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- ‘Silver Boom’ – Preparations for state exhibition in full swing
He was a pioneering thinker, researcher and 'STEM student': Alexander von Humboldt. Von Humboldt was not only one of the most significant graduates of TU Bergakademie Freiberg, but was also a pioneer in the field of natural science. For example, it was he who helped shape our understanding of nature as a cosmos, in which everything – from the most minute to the greatest – is interwoven, and of which we humans are an integral part.

Armed with the expertise and knowledge gained in Freiberg, Alexander von Humboldt used these skills throughout his life as a researcher and on his famous expeditions to Russia and Latin America. To this day, the same spirit of discovery and scientific curiosity is encouraged among students and young scientists at TU Bergakademie Freiberg. In its modern study programs, the Bergakademie makes it possible for young, inquisitive people to understand the interrelationships between the natural, geoscientific and physical spheres on Earth, and to find solutions to the challenges of the 21st century. In 2019, therefore, the anniversary year of his birth, TU Freiberg is honoring Alexander von Humboldt with a wide variety of events. Indeed, to bid farewell to the Glass Ark art installation from Freiberg’s Schlossplatz on March 29, von Humboldt visited Freiberg (in person!!!) and reported on his travels and his time in the ‘Silver City’.

Further highlights will include the festive event with panel discussion to mark the anniversary of the commencement of von Humboldt’s studies on June 14, 2019, as well as the ministers’ parade to trace von Humboldt’s footsteps in celebration of his 250th birthday and the subsequent concert with the Seconda Pratica ensemble on September 14, 2019.

→ https://tu-freiberg.de/humboldt-250

TU Bergakademie Freiberg welcomed more than 230 students for summer semester, 2019. At the introductory event on April 1 in the Senate Hall (Senatsaal), our freshmen received information on the wide range of services and opportunities offered by the Central Student Advisory Service, the Student Council (StuRa), the Students’ Union (Studentenwerk) and the Foreign Language Center. For many courses of study, it is possible to commence your studies in the summer semester at TU Freiberg. Free admission is offered for all subjects, i.e., there is no upper limit for the number of students (no Numerus Clausus). View all courses of study at:

→ https://tu-freiberg.de/en/studies/study-programmes

Our campus signposting system and overview maps will help you find your way around the campus. Both maps can be found in printed form in the main building of the Bergakademie and on campus as well as for downloading on our website:

• The ‘Uniwegweiser’ (‘Uni-Guidebook’ – also contains a directory of lecture halls and seminar rooms)
• Our city and campus map (A4 size)
STUDYING IN FREIBERG – AN EXCELLENT CHOICE

A degree course in Freiberg is highly rewarding. Our students have evaluated the university through the independent evaluation portal StudyCheck.de. The result: We were recognized as one of the most popular universities in Germany, with the seal of approval “Top University in Germany 2019.”

HIGH SCHOOL MEETS UNIVERSITY: TRY STUDYING DURING SUMMER HOLIDAYS 2019!

From July 8 to August 16, 2019, TU Freiberg is offering the opportunity for you to get to know our university, the various courses of study and the city of Freiberg with specially designed lectures, experiments, laboratory tours, excursions and competitions. Pupils from the 9th grade onwards can participate.

→ https://tu-freiberg.de/schueleruni

The offers at a glance:
- Bio-Nanotech Week from 8.07. to 11.07.2019
- Ind. Eng. Camp from 10.07. to 12.07.2019
- Geoscience Week ‘Spaceship Earth’ from 15.07. to 19.07.2019
- Geoscience Week ‘Geoeengineering: Fascination’ from 22.07. to 26.07.2019
- Technology Week from 29.07. to 02.08.2019
- Informatics Days from 05.08. to 07.08.2019
- Materials Week ‘Materials for the Car of the Future’ from 12.08. to 16.08.2019

CHEMISTRY COURSE FOR HIGH SCHOOL STUDENTS

Good preparation is worth its weight in gold, and this also applies to university studies. What prospective chemists can expect in Freiberg can be experienced by pupils from all over Germany – e.g., at the chemistry course for high school students from August 27 to 30 at TU Bergakademie Freiberg. The course affords high school students a first-class opportunity to try their hand at chemistry in the laboratory and to gain initial experience of studying the natural sciences in Freiberg.

→ https://tu-freiberg.de/studium/uni-zum-kennenlernen/veranstaltungen/schuelerkolleg-chemie

OPEN DAY

You want to study, but don’t know which course would suit you? You want to get to know the TU Bergakademie campus and the city of Freiberg? Then take the opportunity to inform yourself about study opportunities and services at TU Bergakademie Freiberg on the ‘CampusTag’ open day on May 18, 2019. Talk to teachers and students to find out more about studying. Discover the fascinating world of science – it’s well worth a visit!

→ https://tu-freiberg.de/studium/die-uni-zum-kennenlernen/campusstag

JUNIOR UNIVERSITY

On May 18, 2019, the Junior University will once again take place – and this time in the largest lecture hall on campus, the Audimax Theatre at Winkelstrasse 24. At two exciting children’s lectures on ‘Schlumpfina und der Grüne Punkt’ (Smurfette and the Green Dot) and ‘Frülein Brehms Tierlie- ben’ (Miss Brehm’s Animal Life), professors and scientists will explain insights from the natural sciences and technology.

→ https://tu-freiberg.de/studium/uni-zum-kennenlernen/veranstaltungen/junioruni

NIGHT OF SCIENCE AND INDUSTRY

It’s back again for 2019: the university will present its efforts in science and research on the Night of Science and Industry. On June 22nd, visitors can take a look behind the scenes from 18:00 to midnight. Discover how crash tests contribute to vehicle safety, how walking on water becomes possible in wind and water tunnels, and what happens to plastic waste from the sea.

For the first time, the Bergakademie will open institutes and facilities at two locations. Professors and employees on campus around the Neue Mensa and at the Reiche Zache have come up with a host of events and activities to entertain visitors. Whether exhibition lectures, experiments, laboratory tours or presentations – there is something for every visitor, big and small ...

A free shuttle bus will connect the various locations.

→ https://tu-freiberg.de/nacht-der-wissenschaft

THE UNIVERSITY SHOP AT TU BERGAKADEMIE FREIBERG – TAKE THE BERGAKADEMIE WITH YOU!

Something old, something new! Together with the workshops of the Diakonie Freiberg (a Christian charity), new pencil cases made of recycled university banners have been available at the Uni-Shop since March 18. The pencil cases are always made of a different section of banner material, each one is unique.

