



TECHNISCHE UNIVERSITÄT
CHEMNITZ

TUCreport 2020

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All the University Library's previous locations have relocated to the Alte Aktienspinnerei on the Straße der Nationen, which opened in October 2020.

2020



Dear Professors, Associates, and Students,
Dear Members of the University Community,

As usual, in 2021 we want to look back on the past year with the TUCreport – the year that was undoubtedly shaped and overshadowed by the Covid-19 pandemic. But there were also countless bright spots from all areas of our university. These include the development of the world's smallest microelectronic robot with Prof. Dr. Oliver Schmidt (Faculty of Electrical Engineering and Information Technology) at the head of an international research team, the acquisition of 1.6 million euros from the BMBF to establish an AI junior research group by Dr. Franziska Nestler (Faculty of Mathematics), the TU4U – SelfE project's recognition with the Stifterverband's Hochschulperle Spezial in the month of May, the extremely successful completion of the HRK re-audit "Internationalization of Universities," the federal government's provision of over 30 million euros for the research campus in Annaberg-Buchholz, the opening of our new university library in the Alte Aktienspinnerei, the organization of the specialist conference "HZwo Connect" on the future of hydrogen and fuel cell technology in the Free State of Saxony and the German Mathematical Society's annual conference at Chemnitz University of Technology as a hybrid conference, as well as the receipt of the "audit familiengerechte hochschule" (family-friendly university audit) for the fifth time in a row, making the designation permanent. A very special success this year was also Chemnitz's successful application to become European Capital of Culture 2025, which was actively supported by the university in many ways.

Of course, this is only a small selection of events and successes - in a year in which the entire university family was exposed to a great deal of stress due to the Covid-19 pandemic. Against this backdrop, it is of particular concern to me this year to extend my heartfelt thanks to all members of our university community for their tireless commitment to the benefit of our university. As always, I would also like to thank all the institutions and committees of our university, especially the Senate, the University Council, the faculties (in particular the deans), the central institutions, the administration, the Staff Council, the StuRa, the Representation of Academic Staff of Chemnitz University of Technology, University Management, and the staff of the President's Office.

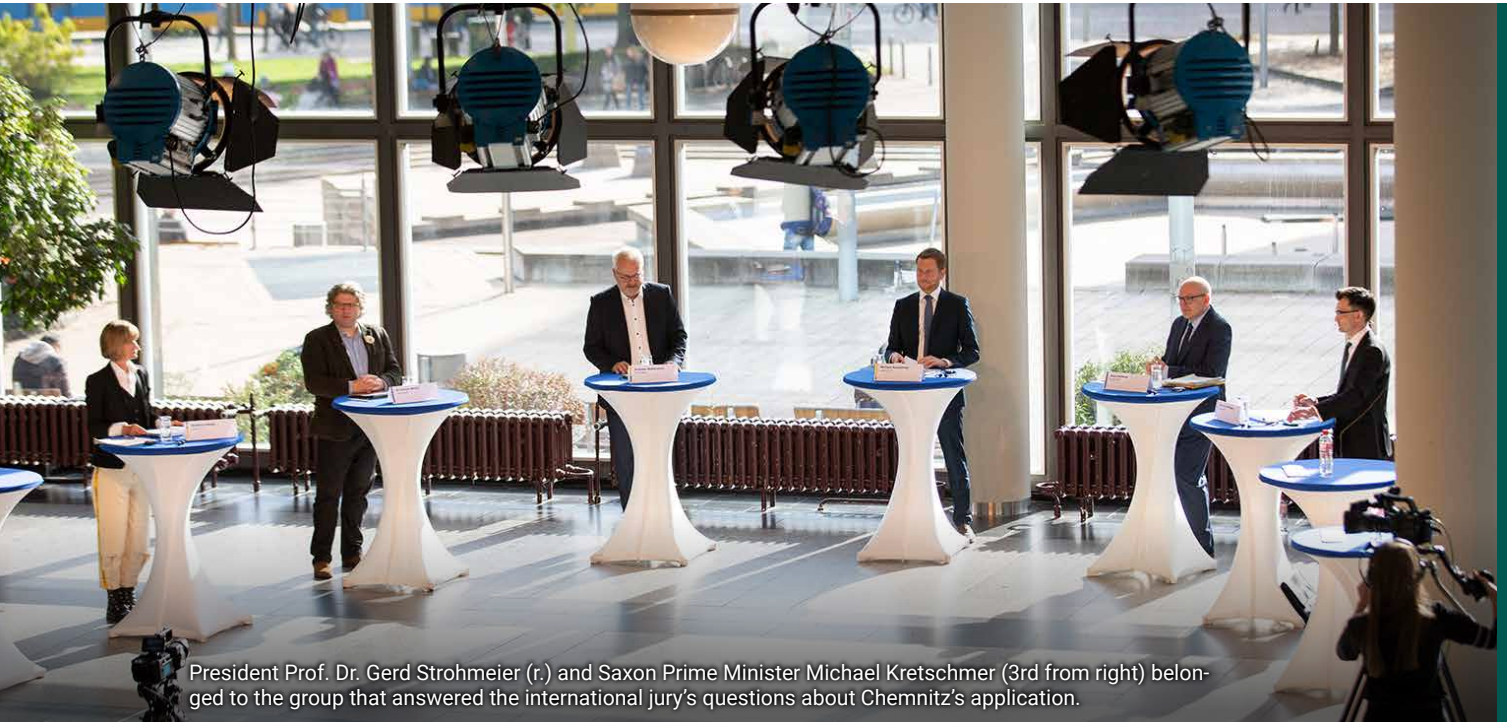
Although the Covid-19 pandemic has demanded university management's full attention, this year - like in the past years - we have pursued the goal of not only administering, but also shaping our community. Among the various actions taken are the creation of the MAIN central institution and a W3 professorship of the same name, the further advancement of system accreditation, the continued development of the research campus in Annaberg-Buchholz as a branch of Chemnitz University of Technology, the conclusion of an agreement on the procedure for awarding performance bonuses with the staff council, the adoption of regulations for protecting against and dealing with discrimination and sexual violence, the establishment of the concept of a senior assistant position, the preparation of "Wahlprüfsteine" - an electoral survey - for the Chemnitz mayoral election, the formation of the European university network UNIVERS together with seven other European universities, as well as the organization of the traveling exhibition "Die Rosenberg" and its opening together with Federal Minister Christine Lambrecht. It was also extremely significant that the SMWK followed my suggestion and appointed Thomas Lang as Acting Chancellor of Chemnitz University of Technology.

Additional activities from all areas and groups at our university can be found on the following pages. I hope you enjoy browsing through our 2020 TUCreport and would of course, as always, be pleased to receive feedback on the various articles.

Best regards - and stay healthy!

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

University Highlights



President Prof. Dr. Gerd Strohmeier (r.) and Saxon Prime Minister Michael Kretschmer (3rd from right) belonged to the group that answered the international jury's questions about Chemnitz's application.

Chemnitz Becomes European Capital of Culture 2025

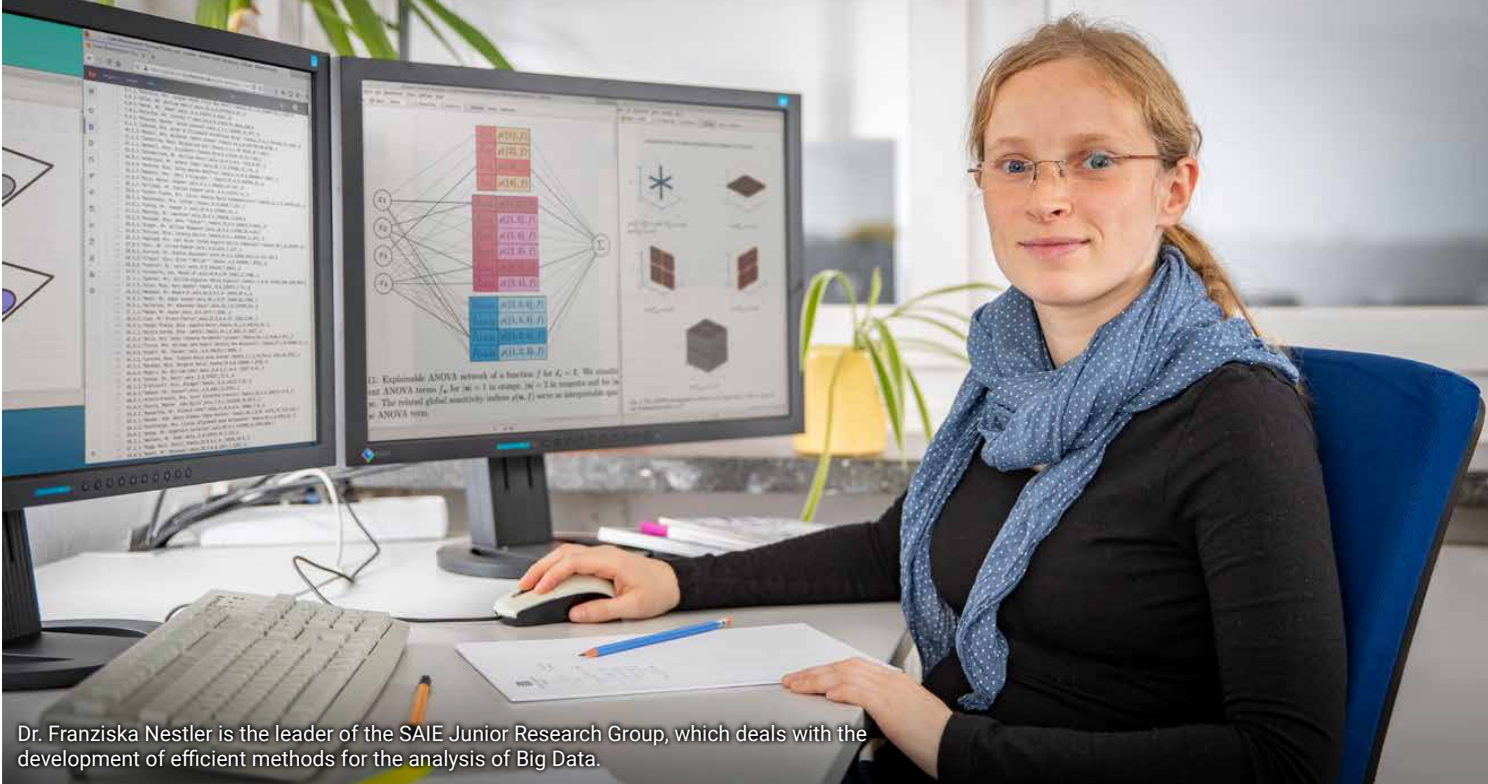
On October 28, 2020, the Conference of Ministers of Culture and the European Commission-appointed jury announced that Chemnitz will become the European Capital of Culture 2025. With this announcement, the city prevailed in the second round of competition over Hanover, Hildesheim, Nuremberg, and Magdeburg. Chemnitz University of Technology actively supported the city's application over the past three years in many ways. Among those were the participation in both the steering group and program advisory board, the initiation of numerous microprojects by members of the university community, and extensive publicity campaigns such as video testimonies from international students and researchers (p. 31).



TUCscicast Special
"Mensch – Maschine
– Miteinander" (Man –
Machine – Together):
bit.ly/TUCscicast_Special

"Hybrid Societies" Collaborative Research Center is Started

On January 1, 2020, the German Research Foundation (DFG)'s Hybrid Societies Collaborative Research Center began its work at Chemnitz University of Technology. The new center involves all eight university faculties. The center focuses on research into how interactions between man and machine can be effectively implemented. Thirty professors as well as university researchers are part of fifteen subprojects and two cross-sectional projects that are investigating how autonomous vehicles move in public spaces or how robots can coordinate with humans. Additional questions for the research center arise from the rapid development of "embodied technologies." These include technologies that are partially or temporarily controlled by humans such as bionic prostheses or telepresence robots. In 2020, a research training group was established at the new center to promote interdisciplinary collaboration and to offer doctoral students special qualification opportunities.



