

TUCreport 2019

CONTENTS

University Highlights	3
From University Management	7
From Our Faculties	9
From Our Central Institutions	13
About Our Students	17
About Our Young Scientists	18
Awards and Grants	19
Participation and Inclusion	21
Accolades	22
Campus Development	23
University Communications	25
TUCevents	27
Facts and Figures	29





Dear Members of the TUC Community,

We would like to take a look back at the past year with our third offering of TUCreport - and take some time to make note of some special moments, happenings and successes that took place across our entire university. Overall, it is clear that 2019 was a very successful year that included major highlights in nearly every area of our university. Among these are a visit by the Federal President, the 58th National Math Olympiad under the patronage of the Minister-President of Saxony, the successful application for the establishment of the "Hybrid Societies" Collaborative Research Centre, the successful application for five tenure track professorships as a part of the Federal Government-Länder Tenure-Track Programme for the promotion of young scientists, the acquisition of two collaborative projects as a part of the "WIR!" funding programme for "Innovation and Structural Transformation" (Wandel durch Innovation in der Region), the kick-off of the continuing education program in "Prevention Management - Competencies for Social Interventions" in the presence of the Minister-President of Saxony, achieving first place in the 2018/2019 International Student Barometer for our Student Buddy Program that is housed in our International Office, being one of only ten universities in Germany and the only one in Saxony to participate in the federal and statesponsored 3rd Professorinnen-Programm for the promotion of female professors and then to receive the rating of "Gender Equality – Excellent!", and lastly being given the Award for University Communication by the HRK, ZEIT Verlag and the Robert Bosch Foundation.

These are just a few examples, alongside countless other happenings and successes, that would not have been possible without the tireless commitment of the members of our university community - the entire TUC family. I would like to thank all of them very much for this! I would like to specifically thank all the various actors, institutions, bodies and committees of our university - especially the Senate, the various faculties and specifically their deans, the central institutions, our administration, the staff council, StuRa, representatives of mid-level academic positions, the university council, members of University Management and staff members of the Office of the President – as well as every single member of the Chemnitz University of Technology community that is engaged and committed to the overall success of our university!

Of course, in looking back at the past year we reflect not only on positive developments, but on unpleasant ones as well. This includes, for example, the decline in the number of registered students, which calls for concrete measures to be taken and can be attributed to various causes - including, without a doubt, the terrible events that took place in Chemnitz in August 2018 and the worldwide spread of such ideologies. In light of this background and ensuing developments that were at best alarming and at worst frightening, it was all the more important that Chemnitz University of Technology sent out very clear messages as to our stance - in particular our commitment to a diverse, democratic city of Chemnitz.

As in previous years, University Management strove not only to administrate, but to shape our university. In this regard we have, for example, defined and communicated key political issues in the run-up to the state elections, taken extensive measures to support application initiatives for DFG research groups and EU projects and broadened the tenure track career path for professors. In addition, we have continued to push ahead with system accreditation, adopted a concept for regional effectiveness and strategic partnerships in the region, undertook the first joint business forum between the university and the Industrieverein Sachsen 1828 e. V., and established a visiting scholar program.

In the following pages, you can find out much more about these as well as a multitude of other activities that are taking place in the various areas and among the various member groups of our university. I hope you enjoy reading all about our year in review, and I would be pleased to receive your feedback on our 2019 edition of TUCreport.

Prof. Dr. Gerd Strohmeier

President, Chemnitz University of Technology

M/h/Mi

University Highlights





The Federal President visits Chemnitz
University of Technology: bit.ly/Steinmeier_TUC

Federal President Visits Chemnitz University of Technology

Federal President Dr. Frank-Walter Steinmeier visited Chemnitz University of Technology on May 26th, 2019. The visit focused on topics such as the internationalization of the university and the transfer of knowledge and technology, as well as primary school teacher training. In addition to representatives from the university, Saxon Minister-President Michael Kretschmer also took part in the discussion. In his opening statement, Chemnitz University of Technology President Prof. Dr. Gerd Strohmeier thanked Federal President Steinmeier for his very clear and unambiguous statements following the horrible events of August 28th, 2018 and the

ensuing violent crime and racist attacks. Steinmeier praised Chemnitz University of Technology as an institution that is of great importance to the city of Chemnitz, which successfully works in a cityscape that should and will change for the better. It has now become just a matter of continuing to hear good news from the city, and the university will continue to make key contributions to this. Federal President Steinmeier also made it very clear: "With the university, Chemnitz stands for international exchange, for the lack of prejudice that every researcher needs, and for a climate of freedom and tolerance. We must not forget that these values have a home here."

First Place in the International Student Barometer

The Student Buddy Program, which is housed in the International Office at Chemnitz University of Technology, is the best support program of its kind worldwide. This comes out of the 2018/2019 International Student Barometer, as part of a survey of international students about their respective host universities. The Buddy Program facilitates matching of incoming international students with existing TU students, so as to help make for a smooth start to their studies at Chemnitz University of Technology.





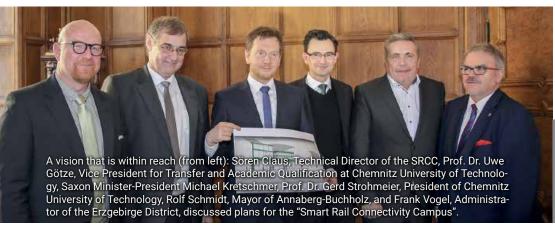
First Place in the International Student Barometer: bit.ly/TUC_Buddy



Successful Realization of the "Hybrid Societies" Collaborative Research Centre

In 2019, the German Research Foundation (DFG) approved the establishment of the "Hybrid Societies" Collaborative Research Centre (SFB) at Chemnitz University of Technology, in which all eight faculties are involved. The primary purpose of this SFB is to find answers to questions relating to the interaction between man and machine and how this can be designed. To this end, 30 professors and senior researchers at the university are fundamentally investigating how people are able to safely and efficiently coordinate themselves with, for example, autonomous vehicles and robots in public spaces. Beyond this, scientific questions arise for the SFB

out of the rapid development of so-called "embodied technologies". These include technologies that are either partially or temporarily controlled by humans, for example, bionic prostheses or telepresent robots. In addition, with the new SFB at Chemnitz University of Technology, a postgraduate program will be established to promote interdisciplinary cooperation and offer doctoral students special qualification opportunities. Prof. Dr. Georg Jahn from the Professorship of Applied Gerontopsychology and Cognition at Chemnitz University of Technology is the spokesperson for the SFB.





Millions in Funding for Collaborative Projects with Regional Appeal

Chemnitz University of Technology is heavily involved in two collaborative projects, named the "Smart Rail Connectivity-Campus" (SRCC) and "Smart Composites ERZgebirge" (SmartERZ). These are being carried out via a two-part funding process as a part of the "WIR! – Wandel durch Innovation in der Region" (WIR! – Innovation and Structural Transformation) program, sponsored by the Federal Ministry of Education and Research (BMBF). A total of 32 project applications made it to the final round, of which 20 were approved. Each WIR! collaborative project has had up to fifteen million euros available since April 1st, 2019 as a part of their five-year implementation phase. Chemnitz University of

Technology brings with it the expertise of over 20 professor-ships and 100 partners, respectively. The focus of the SRCC is to establish a research campus in Annaberg-Buchholz. As a part of this model project that is unique in Europe, highly automated travel on railway tracks is investigated and innovative mobility technologies are vetted and marketed, including ecological and hybrid mobility technology. "SmartERZ" comprises the dynamic, high-growth market of functionally integrated composite materials as well as smart composites. These refer to textile-reinforced plastics in which functional structures such as sensors, actuators and electronic components are integrated.