YOUR UNI SHOP

- Clothing and accessories
- Bags and pouches
- Cups and mugs
- Office and conference articles
- Seasonal articles
- Products for students, staff and alumni

→ https://tu-freiberg.de/leben/unishop

→ www.studium-generale.tu-freiberg.de

STUDIES

Our products are available in the Terra Mineralia. Studies-Info-Zentrum (SIZ), Prüferstr. 2

Mon-Fri 10:00–18:00
Sat/Sun 10:00–18:00

https://tu-freiberg.de/studium/uni-zum-kennenlernen

www.studium-generale.tu-freiberg.de

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BLOCK LECTURE AT THE WORLD’S LARGEST X-RAY LASER IN HAMBURG

A cooperation program between TU Bergakademie Freiberg and the European XFEL facility in Hamburg – which houses the world’s largest X-ray laser – provides students from Freiberg with unique insights, during their studies, into the design and application of the latest generation of X-ray light sources. In addition to jointly preparing their Master’s and Bachelor’s theses in Freiberg and Hamburg, these students can also register for a special lecture series titled ‘Materials research with X-ray Free-Electron Lasers (XFELs)’. In the block course, which will run in Hamburg from September 22 to 27, 2019, the participants will learn measurement and experimental methods that can only be realized with X-ray free-electron lasers.

The XFEL X-ray laser in Hamburg is 3.4 kilometers long and generates extremely intense X-ray laser pulses that make it possible, for example, to detect atomic details of viruses, to film chemical reactions and to investigate processes such as those that take place inside planets.

Registration is possible until 16.08.19 at friedrich.roth@physik.tu-freiberg.de

INTERNATIONAL MASTER’S PROGRAM FOR ENGINEERS IN DEMAND WORLDWIDE

The new Master’s program “Technology and Application of Inorganic Engineering Materials” (TAIEM) has attracted international attention. Last year, twelve students from India, Bangladesh, Nigeria, Ghana, Poland, Kazakhstan, Egypt and Pakistan enrolled.

The TAIEM international Master’s program was launched in October 2018. The program lasts four semesters and concludes with a Master of Science (M.Sc.).

The course provides basic knowledge and skills in the fields of materials science, steel application, foundry technology and fluid mechanics. In addition to training in the areas of particle technology and fluid mechanics, students can also continue their education in the second and third semesters in the areas of technology and the application of materials, as well as in the modeling and simulation of metallurgical processes. In addition, experimental courses teach students how to apply their knowledge in practice. Research seminars serve as a platform for students to exchange their findings. For example, a Journal Club was set up to record and discuss current developments in the relevant field of materials on an ongoing basis.

To be admitted to the course in the coming winter semester, applicants must have the necessary qualifications. The SDC will again offer a block course consisting of theory, practice and excursions in 2019. Registrations are possible until May 31, 2019 at: Thomas.Grab@sdc.tu-freiberg.de

NEW COURSE OF STUDIES FOR WINTER SEMESTER 2019/2020

The Faculty of Geosciences, Geoengineering and Mining will offer a new international Master’s degree program called Geomatics for Mineral Resource Management in winter semester, 2019/2020. The course will train experts in the field of geomatics, and graduates will be primarily concerned with resource extraction and its environmental impact – a topic that is more important today than ever. The reason for this is the continuously increasing global demand for raw materials, which leads to the extraction of mineral resources in areas of the geosphere that are difficult to access. At the same time, the highest safety standards and environmental and social regulations must be met. Future geoengineers must therefore be in a position to develop new and innovative solutions and to make optimal use of state-of-the-art technologies for the collection, management and analysis of geodata. To this end, students will first be introduced to the latest research results from several major European projects.

With a flexibly structured exchange program, students will also have the opportunity to spend two semesters at a partner university in Poland, Portugal, Austria or the Netherlands. Further information on the program and the application process can be found at: https://study-geomatics.eu/

BLOCK COURSE AT THE SCIENTIFIC DIVING CENTER

The Scientific Diving Center (SDC) at TU Bergakademie Freiberg trains scientific divers every year. To enable external students and scientists to obtain the necessary qualifications, the SDC will again offer a block course consisting of theory, practice and excursions in 2019. Registrations are possible until May 31, 2019 at: Thomas.Grab@sdc.tu-freiberg.de

The training begins in June, 2019, and consists of two parts:

- Block course: 28.06.–07.07.2019 (theory and practice incl. 2 diving camps) Location: Scientific Diving Center (GER/S00), TU Bergakademie Freiberg
- Excursion: 31.08. – 14.09.2019 (practice), Location: Sveta Marina, Croatia

http://tu-freiberg.de/sdc
STATE CONFERENCE FOR UNIVERSITY SPORTS IN SAXONY

The Landeskonferenz Hochschulsport Sachsen e.V. (LHS) represents the sporting interests of its member universities at state level in Saxony. For the LHS, the main focus of its work is on the organization and realization of sporting championships and other forms of sporting competitions in Saxony, as well as on conducting training seminars. These are then organized and carried out on behalf of the LHS by the individual institutions of higher education. As a university in Saxony, TU Bergakademie Freiberg is a founding member of the LHS, and can therefore look back with pride on more than 20 years of successful activities and cooperation with the university sports association. This year, there are numerous dates once again for University Championships of Saxony in a range of sports:

→ https://lhs-sachsen.de/

Saxon University Championships (SHM) and Cups

Summer semester 2019

<table>
<thead>
<tr>
<th>Sport</th>
<th>Date</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHM Mountain bike/Cycling</td>
<td>Sat, June 15</td>
<td>Rabenberge/Breitenbrunn</td>
</tr>
<tr>
<td>SHM Basketball</td>
<td>n.n. May 25/26</td>
<td>TU Dresden</td>
</tr>
<tr>
<td>SHM Soccer</td>
<td>Tue, May 24</td>
<td>Uni Leipzig</td>
</tr>
<tr>
<td>SHM Mountain bike Marathon</td>
<td>Mon, May 10</td>
<td>TU Dresden</td>
</tr>
<tr>
<td>SHM Swimming</td>
<td>Sat, June 15</td>
<td>Uni Leipzig</td>
</tr>
<tr>
<td>SHM Volleyball/Volleyball</td>
<td>Sat, June 15</td>
<td>HTWK Leipzig</td>
</tr>
<tr>
<td>SHM Beach Volleyball</td>
<td>June</td>
<td>HTW Dresden</td>
</tr>
<tr>
<td>SHM Tennis</td>
<td>June</td>
<td>TU Dresden</td>
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<tr>
<td>SHM Cross-country</td>
<td>Tue, June 18</td>
<td>TU Bergakademie Freiberg</td>
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<tr>
<td>SHM Triathlon</td>
<td>Sat, June 29</td>
<td>Wolken/Vinsnitzwitz</td>
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<tr>
<td>SHM Track &amp; Field</td>
<td>n.n.</td>
<td>Zwickau</td>
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<tr>
<td>SHM Futsal/Winterhockey</td>
<td>n.n.</td>
<td>Uni Leipzig</td>
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<tr>
<td>SHM Badminton</td>
<td>n.n.</td>
<td>HTWK Leipzig</td>
</tr>
<tr>
<td>SHM Cycling</td>
<td>Sat, July 7</td>
<td>TU Dresden/Leopoldstädte</td>
</tr>
</tbody>
</table>

NEW UNIVERSITY SPORTS COURSES IN SUMMER SEMESTER

Track & field: You’ve competed in track & field before, or you’d just like to try something new? Then register for the new track & field course! Every Monday from 18:00 to 19:30, training instructor Alexander Winterstein from the TU Freiberg running team will complete his training sessions in the Gluckauf Stadium. Registration for all courses takes place directly at the selected sport course.