Dr. Franziska Nestler is the leader of the SAIE Junior Research Group, which deals with the development of efficient methods for the analysis of Big Data.

1.6 Million Euros for AI Junior Research Group

Dr. Franziska Nestler, research assistant at the Professorship of Applied Functional Analysis at Chemnitz University of Technology (Prof. Dr. Daniel Potts), has successfully applied for funding to establish a junior research group in the field of Artificial Intelligence. The project, called Fast Algorithms for Transparent Recommendation Systems (SAIE), is funded with 1.6 million euros by the Federal Ministry of Educa-

tion and Research (BMBF) within the framework of the "Guidelines for the Promotion of Female AI Junior Researchers" initiative over a period of four years. This project by the Chemnitz mathematician is one of 20 excellent projects nationwide that has been selected for funding after a two-stage, highly competitive selection procedure. The project's focus is the question of efficient handling of big data.



Initiative for customized support with online studies awarded "Hochschulperle Spezial"

The Corona pandemic presented challenges, not only to teaching but also to students and the way they organize their education. One of these challenges is the lack of personal exchange with classmates and advice while studying for exams or writing papers. With the TU4U – SelfE (Self Organized E-Learning) project, Chemnitz University of Technology supported its students with customized online support. The Stifterverband für die Deutsche Wissenschaft e.V. selec-

ted this innovative support system for autonomous digital learning to receive the Hochschulperle Special prize in May 2020. This was the second of three special prizes awarded. With this prize, the Stifterverband recognized projects from April to June that show how research, teaching, and learning can be successful during the Corona pandemic. The selected projects were supported with 1,000 euros each.



The four-person team of advisors under the leadership of Michael Gaebel (Leader of the Higher Education Policy Unit of the EUA, 1st row, 3rd from left) gave Chemnitz University of Technology a good grade during their participation in the HRK's Re-Audit on Internationalization of Universities. The photo was taken in January 2020.

Successful HRK Re-Audit on Internationalization of Universities

During the re-audit on Internationalization of Universities, the advisors from the German Rectors' Conference were impressed with the high personal engagement and close institutional partnership for internationalization at Chemnitz University of Technology. With the successful implementation of 45 initiatives, the new Visiting Scholar Program was especially noted as a leading example for improving international visibility and networking with excellent international guest professors. The International Office's Student Buddy Program for international students, which was already recognized in 2019 by the International Student Barometer as the best buddy program worldwide, was above all praised.



More than 30 Million Euros for Research in Digital Train Technology in the Erzgebirge

Chemnitz University of Technology and its partners from industry and finance are researching technology for the digitization and automation of rail travel. More than 30 million euros have been earmarked for this purpose until 2024 by the Federal Ministry of Transport and Digital Infrastructure. The money will, among other things, be used for the construction of a 5G infrastructure along the Erzgebirgsbahn's test route between Annaberg-Buchholz and Schwarzenberg in order to test technology for intelligent train travel under real-life conditions. The central focus of the Smart Rail Connectivity Campus is the construction of a research campus in Annaberg-Buchholz as an outpost of Chemnitz University of Technology. In this model project, unique in Europe, highly automated driving on standard-gauge railroad tracks and ecological driving, especially with hybrid drives, are to be further researched and innovative mobility technologies will be brought to approval and market launch.



Permanent Certification “Family Friendly University Audit”

For the fifth time in a row, Chemnitz University of Technology was awarded the designation of “family friendly university” from the berufundfamilie Service GmbH, an initiative of the Hertie Stiftung. With this fifth certification, the designation becomes permanent. Chemnitz University of Technology is committed to a family- and life-aware personnel policy. The supporting pillars are a company health management system, the development of a catalog of measures about inclusion and its implementation, university communication with a diverse new range of information, improved counseling services, and a series of measures by university management to support academic staff in shaping their work and home environments, taking into account family, career, and personnel development.



Federal Minister of Justice and Consumer Protection Christine Lambrecht opened the travelling exhibition “Die Rosenberg” in the main university lecture hall building. In a conversation with Prof. Dr. Gerd Strohmeier (l), President of Chemnitz University of Technology, and Prof. Dr. Manfred Görtemaker, Leader of the Rosenberg Project, she gave additional insights during a tour of the exhibit.

Federal Minister of Justice Opened Travelling Exhibit at Chemnitz University of Technology

Until March 5, 2020, the Chemnitz Day of Peace, the travelling exhibit “Die Rosenberg – the Federal Ministry of Justice in the Shadow of the Nazi Past” was available to view in the foyer of the main university lecture hall building.

On February 6, 2020, Federal Minister of Justice and Consumer Protection Christine Lambrecht opened this exhibit together with University President Prof. Dr. Gerd Strohmeier. The president asked the Federal Ministry of Justice to bring this exhibit to Chemnitz as a sign of the meaning of function-

nal democratic structures and actors as well as institutions. The exhibit brought the Federal Justice Ministry’s dark Nazi past to proverbial light. Among other things, oversized office lamps illuminated the involvement in the Nazi regime of injustice. The goal of the exhibit is to process the Nazi past of the ministry as well as to raise the awareness of this historical injustice through reports from eyewitnesses, biographies of both victims and perpetrators as well as legal texts.

From University Management



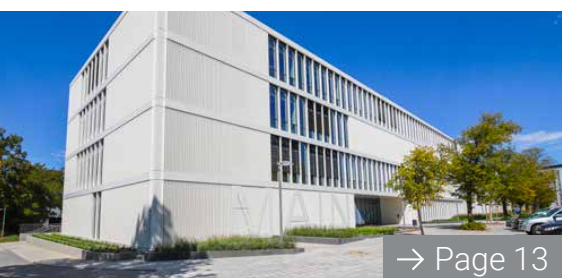
Chemnitz University of Technology's Böttcher Building is home to University Management



In **higher education policy and university development**, the city of Chemnitz's campaign to become European Capital of Culture 2025 was actively and, ultimately, successfully supported by the university in many ways. Thomas Lang was appointed Acting Chancellor of Chemnitz University of Technology by the SMWK following the President's suggestion. The University Library opened in the Alte Aktienspinnerei (funding: about 53 million euros) and was once again one of nine university libraries recognized nationwide with the Open Library Badge 2020.



In **teaching**, the TU4U – SelfE (Self Organized E-Learning) project was recognized in May with the Hochschulperle Spezial or Special University Pearl by the Stifterverband für die Deutsche Wissenschaft e.V. System accreditation moved forward with the development of the teaching quality management system and the first pass of this system with the BA Psychology program. The yearly TUCpanel student questionnaire, which aims for improved conditions and student success, was implemented with a special section for the specific concerns of our international students.



In **research**, the MAIN central institution as well as a W3 professorship of the same name was established in order to create the best possible conditions for excellent research in the MAIN research building. Prof. Dr. Martin Gaedke was appointed as University Management's representative for the creation of a networked research information system for unified and integrated information management. The university joined the European Hydrogen and Fuel Cell Association, Europe's largest hydrogen research network with more than 160 industrial partners, 78 research institutions, and 25 national associations.

In **transfer and academic qualification**, the Smart Rail Connectivity Campus in Annaberg-Buchholz was further developed with the earmarking of 31.1 million euros in the Federal Ministry of Transport and Digital Infrastructure's budget. The development of the competency center for refrigeration and air conditioning in the Reichenbach/Vogtland location was supported. The third TUClab competition was announced and three founder's prizes were given out to startups (two of which were university spin-offs). The winners of the prizes received 450,000 euros of start-up funding as well as consulting and support from the SAB.



In the field of **young scientists**, the position of Commissioner of the University Management for Junior Researchers was advertised throughout the university and filled with Mr. Michael Schmischke (following the vote of the Senate members from academic mid-level staff and the VAMC). So-called "Oberassistentenstellen" (senior assistant positions) were established in order to enable professors to achieve even greater efficiency and planning security, as well as to provide academic staff with predictable career paths in science. Funding measures from the "Gute Lehre / Starke Mitte" program were approved.



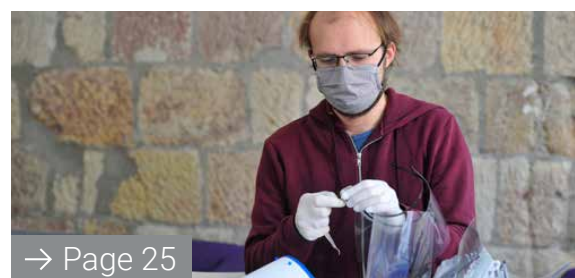
In **international affairs**, the HRK re-audit on Internationalization of Universities was successfully completed, including a site visit with four internationally active advisors who confirmed the university's extraordinary progress. The European university network UNIVERS, supported by the DAAD, was created with seven other European universities. A new all-time high for applications for DAAD funding as part of the internationalization strategy was achieved with 1.85 million euros from DAAD programs for international mobility and projects.



In **university communications**, the travelling exhibition "Die Rosenberg" was displayed at Chemnitz University of Technology and opened in the presence of Federal Minister Christine Lambrecht. The TUCdigital (Digital Higher Education Days) program was organized to develop a common strategy for digital higher education at Chemnitz University of Technology. The yearly meeting of the German Mathematical Society 2020 took place as a hybrid conference with 660 participants worldwide. Also the HZwo Connect subject conference took place in 2020 and brought together stakeholders in the field of hydrogen technology.



Due to the **Covid-19 pandemic**, many steps were taken in order to protect the members of the university community and their families as much as far as possible and responsible. Steps were also taken to maintain our university life as far as that was possible and responsible. Various stand-by modes were defined, and the university transferred to them as was appropriate while attempting to implement a long-term strategy that avoided erratic changes. Various measures and support services, particularly in the areas of infection control and digitization as well as in student support, were initiated.



The University Management report covers a selection of additional activities from the year 2020.

www.mytuc.org/bericht-2020

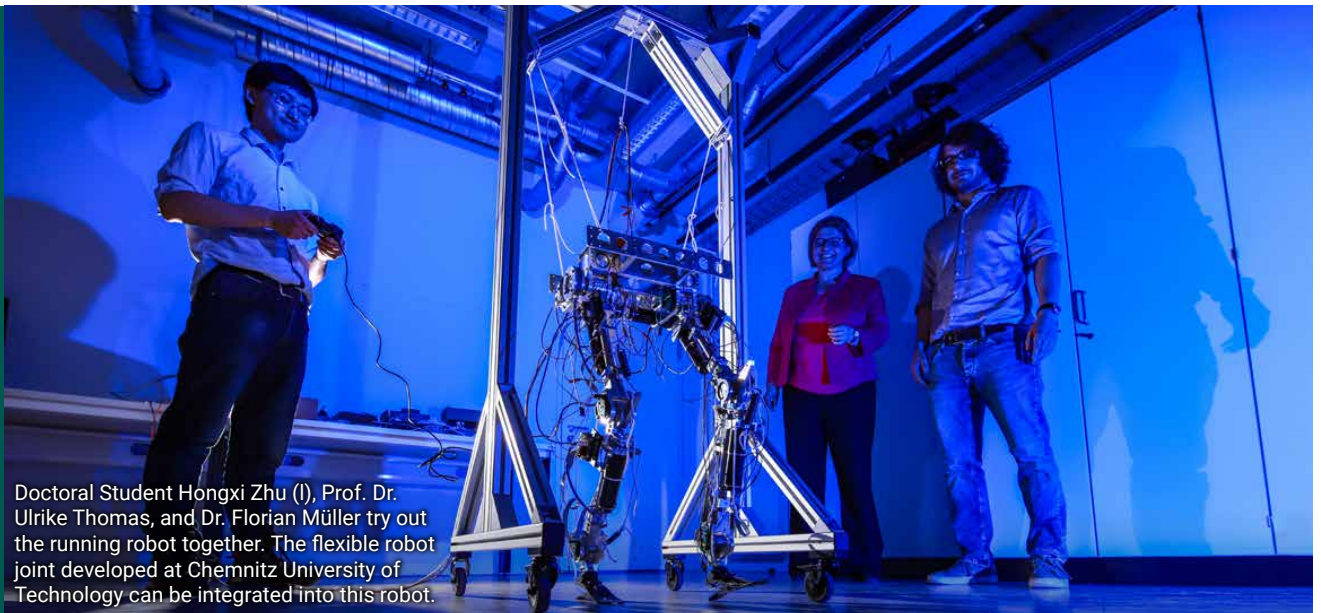
From Our Faculties

Faculty of Mathematics

In 2020, the traditional meeting of the German Mathematical Society (DMV) took place in Chemnitz. From September 14-17, the conference took place under the organization of the Faculty of Mathematics as a hybrid conference. Over 660 participants from all over the world took part via livestream. On site, DMV president Prof. Dr. Friedrich Götze as well as University President Prof. Dr. Gerd Strohmeier greeted participants. Saxon Prime Minister Michael Kretschmer sent greetings via video. Prof. Dr. Oliver Ernst, Dean of the Faculty of Mathematics, opened the academic portion of the meeting. To celebrate the DMV's 130-year anniversary, the new Minkowski Medal was presented to Prof. Dr. Moritz Kerz from the University of Regensburg during the conference. Additionally, the von Kaven Prize from the German Research Foundation was given to Prof. Dr. Alexandra Carpentier from the University of Magdeburg.



