ANNUAL REPORT

ON THE ACTIVITIES OF BRNO UNIVERSITY OF TECHNOLOGY IN 2019

BRNO UNIVERSITY OF TECHNOLOGY

Annual Report on the Activities of Brno University of Technology in 2019

The Annual Report on the Activities of Brno University of Technology in 2019 is submitted in accordance with Act No. 111/1998 Coll., On Universities, as amended. It was elaborated according to the framework outline of activities of the university in 2019 issued by the Ministry of Education, Youth and Sports.
The document is divided into textual and tabular parts, which have a fixed structure according to the framework outline. On the contrary, the introductory part is entirely under the responsibility of the university and submits information beyond the required curriculum.

The Annual Report on Activities provides data and substantial results of all activities related to the Brno University of Technology activity in the framework of Czech and international higher education and offers an overview of important scientific and research activities to the general public.

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1.1 Rector's introductory word

Dear readers,

This time, before I think about what we succeeded or didn't succeed with in 2019, I have to mention at least a few sentences about the current situation in March 2020 in the Czech Republic and at universities. We all perceive the situation around COVID 19, we face something we thought we would only face today while reading historical novels or sci-fi. I really appreciate the activities of our students, who offer help to those who need it. The same applies to the academic staff.

In light of the problems we are now dealing with in the first quarter of 2020, and which we will certainly be coping with in the rest of 2020, everything we did last year, that is, recent history or the recent past, it is something we can be justifiably proud of. But today we have completely different, and I would say unexpected and new tasks that we will have to deal with.

And to turn now briefly to the year 2019. We celebrated the 120th anniversary of the founding of our school with a number of events. I hope that both the students and the staff, as well as the public, enjoyed some of these events. We awarded four honorary doctorates to colleagues from excellent foreign workplaces, world-renowned experts who have been cooperating with us actively and for a long time. We also hosted the Czech Academic Games.

Success is undoubtedly in the acquisition of institutional accreditation in such fields of education as electrical engineering, energy, chemistry, informatics, civil engineering, economics, as well as the common field of engineering, technology and materials. Unfortunately, what we expected applies: the obtaining of institutional accreditation leads to a shortening of the deadlines for discussing partial accreditations, but in any case, unfortunately, does not mean a reduction in the administrative complexity of these activities within BUT.

We tried to increase the number of self-paying students at our university, we supported the internationalization of the university and studies. But it's a long-distance run. We also continued the fight for a fair evaluation of science and research according to the M17+ methodology. (We always have reserves here, because the author's shares in publications are not yet included, while on a publication in the field of medicine or natural sciences there are on average more than two authors from various scientific research institutions in the Czech Republic, in the field of technical sciences there are only 1,4.) Nevertheless, we did a number of analyses, to see how we actually do with publishing activities, we modified the motivation system at BUT to support the creation of quality publications. And we would like to continue that way. At the level of the CRC, we have been able to reject scaling, and we commented on the verbal evaluation of fields at BUT from the level of expert commissions.

And so I could go on. But I won't, you can read everything yourself. I wish you much patience while reading this annual report.

prof. RNDr. Ing. Petr Štěpánek, CSc., dr. h. c.
Rector of BUT

1.2 Significant events at BUT in 2019

Actions and events

▲ This year, BUT commemorated the 120th anniversary of its establishment with the **Let's Celebrate Together** festival. The birthday of the Brno University of Technology was commemorated by an all-day program on Saturday, May 25, 2019 in the premises at Pod Palackého vrchem. At 10 am, the historically first Golden Graduations took place in the FEEC Hall, for graduates from 1969, who thus remembered the 50th anniversary of their graduation. During the solemn academic ceremony, about 120 graduates of at that time three faculties received a commemorative diploma and gifts, those faculties being: the Faculty of Civil Engineering, the Faculty of Mechanical Engineering and the Faculty of Electrical Engineering. Between 11 a.m. and 3 p.m., all faculties and departments of the Brno University of Technology were open to graduates and the general public, so those interested could peek into the laboratories and attend interesting lectures. In the afternoon, a music program started at Kolejní 7, which, in addition to employee and student bands, also presented the main headliners: Richard Müller, the N.O.H.A band and Barbora Poláková. Those interested could also visit the stands of individual faculties. In total, about five thousand people attended the festival, together commemorating this year's anniversary of the oldest technical school in Moravia.

▲ BUT awarded **four honorary doctorates** on the occasion of the 120th anniversary. From Wednesday, June 19, 2019, the Mexican Sebastián Díaz de la Torre and the American Arvid C. Johnson have been able to use the title doctor honoris causa. Both academicians received this honorary academic degree for their long-term cooperation with the Brno University of Technology. The other two honorary doctorates were awarded by BUT on Thursday, November 14, 2019, to the Austrian Ulrike Diebold and the American Ralph Ford. In the afternoon, the BUT Academic meeting took place at the Brno City Theatre, where the students and teachers commemorated not only the 120th anniversary of BUT, but also the 30th anniversary of the Velvet Revolution and the 80th anniversary of the closure of Czech universities during the Protectorate. The celebrations of Brno University of Technology in September were also commemorated by the red-lit Špilberk – the dominant of Brno.

The possibilities of using virtual and augmented reality for remote management of industrial production, or a system for its rapid adaptation to the current needs of the customer or available manufacturing means represents only a fraction of what the researchers will develop in the RICAIP project, in which the Prague CIIRC CTU, the Brno CEITEC BUT and ZeMA will cooperate with DFKI based in Germany. **The RICAIP project** started in September 2019 and is already pushing the boundaries of understanding automated industrial production towards the flexible and distributed production.

▲ On Monday, June 24, 2019, the ceremonial opening of the 18th year of the **Czech Academic Games** took place in the hall of the BUT Rectorate. The Academic Sports Festival was attended by over 1,600 students from Czech universities, who competed in a total of 22 disciplines. Most sports activities took place at BUT sports grounds, but some also in the facilities of the University of Defence, the University of Veterinary and Pharmaceutical Sciences and Brno sports clubs.

BUT has its own hockey team, this year the **BUT Cavaliers Brno** players joined the University Ice Hockey League. The majority of the hockey team consists of students from the

Brno University of Technology supplemented by several players from other universities or secondary schools. In the future, however, the team should be composed exclusively of BUT, UD and NC students. Today, students from the Brno University of Technology, for example from the Faculty of Business and Management, also work in the implementation team. The first match was played by the cavaliers in September, against HC Masaryk University, who they competed against several times during the season.

Planning the most feasible route for a stroller or wheelchair ride or finding an interesting hiking tour will soon be possible thanks to a **mapping tricycle** from the workshop of the Institute of Radio Electronics, FEEC BUT under the leadership of Tomáš Götthans. The unique device collects data from sidewalks and paths where mapping cars can not get. In addition, it can focus on and recognize bollards or surface roughness. Thanks to this, those interested in finding their way to a shop or office, for example, will be able to find the most suitable option with regard to their limitations.

FFA organized the International Conference on Data and Fine Art **Datatata** (International Conference Focused on Data and Fine Art). The aim of the conference was to discuss how artistic practice is influenced by the current phenomena of massive data collection and interpretation. The Datatata was held on Friday, April 12, 2019, and explored a wide range of issues related to the relationship between the collection and interpretation of extensive data and artistic practice. Lecturers from Germany, Great Britain and Serbia, for example, attended the event.

▲ The celebrations of the 120th anniversary of Brno University of Technology were symbolically concluded by the **BUT Ball**, which took place at the Brno Exhibition Centre on Friday, December 6, 2019 in Pavilion P. Even last year, when over 3,600 guests arrived at the ball, it was considered to be the largest ball in the Czech Republic. This year, however, on the occasion of the celebrations, the main organizers of the students decided to once more increase the capacity in this largest exhibition hall in Central Europe. The event for 4,200 guests was again organized by the students and student associations across the Brno University of Technology.

In April, the BUT Ball also won the 3rd place in the Annual Awards of the Czech Event Association; the Brno University of Technology was the only representative from the public sphere in this category of events.

The last weekend of July, i.e. 26th and 27th of July 2019, the BUT sports grounds belonged to athletics fans who watched the **Czech Men's and Women's Athletics Championships** at the BUT Pod Palackého vrchem stadium, where aces of Czech and world athletics such as Barbora Špotáková, Tomáš Staněk, Pavel Maslák and many others were introduced.

▲ One hundred small graduates graduated from the **BUT Junior** Technical University on Saturday, June 8, 2019. During the academic year, the pupils from 6th to 9th grades of primary schools visited laboratories and research institutes at the Brno University of Technology to try out experiments in the fields of civil engineering, mechanical engineering, IT, electrical engineering, chemistry, architecture and economics. In September, another year of the popular event started, also for a hundred participants who, thanks to the 120th anniversary of Brno University of Technology, also had a unique opportunity to see the BUT Archive, where they followed footsteps of this largest technical university.

On January 24–25, 2019, the 28th International Scientific Conference of Forensic Engineering (**ExFoS 2019**) took place in the premises of the Institute of Forensic Engineering at BUT. The two-day event was attended by more than 200 domestic and foreign experts. As usual, after the introductory joint part, the conference was divided into three sections, which are Road Accident Analysis, Valuation of Motor Vehicles, Machinery and Equipment, Civil Engineering and Real Estate Valuation, and Risk Engineering.

This year, the BUT Faculty of Architecture organized a successful series of lectures entitled **Are we architects?** The lecture series on education, the architectural profession and institutional criticism included a number of attractive foreign personalities. The cycle started with a lecture by Michelle Howard, and was followed by lectures by Dubravka Skulić, Peter Fattinger and Joan Ockman.

▲ The Dean of **FIT Pavel Zemčík presented the Medals of Merit**. He praised two personalities who contributed to the development of IT in Brno: one was responsible for building the largest Red Hat development headquarters in the world in Brno, the other was able to turn a small Brno company into an international holding company. Radovan Musil, the former head of the Red Hat development centre in Brno, and Martin Cígler, co-owner and chairman of the board of directors of the Solitea holding, received the medals from him.

On October 14–17, 2019, the BUT Faculty of Business and Management hosted the 7th year of the international event **Brno International Week**. Thanks to this, more than thirty foreign lecturers visited the FBM, preparing lectures, seminars and workshops in the areas of business management and economics, systems engineering and informatics, and quantitative and qualitative methods in economics. The program also included discussion forums by the participants on the topics of mutual cooperation in the field of pedagogy and research. Experts from the USA, France, Great Britain, Mexico and many other countries came to the Moravian metropolis. The program included the Mov'in Europe event on October 16, organized by students from the ESN BUT Brno organization.

In November, the **International Conference on Architecture and Urbanism** took place at FA BUT. This meeting of doctoral students was accompanied by an exhibition of conference posters displayed in the faculty hall. The doctoral students in two thematic areas of architecture and urbanism presented the results of their research outcomes. This 8th year of the conference followed on from previous successful years organized at FA CTU in Prague, FA STU in Bratislava and FA BUT in Brno.

On Tuesday, October 1, 2019, the **FCEfest** music festival took place in the FCE courtyard, in special commemoration of the 120th anniversary of the BUT Faculty of Civil Engineering. The festival was opened by Jiří Drtil, who also presented the entire festival. The student band The Firearms and the employee band Něcomezi also performed. The headliners included the bands Trocha Klidu and Smola and Hrušky. The main performer of the evening, however, was Marpo&Troublegang, who put on an unforgettable show.

Nearly two hundred small **single-board Raspberry Pi 3B+ computers** were distributed by the Faculty of Information Technology to freshmen who have joined the new Master's program in Information Technology and Artificial Intelligence. It has been offering seventeen new specializations since the 2019/20 academic year. Raspberry Pi allows students to work on school projects, but its use is much wider – students can connect small electronic devices, create a multimedia video or music player, control camera systems, build a robot or automate their home.

On Tuesday, April 30, 2019, the Faculty of Business and Management, BUT organized the international conference **Perspectives of Business and Entrepreneurship Development: Digital Transformation of Corporate Business**, within the CHEDTEB project (Collaboration in Higher Education for Digital Transformation in European Business). This year's 17th edition of the event focused on the topic of digital transformation and digital entrepreneurship in the European context. The aim of the conference was to connect companies dealing with digital transformation and to discuss with academicians possibilities and ideas in the field of business digitization. In addition to BUT, the German FH Bielefeld University of Applied Sciences and the Estonian University of Tartu also took part in organizing the event.

A new laboratory was opened at the Institute of Biomedical Engineering, FEEC this year. Students will work on educational miniatures of large-scale diagnostic imaging systems known from hospitals. In the X-ray chamber, extended by CT, students will verify their knowledge of the physics of ionizing radiation. Among other things, students in X-ray chambers measure the X-ray spectrum or the attenuation properties of ionizing radiation when it passes through various materials. In addition to X-ray chambers, the laboratory is equipped with educational kits for magnetic resonance imaging or ultrasound devices, thanks to which students will get a better idea of the technologies used in hospitals. They also opened a new laboratory at the Institute of Telecommunications, FEEC. Designing your own printed circuit boards, fitting them with components, implementing communication technologies and finally completing the product design with the help of a 3D printer. FEEC students can do all this thanks to the **Innovation Laboratory**. It was opened in January 2019 in cooperation with the American company AT&T.

In May, the Faculty of Chemistry organized an extremely successful **meeting with graduates**, which was attended by more than 300 graduates who confirmed their interest in current events at the faculty. The program included a tour of the faculty, a presentation of its' successes and significant graduates. Those interested visited the new laboratories and also had the opportunity to discuss it with colleagues in the field.

Euroweek 2019 was hosted by the Faculty of Business and Management, BUT. It is an international competition that has celebrated 25 years of existence and is a part of the PRIME Networking network. The project involves 15 universities,

mostly from Europe. However, an American and a Colombian university is also involved. A virtual international team was created here, which has been working for several months to solve the task and then present it at Euroweek. There it is judged by an expert jury. The FBM students won two awards in this competition, which took place from April 30 to May 4: the Award for the best poster and also the Award for the best presentation of the project.

Success and awards

On January 24, 2019, the Brno University of Technology received a positive opinion from the National Accreditation Office regarding **institutional accreditation**. The Brno University of Technology is thus the first of the technically oriented universities to acquire this accreditation. In general, BUT is the ninth university in the country, which is now able to approve study programs itself and thus better respond to the needs of the labour market. The institutional accreditation entitles BUT to approve its study programs in a total of eight fields of education: architecture and urbanism, electrical engineering, energy, chemistry, informatics, civil engineering, economics, as well as the common field of engineering, technology and materials.

▲ In February 2019, several personalities of the Brno University of Technology received awards as part of the **Brno City Awards**. Professor Josef Jančář, a long-term teacher at the Faculty of Chemistry and science centre CEITEC BUT, where he leads the Advanced Polymer Materials and Composites group, received the awards from Brno councillors in the category of natural sciences. Another award was received by the associate professor Jan Černocký, the head of the Speech@FIT research group, which has long been involved in the analysis of speech from audio recordings at the Faculty of Information Technology. He won an award for technical sciences. Among the winners were also the graduates of the Brno University of Technology. Aleš Burian, a graduate of the Faculty of Architecture, won the prize in the category of architecture and urbanism among the laureates. Another BUT graduate was the journalist Luděk Navara, who originally graduated from the Faculty of Civil Engineering.

Five students or graduates connected with the Brno University of Technology succeeded in the **Josef Hlávka** competition, which is regularly organized by the Josef, Marie and Zdeňka Hlávková Endowment Foundation. On Saturday, November 16, the following students received the awards at Josef Hlávka Castle in Lužany near Přeštice: Pavla Hlavatá, now Šabacká (FEEC), Dominika Kalasová (CEITEC BUT), Petra Kosová (FME), Jakub Nosek (FCE) and Lucie Valentová (already a graduate of FCH). The students received the prestigious awards on the eve of the 30th anniversary of the Velvet Revolution. The Josef Hlávka Award is awarded annually to talented students in bachelor's, master's and doctoral study programs up to the age of 33 years. The awarded students will also receive the sum of 25,000 CZK in financial support.

David Erik Bernátek and Adam Repaský from the Faculty of Architecture, BUT received a special award (honourable mentions) from the international expert jury in the architectural competition **Iceland Thermal Springs Guest House**. The aim of the competition was to design a guesthouse in collaboration with the family enterprise Vogafjós Farm Resort near Hverfjall Volcano in the Dimmuborgir region of Iceland. Architects from all over the world worked on designs for the expansion of this family farm in order to add eight to ten new rooms and other services for VIP clients. The fully self-sufficient complex will eventually be adapted according to the winning project of Eric Gonzáles from the USA, but the proposal of the Brno students received an honourable mention.

▲ Six students from the Brno University of Technology succeeded in the **Brno Ph.D. Talent** organized by SMCIM. Doctoral students Ivana Nováčková (FCH), Lukáš Novák (FCE) and four other doctoral students from the CEITEC BUT Science Centre, Miroslav Ďuriš, Jakub Holzer, Jana Midlíková and Markéta Tesařová each received an award and scholarship of 300 thousand crowns for their further scientific research in the Knight's Hall of the New Town Hall on Thursday, February 28, 2019.

Vojtěch Mrázek from FIT received the **Joseph Fourier Award** from the hands of Nobel Prize winner Jean-Marie Lehn at the National Museum, which is announced annually by the French Embassy in Prague in cooperation with the Atos company. Doctoral students are awarded for their research work in the field of computer science and informatics. The winners receive financial support and are given the opportunity to travel for an internship in a research laboratory in France. Vojtěch Mrázek deals with the use of machine learning for optimization and approximation of digital circuits.

▲ Students of the Brno University of Technology were elected as the **King and Queen of the Brno Majáles Festival**. The royal crown thus returned to the soil of the Brno University of Technology. Jan Jílek from the Faculty of Civil Engineering and Kristína Šintajová from the Faculty of Chemistry became the new King and Queen of Brno students. As a project for the organization of Student Brno, the King chose the idea of creating semester student tickets, which he had already discussed with representatives of the Brno Public Transport Company.

On the occasion of the International Day of Albinism on June 13, 2019, the Faculty of Chemistry, along with Andrea Hároniková from the Institute of Food Chemistry and Biotechnology, received **an award** from the British Council in Ghana **for the production of sunscreen for people with albinism**. The Engage Now Africa organization, together with the Ghana Association of Persons with Albinism, appraised the involvement of faculty representatives in the development of an easily and inexpensively manufactured sunscreen from local ingredients, by people without education in chemistry and without special equipment and devices.

The Brno University of Technology took 1st place in the **School Recommended by Employers** 2019 competition. Individual faculties are also evaluated in the competition, and the Faculty of Mechanical Engineering, BUT won for the fourth time in a row, with a significant point lead. Representatives of companies from all over the Czech Republic evaluated the faculties of universities in terms of their contribution to the labour market and the qualifications of graduates. More than 500 small and medium-sized enterprises and corporations took part in the evaluation of this sixth year of the competition.

According to the World Health Organization, in terms of serious injuries caused by a fall, the most vulnerable group are people over the age of 65. Tomáš Repčík, a student of biomedicine from the Faculty of Electrical Engineering and Communication, BUT, developed **a mobile application with elements of artificial intelligence** for them. It detects if the owner of the phone has fallen and automatically calls for help. Repčík developed the application as a part of his bachelor's thesis and won this year's EEICT student competition with it. He also represented the faculty in a selection of 8 from BUT, where they compete in the presentation skills of the best bachelor's thesis from all faculties of Brno University of Technology.

A shared garden, car sharing, common room. These are all elements of modular houses, for which Pavel Juříček, a student at the Faculty of Architecture, BUT, won the third place in the international competition **Active House Award**. In 2019, the competition's topic was Future Living. According to Juříček, the future of housing will be marked by the reduction of private spaces and more and more frequent sharing.

Andreas Gajdošík, a graduate of the Studio of Intermedia at the Faculty of Fine Arts, BUT, who is continuing his doctoral studies here, won the **Jindřich Chalupecký Award** for 2019. The artist, who has long combined programming skills with social and political involvement in his work, is best known for his projects published in virtual space. The international jury selected him for his openly activist approach. However, five personalities connected with BUT made it to the finalists of the competition.

▲ The student team of **TU Brno Racing** experienced a very successful season. In 2019, it introduced the ninth model of the student formula racing car. Compared to its predecessors, the carbon monopost boasted a new chassis and improved aerodynamics and became the team's fastest car ever. The team achieved excellent results at all four international races in which it participated in 2019. It reached the podium on the Dutch and Czech circuits, winning the Engineering Design of the Car competition at FS Czech Republic. The races in Hungary achieved overall fourth place and at the most prestigious races in Germany, coming in ninth, it ranked among the TOP 10 teams in the world.

A graduate of the Faculty of Chemistry, Veronika Grézlová, who is continuing her doctoral studies at CEITEC BUT today, won the 3rd place in the Best Diploma Thesis category in the **Werner von Siemens Prize competition**. Her work Optimizing the Antibacterial Properties of Polymer-Phosphate Bone Fillers won an award in the 21st year of the competition, in which Siemens, Czech Republic, awarded projects in the field of technical and natural sciences. The results of Veronika Grézlová's work can be used in reconstructive surgery, orthopaedics, traumatology and implantology. Bone cement with selenium nanoparticles can help replace antibiotics and thus prevent the development of resistance or allergies. The Award Ceremony took place on February 28, 2019 in Prague.

Adam Hejduk, a student of the Sculpture Studio 2 at FFA, won the **Stanislav Libenský International Prize** for Young Glass Artists. The awarded student received a three-week stay at the Pilchuck Glass School in the USA as the main prize. Stanislav Libenský, after whom the international award is named, is a significant Czech glassmaker whose works are exhibited in galleries and museums around the world. The aim of the competition was to present the works of young glassmakers, and this year a total of 140 of them entered the competition. 28 artists from 13 countries, such as the USA, Sweden and China, advanced to the finals.

▲ BUT won an award at the **International Engineering Fair**. Digital twin robotic cells, or its commissioning, won a gold medal on Monday, October 7, 2019. This exhibit from the Faculty of Mechanical Engineering, BUT succeeded in the category of Innovation in Automation Technology and Industry 4.0. The new technology was presented by representatives of the Institute of Manufacturing Machines, Systems and Robotics. The digital twin can be used as a tool for remote virtual workplace management. The main goal is to shorten the time for preparation of a new production, reduce the number of non-conforming workpieces and enable a more efficient maintenance of the production cell. All together, this leads to economic and time savings in operation.

Bone glue developed by CEITEC scientists can be used for complicated fractures. They test it together with the doctors from the Brno University Hospital. The treatment of fragmentary fractures can be shortened from a few weeks to a few days if the project of Brno doctors and scientists takes hold. They are developing a special glue that would simply join the fractures, and have already successfully tested it on pig bones. The results of the research were presented in May 2019. A team from the Department of Trauma Surgery at the Brno University Hospital, Faculty of Medicine of Masaryk University under the leadership of Milan Krtička, along with the team of CEITEC BUT scientists led by Luca Vojtová, is collaborating on the development.

The most prestigious Czech award for science and research, the **Czech Head** Award, was won by Vojtěch Mrázek from FIT. At a gala evening in November 2019, he received the Doctorandus Award for Technical Sciences for his research into intentional errors in integrated circuits. Czech heads have been awarded since 2002 and are the highest award for authors of Czech discoveries, patents and new technologies.

Barbora Klímová, the head of the Atelier of the Environment at FFA, received the **Award from Zbyněk Baladrán** this year, it is an award for artists over the age of 35 years. The winner is engaged in research in the recent history of Czech art. In her work, she considers how to read the time through documents, how to separate the essential from the insubstantial, and how to use historical archival and sociological practice to reveal historical changes and connect one's own artistic work with curation. The focus of her attention has long been on the period of the 1970s and 1980s in Czechoslovakia, while her work moves on the border between art and documentary.

To program an algorithm that can detect the symptoms of Parkinson's disease from a voice recording – such an assignment was given to the participants of the **Biosignal Challenge**. The winner was a team of biomedicine students from FEEC BUT – Kamila Lepková, Andrea Beháňová and Filip Mívalt, who are currently developing the proposed algorithm in an international research project. The competitors were provided with a set of recordings of healthy and sick people, for which they had to use their own algorithm to determine which of them had Parkinson's disease.

▲ Researchers from CEITEC BUT have built a unique magnetic resonance device, which represents a significant shift in physics, chemistry and medicine. In November, Petr Neugebauer and his team introduced a device that changes

the hitherto established principle of measuring electron paramagnetic resonance. Scientists have assembled a **new paramagnetic resonance spectrometer** from the first screw to the final device, including the software and automation. Petr Neugebauer proposed a physical method that works the other way around, in a fixed magnetic field with a rapid change in frequency, which, in addition to the spectra obtained, will also reveal the relaxation times of various materials, which are currently largely unknown. Thanks to this method, the measurement is faster, more complex and more accurate.

▲ The fifth year of the renewed university **duel of the Eights between BUT and MU**, in which Mendel University also took part in 2019, was dominated by the crew of the Brno University of Technology. At the Kamenomlýnský Bridge over the Svratka river in Jundrov, a purely male eight won with a record time of 1 minute and 30 seconds. On the occasion of the round anniversaries of Brno universities, the race took place in historic gig eights from the 1940s.

The vice-champion of Europe in firefighting is Tereza Tmejová from the Faculty of Mechanical Engineering, BUT. The student took second place at the European Firefighter Combat Challenge Championship in Slovenia. Women have to tackle the same track as men and it includes such tasks as running to the third floor with a twenty-kilo hose on the shoulder, pulling an 80-kilo dummy more than thirty metres and shooting down targets with a water jet from a fire hose.

The Zdena Rábová Award was won by three students who created the Do Not Panic application. The students of the Faculty of Information Technology, BUT, Tomáš Chlubna and Aleš Řezáč, and their colleague from FEEC, Veronika Kamenská, received the Zdena Rábová Award from the Dean of FIT, Pavel Zemčík. It is awarded to prominent personalities from among the students of the faculty for their active involvement in science and research and for the overall increase in the prestige of the faculty. The trio of students created the Do Not Panic mobile application, which can provide immediate help to people with panic attacks or suicidal thoughts. In addition to the undeniable social benefits, the mobile application has also received considerable media attention. The application already has more than 25,000 downloads and has helped save more than 30 lives.

A four-member team of students from the Faculty of Mechanical Engineering, BUT achieved second place in the pan-European final of the EBEC (**European BEST Engineering Competition**), in the Team Design category. The competition examines the knowledge, and also the creativity and skill of students, in building a functional model of the device according to the assignment, which students learn only at the beginning of the competition. Thanks to their victory, they qualified for the competition, first at BUT and then in the regional round of teams from the Czech Republic, Slovakia and Hungary. The final round of the competition in Italy was attended by 120 of the best students from all over Europe.

Petr Horvát from FCH became the **European champion in orienteering**. On Saturday, July 27, the European University Orienteering Championships (EUOC 2019), which took place for the first time in Olomouc and its surroundings, concluded. The BUT student won a gold medal and thus became the university champion of Europe.

Students of Brno technology achieved great success on Thursday, November 7, 2019, when the **Edwards Award** was presented at the Brno Sky Club. The absolute winner of the competition was Denisa Škrabalová, a graduate of FME, who impressed the jury with her diploma thesis Holographic Module for Light Microscopy. Second place in the competition, for which 37 diploma theses applied this year, was won by Pavel Hřebíček, a graduate of FIT BUT, who has already attracted interest with the Eye Check application at this year's Excel@FIT conference. It allows the recognition of the eye disease leukocoria. Viktor Juřička, a graduate of the Faculty of Civil Engineering, won the bronze medal at the competition for his work The Development of Polymer Repair Materials Using Secondary Raw Materials.