→ https://tu-freiberg.de/sport/sporthause/leichtathletik

Slacklining: The modern mode of tightrope walking uses a tight, though somewhat elastic nylon band. Whether for training endurance or mental capacity, or for jumps and trying your hand at tricks, this sport is good for body, mind and soul.

Slacklining is the perfect development and recreational sport for climbers, skiers, sportspeople and anyone who has joint and back problems, and it is also a lot of fun. Every Monday from 17:00 to 18:15 in the small Gluckauf Sports Hall. The registration takes place directly at the selected sport course.

→ https://tu-freiberg.de/sport/sporthause/slackline

Aikido: Aikido is a purely defensive Japanese martial art, and involves fending off attacks through physical techniques and the use of natural principles while maintaining a sense of proportion. The self-defense technique is taught by a teacher from the German Aikido Association every Monday from 18:00 to 19:30 in the John Sports Hall. Registration for the course takes place directly at the chosen sports course.

→ https://tu-freiberg.de/sport/sporthause/aikido

UNISPORT OLYMPIAD

The time is almost at hand: The 3rd Unisport Olympiad at TU Bergakademie Freiberg will take place from June 17–20, 2019. A wide range of sporting competitions awaits all university students and staff. In addition to the competitive disciplines, there will be sports demonstrations, workshops and a range of sports to get to know and to try out. The sporting event will be organized by the University Sports Center and the Student Council (StuRa).

→ https://sportolympiade.tu-freiberg.de

UNISPORT CUP IN ERGOMETER ROWING

On February 9, 2019, the TK University Cup in ergometer rowing took place in Leipzig. Of the eight participating teams, TU Bergakademie Freiberg provided two, with each team comprising two women and two men. One of the teams achieved 2nd place.

winter sports week

Together with Vogt’s Reisen in Hilbersdorf, the University Sports Center at TU Bergakademie Freiberg organized the popular winter sports week to South Tyrol once again this year. From March 16 to 22, the students spent a memorable week in the Dolomite Mountains.

trainer wanted

In order to be able to secure and complete the range of sports on offer and to expand it with new and interesting options, the University Sports Center is looking for new trainers. A qualification to assume such a role is desirable, but not absolutely necessary. The employees of the University Sports Center are available as contact persons and for further guidance.

Contact: Ms. Sandra Herr
Secretary, University Sports Center
Tel.: +49 3731 201109
Sandra.Herr@usz.tu-freiberg.de
'DO WHAT'S IMPORTANT – FOR YOU' – NEW PROMOTIONAL FILM GOES ONLINE

With the title ‘Do what’s important – for you! Discover Technical University Bergakademie Freiberg,’ the university’s new promotional film has been available online since February 4. In just under two minutes, viewers accompany four young people as they embark on an allegorical expedition to explore the essence of nature. The focus of the film is on the innovations and the spirit of research at Freiberg’s Bergakademie. Real research content from the fields of materials research, mechanical engineering & processing, chemistry, geosciences and mining is presented in an exciting manner. The film was shot by the Sons of Motion Pictures agency from Leipzig, and can be viewed on TU Freiberg’s YouTube channel:

→ https://www.youtube.com/watch?v=59IvPWEHeEk

STUDYING IN FREIBERG
NEW COMMUNICATION CAMPAIGN FOCUSES ON VIBRANT SCIENTIFIC COMMUNICATION

High school student protests for climate protection and solidarity movements on social networks: young people are actively coming out in support of a livable society and are positioning themselves for the sustainable and resource-friendly development of our future.

Under the slogan ‘Wir forschen dagegen!' (‘We’re researching against it’), the university is forging a new communication campaign with its unique profile as a resource university. The aim of the campaign is to raise awareness of the importance of local research topics and to inspire high school students to go on to tertiary level education and, thus, to play an active role in future issues.

The campaign will be implemented across different media channels and, in particular, online in order to raise Freiberg’s profile beyond this region as a place to study.

WE'RE BUILDING FOR YOU!

In order to create a pleasant teaching and research environment for our students, our young scientists and our professors, we are working together with the Free State of Saxony on the continual modernization of our buildings and the expansion of the campus.

Over the next six years, the Free State of Saxony, the federal government and the EU will invest approx. 175 million euro in construction projects at TU Bergakademie Freiberg. These will include, among other things:

• Construction of a new auditorium building at the Schlossplatz quarter (completion: 2019; cost: approx. 10.2 million EUR)
• New ZeHS research center on Winklerstrasse (completion: 2021; cost: approx. 31 million EUR)
• New university library building with auditorium complex on Winklerstrasse (completion: 2021; cost: approx. 40 million EUR)
• New construction of a second laboratory wing on Clemens-Winkler-Strasse (planning phase; cost: approx. 23.8 million EUR)
• New laboratory building (south) at the Clemens-Winkler Building (planning phase; cost: approx. 26.7 million EUR)
• Renovation of the Clemens-Winkler Building (planning phase; cost: approx. 21.4 million EUR)
• New construction of a hall complex at the Karl-Kegel/Erich-Rammler Building (planning phase; cost: approx. 29 million EUR)

The Science Sessions are an interactive university event at which scientists from TU Freiberg delve into socially relevant and innovative projects on a wide variety of topics such as energy provision, resource conservation or climate protection – and all in the form of short presentations that ensure appealing and easily understandable material.

The Science Sessions will be staged as a university event at TU Freiberg’s Technical Institute for Machine and Process Development. The first Science Session took place on April 9:

→ https://bo-freiberg.de/science-sessions

FIRST SCIENCE SESSIONS IN FREIBERG – NEW SCIENCE FORMAT LAUNCHED

We’re building for you!

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CONSTRUCTION BEGINS ON NEW UNIVERSITY LIBRARY AND LECTURE HALL COMPLEX

On February 13, work officially commenced on the construction of the new university library and auditorium complex at TU Bergakademie Freiberg. Under the direction of Saxony’s state-owned Real Estate and Construction Management Company (the SIB), excavations were carried out to facilitate the construction of the foundations. Over an area of approx. 7,327 square meters, the project will include spaces for the administration and the magazine collection of the library, the actual open-access library with workplaces for students, as well as a lecture hall center with three lecture halls and two seminar rooms. The new building, which is to be completed by the end of 2021, will replace the library building at Agricolastrasse 10, which was erected between 1977 and 1980. It’s planned to lay the foundation stone in June of this year.

TU FREIBERG’S MENSA RETURNS TO FULL OPERATION

The Neue Mensa (canteen) at TU Freiberg is fully operational again. With construction work completed, the small dining hall was reopened on April 6. The renovation work on Freiberg’s Mensa – which lasted more than three years – was carried out for fire-safety reasons. In addition to sealing off all stairwells and installing new fire alarm systems, the building was equipped with modern fire extinguishing technology, making it possible to extinguish fires in large areas with minimal quantities of water. All of the rooms in the Neue Mensa were affected by the renovation work. From May to October 2018, the kitchen and the large dining hall were also affected. During this time, lunch was prepared for the students and employees of the university in two mobile cooking containers and distributed in the foyer on the ground floor.

