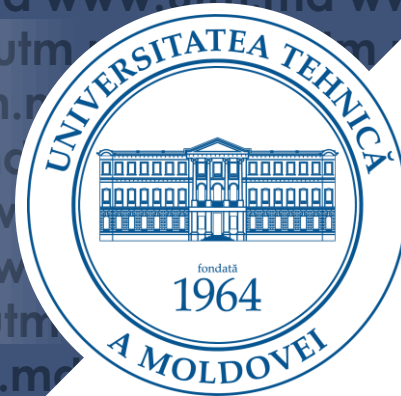


TECHNICAL UNIVERSITY OF MOLDOVA



UNIVERSITATEA TEHNICĂ
A MOLDOVEI



Engineers create the future! #UTM

1



ABOUT UTM

History & Numbers



TECHNICAL UNIVERSITY
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GET INSPIRED BY UTM



11 faculties



493 laboratories

95 design classes



6 research centres



Nr 1

among universities in the country
(The World University Ranking
- Impact Ranking 2022)

among universities in the country
and Romania („Round University
Ranking (RUR) World University
Rankings“)



+11500
Students



+973
Academic staff



85%

of graduates are
employed within 3
months of graduation

- Cooperation agreements with over 75 universities in the EU, USA and Canada
- Mobility programmes, summer schools and internships abroad
- The first nano-satellite in the country built by UTM and launched into Earth orbit

UTM hosts:

- the first centre of excellence in ICT - **TEKWILL**
- the first wine making state of the art production and research laboratory
- Fashion Innovation Hub - **ZIPHouse**
- the ultramodern platform of digital manufacturing, industrial design and engineering - **FabLab**

2



RESEARCH



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RESEARCH

External funding comes from State Research programs (about 50%), other 50% come from international programs funded by Romanian Government, European Union, Francophone University Agency and others.

Research is organised within 6 research centres, with results recognized nationally and internationally, being in TOP100 Highly Cited Researchers (WoS).



14

Scientific events



219

Researchers



Scientific publications

798



31

Scientific projects performed



Patenting activity

27



164

Awards at International Salons of Invention



7573

thousand, lei
State funding



Google Scholar **1873**

Scopus **1546**

The Hirsch Index **58**

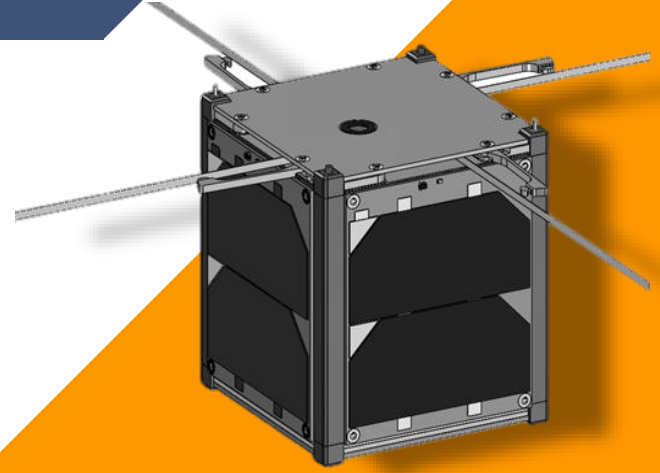
RESEARCH

Main areas of research:

- Food quality and food processing technologies;
- Innovative mechanical transmissions;
- Innovative technologies in oenology;
- Intelligent power management system;
- Renewable energy and conversion systems;
- Nanotechnologies and multifunctional nanomaterials;
- Advanced communication technologies;
- Electronics, optoelectronics, photonics, spintronics etc.

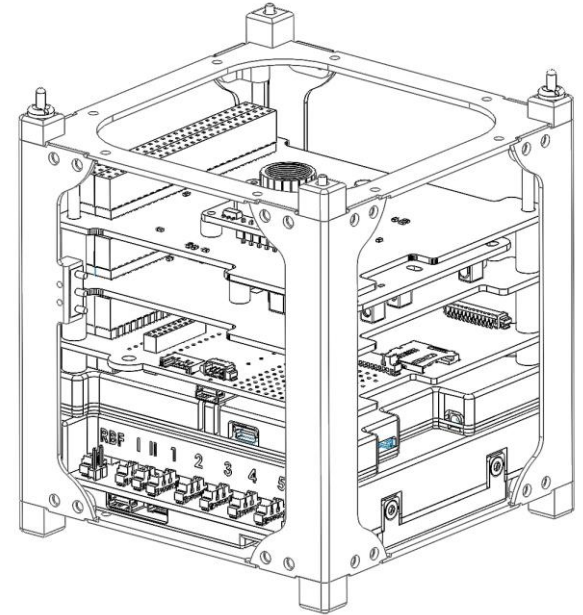
Educational Satellite TUMnanoSAT

- Research of the functionality of nanosensors in space radiation conditions
- Research the total dose of radiation absorbed by the TUMnanoSAT satellite components
- Research and testing of attitude determination sensors (magnetometers, microgyroscopes, solar sensors) in order to optimize the attitude control algorithms for the future satellites