Minister-President Pays a Visit to the Start of the Prevention Management Continuing Education Courses

Saxon Minister-President Michael Kretschmer visited Chemnitz University of Technology at the start of the new "Prevention Management – Competencies for Social Interventions" continuing education courses (Bachelor and Master). The Minister-President pledged the support of the Free State of Saxony, so that innovations in the area of prevention can spread as quickly as possible into practice. The part-time courses of study serve to enable practitioners to acquire comprehensive and network-related skills in the area of prevention, and thus gain further professional qualifications. The program brings topics such as leading conversations, conflict resolution and systemic work in small groups into focus.



Prize-Winning Program for Female Professors – "Gender Equality: Excellent!"

In 2019, Chemnitz University of Technology participated once again in the federal and state-sponsored Professorinnen-Programm for female professors, and for the third time in a row, the university was quite successful. As the only university in the Free State of Saxony and one of only ten universities in Germany to participate, the university received a rating of "Gender Equality: Excellent!". With this, the jury honored the university's concept for the future development of gender equality when it comes to personnel development and recruitment on the way to becoming a professor. Thanks to this special rating, Chemnitz University of Technology can now appoint four female professors, whose permanent W2 or W3 positions will be funded with up to 165,000 euros apiece in the first five years.



Chemnitz University of Technology Successful in the Federal Government-Länder Tenure-Track Programme for the Promotion of Young Scientists

Chemnitz University of Technology successfully participated in the Federal Government-Länder Tenure-Track Programme for the promotion of young scientists and received all five tenure track professorships that it had applied for. These professorships can now be established within the next three years. Of the five professorships, one each is located at the Faculties of Natural Sciences, Mathematics and Computer Science, and two are located at the Faculty of Mechanical Engineering. For each tenure track professorship, Chem-

nitz University of Technology receives a grant of around 118,000 euros per year, for a maximum of eight years. The tenure track professorships strengthen both career opportunities for young scientists at Chemnitz University of Technology as well as the three core competencies of the university, which are as follows: Materials and Smart Systems, Resource-Efficient Production and Lightweight Structures, and Humans and Technology.

2019 Award for University Communication

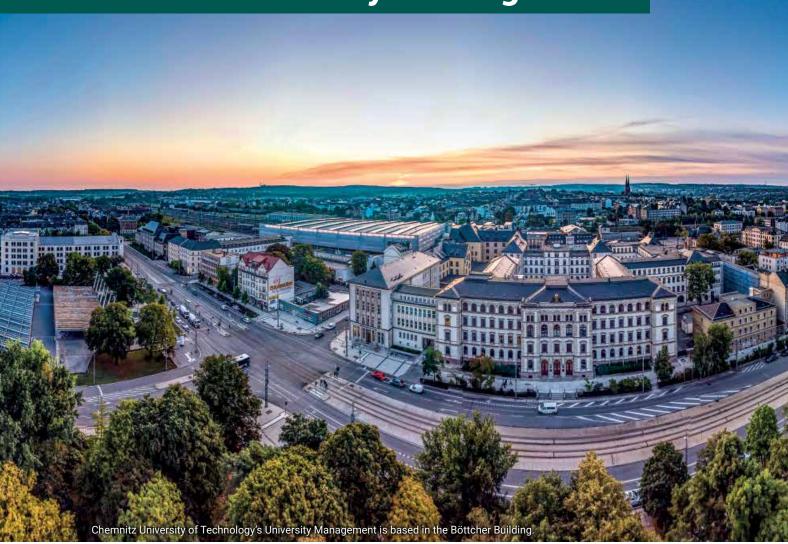
Chemnitz University of Technology won the 2019 Award for University Communication, which is awarded every two years by The German Rectors' Conference (Hochschulrektorenkonferenz – HRK), ZEIT Verlag and the Robert Bosch Foundation. The theme of the competition was "Communicate internally – work externally". Chemnitz University of Technology received the award due to its overall communicative concept (pg. 24), which is grounded in the basic values of the university – participation, inclusion and diversity – as well as the university's stance against violence and xenophobia after the racist riots in Chemnitz in 2018. This stance was made quite clear with the #wirsindchemnitz campaign, which students and members of the university community deployed as a clear signal for diversity and cosmopolitanism.



2019 Award for University Communication http://bit.ly/Preis_HoKo_2019



From University Management





In **Higher Education Policy** and University Development...

- · Within the framework of the third federal and state-sponsored Professorinnenprogramm for the advancement of female professors, a rating of "Gender Equality Excellent!" was achieved, a distinction given to only ten universities nationwide and only one university in the Free State of Saxony.
- First steps were taken as part of the Public Service Appreciation in the Free State of Saxony initiative, implemented with the involvement of the staff council (including the first service agreement that covers telecommuting at the university, as well as an increase in compensation for lecturers, lab instructors and assistants).
- · Prof. Dr. Marlen Gabriele Arnold was appointed as University Management's Representative for Sustainable Campus Development, leadership of the working group of the same name was transferred to her, and the development of the university's first Sustainability Report was set in place.



In Teaching...

- Three digital fellowships were received for university instruction within the framework of the Saxon State Ministry for Higher Education, Research and the Arts funded programs for digital higher education in Saxony.
- System accreditation continued to move forward (including the implementation of TUCpanel 2019, as well as a call for an assessor in the areas of program and system accreditation).
- · The "Studiportal" was reworked, and it now offers a customizable layout and, for the first time, bundles together all study-relevant information on one website.

In Research

- · Successful applications were made for the establishment of the "Hybrid Societies" Collaborative Research Centre and further funding of the SFB/Transregios "Thermo-Energetic Design of Machine Tools" (together with RWTH Aachen, TU Dresden and Fraunhofer IWU).
- The package of measures that supports initiatives for DFG Collaborative Research Centers as well as Collaborative Research Centers/Transregios was expanded.
- · A package of measures and staffing resources was organized that support initiatives for DFG research groups and EU projects, as well as an EU Research Day, organized in cooperation with Saxony's Liason Office in Brussels.

→ page 4

In Transfer and Academic Qualification...

- · In addition to "Smart Composites ERZgebirge" (Prof. Dr. Lothar Kroll), the "Smart Rail Connectivity Campus" in the Erzgebirge region has emerged as a part of the BMBF "WIR!" funding programme for Innovation and Structural Transformation.
- · A concept was approved for the development of regional effectiveness and strategic partnerships in the region, and the incentive system for the utilization of research results has been adapted and strengthened.
- · For the first time, a joint business forum has been carried out by Chemnitz University of Technology and the Industrieverein Sachsen 1828 e. V.