DAY OF TEACHING

TU Bergakademie Freiberg invites all lecturers, students and employees of the university to the Day of Teaching on April 30 from 13:00 to 16:45 in the Alte Mensa conference hall in Freiberg. In presentations and joint workshops, the participants will have the opportunity to exchange ideas on the subject of ‘Motivating Students to Succeed in Their Studies’. Among other things, the focus will be on questions about expectations regarding good teaching, on supplementary parallel courses for difficult study phases and on digitization within teaching.

RECYCLING TECHNOLOGIES FOR RARE EARTHS

FASCINATE PARLIAMENTARIANS IN DRESDEN

Politicians from all factions of the State Parliament of Saxony accepted the invitation of TU Bergakademie Freiberg to the third Parliamentary Evening in Dresden on March 12. The focus of the evening was on rare earth elements (REEs) as a key factor in Industry 4.0. Rector Prof. Dr. Klaus-Dieter Barbéknacht explained the potential of these strategic metals for various high-performance technologies – as well as the challenges posed by REEs in terms of mining and importation – to the parliamentarians present. Distinguished guests included the President of the State Parliament, Dr. Matthias Kossler; the State Minister for Science and the Fine Arts, Dr. Eva-Maria Stange; the State Minister for the Environment and Agriculture, Mr. Thomas Schmidt; and the Chairman of Saxony’s Committee for Science, Higher Education, Culture and the Media, Mr. Oliver Fritzche.

This year, the presentation of a number of projects was met with great interest, including the ‘Parforce’ project for the environmentally friendly recovery of phosphoric acid from phosphorous waste, the ‘RMF’ project for the recovery of indium from a range of residues, and the ‘Geopolymers’ project for the immobilization of various environmental pollutants at the Institute of Technical Chemistry, TU Bergakademie Freiberg.
TU FREIBERG A LEADER IN THIRD-PARTY FUNDING

As in the previous year, TU Bergakademie Freiberg ranked fourth in a nationwide comparison of third-party funding per professor. This is shown by the third-party funding statistics for the year 2016 just published by Germany’s Federal Statistical Office. An average of EUR 642,900 in funding was attracted by each professor in Freiberg in 2016 (in the previous year it was EUR 574,920 per professor).

At the national level, TU Freiberg ranks fourth behind the RWTH Aachen, the University of Stuttgart and TUM Unmin and is well above the average in Germany (EUR 258,000). Bergakademie professors of the natural and engineering sciences, in particular, again attracted a large amount of funding.

TU BERGAKADEMIE FREIBERG HONORED WITH ‘EXEMPLARY ACHIEVEMENTS’ IN START-UP SUPPORT

In the nationwide ranking “Gründungsradar 2018” [Start-Up Radar] of the Stifterverband für die Deutsche Wissenschaft e.V. (a joint initiative to promote education, science and innovation), TU Bergakademie Freiberg is ranked seventh among the “small” universities and colleges in Germany with 10.3 points and “exemplary performance”. The vibrant entrepreneurial culture at TU Bergakademie Freiberg is also reflected in the current EXIST research transfer projects, which exploit the research results of institutes at the university in the form of spin-offs. These include, for example, the development of a hydraulic press for processing a wide range of raw materials in the “EVAX” project, supervised by the Institute of Thermal Environmental and Natural Products Processing in Freiberg, as well as a new process for the extraction of indium from residues in the “RMF” project and the phosphorus processing in the “PARFORCE” project, both supervised by the Institute of Technical Chemistry. In 2018, SKEED supervised a total of 43 start-up projects at TU Bergakademie Freiberg, including Unimir GmbH, Compact Solutions GmbH and Digitrend24 UG.

FREIBERG’S TERRA MINERALIA CELEBRATES 10TH ANNIVERSARY

With over 3,500 minerals, precious stones and meteorites from five continents, terra mineralia is the largest private mineral exhibition in the world and one of Freiberg’s most popular tourist attractions. The majority of the exhibits come from private donors, such as Dr. Erika Pohl-Ströher and Dr. Erika Krüger. Since its opening, more than a million visitors have experienced the museum, including 300,000 international visitors. In 2019, terra mineralia is also celebrating its 10th anniversary, including a special exhibition on April 16. A new special exhibition on minerals from Saxony will also be opened. Under the title ‘GESUCHT UND GEFUNDEN: Einzigartige Erkundungen aus Sachsen’ (Sought & Found: Unique Discoveries from Saxony), the most valuable objects from the mineralogical collections of TU Bergakademie Freiberg and the Staatliches Museum für Naturkunde Dresden will be on display at terra mineralia from April 17 to August 25.

NEW BREWCUP BOARD IN TU FREIBERG STAFF COUNCIL

The staff council of TU Bergakademie Freiberg has had a new executive committee since February 13. This includes Philipp Wallchart, Jörg Ulrich Rohl (Chairman of the staff council), Evelyn Rausch (Deputy Chairperson), Dr. Olaf Hellwig and Veit Glückner.

PROFESSORS’ CLUB MEETS FOR THE 25TH TIME

In April 2016, Rector Prof. Dr. Klaus-Dieter Barknecht established the so-called Professors’ Club to promote exchange between colleagues from different departments and disciplines. All professors of TU Bergakademie Freiberg are invited to the monthly meetings. The two-hour format is introduced with an approx. 20-minute lecture. Afterwards, there is the opportunity for questions and discussions over refreshments.

‘SILVER BOOM’: PREPARATIONS FOR STATE EXHIBITION IN FULL SWING

Above ground, there may be little to see, but behind the scenes and underground, there is a lot of work going on! TU Bergakademie Freiberg is preparing for Saxony’s State Exhibition from April 25 to November 1, 2020. The Reiche Zeche research and training mine will be an important regional location during the exhibition.

The underground educational tour in the research and training mine is currently being transformed into a playful, multimedia and interactive discovery tour. On this tour, visitors from the age of six can experience a playful approach to the mining industry and make memorable first impressions. An impressive model of a water wheel will also be reconstructed so that visitors can experience the critical subject that is “water” in the mine. From April onwards, a new cavity will be created within the educational trail for this purpose. However, there will also be some changes above ground. The foyer will be redecorated and the reception area in Freiberg’s historic silver mine will be modernized. The 4th State Exhibition of Saxony is a project of the Free State of Saxony, and is coordinated by the Deutsches Hygiene-Museum in Dresden.

For a foretaste of the State Exhibition 2020 in Freiberg, see the updated trailer: https://www.youtube.com/watch?v=Uvzg96JiRws

HEALTH DAY FOR ALL EMPLOYEES AND STUDENTS

Health is everyone’s business! That’s why in cooperation with TK health insurance, the Health Management working group at TU Bergakademie Freiberg invites all employees and students to a Health Day in and around the Neue Mensa on June 18 from 10:00 to 16:00.