Students of the Brno University of Technology excelled in the international **Euroijada tournament in Berlin**, which took place on November, 14–18, 2019. BUT students won gold in men's volleyball, as well as in men's and women's swimming. Gold also travelled to Brno for women's table tennis, and women also did well in the 400-meter and 800-meter athletics races, for which BUT students also won a gold medal. We won the 3rd place in the women's basketball competition; this is, however, the first medal in the history of women's basketball at BUT. Volleyball players from the Brno University of Technology also achieved third place.

What is the danger in virtual reality? A student from FIT helped American researchers discover a lack of security during an internship abroad. **A man in a room** – this is the name of a newly discovered threat in the virtual reality, revealed by a three-member team of researchers at the University of New Haven in the USA. Among them there was Martin Vondráček, a student from FIT, who stayed at the University of Connecticut as part of an internship abroad. The researchers then turned to Bigscreen and Unity to agree to quickly fix security vulnerabilities.

▲ On Wednesday, December 4, 2019, the stucco hall of the Rector's Office witnessed the proclamation of the best academic athletes of the Brno University of Technology. At the ceremony, the rector was introduced to the 10 best BUT athletes, whose names came from the **Athlete of the Year** poll, in which a total of 37 athletes from the Brno University of Technology registered. Taking first place was Petr Horvát from the Faculty of Chemistry at BUT, who specializes in cross-country orienteering skiing, classic orienteering and swimming.

Students of the BUT Faculty of Business and Management made a mark at the **International Student Olympics**, which took place from October 28 to November 2, 2019 in St. Petersburg, Russia. In total, it was attended by more than 300 students from 38 Russian and 13 foreign universities (for example, from Germany, France and the Czech Republic). The Olympics were divided into 13 sections, some of which were held in English. Kateřina Šichová took 2nd place among the individuals, Martina Suchá also scored in the team categories in the Best Presentation Skills section and Lubica Zajíčková in the Best Team Spirit section.

At the October Championship of the Czech Republic **in power triathlon**, Jakub Vágner from the Faculty of Civil Engineering, BUT defended last year's first place both in the category of juniors up to 93 kg and in the absolute ranking of all juniors. He lifted 715 kilograms in the sum of all three disciplines. He finished seventh in the same category at the World Championships in Sweden.

A total of 129 images were used by Professor Miloslav Druckmüller from the Department of Mathematics, Faculty of Mechanical Engineering at BUT, to create an image that captures the **solar corona during a total solar eclipse** that occurred on July 2, 2019 over South America. The image captures the solar corona during a period of deep minimum solar activity. Thanks to new technology and new computer systems, the team managed to obtain much more, and significantly higher quality, data than in previous expeditions. The expedition for a total solar eclipse 2019 is thus the most successful in history.

The theme of the 7th year of the **Construction with the Scent of Wood** competition was the motto Wood protects us. In the competition, students of the Faculty of Civil Engineering from the Brno University of Technology excelled. Their task was to express in their projects the fact that wood belongs to the landscape, that with its help it is possible to create spaces where one can relax despite the rush and stress of time. The young authors also highlighted the positive impact of this material on the human psyche. FCE students won the Public Prize, the Special Jury Prize and the main prize in the Large Wooden Buildings category.

Pavla Srbová, a doctoral student at the Faculty of Business and Management, BUT, managed to win 3rd place in the **Atlas Copco** Award competition, which rewards economically oriented diplomas. As a part of her work Modelling the Bankruptcy Prediction of Construction Enterprises, she tested five traditional bankruptcy models on a sample of more than 4,000 small and medium-sized enterprises in the construction industry and, based on statistical data analysis, created her own bankruptcy prediction model, which achieves more accurate results for domestic construction companies than the tested models. A total of 40 final theses from 10 domestic universities applied for this year's Atlas Copco Prize.

The new form of the bus station and how to deal with the lack of parking spaces for cars were worked out by 25 students of architecture at the Faculty of Civil Engineering, BUT within the topic of modernization of the pre-plant part of the **Dukovany Nuclear Power Plant**. Thus, cooperation between the faculty and the power plant continues, the aim of which is, in addition to the ongoing modernization of the power plant's production equipment, to adjust its pre-plant part to meet the current needs of the power plant and visitors' expectations. From June, all proposals of FCE students have been available for view by the general public during a visit to the local Infocentre.

The new BMW 5 Series measuring vehicle, which is available at the BUT Institute of Forensic Engineering, is unique in its configuration. Thanks to it, traffic accident experts obtain significantly more data on driver behaviour, i.e. the influence of the human factor. The modern car with a number of assistance elements is extended, for example, by camera systems directly in the cab, eye tracking that monitors the driver's gaze and sensors of other physiological functions, such as pulse, muscle tension, skin conductivity and others. These data are used by students and experts, especially in the teaching of expert engineering in transport. The car has become the equipment of the institute's experimental laboratories and also helps with the TA CR project **Comprehensive physiological monitoring of the driver** with regard to psychological factors influencing the driving behaviour.

Anniversaries

On September 19, 1899, the Emperor Francis Joseph I signed a decree **establishing the Czech Technical University in Brno** and at the same time appointed the first four professors of Czech technology in Brno: Karel Zahradník as a full professor of mathematics, Jan Sobotka as a full professor of descriptive geometry, Jaroslav Jiljí Jahn as an Associate Professor of Mineralogy and Hanuš Schwaiger as an Associate Professor of Freehand Drawing. On this day in 2019, BUT commemorated the 120th anniversary of its founding. The establishment of our school was mainly due to two Czech ministers in the Vienna government – Minister Antonín Rezek (1853–1909), a professor at the Prague Faculty of Arts, and the section head of the Ministry of Education and Culture and Minister of Finance Josef Kaizl (1854–1901), a professor at the Faculty of Law at Prague University. A memorial plaque was unveiled to Antonín Rezek in January 2019 in the premises of the BUT Rectorate. The senior member of the professorial board Karel Zahradník was appointed the first rector of the school by the minister of Culture and Teaching. More about the celebrations of the 120th anniversary of BUT can be found in the Actions and Events section.

The first graduates studied at the Brno University of Technology in the field of civil engineering, which laid the foundations of today's Faculty of Civil Engineering. The celebrations of **the 120th anniversary of the founding of the Faculty of Civil Engineering** were commemorated by an all-day program on Wednesday, September 25, 2019. It started with the planting of a memorial tree (linden tree) in front of the building, then continued in the faculty's historic hall with a ceremonial meeting of the Academic Senate of FCE BUT, Scientific Council of FCE BUT and Industrial Council of FCE BUT, during which the dean of the faculty also presented commemorative medals on the occasion of the school anniversary. In the afternoon, the program continued with a lecture by Leonard Hobst entitled Milestones in the history of the development of the Faculty of Civil Engineering. The celebrations of the oldest of the faculties of the Brno University of Technology ended with a program at the Brno City Theatre, namely the musical performance A Night at Karlštejn, which was intended primarily for faculty employees.

This year, the Faculty of Electrical Engineering and Communication at BUT organized an exhibition marking the 60th anniversary of its establishment. The exhibition, presenting **60 years of FEEC history**, was on display in the area in front of the interactive game room Elektrikárium until December. Visitors had the opportunity to get acquainted with all the deans of the faculty, find out how many buildings the faculty housed in its history, and also to get more information about the author of the well-known lightning symbol, which the faculty still uses today. The celebrations also included a musical performance at the Brno City Theatre for the faculty staff. The same anniversary of 60 years of existence was celebrated this year by the Institute of Radio Electronics at FEEC.

▲ In 2019, the centuries since its establishment also commemorated today's Faculty of Architecture. **The Department of Architecture and Civil Engineering** was established at the Czech Technical University in Brno on November 5, 1919. Over the past 100 years, a number of prominent teachers have passed through this school, such as Emil Králík, Bohuslav Fuchs, Bedřich Rozehnal, Miroslav Masák, Ivan Koleček, Ivan Ruller, Jaroslav Drápal, Zdeněk Makovský and many others. A number of great architects emerged from the ranks of students, and matadors of Czech architecture include personalities such as Viktor Rudiš, Otakar Diblík, Růžena Žertová, Petr Brauner, Felix Haas and Jiří Oplatek. In November 2019, FA BUT launched a year-round series of celebrations to commemorate the century of teaching architecture in Brno.

▲ In 2019, BUT commemorated the **30th anniversary of the Velvet Revolution and the 80th anniversary of the closure of Czech universities** during the Protectorate with a series of events. The academic community celebrated its anniversary as part of the ceremonial Academic Assembly on November 14 at the Brno City Theatre. On November 15, the Faculty of Architecture organized the Colour Velvet event. FME organized a discussion called Let's Not Forget, not even 30 years later, and the dean of the faculty laid wreaths at the bust of Jan Palach on the occasion of the anniversary of the Engineering Stairs event. BUT, along with other universities, also took part in the joint event the Brno Seventeenth, which

took place in November on Freedom Square in the centre of Brno. This meeting is regularly organized by student organizations of Brno universities, including the Student Chamber of the BUT Academic Senate together with the Student Brno organization. In the university zone on Kobližná Street, it was also possible to visit the stand of the Brno University of Technology.

In July 2019, 150 years had passed since the birth of **Karel Hugo Kepka**, a prominent architect and designer of the BUT rector's chain. The professor of civil engineering was born on July 26, 1869 in Tišnov, and was the designer of, for example, the Prostějov town hall and the Kounicova Halls of Residence. Kepka was the Dean of the Department of Civil Engineering, the Dean of the Department of Architecture and the Rector of Brno University of Technology from 1915–1917. He is also the author of the design of the BUT rector's chain with the original medal with the figure of the Austrian monarch. This chain he himself first carried in 1916 at the funeral of the first rector Karel Zahradník.

This year we also commemorate the 50th anniversary of the laying of the foundation stone for the construction of the BUT campus **Pod Palackého vrchem**. In 1969, the construction of university dormitories began on the current campus; it was later joined by a number of faculties. On January 1, 1969, today's independent BUT Dormitories and Canteens (originally the Central Administration of BUT Dormitories and Canteens, formerly a part of the Central Administration of Dormitories and Canteens of Universities) were also established.

1.3 BUT Scientific Centres

IT4Innovations

IT4Innovations is a national supercomputer centre, which is the holder of excellent research in the field of IT, specifically in the field of supercomputing (the so-called High Performance Computing). IT4Innovations is a research centre with strong international connections. Since its establishment in 2011, it has been a member of the prestigious pan-European research infrastructure PRACE (Partnership for Advanced Computing in Europe), in which it represents the Czech Republic. Since 2016, it has also been involved in the European Technology Platform for HPC (ETP4HPC, European Technology Platform in the Area of High-Performance Computing), which focuses on defining research priorities in the field of supercomputing in Europe.

IT4Innovations was established mainly thanks to financing from European funds, specifically from the Operational Program Research and Development for Innovation (OP RDI). The Centre of Excellence IT4Innovations project was implemented jointly in 2011–2015 by five partners: the Banska University – Technical University of Ostrava, the University of Ostrava in Ostrava, the Silesian University in Opava, the Brno University of Technology and the Institute of Geonics of the Academy of Sciences. Now the cooperation of these entities continues in the form of the IT4Innovations excellence in science project from the National Sustainability Program II (NPUII), within which the centre continues its excellent research in the areas of supercomputing and embedded systems.

The aim of the centre is to carry out excellent research in the field of very demanding calculations and data analyses and to operate the leading national supercomputer infrastructure, to mediate its effective use in order to increase the competitiveness and innovation of Czech science and industry. IT4Innovations wants to be a leading supercomputer centre that provides professional services and conducts excellent research in the field of very demanding calculations and processing of extensive data for the benefit of science, industry and society.

Within BUT, two research programs were being solved in 2019, namely Recognition and presentation of information from multimedia data and Secure and reliable architectures, networks and protocols. A total of 27 publications in impacted journals, 59 other publications and 2 patents were created. The volume of contract research reached 20 million CZK and the volume of funds obtained from foreign sources 30 million CZK. The total number of jobs at the centre approached almost seventy people in 2019. 17 entities of the application sphere cooperated with the IT4Innovations centre. More information at www.it4i.cz.

Central European Institute of Technology (CEITEC) BUT

In 2019, the CEITEC BUT Research Centre not only achieved success in acquiring prestigious projects, but also confirmed the ever-increasing level of its researchers and the research they are engaged in. In 2019, CEITEC BUT published over 270 papers in leading scientific journals, often in collaboration with the world's top scientific institutes. The ever-increasing citation rate of these works also plays a crucial role in the overall perception of BUT as a leading European technical university and contributes significantly to the internationalization of the entire institution.

A significant shift in physics, chemistry or medicine can mean a unique paramagnetic resonance device, which changes the hitherto established principle of measurement. In September, at the opening of the new laboratory, it was introduced by Petr Neugebauer, the holder of a prestigious ERC grant. The results of his several years of research were also published by Jiří Tocháček, who investigated the differences in the degradation of polymers in an ordinary environment and in the environment of eternal frozen Antarctica. The CEITEC BUT team led by Michal Horák was the first in the world to investigate Babinet's principle in plasmonics, thanks to which the scientists are able to get an idea of the magnetic field in its original structure, which is crucial especially in applied research. Lucy Vojtová tested her revolutionary bone glue in cooperation with the doctors from the Brno University Hospital. The results of testing showed that the developed bone glue can be used for complicated fractures in the future. Advances in medicine are also shown in a new method of holographic microscopy by Radim Chmelík, developed in collaboration with a team from BIOCEV. This allows scientists to better observe and analyse the behaviour of cancer cells. In 2019, the team of CEITEC employees was expanded to include Martin Pumer, one of the most cited scientists in the world. In a relatively short time, he managed to put together a team of experts from several countries. His new scientific group deals with advanced technologies in the field of electrochemical energy systems.

The RICAIP project at BUT, led by Pavel Václavek, can contribute to the development of the industry of the future in the Czech Republic. CEITEC BUT, as one of its co-researchers in the consortium, will receive approximately 450 million CZK, which will enable the construction and operation of a test facility for research and verification of control, diagnostic and robotic systems for highly automated production. It collaborates on the project with the Prague CIIRC and the German institutions ZeMA and DFKI.

PhD students also did well. For example, Veronika Grézlová from the Advanced Biomaterials research group won the Werner von Siemens Award. Also in the Brno Ph.D. Talent, the students of the Advanced Materials and Nanosciences program excelled. At the beginning of March, a total of four of its laureates received the award from the Mayor Markéta Vaňková. The Josef Hlávka Award for the most talented students who demonstrated exceptional skills and thinking in their field was won by Dominika Kalasová for her research in the field of X-ray computed tomography of structural polymeric biomaterials.

In 2019, CEITEC BUT organized several international conferences, scientific summer schools, and hosted lectures by leading foreign scientists. For a hundred students and experts from all over the world, it prepared a twelve-day program within the European Summer School of Magnetism, the main topics of which were experimental

techniques. Over 140 participants were also welcomed by an international school in the field of electron paramagnetic resonance. The Czech-German scientific conference on the topic of nanotechnologies and advanced materials, which took place at CEITEC BUT thanks to the Ministry of Education, Youth and Sports and the German BMBF, also contributed to the deepening of international cooperation. As part of the traditional Seminar Series, nine foreign guests were welcomed at CEITEC, including Takayuki Kitamura of Kyoto University with his lecture, a pioneer in fracture nanomechanics, and Paolo Vavassori of CIC Nanogune, a world expert in plasmonic nanostructures. More information at www.ceitec.cz.

New Technologies for Mechanical Engineering Centre (NETME Centre)

Cooperation with the traditional regional industrial base and the amount of international cooperation in the field of applied and contract research have long placed the NETME Centre at the forefront of engineering centres in the Czech Republic. The NETME Centre operates as a research centre at the Faculty of Mechanical Engineering.

In 2019, NETME cooperation with industrial partners in the field of science and research amounted to 62.5 million CZK (from non-public sources), of which the centre's contract research amounted to 54 million CZK. The research teams of the centre managed to deepen cooperation with long-term partners (e.g. Slovácké strojírny, GE Aviation, Škoda Auto, Hyundai NGV, Koyo Bearings, ArcelorMittal, Continental Barum and POSCO, etc.), but also to establish new cooperative projects.

In the area of basic research, 16 projects of the GA CR were worked on in the centre in 2019, one of which was newly launched. In last year's GA CR programs, the research teams managed to succeed with 7 other projects, which will begin to be implemented in 2020. These projects form a stable significant share in the basic research of the FME.

In the field of applied research, 44 projects of the TA CR were also worked on at NETME in 2019. In January 2019, the implementation of two National Competence Centres (MESTEC, NaCCaS) was started, in which FME BUT and the NETME Centre are the coordinators. Furthermore, the centre is participating in partnerships with three other competence centres (NCK Strojírenství, NCK Energetika and NCK JOBNAC). In 2019, we succeeded in the TA CR TREND program with an exceptional number of projects – specifically with 20 projects.

Research teams have also recently started the implementation of cooperative projects with companies supported by the Ministry of Industry and Trade of the Czech Republic and a number of cooperations in the field of contract and collaborative research. In NETME, intensive cooperation with the application sphere continues.

The centre also managed to obtain two grants within the INTER-EXCELLENCE program financed by the Ministry of Education. In June 2019, the iNETME (International Net for Mechanical Engineering) project was launched to develop international contacts and obtain international grants. A total of 10 partners from universities and other scientific research institutions from the Czech Republic are involved in the project. A month later, a project, funded by the same program and focused on Czech-Chinese cooperation, was launched. It is being implemented by the team of Jiří Klemeš from the Laboratory of Process Integration for Sustainability (SPIL).

A total of 33 international cooperative projects were prepared at the centre in 2019. The H2020 program supported and successfully launched a project called LEVEL-UP – Protocols and Strategies for extending the useful life of major capital investments and Large Industrial Equipment. The Institute of Manufacturing Machines, Systems and Robotics, FME participates in the role of a partner.

Another successfully approved project aims to support the international collaboration of the Heat Transfer and Fluid Flow Laboratory and two US partners – Arizona State University and the world's leading steel and mining company ArcelorMittal Research Centre Chicago. In the field of international projects, LPTP was also successful in the Research Fund for Coal and Steel project, where it received support for a project called ReduHeatLoss – Reduction of heat losses in hot rolling.

The Construction and Industrial Design Section again succeeded in the Interreg program with the project ReMaP – Research of Magnesium Alloys for Additive Manufacturing of Structural and Biomedical part. Zdeněk Hadaš from the Mechanics Section has achieved success within the international COST program, where he is involved in the ODIN project – Optimizing Design for Inspection. We also consider the submission of the Miniaturized Heat Switch Design Evolution project to the ESA program, which is now in the negotiation phase, to be a significant international success. The coordinator is Robert Popela from the FME Aviation Institute.

Up-to-date information on events in the research centre can be found on the website www.netme.cz.

Centre for Advanced Materials, Structures and Technologies (AdMaS)

The Advanced Materials, Structures and Technologies (AdMaS) research centre is a modern science centre and a comprehensive research institution in the field of construction, which is a part of the Faculty of Civil Engineering, BUT. It focuses on research, development and application of advanced building materials, structures and technologies. However, its scope extends beyond the field of construction, for example in research focused on transport systems and the infrastructure of cities and municipalities.

The centre has had its fifth year of full operation on the premises at the Brno address Purkyňova 139. During this period, the centre continued to address R&D projects from previous years (including the international project Shift2Rail and Water Quality in Drinking Water Distribution Systems "Wat-Qual" under the H2020 program) and the solution of new ones has started. In 2019, the centre solved a total of 71 projects (GA CR, TA CR, MIT, MoI) and 2 international projects.

The Centre also continued its intensive cooperation with the application sphere, firstly in the area of contract research, where it exceeded the sales threshold of 56.6 million CZK within 646 completed research contracts, and in the area of joint R&D projects.

In 2019, the number of mobility of workers abroad and foreign workers coming to the centre continued to increase, which contributed to the creation of new partnerships and the opening of new areas of international cooperation (for example with Brunel University London, Oak Ridge National Laboratory USA, etc.).

This year also saw the fulfilment of most of the planned amount of monitoring indicators for the given year.

A significant part of them significantly exceeded the planned number – for example, in the case of publications, 26 impacted publications were created, instead of the planned 5 and 66 other publications were ranked according to the RVVI methodology, instead of the planned 43. In 2019, the National Sustainability Program I project continued successfully with the number LO1408 AdMaS UP – Advanced building materials, structures and technologies. This project started on January 1, 2015 and was completed on December 31, 2019.

The AdMaS Centre was successful in October 2018 with the CAMEB project within the program of the National Centre of Competence announced by the TA CR. It is a project aimed at supporting long-term cooperation between the research and application spheres, and strengthening the institutional base of the applied research. The project partners are CTU in Prague, TU in Liberec, MENDELU in Brno and 26 companies from the private sector. The running of the project itself started in 2019 and will continue in the following years.
The motivation for the establishment of the CAMEB centre is the decrease, or thinning of non-renewable natural resources, both material and energy, and the impact of this phenomenon on construction. Although the current trend of massive energy savings in the operation of buildings brings significant improvements in the field of operational energy, the material and energy intensity of construction is growing rapidly. CAMEB therefore associates partners with such competencies that will enable better use of resources in construction in the spirit of the principles of circular economics, especially in the areas of materials, structures, quality of the indoor environment and energy and water management. These areas will be supported by modern technologies in the field of digitization, optimization, modelling and effective process control. Details can be found at www.admas.eu.

Materials Research Centre (MRC)

The Materials Research Centre is a specialized research centre focused mainly on applied research of inorganic materials, advanced organic materials and biomaterials – with emphasis on their chemical side and properties. The centre also develops its own basic research, which serves as a source of inspiration for potential applications.

The main goal of MRC is to strengthen cooperation between university research and the application sphere in the form of contract research and joint research projects, and thus accelerate the transfer of knowledge and technology into practice. Due to its affiliation with the Faculty of Chemistry at BUT, MRC also aims to involve as many students as possible in real contract research projects and cooperation with the application sphere in order to enable their further professional development.

In 2019, MRC succeeded in developing industrial partnerships in the field of applied research, both in the form of contract research and in the form of joint projects. As of 31 December 2019, the number of MRC employees was 84. The volume of contract research reached 12 million CZK. In cooperation with companies, 25 grant projects were implemented, of which 7 are within the TA CR programs (5 new since 2019), 16 projects within the TRIO program conducted under the MIT (10 new in 2019), 1 H2020 project and 1 IHSS project. Furthermore, another 17 grant projects of basic and applied research were implemented at CMV, either independently or in cooperation with other research organizations. Specifically, there were 10 projects of GA CR (5 new), 5 projects under the responsibility of the Ministry of Education, 1 project SMR – SoMoPro and 1 new project Interreg CZ-SK. A total of 57.91 million CZK was obtained at MRC within domestic project titles in 2019, and within 2019 this amount totalled 5.1 million CZK within foreign projects.

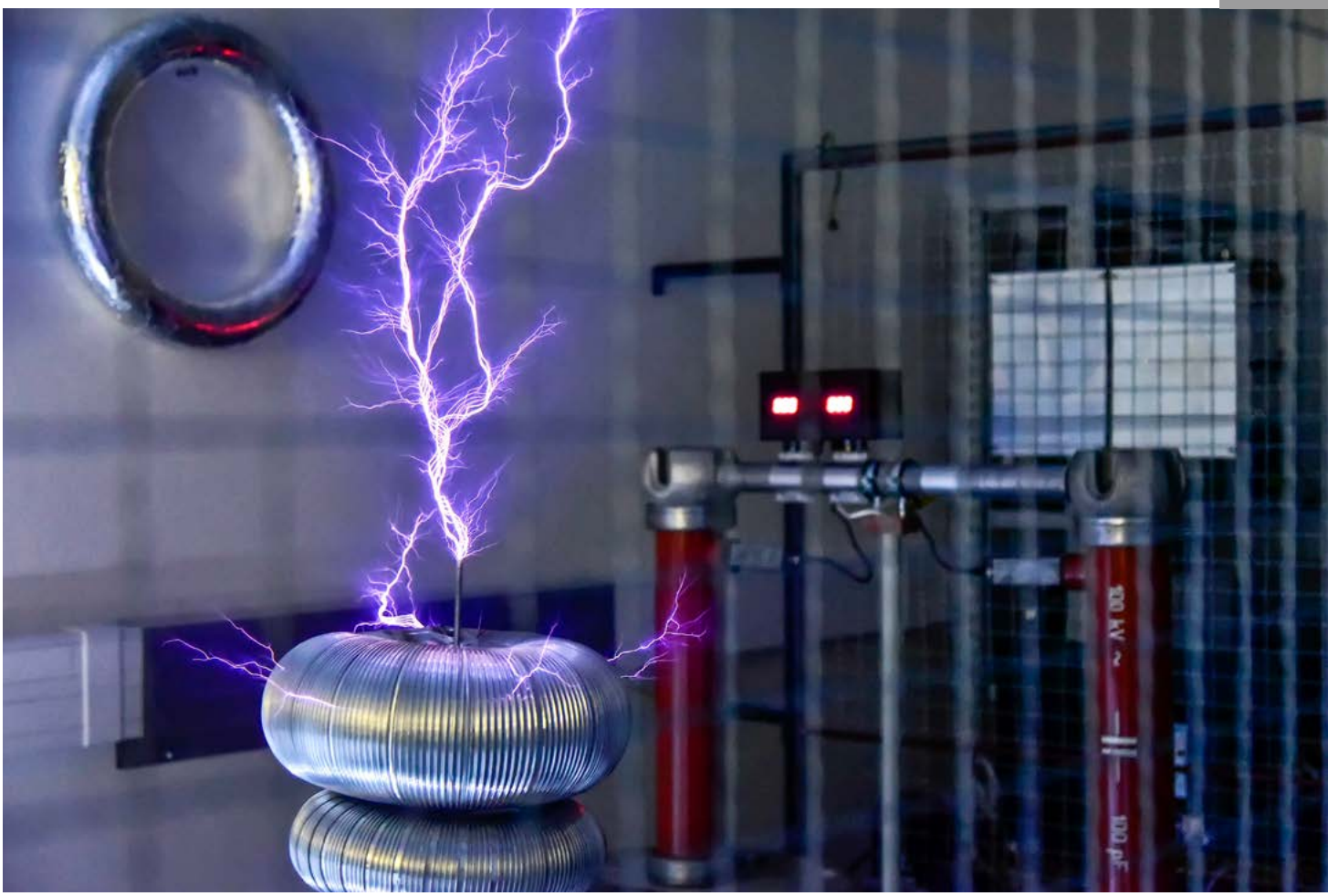
For more information, visit www.materials-research.cz.

Centre for Sensory, Information and Communication Systems (SIX)

The SIX Centre was established in 2010 as a joint initiative of the FEEC BUT institutes, which are involved in research and development of sensor systems, information and communication technologies. The aim of this initiative was to interconnect the common research interests of the institutes and to use the achieved synergies to work on large, complex research projects. Participating institutes have added their research laboratories to the SIX Centre. Up to 2017, the centre regularly grew and strengthened; between 2017 and 2019, the volume of the projects worked on and recalculated working hours stabilized.

Since 2015, the SIX Centre has been supported by the National Sustainability Program project called Interdisciplinary Research of Wireless Technologies (INWITE), which aims to develop the volume and quality of basic research of the centre and increase the ambition of the SIX Centre to invest knowledge in applied and commercial research projects. The professional goals of the project are implemented by a team of five working groups led jointly by professors from the Technical University of Vienna and the SIX Centre. The cooperation has so far resulted in several successful joint project proposals as well as involvement in wider international consortia. The INWITE project ended at the end of 2019, but the cooperation continues.