The German Mathematical Society (DMV) celebrated its 130-year history with the presentation of the new Minkowski Medal. The German Research Foundation's von Kaven Prize was also awarded. In photo: DMV president Prof. Dr. Friedrich Götze.



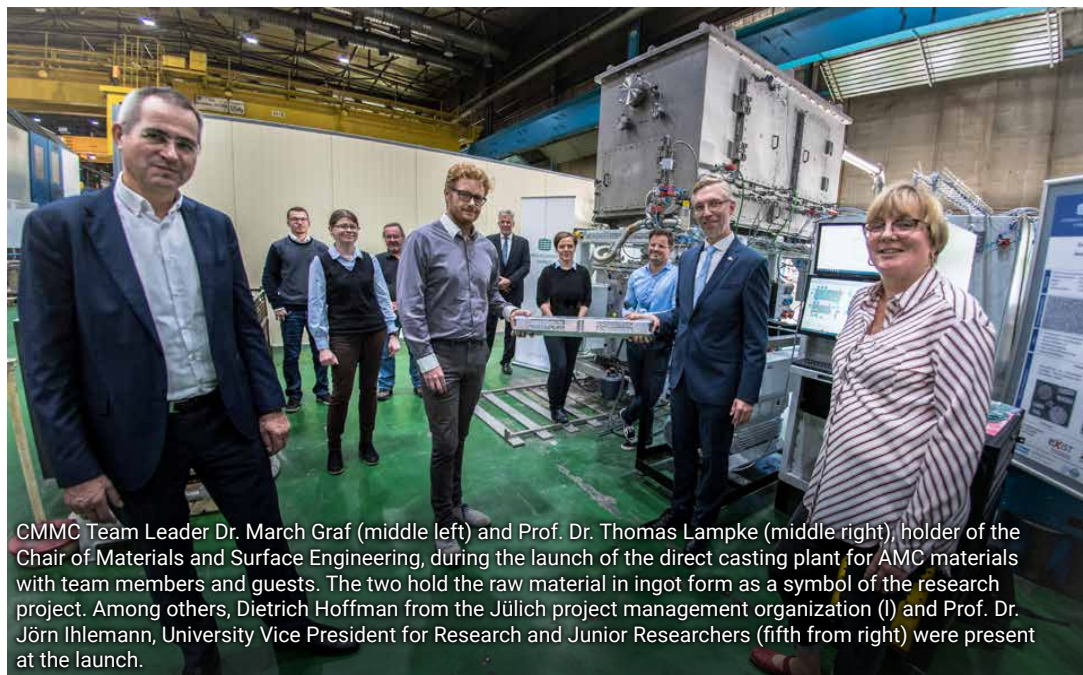
Doctoral Student Hongxi Zhu (l), Prof. Dr. Ulrike Thomas, and Dr. Florian Müller try out the running robot together. The flexible robot joint developed at Chemnitz University of Technology can be integrated into this robot.

Faculty of Electrical Engineering and Information Technology

On July 23, 2020, the German Patent Office issued a patent in the area of innovative robot joints to inventors Hongxi Zhu, doctoral student at Chemnitz University of Technology, and Prof. Dr. Ulrike Thomas, head of the Professorship of Robotics and Human Machine Interaction as well as acting speaker of the Hybrid Societies Collaborative Research Center. The invention is intended for a safer interaction between human and robot. This new robot joint is flexible. In Germany, there is only one other somewhat older patent in the field of flexible robot joints, registered by the German Aerospace Center, besides the one from Chemnitz University of Technology. In the future, there will be several projects at the Faculty of Electrical Engineering and Information Technology, among others on the nonlinear control of robot systems together with the Professorship of Automatic Control and System Dynamics as well as on integrated force sensor technology together with the Professorship of Measurement and Sensor Technology. This will create the basis for developing a new generation of robots at Chemnitz University of Technology.

Faculty of Mechanical Engineering

It's the university's hottest project – after their success at the TUClab competition 2020 (p. 15), the CMMC (Cast Metal Matrix Composites) start-up team started their EXIST research transfer project on October 5, 2020 together with the Jülich project management organization. The Direct Ultrasonic Casting for a New Generation of Aluminum Matrix Composites project (AMC) received funding of 1.3 million euros for their new direct casting system. The aim of the start-up project is to provide AMC semi-finished products and ingots for automotive suppliers or foundries, among others. In addition to the development of materials and the production of small batches, the technology is to be licensed for larger purchase quantities. The start-up is to be spun off from the Chair of Materials and Surface Engineering (Prof. Dr. Thomas Lampke) in early 2021.



CMMC Team Leader Dr. March Graf (middle left) and Prof. Dr. Thomas Lampke (middle right), holder of the Chair of Materials and Surface Engineering, during the launch of the direct casting plant for AMC materials with team members and guests. The two hold the raw material in ingot form as a symbol of the research project. Among others, Dietrich Hoffman from the Jülich project management organization (I) and Prof. Dr. Jörn Ihlemann, University Vice President for Research and Junior Researchers (fifth from right) were present at the launch.

Faculty of Natural Sciences

A team under the leadership of the late chemist Prof. Dr. Klaus Banert, who unexpectedly passed away in 2020, set a world record. The team linked six nitrogen atoms directly one after the other in a chemical compound. The azido group - a molecular fragment with three nitrogen atoms in a row - and its reaction possibilities were the key to success. The Chemnitz research work on open-chain nitrogen compounds, which appeared in the journal *Angewandte Chemie* in July 2020, is considered an important starting point for further research into other nitrogen-containing compounds. Prof. Banert's creative scientific work on unusual nitrogen compounds and his worldwide networking activities were treasured at Chemnitz University of Technology and beyond.

The "Banert'sche Hexaazen" links six nitrogen atoms directly after each other in a chemical compound.



Faculty of Computer Science

Professor Janet Siegmund from Chemnitz University of Technology along with her colleagues from Paderborn and Darmstadt, demonstrated new approaches to Open Science. For their joint paper on handling the replicability of results in IT, the group was recognized with the ACM SIGSOFT Distinguished Paper Award at one of the most important software engineering conferences. In the trade journal Communications of the ACM Siegmund and her colleagues from Saarbrücken and Magdeburg described what is going through the minds of programmers when they write software. In addition, the AI 2000 Annual List recognized Prof. Dr. Martin Gaedke, chair of the Professorship of Distributed and Self-Organizing Systems in the area of knowledge management, which is part of artificial intelligence. The AI 2000 List names the 2,000 most influential scientists worldwide by using the AMiner academic data system to determine citation counts as well as ranking publications in the top tier for each of the last ten years. Gaedke uses his research in distributed systems as well as web and data engineering to build a holistic and integrated research information management system for the university.

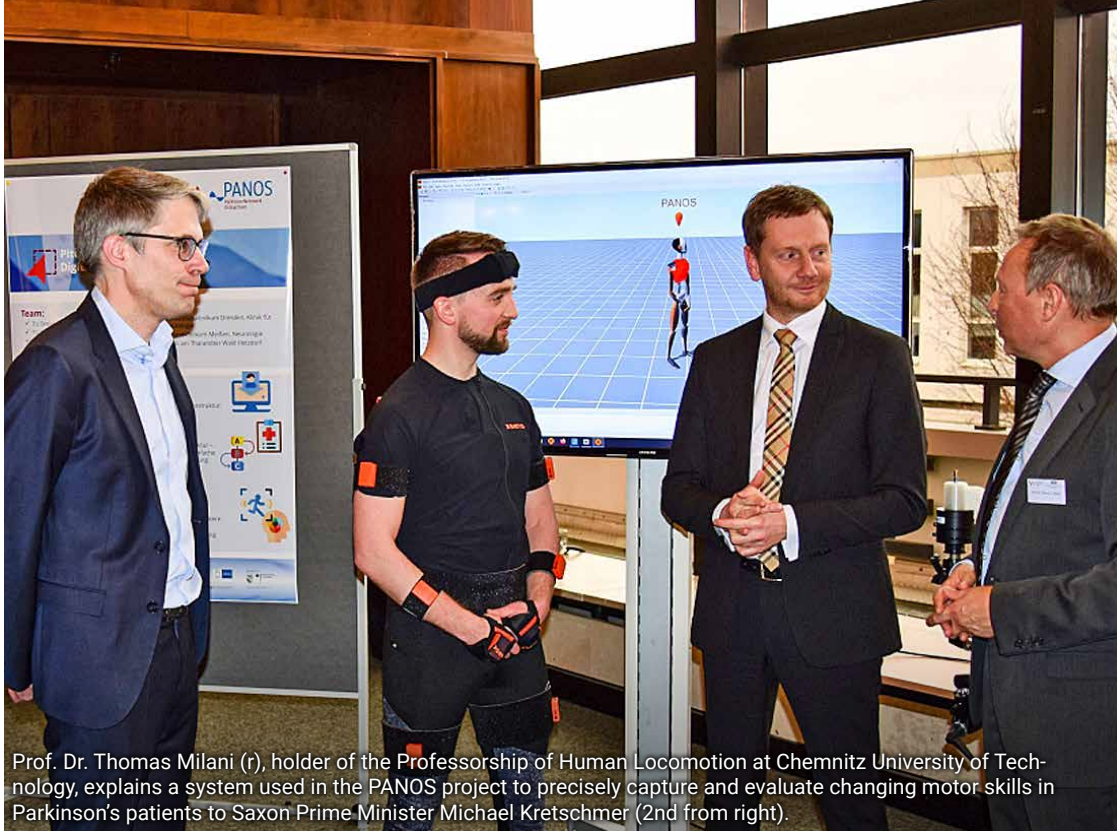


Prof. Dr. Janet Siegmund and Prof. Dr. Martin Gaedke are internationally recognized in the areas of Open Science and Web and Knowledge Management, which are also central foci of the Faculty of Computer Science's research.

Faculty of Economics and Business Administration

The Faculty of Economics and Business Administration has been supporting the United Nations' Principles for Responsible Management Education initiative since 2018. Since 2020, the faculty belongs to the "Advanced PRME Signatories." PRME is a global learning community of pioneers, academics, enterprises, students, and expert leaders. PRME's leadership, which follows the 17 Sustainable Development Goals from Agenda 2030, should increase the development of sustainability in educational institutions worldwide. Chemnitz University of Technology is the first Saxon university to take part in this global learning community. The PRME is an important step for the Faculty of Economics and Business Administration to make sustainability, which has been anchored in research and teaching for years, more visible to the outside world.





Prof. Dr. Thomas Milani (r), holder of the Professorship of Human Locomotion at Chemnitz University of Technology, explains a system used in the PANOS project to precisely capture and evaluate changing motor skills in Parkinson's patients to Saxon Prime Minister Michael Kretschmer (2nd from right).