From the super-food stand to first aid demonstrations and on to mini-competitions on the Unisport rowing ergometer, a colorful program awaits everyone. The TK will also use its digital ‘Stesswoge’ (a stress-assessment tool) and digital personal trainer to demonstrate the possibilities for health and sport offered by modern computer technology.
From March 28 to April 6, the International Center at TU Bergakademie Freiberg organized a week of activities to allow all new international students to get to know each other. While this helped the students to get to know Freiberg in an original way and facilitated integration, there were also valuable tips on formalities such as signing rental contracts, opening bank accounts, health insurance, timetable compilation and a short introduction to German culture, as well as workshops on the OPAL e-learning platform and an entertaining scavenger hunt through Freiberg.

**INTERNATIONAL STUDENT EXCHANGE ON INDUSTRIAL CULTURE**

TU Bergakademie Freiberg recently invited a group of ten students and two professors from the Universidad Camilo José Cela (Madrid, Spain) to a unique project week on industrial culture. From March 17 to 30, the students of the Urban Development and Logistics & Transportation degree programs were given an insight into the topic of industrial culture. Together with students of Industrial Archaeology from the Bergakademie, they first explored the region around Freiberg. In addition to visits to the mining archive and the Reiche Zeche research and training mine at TU Bergakademie Freiberg, excursions to historic industrial buildings in Chemnitz and Dresden were also on the agenda. At the end of September, a delegation from Freiberg will travel to Madrid. While there, the Bergakademie students can acquire new insights through the use of their modern media laboratories.

**LEARN FOREIGN LANGUAGES – IT’S WORTH IT!**

**Sprache ist Brücke**

The International University Center and the Arbeitskreis Ausländische Studierende (AKAS – “Working Group for Foreign Students”) are seeking volunteers from Freiberg and the surrounding areas for the language tutor program at TU Bergakademie Freiberg. Their tasks? They will read written works such as the project assignments and bachelor’s theses of foreign students and young scientists, making an important contribution to the success of their studies and the integration of our international students.

If you are interested, you can register by sending an e-mail to Manuela.Junghans@iuw.tu-freiberg.de

**AMERICAN TEACHERS VISIT FREIBERG**

Thirteen teachers from the US state of North Dakota were guests at TU Bergakademie Freiberg from March 31 to April 7. In addition to visits of various institutes at the Bergakademie and the terra mineralia exhibition, the group also visited the state parliament of Saxony in Dresden and the cultural city of Weimar, as well as the Geschwister-Scholl High School, in order to exchange their experiences with teachers of English and German at the Bergakademie. The visit took place at the invitation of the nationwide Global Bridges association. Based in Berlin, the association has decades of experience in organizing exchanges between American and German teachers. The trip was intended to give the teachers a more differentiated understanding of German society, history and culture, and to offer them first-hand insights into the German university and school system.

[https://globalbridges-forum.org](https://globalbridges-forum.org)

**INTERNATIONAL DIPLOMATS IN FREIBERG**

Nineteen diplomats from Europe, North and South America, Africa, Asia and Oceania visited TU Bergakademie Freiberg on February 13 as part of their six-week international diplomatic training with Germany’s Federal Foreign Office at the beginning of February. At the Bergakademie, the participants learned more about international energy and raw materials policies. The study trip led the diplomats to Saxony and the cities of Gorlitz, Dresden and Freiberg. The goal was to teach them more about Europe and Germany, including its politics, economy and culture, and to address relevant aspects of German foreign policy in seminars, meetings and excursions.

**TRAINING OF KENYAN MINING STUDENTS**

As part of the CEMEREM project, Dr. Jürgen Weyer from the Institute of Mining Engineering and Special Civil Engineering at TU Bergakademie Freiberg travelled to Taïta Taveta University in Voi, Kenya at the end of March. Dr. Weyer’s task was to teach the Kenyan students the theory of mine ventilation by means of a week-long block course. The main focus was on supplying miners with sufficient fresh air and on removing harmful gases and dust. Since 2016, TU Bergakademie Freiberg and Dresden University of Applied Sciences (HTW Dresden) have been involved in setting up the Kenyan-German Center for Mining, Environmental Engineering and Resource Management (CEMEREM) at Taïta Taveta University in Voi, southern Kenya. The objectives of the DAAD-funded project are the establishment of study programs, the provision of further education in the mining and environmental sectors, the equipping of laboratories, the development of cooperation programs for doctoral theses and the creation of networks with industrial partners in Germany and East Africa.

**LARGEST TRAINING NETWORK IN THE WORLD VISITS LISBON**

With nine universities from nine countries, the Advanced Mineral Resource Development (AMRD) network is one of the world’s largest training networks in the raw materials sector. In the course of studies of the same name, students acquire knowledge and skills for the development of sustainable and environmentally compatible methods in mining and mine remediation from the point of view of business management.

The course is taught at three partner universities. All students complete the first semester at the University of Leoben in Austria, while the second semester is spent at TU Bergakademie Freiberg. The third and fourth semesters are spent at one of the partner universities in Iran, China, Ukraine, Mongolia, Russia, Portugal or Spain. Approximately 70 applicants have applied to begin their studies in 2019, of which approx. half will be admitted. The selection committee, which also includes representatives from TU Bergakademie Freiberg, met at the end of March at the Instituto Superior Técnico in Lisbon, Portugal.
**SINOPEC VISITS INSTITUTE OF ENERGY PROCESS ENGINEERING**

From March 11 to 13, ten top-level experts and specialists from various business units of the leading oil and chemical group SINOPEC visited the Institute of Energy Process Engineering at TU Bergakademie Freiberg.

During the visit to Freiberg, the representatives held extensive discussions on strategic cooperation in technology development for a circular carbon economy. An important result of the visit was the signing of a Memorandum of Understanding between the two parties. Bergakademie Rector Prof. Dr. Klaus-Dieter Barbknecht also honored the Chinese guests by entering their names in the University’s Roll of Honor.

SINOPEC was founded in 1998 by the Chinese government and is one of the largest oil and petrochemical companies in the world. It is the largest oil refiner and the second-largest oil and gas producer in China, while it is also the second-largest chemical company in the world after BASF.

**WUHAN DELEGATION VISITS FREIBERG**

China University of Geosciences (CUG) in Wuhan is one of the elite universities in China. This January, a delegation headed by university Vice President Xulong Lai and professors from the fields of geology, geotechnics and mineralogy visited TU Bergakademie Freiberg. Together with Rector Prof. Dr. Klaus-Dieter Barbknecht, a so-called ‘4+2 agreement’ was signed. This agreement gives CUG Bachelor graduates simplified access to the Master’s courses at the Bergakademie.

The rector of the CUG in Wuhan, Prof. Ni Hongwei, had already visited TU Freiberg from November 28 to December 1. With a delegation of four, he visited various technical facilities on the Bergakademie campus and took part in TU Barbknecht’s Barbara Celebration. The university in Wuhan is one of TU Freiberg’s closest Chinese cooperation partners.