In recent years, it has already been possible to observe a growing share of applied research in the professional activities of the SIX Centre, which is a clear signal that the centre is ably fulfilling its role of a regional research centre connecting academic activities with industry. The interest of companies in professional cooperation is evidenced not only by the growing volume of applied research projects, but also by the growing volume of contract research projects. The SIX Centre, in cooperation with industry partners, is also involved in prestigious space research projects. This is evidenced by the growing number of contracts being dealt with for the European Space Agency (ESA). More information at www.six.feec.vutbr.cz.



Centre for Research and Utilization of Renewable Energy Sources (CRURES)

The CRURES research centre concentrates its research, development and innovation capacities on solving complex issues of renewable energy sources. The research teams of the centre deal with problems in the field of chemical and photovoltaic energy sources, electro-mechanics, electrotechnology, electric drives, electric power engineering and industrial electronics in a total of five basic research areas: optimization of electromechanical energy conversion; chemical and photovoltaic energy sources; production, transmission, distribution and use of electricity; automation and sensory technologies as well as research into the tripping process in switching devices.

In 2019, 22 journal publications with an impact factor according to the Web of Science database were published within the Centre. Top publications include: "Squirrel-Cage Rotor Design and Manufacturing for High-Speed Applications"; and "Proposal of a Desynchronized Processing Technique for Assessing High-Frequency Distortion in Power Systems"; and also "Asymmetric bipolar electrochemistry: Detailed empirical description and determination of output characteristics of a galvanic system with multiple short-circuited cells in one electrolyte".

The centre is focused not only on basic research, but also on deepening the cooperation of the faculty with the application sphere and on accelerating the transfer of new technologies into industrial practice. A total of 41 applied research projects were solved within the centre, in cooperation with companies in the industrial sector (TA CR and MIT projects). The obtained funds for applied research projects amounted to almost 50 million CZK.

A significant success in 2019 was winning the Golden AMPER award and the award for one of the most beneficial exhibits at the AMPER 2019 trade fair, which was won by CVVOZE employees from the Lighting Technology Laboratory. They received the award for the LDA Brightness Analyser – LumiDISP, a measuring device based on a digital camera with special evaluation software that is able to measure brightness and its distribution in any space. It is mainly used to evaluate the visual load and quality of lighting. Unlike conventional point instruments, this system is able to measure brightness at 21 million points, all in a matter of seconds. In addition, the parameters of the instrument are comparable to expensive professional instruments designed for brightness analysis, thanks to which it currently has no analogues in the world.

In 2019, the staff of the CVVOZE Laboratory of Power Electronics and Microprocessor Technology began to participate in the European research project R3-PowerUP. They are working on the development of a BLDC motor controller demonstrator. It is a three-phase inverter for powering a 2 kW BLDC motor using special technology enabling the integration of digital, analogue and power circuits on a common chip.

An example of other applied research projects is, for example, a simulator of distribution networks for training and certification of workers or resolvers – modern position sensors. In addition to these collaborative applied research projects, a total of 180 contract research orders were gained in 2019 within CVVOZE with a financial benefit of approximately 19 million CZK. Among the most important contract research contracts was the development assessment and evaluation of the switch-off of electrical devices for the OEZ company; further development assessment of contactor tripping for the Austrian company Schaltbau and analysis of properties and design parameterization of selected inverters for photovoltaic power plants.

An important part of the CVVOZE centre is the large infrastructure of CVVOZE Power Laboratories (CVVOZEPowerLab). The infrastructure consists of the High Current Laboratory and the High Voltage Laboratory, located in the Science and Technology Park of prof. List. These strategically important laboratories are designed for the research and development of high-current and high-voltage electrical devices and equipment. The equipment in the laboratories makes it possible to simulate, for example, extreme short-circuit conditions in the network, a lightning strike to a line, etc. More detailed information at www.cvvoze.cz.

1.4 Achieved goals within the BUT strategic plan for 2019

Brno University of Technology has clearly defined the main strategic goals from the previous period. In 2019, the BUT management began the conceptual preparation of the long-term BUT Strategy until 2030, with the main milestones in 2022, 2025 and 2030. This strategy will be further elaborated in the BUT Strategic Plan for the period 2021+.

The main priorities within educational, creative and related activities are listed in the BUT Strategic Plan for the period 2016–2020 and cover educational, scientific and creative activities, the third role and support activities. These priorities are linked to the area of international cooperation and are relevant in relation to the defined mission and role of the university. Every year, the individual goals are evaluated and a specific Implementation Plan for the BUT Strategic Plan for the following year is prepared. The syllabus and priority goals of the BUT Strategic Plan represent the backbone structure for compiling the strategic plans of faculties and university components.

The strategic plan of BUT 2016–2020 contains 7 priority goals:

Priority goal 1: Quality assurance and strategic management
Within this goal, it was possible to obtain and subsequently extend the BUT Institutional Accreditation by another area of education, namely the area of Architecture and Urbanism (Faculty of Architecture and Faculty of Civil Engineering). BUT also effectively uses the newly established body of the Council for Internal Evaluation to improve all activities of the university. Likewise, the university is working intensively on negotiations on the support of technical and science education at the level of national bodies and university representations.

Priority goal 2: Diversity and accessibility of educational activities
Under the second priority objective, the transformation of the "program-field" structure into a new "program-specialization" structure has been launched. BUT's attention in 2019 was significantly focused on increasing the number of self-paying students studying in English. We are the only university in the Czech Republic to obtain the accreditation of a practically focused study program in Sports Technology, and the BUT Sports Activities Centre began accepting the first students into the newly established bachelor's program.

Priority goal 3: Internationalization
In 2019, the central Welcome Service for all foreign workers and students coming to BUT was completed. Internationalization at BUT was monitored and the strategy for increasing the number of incoming foreign students and staff at BUT was updated.

Priority goal 4: Relevance, graduates, marketing and cooperation with the application sphere
The activities of the BUT Career Centre and cooperation with strategic partners have stabilized. The offer of services for BUT partners was newly introduced to these. The main activity in the field of marketing in 2019 was focused on the organization of many events associated with the celebrations of 120 years since the founding of BUT.

Priority goal 5: Quality and relevant research, development and innovation
In the area of research, development and innovation, BUT began preparing the BUT research strategy and implementing individual modules of the new M17+ methodology into the BUT environment. In 2019, attention was focused mainly on excellent publications and research. This year, BUT also started preparing a self-assessment report for the International Evaluation Panel, which BUT will evaluate in 2020.

Priority goal 6: Decision-making and development based on information and data
In this area, BUT unified information technology services into one component, dealing with both technical and software equipment and its development, and began the transition to a single user interface for all BUT IS users.

Priority goal 7: Efficient management
In the area of the BUT management system, in 2019 the analysis of the feasibility of the electronic order approval system within the SAP information system, and the proposal of the agreed unified solution of electronic order approval at all BUT economic centres, including the financial control system according to Act No. 320/2001 Coll., were completed. The BEST VALUE system for public procurement has been introduced. In the area of construction investments, the FIDIC contractual system was fully implemented. Furthermore, the application of an electronic shopping house for the purchase of consumer goods at BUT was introduced. It was also possible to reach an agreement and adjust the budget mechanism for the distribution of normative resources in relation to the development of the number of studies in order to take into account the trend of the number of studies at individual faculties and budgeting components in 2020. An algorithm strengthening the motivation of publication performance and quality in connection with the implementation of the new Methodology 17+ was discussed and approved.

In the area of personnel, BUT applied and was registered by the European Commission as a candidate for the HR Award, and the necessary organizational and factual steps were taken to ensure the preparation of the self-assessment report. There was also a university-wide summer school focused on the implementation of the employee evaluation system, especially focusing on evaluating the performance and quality of academic staff as one of the main outputs of the BUT Personnel Centre, developed within the MOST project (OP RDE). An information website for new and existing employees was also prepared and launched within this centre.

In the investment area, the Ministry of Education, Youth and Sports announced the Program for the Reproduction of Public University Assets, where BUT submitted, approved and registered three important events: reconstruction of the BUT FME campus at Technická 2, the campus at Údolní 53 (especially for FFA and FA) and a set of reconstruction of halls of residence and canteens. The necessary implementation work was started, which during 2019 focused mainly on design activities.

1.5 Activities of the BUT Academic Senate in 2019

In 2019, the BUT Academic Senate (hereinafter referred to as the AS) held 9 regular and 1 external meetings. The standard topics of the AS meetings were legislative, economic, pedagogical and creative activities.

The standard activities of the AS may include the approval of the annual reports on the activities and management of BUT for 2018, negotiations on the preparation and approval of the Rules for compiling the BUT budget for 2019 and the subsequent approval of the BUT Budget for 2019. In connection with the discussion of the budget for 2019, great attention was paid to the ongoing analyses of BUT centralized activities and resources, including the costs of developing BUT IS, especially in connection with the effort to improve the computer support of BUT main activities. Attention was also paid to the distribution of specific research funds. A detailed discussion took place, mainly on the verifiability of data in the field of science and research, and on the motivational mechanism for the distribution of the strengthened part of the Institutional Support within the Long-Term Conceptual Development of the Research Organization (hereinafter IS LCDRO). In addition to the incentive mechanism, amendments to the rules and budget were approved in the autumn.

In the area of legislation, the AS, in connection with its meetings in previous years, in the course of 2019 approved amendments to certain internal regulations of BUT, faculties and university institutes, including some new versions of internal regulations. These were, in particular, amendments to the BUT Study Program Rules, the BUT Statute, the BUT IEB Rules of Procedure and the BUT SC Rules of Procedure. In the area of legislative regulations, parts of BUT AS approved new versions of the Statute of IFE, the Rules of Procedure of the SC of FIT and amendments to the Statute of FFA, the Statute of FME and the Election Rules of AS FIT. Furthermore, the CESA documents concerning the new bachelor's study program in Sports Technology were discussed by the AS. The AS also discussed new accreditations of university institutes, and discussed more effective information concerning the BUT academic community. AS members are regularly members of selection committees at CESA, IFE and CEITEC BUT higher education institutions.

At the beginning of 2019, a discussion on the internal regulations of the AS – the BUT AS Election Rules and the BUT AS Rules of Procedure – was opened at the AS meetings in connection with the upcoming AS elections for the next term of function (to be held in autumn 2020). A detailed discussion, especially on the possibility of expanding the representation of all university institutes in the AS, took place, including the participation of the directors of BUT university institutes. At the external meeting of the AS in June 2019, the opinions of the AS faculties were then taken into account. Based on the conclusions from this discussion, the chairwoman of LC AS prepared a summary of suggestions and comments of AS members concerning a possible amendment to the internal regulations of BUT AS. A debate was also held at the external meeting of the AS with the participation of representatives of the Rector's Office's Legal Department regarding the amendment to the BUT Statute prepared by them and the related intention to amend the system of internal regulations and standards (implementing directives). In the autumn, representatives of the BUT AS participated in a meeting of a working group appointed by the Rector on the issue of changing the system of internal regulations and standards, where they explained the priority of preventing unjustified growth in administrative burdens for the academic community.

In connection with the long-term strategy of BUT, the AS continued to deal in detail with a number of analyses concerning especially important projects. In autumn 2019, the AS approved the BUT Strategic Goals Implementation Plan for 2020, a document focused on Centralized Investment and Non-Investment Funds (update) and the Investment Activities Plan for 2020. At its meetings, the AS also discussed the position of BUT among other universities in the Czech Republic and at the international level. It also dealt with the conditions and support for a more active approach of academics and researchers to publishing activities. Furthermore, the AS participated in the preparation of a ceremonial academic meeting on the occasion of the 120th anniversary of the founding of BUT held on November 14, 2019 at the Brno City Theatre.

All topics were analysed in detail in the working committees before the AS meetings.

The Economic Committee of the BUT AS (hereinafter referred to as the EC) held 18 meetings, at which it discussed in detail the Rules for Compiling the BUT Budget and Management for 2019 and subsequently the BUT Budget for this year and, in the autumn, the above-mentioned amendments and strategic documents. During the preparation of the rules for budgeting and subsequent discussion of the draft budget in the AS, analytical materials in tabular and textual form were prepared and presented to the AS within the EC, which enabled the clarification of some decisions and simplified discussions on the issue of financing the above-normative students and financing of BUT's large research centres. The EC discussed in detail the issue of data verifiability in the field of science and research and the motivational mechanism for the distribution of IP DKRVO. The EC discussed in detail the budgets of university institutes and other components and a number of fundamental recommendations for all the most important areas of BUT funding were adopted. Other analytical materials were prepared in connection with the meetings of the university representations (University Council). The documents were distributed within the reports from the committees of self-governing bodies by individual members of the AS. When discussing and commenting on documents, the EC continued to cooperate with the BUT Quaestor and Rector, with the aim of continuing the detailed transparency of BUT's financial flows, funding structure and budget in terms of resources.

The Legislative Committee of the BUT AS (hereinafter referred to as the LC) held a per rollam meeting according to the Rules of Procedure of the BUT AS. The Chairwoman of the LK AS always asked the members of the committee to electronically send any comments on the legislative proposals submitted to the AS for approval, which it summarized and subsequently provided to the submitter. In the event that the comments were accepted by the submitter of the proposal, the documents with incorporated comments were sent to all members of the AS, LC subsequently expressed its opinion by per rollam vote and the documents were discussed at the next AS meeting. In 2019, LK continued to cooperate significantly with the Legal Department of the Rector's Office.

In 2019, the **Pedagogical Committee of the BUT AS** (hereinafter referred to as the PC) acted in accordance with the Rules of Procedure of the BUT AS per rollam. The negotiations mainly concerned CESA documents – the newly accredited bachelor's study program in Sports Technology, and documents for the admission procedure to all university institutes for the coming academic year. Furthermore, within the external meeting of the AS, held on June 25–27, 2019, a meeting was held on the issue of self-paying students and internationalization. The PC evaluates very highly the cooperation with the management of BUT and the management of university institutes.

The **Committee for Creative Activities of the BUT AS** (hereinafter referred to as CCA) responded in the form of a per rollam resolution or by issuing recommendations on current issues in the field of creative activities. These were, for example, an opinion and subsequent recommendation for approval of the AS by voting on the proposed members of the BUT Scientific Council and members of the BUT IEB, an opinion and subsequent recommendation for approval by the proposed members of the BUT CEITEC Scientific Council, opinion and subsequent recommendation for approval by voting on the submitted evaluation of a strategic plan of IFE BUT for 2018 and Plan of implementation of the strategic plan of IFE BUT for 2019, preparation for negotiations on methodology of evaluation of science and research M17+ for redistribution of IS LCDRO within BUT at an external meeting of AS, meeting and subsequent recommendation of AS BUT to approve a proposed methodology of redistribution of part of LCDRO within BUT (motivational component), and repeated comments on the directive Principles of student grant competition to support projects of specific university research at BUT and evaluation criteria.

In 2019, the systematic support of the activities of the AS was further strengthened, especially in the area of financing and legislation, with the aim of contributing to the substantive discussion of related topics in the AS. Representatives of the BUT academic community in the University Council (hereinafter UC) provided current and regular reports from the meetings of the UC Presidium, UC commissions and the UC Assembly electronically, and at AS meetings. The active involvement of BUT representatives in UC thus contributes to the recognition of the role of BUT in defending autonomy and academic self-government among other universities, and contributes to the prestige of BUT within the academic community of universities in the Czech Republic.

The external meeting of AS and the seminar held within the IDP: AS held its annual external meeting in June at the Hotel Valeč in Hrotovice, which traditionally included lectures and discussions in a workshop following the development project Deepening of Academic Self-Government and increasing its effectiveness in BUT, implemented in 2019–2020. The aim of this project is further systematic and systemic support of AS activities in the field of economics and BUT legislation, which contributes to the substantive discussion of related topics in AS, continuing to support and stabilize existing activities and partnerships between BUT and AS management based on basic principles of feedback control in academic conditions of self-government, with the importance of its development for the consolidation of democratic and feedback principles in the Czech Republic. It is also about deepening cooperation with UC in all areas of its operation, especially in the areas of strategy, economics, legislation and research, developing opportunities to apply observations from the BUT academic community through their collection, wide discussion, opposition and processing of ideas and comments in the form of documents for UC. The seminar was attended by members of the AS and BUT

management, representatives of the Rector's Office Legal Department and representatives of the UC. The negotiations with BUT management regarding the financing of BUT in the field of study (issues of the number of students and their financing), human resources and, in the field of creative activity – M17+ Methodology (economic analysis), can be considered key this year within the external meeting of AS. In connection with the upcoming elections of the new AS for the next term of November 2020 to 2023, which will take place in the autumn of 2020, discussion continued on possible amendments to the internal regulations of the AS – Election Rules of BUT and Rules of Procedure of BUT AS, including possible amendments to the BUT Statute with AS (numbers of representatives of all faculties and university institutions in AS). Furthermore, the BUT AS discussed with BUT management the issue of internal regulations and BUT internal standards. With the participation of representatives of the Legal Department of the Rector's Office, a debate was held on their proposal to clarify the system of internal standards of BUT. In addition to the participation of the majority of AS members in the external meeting, the participation of all members of the BUT management – the Rector, the Quaestor, the Vice-Rectors and the Chancellor – can be positively assessed. The benefit was the participation of BUT representatives in UC, who are also members of the AS, and especially the representative participation of guests from UC – UC chairman, UC economic committee chairwoman, UC legislative committee chairman and UC scientific activity chairman, who actively participated and, through presentations, informed the members of the BUT AS about current events in the field of competence of the UC. The main outcomes of the meeting were summarized at a standard meeting of the BUT AS, at which the relevant resolutions were adopted in connection with the discussed areas and the proposals submitted to the AS for discussion/approval.

In 2019, the **Student Chamber of the BUT AS** (hereinafter referred to as SCAS) continued to develop modern electronic communication tools and use them for the operational sharing of information with BUT students. The electronic manual for BUT freshmen was created and launched for students before the beginning of the academic year 2018/2019 in the form of the website www.prirucka.vutbr.cz. SCAS members participated in the implementation itself, and data verification took place in cooperation with other students and BUT staff. In July and August 2019, the data entered in this handbook for the academic year 2019/2020 was updated. As part of the update, the main menu was also reorganized so that the information on the website was clearer. A new guide was created for first-year students of FFA and CESA.

Furthermore, SCAS continued to operate the Internal Fund to support student projects and also carried out a student survey, the so-called TOP10 competition for the best teachers at BUT. The competition takes place at all faculties, with 2 winners selected for each faculty (1 for bachelor's and 1 for follow-up master's studies), and at IFE, where 1 winner was chosen for follow-up master's studies. From 1 May to 30 June, students voted in the BUT IS and the results were published at the end of August 2019 on the BUT website. The award was presented to the winning teachers at the ceremonial BUT Academic Assembly in November, which took place as part of the celebrations of the 120th anniversary of BUT. In December 2019, SCAS BUT, along with BUT students, again participated in the organization of another successful BUT Ball, which took place on Friday, December 6, 2019 at the Brno Exhibition Centre.

All the above activities of AS members still lead to further strengthening of cooperation between BUT and AS management, as a natural and traditional part of academic life and as a key element of the active involvement of academic members in BUT development, including further optimization of communication between the individual university management, self-government, academic community and staff.

2 Basic information about the university

2.1 Full name of the university, commonly used abbreviation, seat of the university and all departments

Brno University of Technology
BUT
Antonínská 548/1, 601 90 Brno
www.vut.cz

Faculties (in order of creation)

Faculty of Civil Engineering BUT
FCE BUT
Veveří 331/95, 602 00 Brno
www.fce.vutbr.cz

Faculty of Mechanical Engineering BUT
FME BUT
Technická 2896/2, 616 69 Brno
www.fme.vutbr.cz

Faculty of Electrical Engineering and Communication BUT
FEEC BUT
Technická 3058/10, 616 00 Brno
www.fekt.vut.cz

Faculty of Architecture BUT
FA BUT
Poříčí 237/5, 639 00 Brno
www.fa.vutbr.cz

Faculty of Chemistry BUT
FCH BUT
Purkyňova 464/118, 612 00 Brno
www.fch.vut.cz

Faculty of Business and Management BUT
FBM BUT
Kolejní 2906/4, 612 00 Brno
www.fbm.vutbr.cz

Faculty of Fine Arts BUT
FFA BUT
Údolní 244/53, 602 00 Brno
www.favu.vut.cz

Faculty of Information Technology BUT
FIT BUT
Božetěchova 1/2, 612 66 Brno
www.fit.vut.cz

University Institutes

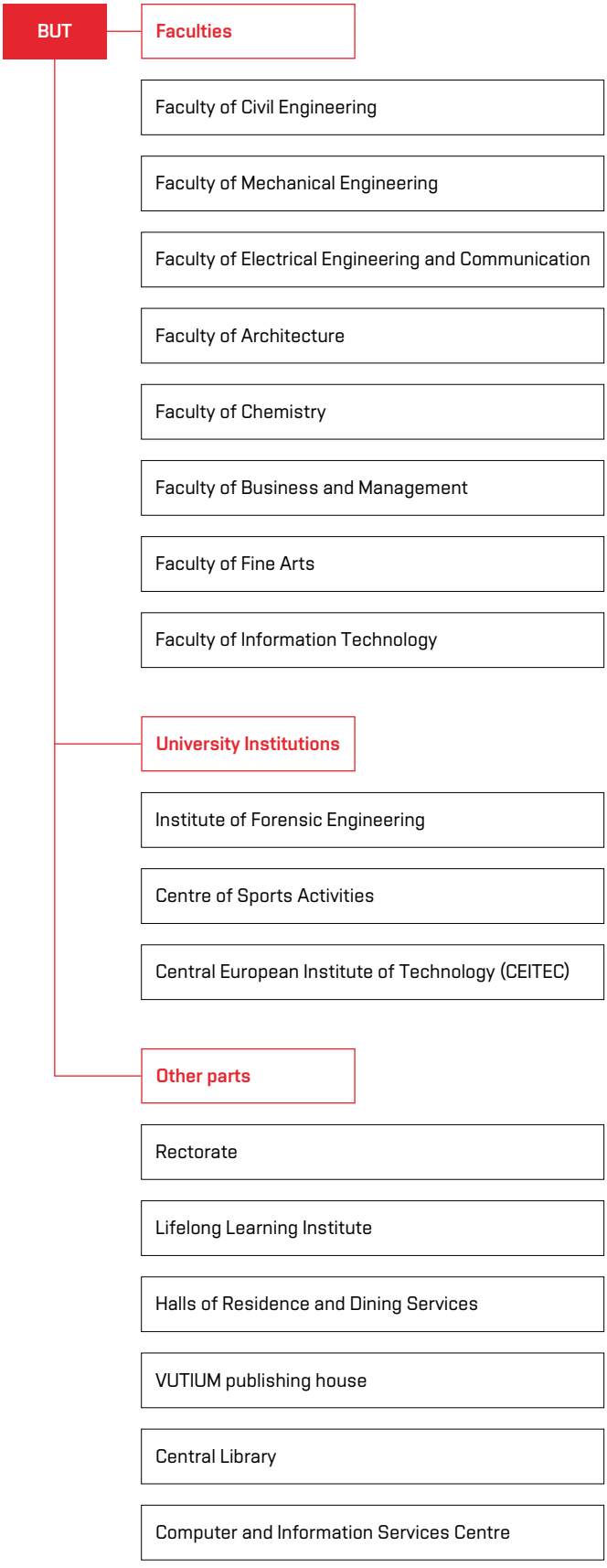
Institute of Forensic Engineering BUT
IFE BUT
Purkyňova 464/118, 612 00 Brno
www.usi.vutbr.cz

Centre of Sports Activities BUT
CESA BUT
Technická 2896/2, 616 69 Brno
www.cesa.vutbr.cz

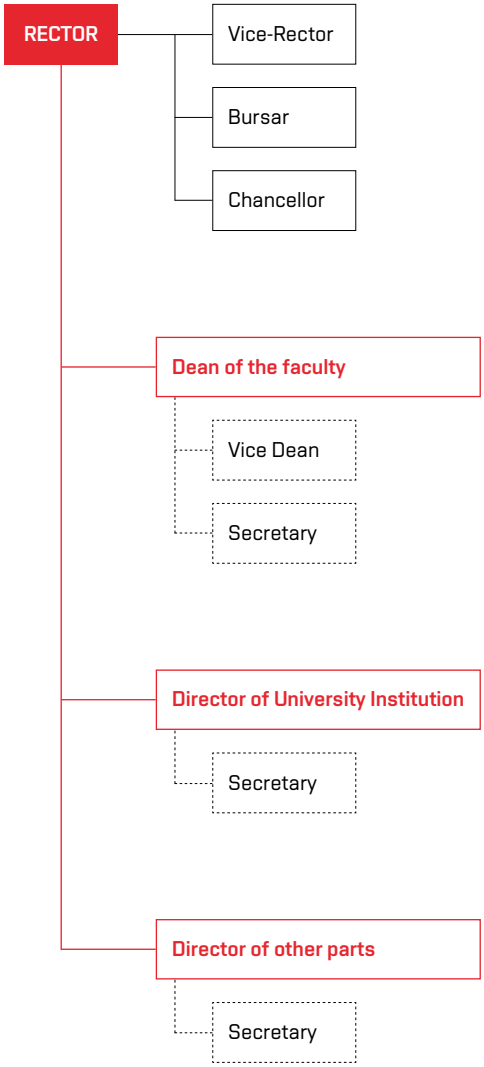
Central European Institute of Technology BUT
CEITEC BUT
Purkyňova 656/123, 612 00 Brno
www.ceitec.cz

2.2 Organizational structure of the university

Organizational chart of BUT



Management structure of BUT



2.3 Composition of the Scientific Council, the Administrative Board, the Academic Senate and the Internal Evaluation Board

Scientific Council of BUT

Chairman
- prof. RNDr. Ing. Petr Štěpánek, CSc., dr. h. c.

Members
- prof. RNDr. Vladimír Aubrecht, CSc.
- prof. Ing. Miroslav Bajer, CSc.
- MgA. Filip Cenek, Ph.D. – since May 17, 2019
- prof. RNDr. Miroslav Doupovec, CSc.
- Ing. Karel Endlicher
- Ing. Miloš Filip
- prof. akad. sochař Michal Gabriel
- prof. Ing. Lubomír Grmela, CSc.
- prof. Ing. Martin Hartl, Ph.D.
- prof. Ing. Jiří Hirš, CSc.
- prof. PeadDr. Radek Horáček, Ph.D.
- doc. MgA. Milan Houser
- doc. Ing. arch. Jan Hrubý, CSc.
- prof. Ing. arch. Petr Hrůša
- prof. Ing. Tomáš Hruška, CSc.
- doc. Ing. Jaroslav Katolický, Ph.D.
- Ing. Jaroslav Klíma
- Ing. arch. MArch. Jan Kristek, Ph.D. – since May 17, 2019
- doc. Ing. Karel Kouřil, Ph.D. – since May 17, 2019
- prof. Ing. Jiří Málek, DrSc.
- prof. RNDr. Ivana Márová, CSc.
- Ing. Ilona Müllerová, DrSc.
- prof. Ing. Drahomír Novák, DrSc.
- Ing. Eduard Palíšek, Ph.D., MBA
- doc. RNDr. Juraj Pančík, Ph.D.
- prof. Ing. Karel Rais, CSc., MBA
- prof. Ing. Robert Redhammer, PhD.
- prof. Ing. Mária Režňáková, CSc.
- Ing. Dětřich Robenek
- prof. Ing. Petr Sáha, CSc.
- prof. Ing. Lukáš Sekanina, Ph.D.
- Ing. Martin Slezák
- prof. Ing. Ján Šajbidor, DrSc., dr.h.c. – till October 4, 2019
- prof. RNDr. Tomáš Šikola, CSc.
- doc. Ing. et Ing. Stanislav Škapa, Ph.D.
- prof. Ing. arch. Vladimír Šlapeta, DrSc.
- Ing. Miloš Štěpánovský
- prof. Ing. Pavel Václavek, Ph.D.
- doc. Ing. Aleš Vémola, Ph.D.
- prof. RNDr. Peter Vojtáš, DrSc.,
- prof. MVDr. Lenka Vorlová, Ph.D. – since November 19, 2019
- prof. Ing. Radimír Vrba, CSc.
- prof. Ing. Martin Weiter, Ph.D.
- prof. Dr. Ing. Pavel Zemčík

Administrative Board of BUT

Chairman
- ThDr. Ing. Lukáš Evžen Martinec

Members
- Ing. Eva Bartoňová
- Ing. Vladimír Dlouhý, CSc., MBA
- Ing. Jaroslav Klíma
- Ing. Miloslav Kopeček
- PhDr. Miroslava Kopicová
- Mgr. Petr Kostík – till May 31, 2019
- Mgr. Stanislav Moša
- Ing. Jiří Nekovář
- Ing. Eduard Palíšek, Ph.D., MBA
- Ing. Petr Rafaj
- prof. RNDr. Eduard Schmidt, CSc.
- Ing. Jan Světlík
- Ing. Petr Vokřál
- doc. Ing. Jiří Volf, CSc. – since June 3, 2019
- prof. MUDr. Jiří Vorlíček, CSc.