Faculty of Behavioral and Social Sciences

On January 23, 2020, Saxon Prime Minister Michael Kretschmer and Saxon State Minister for Social Affairs and Cohesion Petra Köpping handed over a grant for the research and transfer project Parkinson Netzwerk Ostachsen (PANOS, Parkinson's Network of East Saxony). The Professorship of Human Locomotion at Chemnitz University of Technology is also involved in the project to establish nationwide Parkinson's care. In addition, a project to develop a strategy to protect the population from elevated radon concentrations in residential buildings and at workplaces began at the faculty in the field of "Health Sociology" (Prof. Dr. Peter Kriwy). This project is financed by the Saxon State Ministry of Energy, Climate Protection, Environment, and Agriculture as well as the Ministry of the Environment, Climate Protection, and the Energy Sector Baden-Württemberg. Among other things, this project will involve a general survey in areas with an increased radon risk and a control area in Saxony.



Prof. Dr. Martin Clauss, holder of the Professorship of Europe in the Middle Ages, is one of the leaders of the Sounds of the Middle Ages network.

Faculty of Humanities

From 2020 to 2024, the acoustic dimension of pre-modernity will be researched at the German Research Foundation-funded network Sounds of the Middle Ages at Chemnitz University of Technology. Together with researchers from different subjects in Germany and Switzerland, Prof. Dr. Martin Clauss, holder of the Professorship of Europe in the Middle Ages and PD Dr. Gesine Mierke, research assistant at the Professorship of History of German Literature and Language are researching sounds and their meaning for and in the culture of the Middle Ages in various workshops and conferences. As in every other era, the Middle Ages were by no means silent, but were marked by numerous acoustic phenomena that are conveyed in texts, pictures, notations, or architectural formations.

From Our Central Institutions



The smallest microelectronic robot in the world was among the projects developed at the Research Center MAIN, which has been a central institution at Chemnitz University of Technology since 2020. The robot is the fraction of the size of a one cent coin.

Center for Materials, Architectures, and Integration of Nanomembranes (MAIN)

An international research team under the leadership of Prof. Dr. Oliver G. Schmidt, holder of the Professorship of Material Systems for Nanoelectronics and founder of the Center for



Research video about the microelectronic robot's characteristics and functions
bit.ly/TUCMikroBot

Materials, Architectures, and Integration of Nanomembranes (MAIN) at the university, has made a successful breakthrough. In the research journal *Nature Electronics*, they reported on the development of the smallest microelectronic robot in the world, which is propelled and steered by a twin jet. It is 0.8 mm long, 0.8 mm wide, and 0.14 mm high, extremely flexible, able to move, and equipped with diverse functions.

Cluster of Excellence MERGE

For his outstanding commitment to science and research as well as his very great services to the Free State of Saxony, MERGE coordinator Prof. Dr. Lothar Kroll received the Saxon Order of Merit on October 16, 2020. Saxony's highest state award was presented to him by Saxon Prime Minister Michael Kretschmer. During the ceremony, Kroll's work in the field of lightweight construction as a key technology and his commitment to knowledge transfer and exchange in the context of cross-border collaboration were highlighted. Thanks to the future-oriented work at the Cluster of Excellence MERGE, Chemnitz has become a globally recognized and important center for lightweight construction research in recent years. The development of resource-efficient lightweight construction technologies there in close cooperation with science and industry centrally benefits climate protection as well as many small and medium-sized enterprises.



Outstanding expertise in lightweight construction - MERGE Coordinator Prof. Dr. Lothar Kroll was honored with the Saxon Order of Merit.



University Library

The University Library (UB) Chemnitz received the Open Library Badge for the second time in 2020 for their engaged commitment to more openness in science and society. Since the first time the library received this award in 2017, the UB has increased its "openness offerings" by making knowledge barrier-free to access and easy to discover. In addition to the support for open access publications and the application of open-source software, other programs such as the possibility of text and data mining, the provision of cost information in the "Open APC" project, and a Wikimedia account for the publication of open license photos were implemented.

University Computer Centre & Saxony's Centre for Teaching and Learning

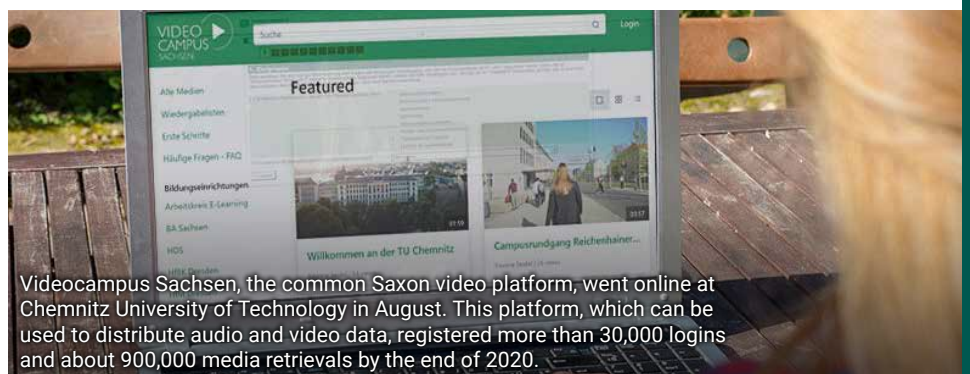
Chemnitz University of Technology's E-Learning Team worked on solutions for digital teaching, learning, and exams and supported teachers with continuing education, advice, online tutorials, and a service hotline in 2020. Digital examinations were supported by the team from Lehrpraxis in Transfer Plus (LiT+) and the Chair of Psychology of Learning with Digital Media. Employees from the University Computer Centre, the TU4U project as part of the Federal Ministry of Education and Research-sponsored Qualitätspakt Lehre (Pact for Quality Teaching), and the Digitale Hochschulbildung Sachsens (Digital Higher Education in Saxony; DHS) program, which is sponsored by the Saxon State Ministry for Science, Culture, and Tourism, also participated under the leadership of Prof. Dr. Maximilian Eibl, Vice President for Academic and International Affairs at



Participants in the TUCdigital – Digital Higher Education Days conference discussed possibilities for digital teaching, learning, and examinations.

The University Computer Centre reacted quickly to the increased need for video conferencing in March 2020 by delivering the university's own BigBlueButton System. This allows researchers, teachers, and students as well as management to continue with day-to-day university life digitally despite changing conditions due to the Covid-19 pandemic. Twelve conference servers support the system. As a support the E-Learning Team offers technical and didactic tutorials.

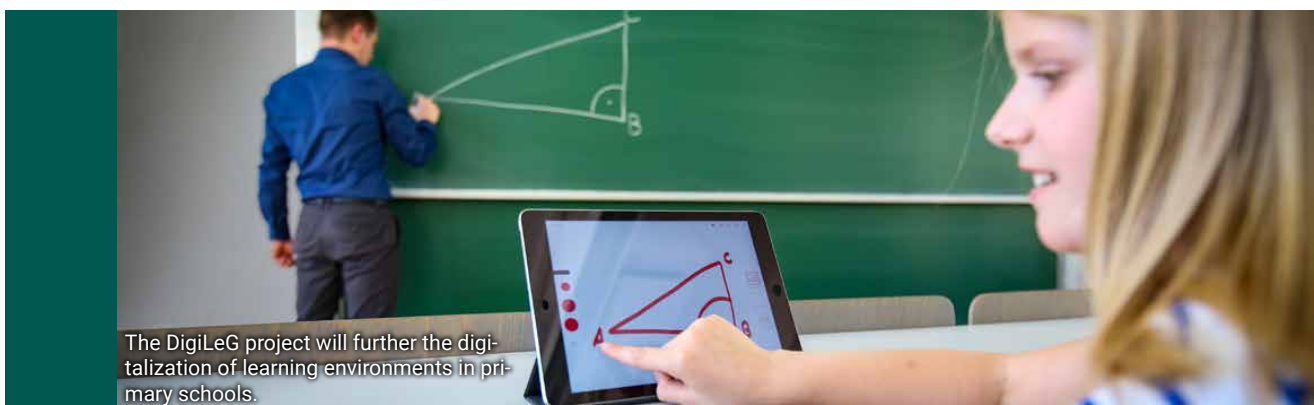
Chemnitz University of Technology. The TUCdigital – Digital Higher Education Days conference took place on January 14-15, 2020 with 120 guests from science, economics, and politics. The conference was the beginning of a discussion about a strategy for digital higher education. Due to the pandemic, teachers were required to teach digitally in the 2020 summer semester. To cope, they made extensive use of the Saxony Center for Higher Education Didactics and the joint LiT+ and DHS projects' offerings. Teachers who used the LiT.Shortcuts reported particular interest.



Videocampus Sachsen, the common Saxon video platform, went online at Chemnitz University of Technology in August. This platform, which can be used to distribute audio and video data, registered more than 30,000 logins and about 900,000 media retrievals by the end of 2020.

Centre for Teacher Training

The Centre for Teacher Training began the DigiLeG (Digital Learning Environments in Primary School) project, which was financed with 2.3 million euros by the Federal Ministry of Education and Research as part of the Qualitätsoffensive Lehrerbildung (Quality Offensive Teacher Education) initiative. The goal of the project is to support Saxon primary schools in the process of digitizing. In order to accomplish this, the centre will create and develop an online databank with best practices together with Chemnitz University of Technology's primary education students by the end of 2023. At present, the centre is preparing trial lessons with their seven new assistants so that they are prepared to test them out as soon as conditions at schools allow it.



The DigiLeG project will further the digitalization of learning environments in primary schools.



Members of SAXEED start-up network's team were successful in the EXIST-Potentiale competition.

Centre for Knowledge and Technology Transfer

The new Career Coach project aims to connect international students with Chemnitz businesses. The initiative, sponsored by the Fachkräfte-Allianz Chemnitz, will offer a comprehensive intensive program that prepares selected international students to start their career with individual coaching and workshops. In addition, the TUclub competition has become well-established. The large number of participants in 2020 and the high quality of the concepts demonstrates this. Three start-ups premiered – with two of those, VRENDEX and CMMC, being spin-offs of Chemnitz University of Technology. VRENDEX creates virtual prototypes, manufacturing machines, and complete exhibition hall layouts. The CMMC start-up team has developed a new manufacturing process for powder-reinforced aluminum and brought it to series production readiness (p. 10). In addition, the SAXEED start-up network is pursuing the expansion of support services for founders with the launch of the SAXEEDregional project, which has been funded by the EXIST-Potentiale program since 2020. The aim of the project is to increase the number as well as the quality of technology-oriented start-ups in the region of southwest Saxony.




In April, the Virtual Language Café was developed so that international students who were new in Chemnitz could use their German skills and create new social contacts during the pandemic.

International Office

Due to the pandemic, the International Office (IUZ) took many steps to support international students during this difficult time. These include establishing the Virtual Language Café, supporting international students in financial need with funds from the Gesellschaft der Freunde der TU Chemnitz e.V., and preparing care packages to take care of the basic needs of international students in quarantine. The faculties were supported with assistants for digital international education. Together with the Student Service Point, a method for matriculating digitally from abroad was developed. In order to assist students in planning their study abroad, the Go Abroad Fair took place online for the first time. In addition, Chemnitz University of Technology was able to record a new all-time high of 1.85 million euros in third-party funding from the German Academic Exchange Service for IUZ activities as well as for the faculties and professorships in 2019.

Foreign Language Centre

The Foreign Language Centre (ZFS) offered 100 courses for more than 1,500 students in English, German as a Foreign Language, Spanish, Italian, French, Russian, Czech, Polish, Latin, and Chinese during the summer of 2020. What was special about these courses? They all took place online; the lecturers conveyed all the material in an engaging manner over a short period of time due to the corona lockdown. They could always fall back on the University Computer Centre's services as well as the expertise of Prof. Dr. Winfried Thielmann, the head of the ZFS. Thielmann was confirmed for a second term in this office in November 2020 by university management.



