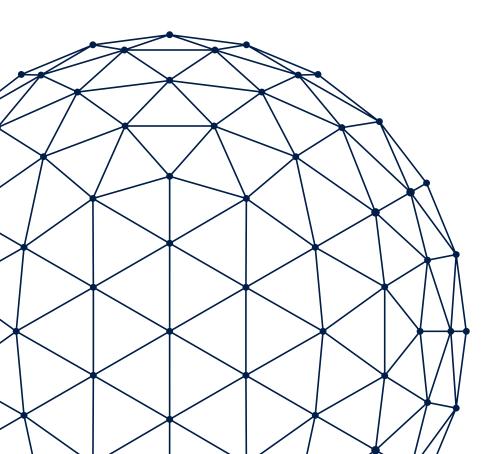


# ABOUT US

## OUR UNIVERSITY AT A GLANCE



# ABOUT US

Brandenburg University of Technology (BTU) Cottbus–Senftenberg is a young university embracing current scientific challenges. It is characterised by excellent basic research and practical, applied research. The profile-formed research fields at BTU are: »Energy Efficiency and Sustainability«, »Cognitive and Dependable Cyber-physical Systems«, »Biotechnology, Environment and Health« as well as »Smart Regions and Heritage«. In these subject areas, BTU is among the leading small universities of technology, even outside of Germany.

As the only university of technology in the state of Brandenburg, BTU is aware of its social responsibility and contributes significantly towards the creation and transfer of knowledge in the Lausitz region. The university's buildings are located in a region dominated by structural change. BTU is using this opportunity and seizing the regional challenges for its research. It is a pioneer in developing sustainable solutions, universally applicable: be it in the regeneration of destroyed landscapes, the creation of sustainable energy and production systems, the use of state-of-the-art biotechnological procedures for our health, the use of digital structures to support world climate and environmental goals, or the preservation of our world heritage, which is in danger of being destroyed.

BTU offers flexible career paths which conform to individual requirements in an ever faster changing world. Out of almost 7,000 students, 30 percent come from over 100 different countries. Students appreciate the international and familiar atmosphere on campus.

» www.b-tu.de/en

#### **U-MULTIRANK 2018**

In U-Multirank 2018, BTU scored well with seven »A« ratings in various areas, which means it achieved top results – particularly in »International Orientation« with the criteria joint publications (64.20%), doctorate degrees (41.65%) and academic staff (12.13%).

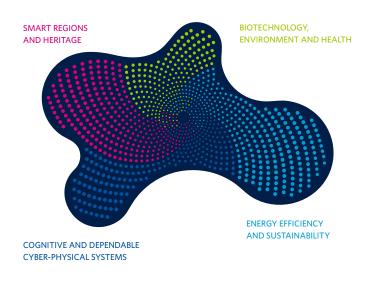


U-Multirank is an independent global ranking on the initiative of the European Commission – based on the methodology of the CHE university ranking.

www.umultirank.org

# RESEARCH

BTU research focuses on the four subject areas of »Energy Efficiency and Sustainability«, »Cognitive and Dependable Cyber-physical Systems«, »Biotechnology, Environment and Health« as well as »Smart Regions and Heritage«. These subject areas are dealt with beyond the faculty's boundaries and in cooperation with non-university partners.



#### **EXTERNAL FUNDS**

In 2018, BTU held external funds of around 32.2 million euros at its disposal, predominantly originating from federal funds, but also from external funds obtained from the European Union and the German Research Foundation. With its budget of around 89.5 million euros allocated by the state, BTU's external funds account for around 36 percent.

#### PROMOTION OF YOUNG TALENT

BTU's Graduate Research School (GRS) offers doctoral candidates specific sponsorship and qualification programmes, which are geared towards the doctoral phase. The three PhD programmes in Heritage Studies, Environmental and Resource Management as well as Dependable Systems are also part of the university's international talent promotion strategy. In addition, BTU is involved in the »Postdoc Network Brandenburg«, the network of Brandenburg universities aiming to develop the careers of postdoc scientists.

# **RESEARCH COOPERATIONS**

BTU is constantly maintaining and expanding its cooperation with non-university research institutes, partner universities, larger industrial partners and small and medium-sized companies. These cooperations are reflected, for example, in common appointments, joint projects or scientific cooperation as part of the technology transfer.