**TU BERGAKADEMIE FREIBERG AND UNIVERSITY OF WUHAN SIGN AGREEMENT**

As part of the current official visit of Saxony’s Minister of State Thomas Schmidt to China, TU Bergakademie Freiberg and Wuhan University of Science and Technology (WUST) signed a cooperation agreement in Wuhan on March 28. Under the contract, the Institute of Ceramic, Glass and Construction Materials at TU Freiberg and the WUST Key State Laboratory for Refractories and Metals agreed to establish an “International Joint Laboratory for New Technologies in Refractory Materials and Metalurgy.” The core tenet of the agreement is that both universities will make their laboratories available to each other. This will allow scientists from China and Saxony to work on the same issues and to share their results. The framework agreement will now be supported on an ongoing basis by concrete projects, and the practical work will start before the end of this year.

**DISTINGUISHED VISITORS FROM CHINA**

With the assistance of Rector Prof. Dr. Klaus-Dieter Barbknecht and State Secretary Uwe Gaul (r.), Chinese Ambassador Shi Mingde signs the roll of honor at TU Bergakademie Freiberg.

The Chinese Ambassador to Germany, Mr. Shi Mingde, visited TU Bergakademie Freiberg in January and spoke at the 25th Krüger Colloquium in the Alte Mensa on the topic ‘China’s Role as a Climate Protector’. Among the numerous guests was the former Minister President of Saxony, Prof. Dr. Kurt Biedenkopf, a member of the university council of the Bergakademie.

**JAPANESE DELEGATION VISITS FREIBERG**

Rector Prof. Dr. Klaus-Dieter Barbknecht received a small delegation from the Japanese University of Akita on February 18. TU Bergakademie Freiberg has been associated with Akita for over 100 years – indeed, on its establishment in 1910, Akita University was modelled on the Bergakademie. Akita’s first rector and a number of its scientists studied in Freiberg.

A Memorandum of Understanding was signed in 2012, and extended in 2018. Since then, four TU Freiberg students have travelled to Akita for exchange semesters or for the preparation of their Master’s thesis.

**FIRST DOUBLE PHD WITH CHILEAN UNIVERSITY**

On December 5, 2018, and for the first time, a doctoral student received his PhD simultaneously from TU Bergakademie Freiberg and a Chilean university. Mr. Gerardo Retamal-Morales carried out his research work at the University of Santiago de Chile and at the Institute of Biosciences at Bergakademie Freiberg. The Chilean scientist has found a way to extract poisonous arsenic from liquids with the help of bacteria. To detect these compounds, he developed a test that indicates the presence of arsenic-binding compounds in a liquid by means of a color change. This technology could play an important role in the biological remediation of areas contaminated with arsenic. The doctoral candidate was also one of the first residents of Freiberg’s Chile House, which opened in 2017 and was made available to the University by benefactor Dr. Eric Krüger. Dr. Krüger made her donation for the promotion of exchange between German and Chilean institutions.

**EXCHANGE PROGRAM TO ST. PETERSBURG**

A new semester in St. Petersburg started on the first of February for five students from TU Freiberg, Christoph Fast, Maximilian Mrozak, Matthias Poralla, Tobias Siebenhaar and Franz Vogel will spend summer semester 2019 at Saint-Petersburg Mining University, a partner university of TU Bergakademie Freiberg.

In terms of language, the students have already prepared themselves for their stay in St. Petersburg by attending Russian courses at the Bergakademie. In addition, two of them have deepened their language skills further by working with Russian tandem partners, i.e., Russian-speaking students or doctoral candidates who are currently in Freiberg. They have also trained their language skills at the Russian-language meet-ups in Freiberg.

The geology and mineralogy students are supported by a scholarship from the DAAD ‘go east’ program.

**FIRST DOUBLE PHD WITH ST. PETERSBURG MINING UNIVERSITY**

PhD student Alexey Alekseenko carried out research in Freiberg for six months in 2016/2017 as part of a Lomonosov fellowship from the German Academic Exchange Service (DAAD). His research focused on the complex interrelationships between the influence of overburden dumping by the cement industry on soil, water, air and vegetation, as well as the dangers of erosion and mudslides for the Russian port of Novorossiysk. Mr. Alekseenko developed technical and economic measures to protect against hazards and reduce environmental impacts. On December 10, 2018, he was the first double PhD student to successfully complete his work in the engineering sciences.
FREIBERG’S FESTIVAL OF CULTURES WELL ATTENDED

In November, more than 900 participants took part in the Festival of Cultures in Freiberg’s Tivoli. There was international live music, singing and dancing from Vietnam, Nepal, India, Bangladesh, Russia and Latin America, among others, organized by clubs and associations from Freiberg and private individuals on a voluntary basis. Russian, Czech, Iranian, Mongolian and Arabic specialties could be tasted at the buffet. Many of Freiberg’s citizens, associations and restaurants donated food to the ‘Festival of Cultures’.

SUCCESSFUL STUDIES AFTER FLIGHT AND DISPLACEMENT

Ghazi Ghazal has made it. Although war and terror forced him to flee his homeland of Syria, he is currently one of two international scholarship holders at TU Bergakademie Freiberg.

When he came to Germany in 2015, he dreamed of a secure future with the possibility of continuing his previous educational path. In Syria, he had already obtained his first university degree in chemical engineering. A major hurdle he had to overcome, however, was learning the German language, as it was only with sufficient language skills that the doors to studying in Germany could open for him. Thanks to his knowledge and commitment, however, he was eligible for support from the Otto Benecke Stiftung e.V. Nuremberg during this time, and completed his language test with excellent grades.

Now in his fourth semester, he is studying for a Master’s degree in Energy and Resource Management at TU Bergakademie Freiberg.

In the academic year 2016/17, he and other refugees also received laptops, which were financed by the Barbara Fund of TU Bergakademie Freiberg’s Association of Friends. With this aid, the Association provides refugees who have started their studies at the Bergakademie with improved chances for successfully completing their studies.

AMERICAN INTERN IN FREIBERG

Ms. Deanna Amoriello, a 20-year-old bachelor student from New York, embraced a wintery Freiberg with relish! From November 2018 to January 2019, the American student completed an internship in the chemistry laboratory at TU Freiberg. She is studying environmental engineering and is particularly interested in the ecological handling of waste water during oil fracking.

NEW YEAR FESTIVAL OF CHINESE STUDENTS AND PHD STUDENTS

Chinese students at TU Bergakademie Freiberg celebrated the most important festival of the Chinese calendar on February 4, 2019 in Freiberg’s Pi-Haus, where they cooked, ate and sang together. Chinese people normally celebrate the New Year festival with their families. The student Haifeng Xu, who is currently attending the intensive German-language course in order to enable him to begin his studies in Freiberg, was lucky: His parents came all the way to Freiberg in February to visit him. They also brought traditional food with them – eggs boiled in black tea. They were particularly happy about the winter in Freiberg, as there is hardly any snow in their home province in China.

EDUCATIONAL INTEGRATION AT TU FREIBERG

From degree to career: In 2018, Rabea Muheez successfully completed his English-language master’s program in Groundwater Management at TU Bergakademie Freiberg. Since then he has been working as a scientific assistant at the DVGW Technologiezentrum Wasser in Karlsruhe (German Water Center) in the Groundwater and Soil Department.

