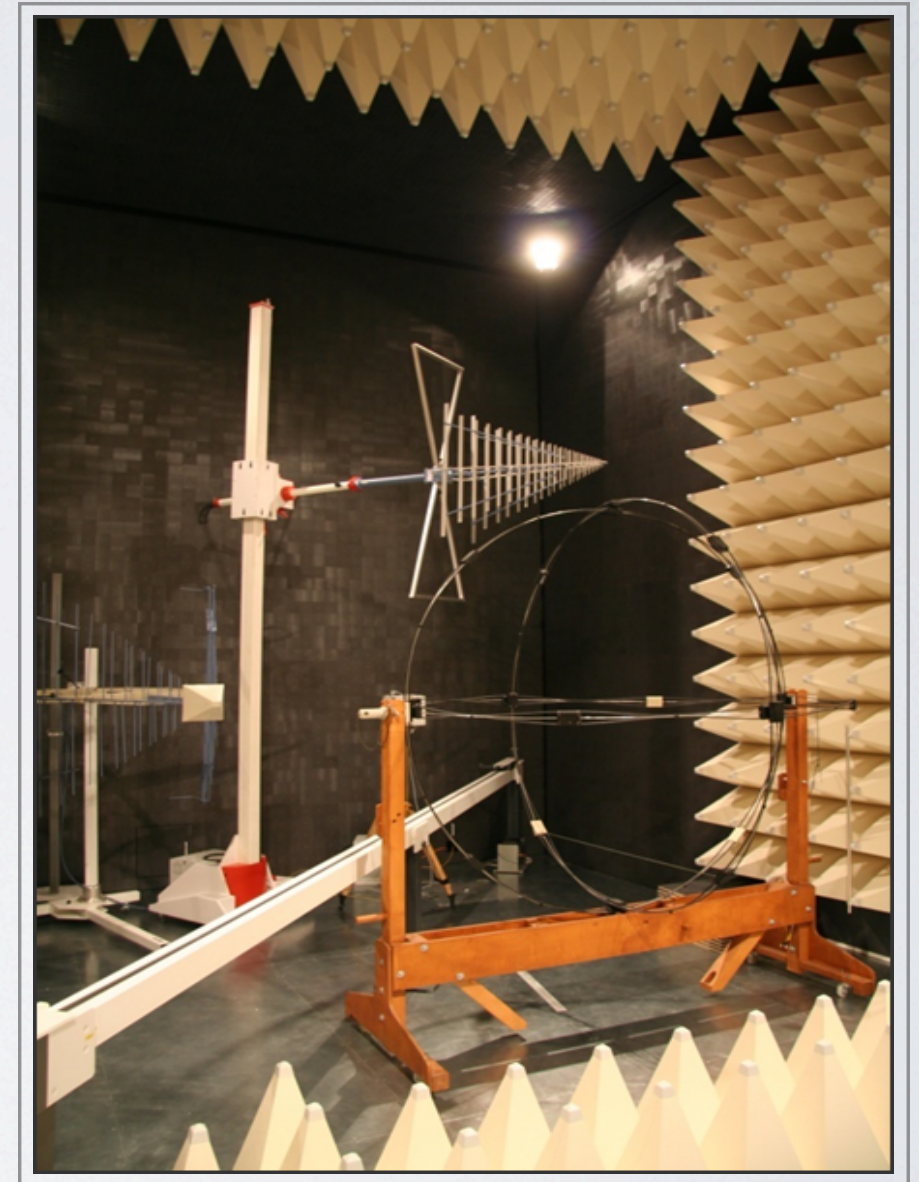
Inorganic Chemistry

Laboratory for Testing Silicate Materials

ELECTROMAGNETIC COMPATIBILITY AND SECURITY RESEARCH CENTRE

The centre offers the most update and comprehensive electronic and electrotechnical equipment testing facilities in the Baltic.