From our Young Scientists...

- · Five tenure track professorships were successfully applied for as a part of the Federal Government-Länder Tenure-Track Programme for the promotion of young scientists.
- · The tenure track career path has been expanded.
- · As a part of the "Gute Lehre / Starke Mitte" program in the Free State of Saxony, supportive measures have been agreed upon that deal with implementing framework concerning temporary employment and the promotion of career prospects.

→ page 6

In International Affairs...

- The Student Buddy Program from the university's International Office has achieved first place in the 2018/2019 International Student Barometer, a new all-time high in the acquisition of DAAD funding has been achieved as a part of the office's overall internationalization strategy, and the university has successfully applied for membership in the Turkish-German University consortium.
- · A visiting scholar program has been established that pairs up internationals with Chemnitz professorships.
- \cdot An application has been submitted as a part of the Erasmus+ bidding process for European universities.



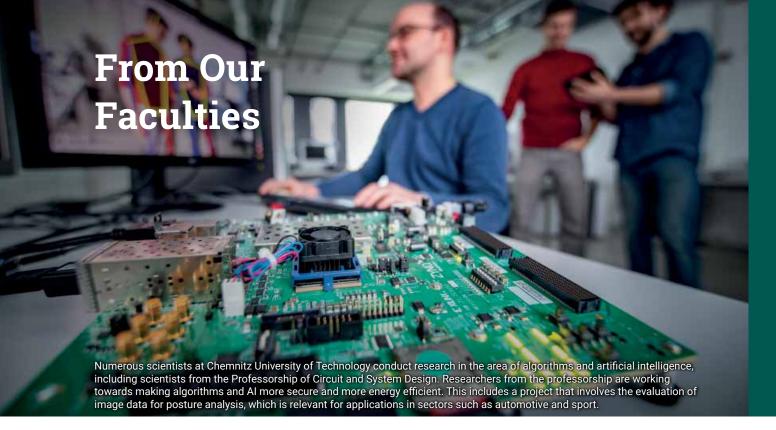
In University Communications...

- In light of the anniversary of the events that took place in August 2018 and the 2019 elections, a "Chemnitz call" was put forth in support of various campaigns (including #GehWählen and "Study Without Borders. Choose Europe!").
- New event formats such as TUCtogether and the awarding of the Diamond Diploma have joined existing events such as the Parliamentary Evening and TUCsommernacht.
- New communication and discussion formats such as "Statements aus der Forschung" (Statements from a Research Perspective) video series have been introduced, alongside previous formats such as visits from University Management to faculties and central institutions.





The University Management report covers a selection of additional activities from the year 2019.



Faculty of Electrical Engineering and Information Technology

The area of artificial intelligence (AI) has developed into a focal point and driver of research at the faculty in 2019. With a look towards the future, various innovative fields of research exist here. Self-learning robots, autonomous vehicles, intelligent sensors and intelligent control algorithms will continue to grow in importance and will become omnipresent in our daily lives. Scientists at the faculty are therefore engaged in researching energy efficient and reliable technologies and algorithms based on forms of AI and machine learning. Through publicly funded research projects and in cooperation with well-known industry partners such as VW, Continental, BASELABS and Infineon, more than 20 jobs were created for 2019 and beyond. The future will continue to see an expansion in the area of intelligent systems.



Faculty of Mathematics

In 2019, Chemnitz University of Technology hosted the 58th Federal Mathematic Olympiad, bringing together 197 students from all across Germany to compete against each other in various mathematical disciplines under examination conditions. The patron of the event was the Minister-President of the Free State of Saxony, Michael Kretschmer, who along with university president Prof. Dr. Gerd Strohmeier gave awards to the winners. The 58th Bundesrunde is the finale of the annual Mathematic Olympiad, which counts around 200,000 students between grades 3 and 13 among its annual participants. The event was coordinated by Prof. Dr. Daniel Potts, Vice Dean of the Faculty of Mathematics and Chair of the Professorship for Applied Functional Analysis at Chemnitz University of Technology. As a part of the award ceremony, Prof. Dr. Roland Herzog from the Professorship of Numerics of Partial Differential Equations held a lecture on the topic of "Mathematics of Information".

Faculty of Mechanical Engineering

As part of a strategic partnership between Chemnitz University of Technology's Professorship of Advanced Powertrains (ALF) and Vitesco Technologies, 2019 saw the establishment of a new laboratory for fuel cell technology. The laboratory was inaugurated by Martin Dulig, State Minister for Economic Affairs, Labor and Transport and Deputy Minister-President of the Free State of Saxony. At the center of the new facility is a high-performance test bench for powertrains up to 150 kilowatts that can be upgraded up to 300 kilowatts in the future. This and other technical parameters and laboratory equipment are unparalleled in Europe and will lay the groundwork for developing the next generation of fuel cells and fuel cell systems. Among the initial projects taking place here is the development of new bipolar plates, which serves to prepare a large-scale, small dimension production for use in more economical systems, thus making this future technology more cost-effective.



Faculty of Natural Sciences

June 2019 saw the 10th anniversary of the Sensors and Cognitive Psychology (SeKo) degree program at Chemnitz University of Technology. This was celebrated with a conference, in which the SeKo bachelor's program was awarded with Chemnitz University of Technology's 2018 Teaching Prize. With this prize, the unique blending of psychological content and physical-technical content and the great commitment of the program's teachers were given nationwide recognition. At the conference, 120 current and former students talked about their experiences and gathered insight for their own career development. The multifaceted career prospects offered by the SeKo program were illustrated by the lectures given that day by eight SeKo alumni who are now professionally active in numerous settings such as regional start-ups, well-known firms and renowned research institutions. The alumni on-hand praised its unique combination of specialty disciplines as well as its well-grounded fundamentals that blend practical and application-oriented components. They emphasized how helpful these special features of the degree program are in their professional lives, especially when it comes to working with interdisciplinary teams.



Faculty of Computer Science

Analyzing the singing of birds became significantly easier in 2019 with the development of the "BirdNET" mobile app, developed at Chemnitz University of Technology, which is able to record bird calls and automatically identify their species. The Bird-NET app was developed by Dr. Stefan Kahl, research assistant at the Professorship of Media Informatics (Prof. Dr. Maximilian Eibl) at Chemnitz University of Technology. In order to gather all the necessary data for their app, Kahl's team created the largest to-date completely annotated dataset of soundscapes. Also involved in the app are scientists from Mittweida University of Applied Sciences (Prof. Dr. Marc Ritter) and Cornell University in Ithaca, New York (Dr. Holger Klinck). Upon release, the app has enjoyed widespread popularity and in 2019, the team counted around three million observations.