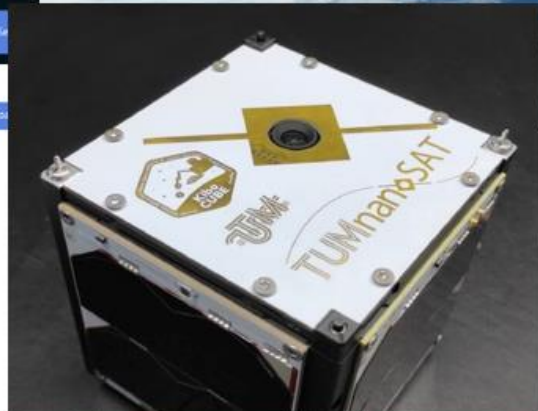
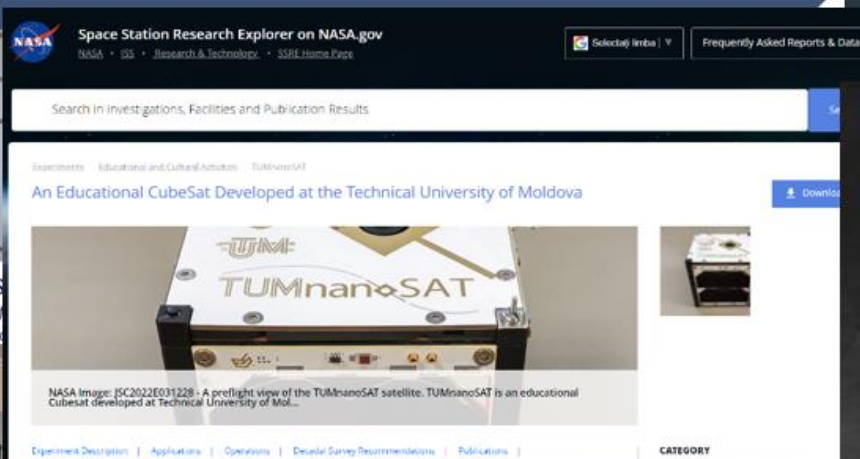


Educational Satellite TUM nanoSAT

- ❑ Development of efficient communication algorithms for “ground station - satellite”
- ❑ Testing the optimal energy distribution system accumulated in space conditions
- ❑ Capturing of medium resolution images and modes of transmitting them to ground stations



Educational Satellite TUMnanoSAT



3



INTERNATIONAL ENGAGEMENTS & RANKING

UTM has signed agreements and has cooperation
with 57 Universities across the world



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INTERNATIONAL ENGAGEMENTS & RANKING

UTM is part of international projects, financed by UE, AUF, NATO, Sweden or USA.

UTM is member of CEEPUS programme, being part of 12 networks.

UTM is part of the project “Fruit Garden Moldova”, financed by European Investment Bank program “Renovation and endowment of training and research laboratories within the Horticultural Sector Restructuring” (2 mln EUR).

UTM is involved in the Wine Sector Restructuring Program “Filiera Vinului” financed by European Investment Bank to contribute to country's wine industry redressing and promotion of wine Protected Designation of Origin (P.D.O) and Protected Geographical Indication (P.G.I) (2 mln EUR for renovation and endowment of research laboratories).

INTERNATIONAL ENGAGEMENTS & RANKING

- Nr. 1 among universities in the country (The World University Ranking – Impact Ranking 2022)
- Nr. 1 among universities in the country and Romania („Round University Ranking (RUR) World University Rankings”)
- No.1 in the Ranking Web of Universities (Webometrics) among local universities (July 2020/January 2021).
- No.1 in the Ranking web of repositories – transparent ranking: Institutional Repositories by Google Scholar among local Universities (July 2020).
- No.1 in QS ranking for Emergent Europe and Central Asia among local universities (251-300 in this area among 400 universities included in the ranking).
- About 20 teaching and administrative staff mobilities annually and other 20 student mobilities annually for all study cycles.