Internal Evaluation Board of BUT

Chairman
- prof. RNDr. Ing. Petr Štěpánek, CSc., dr. h. c.

Vice-chairman
- prof. Ing. Tomáš Hruška, CSc.

Members
- prof. Ing. Jiří Burša, Ph.D.
- prof. RNDr. Vladimír Čech, Ph.D.
- prof. RNDr. Miroslav Doupovec, CSc., dr. h. c.
- prof. Ing. Rostislav Drochytka, CSs., MBA – till May 14, 2019
- prof. Ing. Eva Gescheidtová, CSc.
- prof. Ing. Lubomír Grmela, CSc.
- doc. Dr. Ing. Petr Hanáček
- doc. Ing. Jan Jandora, Ph.D. – since May 15, 2019
- prof. Ing. Pavel Jura, CSc.
- prof. Ing. Alois Materna, CSc., MBA – since May 15, 2019
- Ing. Pavel Maxera – reelected on May 15, 2019
- doc. Ing. Eva Münsterová, CSc. – till May 14, 2019
- prof. Ing. Mária Režňáková, CSc.
- doc. Ing. et Ing. Stanislav Škapa, Ph.D. – till May 14, 2019
- prof. Ing. Arch. Vladimír Šlapeta, DrSc. – since May 15, 2019
- prof. Ing. Josef Štětina, Ph.D. – since October 8 2019
- prof. RNDr. Milada Vávrová, CSc. – till June 28, 2019

Disciplinary Committee of BUT

Chairman
- prof. RNDr. Miroslav Doupovec, CSc., dr. h. c.

Members
- prof. Ing. Jiří Hirš, CSc.
- prof. Ing. Tomáš Hruška, CSc.
- Ing. Radek Hranický
- Ing. Daniel Janík
- Ing. Pavel Maxera

Academic Senate of BUT

Chairman
- doc. Dr. Ing. Petr Hanáček

Vice- Chairman
- prof. Ing. Eva Gescheidtová, CSc. – since October 22, 2019
- prof. RNDr. Milada Vávrová, CSc. – till June 28, 2019
- Ing. Pavel Maxera – till December 17, 2019

Chamber of Academic Staff of AS BUT

Předsedkyně komory
- prof. Ing. Eva Gescheidtová, CSc. – since October 22, 2019
- prof. RNDr. Milada Vávrová, CSc. – till June 28, 2019

Members
- doc. Mgr. Tomáš Apeltauer, Ph.D.
- Ing. Petr Beneš, CSc.
- Ing. Albert Bradáč, Ph.D.
- doc. Ing. Pavel Diviš, Ph.D. – since November, 2019
- Ing. arch. Nicol Galeová
- doc. Dr. Ing. Petr Hanáček
- MgA. Katarína Hládeková – till June 30, 2019
- MgA. Ondřej Homola – since November 19, 2019
- MgA. Tomáš Hrůza
- doc. Ing. Jiří Jaroš, Ph.D.
- doc. Ing. Miloslav Meixner, CSc.
- Mgr. Bc. Helena Musilová
- doc. Ing. Tomáš Opravil, Ph.D.
- RNDr. Pavel Popela, Ph.D.
- PaedDr. Milan Slezáček
- Ing. Lenka Smolíková, Ph.D.
- doc. Ing. Miloslav Steinbauer, Ph.D.
- prof. Ing. Josef Štětina, Ph.D.

Student Chamber of AS BUT

Chairman of the Chamber
- Ing. Pavel Maxera – till December 17, 2019

Members
- Ing. Jakub Czapek – till May 27, 2019
- Diana Hodulíková – since November 19, 2019
- Ing. Radek Hranický
- Ing. Daniel Janík
- Bc. Eliška Jarmerová
- Ing. Tereza Konečná
- Ing. Anna Kruljacová, M.Sc.
- Bc. Veronika Špundová – since March 19, 2019
- Kristína Šintajová

Working committee of AS BUT

Legislative committee

Chairwoman
- Mgr. Bc. Helena Musilová

Members
- prof. Ing. Eva Gescheidtová, CSc.
- MgA. Katarína Hládeková – till June 30, 2019
- RNDr. Pavel Popela, Ph.D. – since October 22, 2019
- doc. Ing. Miloslav Steinbauer, Ph.D.

Studenti
- Diana Hodulíková – since December 17, 2019
- Ing. Radek Hranický
- Bc. Eliška Jarmerová
- Ing. Tereza Konečná
- Ing. Anna Kruljacová, M.Sc.
- Ing. Pavel Maxera

Economic Committee

Chairman
- RNDr. Pavel Popela, Ph.D.

Members
- Ing. Petr Beneš, CSc.
- Ing. Albert Bradáč, Ph.D.
- Ing. arch. Nicol Galeová
- MgA. Tomáš Hrůza
- doc. Ing. Jiří Jaroš, Ph.D.
- doc. Ing. Tomáš Opravil, Ph.D.
- PaedDr. Milan Slezáček
- Ing. Lenka Smolíková, Ph.D.
- doc. Ing. Miloslav Steinbauer, Ph.D.
- prof. Ing. Josef Štětina, Ph.D.
- prof. RNDr. Milada Vávrová, CSc. – till June 28, 2019

Students
- Ing. Jakub Czapek – till May 27, 2019
- Ing. Daniel Janík
- Ing. Tereza Konečná – since September 24, 2019
- Ing. Anna Kruljacová, M.Sc.

Teaching Committee

Chairman
- doc. Ing. Miloslav Steinbauer, Ph.D.

Members
- Ing. Petr Beneš, CSc.
- Ing. arch. Nicol Galeová
- doc. Ing. Jiří Jaroš, Ph.D.
- Mgr. Bc. Helena Musilová
- prof. RNDr. Milada Vávrová, CSc. – till June 28, 2019

Students
- Ing. Jakub Czapek – till May 27, 2019
- Ing. Daniel Janík
- Bc. Eliška Jarmerová
- Ing. Tereza Konečná
- Kristína Šintajová

Committee for Creative Activities

Chairman
- Ing. Albert Bradáč, Ph.D.

Members
- doc. Mgr. Tomáš Apeltauer, Ph.D.
- prof. Ing. Eva Gescheidtová, CSc.
- doc. Ing. Jiří Jaroš, Ph.D.
- doc. Ing. Tomáš Opravil, Ph.D.
- Ing. Lenka Smolíková, Ph.D.
- prof. Ing. Josef Štětina, Ph.D.
- prof. RNDr. Milada Vávrová, CSc. – till June 28, 2019

Students
- Ing. Radek Hranický
- Ing. Anna Kruljacová, M.Sc.
- Ing. Pavel Maxera

2.4 Representation of BUT among universities

Czech Rectors' Conference

– prof. RNDr. Ing. Petr Štěpánek, CSc., dr. h. c. –
Representative for Economic and Social Affairs

BUT representatives in the University Council

Member of the Board of UC
– RNDr. Pavel Popela, Ph.D.

Members of the Assembly of UC
– Ing. arch. Nicol Galeová (FA)
– Ing. Ivana Jakubová (FEEC)
– Mgr. A. Lenka Klodová, Ph.D. (FFA)
– Ing. Radek Kočí, Ph.D. (FIT)
– doc. Ing. Jana Korytárová, Ph.D. (FCE)
– Ing. Pavel Mráček, Ph.D. (FBM)
– Mgr. Bc. Helena Musilová (BUT)
– doc. Ing. Tomáš Opravil, Ph.D. (FCH) – since December 17, 2019
– doc. Ing. Jan Roupec, Ph.D. (FME)
– prof. RNDr. Milada Vávrová, CSc. (FCH) – till June 28, 2019

Members of the Student Chamber of UC
– Ing. Anna Kruljacová, M.Sc. – delegate
– Bc. Eliška Jarmerová – substitute

Member of the Assembly of AS CR and Member of the Assembly Supervisory Board of AS CR
– prof. RNDr. Milada Vávrová, CSc. – till June 28, 2019

2.5 The mission, vision and strategic goals of BUT

The Brno University of Technology has clearly defined strategic goals. The main priorities within educational, creative and related activities are listed in the BUT Strategic Plan for the period of 2016–2020 and cover educational, scientific and creative activities, the third role and support activities. In all areas of its activity, BUT is working intensively to maintain the status of a major world educational and research university, which has been ranked among the foremost in the world in the last ten years; uses the university's human resources and infrastructure to support an interdisciplinary approach to education, research and collaboration with practice in order to meet the current needs of technology industries and the timeless needs of society as a whole. This is of growing importance, especially in view of the slowing growth rate of the world economy, which has a significant impact on the national environment. The advantage of BUT in this area is the possibility of synergy of the unique composition of fields at BUT.

The Brno University of Technology has long strived to ensure that the principles of the evaluation of BUT, faculties and departments and their implementation, are such that the academic community and other staff consider them meaningful and gradually adopt them as their own, and that this effort helps to create an institutional culture focused on quality. Last but not least, BUT strives to improve the quality of all its activities, especially studies, thanks to the meaningful implementation of a quality management system in all areas of school activities without additional administrative burden.

In 2019, within the preparation of the framework of BUT research activities, great attention was paid to the vision of BUT in the field of research, experimental development and innovation, which is:

- to profile itself as an important research-oriented technical university, which is competitive not only in a national but also in an international context;
- to be characterized by the transfer of the results of research activities to the education of students in all study programs;
- to act as a research organization with strong links to industry and international cooperation;
- to continue as a long-term stable and promising employer, motivate existing, and acquire new, academic staff, and support their scientific and creative potential;
- to make effective use of continuously modernized unique infrastructures for research and development, and support the continuity and international operation of research teams by interconnecting both experienced and young researchers and doctoral students.

2.6 Changes in internal regulations in 2019

Rules of selection procedures for filling the positions of academic, research and development staff, managers and other positions at BUT – amended by Supplement No. 1 effective from March 14, 2019

BUT Study Program Regulations – amended by Supplement No. 1 effective from March 14, 2019

Rules of Procedure of the BUT Scientific Council – amended by Supplement No. 1 effective from December 4, 2019

Rules of Procedure of the BUT Internal Evaluation Council – amended by Supplement No. 1 effective from December 4, 2019

BUT Statute – amended by Supplement No. 3 effective from August 7, 2019 and also by Supplement No. 4 effective from December 4, 2019

2.7 Provision of information pursuant to Section 18 of Act No. 106/1999 Coll., On Free Access to Information

In 2019, the Brno University of Technology received a total of six requests for information pursuant to the above-mentioned law, five of which were granted.

3 Study programs, study organization and educational activities

3.1 The total number of accredited study programs described by the methodology of learning outcomes

In 2019, BUT used the methodology of learning outcomes while creating newly accredited programs. Within the institutional accreditation, there are 69 programs, 5 programs were accredited by the National Accreditation Office.

3.2 The role of the application sphere in the creation and implementation of study programs

In many study programs at BUT, experts in practice take part in teaching: e.g. in all study programs at the Faculty of Mechanical Engineering, at the Faculty of Business and Management in all professionally oriented programs and also in a number of programs at the Faculty of Chemistry and the Faculty of Electrical Engineering and Communication. The selected study programs have professional practice directly in the study plan, while specific companies participate in the implementation of these internships. Students' final theses also often have topics drawing from practice, or the results of the work are well usable in practice in the future.

Each study program is subject to approval by the scientific council of the relevant faculty, with representatives of the internship being represented as external members of these scientific councils. After approval of the program, the reviews of external evaluators are processed, while for professionally oriented study programs it is directly required that at least one review be prepared by a representative in practice. Representatives of the commercial sphere also serve in the Study Program Councils.

Each study program is subject to evaluation, and the program guarantor must prepare an evaluation report. The involvement of practitioners will be described in this evaluation report.

3.3 Other significant educational activities (apart from the implementation of accredited study programs)

The BUT Institute of Lifelong Learning offers courses for the commercial sphere, employee education and senior education (the so-called University of the Third Age, U3V). As a part of the commercial education, a total of 229 graduates took 18 courses organized by ILL. At U3V, 72 courses were implemented with 2,763 students. In 2019, ILL organized a total of 228 courses for employees of the Brno University of Technology, which were attended by a total of 2,148 BUT employees.

In addition to ILL courses, a system for the organization of operational training was also launched in 2019, which enables courses to be held on professional topics aimed at employee development – the lecturers on these courses are internal employees who are experts in the field.

4 Students

4.1 Measures applied to reduce study failure

To reduce study failure, BUT is already taking steps in relation to potential applicants for study. All faculties try to carefully inform applicants about the offer of their fields of study and to acquaint them with what awaits during their studies, not only with the detailed information on the websites, but also at higher education fairs, campaigns directly at secondary schools and also on open days. The information often provided by BUT students themselves will enable applicants to choose the right study program with regard to individual abilities and interest, which is the first prerequisite for successful future study. For example, at the Faculty of Fine Arts, applicants can get acquainted with the school not only on the aforementioned open day, but they can also take guided tours of the school, where they can meet teachers and students of individual studios, and then be very informed about the study program.

Individual faculties of BUT offer preparatory courses for the entrance exams (most often in mathematics and physics; but also preparatory courses for talent exams) and also for first-year students before the start of studies in the first semester. Preparatory courses are offered by practically all the faculties of Brno University of Technology. Sometimes it is also necessary to balance the initial knowledge of newcomers: students of gymnasiums, whose share at some faculties is growing, usually have only marginal technical knowledge. On the contrary, they have a solid knowledge of mathematics and physics, which gives them an advantage in theoretical subjects. The situation is the opposite for graduates of technical engineering secondary schools. These differences between individual applicants after entering the Brno University of Technology are blurred thanks to various optional subjects, such as Selected Chapters in Fundamentals of Design, Selected Chapters in Mathematics or Selected Chapters in Descriptive Geometry at the Faculty of Mechanical Engineering. Teachers on master's degree programs, such as at the Institute of Forensic Engineering, which attracts graduates of bachelor's degree programs from various universities, compiled the first-year subjects during accreditation so that the competencies of the students for the successful continuation of studies are balanced.

In addition, the faculties organize various summer schools. At some faculties, there is also a system of ambassadors, who are students from higher years who provide information about the course and content of studies to incoming students. In addition, in 2019, BUT prepared the recruitment campaign the Technology of Knowledge (www.technika-poznani.cz), which directly aims to reduce study failure. The campaign was targeted at secondary school applicants, and the university wanted to make their choice an informed one. The main heroes of the videos thus refuted some of the myths about studying at the university.

The causes of study failure are able to be identified, for example, in the Alfons Counselling Centre, where students can benefit from individual consultations. In addition, Alfons offers the possibility of further development in the case of specific student needs, for example, the EEG Biofeedback device helps students increase their ability to concentrate, which can have a positive effect on their studies. Special care is then given to students with special needs, who are provided with various services so that they too can successfully complete their studies.

The Student Chamber of the BUT Academic Senate has prepared a Freshman's Handbook for new students, which is available online at www.prirucka.vut.cz, and first-year students will find a lot of information there that can make it easier for them to start and study at BUT.

4.2 Final decisions on the declaration of invalidity of the performance of the state examination or its part or the defence of the dissertation

No such proceedings took place at BUT in 2019.

4.3 Measures applied to limit the extension of studies

One of the significant negative motivations remains the fees associated with exceeding the standard period of study increased by one year, or the threat of it. The study department of all departments tries to inform as much as possible about the conditions of the fee obligation from the very beginning of the studies,, so that students can adapt their study strategy in time and avoid the potential threat of fees. While for the first year after the exceeding the standard period of study increased by one year, this fee is relatively low, if someone is studying even longer, it is a significant financial amount. At the faculties, they also provide students with advice on the organization of studies in specific study programs so that there is no extension of studies.

In this case, too, it can be mentioned that there are preparatory courses which, at the faculties, help students to bridge the transition from secondary to higher education so that they have a higher chance of successfully completing their studies within the set time. BUT also tries to sufficiently present its study programs to its applicants so that graduates can make a good choice of which program they want to study with regard to their interests, abilities and talents. Then there is a better chance that a student will complete the study of the selected study program properly and within the set time.

In master's degree programs, the standard duration of which is usually two years, in some cases the study is extended due to the fact that the student does not manage to complete his/her diploma thesis on time. With regard to this fact, for example, at the Institute of Forensic Engineering, when creating new study programs, they made changes in the organization of study so that students have more time for the diploma thesis and there is no extension of study.

At the Faculty of Information Technology, the most common reason for extending studies is the simultaneous employment of students. Because students most often work in the field they are currently studying, the faculty tries to work directly with companies on a system of student internships, which, compared to traditional employment, allows students to better fulfil their study obligations.

4.4 BUT and specific scholarship programs

Merit scholarships are paid at most faculties. At some faculties, they support gifted students in the first year with an extraordinary scholarship, where they take into account the study results in the first semester of study. At all faculties, students can receive a scholarship if they are engaged in scientific or creative activities beyond the standard study obligations. For extraordinary study or creative performances, students are rewarded with the Dean's Award or the Rector's Award. The BUT scholarship also supports the important representation of the school in sports.

The Rector of the University may award an extraordinary social scholarship to a student in the event of a sudden deterioration in the social situation. The purpose of this one-time scholarship is to help bridge the unfavourable period and thus increase the chances of a successful continuation of the study.

The Student Chamber of the BUT Academic Senate offers active students the opportunity to obtain funding for their idea through the BUT Internal Grant Agency. Projects are assessed by a committee, which can allocate up to several tens of thousands of crowns for selected student activities.

4.5 Counselling services provided to students and their scope

One of the sections of the BUT Institute of Lifelong Learning is counselling. This section provides psychological, study, and career counselling. Another area is social and legal counselling and counselling for students with special needs. The counselling section also organizes a number of courses focusing on the development of soft skills. Part of the activities of this section is cooperation with companies and other organizations and cooperation with the BUT Career Centre. Every year, its employees participate in the organization of the job fair – JobChallenge, which is organized jointly by Masaryk University, Mendel University and the Brno University of Technology at the Brno Exhibition Centre. In 2019, 132 employers from 15 different fields presented themselves at the fair. Approximately 2.7 thousand Brno students took part in the fair, of which about 950 (roughly 35%) were from BUT.

Psychological counselling offers students the opportunity to work on their personal development. Students can decide whether to choose a group or individual form when dealing with their problems, such as difficult life situations, relationship problems, study problems, etc. The number of individual consultations was increased to 7 hours. In 2019, a total of 298 consultations took place.

Career counselling helps in choosing a profession, planning and managing one's own career, but also deals with internal obstacles in choosing a profession and advice in finding a job. A sought-after service is the possibility of compiling a professional CV or coaching. In 2019, 82 consultations were provided at ILL and the number of consultations per student increased to 3 hours. A number of workshops focusing on career counselling were also organized by the BUT Career Centre.

The development and preparation courses are group activities focused on the development of soft skills. The range of courses has been expanded to include courses aimed at preventing academic failure and courses dealing with partnerships. The courses take place in an interactive form in smaller groups (8 to 15 participants) and are either one-day or can take the form of regular meetings. This year, 42 courses took place, which were attended by 431 BUT students. A total of 729 clients from Brno University of Technology used consulting services.

4.6 Support for students with special needs and their identification

Students with special needs (hereinafter referred to as SN) are served at the BUT Counselling Centre Alfons, which is also part of the Institute of Lifelong Learning. Its services are used not only by BUT students and applicants, but also by recent graduates of Brno University of Technology and BUT academic and non-academic staff.

Applicants for study and students with SN (learning disabilities, physical disabilities, mental illness, chronic somatic illness) are provided with support in their studies corresponding to the requirements of the MEYS standards. This concerns in particular the adaptation of the admission procedure and the organization of studies through support services and directing measures. Identification takes place when filling out the e-application, where the applicant indicates his specific need. They are then asked by an Alfons staff member to provide the supporting documents needed to assess the impact of the handicap on the admission procedure. Students apply for adaptation directly by contacting the counselling centre, or they are recommended to do so by the study department or vice-deans for study matters.

Adaptation of the admission procedure represents a change or modification of the admission procedure so that students with SN can prove their skills and knowledge, just like other students. The adaptation of the study is then a change or modification of the study regime so that students with SN can acquire and prove their skills and knowledge again as well as other students. The adaptation itself then takes the form of proposed overhead measures. For example, increasing the time allowance in the examination situation, providing study materials, interpreting into Czech sign language, transcription service (simultaneous or content registration of the curriculum, increased assignment, permission for hygienic breaks, etc.).

The centre also offers personal assistance, software rental, additional English language instruction, proofreading of final theses and language counselling in Czech and English. In the spring semester of 2019, 23 students and 6 students used additional English lessons as part of individual consultations, and in the fall semester of 2019, a total of 18 students and 7 individually used them.

Alfons also has an EEG-biofeedback device, which is a modern method of therapy that allows you to control your own brain waves. It is the self-learning of the brain using what is called biological feedback. It alleviates a number of difficulties, including learning and attention disorders, sleep and speech disorders, anxiety or depression. In cooperation with the BUT Central Library, the SunBall rehabilitation facility is available, the aim of which is to develop cognitive functions and physical abilities. It is extremely suitable for working with students with specific learning disabilities, attention deficit disorders, autism spectrum disorders, and also students with post-traumatic conditions. In 2019, the Alfons Counselling Centre took care of 182 students with SN.

4.7 Support and work with exceptionally gifted students and those interested in studying

At some faculties and parts of BUT, they try to attract gifted secondary school students, for example in the form of an offer of topics for the secondary school professional activities. For example, at CEITEC BUT, they enable selected secondary school students to try out work at a research institute, where the best of them can become full members of scientific teams (CEITEC Student Talent project).

Faculties can reward gifted students with merit or special scholarships. For example, many faculties offer scholarships for gifted and talented students, which are paid in the form of the Dean's Award. In some cases, these funds are provided by partner companies. Faculties can also nominate talented students for the Rector's Award or for external competitions (for example, Brno Ph.D. Talent, Werner von Siemens Award, Josef Hlávka Award, etc.).

Active students can participate in various student associations and organizations, they can participate in foreign conferences, and doctoral students can then use funds from their participation in specific research. The five hundred best graduates who start their first year of study at Brno University of Technology will also receive a one-time financial contribution of 6,000 CZK (applies only to graduates of the Czech State Maturita). Exceptionally gifted students are also involved in specific projects that are addressed at the institute level.

At the Faculty of Fine Arts, exceptionally gifted students are often invited to external exhibition projects or have the opportunity to meet representatives of important art institutions on the recommendation of their teachers. They have the opportunity to establish themselves on the artistic scene before completing their studies.

4.8 Support for students with socio-economic disadvantages and their identification

The university does not have a clear tool for identifying students with socio-economic disadvantages. The S-Kompas counselling centre, to whom they can apply with their problems, is at their disposal. In 2019, the most common topics were fees for extended study periods, accommodation scholarships, scholarships in general, and social benefits. A total of 12 orders were carried out. The Social Legal Counselling Centre has strengthened the service with more individual consultations with the counsellor, and supports the interconnection of services within the centre with a subsequent consultation with a psychologist and the EEG biofeedback method.

We also support the interconnection of services with other state and non-profit entities that provide counselling to students in the field of social and legal services. These are, for example, the Labour Office and the CSSA and school subjects, non-governmental organizations, civic associations, non-profit organizations or endowment funds according to the type of a handicap and student order (e.g. IQ Roma service, the Union of the Deaf, Tyfloservice, Foundation (Nadačník), Olga Havlová Foundation, etc.).

Students in difficult social situations may also have their tuition fees reduced if they are required to pay them, taking into account the specific social and family situation of the student. The fee must always motivate the proper completion of studies, but it should not be a fatal obstacle to the completion of studies, if otherwise the student meets the requirements for proper completion of studies. Students can also pay the fee in instalments.

4.9 Parental support among students

A student-parent can apply for an individual study plan at their faculty. This applies especially to student-mothers in the period when they would otherwise take maternity leave. These students may, in the period around the date of childbirth, request a postponement of the fulfilment of study obligations. At the Institute of Forensic Engineering, both parents of a child under the age of three can apply for an individual adjustment of the attendance obligation to subjects where participation is necessary. At the Faculty of Fine Arts, it is also possible to adjust the schedule and individual consultations so that students can also fulfil their parental responsibilities.

In some cases, parents can also apply for support in the form of a scholarship (e.g. at the Institute of Forensic Engineering). Students who are the parents of a child under the age of three may temporarily interrupt their studies, and such requests are always granted by the Dean, and the period of interruption due to parenthood is also not counted towards the maximum period of study. The time when the student studies in the legally defined "recognized period of parenthood" is not counted in the total period of study, from which the so-called fee obligation is later calculated.

Edisonka mini-kindergarten has now also been operating at BUT for six years. It is located in the FEEC complex, but is intended for children of employees of all faculties of the Brno University of Technology. It is not a classic kindergarten, but a regular babysitting in the form of a children's corner, for children under 6 years of age. At the Faculty of Chemistry, a room was set aside as a background for a rest room for student-parents who take turns in caring for the child between the individual teaching blocks. In addition, some toilets at BUT are equipped with changing tables.


ZLATÁ PROMOCE ABSOLVENTŮ
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5 Graduates

5.1 Cooperation and contact with graduates

Through the web portal www.vut.cz/absolventi, the university regularly provides information about current events in the life of the university, bringing not only interviews with successful graduates, but also invitations to social and educational events. The graduate portal also has a module for verifying diplomas and certificates. Graduates will also find the archive of the VUTARIUM newsletter, which the university sends them by e-mail three times a year, and the archive of graduate surveys. These are carried out every two years and obtain information about their further professional life and thus maintain the feedback necessary to evaluate their employment in the labour market.

Another opportunity to strengthen ties with graduates are through graduate meetings. In 2019, when the university commemorated 120 years since its founding, the so-called Golden Graduation was organized for the first time for graduates. During this academic ceremony, more than a hundred graduates commemorated their graduation ceremony 50 years before. As part of the Let's Celebrate festival in May, all faculties and workplaces of the Brno University of Technology opened their doors, so younger graduates also had the opportunity to visit their alma mater.

Individual BUT faculties have also been cooperating with companies and personnel agencies for a long time, both at the professional level and at the level of personnel offers, participation in trade fairs, job opportunities, internships, etc. The Marketing and External Relations Department provides ongoing information services for graduates. It helps them to connect with the relevant departments, e.g. during the verification of diplomas, confirmation of study, transfer of contacts to the BUT Archive, etc.