Faculty of Economics and Business Administration

In November 2019, the "Nachhaltigkeit agil lenken" (Agile Steering of Sustainability, or for short, NACHTIGALL) was recognized with the "Future Skills" university award by the Donors' Association for the Promotion of Sciences and Humanities in Germany. Students from Chemnitz University of Technology and Mittweida University of Applied Sciences worked together on this cooperative teaching-learning project. The students used innovative approaches to project management – so called "agile methods", which originally came from software development – to develop sustainability-oriented project ideas and evaluate their content in the area of sustainability. With the help of the "scrum" creative technique, students are encouraged to adopt unusual ways of thinking, utilize different perspectives and make better use of the strengths that are brought forth by interdisciplinary teams. This joint teaching-learning project was carried out by the Professorship for Corporate Environmental Management and Sustainability at Chemnitz University of Technology (Prof. Dr. Marlen Gabriele Arnold) and the Professorship of Sustainable Building and Operations at Mittweida University of Applied Sciences (Prof. Dr. Anika Dittmar).

In the "Agile Steering of Sustainability" (or NACHTIGALL, for short) project, students used innovative approaches – so-called "agile methods" – to project management, in order to develop sustainability-oriented project ideas.



Faculty of Humanities

On January 24th, 2019, the Faculty of Humanities at Chemnitz University of Technology celebrated its 25th anniversary. In addition to the actual ceremony, the faculty invited all institutes to participate in an entire week of celebration. As such, the beginning of the year found various events taking place at several locations in Chemnitz, highlighting current research projects and work being done at the faculty. These events included readings, a panel discussion on Stefan Heym and a scientific symposium on protest cultures. Numerous other events and lectures showed off the diversity of the faculty and the topics and collaborations with which they engage in the 21st century. The development and the history of the faculty are closely related to that of society as a whole, linked together by their shared questions and topics. The schedule of activities at the ceremony also followed along these lines. The primary fields of research at the faculty include the areas of new media (skills for the information and knowledge society), Europe (European culture and European history), humans and technology, and politics and society.







Faculty of Behavioural and Social Sciences

Thick calluses on the feet do not reduce the sensitivity of the soles of the feet. This is the surprising result of an international research project involving Chemnitz University of Technology. Prof. Dr. Thomas Milani's team at the Professorship of Human Locomotion, partnered with the team of Prof. Daniel Lieberman at Harvard University, made this discovery among residents in the highlands of Kenya. As a part of this investigation, they traveled to Kenya in June 2016 and conducted tests using an ultrasound device, in order to determine the thickness of the soles of the feet of 40 people who regularly walk barefoot. The sensitivity of the soles of the feet was also able to be measured with a vibration device. The necessary measuring device for examining the soles of the feet, a so-called "shaker", was developed at Chemnitz University of Technology. The results of this study were published in the renowned journal *Nature*.



University Library

"Networked research in a networked world" – this was the motto of the Chemnitz University Library (UB) during International Open Access Week (OAW) 2019. Various institutions around the world take part annually in OAW so as to promote events and campaigns highlighting open access and an open science culture. The Chemnitz University Library is actively involved in the OAW and has been supporting it for years. But already, another event was casting its shadow over the library: in 2020, the UB is preparing to move more than 38 kilometers of books, magazines and archive files to the newly renovated Alte Aktienspinnerei building. The move is scheduled for the summer of 2020.



Saxony's Centre for Teaching and Learning

A total of 512 lecturers took advantage of the offer put forth by Saxony's Centre for Teaching and Learning (HDS) in their BMBF-sponsored "Teaching Practice in Transfer Plus" (LiT+) project at Chemnitz University of Technology. 2019's participation numbers more than doubled compared to the previous year. In "LiT.Shortcuts" (mini workshops), dedicated teachers discussed their innovative teaching practices. In addition, after a qualitative evaluation via a "teaching analysis poll", participants were able to exchange information regarding student feedback on learning support, and thus further improve their teaching.



Centre for Young Scientists

The Centre for Young Scientists at Chemnitz University of Technology has successfully completed the second sponsorship phase of their "International Doctoral Studies at Chemnitz University of Technology" (InProTUC) project. In this phase, which ran from November 2017 to June 2019, the project supported 110 research and conference stays, both abroad and by guests in Chemnitz. In addition, the university has raised its visibility through eleven meetings of Chemnitz professors with both existing and potential cooperation partners.

International Office

Launched in Winter Semester 2019/2020, the Visiting Scholar Program brought comprehensive support for research stays by internationally renowned guest researchers at Chemnitz University of Technology. The program targets international researchers and Chemnitz professorships who are already working together in their promotion of a joint project in Chemnitz. As a part of the first funding phase, eight stays by international researchers were funded. And in the future, there will be regular calls for proposals within the framework of the Visiting Scholar Program at Chemnitz University of Technology.



Centre for Teacher Training

At the university's Centre for Teacher Training, the need for more primary school teachers in Saxony was addressed in 2019 with an extension of the university's primary school teacher training program. As an element of this stabilization measure on the part of the Saxon State Government and Saxon State Parliament, among others, four new W2 professorships will be established at Chemnitz University of Technology. The Centre also took up the issue of digitization in learning, under the backdrop of the Digital Learning Symposium interdisciplinary conference. This second iteration of the conference brought experts from science and teaching together to grasp both the opportunities and challenges of digitization in primary school education. In addition, the Centre also received the 2019 Teaching Award from Chemnitz University of Technology for its degree program for primary school education.





Centre for Knowledge and Technology Transfer

Chemnitz University of Technology sees itself as a university that is internationally networked, yet regionally anchored. In light of this, a concept for the development of regional effectiveness and strategic partnerships in the region was decided upon in 2019. This strategy bundles together 20 measures that help define a notion of transfer that is broadly understood. These measures are intended to harness the potential of the university and the results it achieves in research and teaching within business, science, society and politics. As a part of the first joint business forum, held by Chemnitz University of Technology in partnership with Industrieverein Sachsen 1828 e. V. and moderated by Prof. Dr. Uwe Götze, Vice President for Transfer and Academic Qualification, five outstanding projects were presented by leading researchers. These projects include nano research at the MAIN research center, the Smart Rail Connectivity Campus (pg. 4), ongoing research in the area of efficient and lightweight materials for sustainable mobility at the MERGE Cluster of Excellence (see below), research on the societal influence of autonomously operating technology that is taking place at the Hybrid Societies Collaborative Research Centre, and the university's establishment and support of TUClab.



MERGE Cluster of Excellence

Lightweight construction is one of the keys to developing mobility that is sustainable, low-pollution, and therefore more environmentally friendly. In order to exchange information on the latest developments within this field, the 4th International MERGE Technologies Conference (IMTC) took place in 2019 at Chemnitz University of Technology. This conference was held under the patronage of Michael Kretschmer, Minister-President of the Free State of Saxony, and included around 200 guests from eight nations. The conference was opened by Prof. Dr. Lothar Kroll, Chair of the Professorship of Lightweight Structures and Polymer Technology and head of the MERGE Cluster of Excellence at Chemnitz University of Technology, and Prof. Dr. Jörn Ihlemann, Vice President for Research and Junior Researchers at Chemnitz University of Technology. The conference saw representatives from well-known companies and research institutions from around the globe exchange views on technological developments and innovations in lightweight construction. The conference also included highlights from those involved in the nearly seven years of interdisciplinary research in the area of lightweight structures at the MERGE Cluster of Excellence.