The Syrian refugee has had a difficult time. Rabea Muheez completed a bachelor’s degree in oil and gas technology in Syria. In summer, 2015, he received a grant from TU Bergakademie Freiberg and an opportunity to continue his studies in the field of geosciences. However, the new situation also required strength and courage. He had to overcome the difficulties of finding his way in a new language and culture as well as learning new ways of working and learning. He even wrote his master’s thesis in German. Now the Bergakademie graduate has settled into professional life – a situation that was greatly aided by the numerous internships that he organized in the course of his studies.

TU FREIBERG DELEGATION IN NORTHERN IRAQ

From November 19 to 23, a delegation from TU Bergakademie Freiberg visited partner universities in northern Iraq. The visitors took part in a German-Iraqi symposium in Erbil on the topic ‘Areas of Cooperation Between Universities, Ministries and Companies in Germany and Iraq.’ The conference was jointly organized by the Chair of Additive Manufacturing at TU Freiberg and the College of Engineering at Salahaddin University in Erbil.

Since 2009, cooperation between the Bergakademie and Iraqi partner universities has been fostered within the framework of the DAAD University Partnership Program for Iraq. Since then, more than 400 Iraqi students, technical staff and teachers have been trained in the engineering sciences.

A one-year (Higher Diploma) postgraduate program has been established with Salahaddin University. The first students began their studies in November, with some of them studying at TU Freiberg.

TU BERGAKADEMIE FREIBERG TO EXPAND COOPERATION WITH NEPALESE UNIVERSITY

TU Bergakademie Freiberg is planning to expand its existing, long-term cooperation with Tribhuvan University in Kathmandu, Nepal for research and teaching in the field of mathematics, and to extend it to other fields. This was discussed by representatives of both universities on November 14 in Freiberg.

The opportunity to discuss the cooperation arose from the guest residency (September to December, 2018) at TU Freiberg of Professor Dr. Tanaka Naith Dhamalao from Tribhuvan University. The Alexander von Humboldt Foundation makes it possible for scientific staff and professors to take up regular guest residencies.

FREIBERG’S DIAMOND-MINING EXPERTISE IN DEMAND IN LESOTHO

In autumn 2018, the Ambassador of the Kingdom of Lesotho, H.E. Ketlhatšabe Calvin Masenyetse, learned about the research and study programs in the field of mining and geosciences at TU Bergakademie Freiberg. The African country has extensive deposits of diamonds. The goal of the government of Lesotho is to locate not only the mining, but also the processing of the gemstones in the region. However, this requires the employment of suitable specialist personnel. Ambassador Masenyetse therefore discussed training opportunities at the Bergakademie with Rector Prof. Dr. Klaus-Dieter Barbknacht.

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BRUSSELS: TU FREIBERG PRESENTS RESEARCH EXPERTISE IN MINING OF THE FUTURE

In October, TU Bergakademie Freiberg presented the expertise and research possibilities of its Reiche Zeche research and training mine in Brussels at the ‘From Saxony for Europe’ series of events organized by Saxony’s Liaison Office. With its unique and independent research and training mine, TU Freiberg not only develops modern technologies for the mining of the future, but also trains experts that are in great demand worldwide thanks to the practical training they receive. This is also demonstrated by the top positions achieved by the Bergakademie in the field of mining education. In the Shanghai Ranking system, the Bergakademie was named as the best German university in the field of mining.

SELECTION COMMITTEE FOR GERMAN SCHOLARSHIP MEETS IN FREIBERG

A selection committee consisting of sponsors, professors and student representatives met at TU Bergakademie Freiberg on April 3 to decide which students will receive a ‘Deutschlandstipendium’ in the summer semester. 44.5 scholarships were awarded. The selection criteria for the German scholarship include grades, extracurricular activities, professional guidance, the students of the 11th grade learned more about, e.g., modern methods of oil and gas production; the development of modern materials and their applications; modern design approaches for increasing vehicle safety; and the current development of driver assistance systems.

This year, a new feature was a wide range of information on the subject of robotics. All of the lectures met with a very positive response from students and teachers alike. The event was organized in collaboration with Prof. Dr. Kräger from TU Bergakademie Freiberg.

TU FREIBERG: RESEARCHERS DEMONSTRATE 3D PRINTING WITH RENEWABLE RESOURCES AT HANNOVER TRADE FAIR

Researchers demonstrated how renewable raw materials can be used in a 3D printer at this year’s Hannover Trade Fair. Among other materials, grass, sawdust and apricot kernel flour can be utilized to produce 3D forms. The Chair of Additive Manufacturing at the Institute for Machine Elements, Engineering Design and Manufacturing (IMKF) – which is headed by Prof. Dr.-Ing. Henrik Zeidler – was present in April at the ‘Research for the Future’ stand. This presentation was a collaboration between universities from the German federal states of Saxony, Saxony-Anhalt and Thuringia. Plasma electrolytic polishing was also demonstrated. This process facilitates the smoothing of the surfaces of complex, filigree metallic components and structures.

MINT-EC CAMP ON FUTURE MATERIALS

The world of materials today is just as diverse as their applications. A modern vehicle consists of approximately 10,000 individual components, and a wide variety of different materials are used to produce them. During the MINT-EC Camp from March 5 to 8, 20 students from schools of the national MINT-EC Excellence School Network learned about the process chain from the production of a material to its processing.

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ENVIRONMENTAL BURDEN TODAY, RAW MATERIAL RESOURCE TOMORROW – GOVERNMENT GRANTS MILLIONS FOR COLLABORATIVE PROJECT

The joint project 'rECOmine – Resource-Oriented Environmental Technologies for the 21st Century' is one of 20 regional alliances in eastern Germany that will receive up to EUR 15 million for their innovative projects from the 'WIR' funding program (Transformation Through Regional Innovation) from Germany’s Federal Ministry of Education and Research (BMBF). The aim of 'rECOmine' is to promote new methods for the regional and world markets with which waste dumps and metal-rich waters from mining can not only be sustainably rehabilitated, but with which the valuable materials remaining in them can also be utilized economically. Within five years, the partners in the project – which, in addition to TU Bergakademie Freiberg, also includes the Helmholtz Institute Freiberg for Resource Technology of the Helmholtz Center Dresden-Rossendorf – want to develop marketable technologies that can be used in the Erzgebirge Mountains but that are also attractive internationally. After the successful presentation in Berlin, the participants can now apply for funding from the 'rECOmine' platform, which acts as a funding allocation system for the implementation of projects.

TU FRIEBERG CRACKS THE HARDEST OF NUTS

In the industrial processing of nuts, there is often a considerable amount of rejected product. The reason for this is usually the roller crushers, which often crush not only the nut shell but also its soft, delicate nut core. Only about 50 percent of the nut kernels remain intact.

Prof. Matthias Kröger from the Institute for Machine Elements, Engineering Design and Manufacturing has developed a new and innovative nut-cracking technique, which has since been patented. The key is Continuous splitting instead of rolling.

In initial trials, 80 percent of the nut kernels remained intact. This makes the nutcracker highly interesting both economically and ecologically – for private/small-scale users and small businesses, as well as for large-scale industrial applications.

