



**VILNIUS
TECH**

Vilniaus Gedimino
technikos universitetas

Research activities

**Director of Science and Research Office
Assoc. Prof. Dr Vaidotas Vaišis**

10 FACULTIES OF VILNIUS TECH

- ANTANAS GUSTAITIS' AVIATION INSTITUTE
- ARCHITECTURE
- BUSINESS MANAGEMENT
- CIVIL ENGINEERING
- CREATIVE INDUSTRIES
- ELECTRONICS
- ENVIRONMENTAL ENGINEERING
- FUNDAMENTAL SCIENCES (ICT & Computer Sciences)
- MECHANICS
- TRANSPORT ENGINEERING



7 RESEARCH PRIORITIES:

- **Sustainable building**
- **Environmental and energy technologies**
- **Sustainable transport**
- **Mechatronics**
- **Information and communication technologies**
- **Economics engineering, management and communication**
- **Fundamental research on materials and processes**



SUSTAINABLE BUILDING

PARTICIPATING UNITS:

- **Faculties of Civil Engineering, Architecture and Environmental Engineering**
- **Institutes of Building Materials, Building and Bridge Structures, Sustainable Constructions, Architecture, Territorial Planning, Roads Research**
- **Centres of Building Information and Digital Modeling, Civil Engineering Research**

TOPICS:

- **Smart Building structures**
- **Low emissions building materials and technologies**
- **Architecture and build environment**
- **BIM and sustainable lifecycle of structures**
- **Geodetic technologies**



ENVIRONMENTAL AND ENERGY TECHNOLOGIES

PARTICIPATING UNITS:

- Faculties of Environmental Engineering and Civil Engineering
- Institutes of Environment Protection, Building Materials, Geodesy, Territorial Planning, Road Research
- Civil Engineering Research Center

TOPICS:

- Efficient use of resources and energy
- Environmental protection technologies
- Building energetics
- Renewable energy
- Change of anthropogenic environment