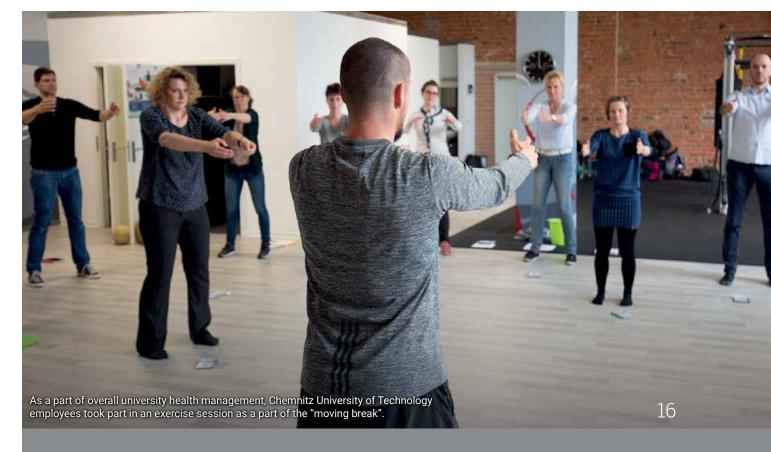


University Computer Centre

The University Computer Centre offers over 250 services that support Chemnitz University of Technology in the areas of study, research, teaching and internal operations. Included among these are the digitization and optimization of a variety of administrative processes, as well as the supporting of central university initiatives. In 2019, the process of regulating fire alarm system operation was digitized, and back-end operations were developed for a component of the university's guidance and orientation system. The new digital orientation system, our so-called "digital concierge", quickly and clearly guides visitors at the Carolastraße 8 building to the office of their desired destination.

Centre for Sports and Health Promotion

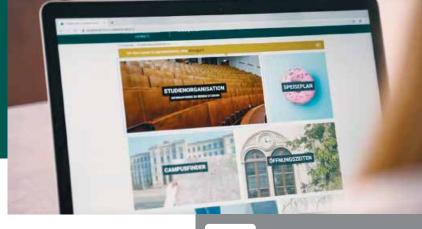
The main idea of the so-called "moving break" is to stay fit and healthy via regular exercise as a part of your typical workday. This moving break is an offering from the Chemnitz University of Technology's Centre for Sports and Health Promotion that saw its second year of success in 2019. One special feature of this program is the ability for employees to train themselves to lead exercises. The "brain-fit in the workplace" series of workshops support this initiative and offer info on the topic of healthy eating. The "Bewegt studieren, Studieren bewegt" program initiative of the German University Sports Association and Techniker Krankenkasse also contributed to the overall promotion of student health. All of these offerings are to be continued in 2020.



About Our <u>Stude</u>nts

Relevant Information at First Glance

Just in time for the start of Winter Semester 2019/2020, Chemnitz University of Technology's new study portal went online. This portal was especially developed for university students and for the first time, it has brought together all relevant information having to do with studying at the university on one website. This portal is one result of the TUCpanel student survey, which was carried out as a part of the TU4U project.





New study portal for a better study experience: <u>bit.ly/Studiportal</u>



RABBAZ Student Magazine is Founded

2019 saw the new RABBAZ student magazine come to life. The first issue of RABBAZ is filled with student-produced essays, poems, photographs and graphics and takes a 60 page look at the university and the city of Chemnitz as a whole. The first issue of RABBAZ was financed via grant as a part of the city of Chemnitz's 2025 European Capital of Culture initiative.



Common Room is a New Meeting Spot for Students

With the start of the Winter Semester 2019/2020, the university has set up a common room at their Straße der Nationen 62 campus. The common room is equipped with electrical sockets and USB ports, as well as a beverage machine. The room, which was arranged for by University Management and implemented as a part of TU4U, offers students a place to meet in a welcoming atmosphere to network, exchange ideas or simply relax. The establishment of this and future common rooms was both an objective of the University Management and a desire of the students that was mentioned in the TUCpanel annual student survey.



Premiere of the "President's Pub Night"

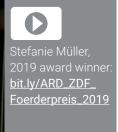
2019 also saw the premiere of the President's Pub Night, organized jointly by the university's Student Council (StuRa) and the PEB student club. This offering focuses on a relaxed encounter between students and members of University Management. On the evening of the first pub night, participants came together for a kicker tournament with University President Prof. Dr. Gerd Strohmeier and Vice President for Academic and International Affairs, Prof. Dr. Maximilian Eibl.

About Our Young Scientists

Awards for Outstanding Dissertations

Many young scientists at Chemnitz University of Technology also celebrated their noteworthy successes in 2019. Among them was Dr. Stefanie Müller, research associate and tv studio director at the Professorship for Media Informatics (Prof. Dr. Maximilian Eibl). Müller won a first prize of 5,000 euros at the 2019 ARD/ZDF-sponsored Women+Media Technology awards for her dissertation at Chemnitz University of Technology on "Classification and Identification of Sources of Interference and of Visual Distortion in Contemporary Video Documents, Using Examples from the Digitized Video Archives of Local Television Broadcasters in Saxony".







Research associate Dr. Sascha Schneider from the Professorship of Psychology of Learning with Digital Media (Prof. Dr. Günter Daniel Rey) at Chemnitz University of Technology was recognized in 2019 for his outstanding dissertation. The award was endowed with 1,500 euros and was given by the Pedagogical Psychology section of the German Society for Psychology. In his dissertation, titled "The impact of decorative pictures on learning with media", Schneider dealt with, among other things, the influence of images within learning media that are decorative and aesthetically pleasing but irrelevant to learning. Decorative images can often be found in teaching and learning media, for example, in schoolbooks or course materials.



A New Format for Improved Networking

The Brown Bag Break is a new format in which participants can have a snack and get to know each other. The Centre for Young Scientists at Chemnitz University of Technology brought forth this format in 2019, so as to offer young scientists the opportunity to network and exchange ideas in a cross-disciplinary setting. Aline Lohse from the Faculty of Mechanical Engineering spoke at the kickoff about technology-based innovations in ergonomics. The new offering was made possible with the support of the Society of Friends of Chemnitz University of Technology e. V.

Chemnitz Physicist Took Part in Nobel Prize Conference

Johannes Aprojanz, who is writing his doctoral thesis under the supervision of Prof. Dr. Christoph Tegenkamp at the Professorship of Solid Surface Analysis at Chemnitz University of Technology, took part in the 69th Lindau Nobel Laureate Meeting from June 30th to July 5th, 2019. He was one of the 590 young scientists from 89 countries who were selected to participate and therefore speak with any of 39 Nobel Prize winners. The conference focused on the topics of cosmology, laser physics and gravitational waves.