Language learning from home: during the summer semester, 100 online language courses took place.

Centre for Young Scientists

Successful contract negotiations for professors requires comprehensive preparation. Therefore, the Centre for Young Scientists offered a tailor-made online workshop for the university's young scientists for the first time on October 30, 2020. This workshop, which included the expertise of University President Prof. Dr. Gerd Strohmeier, gave advice for successful contract negotiations. In a virtual round table, questions about writing a position paper, resource negotiations, and setting agreed targets were discussed.



Active break exercises are an opportunity to be athletic while working from home.

Centre for Sports and Health Promotion

Together with internal and external partners, the Centre for Sports and Health Promotion (ZfSG) offered digital health programs for employees and students. At the beginning of November, a health week took place online with a focus on working healthily from home. A collection of active break exercises was digitalized in early 2020 so that short active breaks with a short set of instructions are also manageable outside of the office. Together with the German University Sports Federation and the Techniker Krankenkasse, the "Bewegt studieren, Studieren bewegt 2.0" project began. This project, coordinated by the ZfSG, will develop and implement active breaks for digital learning with help from partners from the university faculties.

About Our Students

Top Spots in International Data Mining Competition

Students in the Master degree program "Data Science" asserted themselves in the 21st Data Mining Cup. Data Mining is about collecting big data and using it to analyze trends and new developments. The team reached 2nd and 5th place while in competition against 162 teams from 126 universities in 35 different countries. In the preparation phase, the students met online weekly in order to meet the challenge posed by the international competition. They were advised by Prof. Dr. Martin Stoll, Dean of Studies for Data Science and Holder of the Professorship of Scientific Computing.



The Chemnitz team consisted of students with competitive experience, new students, and a student from the TU Darmstadt.



The TUCzine team (from left): Jutta Landig, Bach Tran, Manas Mishra, Natalia Przybysz, Ashay Kully, Michael Schmischke, Verena Traubinger.

International Student Initiative Brings Cultures Together

TUCzine, a new initiative from the university's international students, produced their first eponymous magazine for both local and international students. The free magazine contained articles about intercultural life at the university. TUCzine also has a platform on Facebook, Twitter, Instagram, and a website where students can connect in order to work on journalistic and artistic projects. The initiative was supported by the university student council and the TU4U project.

New Issue of RABBAZ Magazine

In 2019, the student magazine RABBAZ was created. Behind RABBAZ is a team of young and creative people who presented their own take on the university and Chemnitz in their first magazine. The publication ran the spectrum from essays and poems to photographs and graphics. The first issue of RABBAZ was funded by a grant from the city of Chemnitz as part of the Chemnitz European Capital of Culture 2025 project.



The current issue deals with the issue of sustainability on its 60 pages. The authors present ideas, projects, and food for thought on the topic.



The students Daniela Deierl (l.) and Kirsten Erlebach were part of the research team and involved in the creation of the "FRITZ" magazine.

Looking for Traces of the NSU in One of the Largest GDR New Housing Developments

Ten students from Chemnitz University of Technology from three different majors went on a historical search in one of the largest housing development projects of the former GDR – the Fritz Heckert Gebiet – as part of the research seminar "Doing Memory – Exploration of Historical Social Spaces and Memory Work" in the summer semester 2020. Especially relevant was the question of how the NSU could go underground in this neighborhood. The results were printed in the magazine FRITZ, that was distributed in Chemnitz and was designed as part of the Chemnitzer Begehungen culture festival.

About Our Young Scientists

7th Day of Young Scientists Goes Online

70 young scientists took part in the 7th Day of Young Scientists online on November 5, 2020. The central themes were doctorates, publication, career prospects after doctoral studies, motivation for scientific qualification, and networking while working from home. All the presenters had one thing in common: they say intrinsic motivation is the key force in a successful doctorate and career.



The Day of Young Scientists 2020 took place online with the theme of motivation for a scientific career.



Michael Schmischke is the new Commissioner of the University Management for Junior Researchers

New Commissioner of the University Management for Junior Researchers

Michael Schmischke from the Faculty of Mathematics has been serving as Commissioner of the University Management for Junior Researchers since November 2020. He followed Dr. Jens Teuscher in this office. The new commissioner is tasked with informing university management with first-hand knowledge, helping to facilitate various processes, and serving as a link between university management and the junior researchers.

Recognition for Innovative Testing Method for Biological Tissue

Mario Scholze, research associate at the Chair of Materials Science (Prof. Dr. Martin Franz-Xaver Wagner) at Chemnitz University of Technology, prevailed over 179 entries and received the internationally renowned ZwickRoell Science Award. He received the award for best research paper in which he presents a novel clamping technique that significantly simplifies the mechanical testing of biological tissue.



Materials researcher Mario Scholze received an international award for his innovative testing method.



Study Sheds Light on Digital Exams in Practice

Janine Funke and Ulrike Rada, research assistants for Chemnitz University of Technology's joint project "Lehrpraxis im Transfer plus" (Teaching Practice in Transfer Plus), and Dr. Sascha Schneider from the Chair of Psychology of Learning with Digital Media researched whether digital examinations hold up in practice. This research was motivated by the changing teaching and exam conditions due to the corona pandemic that affect both students and teachers. The key finding was that instructors need to take an in-depth look at their own courses to find the ideal digital form of examination so that digital and analog examinations have the same value.

Awards and Grants

In order to honor outstanding achievements by its researchers and teachers, Chemnitz University of Technology awarded three teaching prizes, two research prizes, two transfer prizes, and a special prize for social commitment in 2020. All prizes are endowed with 1,000 euros each. In addition, Chemnitz University of Technology awarded a total of **91 Deutschlandstipendien** during the 2020/2021 academic year as well as the prize of the German Academic Exchange Service (DAAD), which honors excellent achievements by foreign students or doctoral candidates at German universities. In addition, nine university prizes, each endowed with 1,000 euros, were awarded by the university and the Gesellschaft der Freunde der TU Chemnitz e. V. The best theses from each faculty and the Centre for Teacher Training were honored. Unfortunately, due to the Corona pandemic, the awards ceremony could not be held in person this year.



Marko Reuther from the Office of Vice President for Transfer and Academic Qualification's Fundraising Department is the contact person for the Deutschlandstipendium at Chemnitz University of Technology. In the 2020/2021 academic year, the university would like to thank 44 sponsors.



Chemnitz University of Technology's 2020 university award winners: top row, from left: Dr. Kevin Koban, Theresa Teicher, Dr. Kevin Kinne, Dr. Michael Quellmalz; bottom row, from left: Dr. André Dettmann, Dr. Stefan Kahl, Dr. Alexandra Cook, Dr. Johannes Aprojanz, Michael Hauck.

The **university prizes** were awarded to Dr. Johannes Aprojanz for his dissertation at the Faculty of Natural Sciences, Dr. Michael Quellmalz for his dissertation at the Faculty of Mathematics, Dr. André Dettmann for his dissertation at the Faculty of Mechanical Engineering, Michael Hauck for his master's thesis at the Faculty of Electrical Engineering and Information Technology, Dr. Stefan Kahl for his dissertation at the Faculty of Computer Science, Dr. Kevin Kinne for his dissertation at the Faculty of Economics and Business Administration, Dr. Kevin Koban for his dissertation at the Faculty of Humanities, Dr. Alexandra Cook for her dissertation at the Faculty of Behavioral and Social Sciences, and Theresa Teicher for her state examination thesis at the Centre for Teacher Training.

In 2020, the **DAAD Award for Outstanding Achievements by Foreign Students or Doctoral Candidates at German Universities**, endowed with 1,000 euros, was awarded to Marina Ivanova from Bulgaria, who is doing her doctorate at the Professorship of English Language and Linguistics at Chemnitz University of Technology. The award recognizes her previous academic achievements at the university, her personal qualifications, and her social and intercultural commitment beyond her studies.



Marina Ivanova received the DAAD Award for Outstanding Achievements by Foreign Students or Doctoral Candidates at German Universities.



Philipp Wabnitz, research assistant at the Professorship of Assembly and Handling Technology at the Faculty of Mechanical Engineering received the **Teaching Prize for Supporting Learning through the Usage of Digital Technology**, which is awarded by msg systems ag. This prize recognizes his development of a digital teaching concept for the drill portion of the Assembly and Handling/Robotics course.



The **Teaching Prize for Innovative Seminar Concepts**, supported by the GGP Chemnitz (Gesellschaft für Prozessrechnerprogrammierung mbH) was given to Prof. Dr. Dagmar Gesmann-Nuissl, the head of the professorship of Private Law and Intellectual Property Rights at the Faculty of Economics and Business Administration, for her conceptualization of the Labor Law and Mediation online seminar. This is intended for students that are interested in practical labor and union law.



The **Teaching Prize for Young Scientists** was given to Franziska Schreiter, former research assistant at the Centre for Teacher Training, for the development and implementation of the concept for the "Gemeinsamer Unterricht – Vielfalt leben" (Common Instruction – Live Diversity) seminar for students of elementary education. This seminar set itself apart with its wide-reaching approach to the theme of inclusion.



Dr. Thomas Mehner, research assistant at the Chair of Materials and Surface Engineering, received the university research prize in the DFG – Successful Initial **DFG Application category for the DFG-funded project** "Macromechanical model for predicting the susceptibility of austenitic thin sheets and foils to acid corrosion and hydrogen embrittlement after complex forming processes." One of the project's many parts is concerned with examining the behavior of corrosion. This research prize was sponsored by wohnen in Chemnitz gmbh.



The 2020 university prize in the Industry - **First Successful Acquisition of an Industry-Funded Research Project** category was awarded to Jun.-Prof. Dr. Danny Kowerko, holder of the Junior Professorship of Media Computing at the Faculty of Computer Science. Kowerko received the award for the project "OphthaVis 2.0 - Development of individual therapy approaches for AMD, DMÖ, and RVV by analyzing processed mass data with machine learning methods." In particular, the project focuses on eye diseases such as age-related macular degeneration (AMD), diabetic macular edema (DMÖ) and retinal vein occlusion (RVV). This research award was sponsored by AKKA Technologies.



The **transfer prize in the Science Communication** category was awarded to Dr. Andreas Bischof from the Faculty of Computer Science for the conception, organization of funding, and coordination of the production of TUCscicast, the innovative science podcast from Chemnitz University of Technology, to communicate current research results and university personalities to society. This transfer award was sponsored by TUCed - An-Institut für Transfer und Weiterbildung GmbH.



The **Transfer Prize in the Continuing Education, Lifelong Learning, and Other Socially Relevant Contributions** category was awarded to Prof. Dr. Udo Rudolph, Annett Meylan (right), and Tina Hahnemann from the Faculty of Behavioural and Social Sciences for the successful introduction of the part-time (continuing) education courses Prevention Management - Competencies for Social Interventions (Bachelor and Master). This transfer award was also sponsored by TUCed - An-Institut für Transfer und Weiterbildung GmbH.



A **special prize for extraordinary voluntary engagement** was given to Michael Storz (Faculty of Computer Science) and Coretta Storz (Faculty of Humanities) for their local coordination of the international "Makers vs. Virus" initiative as well as the organization of voluntary production of personal protective equipment against Covid-19 infection in Chemnitz and the surrounding area.



Awards ceremony for the university, teaching, transfer, and research prizes as well as the DAAD prizes:
www.mytuc.org/gtjw

Participation and Inclusion



Prof. Dr. Cecile Sandten from the Institute of English and American Studies has been a lecturer at the Children's University since 2010.

Export of Knowledge to Annaberg-Buchholz

Since the 2019/2020 winter semester, Chemnitz University of Technology's Children's University and Senior's College in the Annaberg-Buchholz city library have provided a new educational opportunity for both young and old. Thanks to notable lecturers as well as interesting topics, more than 1,000 people have taken part in the 15 lectures. For example, Prof. Dr. Cecile Sandten from the Institute of English and American Studies at Chemnitz University of Technology spoke about "Mogli, Harry Potter & Co. - Why do we like heroes?" and Prof. Dr. Bertolt Meyer from the Institute of Psychology talked about superpowers. The senior citizens of the Erzgebirge region looked forward to lectures by Prof. Dr. Georg Jahn from the same institute on "Technology for the Elderly" and Prof. Dr. Thomas von Unwerth from the Institute of Automotive Research on "Done with Diesel?" Mobility with hydrogen and fuel cells."