Wine Sector & Fruit Garden Moldova



4



Centers of Excellence



TECHNICAL UNIVERSITY
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ZIPhouse – Fashion Innovation Hub



ZIPHOUSE



An innovational center specialized in design and technology in textile industry, offering students, young designers and specialists in the field modern technical resources for their study. It was designed in an eco-industrial style and equipped with media, IT and specialized production equipment.

TEKWILL - Center of Excellence in Information Technologies and Communications



Opened in March 2017, Tekwill is a coworking space rich in state-of-the-art equipment, practical projects, entrepreneurial activities, mentoring and access to the international IT services and products market.

FABLAB Chisinau



It is the largest prototype and small-scale production workshop space in the Republic of Moldova equipped with computer-controlled devices and machines. It is the best open innovation space for designers, engineers, architects, electricians, entrepreneurs and students who want to develop transformational projects for the community.

11



FACULTIES



TECHNICAL UNIVERSITY
OF MOLDOVA

Faculty of Electronics and Telecommunications



What can you study here?



- Applied information technologies
- Information security in electronic and telecommunications systems
- Specialized software applications
- Mobile communications networks
- Optical communications networks
- Standards and interconnection of communications networks
- Radio and TV communication networks
- Designing communication networks based on Cisco, Mikrotik and Huawei equipment

Faculty of Power and Electrical Engineering



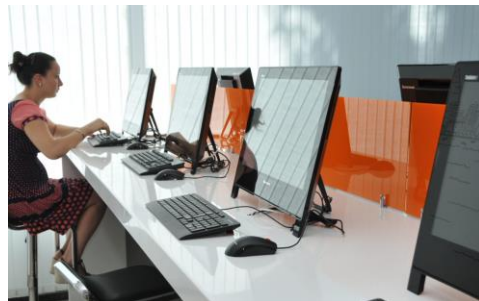
What can you study here?



- Power system design
- Elaboration and maintenance of equipment, electronic and electromechanical converters
- Implementation of electromechanical systems for automation of technological processes
- Metrology, standardization, product compliance, quality management
- Optimization of energy processes in the transport system
- Technologies for the use of renewable energy sources
- Design of thermal energy systems

Faculty of Computers, Informatics and Microelectronics

What can you study here?



- Design and development of software / hardware products
- Design and use of operating systems. Database
- Design and management of computer networks
- System and network programming. Web technologies
- Design and programming of robotic and mechatronic systems
- Management of medical technologies. Telemedicine and digital communications
- Development / design of IT products and systems
- Development / programming of microelectronic systems and nanotechnologies
- Information security

Faculty of Food Technology

What can you study here?



- Composition and quality of food
- Food technologies
- Wine and fermentation products manufacturing technologies
- Ecology of food products
- Developing own businesses in the food industry
- Development of national and international food programs



Faculty of Mechanical and Industrial Engineering and Transport

What can you study here?



- Technological and constructive design of manufacturing products and processes
- Design of finished products
- Design of enterprises and equipment in the textile and food industries, automotive/rail transport
- Automotive/rail transport and logistics management
- Traffic organization / road and rail traffic safety
- Construction, maintenance, diagnosis and repair of automobiles/railway vehicles, machinery in the food, textile and artificial cold industry

Faculty of Urban Planning and Architecture

What can you study here?



- Design, execution, reconstruction and maintenance of civil engineering
- Elaboration of production technologies
- Organization, production planning and management
- Elaboration of project documentation
- Exploitation and maintenance of engineering systems
- Design, construction, reconstruction and maintenance of infrastructure objects
- Landscape design and landscaping
- Exploitation of machinery and construction equipment

Faculty of Constructions, Geodesy and Cadastre

What can you study here?



- Edifice engineering and construction
- Marketing and real estate management
- 3D modeling of land, objects on the terrestrial surface, based on topographic and photometric measurements
- Modern methods, stages and procedures for the development of digital maps and plans
- Representation on the plan or map of the land surface
- National and international standards for assessing real estate

Faculty of Economic Engineering and Business

What can you study here?



- Marketing / Digital Marketing
- Accounting / IT in Accounting
- Finance
- Micro and Macroeconomics
- Economy of Enterprises
- Investment management (Industry / Construction)
- Global economy

Faculty of Design

What can you study here?