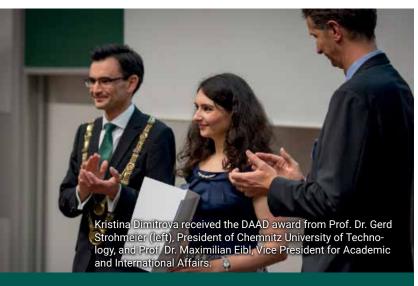


Awards and Grants



To honor the excellence of its researchers and instructors, Chemnitz University of Technology gave out an award to an outstanding course of study on November 7th, 2019 that was worth 5,000 euros. In addition, it also gave out two individual teaching awards, a research award and a transfer award, each with 1,000 euros attached. Chemnitz University of Technology also awarded a total of **95 Deutschlandstipendien** grants and the DAAD prize for outstanding achievement by foreign students and doctoral candidates at German universities. Additionally, nine university awards, each with a 1,000 euro endowment, were awarded by the Society of Friends of Chemnitz University of Technology e. V. These recognized the best theses from each faculty and the Centre for Teacher Training, respectively.





The university awards were given as follows: Dr. Christian Militzer for his dissertation at the Faculty of Natural Sciences, Dr. Thomas Jahr for his dissertation at the Faculty of Mathematics, Lisa-Marie Rymer for her master's thesis at the Faculty of Mechanical Engineering, Dr. Mathias Lindner for his dissertation at the Faculty of Electrical Engineering and Information Technology, Dr. Philip Parsch for his dissertation at the Faculty of Computer Science, Dr. Katja Lohmann for her dissertation at the Faculty of Economics and Business Administration, Andreas Freidl for his master's thesis at the Faculty of Humanities, Dr. Christian Mitschke for his dissertation at the Faculty of Behavioural and Social Sciences, and Sharon Pluschke for her state examination work at the Centre for Teacher Education. Kristina Dimitrova from Bulgaria, who is enrolled in the Management and Organisation Studies master's program at Chemnitz University of Technology, received the 1,000 euro DAAD award.











The degree program for Teaching at Primary Schools, first introduced in Winter Semester 2013/2014 at the Centre for Teacher Training, was given the 2019 award for excellence in a course of study. The program was cited for its continuous quality development by means of a student survey, an exemplary use of course evaluations and a high level of practical relevance in its teaching.

Dr. Stefan Heinrich from the Professorship of Assembly and Handling Technology at the Faculty of Mechanical Engineering received the Award for the Use of Digital Technologies to Promote Learning, which was funded by msg systems ag. The award recognized Heinrich for the "introduction of a comprehensive blended learning concept in teaching", which benefited around 50 students from various degree programs.

The Award for Young Scientists, funded by GPP Chemnitz – Gesellschaft für Prozessrechnerprogrammierung mbH, was given to Claas Pollmanns, research associate at the Professorship of Social Psychology at the Faculty of Behaviour and Social Sciences. Pollmanns received the prize for the development and implementation of the teaching concept for the course Radicalization, Extremism and Terrorism.

Dr. Daniel Gerth, research associate at the Professorship of Numerical Mathematics at the Faculty of Mathematics, received the Award for Research at Chemnitz University of Technology in the category of DFG – Successful First DFG Application for his project, titled "Simultaneous Estimation of Noise Level and Solution Smoothness for Ill-Posed Problems". This two-year project focuses on a new methodological approach to solving inverse problems.

Prof. Dr. Frank Asbrock received the Transfer Award for Science Communication, funded by TUCed – Affiliated Institute for Transfer and Continuing Education GmbH. Asbrock, Chair of the Professorship of Social Psychology at the Faculty of Behavioural and Social Sciences, received the prize for his diverse communication of the contents of his research, in highly relevant social contexts, in order to reach various target groups in different regions.



Participation and Inclusion



10 Years of the Children's University

May 2019 saw the 10th anniversary of the Chemnitz University of Technology Children's University. This was celebrated with a special event that focused on safely riding your bicycle to and from school. As a part of this, multiple-time bike trial world champion and university employee Marco Thomä displayed his extraordinary talents on the bike. Throughout 2019, students between the ages of seven and twelve were given seven lectures as a part of the Children's University, with topics ranging from the importance of friendships to whether or not people will be able to purchase superpowers in the future.

Education Across Generations

The Chemnitz University of Technology Senior's College offers continuing education to senior citizens in the greater Chemnitz region. These interdisciplinary lectures take place each semester and are composed of content from the areas of modern media, foreign languages, art and culture. A total of 30 Senior's College lectures were held in 2019, with topics ranging from the Central Germany metropolitan region to internet privacy.



The run to Düsseldorf started on August 23rd, 2019 on the Chemnitz University of Technology campus.

Running for a Good Cause

2019 also saw numerous young athletes from the "Lauf-KulTour" club in Chemnitz take off towards Düsseldorf, Chemnitz's partner city. The "Lauf-KulTour 2.0" event included students and employees of Chemnitz University of Technology celebrating its 11th run in 2019.

Participants covered this 1,300-kilometer route on foot and by bike, and University President Prof. Dr. Gerd Strohmeier was on-hand to join participants at the beginning and the end phases of the run. In addition to the athletic challenge it posed, the run served a good cause: the "Aktion Benni & Co." charitable campaign, which is committed to helping young people who are suffering from Duchenne muscular dystrophy.



Further Steps Towards an Inclusive University

Chemnitz University of Technology continues to work towards the full participation of students and employees with disabilities in everyday life at the university, based on the UN Convention on the Rights of Persons with Disabilities. This includes, for example, the establishment of quiet rooms for those who are disabled or chronically ill. Removing barriers for those with reduced mobility is also of high importance. In 2019, a stairlift was installed in the building on the north side of Straße der Nationen 62. Also in 2019, new guidelines were developed for teaching within the area of "Teaching Barrier-Free".

Accolades



Chemnitz University of Technology's Medal of Honor for Outstanding Service in the Area of Administration

In recognition of his outstanding service in the area of administration, Dr. Thomas Raschke received the Chemnitz University of Technology Medal of Honor. The long-time chair of the university's Staff Council received this award on July 31st, 2019 from President Prof. Dr. Gerd Strohmeier as a part of his retirement farewell. Raschke has been a member of the Staff Council since 1990. In March 2002, he took over the chair, and in April 2009 he became a member of the Staff Council at the Saxon State Ministry of Science and Art, where he was subsequently elected to the board and in fact served as chairman from 2011 until the end of July 2019.

Awarding of the Diamond Diplomas

On May 21st, 2019, 26 graduates of the School for Mechanical Engineering – the forerunner of Chemnitz University of Technology – received the "Diamond Diploma" from President Prof. Dr. Gerd Strohmeier to recognize the 60th anniversary of their diploma examinations. Dubbed "The 53s" as the first graduates of the school in 1953 – the students have met regularly at their alma mater since 2003 to reminisce on their studies and take in current happenings at Chemnitz University of Technology.



Supporting Chemnitz University of Technology Runners in the 14th WiC Company Run

Chemnitz University of Technology supported and encouraged their runners in the 14th WiC Company Run. For one, runners received TUC running shirts free of charge, which was made possible by Techniker Krankenkasse. In addition, if you started the race while wearing this shirt, the university reimbursed your entry fee. In all, 150 participants from Chemnitz University of Technology were able to achieve four positions in the top ten across three different runner categories.



Campus Development



Celebrating the New MERGE Laboratory Building

2019 saw the christening ceremony of the basic structure of the new MERGE Cluster of Excellence laboratory building. The new, ultra-modern building ensures that the scientists involved in MERGE can profit from the highest levels of collaboration. This building is a part of the first construction phase of the MERGE Technology Center, and it delivers excellent conditions at Chemnitz University of Technology for the advancement of both fundamental and application-oriented research in the area of lightweight construction.