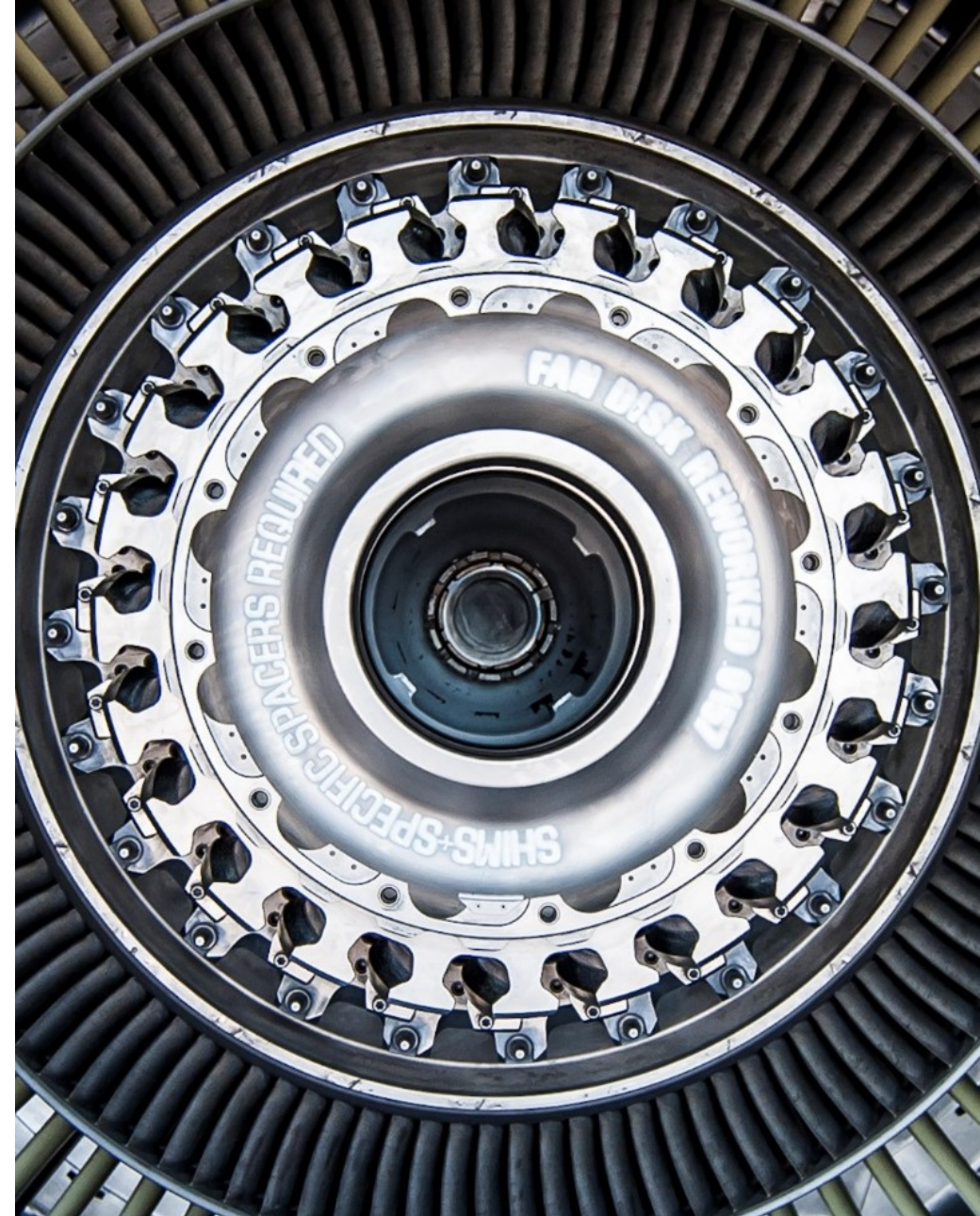
SUSTAINABLE TRANSPORT

PARTICIPATING UNITS:

- Faculties of Transport Engineering, Mechanics, Civil, Environmental Engineering
- Institutes of Aviation, Road Research, Territorial Planning
- Centres of Intermodal Transport and Logistics, Civil Engineering Research, Aerospacedata

TOPICS:

- Autonomous land and air transport
- Environment-friendly transport
- Green logistics, international transport corridors
- Traffic safety technologies
- Urban mobility



MECHATRONICS

PARTICIPATING UNITS:

- **Faculties of Mechanics, Electronics, Transport Engineering and Fundamental Sciences**
- **Institutes of Mechanical Science, Applied Computer Science**

TOPICS:

- **Smart embedded systems**
- **Mechatronics for Industry 4.0 systems**
- **Metamaterials and nano-structures**
- **Bionics and biomedicine engineering systems**
- **Innovative electronic systems**