The department is also responsible for managing the BUT profile on the LinkedIn professional graduate network, which is not only a valuable source of information about graduates, but also a place for publishing university news, invitations and interesting facts.

5.2 Monitoring the employment of graduates, measures to increase it, own surveys and reflection of results in the content of study programs

In 2019, as is traditional after two years, a survey was conducted among graduates of follow-up master's studies, this time between the graduate years of 2017 and 2018. We managed to obtain 1,028 fully answered questionnaires, which represent a return of 25%. It turns out that the situation on the labour market is still very favourable for graduates of technical fields, which was reflected in the speed of employment (94% of graduates had some work within 3 months after graduation, of which 66% even before graduation), both in the increase of starting and current salaries. In addition, the newly added questions showed that 93% of graduates perceive that without studying at BUT, their current job and other job opportunities would not be as they are thanks to the graduation of our university.

At the end of the year, we also launched a survey among students of the last years of follow-up master's studies, in which we also focus on the applicability of graduates (we find out if students are already working, looking for work in the field, how their study prepared them for practice and how they personally perceive different aspects of their study as important in application).

5.3 Cooperation with future employers of students

At the university level, cooperation with the application sphere is conducted through the BUT Career Centre project, the aim of which is to deepen students' practical experience, connect them with employers, and support their career development and entrepreneurial spirit. To this end, the university cooperates not only with major companies that are ideal for enabling students to gain practice and experience from real operation, but also with start-ups and small companies, which have both motivating and educational benefits for students.

Companies have the opportunity to advertise their job offers, internships and practice on the BUT Career Centre website: www.kariera.vut.cz and, since November 2019, also in the Career Centre advertising group on the Facebook social network, where they are closer to students. They can join a mentoring program (long-term mentoring), provide their professional outlook within Mentor Coffee (short-term mentoring), or become a long-term partner of the university by joining a partner program, which also includes the BUT Business Club.

In May 2019, a meeting of VIP partners with BUT management took place within the BUT Business Club. The representatives of the application sphere were introduced, among other things, to the possibilities of mutual cooperation leading to the deepening of theoretical and practical experiences of students and their better future employment, and feedback from the partners was taken into account.

The university also offers short-term accommodation at BUT halls of residence, rental of representative spaces suitable for conferences, seminars, exhibitions, presentations and social events, as well as chamber and organ concerts. It is also possible to use the rental of BUT sports grounds, which are also offered for commercial use.

At the faculty level, as well as at the level of institutes, there is cooperation with future employers, or with the application sphere, through cooperation in contract research, participation in projects based on the connection of scientific teams with the possibility of using a portfolio of patented and other solutions. There is also cooperation at professional conferences, and companies have the opportunity to use the laboratories of faculties and parts of BUT, research centres and scientific teams of Brno technology.

Cooperation with future employers of BUT students also takes place through the organization or participation in job fairs. In 2019, employers had the opportunity to meet BUT students at the iKariéra job fair at the Faculty of Business and Management, organized by the student organization IAESTE LC Brno, and at the Faculty of Electrical Engineering and Communication at the PerFEEC JobFair fair, which is attended by companies operating in the electrical and IT field. Furthermore, at the Faculty of Mechanical Engineering, which hosts the annual Company Day at FME attended by representatives of companies targeting graduates in the field of mechanical engineering. In November, the 13th JobChallenge 2019 Job Fair took place at BVV. BUT participated in the fair in cooperation with Masaryk University and Mendel University in Brno, where students and graduates could get to know each other and get contacts from future employers.

In 2019, several workshops were held in cooperation with companies that are interested in BUT graduates. Within these workshops, a technical week was organized. In cooperation with the South Moravian Innovation Centre (SMIC) and under the guarantee of the Rector, the university-wide project Let's Do Business! The Career Centre subsequently worked with students who were interested in deepening their knowledge in the field of business and organized the Start-up Academy. It was a series of workshops focused on business, mostly the beginnings of business, provided by professionals from practice.

6 Interest in studying

6.1 The nature of entrance exams

Entrance exams are carried out by individual BUT faculties, unless they use the services of the Scio company, which regularly organizes National Comparative Examinations. Otherwise, the entrance exams consist mostly of secondary school mathematics and physics, it always depends on the specific study program. Most faculties also have an extensive system of opportunities to waive entrance examinations, based on achievement, participation in various competitions (especially in secondary school activities, participation in various Olympics), etc. For example, the Faculty of Information Technology seeks to find active candidates who, while at secondary school, are already involved in activities beyond their study obligations. The Faculty of Architecture, the Faculty of Fine Arts and architectural studies within the Faculty of Civil Engineering, have a talent component in their entrance exams. The Faculty of Electrical Engineering and Communication for the study program Audio Engineering, and the Faculty of Mechanical Engineering for the program Industrial Design in Mechanical Engineering also have a talent exam.

Some faculties have included the possibility of waiving entrance exams as part of winning one of the high school competitions. For example, the Merkur PerFEEC Challenge is a competition at the BUT Faculty of Electrical Engineering and Communication, where individual teams construct a functional prototype of a device from a Merkur kit. The best ones then have the opportunity to be admitted to selected FEEC study programs without an entrance examination. Similarly, there is the waiver of entrance exams as a form of winning offers, for example, the Business Point competition at the Faculty of Business and Management, Roboti@FME at the Faculty of Mechanical Engineering, STAVOKS at the Faculty of Civil Engineering, etc.

6.2 Cooperation with secondary schools

In 2019, Brno University of Technology eagerly came into contact with secondary school students and informed them about the possibilities of studying at the Brno University of Technology. It not only connected dozens of secondary school students with BUT students, but also organized a meeting between the Rector and secondary school principals. It also tried to bring the technical fields closer and promote interest in their study with the help of the FabLab Experience project, and the wide scope of the presentation at Gaudeamus trade fairs.

This year, with the so-called roadshow through secondary schools, we addressed third- and fourth-year pupils from more than 15 secondary schools in South Moravia, the Moravian-Silesian Region, the Vysočina Region and the Pardubice and Zlín Regions. The presentations of BUT students, who went individually to the secondary schools where they had successfully completed their graduation studies, also had an impact. Information on studying at BUT thus spread further, for example, in the Central Bohemian Region and in Slovakia.

BUT values schools that provide promising and talented students so we evaluate the TOP500 ranking every year. It includes the most successful graduates who will start the first semester at one of the eight faculties. The principals of these schools are then invited each year to a joint meeting, which represents negotiations on future joint cooperation and care for the most successful and talented students. The invited guests meet regularly with the Rector in the first quarter of the new year, and for 2019, 15 invited directors took part in the event.

Furthermore, the FabLab Experience project in which BUT is one of the main partners, was fully launched. In 2019, the project from the FabLab Brno workshop visited 6 secondary schools in Olomouc, Zlín, Ostrava and Chrudim on behalf of BUT in the form of a truck trailer. It also contributed to the support of the popularization of science at 4 events organized or co-organized by the Brno University of Technology. Detailed and comprehensive information about studying at BUT was also available to representatives of faculties at four Gaudeamus post-secondary education fairs in Brno and Prague, and in Slovakia in Bratislava and Nitra.

The last contributors to the harmonious contact between secondary school students and the university are competitions, secondary school professional activities and partial rounds of branch Olympiads, in which individual BUT faculties are involved. The purpose is to support the appetite and willingness of students to study technology. Creativity and logical thinking at FME are supported, for example, by the Roboti@FME and the Wings of Future team competition. At the Faculty of Business and Management, 8 final teams competed in the Business Point competition testing the creative activity and imagination of pupils on a specific case study. The scientific-professional conference STAVOKS of the Faculty of Civil Engineering and IT and Safety from FIT are two of the many other regular activities offering secondary school students the opportunity to get to know science and technology in a university environment.

7 Employees

7.1 Career Code for the academic staff and motivators for employee remuneration

BUT has a Concept of Human Resources Development document (approved in 2019). The human resources development strategy itself and the career rules have not yet been worked out. However, the career progression of academic staff is regulated by the Rules of Habilitation Procedures and Procedures for the Appointment of a BUT Professor. BUT employees are currently working on the Academic Staff Evaluation System.

BUT employees have the opportunity to participate in the Erasmus+ and MeMoV programs, within which they mainly use language courses abroad and staff weeks. They can also participate in international mobility of researchers to foreign research institutes.

This year, CEITEC BUT researchers began preparing the evaluation process with the international ISAB evaluation. As of 11 November 2019, the Brno University of Technology itself applied for the HR Award and started the HRS4R process. By November 2020, it will prepare a university-wide GAP analysis, conduct a Questionnaire Survey for all researchers, academicians and technical-economic staff and doctoral students, and also develop an OTM-R Policy and prepare an Action Plan for the next two years.

As part of the preparations, the BUT Human Resources Management Strategy, evaluation in science and research will also be developed, conceptual scientific research support for university staff will be created, and basic support for foreign staff and researchers mainly in translating basic documents and forms, will be completed.

7.2 Development of pedagogical skills of academic staff

Employees have the opportunity to participate free of charge in training courses at the BUT Institute of Lifelong Learning, while career development planning is still fully within their competence. The requirement "to continuously work on the development of one's abilities and skills, to continuously educate oneself and to deepen one's professional knowledge" is contained in the BUT Code of Ethics.

The BUT Institute of Lifelong Learning prepares courses in the field of teaching and presentation skills, and also regularly offers doctoral students a Supplementary Pedagogical Minimum course. The institute also offers employees individual consultations with a psychologist in order to set the personality profile of the employee in relation to their profession (diagnosis of strengths and weaknesses, etc.).

The MOST project (Modern and Open Technical Studies) also made a significant contribution to the education of Brno University of Technology employees in 2019, with courses focused on working with technology, teaching methodology and language courses being implemented.

7.3 Gender equality

The basics of gender equality are contained in the BUT Code of Ethics (equal access to both sexes, e.g. when evaluating employees, drawing benefits, etc.).

While women predominate in non-academic positions, men are the dominant group among academicians. BUT gender policy will be comprehensively addressed in the following year as part of the fulfilment of materials for obtaining the HR Award, for example by advertising, which will support and motivate women to apply at BUT. We also want to focus on supporting female Ph.D. students in their study and scientific profiling.

BUT supports the reconciliation of family and work life with flexible working hours, the possibility of part-time work, and its own Edisonka mini-kindergarten. It also supports home office options where possible (where operational reasons do not prevent this), which supports employees who are parents.

Regarding the filling of managerial positions, these rules are determined by the Rules of Competitions. In the future, BUT also wants to focus on more gender-balanced selection committees, where this will be possible with regard to the position of the announced selection procedure.

7.4 Issues of sexual and gender-based harassment

Every employee is obliged to comply with the BUT Code of Ethics. It regulates, for example, the issue of discrimination, observance of moral principles, collegial behaviour, and defines the manifestations of abuse of position, sexual coercion and harassment or degrading treatment. If such a case occurs, it must be discussed and resolved by the BUT Ethics Committee.

8 Internationalization

8.1 Support for students' participation in foreign mobility programs

The priorities of the Brno University of Technology for 2019 in the field of internationalization are determined by the BUT Strategic Plan for the year, and its long-term strategy in the field of foreign relations. The university primarily aims to increase the mobility of students and staff to and from abroad, and to increase active cooperation with other countries.

BUT actively supports and tries to motivate students and employees to go abroad for a study stay, internship or summer school. It perceives that this is an indispensable experience for students when applying in the labour market. During their stay abroad, students gain not only study experience, but also valuable life experience that they would not gain when only studying in the Czech Republic. In the same way, employees gain invaluable experience, which they can apply in their agenda and activities at BUT.

To motivate students to go abroad, the BUT Department of International Relations organizes events such as Move´in Europe or International Mobility Day. The Department of Foreign Affairs is also actively building a network of ambassadors, both Czech and foreign students. This network is intended to help create important information channels between students and potential international students.

Other tools for promoting study and internships abroad use classic tools such as websites, Facebook and Instagram. The monthly Newsletter is also published in electronic form. In the Newsletter, students will find current or upcoming deadlines for submitting applications for trips abroad and events and activities organized by international student associations.

BUT has also been involved in cooperation with Brno universities (Masaryk and Mendel University) promoting both study programs and the Brno region abroad. It applied for the CDP project Study in Brno, in which the three largest universities in Brno participated. The project was supported by the Ministry of Education, Youth and Sports and BUT thus gained another tool for the promotion of its activities abroad, not only in the field of study, but also in the field of science.

The Department of Foreign Affairs also annually organizes the International Staff Week, which is intended for colleagues from foreign universities, and where the main topic is the internationalization of university studies. Thanks to this event, experiences and practices from this area are shared. We also succeed in deepening and establishing further cooperation between BUT and foreign universities.

Mobility abroad takes place primarily through the Erasmus+ program. Other no less important programs that are increasingly used include foreign educational programs, such as CEEPUS, AKTION, scholarships of the Academic Information Agency, etc. The so-called Free Mover mobility is very popular among students. It is concerned with student mobility all over the world, where the stay is mainly financed from institutional development projects of the Ministry of Education. Also interesting and beneficial are the mobility programs organized by IAESTE (International Association of the Exchange of Students for Technical Experience) and BEST (Board of European Students of Technology), which allow students of technical schools to gain experience in internships and summer schools around the world.

BUT takes care of maintaining and improving the conditions for recognition of subjects that students have completed during their stays abroad. The Rector's directive, which sets the recognition of subjects completed abroad, is used for this purpose. In general, there is an effort to ensure that students do not extend their studies, but complete them within the given deadline, even when including studies abroad.

The Department of International Affairs is also continuously implementing its goal of reducing the administrative burden in the form of electronic agenda in handling mobility abroad, both for students and employees, and for faculties/departments and employees of the Department of International Affairs of BUT. The department is therefore preparing the electronic Erasmus+ agenda, the so-called Erasmus without paper, which is also the intention of the European Committee.

Every year, BUT organizes a Welcome Week for foreign students before the beginning of each semester. The aim of the event is to acquaint foreign students with the environment of BUT, Brno, to inform them about cultural customs, and to prepare them for possible cultural differences. Last but not least, foreign students will be able to complete the necessary formalities for studying and staying in the Czech Republic.

BUT actively participates in foreign trade fairs, where it promotes its offer to foreign students, employees, researchers and possible partners in future cooperation. It is also looking for opportunities in which foreign university students, staff, scientists or researchers from BUT can gain foreign experience. In 2019, the Department of Foreign Affairs participated in the trade fairs APAIE (Asia-Pacific Association for International Education), NAFSA (National Association for Foreign Student Advice) and EAIE (European Association for International Education).

To attract foreign self-payers, BUT actively participates in the Study in the Czech Republic platform, which promotes the university's study offer to potential foreign students. This activity is managed by the House of Foreign Cooperation. BUT also cooperates with the South Moravian Centre for

International Mobility (SMCIM), which provides BUT with other foreign students studying in the Czech language. Part of this cooperation is also implemented by the SoMoPro project, thanks to which BUT acquires top scientists.

BUT uses other foreign study portals to promote its study offers abroad. Brno Technology also plans to work with a foreign expert who has experience with the Czech university environment. Their task will be to bring BUT closer to foreign students and to penetrate the Asian educational markets.

BUT has joined the call of the OP RDE International Mobility of Researchers. This format significantly helps to stimulate the researching mobility, both from BUT abroad and vice versa.

This activity greatly helps to gain foreign experience, which is valuable for BUT. From 2020, it will also be possible for administrative staff to get involved in this project and gain experience abroad.

BUT is a member of international organizations such as the European University Association (EUA), the European Association for International Education (EAIE) and the university network of technical universities CESAER (Conference of European School of Advance Engineering, Education and Research).

In 2019, BUT concluded 22 university-wide cooperation agreements, the so-called Memorandum of Understanding, with countries such as Japan, South Korea, Israel, and Oman.

8.2 Integration of foreign members of the academic community

The integration of foreign members of the academic community into the life of the university is one of BUT's priorities in the field of internationalization. Due to the fact that Brno technology has considerable scientific and research potential within research centres, there is a growing interest in recruiting foreign academic and scientific staff at BUT. As was mentioned above, one of the forms of support for the mobility of researchers is the OP RDE project International Mobility of Researchers.

One of the activities for the successful integration of foreign scientists, researchers and academics is a functioning Welcome Services. BUT managed to build a central Welcome Service, launched in 2019, with the services within it being provided by the BUT Foreign Relations Department. It is important for our university that foreign colleagues feel good about Brno University of Technology, not only in terms of the level of provision of services and information before the arrival of a foreign employee, but also during their stay. Services and information are also provided to family members of foreign employees, who very often accompany them.

As part of the implementation of the central Welcome Service, BUT works closely with the South Moravian Regional Centre and EURAXESS to support the integration of foreigners. Brno University of Technology perceives that a very important aspect of internationalization is the acquisition of visiting academicians who will work at BUT. The aim of the university is the seamless integration of foreign members of the academic community.

9 Research, development, artistic and other creative activities

9.1 Strengthening the link between creative and educational activities

In all strategic materials, BUT declares that it strives to profile itself as a European research university with all the attributes associated with this. The aim of all academics and researchers is to participate in prestigious international and national projects of basic research, applied research and, through contractual cooperation with industrial partners, to create results that correspond to the latest scientific knowledge and have a high application potential with a significant degree of commercialization. The resulting outcomes from creative activities are incorporated into lectures, exercises and seminars for students of all accredited fields. In 2019, materials for institutional accreditation were prepared at BUT, and in connection with them, new findings from research activities were reflected at individual faculties, and in components in blocks of teaching so that they correspond to the latest level of knowledge in the given research area. Each faculty has exclusive research directions in its creative activities linked to the projects being worked on, it directly involves students in their solution and thus innovates individual forms of teaching. The direct connection of the results of all forms of creative activity with teaching enables future BUT graduates to obtain adequate education with a high potential for employment on the international labour market, in practically all areas of advanced technology.

9.2 Involvement of students of bachelor's and follow-up master's degree programs in creative activities

BUT emphasizes the strengthening of independent creative activity by students in cooperation with academic staff in the field of research and development aimed at the intensive involvement of students in the issues addressed, especially in team research and development activities at faculties and departments. The grants awarded annually as a part of student-specific research contribute to increasing the quality and efficiency of scientific, research and artistic work, and to the development of interdisciplinary disciplines in doctoral and follow-up master's studies, international cooperation and support of the publication of results, which is in line with BUT Strategic Intent. Grants are financed from the targeted support of the Ministry of Education, Youth and Sports.

The involvement of students at individual faculties and parts of BUT is an integral part of solving research, development and artistic projects of all types. The largest number of students in follow-up master's and doctoral programs are involved in projects organized as a part of a student grant competition, which is funded by the Ministry of Education, Youth and Sports allocated to BUT for specific university research. In 2019, a total amount of 81 million CZK supported 199 student junior and standard projects, which are organized on the basis of internal regulations as one-year faculty, one-year interfaculty and three-year faculty projects. The form of interfaculty projects focuses on multidisciplinary cooperation, optimal use of new devices and technologies and infrastructures. The results of the work are defended at each faculty or department at a student conference organized at least once a year. The assessors of works are professors and associate professors at BUT, but experts from practice are also represented on the committees. These are mainly companies with which BUT has a long-term cooperation or where BUT graduates find employment. Students have the opportunity to present their level of knowledge, creative skills and research at their conferences. Furthermore, students participate in the program of the National Competence Centre, where 11 co-research projects are run, of which BUT is the main beneficiary of two.

Another system at BUT is the running of year projects, bachelor's and master's theses, the content of which is assigned directly by industrial companies. The results are mainly of a technical nature, taking the form of a research report describing the result of the functional sample, prototype or software type. Publications are also created from the contents of the solution, both in impacted journals and in journals with reviews or proceedings published at conferences.

Students of all forms of study are also involved in basic research within the BUT Motivation System, where the authors or co-authors of a publication that is indexed in WoS are supported by a scholarship. A significant increase in the number of students involved in research activities was brought about by the announcement and acquisition of projects in the TA CR Zéta and TA CR Gama programs. In these projects, students of follow-up master's and doctoral programs are part of research teams with significantly better outputs.

Various awards also testify to the high professional quality. In 2019, Veronika Grézlová's work in the Werner von Siemens Award competition in the Best Diploma Thesis category

was awarded the third place. The content of the work is the replacement of antibiotics in injectable bone cements with non-metallic selenium nanoparticles. Ondřej Halla, a graduate of the Faculty of Civil Engineering, received the Prometheus CTI CR 2019 award from the Guild of Heating Engineers and Plumbers of the Czech Republic for the best diploma thesis entitled Microclimate of Pool Halls. An extensive list of our awarded students can be found in the introductory part of the annual report in the Achievements and Awards chapter.

9.3 Dedicated funding for research, development and innovation obtained in 2019

In 2019, BUT received a total of 1.5 billion CZK in current and capital funds as a part of targeted support for the science and research projects. Of which 975 million CZK as the main researcher and 575 million CZK as the co-researcher. As a part of the cooperation on the solution of the BUT project, it transferred 206 million CZK to the partners. The largest share consists of subsidies obtained within the projects of TA CR, GA CR and MIT within co-research projects.

9.4 Support for doctoral students and staff in post-doctoral positions

The strategy of supporting doctoral students and post-doctoral students at BUT is implemented primarily at the level of individual faculties and components. This is mainly due to the specificity and financial demands of the training programs for these students and young workers. The school-wide level supports the implementation of the strategy, in particular by setting strategic priorities within the Institutional Plan. The individual projects serve the individual development of doctoral students and young academic staff who complete their doctoral studies and continue their careers at BUT. Great attention is paid to the arrival of young foreign researchers and their integration into research within projects from operational programs. In the projects of the National Sustainability Programs (NSP), jobs were created for graduates of doctoral study programs, young workers participated in work for the NSP and related projects needed for sustainability. Professional seminars were held for doctoral and post-doctoral students, the basic goal of which was the systematic support of specific human resources and their development, further education in the European context and, especially, the creation of suitable conditions for their inclusion in research groups. An integral part is their training in knowledge transfer of technology and the protection of intellectual property. We also pay attention to the dissemination of information on the possibilities of establishing spin-off and start-up companies. Here we work closely with the South Moravian Innovation Centre, which offers a range of motivational projects and support in this area. The BUT project support department focuses on providing more detailed information from seminars on projects aimed at doctoral and post-doctoral students.

At BUT, doctoral students have the opportunity to expand their qualifications with additional pedagogical studies. This is a one-year course provided by the Institute of Lifelong Learning (ILL) of BUT, the proper completion of which is marked by the attaining a certificate of completion of the course. More about the course is in the chapter Development of pedagogical skills of academic staff.

Some BUT faculties cooperate in the implementation of doctoral studies with selected institutes of the Academy of Sciences of the Czech Republic, namely with the Institute of Analytical Chemistry, the Institute of Materials Physics and the Institute of Instrumentation. Furthermore, doctoral students can acquire additional knowledge and skills within ILL courses. These are courses in soft skills, legal basics and other practical skills.

In 2019, a number of doctoral and post-doctoral students received awards for their work. For example, Vojtěch Mrázek from the Faculty of Information Technology at BUT won the most prestigious Czech award for science and research, the Czech Head Award. The Jindřich Chalupecký Award was accepted by Andreas Gajdošík, a graduate of the Intermedia Studio at the BUT Faculty of Fine Arts, who is continuing his doctoral studies here. More information about the awarded doctoral students can be found in the introductory part of the annual report in the chapter Achievements and awards.

9.5 Cooperation with the application sphere on the creation and transfer of innovations and their commercialization

BUT's important industrial partners include, for example, Škoda Auto, Honeywell, T-Mobile, ČEZ, ABB, ON Semiconductor, Prefa Brno, EON, Siemens, BD Sensors, Thermo Fisher Scientific, Linet, AT&T, Red Hat and many others. BUT has a wide range of results and innovations that can help commercial partners in their activities. Stable possibilities of cooperation include, for example, specific technical solutions in the form of a service, while BUT protects the results according to their nature (possibility of patent protection).

Representatives of companies and experts from practice are also external members of the scientific councils of faculties and thus participate in the preparation and approval of study programs. One of the examples of cooperation with practice is the Industrial Project subject at the Faculty of Mechanical Engineering. This course is aimed at gaining practical skills and experience in solving a specific problem assigned by an industrial partner. The assignment of the topic is performed by the company in agreement with the teaching workplace of the faculty, the student solves the problem independently and consults the work procedure with the company's employees.

9.6 Support for horizontal (intersectoral) mobility and education aimed at developing competencies for innovative entrepreneurship

The development of competencies for innovative entrepreneurship is ensured at BUT by the Career Centre. It was created in the direct solution of one of the activities of the university-wide project MOST (Modern and Open Study of Technology), which BUT obtained from the call of the OP RDE. The entrepreneurship support courses are provided for students and all university students can take part in them. In 2019, the Let's Do Business! Activity started in cooperation with the South Moravian Innovation Centre. Since the autumn, students have been able to visit six educational blocks led by experienced lecturers from practice, check out teamwork on a business idea, and obtain funding in the Student Entrepreneurship Award competition. Those who attended workshops focused on entrepreneurship, submitted an elaborate business plan and will present their idea to a professional jury in 2020. In the final, up to 800,000 CZK will be distributed among the ten best ideas to support business.

The area of intersectoral mobility is also supported by realized internships and internships of students in industrial enterprises, which are also organized within the teaching at some faculties, and professional lectures, which are led by important experts from practice.

10 Quality assurance and evaluation of implemented activities

The BUT Internal Evaluation Board (hereinafter IEB), established by the BUT Statute, is the central body that ensures the quality of educational, creative and related activities. The quality assurance and evaluation of implemented activities takes place according to the Rules of the quality assurance system of educational, creative and related activities, as well as according to internal evaluation. In 2019, the activities of the IEB focused mainly on the assessment of applications for the possibility of implementing study programs within the framework of institutional accreditation and also on the approval of draft study programs submitted to the National Accreditation Office for Higher Education (NAO).

The procedure for discussing applications for the implementation of study programs is regulated by internal regulations and standards, namely the BUT Study Programs Rules, the Rules for Discussing Accreditation Proposals and Study Programs in the BUT Internal Evaluation Board and BUT Study Program Standards. In 2019, two completely new standards were created that responded to the powers of BUT arising from institutional accreditation, namely the Assessment of Foreign Education of Applicants for BUT in the Admission Procedure and the document Education in an Internationally Recognized Course.

In 2019, BUT received institutional accreditation for eight areas of education for a period of ten years. These are the following areas of education: architecture and urbanism, economics, electrical engineering, energy, chemistry, informatics, construction and engineering, technology and materials. The granting of institutional accreditation gives BUT the right to independently create and implement bachelor's, master's and doctoral study programs. In the course of 2019, five meetings of the IEB were held, at which the Board decided on the authorization to carry out 69 study programs (7 in economic fields, 19 in electrical engineering, 5 in chemistry, 2 in computer science, 24 in construction and 12 combined study programs). In 2019, no further evaluation of study programs took place, as most of them were newly accredited.

In addition to assessing applications for authorization to conduct study programs, the IEB dealt with the discussion of valid regulations and their amendments. A considerable attention was paid to the preparation and discussion of the Addendum to the Report on Assurance and Internal Quality Assessment at BUT for 2018. This was the first amendment (the Report on Quality Assurance and Internal Evaluation at BUT was issued in April 2018) and reflected the results and measures aimed at improving quality in 2018.