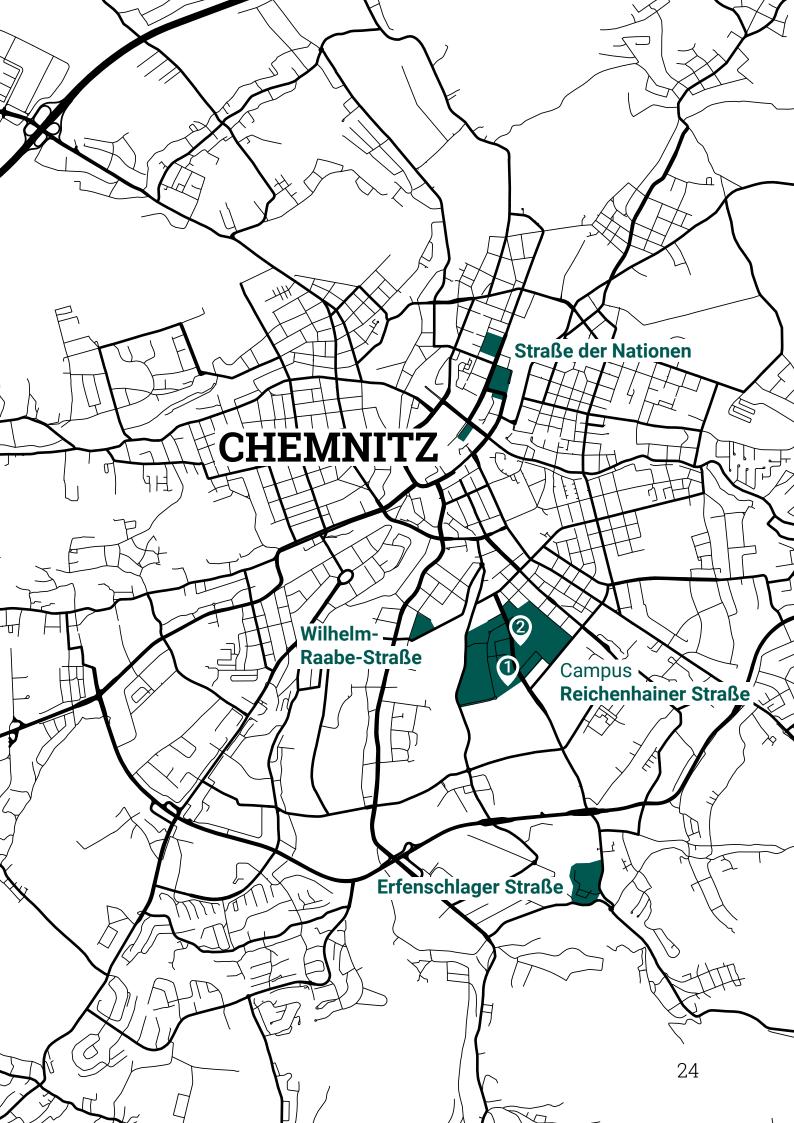
Prospects for Future Campus Development

A spring 2019 exhibition at the university brought forth ideas for possible future designs of the Reichenhainer Straße campus, as a part of an overall master development plan conducted by the Staatsbetrieb Sächsisches Immobilien- und Baumanagement (SIB). The first-place design, titled "Finding the Middle", was particularly convincing to experts due to, among other things, its approach to developing a spacious park and expanded sporting areas in the middle of the campus, right behind the campus cafeteria. This would result in the creation of a second hub on this adjacent part of the campus, with the overall goal of creating a well-designed area that is attractive to students. In 2019, the university community was given the opportunity to contribute feedback on the master development plan and give ideas of their own in the framework of a "competition of ideas" for future campus development.



On the Way to the First Sustainability Report

How do we experience sustainability at Chemnitz University of Technology? Prof. Dr. Marlen Gabriele Arnold, Chair of the Professorship for Corporate Environmental Management and Sustainability at Chemnitz University of Technology as well as Representative of University Management for Sustainable Campus Development, has taken on this question. Along with her team, which is composed of bachelor's and master's students as well as members of the university community and other partner institutions, Arnold set out to write Chemnitz University of Technology's first sustainability report. The report, supported by Chemnitz University of Technology's University Management, is based on the German Sustainability Framework for Universities and is intended to provide tools for the further advancement of sustainability initiatives.



University Communications



The University Supports the Chemnitz Capital of Culture Application

The city of Chemnitz wants to become the 2025 European Capital of Culture, and they have so far made it into the final round of consideration. Chemnitz is one of five German cities (out of eight at the start) that are still in consideration. Chemnitz University of Technology supports the application process in a variety of ways. The university is a member of the steering committee, as well as the Program Council for the Capital of Culture application. In addition, the Junior Professorship for European Culture and Civil Society was organized with a view towards this application. The representatives sent to Berlin to present the application to the European jury included four people who are closely associated with Chemnitz University of Technology. In addition, two projects funded by the city of Chemnitz were created at the university: the "Fahrradkino" project by university researcher Maria Kreußlein and the RABBAZ student magazine (more on pg. 19). A very special form of support for the application was given by international students and staff members, who made a video clip as a part of the #wirsindchemnitz campaign (more on pg. 6) that included statements about the application. The final decision on the 2025 European Capital of Culture will be made in fall 2020.

Overall Communicative Concept

● Internal

Media

- TUCinside
- Rektorrundschreiben (President's Newsletter)
- Forms of participation (University calls / Calls for proposal / Idea competitions / Soliciting opinions from the faculty, etc.)
- Internal surveys (such as TUCpanel)

Events

- · Council of the Deans
- TUCforum
- Task Forces
- University Management visits to the faculties and central institutions
- TUCtogether
- · Welcome Dinner

|●|● Internal and External

- University NewsOpen Letters / Official Statements
- TUCreport
- Social Media (Facebook / Twitter / YouTube / Instagram)
- Video Offerings (TUCtalk / Statements from Research / Alumni Videos)
- Podcast Offerings (TUCscicast / TUCpersönlich)
- Matriculation and Semester Kick-Off
- Graduation Ceremony (I and II)
- Open House Day
- TUCtag
- TUCsommernacht
- TUCconnect
- Public Viewings

- TUCdialog
- TUCnetwork
- Press Releases / Interviews
- Campaigns (Public Image, Marketing, etc.)
- Snapchat
- Press Conferences
- Parliamentary Evenings
- Scientific Forums
- Communication Formats with Stakeholders from Politics, Science and Society
- · Children's University
- · Senior's College

2019 Social Media Highlights

The university's most successful social media posts in 2019 are sorted by social media platform and show the top three posts from each platform. The overall scope of interactions and impressions served as the deciding criterion.

Facebook @tuchemnitz

The Studying in Chemnitz landing page, featuring TU alum Susanne Martin, was particularly successful in 2019. The university community also reacted strongly to the outstanding success of Chemnitz University of Technology's Buddy Program, as noted in the International Student Barometer (pg. 3), as well as the university's winning of the 2019 University Communication Prize (pg. 6).