#### MOST RECENT COOPERATIONS WITH THE FRAUNHOFER SOCIETYT

- Setting up a Fraunhofer project group for »Cognitive Material Diagnostics« (KogMatD)
- Founding a department of the Fraunhofer Institute for Photonic Microsystems (IPMS) »Integrated Silicon Systems« (ISS) in Cottbus
- Setting up a Fraunhofer project group for »Biofunctionalisation/Biologisation of Polymeric Materials« (BioPol) in Senftenberg
- Setting up a Fraunhofer project group for »Fungus-based, Cell-free Synthesis Platforms« (PZ-Syn) in Senftenberg

# A SELECTION OF COOPERATIONS WITH NON-UNIVERSITY RESEARCH PARTNERS

- German Archaeological Institute (DAI)
- German Aerospace Center (DLR)
- Ferdinand Braun Institute, Leibniz Institute for High Frequency Technology (FBH)
- Fraunhofer Institute for Applied Polymer Research (IAP)
- Fraunhofer Institute for Factory Operation and Automation (IFF)
- Fraunhofer Institute for Ceramic Technologies and Systems (IKTS)
- Fraunhofer Institute for Photonic Microsystems (IPMS)
- Fraunhofer Institute for Cell Therapy and Immunology (IZI)
- Helmholtz Centre Berlin for Materials and Energy (HZB)
- Helmholtz Centre for Environmental Research Leipzig (UFZ)
- Helmholtz Centre Geesthacht, Center for Material Research and Coastal Research (HZG)
- Helmholtz Centre Potsdam German Research Centre for Geosciences (GFZ)
- Leibniz Institute for Freshwater Ecology and Inland Fisheries (IGB)
- Leibniz Institute for Innovative Microelectronics (IHP)
- Leibniz Institute for Spatial Social Research (IRS)
- Leibniz Science Center Berlin for Social Research (WZB)
- Leibniz Centre for Agricultural Landscape Research (ZALF)
- Potsdam Institute for Climate Impact Research (PIK), (Leibniz Institute)

#### » www.b-tu.de/en/research

## TRANSFER OF KNOWLEDGE AND TECHNOLOGY

Knowledge, resources and competence are exchanged by means of a constant dialogue with regional, national and international partners from the scientific and social fields, focussing on the challenges of today and the future.

#### CENTRE FOR CONTINUING EDUCATION

Knowledge is transferred within the region by developing and implementing needs-based formats, compatible with future topics and requirements, for the general public with an open course of lectures, a programme for guest students and a range of certificates up to specific study programmes providing further education. In this way BTU contributes towards society's involvement in science and research.

www.b-tu.de/weiterbildung

#### **RECRUITING TRADE FAIR »CAMPUS-X-CHANGE«**

The largest trade fair for academic professionals in the state of Brandenburg is held every year in May on the Cottbus main campus and helps to arrange internships, student trainee positions, final dissertations and graduate positions.

www.b-tu.de/jobmesse

#### **BTU TRANSFER DAYS**

The annual transfer day in October is a showcase for BTU. It is here that science and business meet to exchange ideas on modern technologies and cooperation opportunities – the perfect chance to network.

www.b-tu.de/transfertag

#### TRANSFER EXPERTS

Some professors have a good overview of their professional environment and can help to give companies quick access to cooperations with BTU. They help commercial enterprises find the right partner within the scientific field at BTU.

www.b-tu.de/technologietransfer

#### TRANSFER PROJECT »INNOVATION HUB 13«

In 2018, BTU and TH (Technical University of Applied Sciences) Wildau started the »Innovation Hub 13« transfer project as part of the BMBF (German Federal Ministry of Education and Research) support initiative »Innovative Hochschule«. It is here that transfer scouts bring business and science together. New technologies and concepts can be experienced in innovation labs, showrooms and test beds.

www.innohub13.de

» www.b-tu.de/wirtschaft

# FACULTIES AND INSTITUTES

## **FACULTY 1**

Mathematics, Computer Science, Physics, Electrical Engineering and Information Technology

- Institute of Electrical Engineering and Information Science
- > Institute of Computer Science
- > Institute of Mathematics
- > Institute of Medical Technology
- > Institute of Physics

## **FACULTY 2**

#### **Environment and Natural Sciences**

- > Institute of Biotechnology
- > Institute of Materials Chemistry
- Institute of Environmental and Process Technology
- > Institute of Environmental Sciences

## FACULTY 3

## Mechanical Engineering, Electrical and Energy Systems

- Institute of Electrical Systems and Energy Logistics
- Institute of Electrical and Thermal Energy Systems
- Institute of Mechanical Engineering and Management
- > Institute of Production Research
- > Institute of Transport Technology

#### FACULTY OF HEALTH SCIENCES

## **FACULTY 4**

#### Social Work, Health Care and Music

- Institute of Singing and Instrumental Pedagogy
- > Institute of Social Work
- > Institute of Health

## **FACULTY 5**

#### Business, Law and Social Sciences

- Institute of Philosophy and the Social Sciences
- > Institute of Law
- > Institute of Business Management
- > Institute of Economic Sciences

### **FACULTY 6**

# Architecture, Civil Engineering and Urban Planning

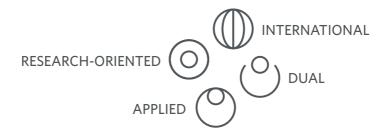
- > Institute of Architecture
- Institute of History of Art and Architecture
- > Institute of Construction Engineering
- > Institute of Urban Planning

The faculty, which is still in the making, is a result of the »Gesundheitscampus Brandenburg« initiative and, since June 2018, has been established by the following three member universities: University of Potsdam, Brandenburg University of Technology Cottbus–Senftenberg and Brandenburg Medical School Theodor Fontane.