An important source of quality assurance at BUT is the evaluation of educational activities by students, BUT graduates and employers. The subject of evaluation is the quality of pedagogical activities of individual teachers and the quality of ensuring and implementing the teaching of the study subject. The evaluation takes place anonymously in the BUT information system. Each teacher has access to the complete results of their assessment, including verbal comments from students. At the end of the semester, each faculty is obliged to prepare a summary report on the evaluation of teaching, and after discussion in the academic senate of the faculty, these reports are published chronologically on the Quality Assessment page within the BUT Official Board. In 2019, the biennial evaluation by graduates and employers took place. The evaluation of the quality of educational activities includes a competition for the best teacher according to BUT students. Based on the evaluation, the 10 best teachers in bachelor's and follow-up master's degree programs are announced at the faculty.

The evaluation of research and development results was focused on comparative analyses within the Czech Republic. The subject of the analysis, which was carried out using the InCites analytical tool from Clarivate Analytics, was the publishing activity contained in the world-renowned Web of Science database. The bibliometric analysis was performed for 12 universities based in the Czech Republic in 12 scientific disciplines for the years of 2013–2018. Furthermore, an analysis of multi-authorial articles in the Web of Science database according to scientific disciplines was performed. The aim of these analyses was not only to provide scientists and researchers with feedback on their publishing activities in comparison with other scientific research institutions in the Czech Republic, but also to motivate them to perform better in their publishing activities. Considerable attention was also paid to analysis of the error rate in reporting the outputs of research, development and innovation activities, the aim of which is to set up reporting processes so that there are no losses in the evaluation of RDIC due to error rate in publication outputs.

As part of assessing the quality and performance of publishing activities, BUT representatives, both through the CRC and the UC, tried to draw attention to some shortcomings in the evaluation of science and research in the Czech Republic using the Methodology 17+. It was, for example, the promotion of the inclusion of the shares of individual universities and institutes of the Academy of Sciences of the Czech Republic in the framework of publishing activities, as well as the specification of the evaluation in the M1 methodology, and on increasing the share of applied and contract research within the Methodology 17+, as this type of research, and the associated outputs, is also a measure of the quality of research activities, especially for technical universities.

BUT also took the first steps to obtaining the HR Award at the end of 2019. On November 11, 2019, Brno University of Technology was registered with the European Commission as an institution subscribing to the Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, giving the university the path to obtain the prestigious international HR Award. The European Committee confirmed BUT acceptance and set a deadline for submitting the necessary documents by November 11, 2020. These documents also include an analysis of compliance between the requirements of the Charter and the Code and the action plan to set the appropriate staffing strategy for researcher development and processes.

In accordance with the plan for the development of internationalization and mobility of employees and students at BUT, the following activities were implemented in 2019: The Department of Foreign Relations in cooperation with CISC continued to build a system for data acquisition, especially in the area of incoming foreign workers and students at BUT. This data will be used to evaluate and manage activities in this area. Furthermore, an evaluation of international agreements was performed and steps for their effective use were proposed, and in the discussion with representatives of faculties and components, partial steps were evaluated to establish the principles of management and evaluation of communication quality between the BUT Rectorate and faculties and components. BUT participated in the Monitoring of Internationalization by the House of Foreign Cooperation and incorporated the results of the report into the planned activities for the coming years. The Department of Foreign Relations also initiated cooperation with a foreign expert in the field of attracting students from abroad and established a plan of stages for achieving the set goals with controllable partial outputs. An evaluation of all forms of mobility was also carried out and the creation of a plan for improving procedures to stop the decline in activities was started, especially for outgoing students. In the end, the operation of the Welcome Service at BUT was evaluated and in cooperation with other partners in Brno, activities for the improvement of the offered services were started.

Although more information on the international evaluation of BUT can be found in the following chapter, it is worth mentioning, for example, the external evaluation of FFA completed this year by the international agency EQ-Arts (European Quality Enhancement Agency for the Arts). The aim is to implement the created evaluation tools, while the resulting data obtained from applicants, students and graduates will serve as a basis for further increase the quality of the educational process at the evaluated art faculties.

Quality assurance at BUT is a strategic task of management, therefore it was supported by partial projects within the BUT Institutional Plan for 2019–2020. The aim of the projects is to support the building of a database for quality evaluation and the development of a quality management system, the preparation of an evaluation system for the academic staff and the self-evaluation of research and development results. The development of the internal quality assurance and evaluation system is also supported by the MOST project (Modern and Open Technical Studies).

With regard to the conclusions of the evaluation group of the European University Association, process analyses according to ISO 9000 performed by the Quality Department of BUT were attenuated. Support was given only to those faculties that expressed interest in the certification or recertification of quality management systems and its components by an accredited body.

11 National and international excellence of the university

11.1 International and important national research, development and creative activities, integration of research infrastructure into international networks and involvement of BUT in professional and artistic networks

Brno University of Technology is a member of a number of important institutions, scientific and artistic networks, organizations and associations. Below are the selected international organizations in which BUT representatives work:

Association of European Schools of Planning, The American Ceramic Society, Conference of European Schools of Advanced Engineering Education and Research (CESAEER), CISCO Networking Academy, European League of Institutes of the Arts, European Quality Association for Recycling, European Universities Public Relations and Information Officers, European Association for Accident Research and Analysis, European Structural Integrity Society, European University Association, European Association for International Education, Global Business and Technology Association, Gesellschaft für Informatik, International Council of the Aeronautical Science, International Federation for the Promotion of Mechanism and Machine Science, The International Federation for Structural Concrete, The International Union for Vacuum Science, Technique and Applications, Federation of European Heating, Ventilation and Air Conditioning Associations, Transformation in Business and Economics, Die Wissenschaftlich-Technische Arbeitsgemeinschaft für Bauwerkserhaltung und Denkmalpflege and many others.

In addition, the staff of the Brno University of Technology are active in a number of professional associations, organizations and groups. These include:

Association of University Libraries of the Czech Republic, Association of Mechanical Engineers, Association of Experts and Appraisers of the Czech Republic, Czech Education and Scientific NETwork (CESNET), Czech and Slovak Society for Soil Mechanics and Geotechnical Engineering, Czech Concrete Society, Czech Physical Society, Czech Chamber of Authorized Engineers and Technicians active in construction, Czech Foundry Society, Czech Chemical Society, Czech Society for Mechanics, Czech Society for Non-Destructive Testing, Czech Welding Society, Czech Vacuum Society, Czech Society for New Materials and Technologies, Czech National Hydrology Committee, Czech-Moravian Association of Entrepreneurs and Managers, Electrotechnical Association of the Czech Republic, European Association for Biometrics, Institute of Electrical and Electronics Engineers, International Society for Optics and Photonics, International Society of Electrochemistry, International Union of Radio Science, Union of Czech Mathematicians and Physicists, National Transfer Platform, Association for Railway Infrastructure, Association for Rehabilitation of Concrete Structures, Society for Radioelectronic Engineering, Society for Environmental Engineering, Association of Czech Booksellers and Publishers, Technical Standardization Commission of the Czech Agency for Standardization, Energy Technology Platform safety, Scientific and Technical Society for Rehabilitation of Buildings and Care of Monuments, etc.

11.2 BUT national and international awards in 2019

Also this year, BUT and its students and academicians received a number of awards, such as the School Recommended by Employers, the City of Brno Award, the Werner von Siemens Award, the Josef Hlávka Award, the Czech Head, Brno Ph.D. Talent, the Joseph Fourier Award, the Jindřich Chalupecký Award, the Stanislav Libenský International Award, the Gold Medal of the International Engineering Fair, AMPER Gold, the Edwards Award, the Atlas Copco Award, etc. A wider list of achievements and awards can be found in the introductory part of the annual report under Achievements and valuation.

In 2019, BUT managed to obtain institutional accreditation for eight areas of education. This accreditation was granted for a period of ten years. The granting of institutional accreditation gives BUT the right to independently create and implement study programs in the selected areas of education. Within the framework of institutional accreditation for the area or areas of education, the study programs are approved by the BUT Internal Evaluation Board (IEB) which grants the faculty or faculties the right to implement them.

11.3 International evaluation of BUT, including foreign accreditations

In 2019, the Brno University of Technology began official steps to obtain the international HR Award. In November 2019, BUT was registered with the European Committee as an institution applying to the Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, thus embarking on the path for the HR Award. The European Commission confirmed acceptance of BUT and set a deadline for submitting the necessary documents for assessment by November 11, 2020. These documents will include an analysis of compliance with the requirements of the Charter and Code and an action plan to set the staff strategy for the researcher development and processes. If Brno University of Technology succeeds in obtaining the international HR Award, it can help attract a larger number of foreign experts and researchers to BUT.

In October 2019, the regular annual international evaluation of the CEITEC consortium by the international evaluation board ISAB CEITEC took place. This year, for the first time, the impact of CEITEC and individual research programs in social and economic fields was evaluated. CEITEC and BUT thus became one of the first workplaces in the Czech Republic to assess the real and potential impact of scientific outputs with the participation of an international scientific consortium in cooperation with representatives of leading Czech companies and the public sector.

This year, the BUT Faculty of Fine Arts completed an external evaluation within the CDP External Evaluation at the Faculty of Arts of non-artistic universities. This project focuses on the implementation of the created evaluation tools, while the resulting data obtained from the applicants, students and graduates serve as a basis for further improvement of the educational process at the participating faculties. It was an international analysis by the evaluation body, the European Quality Enhancement Agency for the Arts (EQ-Arts). An independent external evaluation by the EQ-Arts evaluation panel, composed of internationally renowned experts in the art arts education segment, took place in the autumn.

In 2019, BUT also joined the project of monitoring internationalization under the auspices of the Ministry of Education, Youth and Sports under the leadership of the House of Foreign Cooperation. Based on the evaluation from the monitoring of internationalization, BUT has developed a strategic plan, which contains specific activities for setting up and implementing progress in internationalization. In October 2019, the international evaluation panel visited BUT and in December 2019 we received an evaluation report with the expert recommendations for strengthening internationalization at the Brno University of Technology.

12 The third role of BUT

12.1 Transfer of Knowledge into practice

The transfer of technology is an area at BUT that falls under the Technology Transfer Department. In the field of intellectual property, BUT prefers to license the results from our laboratories, which is usually dealt with in the partnership agreement. Brno Technology also supports the establishment of spin-off companies without the ownership of the university. Specific examples of knowledge transfer into practice this year include the establishment of the spin-off company ConWe, which became the first spin-off company from the Faculty of Civil Engineering at BUT. Vegetation treatment plants, the design of which the company deals with, can also contribute to better water management in the landscape. In addition to property owners, it offers its services mainly to smaller municipalities, which can save hundreds of cubic metres of drinking water per day thanks to this solution. If the municipality treats wastewater with a modern vegetation treatment plant, it obtains utility water at the outflow, which it can further manage. By operating a vegetation treatment plant, municipalities and individuals can minimize their ecological footprint and reduce costs.

This year, a new device for regulating the mass flow of a ventilation turbine emerged from the Faculty of Mechanical Engineering. Ventilation turbines are heads mounted on the outlets of ventilation pipes on the roofs of apartment buildings, which are driven by wind. With their suction effect, these turbines significantly help the ventilation of these residential, mostly prefabricated houses. The essence of the solution is a control element – a damper, valve, segmental or spiral closure, which regulates or closes the air flow in the pipe, and in addition rotates around an axis identical to the axis of the pipe.

Other outputs from Brno technology include, for example, a binary-controlled sensor network. With the development of information technology, the popularity of smart homes, especially passive ones, is growing. These try to save maximum operating costs and at the same time offer maximum comfort. Therefore, various sensors are installed in the houses, which monitor temperature, humidity, light, etc. To control the measured values by computer, special control elements are also installed in the rooms – thermostatic heads, control of blinds, light switches, etc. All these elements must be equipped with microcontrollers, which allow communication with the computer. However, the network designed at BUT is unique in that it does not use any communication elements, so no sensor needs to be equipped with a microcontroller in order to communicate with a computer.

12.2 Activities in the region, cooperation with regional governments and major institutions in the region

Within the region, BUT focuses primarily on cooperation within the Regional Innovation Strategy of the South Moravian Region. This is a long-term plan that increases the competitiveness of the whole of South Moravia. Since 2001, RIS SMR has brought together scientists from universities and research centres, owners of technology companies, people from local government and the active public. BUT also declares active cooperation with the statutory city of Brno and the South Moravian Region.

In the long term, BUT supports the close connection of academic research with companies, where we have seen progress in recent years. Strengthening the links between BUT and the application sphere leads to other project possibilities, collaborative projects, accelerating contract research and objectively measured applicability of results such as licensing agreements, the number of spin-off companies, consultations and the resulting financial profit and further increase of BUT competitiveness as a significant technical university on a national and international scale.

The BUT research mission is in accordance with current national and international strategic documents, which are:

- Innovation Strategy of the Czech Republic for the period of 2019–2030, prepared by the RDIC;
- Europe 2020 Strategy (Europe 2020 – A European strategy for smart, sustainable and inclusive growth);
- ERA Roadmap for the period of 2015–2020 (ERA Roadmap 2015–2020), which contains specific recommendations for member countries to focus on national research and innovation policies, and the National ERA Roadmap of the Czech Republic for 2016–2020;
- The EU Framework Program for Research and Innovation Horizon 2020;
- EU cohesion policy and its financial instruments, the European Structural and Investment Funds (ESIF);
- the Industry 4.0 initiative, the so-called fourth industrial revolution, which is a challenge for research and innovation policy.

12.3 Supraregional activities and importance of BUT

Thanks to CEITEC BUT, we achieved great success in 2019 by obtaining funding for the second phase of the RICAIP project in the Teaming program. With investment of more than 400 million CZK, this project in the field of production automation and Industry 4.0 will significantly help the perception of BUT as a leading research institute in this area with an international dimension. The project is implemented in cooperation with the leading German workplaces DFKI (Deutsches Forschungszentrum für künstliche Intelligenz) and ZeMA (Zentrum für Mechatronik und Automatisierungstechnik). The recipient and main researcher on the Czech side is the CIIRC centre (Czech Institute of Informatics, Robotics and Cybernetics, CTU in Prague).

The research infrastructure of CEITEC BUT was utilized in 2019 by a total of 325 registered users, of which 24 were commercial users and 307 academic users who used the infrastructure throughout 2019. The importance of this unique infrastructure is growing significantly from an international point of view, with 25 nationalities from 22 commercial companies and 24 academic institutions registering.

BUT is involved in a number of international research projects and offers an attractive background for foreign researchers and cooperating companies. CEITEC BUT organized the European School of Magnetism this year, thanks to which a hundred experts from all over the world visited Brno in September. In the introductory part of the annual report, it is also possible to find a number of foreign awards for representatives of Brno technology, such as the Joseph Fourier Prize, which is awarded by the French Embassy. This year also saw preparations for the visit of two Nobel Prize winners, scheduled to arrive in Brno in June 2020, an event organized in cooperation with the French Embassy.

In 2019, BUT awarded four honorary doctorates on the occasion of its 120th anniversary. The title doctor honoris causa can now be used by the Mexican Sebastián Díaz de la Torre and also by the American Arvid C. Johnson. In June, both academics received this honorary academic degree for their long-term cooperation with the Brno University of Technology. The other two honorary doctorates were awarded by BUT in November, to the Austrian Ulrike Diebold and the American Ralph Ford.

TABULAR PART

OF THE BUT ANNUAL REPORT FOR 2019

Tab. 2.1: Accredited study programs (numbers)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	5	2	0	0	6	1	2	2	18
Faculty total	**X**	**5**	**2**	**0**	**0**	**6**	**1**	**2**	**2**	**18**
Faculty of Mechanical Engineering										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	1	0	0	0	0	0	0	0	1
Natural sciences, mathematics and statistics	05	1	0	0	0	0	0	0	0	1
Technology, production and construction	07	4	1	0	0	5	1	5	5	21
Faculty total	**X**	**6**	**1**	**0**	**0**	**5**	**1**	**5**	**5**	**23**
Faculty of Electrical Engineering and Communication										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	1	0	0	0	1	0	0	0	2
Information and communication technologies	06	2	1	0	0	2	0	0	0	5
Technology, production and construction	07	9	5	0	0	4	1	2	2	23
Faculty total	**X**	**12**	**6**	**0**	**0**	**7**	**1**	**2**	**2**	**30**
Faculty of Architecture										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	1	0	0	0	1	0	2	2	6
Faculty total	**X**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**2**	**6**
Faculty of Chemistry										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	1	0	2	2	5
Technology, production and construction	07	6	6	0	0	4	4	4	3	27
Faculty total	**X**	**6**	**6**	**0**	**0**	**5**	**4**	**6**	**5**	**32**
Faculty of Business and Management										
Broadly defined ISCED-F fields	code									
Social sciences, journalism and information sciences	03	0	0	0	0	2	0	0	0	2
Business, administration and law	04	4	1	0	0	2	2	1	1	11
Information and communication technologies	06	1	1	0	0	1	0	0	0	3
Faculty total	**X**	**5**	**2**	**0**	**0**	**5**	**2**	**1**	**1**	**16**
Faculty of Fine Arts										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	1	0	0	0	1	0	1	1	4
Faculty total	**X**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**4**
Faculty of Information Technology										
Broadly defined ISCED-F fields	code									
Information and communication technologies	06	2	0	0	0	2	0	1	1	6
Faculty total	**X**	**2**	**0**	**0**	**0**	**2**	**0**	**1**	**1**	**6**

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Institute of Forensic Engineering										
Broadly defined ISCED-F fields	code									
Business, administration and law	04	0	0	0	0	2	0	0	0	2
Technology, production and construction	07	0	0	0	0	2	0	1	1	4
Services	10	0	0	0	0	1	0	0	0	1
Department total	**X**	**0**	**0**	**0**	**0**	**5**	**0**	**1**	**1**	**7**
Centre of Sport Activities										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	1	0	0	0	0	0	0	0	1
Department total	**X**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
CEITEC BUT										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	0	0	0	0	0	0	1	1	2
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**2**
Brno University of Technology										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	3	0	0	0	2	0	1	1	7
Social sciences, journalism and information sciences	03	0	0	0	0	2	0	0	0	2
Business, administration and law	04	4	1	0	0	4	2	1	1	13
Natural sciences, mathematics and statistics	05	1	0	0	0	1	0	2	2	6
Information and communication technologies	06	5	2	0	0	5	0	1	1	14
Technology, production and construction	07	26	14	0	0	22	7	17	16	102
Services	10	0	0	0	0	1	0	0	0	1
University TOTAL	**X**	**39**	**17**	**0**	**0**	**37**	**9**	**22**	**21**	**145**

Note: In the printed version of the annual report, only those lines with groups of defined fields for which BUT has study programs are listed. Zero lines are omitted.

Tab. 2.2: Study programs in a foreign language (numbers)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	1	0	0	0	1	0	1	1	4
Faculty total	**X**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**4**
Faculty of Mechanical Engineering										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	1	0	0	0	3	0	5	3	12
Faculty total	**X**	**1**	**0**	**0**	**0**	**3**	**0**	**5**	**3**	**12**
Faculty of Electrical Engineering and Communication										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	1	0	0	0	2	0	1	1	5
Faculty total	**X**	**1**	**0**	**0**	**0**	**2**	**0**	**1**	**1**	**5**
Faculty of Architecture										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	1	0	0	0	1	0	0	0	2
Faculty total	**X**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**
Faculty of Chemistry										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	2	2	4
Technology, production and construction	07	1	0	0	0	0	0	2	2	5
Faculty total	**X**	**1**	**0**	**0**	**0**	**0**	**0**	**4**	**4**	**9**
Faculty of Business and Management										
Broadly defined ISCED-F fields	code									
Business, administration and law	04	1	0	0	0	1	0	1	0	3
Faculty total	**X**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**3**
Faculty of Fine Arts										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	1	0	0	0	0	0	0	0	1
Faculty total	**X**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
Faculty of Information Technology										
Broadly defined ISCED-F fields	code									
Information and communication technologies	06	1	0	0	0	1	0	1	1	4
Faculty total	**X**	**1**	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**4**
CEITEC BUT										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	0	0	0	0	0	0	1	0	1
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Brno University of Technology										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	1	0	0	0	0	0	0	0	1
Business, administration and law	04	1	0	0	0	1	0	1	0	3
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	2	2	4
Information and communication technologies	06	1	0	0	0	1	0	1	1	4
Technology, production and construction	07	5	0	0	0	7	0	10	7	29
University TOTAL	**X**	**8**	**0**	**0**	**0**	**9**	**0**	**14**	**10**	**41**

Note: In the printed version of the annual report, only those lines with groups of defined fields for which BUT has study programs are listed. Zero lines are omitted.

Tab. 2.3: Joint/Double/Multiple Degree study programs implemented with a university abroad

Brno University of Technology	Faculty of Mechanical Engineering
The name of the program	**Production technology**
Partner organizations	Technische Universität Chemnitz
Affiliated organizations	
Kind of program	Double Degree
Program type	Bachelor's
Number of active studies as of December 31	8

The name of the program	**Industrial Engineering**
Partner organizations	Art et Métiers ParisTech
Affiliated organizations	
Type of program	Double Degree
Program type	Follow-up master's
Number of active studies as of December 31	6

The name of the program	**Production systems**
Partner organizations	Technische Universität Chemnitz
Affiliated organizations	
Kind of program	Double Degree
Program type	Follow-up master's
Number of active studies as of December 31	8

	Faculty of Electrical Engineering and Communication
The name of the program	**Telecommunications**
Partner organizations	TU Wien
Affiliated organizations	
Kind of program	Joint Degree
Program type	Follow-up master's
Number of active studies as of December 31	4

	Faculty of Chemistry
The name of the program	**Biophysical Chemistry**
Partner organizations	University of Huelva
Affiliated organizations	
Kind of program	Double Degree
Program type	Ph.D.
Number of active studies as of December 31	0

The name of the program	**Environmental Sciences and Engineering**
Partner organizations	University Koblenz-Landau
Affiliated organizations	
Kind of program	Double Degree
Program type	Follow-up master's
Number of active studies as of December 31	0

	Faculty of Business and Management
The name of the program	**European Business and Finance**
Partner organizations	Nottingham Trent University (GB), Karol Adamiecký University of Economics in Katowice (PL)
Affiliated organizations	
Kind of program	Joint Degree
Program type	Follow-up master's
Number of active studies as of December 31	6

	Faculty of Information Technology
The name of the program	**Information Technology**
Partner organizations	Lappeenranta-Lahti University of Technology
Affiliated organizations	
Kind of program	Double Degree
Program type	Follow-up master's
Number of active studies as of December 31	0

	CEITEC BUT
The name of the program	**Advanced materials and nanosciences**
Partner organizations	University of Bari Aldo Moro
Affiliated organizations	
Kind of program	Double Degree
Program type	Ph.D.
Number of active studies as of December 31	1

The name of the program	**Advanced materials and nanosciences**
Partner organizations	Université Grenoble Alpes
Affiliated organizations	
Kind of program	Double Degree
Program type	Ph.D.
Number of active studies as of December 31	1

Summary information on tab. 2.3

Brno University of Technology	Bachelor's studies	Master's studies	Follow-up Master's studies	Ph.D. studies	Total
Number of study programs	1	0	6	2	9
Number of active studies in these programs	8	0	24	2	34

Tab. 2.4: Accredited study programs carried out jointly with another university or with a public research institution based in the Czech Republic

Brno University of Technology	Faculty of Electrical Engineering and Communication
The name of the study program	**Biomedical engineering and bioinformatics**
Broadly defined ISCED-F field	0788 – Interdisciplinary programs and qualifications covering engineering, manufacturing and construction
Partner university/institution	Masaryk University, Faculty of Medicine
Program type	Bachelor's
Number of active studies as of December 31	179

The name of the study program	**Audio engineering**
Broadly defined ISCED-F field	0714 – Electronics and automation
Partner university/institution	JAMU in Brno, Faculty of Music
Program type	Bachelor's
Number of active studies as of December 31	174

The name of the study program	Audio inženýrství
Broadly defined ISCED-F field	0211 – Audiovisual technology and media production
Partner university/institution	JAMU in Brno, Faculty of Music
Program type	Follow-up master's
Number of active studies as of December 31	49

	CEITEC BUT
The name of the study program	**Advanced materials and nanosciences**
Broadly defined ISCED-F field	0719 – Engineering and Mechanical Engineering (Nanotechnology)
Partner university/institution	Masaryk University
Program type	Ph.D.
Number of active studies as of December 31	115

Summary information on tab. 2.4

Brno University of Technology	Bachelor's studies	Master's studies	Follow-up Master's studies	Ph.D. studies	Total
Number of study programs	2		1	1	4
Number of active studies in these programs	353		49	115	517

Tab. 2.5: Accredited study programs carried out together with a higher vocational school

BUT does not offer such study programs.