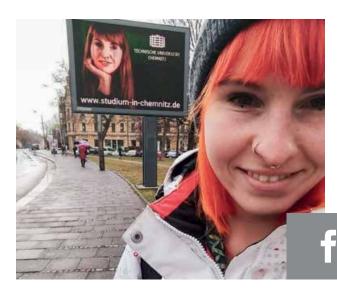


Instagram @tuchemnitz

Atmospheric, "birds-eye view" photos of the Reichenhainer Straße campus and the Straße der Nationen 62 campus were particularly popular with followers of the Chemnitz University of Technology Instagram channel.







Twitter @tuchemnitz

Quite a few users reacted to the tweets announcing the Chemnitz University of Technology's Parliamentary Evening in Dresden, the kick-off celebration marking the start of the Federal Center of Excellence for Refrigeration and Air Conditioning Technology in the Vogtland region (which included participation from the university, as well as Saxony Minister-President Michael Kretschmer), and the university's success as a part of the "WIR!" funding programme for Innovation and Structural Transformation joint project with the Federal Ministry of Education and Research (pg. 4).



YouTube @tuchemnitz

The video detailing the dedication of a new test bench for H2 fuel cell research at Chemnitz University of Technology (pg. 10), the video that covered the Campus Sport Festival and 1st Annual Day of Health, and the "video showroom" detailing university social media activities were seen by a particularly large number of interested viewers.

TUCevents

Open House Day



Around 2,500 prospective students came to campus and took part in the nationwide Open House Day on January 10th, 2019.





TUCtogether



June 6th, 2019 marked the first TUCtogether festival. This combined the traditional Campus Sport Festival with a Day of Health and the newly launched International Cultural Festival. Various offerings were to be found here, running from the cafeteria to the sports field to the Centre for Sports and Health Promotion.





JAN

FEB

MAR

APR

MAY

JUN

TUCtag



The TUCtag that took place on May 4th, 2019 was a great success. Over a ten-hour span, over 4,000 guests flocked to around 100 different programs as a part of Open House Day, the Children's University and the Long Night of Science.





Chemnitz University of Technology invited the general public to the 3rd Parliamentary Evening at the Saxon State Parliament on May 6th, 2019. University representatives as well as Dr. Matthias Rößler, President of the Saxon State Parliament, Dr. Matthias Haß, Saxon State Minister of Finance, Uwe Gaul, State Secretary for the Saxon State Ministry for Science and Art, and various members of the state parliament participated in the event.

Parliamentary Evening



1st Graduation Ceremony (Winter Semester)







Matriculation and Semester Kick-Off Celebration





Winter Semester 2019/2020 brought 2,220 new students to the 103 various degree programs offered by Chemnitz University of Technology. Many of the first semester students, along with family and friends, attended the matriculation and semester kick-off celebration, which took place at Hartmann Hall on October 10th, 2019.

TUC Christmas Market





Current and former members of the university community visited the TUC Christmas Market on December 5th, 2019, in and around the Main Lecture Hall Building on the Reichenhainer Straße campus. A festive program greeted guests and prepared them for the Christmas season.

JUL AUG SEP OCT NOV DEC

TUCsommernacht



June 22nd, 2019 brought a wondrous evening of summer celebration to the courtyard of the Böttcher Building. The program from TUCsommernacht included performances by Ecke Bauer & Band Bauerplay, the TU Big Band and the Drummed Boxes troupe. Prof. Dr. Heinrich Lang, Chair of the Professorship of Inorganic Chemistry, also gave a look into "molecular cuisine".



2nd Graduation Ceremony (Summer Semester)

A total of 1,946 Chemnitz University of Technology students completed their studies in the 2019 academic year, as well as 128 doctoral candidates and 5 habilitation candidates. Many of these students accepted their diplomas at one of the two graduation ceremonies held during the school year.



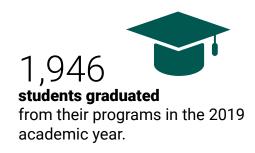
Awarding Prizes and Grants



November 7th, 2019, Chemnitz University of Technology handed out nine University Awards, the DAAD Award, 95 Deutschlandstipendien grants and five awards for outstanding achievement in teaching, research and transfer (pg. 17).

Facts and Figures







 $5 \frac{128}{\text{habilitation candidates}} \text{ and} \\ \text{their studies in 2019}.$



1,438 projects were financed in 2019 via third-party funding.



2,330

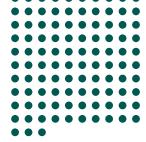
people work at the university,
and roughly half are financed
via third-party funding.



29.2% International students from 93 countries accounted for of the student body at Chemnitz University of Technology.



1 Federal Cluster of Excellence, 1 DFG
Collaborative Research Center and participation in DFG Collaborative Research Centers/Transregios were among the large-scale research projects at Chemnitz University of Technology in 2019.



103 degree programs

were offered by the 8 faculties and the Centre for Teacher Training in Winter Semester 2019/2020:

36 bachelor's programs, 63 master's programs, 2 diploma courses and 2 courses at the Centre for Teacher Training.

There were 165 **professorships** and 16 junior professorships at Chemnitz University of Technology in 2019.



95 **Deutschlandstipendien** grants were obtained in 2019.



Chemnitz University of Technology has core competencies, in which we take on important questions of the future: Materials and Smart Systems, Resource-efficient Production and Lightweight Structures, and Humans and Technology.



14 **businesses** were founded in 2019 with the support of Chemnitz University of Technology and the SAXEED start-up network. 50 other start-up projects were supported as well.



The university library had . million printed books and magazines and 150,000 pieces of digital media available for circulation in 2019. 12,500 library users appreciated this.



97.9 The university received million euros in government grants in 2019.



68.6 Researchers attracted million euros in third-party funding in 2019.



1,710 publications

authored by Chemnitz University of Technology faculty and staff were published in 2019. They can be found in the university bibliography.



1 4 distance-learning and continuing education courses are offered at Chemnitz University of Technology and the TUCed Affiliated Institute for Transfer and Continuing Education GmbH, including the new bachelor's and master's courses in Prevention Management – Competencies for Social Interventions.

Legal Notice

Publisher

President of Chemnitz University of Technology Prof. Dr. Gerd Strohmeier

Editorial Department

Press Office and Crossmedia Communications
Mario Steinebach, Chief Editor
Matthias Fejes, Editor
Jacob Müller, Graphics and Layout
Translation: Jeffrey Karnitz

Photos and Graphics

Uwe Meinhold, Jacob Müller, Lili Hofmann, Susann Oehme, Vincent Weise, Claudia Höhne, The Institute of Physics, Lars Meese, The Professorship of Human Locomotion, Ulrike Rada, Toni Söll, Frank Schettler, Claudius Pflug, Rabbaz Magazine, Lisa Röttger, Sven Gleisberg, SWECO GmbH - Berlin, Medienproduktion Traube 47, TV Studio TU Chemnitz, Mario Steinebach, Jan Felber, Stephanie Aprojanz