Accessible Web Working Group Established

In 2020, the university's inclusion initiative focused on supporting the faculties, the central institutions, and the administration in the creation of barrier-free websites and documents, especially by offering training courses and providing appropriate software and information. For this purpose, the Accessible Web Working Group was established under the leadership of the Coordinator for Inclusion, Dr. Daniela Menzel. The group is conceptually responsible for the inclusion process and guides it through the university.



The tour to Düsseldorf started on the campus of Chemnitz University of Technology on August 21, 2020. This tour was featured as part of the MDR-Vereinsommer.



Running for a Good Cause

Once again in 2020, young athletes from the Chemnitz Lauf-KulTour club, including many students and members of the university community, started on the journey to Chemnitz's partner city of Düsseldorf. 2020's Lauf-KulTour 2.0 is the twelfth of these running tours. Participants took on the 1300 km stretch there and back again by foot and by bike. In addition to the athletic challenge, the tour served a good cause, the Aktion Benni & Co. The cause's eponymous club is engaged with young people who have Duchenne muscular dystrophy. The Lauf-KulTour was featured as part of the MDR-Vereinsommer, among other outlets.

Accolades



University President Prof. Dr. Gerd Strohmeier hands Carolina Flemmer a bouquet at the successful conclusion of her apprenticeship. She also received a gift and a certificate of congratulations.

University President Congratulates Apprentices on Successful Program

Carolina Flemmer, Vivien Reimann, and Jessica Werner successfully completed their professional apprenticeship at Chemnitz University of Technology. They completed a three-year apprenticeship for administrative assistants for state and local administration. The President of Chemnitz University of Technology, Prof. Dr. Gerd Strohmeier, congratulated the three young women personally and wished them the best for their futures.

Support for Chemnitz University of Technology's Runners in WiC Selbstläufer-Firmenlauf

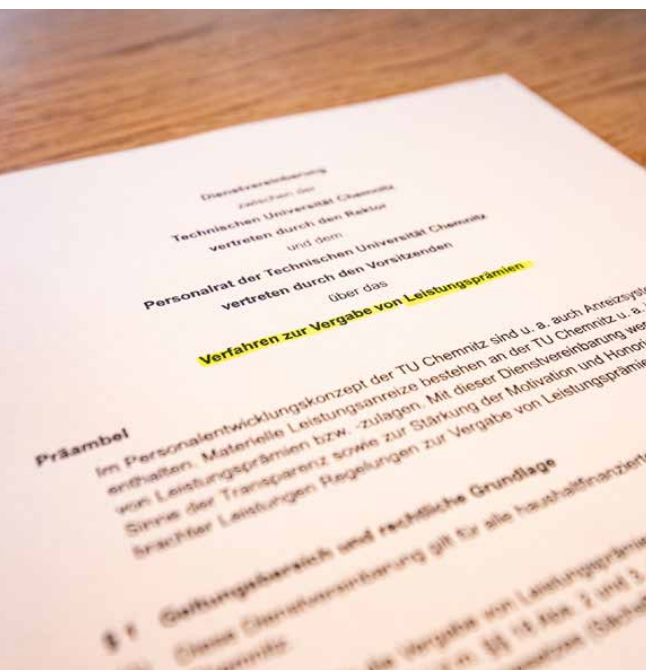
Chemnitz University of Technology supported university runners who participated in the 2020 WiC Selbstläufer-Firmenlauf. This included providing free university running shirts, which were financed by the Techniker Krankenkasse. If runners ran in this shirt, their entry fee was reimbursed. The university registered 90 participants. The student Lisa-Marie Etling received first place in one of the categories.



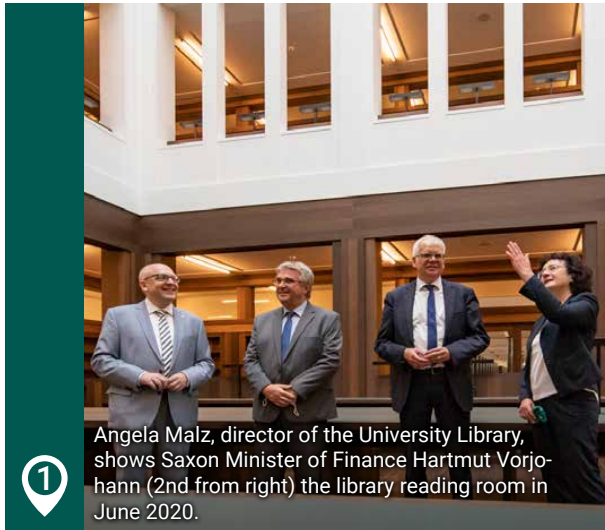
Student Lisa-Marie Etling won first place in the Fastest Trainee category while wearing her university running shirt. Students were also evaluated in this category.

Collective bargaining agreement on the procedure for awarding performance bonuses

With the collective bargaining agreement on the procedure for awarding performance bonuses, university management and the Staff Council at Chemnitz University of Technology agreed on regulations for awarding performance bonuses in June 2020. These serve to increase the transparency and acceptance of the award procedure as well as to strengthen the motivation of the employees and to reward the services they have rendered.



Campus Development



1 Angela Malz, director of the University Library, shows Saxon Minister of Finance Hartmut Vorjohann (2nd from right) the library reading room in June 2020.

University Library Opens After Almost Five-Year Renovation

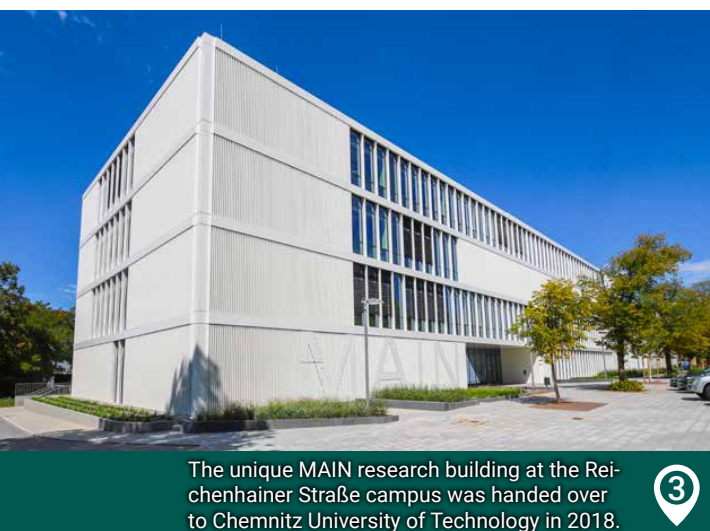
The new University Library at Chemnitz University of Technology opened on October 1, 2020 in the Alte Aktienspinnerei building with pandemic-required restrictions on usage. The industry building on Straße der Nationen, a protected landmark, had been renovated with attention to detail since April 2014. The Free State of Saxony invested around 53 million euros. About 13.6 million euros of that funding came from the European Regional Development Fund. A total of 38 kilometers of library and archival materials moved into the new library. With this, the university offers a learning and communication center with more than 700 workspaces for different methods of learning and working – from silent individual workspaces and reading rooms to group study areas in the main reading room to areas in the learning and communications area for group work.



2 The area in front of Thüringer Weg 9 will become a blooming meadow.

From Campus Space to Butterfly Meadow

Chemnitz University of Technology joined the Saxon State Foundation for Nature and the Environment and its partners' project "Chrysalis Wanted - Flowering Meadows for Saxony's Butterflies." Colorful flowers will bloom in the future on three areas at Campus C Reichenhainer Straße (behind the Turmbau and in the middle of Thüringer Weg 9) as well as at Campus E Erfenschlager Straße (behind building E04). A total of 2,200 square meters of lawn were cleared of moss and mulch and then seeds of native flowering plants were spread. The project is being coordinated by the Sustainable Campus Development working group in close cooperation with Facility Management and the State Enterprise Sächsisches Immobilien- und Baumanagement.



3 The unique MAIN research building at the Reichenhainer Straße campus was handed over to Chemnitz University of Technology in 2018.

"IndustrieBaupreis 2020" Honors MAIN Research Building

Heinle, Wischer, and Partner from Dresden, the planners of the new Center for Materials, Architectures, and Integration of Nanomembranes (MAIN) building at Chemnitz University of Technology, completed in 2018, received recognition in the building category over 122 projects in the IndustrieBaupreis 2020 architecture competition on June 24, 2020. According to the jury, the consistently maintained modularity of the white metal façade, designed in a grid of 1.20 meters, underscores the high usage and quality standards of the complexity of this development building. The architecture is thus in harmony with the internal cross-sectional functions of precision laboratories, offices and daylight-flooded "knowledge gardens."

CHEMNITZ

Straße der Nationen

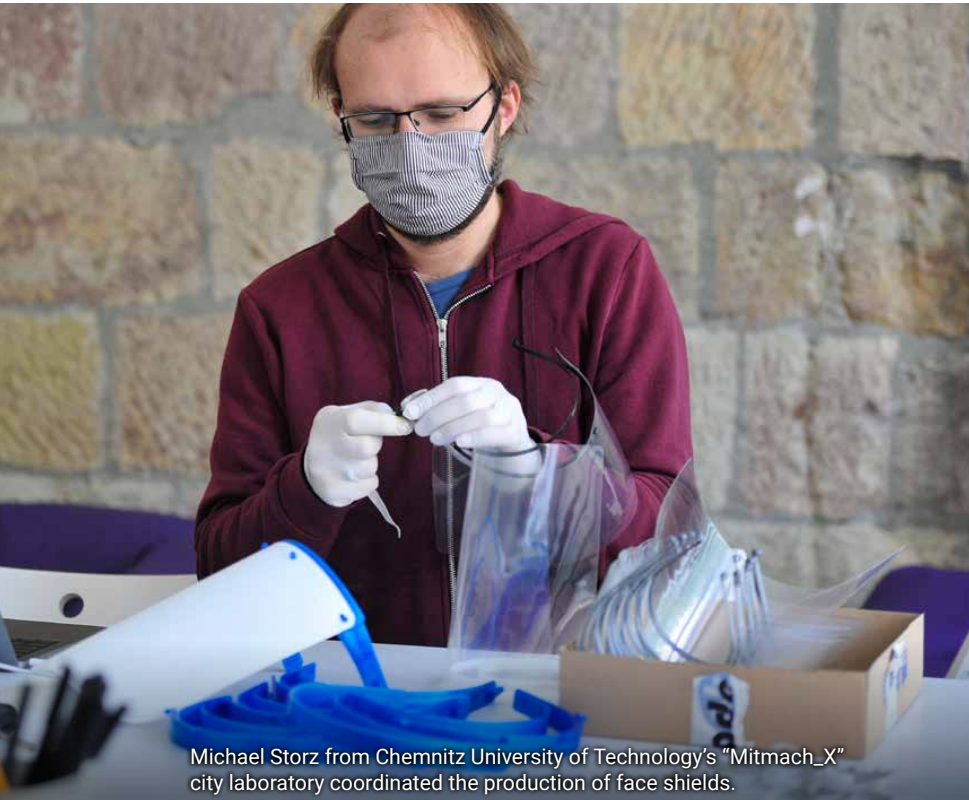
Wilhelm-Raabe-Straße

Campus
Reichenhainer Straße

Erfenschlager Straße

University Contributions to Fighting the Corona Crisis

The corona pandemic has been an extraordinary challenge for society as a whole. Chemnitz University of Technology met these challenges with a wide range of measures. The first priority was to protect the members of the university community and their families as well as possible and to inform them about the situation and measures being taken. At the same time, the university tried to preserve our shared university life as far as was possible and responsible. Among other things, various stand-by modes were defined and implemented at Chemnitz University of Technology as part of a long-term strategy to avoid erratic changes.