There is an anechoic measurement chamber with the intensity range up to 40 GHz, which ensures the testing results of complex electromagnetic compatibility and electric security in accordance with 28 Standards and Directives of the EU.



www.leitc.lv

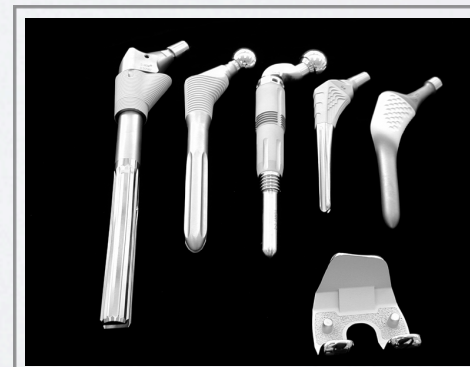
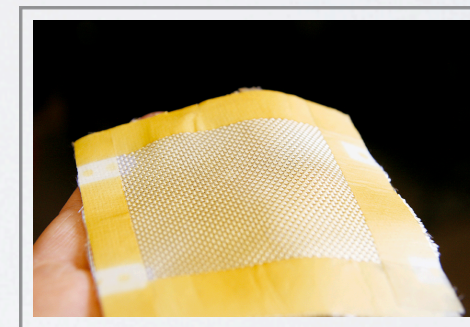
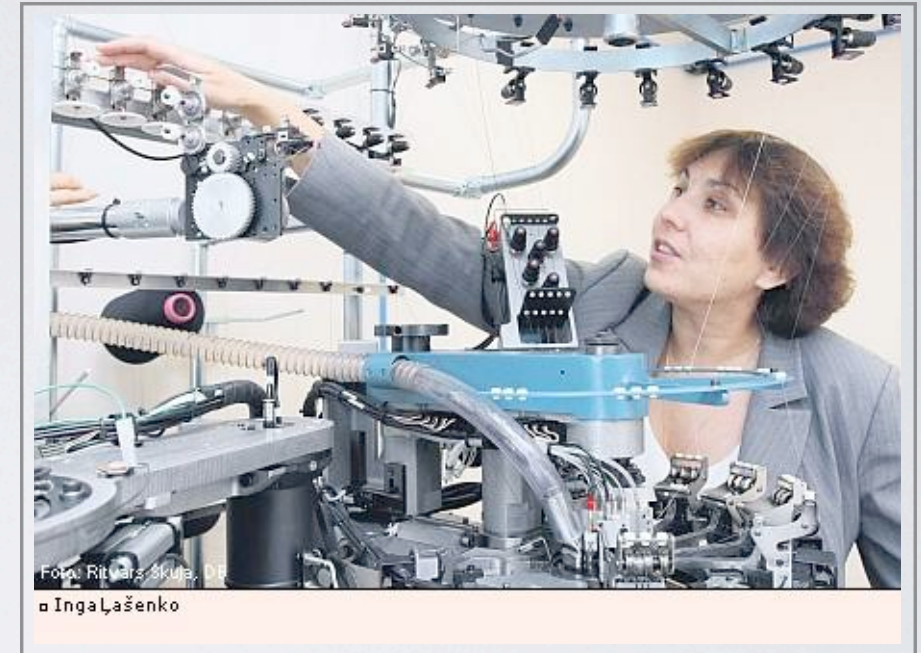
RIGA CENTRE OF BIOMATERIAL INNOVATION AND DEVELOPMENT

The BIGGEST AND MOST MODERN biomaterial research centre in the Baltics.

FIELDS OF RESEARCH

development of biomaterials from nanopowders, metals, ceramics, textiles, so that they could be implanted in a live body to substitute broken tissues and fully integrated in its other tissues.

[//rbiac.rtu.lv/eng](http://rbiac.rtu.lv/eng)



RIGA CENTRE OF BIOMATERIAL INNOVATION AND DEVELOPMENT

INGA LAŠENKO,
Dr.sc.ing., Senior Researcher

Inventor of **AMBER THREADS**
used in fashion industry, in
surgery materials

**Awards of World Intellectual
Property Organization**

2009
2010

Gold Medal for Innovation
Gold Medal for Science



BALTIC INSTITUTE OF RESEARCH, TECHNOLOGY AND INNOVATION

Cross border cooperation platform aiming at coordinated development of human resources and infrastructure in research, technology, development and innovation in all three Baltic States, focusing on developing research and innovation capacity and strengthening excellence in the Baltic Sea region.