#### www.fgw-brandenburg.de

# TEACHING AND LEARNING

Nowadays education is getting more and more diverse and BTU has prepared itself for these requirements and needs. Of its almost 30 bachelor study programmes it offers 19 as a university study programme and nine focusing on applied science. Our concept at BTU was recently awarded with the highly recognized »Genius Loci-Prize« by Stifterverband and VolkswagenStiftung for excellency in teaching.



BTU Cottbus-Senftenberg offers many individual development opportunities, amongst them dual study programmes which mean studying at university whilst at the same time working within a company or business. The range of study programmes encompasses the natural sciences, engineering, as well as economic sciences, cultural sciences and health sciences.

#### **ORIENTATION, SUPPORT AND ADVICE**

With its numerous orientation and support services, BTU gives students the opportunity to explore their own aptitudes and abilities. The aim of this extensive portfolio for students, high school graduates and qualified professionals is to enable a choice of study programme that suits each individual and to make starting a study programme easier.

» www.b-tu.de/studieninteressierte

#### SUPPORT IN THE SEARCH FOR THE RIGHT COURSE OF STUDIES

Students who do not yet know which study programme best suits their aptitudes and abilities can test their capabilities within a special study orientation year. The BTU Orientation Studies Programme was awarded the Hochschulperle 2018 (Higher Education Prize) by the Stifterverband für die Deutsche Wissenschaft.

» www.b-tu.de/orientierungsstudium

#### BACHELOR STUDY PROGRAMMES

#### O research-oriented

- . Architecture
- . Business Administration
- . Business Administration and Engineering
- . Civil Engineering
- . Computer Science
- . Culture and Technology
- . eBusiness
- . Economathematics
- . Electrical Engineering
- . Environmental and Resource Management
- . Environmental Engineering
- . Information and Media Technology
- . Land Use and Water Management
- . Materials Chemistry
- . Mathematics
- . Mechanical Engineering
- . Medical Informatics
- . Physics
- . Urban Development and Urban Planning

#### O applied

- . Biotechnology
- . Business Administration
- . Business Administration and Engineering
- . Electrical Engineering
- . Instrumental and Vocal Performance and Teaching
- . Mechanical Engineering
- . Nursing Science
- . Social Work
- . Therapy Science

#### O O research-oriented and applied

- . Business Administration
- . Business Administration and Engineering
- . Electrical Engineering
- . Mechanical Engineering

#### $^{\circ}$ dual

- . Business Administration
- . Business Administration and Engineering
- . Electrical Engineering
- . Mechanical Engineering
- . Nursing Science
- . Therapy Science

#### MASTER STUDY PROGRAMMES

#### research-oriented

- . Applied Mathematics
- . Architecture
- . Civil Engineering
- . Vocational Education in Healthcare Professions
- . Business Administration
- . Cyber Security
- . eBusiness
- . Electrical Engineering
- . Environmental and Resource Management
- . Euro Hydroinformatics and Water Management
- . Forensic Sciences and Engineering
- . Heritage Conservation and Site Management
- . Computer Science
- . Information and Media Technology
- . Climate-adapted Construction and Operation
- . Culture and Technology
- . Land Use and Water Management
- . Mechanical Engineering
- . Materials Chemistry
- . Physics
- . Power Engineering
- . Urban Planning
- . Transfers-Fluids-Materials in Aeronautical and Space Applications

- . Environmental Engineering
- . Urban Design
- . Processing Technologies of Materials
- . Process Technology Process and Plant Technology
- . Business Administration and Engineering
- . Business Law for Technology Companies
- . World Heritage Studies

#### O applied

- . Biotechnology
- . Business Administration and Engineering
- . Electrical Engineering
- . Mechanical Engineering
- . Social Work

#### $\bigcirc$ $\bigcirc$ research-oriented and applied

- . Business Administration and Engineering
- . Electrical Engineering
- . Mechanical Engineering

#### CONTACT US

Give us a call or send us an e-mail if you have any questions. If you have any questions or would like further information.

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