Michael Storz from Chemnitz University of Technology's "Mitmach_X" city laboratory coordinated the production of face shields.

More than 200 face shields were produced at the Faculty of Mechanical Engineering at Chemnitz University of Technology. They were distributed to area hospitals and other institutions. The production of the facial protection was coordinated by the university's Department of Factory Planning and Factory Management. The Professorships of Ergonomics and Innovation Management, Production Systems and Processes, and Materials and Surface Engineering as well as the Chemnitz companies Hörmann Rawema Engineering & Consulting GmbH and WIR electronic GmbH also supported this project. The university's "Mitmach_X" city laboratory also assisted with the completion of 3D printed face shields.



Some of the equipment produced at Chemnitz University of Technology went to the emergency room at the Klinikum Mittweida.




Important research in biomedical engineering is possible in the clean rooms at Chemnitz University of Technology's Center for Microtechnologies.

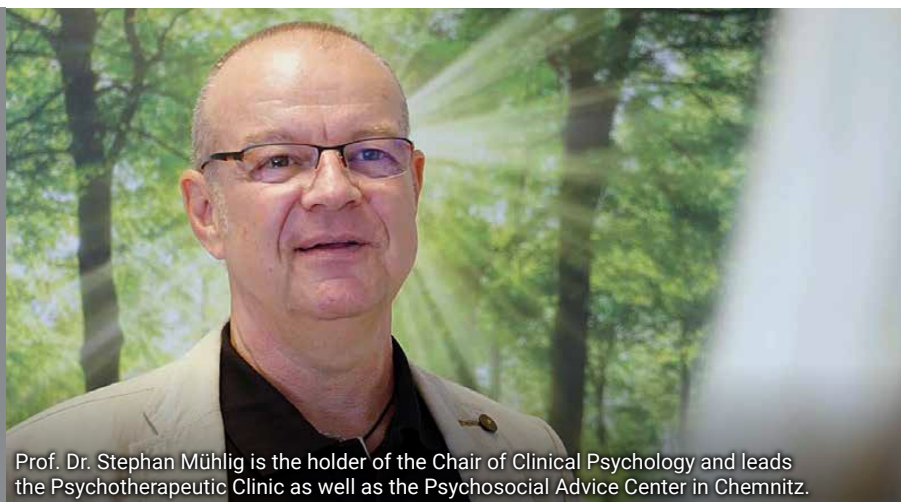
In the field of medical technology, the Center for Microtechnologies (ZfM) is working together with the Fraunhofer Institute for Electronic Nano Systems ENAS and the company EDC Electronic Design Chemnitz GmbH on a special microfluidic technology that will build a small microlab directly on a microelectronic circuit. These tiny digital biotechnological laboratories are used for research and development of new vaccines and methods for accelerated analysis of biopolymers. The transfer of this development work to EDC Electronic Design Chemnitz GmbH is supported by the Free State of Saxony. Furthermore, the ZfM together with Fraunhofer ENAS is involved in the production of nanostructured metal layers, which can be used for the detection of viruses by electromagnetic waves. This could reduce the measurability threshold for the detection of diseases and significantly increase the availability of tests in the clinical field.



The Institute of Chemistry produced hand sanitizer – in part for medical usage in the region, in part for their own usage. The university received permission for this usage from the Saxon State Ministry for Social Affairs and Cohesion. Renate Benndorf from the chemical storage facility as well as Dr. Susan Ebert and Dr. Steffen Hemeltjen from the Professorship of Physical Chemistry (Head: Prof. Dr. Werner A. Goedel) were especially involved in the production.



In an episode of "TUCtalk" Prof. Dr. Stephan Mühlig explains how Chemnitz University of Technology helps people with mental impairments:
bit.ly/TUCtalk_Muehlig




Prof. Dr. Stephan Mühlig is the holder of the Chair of Clinical Psychology and leads the Psychotherapeutic Clinic as well as the Psychosocial Advice Center in Chemnitz.

With support from university management as well as in cooperation with Prof. Dr. Stephan Mühlig, holder of the Chair of Clinical Psychology at Chemnitz University of Technology as well as the head of the Smoking Cessation Clinic Chemnitz and the Psychotherapeutic Clinic (PHA-TUC GmbH), a psychological advice hotline for the corona crisis was launched at the university. This hotline features all-day support and help from highly qualified psychotherapists concerning the current situation. Those affected can get advice on the hotline and can be admitted as patients to the PHA-TUC if needed as well as receiving psychotherapy.



Andreas Wolf-Kather (l) from the Volkssolidarität Chemnitz and Prof. Dr. Georg Jahn from Chemnitz University of Technology were searching for voluntary telephone mentors.



Interdisciplinary conjectures on the consequences of the corona pandemic in "TUCtalk" (p. 29):
bit.ly/Corona_TUCtalk

The goal of the collaborative "Morgenohr" project from the Professorship for Applied Geropsychology and Cognition (Head: Prof. Dr. Georg Jahn) and the Volkssolidarität Chemnitz is to actively reach out to older people living alone with few social contacts through a volunteer telephone service. To achieve this, voluntary telephone mentors were found. They regularly call older people living alone to establish friendly contact and give out information on additional support programs.

Partner University of Elite Sports



Triple Jumper Maria Purtsa emerged victorious from the German Athletics Championships 2020 in Braunschweig with her 13.65-meter jump.

Since 2002, Chemnitz University of Technology has cooperated with the Olympic Training Center Chemnitz/Dresden and the German University Sports Federation (adh) to make Chemnitz a location for elite sports where Olympic ideas and ideals can be fostered. The university's student-athletes are offered flexible conditions to allow them to compete while studying. The Centre for Sports and Health Promotion (Head: Kristin Röhr) leads this effort. At the moment, twenty top athletes from ten sports are being supported.

Triple jumper and psychology student Maria Purtsa is an example of a student who is an elite athlete while keeping up with her studies. At the German Athletics Championships (DM) 2020 in Braunschweig, she jumped 13.65 meters and won the gold medal. This was also her first German championship title.



Interview with Maria Purtsa on "TUCtalk":
bit.ly/MariaPurtsa_TUCtalk

Max Heß is studying Business Administration and Engineering at Chemnitz University of Technology and is a past European champion in triple jump. He also achieved success at the 2020 DM in Braunschweig with his fourth outdoor championship in triple jump, following victories in 2016, 2017, and 2019. He prevailed at the national track and field championships with a 16.58-meter jump.



Triple Jumper Max Heß studies Business Administration and Engineering in Chemnitz and was German outdoor champion in triple jump in 2020.



Chemnitz Economics and Business Administration student Corinna Schwab received the gold medal in the 400-meter race.

Corinna Schwab was also successful at the 2020 DM. She is a sprinter and student of Economics and Business Administration at Chemnitz University of Technology. Schwab received the gold medal in the 400 meters. She ran a personal best of 51.72 seconds, which was also a new record – since 2001 no other female athlete was faster than her at the German track and field championships.



Interview with Corinna Schwab on "TUCtalk":
bit.ly/CorinnaSchwab_TUCtalk



Rebekka Haase, sprinter and psychology student, enjoyed success at the German track field championships as well. After a long process of injury and recovery, Haase received the silver medal in Braunschweig with her result of 11.34 seconds in the 100-meters.



Interview with Rebekka Haase on "TUCtalk":
bit.ly/RebekkaHaase_TUCtalk

Psychology student Rebekka Haase is a professional athlete. The sprinter was successful in the 2020 German track and field championships.

The diver Saskia Oettinghaus, who studies Prevention, Rehabilitation, and Fitness Sports, was also successful. At the German Indoor Championships in February 2020 in Rostock, she won the German championship in the 1-meter board event and jumped to the bronze medal from the 3-meter board.



Saskia Oettinghaus, who studies Prevention, Rehabilitation, and Fitness Sports at Chemnitz University of Technology, received the 2020 German championship in diving from the 1-meter board.



University student Jost Kobusch had already reached the limit on Nangpai Gosum II, but a solo trek up Mount Everest was his highest goal for 2020 – the attempt failed due to bad weather and an injury.

Another outstanding sporting achievement in 2020 was accomplished by professional mountaineer and sports engineering student Jost Kobusch. After several extraordinary solo ascents, including his first ascent of the 7,296-meter Nangpai Gosum II in the Himalayas, he wanted to climb Mount Everest solo in the winter of 2020. What made this sporting project so special was Kobusch's approach on a previously unexplored route, alone and without oxygen tanks. Jost Kobusch reached an altitude of 7,350 meters after several weeks, but then had to turn back. He is already planning the next expedition to this area.



"TUCpersönlich" episode with Jost Kobusch:
bit.ly/JostKobusch_TUCpersoenlich

University Communications

First Virtual TUctage

Online, visual, dialogue-oriented – this was the first “Virtual TUctage” or campus open house at Chemnitz University of Technology from June 11-17, 2020. Prospective students were invited to learn about over 100 programs of study and student life with the theme “discover@home - Discover Chemnitz University of Technology from Home!” The homepage www.study-in-chemnitz.com offered an online program of video clips, office hours, and live chats. The site registered 270,000 hits in the first half of June, fourteen times more than an average month. 94 social media posts about the Virtual TUctage gathered about 894,000 impressions. The Virtual TUctage had 2,860 active participants.



Video „Eleven Reasons to Study in Chemnitz“
www.mytuc.org/gutegruende



Chemnitz City Hall.

Chemnitz University of Technology sets “Wahlprüfsteine” for the Mayoral Election

Chemnitz University of Technology was vitally interested in the city's 2020 mayoral election. Therefore, in July, it presented the nine mayoral candidates with an electoral survey in order to contribute to the democratic decision-making process while observing the principle of neutrality. The University Senate had previously unanimously approved the electoral survey. The topics dealt with strengthening and (further) development of Chemnitz as a location for science and business, the expansion and revitalization of the downtown campus, the commitment to and promotion of a cosmopolitan climate characterized by acceptance, as well as the university's development opportunities of at the "Technologie-Campus Süd".

“TUctalk Special” on Effects of the Pandemic

In July 2020, “TUctalk” focused on the corona crisis. On the first episode of “TUctalk Special,” host Dr. Stefanie Müller spoke with Prof. Dr. Georg Jahn and Prof. Dr. Stephan Mühlig from the Institute of Psychology about the social effects of the pandemic and their effects on the university's work. In another episode, Michael Storz (Professorship of Media Informatics), Hendrik Unger (Professorship of Factory Planning and Factory Management), and Dr. Susann Ebert (Professorship of Physical Chemistry) gave an overview of the production process for protective visors and hand sanitizer at Chemnitz University of Technology. In the final episode of “TUctalk Special,” Prof. Dr. Thomas Otto (Professorship of Microtechnology) and Dr. Karla Romero de Starke (Junior Professorship in Epidemiology) spoke about humanity's current experience with pandemics and which contributions microtechnology can make to vaccine development.



Dr. Stefanie Müller (top left) speaks to Dr. Susann Ebert, Hendrik Unger (bottom left), and Michael Storz during an episode of “TUctalk Special.”



All episodes of „TUctalk-Spezials“:
www.mytuc.org/fjmt

Social Media Highlights

Which social media posts from Chemnitz University of Technology did people like the most in 2020? The following highlights are sorted by platform and show the top three for each. The main factor in selection was reach of each post.

Facebook @tuchemnitz

The most successful Facebook post in 2020 was the post about the city of Chemnitz's success in the 2025 European Capital of Culture competition. The two runners-up were video posts. The second spot went to the video "Eleven Reasons to Study at Chemnitz University of Technology and in Chemnitz", which was produced as part of the prospective student campaign "TUCdiscover", The final spot went to the preview for Chemnitz University of Technology's Scientific Advent Calendar 2020.



Twitter @tuchemnitz

An especially large group of people saw the 2020 tweet about university researcher Christiane Attig's first systematic research into the podcast scene. Second place went to the start of Chemnitz University of Technology's Scientific Advent Calendar, followed by the announcement that Janine Funke would be live from the first conference for digital education (TUCdigital) at the university (p. 14).