Tab. 2.6: Lifelong learning courses (LL) at a university (number of courses)

Brno University of Technology	code	Profession-oriented courses			Interest courses			U3V	Total
Broadly defined ISCED-F fields		up to 15 h	from 16 to 100 h	more than 100 h	up to 15 h	from 16 to 100 h	more than 100 h		
Programs and qualifications – general education	00		2						2
Education and upbringing	01			1					1
Arts and humanities	02							20	20
Social sciences, journalism and information sciences	03			13				20	33
Business, administration and law	04	1	1					3	5
Natural sciences, mathematics and statistics	05							1	1
Information and communication technologies	06							16	16
Technology, production and construction	07							7	7
Agriculture, forestry, fishing and veterinary medicine	08								0
Health and social care, care for favourable living conditions	09							5	5
Services	10								0
TOTAL	**X**	**1**	**3**	**14**	**0**	**0**	**0**	**72**	**90**

Tab. 2.7: Lifelong learning courses (LL) at a university (number of participants)

Brno University of Technology	code	Profession-oriented courses			Interest courses			U3V	Total	Of which number of participants who were admitted to accredited study programs according to § 60 of the Act on Universities
Broadly defined ISCED-F fields		up to 15 h	from 16 to 100 h	more than 100 h	up to 15 h	from 16 to 100 h	more than 100 h			
Programs and qualifications – general education	00		9						9	
Education and upbringing	01			24					24	
Arts and humanities	02							1,722	1,722	
Social sciences, journalism and information sciences	03			185				338	523	
Business, administration and law	04	5	6					127	138	
Natural sciences, mathematics and statistics	05							13	13	
Information and communication technologies	06							189	189	
Technology, production and construction	07							216	216	
Agriculture, forestry, fishing and veterinary medicine	08									
Health and social care, care for favourable living conditions	09							158	158	
Services	10									
TOTAL	**X**	**5**	**15**	**209**				**2,763**	**2,992**	

Tab. 3.1: Students in accredited study programs (number of studies)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	2,172	130	0	0	1,012	86	143	174	3,717
Faculty total	**X**	**2,172**	**130**	**0**	**0**	**1,012**	**86**	**143**	**174**	**3,717**
Of which number of women at FCE	X	849	40	0	0	381	28	52	52	1,402
Of which number of foreigners at FCE	X	401	19	0	0	154	12	20	12	618
Faculty of Mechanical Engineering										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	25	0	0	0	0	0	0	0	25
Natural sciences, mathematics and statistics	05	35	0	0	0	0	0	0	0	35
Technology, production and construction	07	2,349	93	0	0	1,136	136	184	119	4,017
Faculty total	**X**	**2,409**	**93**	**0**	**0**	**1,136**	**136**	**184**	**119**	**4,077**
Of which number of women at FME	X	288	11	0	0	184	20	29	8	540
Of which number of foreigners at FME	X	392	6	0	0	223	13	34	15	683

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Electrical Engineering and Communication										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	132	0	0	0	28	0	0	0	160
Information and communication technologies	06	190	6	0	0	128	0	0	0	324
Technology, production and construction	07	1,464	99	0	0	562	88	161	140	2,514
Faculty total	**X**	**1,786**	**105**	**0**	**0**	**718**	**88**	**161**	**140**	**2,998**
Of which number of women at FEEC	X	231	13	0	0	112	8	21	22	407
Of which number of foreigners at FEEC	X	435	15	0	0	197	25	38	18	728
Faculty of Architecture										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	282	0	0	0	149	0	31	13	475
Faculty total	**X**	**282**	**0**	**0**	**0**	**149**	**0**	**31**	**13**	**475**
Of which number of women at FA	X	178	0	0	0	102	0	18	6	304
Of which number of foreigners at FA	X	86	0	0	0	49	0	5	2	142
Faculty of Chemistry										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	99	0	22	7	128
Technology, production and construction	07	622	38	0	0	194	29	70	23	976
Faculty total	**X**	**622**	**38**	**0**	**0**	**293**	**29**	**92**	**30**	**1,104**
Of which number of women at FCH	X	411	21	0	0	198	20	51	16	717
Of which number of foreigners at FCH	X	164	8	0	0	91	10	13	5	291
Faculty of Business and Management										
Broadly defined ISCED-F fields	code									
Social sciences, journalism and information sciences	03	0	0	0	0	157	0	0	0	157
Business, administration and law	04	1,269	18	0	0	372	241	32	20	1952
Information and communication technologies	06	299	3	0	0	205	0	0	0	507
Faculty total	**X**	**1,568**	**21**	**0**	**0**	**734**	**241**	**32**	**20**	**2,616**
Of which number of women at FBM	X	696	14	0	0	387	135	18	9	1,259
Of which number of foreigners at FBM	X	310	4	0	0	177	35	4	7	537
Faculty of Fine Arts										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	182	0	0	0	73	0	20	14	289
Faculty total	**X**	**182**	**0**	**0**	**0**	**73**	**0**	**20**	**14**	**289**
Of which number of women at FFA	X	118	0	0	0	47	0	10	11	186
Of which number of foreigners at FFA	X	31	0	0	0	13	0	4	4	52
Faculty of Information Technology										
Broadly defined ISCED-F fields	code									
Information and communication technologies	06	1,678	0	0	0	432	0	85	79	2,274
Faculty total	**X**	**1,678**	**0**	**0**	**0**	**432**	**0**	**85**	**79**	**2,274**
Of which number of women at FIT	X	150	0	0	0	37	0	11	7	205
Of which number of foreigners at FIT	X	672	0	0	0	163	0	33	14	882

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Institute of Forensic Engineering										
Broadly defined ISCED-F fields	code									
Business, administration and law	04	0	0	0	0	18	0	0	0	18
Technology, production and construction	07	0	0	0	0	171	0	11	29	211
Services	10	0	0	0	0	50	0	0	0	50
Department total	**X**	**0**	**0**	**0**	**0**	**239**	**0**	**11**	**29**	**279**
Of which number of women at IFE	X	0	0	0	0	105	0	6	11	122
Of which number of foreigners at IFE	X	0	0	0	0	27	0	0	3	30
Centre of Sport Activities										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	30	0	0	0	0	0	0	0	30
Department total	**X**	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**30**
Of which number of women at CESA	X	8	0	0	0	0	0	0	0	8
Of which number of foreigners at CESA	X	6	0	0	0	0	0	0	0	6
CEITEC BUT										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	0	0	0	0	0	0	86	30	116
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**86**	**30**	**116**
Of which number of women at CEITEC BUT	X	0	0	0	0	0	0	30	10	40
Of which number of foreigners at CEITEC BUT	X	0	0	0	0	0	0	37	13	50
Brno University of Technology										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	339	0	0	0	101	0	20	14	474
Social sciences, journalism and information sciences	03	0	0	0	0	157	0	0	0	157
Business, administration and law	04	1,269	18	0	0	390	241	32	20	1,970
Natural sciences, mathematics and statistics	05	35	0	0	0	99	0	22	7	163
Information and communication technologies	06	2,167	9	0	0	765	0	85	79	3,105
Technology, production and construction	07	6,919	360	0	0	3,224	339	686	528	12,056
Services	10	0	0	0	0	50	0	0	0	50
University TOTAL	**X**	**10,729**	**387**	**0**	**0**	**4,786**	**580**	**845**	**648**	**17,975**
Of which number of women total	X	2,929	99	0	0	1,553	211	246	152	5,190
Of which number of foreigners total	X	2,497	52	0	0	1,094	95	188	93	4,019

Note: In the printed version of the annual report, only those lines with groups of defined fields for which BUT has study programs are listed. Zero lines are omitted.

Tab. 3.2: Self-paying students (number of studies)

Brno University of Technology	code	Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
Broadly defined ISCED-F fields		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Technology, production and construction	07	0	0	0	0	1	0	1	0	2
Faculty total	**X**	**0**	**0**	**0**	**0**	**1**	**0**	**1**	**0**	**2**
Faculty of Mechanical Engineering										
Technology, production and construction	07	0	0	0	0	6	0	1	1	8
Faculty total	**X**	**0**	**0**	**0**	**0**	**6**	**0**	**1**	**1**	**8**
Faculty of Electrical Engineering and Communication										
Technology, production and construction	07	0	0	0	0	4	0	0	1	5
Faculty total	**X**	**0**	**0**	**0**	**0**	**4**	**0**	**0**	**1**	**5**
Faculty of Architecture										
Faculty total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Faculty of Chemistry										
Technology, production and construction	07	0	0	0	0	0	0	0	1	1
Faculty total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
Faculty of Business and Management										
Business, administration and law	04	49	0	0	0	0	0	0	0	49
Faculty total	**X**	**49**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**49**
Faculty of Fine Arts										
Faculty total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Faculty of Information Technology										
Information and communication technologies	06	0	0	0	0	5	0	2	1	8
Faculty total	**X**	**0**	**0**	**0**	**0**	**5**	**0**	**2**	**1**	**8**
Institute of Forensic Engineering										
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Centre of Sport Activities										
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CEITEC BUT										
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Brno University of Technology										
Business, administration and law	04	49	0	0	0	0	0	0	0	49
Information and communication technologies	06	0	0	0	0	5	0	2	1	8
Technology, production and construction	07	0	0	0	0	11	0	2	3	16
University TOTAL	**X**	**49**	**0**	**0**	**0**	**16**	**0**	**4**	**4**	**73**

Note: In the printed version of the annual report, only those lines with groups of defined fields for which BUT has study programs are listed. Zero lines are omitted.

Tab. 3.3: Study failure in the 1st year of study (in %)

Brno University of Technology	Bachelor's studies			Master's studies			Follow-up Master's studies			Ph.D. studies			Total
	F	C/D	Total	F	C/D	Total	F	C/D	Total	F	C/D	Total	
Faculty of Civil Engineering	31.4	56.5	34.1				5.6	48.9	9.3	12.0	15.4	13.2	24.1
Faculty of Mechanical Engineering	34.7	43.8	35.2				7.9	19.3	9.3	3.9	50.0	5.7	25.3
Faculty of Electrical Engineering and Communication	27.5	45.0	29.5				23.0	48.7	27.0	13.9	20.0	15.2	28.4
Faculty of Architecture	12.3		12.3				15.2		15.2	22.2	75.0	38.5	15.6
Faculty of Chemistry	44.4	70.0	46.5				3.9	35.3	7.6	14.9	66.7	18.0	34.0
Faculty of Business and Management	32.5		32.5				19.5	31.9	22.9	37.5	75.0	45.0	29.2
Faculty of Fine Arts	19.7		19.7				6.3		6.3	0.0		0.0	14.1
Faculty of Information Technology	32.5		32.5				27.7		27.7	19.4	0.0	17.6	30.9
Institute of Forensic Engineering							34.9		34.9	42.9	33.3	40.0	35.1
CEITEC BUT										15.2	0.0	14.7	14.7
Total BUT	**32.1**	**50.3**	**33.2**				**15.5**	**34.8**	**17.9**	**14.7**	**28.6**	**17.0**	**27.4**

Tab. 3.4: Scholarships to students by purpose of scholarship (number of natural persons)

Brno University of Technology The purpose of the scholarship	Number of students	The average amount of the scholarship
for excellent study results according to Art. 91 Sect. 2 (a)	942	11,079 CZK
for excellent scientific, research, development, artistic or other creative results according to Art. 91 Sect. 2 (b)	2,727	10,781 CZK
for research, development and innovation activities pursuant to a special legal regulation, Art. 91 Sect. 2 (c)	1,259	33,435 CZK
in the case of a difficult social situation of the student according to Art. 91 Sect. 2 (d)	3	20,000 CZK
in the case of a difficult social situation of the student according to Art. 91 Sect. 3	71	17,453 CZK
in cases worthy of special consideration according to Art. 91 Sect. 2 (e)	13,591	4,641 CZK
of which accommodation scholarship	13,591	4,641 CZK
to support study abroad according to Art. 91 Sect. 4 (a)	906	44,639 CZK
to support study in the Czech Republic according to Art. 91 Sect. 4 (b)	40	107,875 CZK
students of doctoral study programs according to Art. 91 Sect. 4 (c)	1,086	97,982 CZK
other scholarships		
TOTAL	**20,625**	**14,423 CZK**

Tab. 4.1: Graduates of accredited study programs (number of completed studies)

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Civil Engineering										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	475	13	0	0	521	16	1	25	1,051
Faculty total	**X**	**475**	**13**	**0**	**0**	**521**	**16**	**1**	**25**	**1,051**
Of which number of women at FCE	X	175	1	0	0	188	5	0	10	379
Of which number of foreigners at FCE	X	69	1	0	0	75	6	1	4	156
Faculty of Mechanical Engineering										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	517	30	0	0	476	36	3	34	1,096
Faculty total	**X**	**517**	**30**	**0**	**0**	**476**	**36**	**3**	**34**	**1,096**
Of which number of women at FME	X	75	6	0	0	69	5	2	8	165
Of which number of foreigners at FME	X	96	3	0	0	82	1	3	8	193
Faculty of Electrical Engineering and Communication										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	30	0	0	0	24	0	0	0	54
Information and communication technologies	06	34	1	0	0	0	0	0	0	35
Technology, production and construction	07	270	12	0	0	253	40	1	21	597
Faculty total	**X**	**334**	**13**	**0**	**0**	**277**	**40**	**1**	**21**	**686**
Of which number of women at FEEC	X	50	1	0	0	37	4	1	3	96
Of which number of foreigners at FEEC	X	83	4	0	0	66	5	1	5	164
Faculty of Architecture										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	66	0	0	0	76	0	0	4	146
Faculty total	**X**	**66**	**0**	**0**	**0**	**76**	**0**	**0**	**4**	**146**
Of which number of women at FA	X	49	0	0	0	48	0	0	3	100
Of which number of foreigners at FA	X	15	0	0	0	13	0	0	1	29
Faculty of Chemistry										
Broadly defined ISCED-F fields	code									
Natural sciences, mathematics and statistics	05	0	0	0	0	31	0	0	8	39
Technology, production and construction	07	151	2	0	0	79	12	0	8	252
Faculty total	**X**	**151**	**2**	**0**	**0**	**110**	**12**	**0**	**16**	**291**
Of which number of women at FCH	X	105	2	0	0	77	10	0	7	201
Of which number of foreigners at FCH	X	39	0	0	0	36	1	0	1	77
Faculty of Business and Management										
Broadly defined ISCED-F fields	code									
Business, administration and law	04	327	0	0	0	166	101	0	6	600
Information and communication technologies	06	87	0	0	0	83	0	0	0	170
Faculty total	**X**	**414**	**0**	**0**	**0**	**249**	**101**	**0**	**6**	**770**
Of which number of women at FBM	X	218	0	0	0	121	68	0	3	410
Of which number of foreigners at FBM	X	81	0	0	0	50	6	0	2	139

Brno University of Technology		Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total
		F	C/D	F	C/D	F	C/D	F	C/D	
Faculty of Fine Arts										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	31	0	0	0	23	0	0	1	55
Faculty total	**X**	**31**	**0**	**0**	**0**	**23**	**0**	**0**	**1**	**55**
Of which number of women at FFA	X	17	0	0	0	15	0	0	1	33
Of which number of foreigners at FFA	X	0	0	0	0	8	0	0	0	8
Faculty of Information Technology										
Broadly defined ISCED-F fields	code									
Information and communication technologies	06	290	0	0	0	170	0	0	6	466
Faculty total	**X**	**290**	**0**	**0**	**0**	**170**	**0**	**0**	**6**	**466**
Of which number of women at FIT	X	27	0	0	0	16	0	0	0	43
Of which number of foreigners at FIT	X	111	0	0	0	63	0	0	0	174
Institute of Forensic Engineering										
Broadly defined ISCED-F fields	code									
Business, administration and law	04	0	0	0	0	102	0	0	0	102
Technology, production and construction	07	0	0	0	0	0	0	0	3	3
Department total	**X**	**0**	**0**	**0**	**0**	**102**	**0**	**0**	**3**	**105**
Of which number of women at IFE	X	0	0	0	0	57	0	0	0	57
Of which number of foreigners at IFE	X	0	0	0	0	7	0	0	0	7
Centre of Sport Activities										
Broadly defined ISCED-F fields	code									
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CEITEC BUT										
Broadly defined ISCED-F fields	code									
Technology, production and construction	07	0	0	0	0	0	0	1	2	3
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**3**
Of which number of women at CEITEC BUT	X	0	0	0	0	0	0	1	0	1
Of which number of foreigners at CEITEC BUT	X	0	0	0	0	0	0	0	1	1
Brno University of Technology										
Broadly defined ISCED-F fields	code									
Arts and humanities	02	61	0	0	0	47	0	0	1	109
Business, administration and law	04	327	0	0	0	268	101	0	6	702
Natural sciences, mathematics and statistics	05	0	0	0	0	31	0	0	8	39
Information and communication technologies	06	411	1	0	0	253	0	0	6	671
Technology, production and construction	07	1,479	57	0	0	1,405	104	6	97	3,148
University TOTAL	**X**	**66**	**0**	**0**	**0**	**76**	**0**	**0**	**4**	**4,669**
Of which number of women total	X	716	10	0	0	628	92	4	35	1,485
Of which number of foreigners total	X	494	8	0	0	400	19	5	22	948

Tab. 5.1: Interest in studying at university

Brno University of Technology		Bachelor's studies				Master's studies				Follow-up Master's studies				Ph.D. studies			
Broadly defined ISCED-F fields	code	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study
Faculty of Civil Engineering																	
Technology, production and construction	07	1,541	1,578	1,458	887	0	0	0	0	560	560	554	495	49	51	51	7
Faculty total	**X**	**1,541**	**1,578**	**1,458**	**887**	**0**	**0**	**0**	**0**	**560**	**560**	**554**	**495**	**49**	**51**	**51**	**7**
Faculty of Mechanical Engineering																	
Arts and humanities	02	78	78	27	25	0	0	0	0	0	0	0	0	0	0	0	0
Natural sciences, mathematics and statistics	05	76	76	51	42	0	0	0	0	0	0	0	0	0	0	0	0
Technology, production and construction	07	2,068	2,068	1,393	1,071	0	0	0	0	1,172	1,172	841	630	86	86	85	75
Faculty total	**X**	**2,213**	**2,222**	**1,471**	**1,138**	**0**	**0**	**0**	**0**	**1,172**	**1,172**	**841**	**630**	**86**	**86**	**85**	**75**
Faculty of Electrical Engineering and Communication																	
Arts and humanities	02	109	109	66	61	0	0	0	0	0	0	0	0	0	0	0	0
Information and communication technologies	06	244	244	220	196	0	0	0	0	72	72	71	71	0	0	0	0
Technology, production and construction	07	1,921	1,931	1,439	1,316	0	0	0	0	422	422	383	355	77	77	76	67
Faculty total	**X**	**2,274**	**2,284**	**1,725**	**1,573**	**0**	**0**	**0**	**0**	**494**	**494**	**454**	**426**	**77**	**77**	**76**	**67**
Faculty of Architecture																	
Technology, production and construction	07	411	411	192	104	0	0	0	0	131	131	107	96	13	13	7	6
Faculty total	**X**	**411**	**411**	**192**	**104**	**0**	**0**	**0**	**0**	**131**	**131**	**107**	**96**	**13**	**13**	**7**	**6**
Faculty of Chemistry																	
Natural sciences, mathematics and statistics	05	0	0	0	0	0	0	0	0	72	72	64	57	7	7	6	6
Technology, production and construction	07	905	905	669	381	0	0	0	0	162	162	141	127	12	12	11	11
Faculty total	**X**	**905**	**905**	**669**	**381**	**0**	**0**	**0**	**0**	**234**	**234**	**205**	**184**	**19**	**19**	**17**	**17**
Faculty of Business and Management																	
Social sciences, journalism and information sciences	03	0	0	0	0	0	0	0	0	156	156	149	107	0	0	0	0
Business, administration and law	04	1,395	1,396	930	635	0	0	0	0	517	517	480	331	35	35	22	20
Information and communication technologies	06	214	214	194	107	0	0	0	0	131	131	127	112	0	0	0	0
Faculty total	**X**	**1,609**	**1,610**	**1,124**	**742**	**0**	**0**	**0**	**0**	**804**	**804**	**756**	**550**	**35**	**35**	**22**	**20**

Brno University of Technology		Bachelor's studies				Master's studies				Follow-up Master's studies				Ph.D. studies			
Broadly defined ISCED-F fields	code	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study	Number of applicants (natural persons)	Number of applications	Number of admissions	Number of enrolments for the study
Faculty of Fine Arts																	
Arts and humanities	02	340	340	68	63	0	0	0	0	50	50	42	39	18	18	8	8
Faculty total	**X**	**340**	**340**	**68**	**63**	**0**	**0**	**0**	**0**	**50**	**50**	**42**	**39**	**18**	**18**	**8**	**8**
Faculty of Information Technology																	
Information and communication technologies	06	1,623	1,623	789	773	0	0	0	0	346	346	317	225	33	33	30	25
Faculty total	**X**	**1,623**	**1,623**	**789**	**773**	**0**	**0**	**0**	**0**	**346**	**346**	**317**	**225**	**33**	**33**	**30**	**25**
Institute of Forensic Engineering																	
Technology, production and construction	07	0	0	0	0	0	0	0	0	135	135	114	98	5	5	3	2
Services	10	0	0	0	0	0	0	0	0	49	49	47	43	0	0	0	0
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**184**	**184**	**161**	**141**	**5**	**5**	**3**	**2**
Centre of Sport Activities																	
Technology, production and construction	07	67	67	38	32	0	0	0	0	0	0	0	0	0	0	0	0
Department total	**X**	**67**	**67**	**38**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
CEITEC BUT																	
Technology, production and construction	07	0	0	0	0	0	0	0	0	0	0	0	0	54	54	41	20
Department total	**X**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**54**	**54**	**41**	**20**
Brno University of Technology																	
Arts and humanities	02	527	527	161	149	0	0	0	0	50	50	42	39	18	18	8	8
Social sciences, journalism and information sciences	03	0	0	0	0	0	0	0	0	156	156	149	107	0	0	0	0
Business, administration and law	04	1,395	1,396	930	635	0	0	0	0	517	517	480	331	35	35	22	20
Natural sciences, mathematics and statistics	05	76	76	51	42	0	0	0	0	72	72	64	57	7	7	6	6
Information and communication technologies	06	2,081	2,081	1,203	1,076	0	0	0	0	549	549	515	408	33	33	30	25
Technology, production and construction	07	6,913	6,960	5,189	3,791	0	0	0	0	2,582	2,582	2,140	1,801	296	298	274	188
Services	10	0	0	0	0	0	0	0	0	49	49	47	43	0	0	0	0
University TOTAL	**X**	**10,992**	**11,040**	**7,534**	**5,693**	**0**	**0**	**0**	**0**	**3,975**	**3,975**	**3,437**	**2,786**	**389**	**391**	**340**	**247**

Tab. 6.1: Academic and research staff and other staff, total (average numbers)

Brno University of Technology		Academic staff							Scientific and professional staff			Other employees	TOTAL employees
	Total academic staff	Professors	Associate Professors	Assistant Professors	Assistants	Lecturers	Scientific, research and development workers involved in pedagogical activities	Extra-ordinary professors	Postdoctoral researchers ("postdoc")	Research-ers not falling into other cat-egories	Other scientific, research and devel-opment workers		
Faculty of Civil Engineering	309.7768	32.3830	67.4951	163.7379	46.1608				11.2345	49.0602		214.8048	584.8763
of which women	91.1410	3.8560	7.3430	56.2040	23.7380				3.3150	8.4114		120.7740	223.6414
Faculty of Mechanical Engineering	275.8174	35.0359	77.8394	138.1869	17.7643	2.0000	4.9909		9.6230	54.8986	1.000	236.0973	577.4363
of which women	32.7260	0.3500	2.5000	22.7920	6.0840	1.0000	0.0000			5.0230		94.9010	132.6500
Faculty of Electrical Engineering and Communication	185.5441	27.0818	60.8072	87.4666	10.0192	0.1693			7.2362	33.4771		189.0109	415.2683
of which women	35.3660	1.7000	10.0510	18.0270	5.4190	0.1690			0.9763	5.7417		65.2540	107.3380
Faculty of Architecture	39.3075	4.6370	11.5326	14.9666	8.1713					2.1120		30.4418	71.8613
of which women	10.0560	2.1370	1.2320	3.8000	2.8870					0.5740		16.7840	27.4140
Faculty of Chemistry	62.0586	9.9719	13.6843	35.4640	0.0000	0.6658	2.2726		3.0610	9.0415	1.000	90.0875	165.2486
of which women	24.2380	2.4930	2.8170	15.9890	0.0000	0.6660	2.2730		2.1600	2.0630		56.9740	85.4350
Faculty of Business and Management	63.2516	8.7737	18.3350	32.3767	1.7182	2.0480			1.1500	1.1338		48.6444	114.1798
of which women	21.3060	3.0000	3.8350	12.0000	1.5560	0.9150			0.5500	0.9960		34.3290	57.1810
Faculty of Fine Arts	36.7648	4.0000	10.5048	8.3891	13.8709					1.6000		23.3036	61.6684
of which women	8.5510	0.0000	1.7860	3.7880	2.9770					0.5000		14.9100	23.9610
Faculty of Information Technology	53.0599	8.1155	17.7247	26.3445	0.8752				7.2996	11.1098		152.8770	224.3463
of which women	4.0440	2.0220	0.0000	0.7000	1.3220				2.5390			61.8250	68.4080
Institute of Forensic Engineering	13.6068	0.9863	4.5342	8.0863						1.8344		18.2351	33.6763
of which women	2.1200		0.1000	2.0200						1.0740		10.9000	14.0940
Centre of Sport Activities	11.6465	0.0595	2.1000	4.4213	5.0657							18.5252	30.1717
of which women	5.7000		1.0000	2.3000	2.4000							12.8500	18.5500
CEITEC BUT	27.4838	0.1500		4.8667			22.4671		20.1035	72.0103	4.124	165.6471	289.3682
of which women	6.8000			0.7000			6.1000		2.9699	14.1801	1.000	59.0040	83.9540
Other workplaces total	1.2000		0.2000	1.0000								491.4868	492.6868
Numberof women in other workplaces	0.0000											319.5800	319.5800
TOTAL	**1,079.5178**	**131.1946**	**284.7573**	**525.3066**	**103.6456**	**4.8831**	**29.7306**	**0.0000**	**59.7078**	**236.2777**	**6.1235**	**1,679.1615**	**3,060.7883**
Total of women	242.0480	15.5580	30.6640	138.3200	46.3830	2.7500	8.3730	0.0000	12.5102	38.5632	1.0000	868.0850	1,162.2064

Tab. 6.2: The age structure of academic, scientific and other staff (numbers of natural persons)

Brno University of Technology	Academic staff														Scientific and professional staff						Other employees		Total	of which women
	Professors		Associate professors		Assistant professors		Assistants		Lecturers		Scientific, research and development staff involved in pedagogical activities		Extra-ordinary professors		Postdoctoral researchers ("postdoc")		Researchers not falling into other categories		Other researchers, researchers and developers					
	total	women	total	women	total	women	total	women	total	women	total	women	total	women	total	women	total	women	total	women	total	women		
Up to 29 years					13	3	23	7			2				8	3	59	12			526	166	631	191
30–39 years			29	1	280	46	54	19	1	1	27	8			81	17	93	22	3	1	501	176	1,069	291
40–49 years	16	1	149	8	193	52	37	17	2	1	7				7	2	59	13	2		427	287	899	381
50–59 years	31	3	50	15	38	20	15	9	1		1						14	2			366	249	516	298
60–69 years	63	7	62	6	65	33	3	2			2						10				205	110	410	158
More than 70 years	50	4	42	2	12	1			1		1						12	1	1		49	14	168	22
TOTAL	**160**	**15**	**332**	**32**	**601**	**155**	**132**	**54**	**5**	**2**	**40**	**8**	**0**	**0**	**96**	**22**	**247**	**50**	**6**	**1**	**2,074**	**1,002**	**3,693**	**1,341**

Tab. 6.3: Numbers of academic and scientific staff according to the range of work load and the highest achieved qualification (numbers of natural persons according to the range of work load)

Brno University of Technology	Academic staff								Scientific staff		Total	of whom women
Faculty of Civil Engineering												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	2		10	2	14	8	16	6	20	5	62	21
0,31–0,5	2				16	5	14	3	12	3	44	11
0,51–0,7	6		5		13	4	7	5	2	2	33	11
0,71–1	27	5	59	5	113	31	70	32	24	4	293	77
More than 1									2		2	0
TOTAL	**37**	**5**	**74**	**7**	**156**	**48**	**107**	**46**	**60**	**14**	**434**	**120**
Faculty of Mechanical Engineering												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	4		15		10	2	3	0	6		38	2
0,31–0,5	12	1	11	1	9	2	6	1	6		44	5
0,51–0,7	8		13		12	6	8		9	1	50	7
0,71–1	18		54	3	111	13	45	8	36	4	264	28
More than 1	3		1								4	0
TOTAL	**45**	**1**	**94**	**4**	**142**	**23**	**62**	**9**	**57**	**5**	**400**	**42**
Faculty of Electrical Engineering and Communication												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	3		4		8	1	1		14	1	30	2
0,31–0,5	4		6		3				6	1	19	1
0,51–0,7	6		12		10	1			12	2	40	3
0,71–1	18	2	44	8	64	12	15	8	28	3	169	33
More than 1	1		1		7	1			2	1	11	2
TOTAL	**32**	**2**	**67**	**8**	**92**	**15**	**16**	**8**	**62**	**8**	**269**	**41**

Brno University of Technology							Academic staff		Scientific staff		Total	of whom women
Faculty of Architecture												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3							4	2	2	1	6	3
0,31–0,5	2	1	2		4		4				12	1
0,51–0,7			1		1		2	2	3	2	7	4
0,71–1	4	2	6	1	7	2					17	5
More than 1			3		1		1				5	0
TOTAL	**6**	**3**	**12**	**1**	**13**	**2**	**11**	**4**	**5**	**3**	**47**	**13**
Faculty of Chemistry												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	1								3	1	4	1
0,31–0,5	2		1	1	1				2	1	6	2
0,51–0,7			3	1	2	1					5	2
0,71–1	9	2	14	3	29	15	1		11	5	64	25
More than 1					2	1					2	1
TOTAL	**12**	**2**	**18**	**5**	**34**	**17**	**1**	**0**	**16**	**7**	**81**	**31**
Faculty of Business and Management												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	1								2	1	3	1
0,31–0,5	2		1	1	1				1	1	5	2
0,51–0,7	1		3	1	2	1			1	1	7	3
0,71–1	7	3	15	1	25	13	2	2			49	19
More than 1			3	1	2	2					5	3
TOTAL	**11**	**3**	**22**	**4**	**30**	**16**	**2**	**2**	**4**	**3**	**69**	**28**
Faculty of Fine Arts												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3			1	0			1	1			2	1
0,31–0,5					2	1	2	1	1	1	5	3
0,51–0,7					1	1					1	1
0,71–1	4	0	10	1	8	2	14	5	1		37	8
More than 1			1				1				2	0
TOTAL	**4**	**0**	**12**	**1**	**11**	**4**	**18**	**7**	**2**	**1**	**47**	**13**