Three clusters:

1. **BaltSmartTech** - smart technologies in engineering and ICT - RTU leading partner.
2. **NanoTechEnergy** - nanostructured materials and high energy radiation
3. **BioPharmAlliance** - biopharmacy and organic chemistry

Five specialisation fields -
mechatronics; cyber-physical systems; functional materials; smart energy
and water technologies; aeronautics and astronautics

WWW.BIRTI.EU/EN/

PARTICIPATION IN FP 7

| SECURITY & SPACE | ENERGY | ICT | INNOVATION FP (CIP) | TRANSPORT | PEOPLE | REGIONS & INFRA-STRUCTURE |
|--|--|--|--|---|---|------------------------------------|
| SECUREAU SEREN 2 COCAE SEREN SAFEMETAL COSMOS + DESICIOS COSMOS | ICOEUR PEGASE BIOWALK4 BIOFUELS | FILOSE eINTERASIA NSAFECER PSAFECER | LITES MAPPIC 3D COALINE SUNRISE | ESTOLAS TRANSNEW AISHA II SMART RAIL | ENERGY INNOPIPES CHEMI FUN2NIGHT RESEARCH FUN REALIGNMENT | COOLSWEEP BALTIC GRID-II |

PARTICIPATION IN RESEARCH CENTERS OF NATIONAL SIGNIFICANCE (RCNS)

ERDF ACTIVITY 2.1.1.3.1. DEVELOPMENT OF SCIENTIFIC INFRASTRUCTURE

RCNS for **ENERGY** and technologies of environmental resources extraction and sustainable use (incl. also development of a transport and mechanical engineering centre)

RCNS for **PHARMACY** and **BIOMEDICINE** (incl. also the establishment of a study and research centre of pharmaceutical technologies and biopharmacy centre)

RCNS for **INFORMATION** and **SIGNAL PROCESSING** technologies (incl. also the establishment of a space data processing centre)

RCNS for **NANOSTRUCTURED** and multifunctional materials, constructions and technologies

PARTICIPATION IN COMPETENCE CENTERS

Competence Centre for Environment Protection, Bioenergy
and Biotechnology

Competence Centre for Information and Communication
Technology

Competence Centre of Latvian Electric and Optical Equipment
Productive Industry

Competence Centre for Transport Mechanical Engineering

RTU INNOVATION AND TECHNOLOGY TRANSFER CENTRE

The aim of the Centre is to facilitate innovation and technology transfer.

RTU Innovation and Technology Transfer Centre

- ▶ promotes the inventions of RTU researchers and new technologies;
- ▶ helps bringing the inventions and new technologies to market;
- ▶ promotes information about intellectual property created at RTU
- ▶ maintains database of research competences and research results