YouTube TU Chemnitz

On Instagram, the post about Chemnitz's success in the European Capital of Culture competition was also the most liked, closely followed by the repost of a photo from the Campusplatz at Chemnitz University of Technology. Third place goes to an aerial shot of the opening of the University Library in the Alte Aktienspinnerei.

Instagram @tuchemnitz

On YouTube, many people watched the research video about the smallest microelectronic robot in the world, which was developed by Prof. Dr. Oliver G. Schmidt. This was closely followed by the video "Eleven Reasons to Study at Chemnitz University of Technology and in Chemnitz" and the university's 2020 Easter greeting.

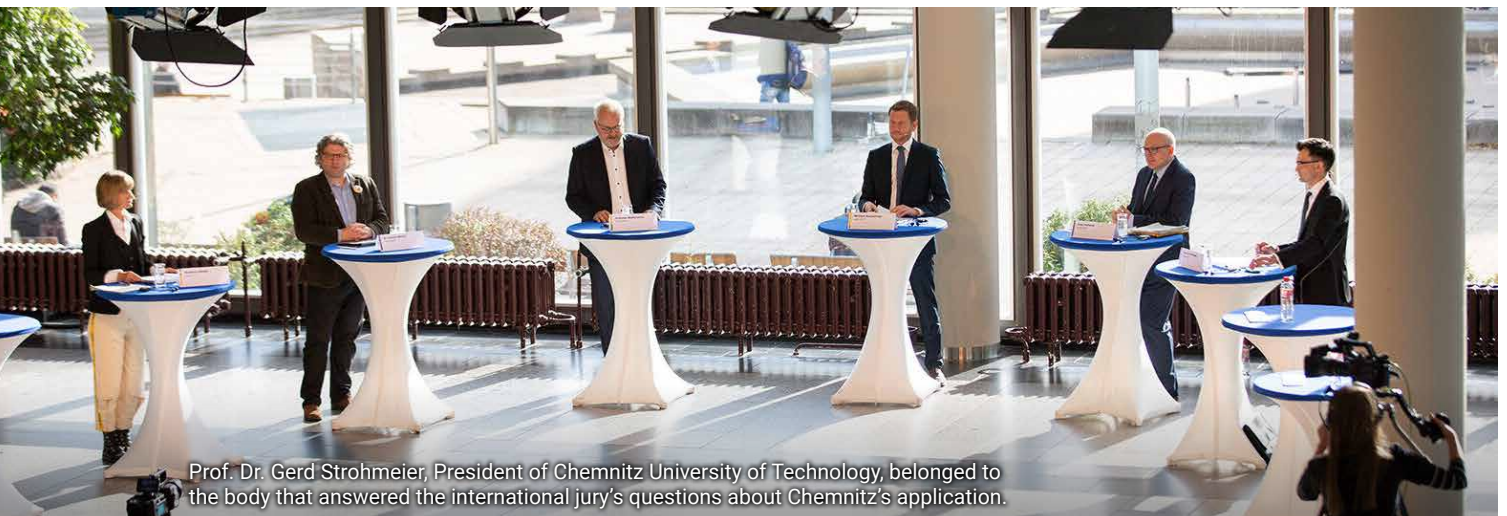


University Contributions to the Capital of Culture Application – “Chemnitz 2025”



Chemnitz will be European Capital of Culture 2025. The city's application prevailed over Hanover, Hildesheim, Nuremberg, and Magdeburg. Chemnitz University of Technology supported the application with various initiatives.

On October 28, 2020 at 1:27 pm, the jury consisting of twelve international experts announced their decision: the city of Chemnitz had prevailed over Hanover, Hildesheim, Nuremberg, and Magdeburg. The Chemnitz University of Technology community took part in various initiatives to support the application. In the final phase, University President Prof. Dr. Gerd Strohmeier, together with Saxon Prime Minister Michael Kretschmer and representatives from local, regional, and international politics, business, and society, made a strong case for the city's application during the jury's digital inspection.



Prof. Dr. Gerd Strohmeier, President of Chemnitz University of Technology, belonged to the body that answered the international jury's questions about Chemnitz's application.

In addition, Chemnitz University of Technology was also represented on the steering committee and the programming committee for the Capital of Culture application. University President Prof. Dr. Gerd Strohmeier belonged to the steering committee. Prof. Dr. Bernadette Malinowski from the Professorship of Modern German and Comparative Literature, Prof. Ulrike Brummert, docteur d'Etat and Chair of Romance Studies until 2018, and Prof. Dr. Christoph Fasbender from the Professorship of History of German Literature and Language were members of the programming committee.

Chemnitz University of Technology also made a clear commitment to support the application for capital of culture at the first joint meeting between university management and the city of Chemnitz's leadership in October 2017. As part of this commitment, the Junior Professorship of European Culture and Civil Society was established in the 2018/2019 winter semester to, among other things, support the Chemnitz 2025 application.



Students at Chemnitz University of Technology speak about how they supported the Capital of Culture application and why they treasure Chemnitz in several video clips:
bit.ly/RoadToC2025

The exhibit "Gesten – gestern, heute, übermorgen" (Gestures – yesterday, today, the day after tomorrow), which was displayed in Berlin and Frankfurt after Chemnitz, was part of the Capital of Culture application. The Professorship of German Linguistics at Chemnitz University of Technology (Prof. Dr. Ellen Fricke) cooperated with the Chemnitz Museum of Industry and the Ars Electronica Futurelab (Linz) as part of the Federal Ministry of Education and Research's MANUACT project.



Prof. Dr. Ellen Fricke's exhibit "Gesten – gestern, heute, übermorgen" (Gestures – yesterday, today, the day after tomorrow) was part of the university's initiatives for the Capital of Culture application.



The creative "Fahrradkino" (Bicycle Cinema) microproject was initiated by university researcher Maria Kreußlein (I) and was part of the Capital of Culture application in 2019.

Students and employees were engaged in various microprojects from Chemnitz 2025. These included the publication of the first issue of RABBAZ, a student magazine, and the 2019 "Fahrradkino Chemnitz" (Bicycle Cinema) which was led by Maria Kreußlein, assistant at the research group for general and work psychology, among others.



Kevin Lefeuvre from France, who is a researcher at the Professorship of Media Informatics, supported the Capital of Culture application with his video statement.

The university flanked the finale of the first round of application with numerous social media activities and a video clip in which students and researchers from Albania, Bulgaria, France, and the Czech Republic crossed their fingers for the city. After the first bid book was sent off at the end of September 2019, a presentation took place in Berlin on December 10, 2019. Four people with a strong connection to the university participated in the presentation.

The second part of the competition as well as work on the final bid book was supported by Chemnitz University of Technology. Initiatives included the "Literarische Quintett" (Literary Quintet) in which Prof. Dr. Bernadette Malinowski, Angela Malz (Director of the University Library), and university graduate Christian Mayer (reporter in Essen) participated as part of the Chemnitz 2025 project. Other projects include the "fliegende Sessel" (flying chair) project, a project about autonomous driving from the T.U.C. Racing Team, a partnership with the Professorship of General Psychology and Biopsychology as part of the "Sehe ich anders – Das Festival der Meinungsverschiedenheit" (I see it differently – the festival of differing opinions) project as well as the MicroArts project from university student Johannes Moosbühler.



University student Johannes Moosbühler is the creative mind behind the MicroArts project, which was supported as part of the application.

Students and employees were members of the members of the Lauf-KulTour 2.0 team which cycled the approximately 1,300-kilometer round trip between Chemnitz and partner city Düsseldorf as ambassadors of Chemnitz 2025. In addition, members of the university community were among the cyclists who carried the Bid Book II application to Berlin for submission. In the final project, 30 people from Chemnitz recorded Bid Book II as a podcast, including Prof. Dr. Matthias Niedobitek, holder of the Jean Monnet Professorship of European Integration, in particular European Administration at Chemnitz University of Technology.



Prof. Dr. Henning Laux (I) from the Professorship in Sociological Theory and Dr. Frédéric Bußmann, general director of the Kunstsammlungen Chemnitz, spoke about Chemnitz's journey to becoming Capital of Culture and where things will go from here in the podcast.



"TUCscicast" episode on the meaning of the Capital of Culture title for Chemnitz and the region: bit.ly/Chechnitz2025_TUCscicast

Facts and Figures



9,752 students were registered in winter semester 2020/2021, of which 4,345 are women.



1,815 students graduated from their programs in the 2020 academic year.



4 113 doctoral candidates and **4 habilitation candidates** completed their studies in 2019



In 2020, **1,257 projects** were financed via third-party funding.



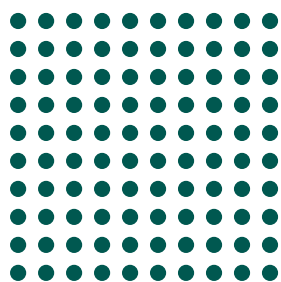
2,361 people work at the university, and about 43% are financed via third-party funding.



International students from **89 countries** accounted for **28,3 %** of the student body at Chemnitz University of Technology.



1 DFG Collaborative Research Center and participation in **2 DFG Collaborative Research Centers/ Transregios** (serving as co-applicant in one) were among the large-scale research projects at Chemnitz University of Technology in 2020.



100 degree programs were offered by the 8 faculties and the Centre for Teacher Training in winter semester 2020/2021: 36 bachelor's programs, 60 master's programs, 2 diploma courses and 2 courses at the Centre for Teacher Training.



There were **166 professorships** (including 9 at the Centre for Teacher Training) and 15 junior professorships at Chemnitz University of Technology in 2020.



91 Deutschlandstipendien grants were obtained in 2020.



3 core competencies in which we take on important questions of the future:
Materials and Smart Systems,
Resource-efficient
Production and **Humans and Technology.**



14 businesses were founded in 2020 with the support of Chemnitz University of Technology and the SAXEED start-up network. 66 other start-up projects were supported as well.



The university library had
1,2 million printed books and magazines and 150,000 pieces of digital media available for circulation in 2020. 12,500 library users appreciated this.



The university received
105 million euros in government grants in 2020.



Researchers attracted
70,3 million euros in third-party funding in 2020.



1,592 publications authored by Chemnitz University of Technology faculty and staff were published in 2020. They can be found in the university bibliography.



14 distance-learning and continuing education courses are offered at Chemnitz University of Technology and the TUCed Affiliated Institute for Transfer and Continuing Education GmbH.

Impressum

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Chemnitz University of Technology is at the top of many rankings, yet remains under the radar. The Master's program in Finance has good core subjects as well as great possibilities for individual specializations. I especially like the quantitative focus.

Jannes, student of Finance (M.Sc.)

Source: studycheck.de

I have had an extraordinary experience at Chemnitz University of Technology. The IT equipment used in teaching is excellent and I was well-supported; there was always somewhere there whenever I had a question. There are initiatives and institutions that especially help international students to get to know the campus and life in Chemnitz, improve their own language skills, and to help shape their social lives. The university offers numerous possibilities to foster your own activities. The campus is so lively that I never had the feeling that I was away from home.

Jamal, student of Web engineering (M.Sc.), in picture

Source: Proactive E-mail from December 3, 2020

I changed universities but remained in the same major. Except for the bumpy enrollment, everything went well. There is a point of contact for all areas, the acceptance of my previously earned credits was fair, the transfer process was easy, and the university was happy to have me as a new student.

The university reacted very thoughtfully and cautiously to the corona crisis. Information about the crisis was presented regularly via the President's newsletter. The hygiene regulations for examinations were well thought-out. And because online courses were not part of the university regulations, we had the chance to repeat exams without a reason.

Juliane, student of Communications and Media Studies (B.A.)

Quelle: studycheck.de

Chemnitz has given me world class education and introduced me to the research community by working closely with Professors. This university shown major difference between the education in Indian universities and German universities. I am very happy to be part of TU Chemnitz.

anonymous

Source: Google Review

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