Brno University of Technology	Academic staff								Scientific staff		Total	of whom women
Faculty of Information Technology												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3			2		4	1			7	1	13	2
0,31–0,5	1				4	1			4		9	1
0,51–0,7			6	1	2				3		11	1
0,71–1	8		14		10	1	1		17	4	50	5
More than 1											0	0
TOTAL	**9**	**0**	**22**	**1**	**20**	**3**	**1**	**0**	**31**	**5**	**83**	**9**
Institute of Forensic Engineering												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3					2	1			3	3	5	4
0,31–0,5	1		1						1		3	0
0,51–0,7					1						1	0
0,71–1	1		4		5	1					10	1
More than 1					2	1					2	1
TOTAL	**2**	**0**	**5**	**0**	**10**	**3**	**0**	**0**	**4**	**3**	**21**	**6**
Centre of Sport Activities												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3			1		1	1					2	1
0,31–0,5											0	0
0,51–0,7											0	0
0,71–1			2	1	5	2	4	2			11	5
More than 1											0	0
TOTAL	**0**	**0**	**3**	**1**	**6**	**3**	**4**	**2**	**0**	**0**	**13**	**6**
CEITEC BUT												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	1		1		1				22	5	25	5
0,31–0,5			1						15	4	16	4
0,51–0,7			1		5				13	5	19	5
0,71–1	1				35	6			53	9	89	15
More than 1									5	1	5	1
TOTAL	**2**	**0**	**3**	**0**	**41**	**6**	**0**	**0**	**108**	**24**	**154**	**30**

Brno University of Technology	Academic staff								Scientific staff		Total	of whom women
Other workplaces, total												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3											0	0
0,31–0,5											0	0
0,51–0,7											0	0
0,71–1					1						1	0
More than 1											0	0
TOTAL	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**

University total												
Range of work load	**prof.**		**assoc. prof.**		**DrSc., CSc., Dr., Ph.D., Th.D.**		**others**					
	total	**women**	**total**	**women**	**total**	**women**	**total**	**women**	**total**	**women**		
Up to 0,3	12	0	34	2	40	14	25	9	79	18	190	43
0,31–0,5	26	2	23	3	40	9	26	5	48	11	163	30
0,51–0,7	21	0	44	3	49	14	17	7	43	13	174	37
0,71–1	97	14	222	23	413	98	152	57	170	29	1,054	221
More than 1	4	0	9	1	14	5	2	0	9	2	38	8
TOTAL	**160**	**16**	**332**	**32**	**556**	**140**	**222**	**78**	**349**	**73**	**1,619**	**339**
University TOTAL	**160**	**16**	**332**	**32**	**556**	**140**	**222**	**78**	**349**	**73**	**1,619**	**339**

Tab. 6.4: Leading personnel (natural persons)

Brno University of Technology	Rector/Dean	Vice-Rector/Vice- Dean	Academic Senate	Scientific/Artistic/ Academic Council	Quaestor/Secretary	Board of Directors	Director of an institute, university agricultural or forest farm	Head of department/ institute/research facility	Leading personnel total
Rectorate	1	5	27	43	1	15			**92**
of which women		1	10	2		2			**15**
Faculty of Civil Engineering	1	4	40	57	1			22	**125**
of which women			12	6				3	**21**
Faculty of Mechanical Engineering	1	4	36	36	1			15	**93**
of which women			4					2	**6**
Faculty of Electrical Engineering and Communication	1	4	19	31	1			14	**70**
of which women		1	6	2					**9**
Faculty of Architecture	1	4	13	15	1			9	**43**
of which women			4	3				1	**8**

Brno University of Technology	Rector/Dean	Vice-Rector/Vice- Dean	Academic Senate	Scientific/Artistic/ Academic Council	Quaestor/Secretary	Board of Directors	Director of an institute, university agricultural or forest farm	Head of department/ institute/research facility	Leading personnel total
Faculty of Chemistry	1	4	15	33	1			5	**59**
of which women		1	5	6				1	**13**
Faculty of Business and Management	1	4	21	25	1			4	**56**
of which women		3	10	7					**20**
Faculty of Fine Arts	1	5	11	20	1			22	**60**
of which women		4	2	8				3	**17**
Faculty of Information Technology	1	5	13	29	1			6	**55**
of which women			1	2					**3**
University institutes and agricultural or forestry holdings							3	15	**18**
of which women							1	3	**4**
Other workplaces, total							3	17	**20**
of which women								5	**5**
Faculties, university institutes and other workplaces, total	8	34	168	246	8		6	32	**705**
of which women	0	9	44	34	0		1	8	**9**
University TOTAL	9	39	195	289	9	15	6	32	**797**
of which women	0	10	54	36	0	2	1	8	**24**

Tab. 6.5: Academic and scientific staff with foreign citizenship (average recalculated numbers)

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lecturers	Scientific, research and development staff involved in pedagogical activities	Postdoctoral researchers ("postdoc")	Researchers not falling into other categories	Other researchers, researchers and developers	
Faculty of Civil Engineering	0.312	0.838	3.493	3.189	0	0	1.414	3.54	0.124	5.751
of which: Germany								1.142		
Poland										
Austria										0.067
Slovakia	0.312	0.838	3.493	1.189			1.414	2.398	0.124	4.117
other EU states										
other non-EU countries				2						1.567
women from the total number (regardless of citizenship)			0.6	0.043			0.05	0.033		3.834

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lecturers	Scientific, research and development staff involved in pedagogical activities	Postdoctoral researchers ("postdoc")	Researchers not falling into other categories	Other researchers, researchers and developers	
Faculty of Mechanical Engineering	0	0.2	2.311	0.2	0	0	3.357	10.983	0	10.64
of which: Germany										
Poland										
Austria										
Slovakia		0.2	2.311	0.2			1.998	4.4		3.783
other EU states							0.3	1.346		0.901
other non-EU countries							1.059	5.237		5.956
women from the total number (regardless of citizenship)			1				0.3	2.674		2.077
Faculty of Electrical Engineering and Communication	0.1	1.831	5.975	0	0	0	0.334	8.322	0	12.756
of which: Germany							0.1	0.782		0.068
Poland	0.1									
Austria								0.759		1.098
Slovakia		1.831	2.433					3.342		7.841
other EU states							0.234	0.743		0.297
other non-EU countries			3.542					2.696		3.452
women from the total number (regardless of citizenship)		1	1				0.924	1.935		3.777
Faculty of Architecture	0.137	0	0	0.146	0	0	0	0	0	0
of which: Germany										
Poland				0.146						
Austria										
Slovakia	0.137									
other EU states										
other non-EU countries										
women from the total number (regardless of citizenship)	0.137									
Faculty of Chemistry	0	1.001	1	0	0	0	2.1	0	0	3.108
of which: Germany										
Poland										
Austria										
Slovakia		1.001	1				1.1			2.982
other EU states										
other non-EU countries							1			0.126
women from the total number (regardless of citizenship)			1				1			1.298

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lecturers	Scientific, research and development staff involved in pedagogical activities	Postdoctoral researchers ("postdoc")	Researchers not falling into other categories	Other researchers, researchers and developers	
Faculty of Business and Management	0.374	2.75	1.098	0	0	0	0	0	0	0.34
of which: Germany										
Poland										
Austria										
Slovakia	0.374	2	1							0.305
other EU states										
other non-EU countries		0.75	0.098							0.035
women from the total number (regardless of citizenship)		1	1.098							0.175
Faculty of Fine Arts	0	1	1.688	1	0	0	0	0	0	0.035
of which: Germany										
Poland										
Austria										
Slovakia		1	1							
other EU states				1						
other non-EU countries			0.688							0.035
women from the total number (regardless of citizenship)			1.688							
Faculty of Information Technology	0	1	0.553	0	0	0	4.269	0	0	17.808
of which: Germany										
Poland										1
Austria										
Slovakia		1	0.133				0.998			13.542
other EU states			0.42				1.648			0.783
other non-EU countries							1.623			2.483
women from the total number (regardless of citizenship)							2.205			3.213
Institute of Forensic Engineering	0	0	0	0	0	0	0.251	0	0	1.202
of which: Germany										
Poland										
Austria										
Slovakia							0.251			1.202
other EU states										
other non-EU countries										
women from the total number (regardless of citizenship)							0.251			

Brno University of Technology	Academic staff						Scientific and professional staff			Other employees
	Professors	Associate professors	Assistant professors	Assistants	Lecturers	Scientific, research and development staff involved in pedagogical activities	Postdoctoral researchers ("postdoc")	Researchers not falling into other categories	Other researchers, researchers and developers	
Centre of Sport Activities	0	0	0	0	0	0	0	0	0	3
of which: Germany										
Poland										
Austria										
Slovakia										3
other EU states										
other non-EU countries										
women from the total number (regardless of citizenship)										1
CEITEC BUT	0	0	1	0	0	13.155	3.208	0	6.955	22.716
of which: Germany						1.878				
Poland						1.423				
Austria						1.594			0.123	
Slovakia						4.236			1.374	22.716
other EU states						0.786	0.487		1.815	
other non-EU countries			1			3.238	2.721		3.643	
women from the total number (regardless of citizenship)						4.544	0.442		3.357	6.156
Other workshops, total	0	0	0	0	0	0	0	0	0	2.418
of which: Germany										
Poland										
Austria										
Slovakia										2.418
other EU states										
other non-EU countries										
women from the total number (regardless of citizenship)										1.066
University TOTAL	**0.923**	**8.62**	**17.118**	**4.535**	**0**	**13.155**	**14.933**	**22.845**	**7.079**	**79.774**
of which: Germany	0	0	0	0	0	1.878	0.1	1.924	0	0.068
Poland	0.1	0	0	0.146	0	1.423	0	0	0	1
Austria	0	0	0	0	0	1.594	0	0.759	0.123	1.165
Slovakia	0.823	7.87	11.37	1.389	0	4.236	5.761	10.14	1.498	61.906
other EU states	0	0	0.42	1	0	0.786	2.669	2.089	1.815	1.981
other non-EU countries	0	0.75	5.328	2	0	3.238	6.403	7.933	3.643	13.654
women from the total number (regardless of citizenship)	0.137	2	6.386	0.043	0	4.544	5.172	4.642	3.357	22.596

Tab. 6.6: Newly appointed associate professors and professors (numbers)

Brno University of Technology	Number			Age average of newly appointed
	At this university		Own university employees appointed at other universities	
	Total	of which regular employees of the university		
Faculty of Civil Engineering				
Professors appointed in 2019	0	0	0	0
of which women	0	0	0	0
Associate professors appointed in 2019	5	5	0	39.6
of which women	0	0	0	0
Faculty of Mechanical Engineering				
Professors appointed in 2019	1	1	0	48
of which women	0	0	0	0
Associate professors appointed in 2019	8	7	1	43
of which women	2	2	0	40
Faculty of Electrical Engineering and Communication				
Professors appointed in 2019	3	3	0	46
of which women	0	0	0	0
Associate professors appointed in 2019	4	4	0	34.5
of which women	0	0	0	0
Faculty of Architecture				
Professors appointed in 2019	0	0	0	0
of which women	0	0	0	0
Associate professors appointed in 2019	1	1	0	55
of which women	1	1	0	55
Faculty of Chemistry				
Professors appointed in 2019	0	0	0	0
of which women	0	0	0	0
Associate professors appointed in 2019	4	4	0	41
of which women	1	1	0	47
Faculty of Business and Management				
Professors appointed in 2019	0	0	0	0
of which women	0	0	0	0
Associate professors appointed in 2019	1	1	0	42
of which women	1	1	0	42
Faculty of Fine Arts				
Professors appointed in 2019	0	0	0	0
of which women	0	0	0	0
Associate professors appointed in 2019	1	1	0	40
of which women	0	0	0	0
Faculty of Information Technology				
Professors appointed in 2019	0	0	0	0
of which women	0	0	0	0
Associate professors appointed in 2019	1	1	0	37
of which women	0	0	0	0

Brno University of Technology	Number			Age average of newly appointed
	At this university		Own university employees appointed at other universities	
	Total	of which regular employees of the university		
Institute of Forensic Engineering				
Professors appointed in 2019	1	4	1	63
of which women	0	0	0	0
Associate professors appointed in 2019	2	2	0	52.5
of which women	0	0	0	0
TOTAL professors	**5**	**4**	**1**	**50.6**
of which women	0	0	0	0
TOTAL associate professors	**27**	**26**	**1**	**43.3**
of which women	5	5	0	44.8

Tab. 7.1: Involvement of the university in international cooperation programs (regardless of the source of funding)

Brno University of Technology	H2020/7th EC Framework Program		Others	Total
	Total	of which Marie-Curie Actions		
Number of projects	41	7	83	**124**
Number of students sent	3	3	526	**529**
Number of students admitted	3	3	754	**757**
Number of academic and scientific staff sent	89	15	585	**674**
Number of admitted academic and scientific staff	20	4	133	**153**
Subsidies in thousands CZK	513,864	34,656	427,027.73	**940,891.73**

Tab. 7.2: Mobility of students, academicians and other staff with regards country (regardless of the source of funding)

Brno University of Technology	Number of students sent		Number of students admitted	Number of academic scientific staff sent	Number of admitted academic staff	Number of other workers sent	Number of other workers admitted	Total for the states
Country	Total	of which graduate internships						
Albania	0	0	1	0	0	0	0	**1**
Algeria	0	0	0	0	1	0	0	**1**
Angola	0	0	1	0	0	0	0	**1**
Argentina	0	0	1	0	0	0	1	**2**
Australia	2	0	0	0	0	0	0	**2**
Belgium	16	0	8	2	5	0	0	**31**
Bosnia and Herzegovina	0	0	1	0	0	0	2	**3**
Brazil	0	0	38	0	0	0	0	**38**
Bulgaria	3	0	22	8	18	1	1	**53**
Montenegro	0	0	0	0	2	0	0	**2**
Czechia	0	0	11	0	0	0	0	**11**
China	3	0	13	0	6	0	2	**24**
Taiwan	5	0	19	0	8	0	0	**32**
Denmark	18	1	5	0	0	2	0	**25**
Egypt	1	0	0	0	0	0	0	**1**
Ecuador	0	0	1	0	0	0	0	**1**
Estonia	10	0	11	5	6	3	0	**35**
Ethiopia	0	0	1	0	0	0	0	**1**
Finland	37	1	10	5	2	2	2	**58**
France	20	0	129	7	6	1	0	**163**
Gabon	0	0	1	0	0	0	0	**1**
Georgia	0	0	9	0	2	0	0	**11**
Croatia	2	0	3	7	16	0	0	**28**
India	3	0	2	0	1	0	1	**7**
Indonesia	1	0	0	0	0	0	0	**1**
Iran	0	0	1	0	0	0	0	**1**
Ireland	8	0	0	1	0	7	0	**16**
Iceland	7	0	0	1	2	1	0	**11**
Italy	24	1	53	12	3	1	0	**93**
Jamaica	0	0	0	0	0	0	1	**1**
Japan	1	0	2	0	0	0	0	**3**
Canada	1	0	1	0	0	0	0	**2**
Kenya	1	0	1	2	0	0	0	**4**
Colombia	0	0	1	0	0	0	0	**1**
South Korea	5	0	12	0	0	0	0	**17**
Cuba	3	0	0	0	0	0	0	**3**
Cyprus	0	0	2	0	0	16	0	**18**
Liechtenstein	2	0	2	0	1	0	0	**5**
Lithuania	10	0	74	7	10	2	0	**103**
Latvia	10	0	14	4	8	2	0	**38**
Hungary	0	0	3	5	5	0	0	**13**

Brno University of Technology Country	Number of students sent Total	 of which graduate internships	Number of students admitted	Number of academic scientific staff sent	Number of admitted academic staff	Number of other workers sent	Number of other workers admitted	Total for the states
Malta	5	0	4	6	7	20	2	**44**
Morocco	0	0	2	0	0	0	0	**2**
Netherlands	9	0	2	0	2	0	1	**14**
Norway	30	0	3	3	0	1	0	**37**
New Zealand	1	0	0	0	0	0	0	**1**
Poland	10	0	31	16	24	2	7	**90**
Portugal	42	0	78	4	13	3	2	**142**
Austria	69	2	17	16	14	5	1	**122**
Kazakhstan	0	0	1	0	1	0	0	**2**
North Macedonia	0	0	2	2	0	0	0	**4**
Romania	1	0	5	2	2	2	0	**12**
Russia	6	0	30	0	4	0	3	**43**
Greece	17	0	58	10	9	5	3	**102**
Slovakia	8	0	37	15	26	1	3	**90**
Slovenia	17	0	22	10	5	2	2	**58**
United Kingdom of Great Britain and Northern Ireland	37	2	6	16	13	28	6	**106**
United States of America	10	0	0	0	18	0	0	**28**
Mexico	0	0	13	0	2	0	0	**15**
Germany	61	2	37	11	21	1	2	**133**
Serbia	0	0	3	0	0	0	0	**3**
Israel	0	0	0	0	1	0	0	**1**
Oman	0	0	1	0	0	0	0	**1**
Spain	53	1	188	20	14	9	1	**285**
Sri Lanka	1	0	0	0	0	0	0	**1**
Sweden	14	0	3	0	3	0	0	**20**
Switzerland	9	0	1	0	3	0	1	**14**
Thailand	1	0	0	0	0	0	0	**1**
Tunisia	0	0	1	0	0	0	0	**1**
Turkey	1	0	92	3	2	0	0	**98**
Ukraine	2	0	0	0	5	0	0	**7**
Vietnam	2	0	0	0	0	0	0	**2**
TOTAL	**599**	**10**	**1,090**	**200**	**291**	**117**	**44**	**2,341**

Note: The table above does not reflect the source of mobility funding. In the printed version of the annual activity report, only states for which BUT registered some form of foreign mobility in 2019 are listed.

Tab. 7.3: Mobility of graduates (numbers and shares of completed studies)

Brno University of Technology	Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total	
	proportion	number	proportion	number	proportion	number	proportion	number	proportion	number
Faculty of Civil Engineering										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	4.7%	23.0			8.6%	46.0	15.4%	4.0	**6.9%**	**73.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							15.4%	4.0	**15.4%**	**4.0**
Faculty of Mechanical Engineering										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	2.2%	12.0			18.6%	95.0	21.6%	37.0	**10.5%**	**115.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							18.9%	7.0	**18.9%**	**7.0**
Faculty of Electrical Engineering and Communication										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	1.4%	5.0			11.4%	36.0	50.0%	11.0	**7.6%**	**52.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							45.5%	10.0	**45.5%**	**10.0**
Faculty of Architecture										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	30.3%	20.0			36.8%	28.0	25.0%	4.0	**33.6%**	**49.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							25.0%	1.0	**25.0%**	**1.0**
Faculty of Chemistry										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	0.7%	1.0			17.2%	21.0	62.5%	16.0	**11.0%**	**32.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							56.3%	9.0	**56.3%**	**9.0**
Faculty of Business and Management										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	2.4%	10.0			7.7%	27.0	83.3%	6.0	**5.5%**	**42.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							83.3%	5.0	**83.3%**	**5.0**

Brno University of Technology	Bachelor's studies		Master's studies		Follow-up Master's studies		Ph.D. studies		Total	
	proportion	number	proportion	number	proportion	number	proportion	number	proportion	number
Faculty of Fine Arts										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	32.3%	10.0			26.1%	6.0			**29.1%**	**16.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)									**0.0%**	**0.0**
Faculty of Information Technology										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	6.6%	19.0			15.9%	27.0	16.7%	1.0	**10.1%**	**47.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							16.7%	1.0	**16.7%**	**1.0**
Institute of Forensic Engineering										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies		0.0			5.9%	6.0	33.3%	1.0	**6.7%**	**7.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)									**0.0%**	**0.0**
CEITEC BUT										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies		0.0				0.0	100.0%	3.0	**100.0%**	**3.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							100.0%	3.0	**100.0%**	**3.0**
Brno University of Technology										
Proportion [%] and a number of graduates who went on a stay abroad for at least 14 days during their studies	4.3%	100.0			13.2%	292.0	35.5%	44.0	**9.3%**	**436.0**
Proportion [%] and number of doctoral graduates with a length of stay abroad of at least 1 month (i.e. 30 days)							32.3%	40.0	**32.3%**	**40.0**
Brno University of Technology	**4.3%**	**125.0**	**0.0%**	**0.0**	**13.2%**	**356.0**	**32.3%**	**59.0**		

Tab. 8.1: Conferences (co-)organized by the university (numbers)

Brno University of Technology	With the number of participants greater than 60	International conference
Faculty of Civil Engineering	5	4
Faculty of Mechanical Engineering	5	5
Faculty of Electrical Engineering and Communication	4	7
Faculty of Architecture	2	2
Faculty of Chemistry	1	1
Faculty of Business and Management	3	4
Faculty of Fine Arts	0	3
Faculty of Information Technology	4	2
Institute of Forensic Engineering	2	2
CEITEC BUT	6	5
TOTAL	**32**	**35**

Tab. 8.2: Experts from the application sphere participating in teaching and practice in accredited study programs (numbers)

Brno University of Technology	Persons having an employment relationship with a university or part of a university			Persons not having an employment relationship with a university or part of a university		
	Number of persons participating in teaching	Number of persons involved in the supervision of the final thesis	Number of persons involved in providing internships	Number of persons participating in teaching	Number of persons involved in the supervision of the final thesis	Number of persons involved in providing internships
Faculty of Civil Engineering	103	46	1	32	7	39
of which women	27	10		8		2
Faculty of Mechanical Engineering				46	213	80
of which women				12	37	18
Faculty of Electrical Engineering and Communication	69	48		10	45	66
of which women	7	3		3	2	8
Faculty of Architecture	26	20		46	1	
of which women	3	3		12		
Faculty of Chemistry	7			15	17	35
of which women	3			8	4	12
Faculty of Business and Management				67		
of which women				12		
Faculty of Fine Arts	11			10		
of which women	4			3		
Faculty of Information Technology				10	56	
of which women				1	6	
Institute of Forensic Engineering	13	5				
of which women	3	3				
CEITEC BUT				1		
of which women						
TOTAL	**229**	**119**	**1**	**237**	**339**	**220**
of which women	47	19	0	59	49	40

Tab. 8.3: Fields of study/programs which, in their content, have compulsory completion of professional practice for a period of at least 1 month (numbers)

Brno University of Technology	Number of fields of study/ programs	Number of active studies					
		Bachelor's studies		Master's studies		Follow-up Master's studies	
		Academic profile	Profes-sional profile	Academic profile	Profes-sional profile	Academic profile	Profes-sional profile
Faculty of Civil Engineering	4	270	0			146	0
Faculty of Electrical Engineering and Communication	4	358	0			0	0
Faculty of Chemistry	1	0	0			0	0
Faculty of Business and Management	4	699	503			0	0
Centre of Sport Activities	1	0	30			0	0
TOTAL	**14**	**1 327**	**533**			**146**	**0**

Tab. 8.4: Transfer of knowledge and research results into practice

Brno University of Technology	In the Czech Republic	Abroad	Total number	Total revenue
Number of new spin-offs/start-ups			2	
Patent applications filed	10	4	14	
Granted patents	12	4	16	
Registered utility models	37	0	37	
License agreements valid as of December 31	29	38	67	
Newly concluded license agreements	3	15	18	3,274,344 CZK
Contract research, consultations and consultancy services			298	186,658,894 CZK
Paid training courses for employees of application spheres			17	6,194,234 CZK

Summary information on tab. 8.4

	Total number	Total revenue	Average revenue per 1 order
Newly concluded license agreements, contract research, consultations, consultancy services and paid training courses for employees of the application sphere	333	196,127,472 CZK	588,971 CZK

Tab. 12.1: Accommodation, meals

Brno University of Technology	Number
Total bed capacity of university dormitories	6,398
Number of beds in rented facilities	0
Number of submitted applications/reservations for accommodation as of 31/12/2019	3,427/3,657
Number of positively processed applications/reservations for accommodation as of 31/12/2019	2,213/3,657
Number of bed days in 2019	1,603,533
Number of main meals issued to students in 2019	761,385
Number of main meals issued in 2019 to university staff	112,500
Number of main meals served in 2019 to other diners	76,790

Tab. 12.2: University libraries

Brno University of Technology	Number
Increase in library stock per year	6,243
of which increase in physical units	6,127
of which an increase in e-books in permanent purchase	116
Total library collection	245,239
of which physical units	243,924
of which e-books in permanent purchase	1,315
Number of subscribed periodical titles:	
physically	710
electronically (estimation)	100
in both forms	10

13 Conclusions

As I am writing this final article on March 22, 2020, I wish everyone good health, patience and optimism. We can do it together! I am thinking not only of the successful fight against coronavirus, but also of the fight for a better BUT, which will be a quality educational, research and artistic institution not only in the Czech Republic, but especially on a European and global scale. But I am aware that in difficult times we can come together and move in one direction. And for that, we will need health, energy, a desire to work and enthusiasm.

prof. RNDr. Ing. Petr Štěpánek, CSc., dr. h. c.
Rector of BUT

14 List of abbreviations used

BMBF	Bundesministerium für Bildung und Forschung (German Ministry of Education and Science)
BFE	Brno fairs and exhibitions
CEITEC	Central European Institute of Technology
CIIRK	Czech Institute of Informatics, Robotics and Cybernetics CTU in Prague
CDP	Central Development Project
CISC	Computer and Information Services Centre, BUT
CRC	Czech Rectors' Conference
CTU	Czech Technical University in Prague
DFKI	Deutsches Forschungszentrum für Künstliche Intelligenz (German Artificial Intelligence Research Center)
HFC	House of Foreign Cooperation
EEICT	Electrical Engineering, Information Science, and Communication Technologies (conference at FEEC)
ESN	Erasmus Student Network
FA	Faculty of Architecture BUT
FCE	Faculty of Civil Engineering BUT
FFA	Faculty of Fine Arts BUT
FEEC	Faculty of Electrical Engineering and Communication BUT
FCH	Faculty of Chemistry BUT
FIT	Faculty of Information Technology BUT
UH Brno	University Hospital Brno
FBM	Faculty of Business and Management BUT
FME	Faculty of Mechanical Engineering BUT
GA CR	Grant Agency of the Czech Republic
HR Award	Human Resources Award
IAESTE	International Association for the Exchange of Students for Technical Experience
ILL	Institute of Lifelong Learning, BUT
ISAB	International Scientific Advisory Board
SMCIM	South Moravian Centre for International Mobility
SMIC	South Moravian Innovation Centre
MENDELU	Mendel University
MEYS	Ministry of Education, Youth and Sports
MIT	Ministry of Industry and Trade
MU	Masaryk University
NAO	National Accreditation Office for Higher Education
NC	Newton College
OP RDE	Operational Program Research, Development and Education
CSSA	Czech Social Security Administration
IEB	Internal Evaluation Board, BUT
UC	University Council
CRDI	Council for Research, Development and Innovation
SPA	Secondary school professional activity
TA CR	Technology Agency of the Czech Republic
TU	Technical University of Liberec
UD	University of Defence
IFE	Institute of Forensic Engineering BUT
SB	Scientific Board, BUT
WoS	Web of Science
ZeMA	Zentrum für Mechatronik und Automatisierungstechnik gemeinnützige (German Research Center for Automation and Mechatronics)

BRNO UNIVERSITY OF TECHNOLOGY

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