STUDY PROCESS

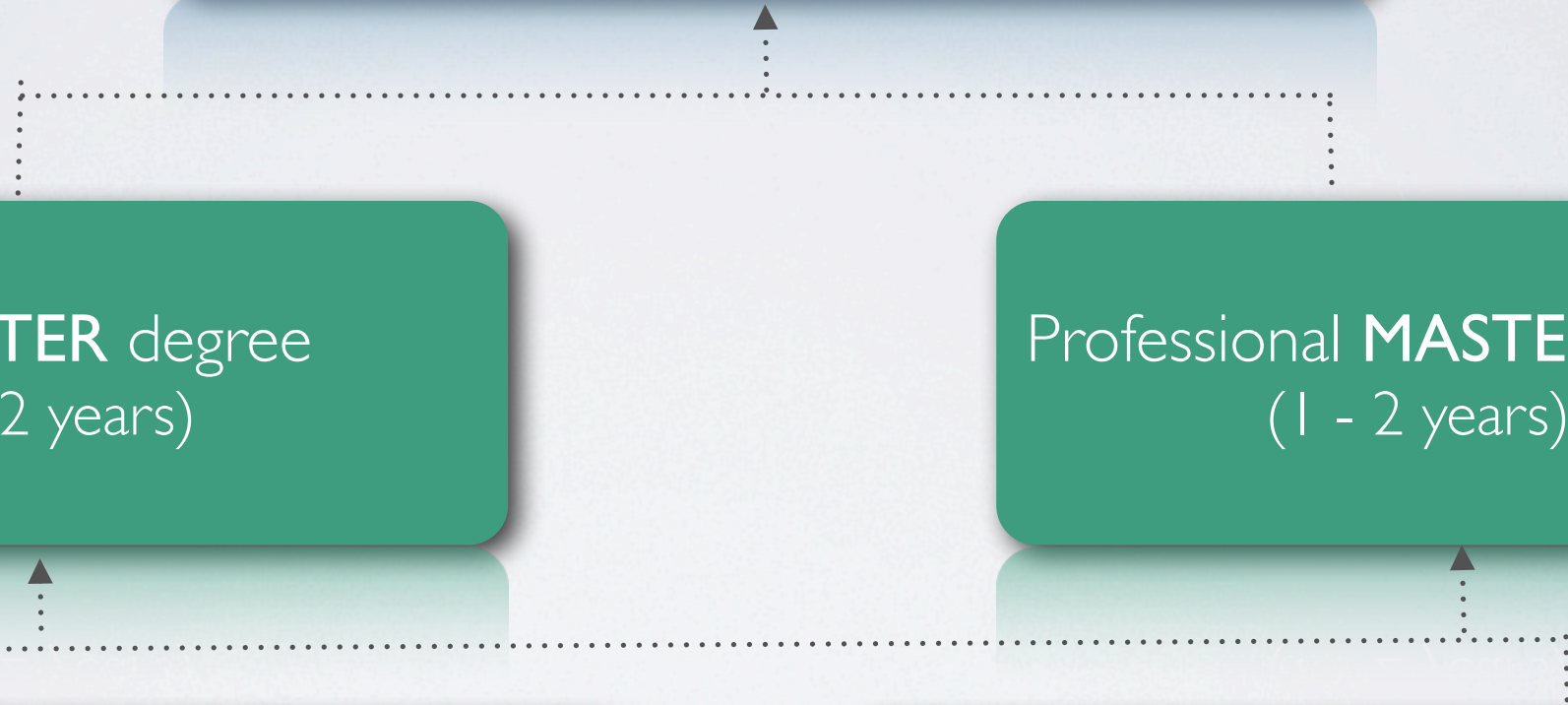
DOCTORAL studies
(4 years)

MASTER degree
(2 years)

Professional **MASTER** studies
(1 - 2 years)

BACHELOR degree
(3 - 4 years)

Professional **BACHELOR** studies
(4 - 5 years)



STUDY PROGRAMS IN ENGLISH

BACHELOR

- ▶ Geomatics
- ▶ Civil Engineering
- ▶ Transportation Engineering
- ▶ Computer Systems
(Euro-Inf Quality Label)
- ▶ Computerised Control of Electrical
Technologies
- ▶ Telecommunications
- ▶ Chemistry
- ▶ Entrepreneurship and Management
- ▶ Mechanics and Mechanical Engineering
- ▶ Aviation Transport
- ▶ Medical Engineering and Physics
- ▶ Transport Systems Engineering

MASTER

- ▶ Civil Engineering
- ▶ Computer Systems (Euro-Inf Quality Label)
- ▶ Business Informatics
- ▶ Logistics and Supply Chain Management
- ▶ Entrepreneurship and Management
- ▶ Business Finance
- ▶ Telecommunications
- ▶ Computerised Control of Electrical
Technologies
- ▶ Environmental Science
- ▶ Engineering Technology, Mechanics
- ▶ Aviation Transport
- ▶ Heat Power and Heat Engineering
- ▶ Medical Engineering and Physics

Additional Information about programmes and admission

www.fsd.rtu.lv



CAMPUS IN KIPSALA

STUDENTS DORMITORY BUILDINGS



● **Newly renovated** dormitory buildings.

● Located in **walking distance** from all campus buildings.

● The living space is organized into **apartments** - three double rooms per apartment with a kitchen and a bathroom.



INTERNATIONAL COOPERATION

Activities:

- ◉ Exchange of students and staff within Erasmus / Erasmus + program
- ◉ Invited lecturers from industry
- ◉ International study programs in cooperation with Scandinavian and Baltic states (BALTECH)
- ◉ International summer schools
- ◉ International staff weeks
- ◉ DAAD scholarship program
- ◉ Language courses

[facebook.com/ international relations RTU](https://facebook.com/international_relations_RTU)



WELCOME TO RTU