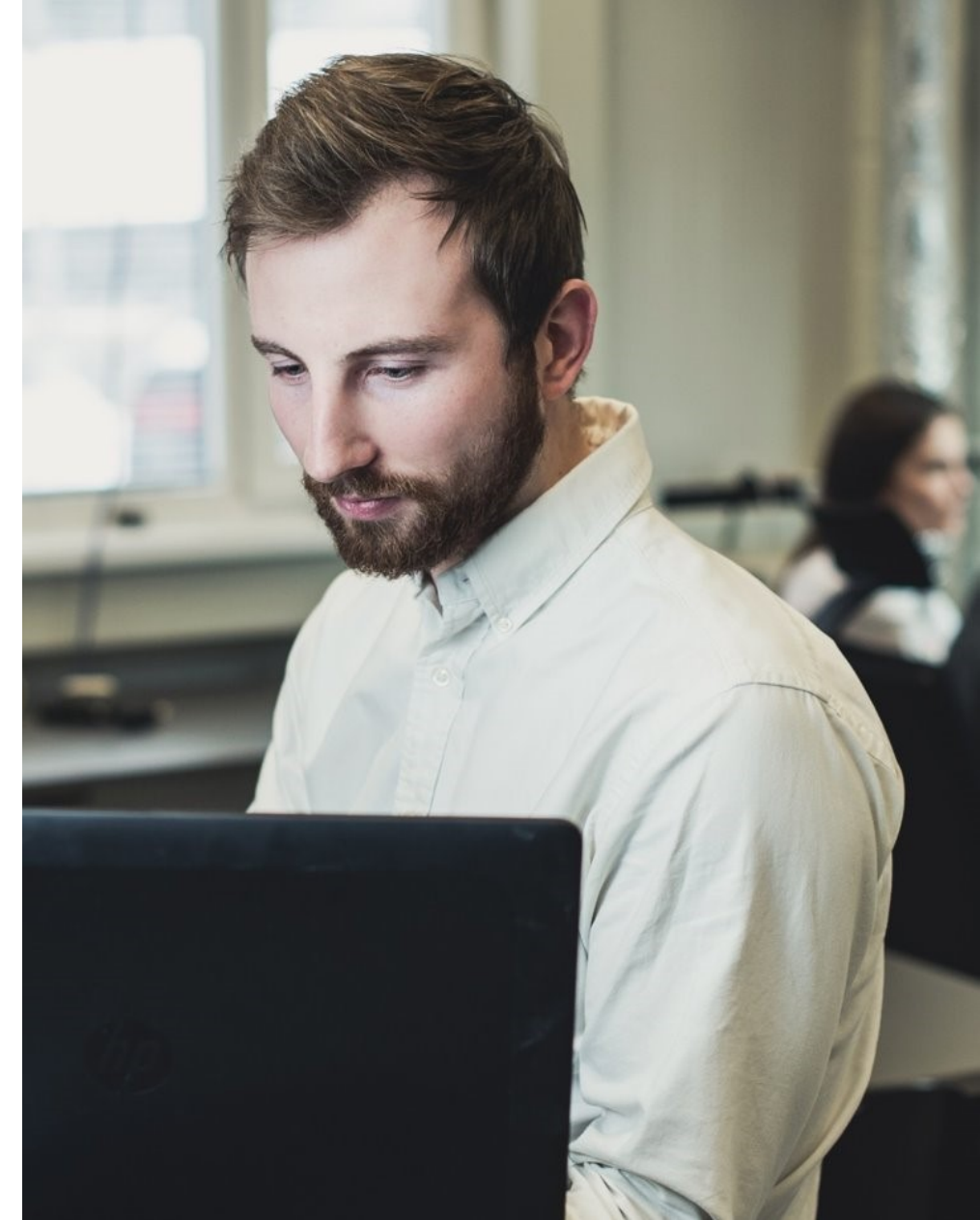
INFORMATION AND COMMUNICATION TECHNOLOGIES

PARTICIPATING UNITS:

- **Faculties of Fundamental Sciences, Electronics and Mechanics**
- **Centres of Building Information and Digital Modeling, Aerospacedata**
- **Institutes of Applied Computer Science, Telecommunications**

TOPICS:

- **Information and IT security**
- **Smart signal processing and telecommunication technologies**
- **Artificial intelligence and decision making systems**
- **Geoinformation technologies**
- **Virtual and augmented reality**



FUNDAMENTAL RESEARCH ON MATERIALS AND PROCESSES

PARTICIPATING UNITS:

- **Faculties of Fundamental Sciences and Electronics**
- **Institutes of Applied Computer Science, Mechanical Science, High Magnetic Fields and Building Materials**
- **Technology Center for Building Information and Digital Modeling**

TOPICS:

- **Mathematical models of physical, technological and economic processes**
- **Investigations of cells and their biologically active components**



ECONOMICS ENGINEERING, MANAGEMENT AND COMMUNICATION

PARTICIPATING UNITS:

- Faculties of Business Management and Creative Industries
- Institute of Dynamic Management

TOPICS:

- Management of the development of contemporary organizations
- High value-added economy
- Dynamic management
- Communication management in an inclusive and creative society
- Creative industries for digital society development



STRUCTURE OF RESEARCH SUBDIVISIONS

4 RESEARCH CENTRES:

- Civil Engineering Research Centre
- Transport and Logistics Competence Centre
- Technology Center for Building Information and Digital Modeling
- Aerospacedata Centre