- Fashion design and textiles
- Design and production of fashion and clothing collections, footwear and leather goods
- Fine and decorative-applied arts (painting, graphics, artistic print, etc.)
- Design and production of polygraphic products
- Management and economy of garment manufacturing systems
- Polygraphic production management
- Design software (Adobe: Photoshop, Illustrator, InDesign, Premiere Pro, Dreamweaver, Light Roam, Corel Draw, AutoCAD, GEMINI CAD, MINI CAD 3D etc.)
- Using information technologies to design and launch products

Faculty of Agricultural, Forest and Environmental Sciences

What can you study here?



- Agricultural practices and techniques of crop production, seed production and certification
- How to start an agribusiness or a food business
- Basics of environmental protection and use of natural resources
- Theoretical and practical aspects of animal breeding, reproduction and genetics.
- Quality control of agri-food products, foods of plant/animal origin
- Cultivation and production technology of grapes, fruits, vegetables, flowers and forest plants
- Pest and disease control of grapes, fruits, vegetables, flowers and forest plants
- Metrology, standardization, product compliance and quality management

Faculty of Veterinary Medicine

What can you study here?



- Veterinary and surgical services
- Diagnosis of animal diseases
- Treatment of animals
- Veterinary gynecology, obstetrics and orthopedics
- Veterinary reproductive biotechnology
- Treatment and control of parasitic diseases
- Veterinary border control of products of animal origin
- Hygiene, technology and control of products and by-products of animal origin
- Food safety

1895-1903

Administrative Building

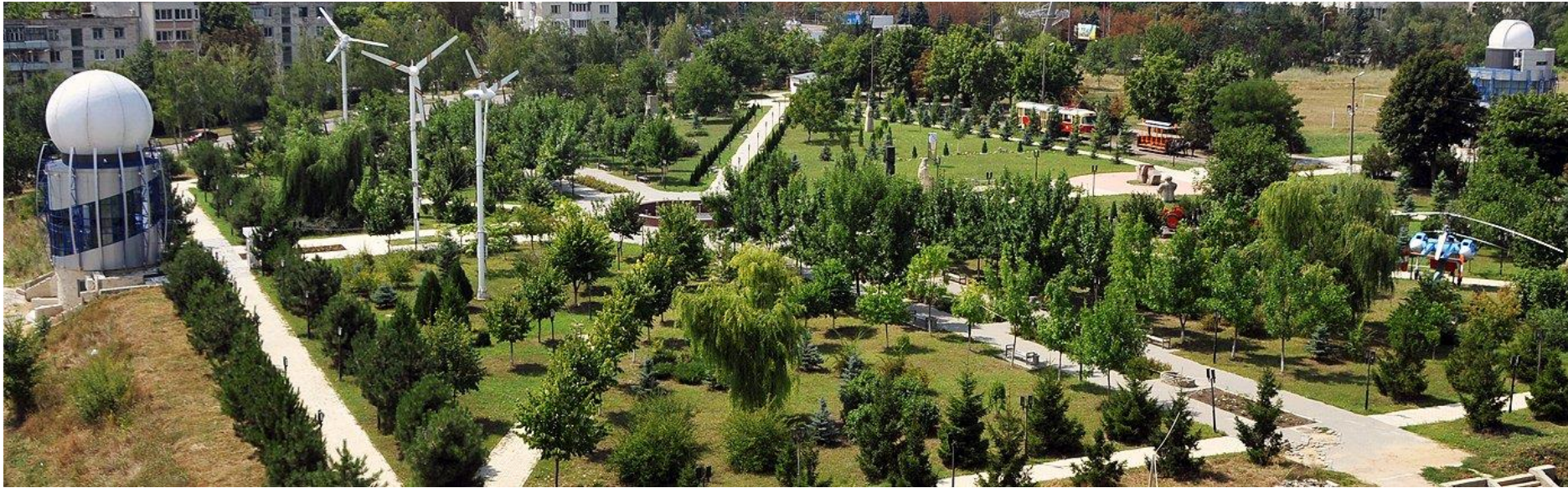


ADMINISTRATIVE BUILDING



- The building of the former Financial Administration (1895-1903)
- Architectural and historical monument of national value
- It was damaged during the Second World War
- It was rebuilt between 1946-1948, under the guidance of the architect Etti Roza Spirer
- Since 1964, it is the administrative building of the Technical University of Moldova, housing the Faculty of Electronics and Telecommunications

TUM Park – outdoor museum of art and technology



Here you can find various sculptures, installations, machines and engineering structures created by inventors - graduates and current students of UTM. This is an environment, where engineering blends harmoniously with art, architecture and landscaping.

ENGINEERS

create the future



TECHNICAL UNIVERSITY
OF MOLDOVA

THANK YOU FOR YOUR ATTENTION!

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