22 RESEARCH LABORATORIES:

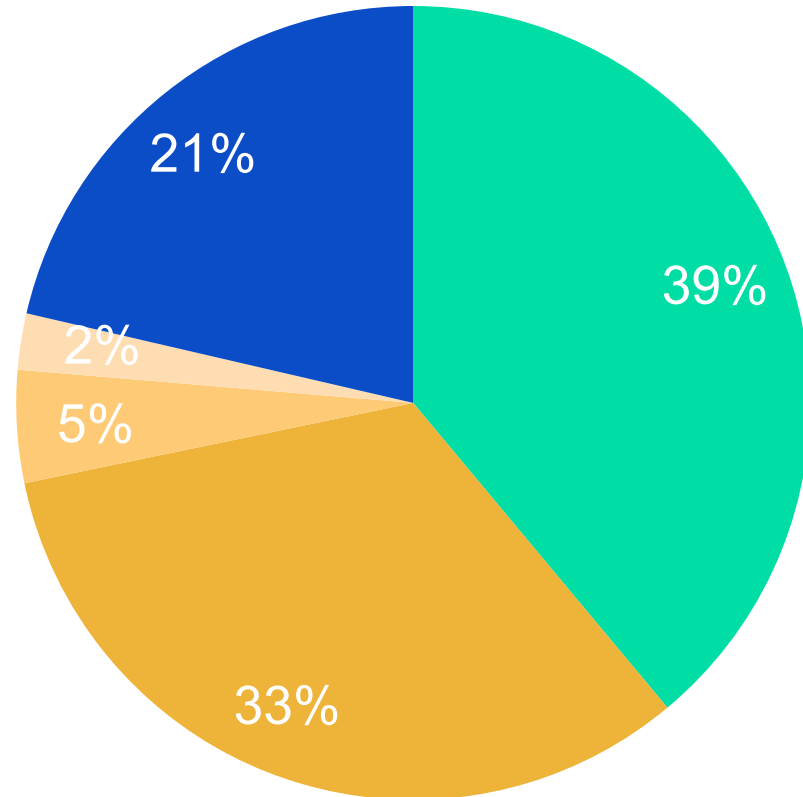
6 accredited, 1 notified

13 RESEARCH INSTITUTES:

- Research Institute of Sustainable Constructions
- Research institute of Building and Bridge Structures
- Research institute of Building Materials
- Research Institute of Environment Protection
- Research Institute of Geodesy
- Road Research Institute
- Research Institute of Territorial Planning
- Institute of Applied Computer Science
- Institute of Mechanical Science
- Institute of Architecture
- Research Institute for Telecommunications
- Institute of High Magnetic Fields
- Institute of Dynamic Management



R&D FUNDING SOURCES

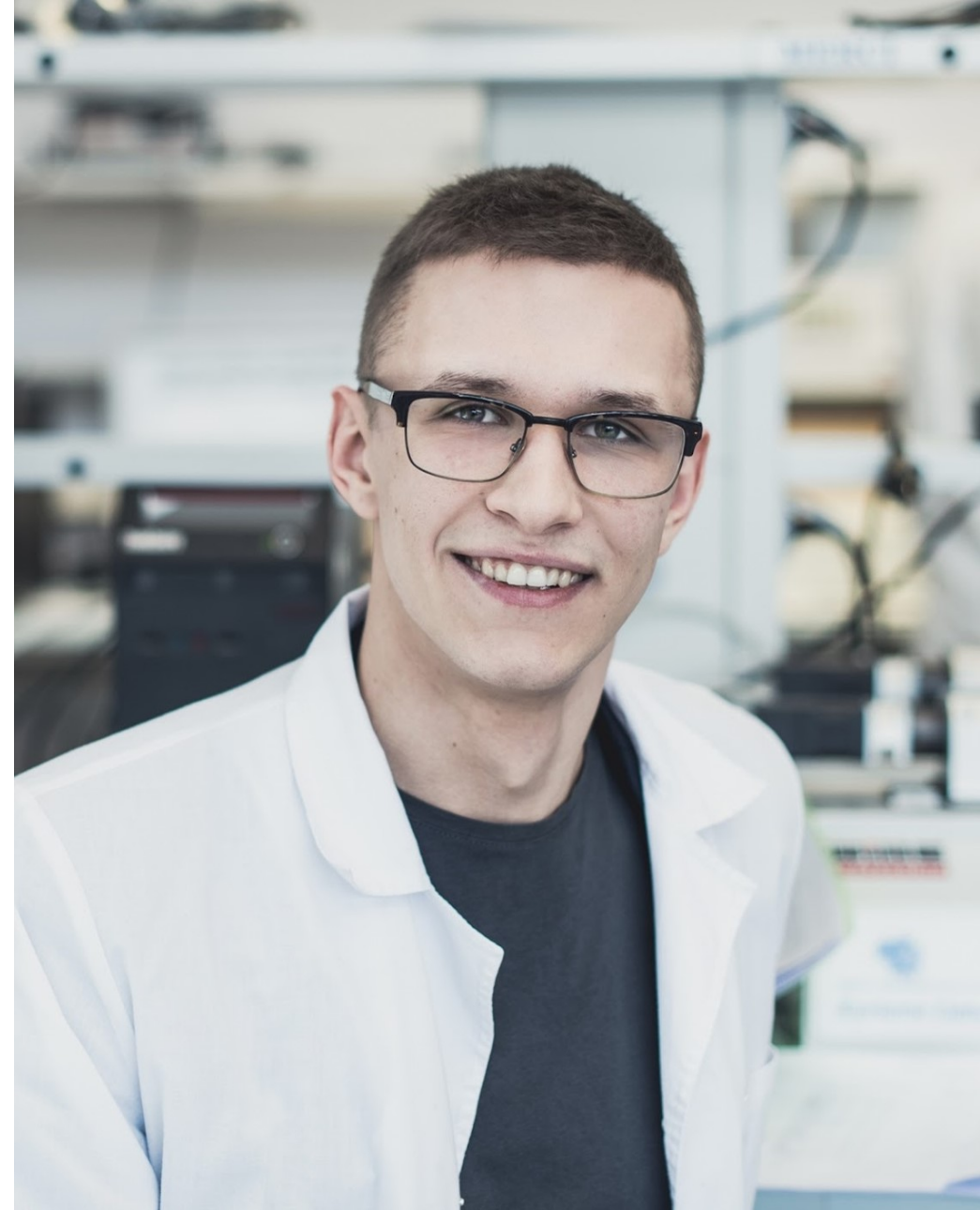


- State budget for research activities
- Contract based research and services
- International research projects
- National research projects
- Structural funds research projects



ACCREDITED LABORATORIES

- **Laboratory of Composite Materials**
(Research Institute of Building Materials)
- **Laboratory of Thermal Insulating Materials and Acoustics**
(Research Institute of Building Materials)
- **Laboratory of Buildings, Constructions and Materials**
(Faculty of Civil Engineering)
- **Laboratory of Environmental Protection and Working Conditions**
(Faculty of Environmental Engineering, Research Institute of Environmental Protection)
- **Laboratory of Calibration**
(Faculty of Environmental Engineering, Research Institute of Geodesy)
- **Laboratory of Road Research**
(Faculty of Environmental Engineering, Road Research Institute)



PROJECT ACTIVITIES AND CONFERENCES

- Over **20** research projects per year: Horizon2020, INTERREG Baltic Sea Region, ESF, Marie Curie, Research Council of Lithuania, other
- Over **50** study projects per year: Erasmus+ (Capacity Building in Higher Education, Strategic Partnerships, Knowledge Alliances, ICM)
- Over **30** scientific conferences and seminars every year: (e.g., Environmental Protection, Civil Engineering, Creative Industries, Transportation Science and Technology)



VILNIUS TECH PUBLISHING HOUSE ACTIVITIES

- VILNIUS TECH publishes **15** research journals, **10** of them are referred in the Clarivate Analytics Web of Science databases
- **87%** of scientific articles published in journals referred in the international database are indexed in Clarivate Analytics Web of Science
- VILNIUS TECH all years articles H-Index is **85**





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