An industrial trial at a Kenyan nut processor is planned for the coming harvest season.

NEW GENUS AND NEW FAMILY OF MARINE SPONGES DISCOVERED

At TU Bergakademie Freiberg, the Chair of Biomaterials and Extreme Biomimetics has discovered a new genus (Ennstillia) and a new family (Ennstilliidae) of marine sponges. These were named after the German scientist Ernst Hentschel, who first described the species in Indonesia in 1912.

The research results of Prof. Ehrlich and his international research team have been published in two recent publications in the renowned Zoologischer Anzeiger journal.

RESEARCH INVESTIGATING THE ORIGIN OF COLLECTOR’S ITEMS

TU Freiberg is participating in a provenance research project for university collections. This project investigates whether the collection pieces were seized during the Nazi era in the course of persecution. Further participating university collections are the archaeological collections of the Winckelmann Institute, Humboldt University Berlin, and the Special library for Botany of the Freie Universität Berlin.

RECYCLING PROJECT ‘BiomatUse’ TAKES BERGAKADEMIE RESEARCHERS TO VIETNAM

The increasing global demand for food is also increasing the amount of agricultural residues. The production of one kilogram of rice, for example, results in the production of approx. 1.5 kg of rice straw, while the production of one kilogram of sugar produces approx. 12 kg of bagasse – the fibrous residue of sugar cane. In developing countries, in particular, these agricultural residues are often simply incinerated or dumped directly at the place of origin (field or factory) in a moist state, which means that in addition to potential environmental hazards, the raw material potential of the biomass remains unused. As part of the German-Vietnamese BioMatUse cooperation project, researchers at the Institute of Thermal, Environmental and Natural Products Engineering are working on the production of products based on the residues from rice and sugar cane processing.

During a visit to Vietnam at the beginning of March, the current project status was presented on the basis of the manufactured products, and further cooperation in new projects was discussed.
BERGAKADEMIE SCIENTISTS FIND ALTERNATIVE SOLUTIONS FOR TAILINGS Dewatering

The concept of so-called ‘Dry Tailings Stockage’ is not only more sustainable than the collection of liquid mine wastes in large tailings ponds, but also safer: Because the residues after filtration are no longer suspended in large quantities of water – as the liquid has already been separated – the solid material can be stored on stockpiles in a dry form. This material then has the consistency of slightly moist sand.

Storage of the filtered solids also requires less space and can be better sealed against environmental influences, so that no pollutants are released into the environment.

The separation-technology experts at TU Bergakademie Freiberg are working on effective and economically sustainable technologies that can be used to dewater the sludge and that allow the residual materials to be stored in a completely different way.

PROJECT GLASCAMPUS TORGAU TAKES SHAPE

The GlasCampus is the result of a joint initiative between the glass, ceramics and building materials industry of Central Germany and the economic development agency of Northern Saxony in cooperation with TU Bergakademie Freiberg and Torgau Vocational School Center (BSZ). Starting with the first further education measures planned for the winter semester of 2019, an educational institution is to be established in the next few years at the administrative headquarters in Northern Saxony. On the one hand, this represents an attractive opportunity for education and further education, while on the other hand, it will have a positive impact on the future viability of the entire region.

EUGAL CONNECTS BUSINESS AND SCIENCE IN SAXONY

TU Bergakademie Freiberg and GASCADE Gastransport GmbH sealed a new cooperation agreement on October 24, focusing on the EUGAL European Gas-Link Pipeline. The cooperation includes a scholarship, excursions and opportunities for internships, theses and dissertations.

EUGAL is a natural gas pipeline with a length of around 480 kilometers, which will strengthen the German and European natural gas supply grids. The approximately 105-kilometer-long section in Saxony presents special technical challenges, due largely to the geological conditions in the Ore Mountains and to the crossing of the River Elbe, which make the construction project all the more interesting for the students. The first excursions took place in November, and the destinations included construction sites along the EUGAL route in Saxony. In future, this pipeline will connect the landing facility on the Baltic Sea coast in Greifswald with the European gas network.

TU FREIBERG SCIENTISTS INVESTIGATE HYDROGEN STORAGE

In the HYPOS (Hydrogen Power Storage & Solution East Germany) research initiative funded by the Federal Ministry of Education and Research, researchers from TU Freiberg are investigating the alternative generation and storage of hydrogen. If electricity is squandered or wind turbines have to be switched off in times of oversupply, scientists from Freiberg have developed a process that will use such surplus electricity in the future to generate hydrogen. With an electrical charge, they can employ electrolysis to split water into hydrogen and oxygen. The resulting hydrogen, in turn, can later be used either as a raw material for hydrogen vehicles or as an energy carrier for artificial methane production (Power to Gas). The hydrogen is to be stored in large quantities underground in artificially created caverns.

SPIN-OFF PROJECT FOR INDUSTRY EXTRACTION BEGINS

Freiberg’s new start-up project ‘Ressourcen-technologie & Metallveredelung Freiberg’ (RMF – Resource Technology and Metal Refining Freiberg) has developed a process for the extraction of indium from residual materials and smelting residues.

The innovative process closes a gap in the raw materials cycle and ensures the long-term supply of indium to industry.

The team will commission a demonstration plant on the university campus by March 2020, which will be capable of producing up to one kilogram of indium per day from different material streams.

To realize the RMF project, the founding team was granted total funding of EUR 1.3 million via the EXIST research transfer project (Federal Ministry for Economic Affairs and Energy) and the Dr. Erich Krüger Foundation.

KRÜGER FOUNDATION SUPPORTS RESEARCH ON ANTIOXIDANTS

Since the beginning of January 2019, the Dr. Erich Krüger Foundation has supported a research project on ‘white biotechnology’, which involves the production of novel antioxidants as health-promoting food additives.

The research team is focusing on very special compounds based on aromatic alcohols, which combine many other positive properties and, thus, have far more potential than vitamin C, for example. It is conceivable that they could be used, e.g., in sports or fitness drinks.
**NEWLY APPOINTED 2018/2019**

- **Prof. Dr. Andreas Brüer**
  Professor of Thermal Process Engineering (Faculty 4) since January 1, 2018
- **Prof. Dr. Hermann Ehlich**
  Professor of Bimioromaterials and Extreme Biomimetics (Faculty 5) since August 1, 2018
- **Prof. Dr. Thomas Nagel**
  Professor of Soil Mechanics and Foundation Engineering (Faculty 3) since September 1, 2018
- **Prof. Dr. Christian Gerhards**
  Professor of Geo-informatics and Geomatics (Faculty 3) since October 1, 2018
- **Prof. Dr. Felix Alois Plamper**
  Professor of Physical Chemistry – Interfaces and Colloids (Faculty 2) since October 1, 2018
- **Prof. Dr. Traugott Scheytt**
  Professor of Hydrogeology and Hydrochemistry (Faculty 3) since October 1, 2018
- **Prof. Dr. Sebastian Züg**
  Professor of Software Development and Robotics (Faculty 1) since October 1, 2018
- **Prof. Dr. Karina Sopp**
  Professorship for General Business Administration, in particular Entrepreneurship and Corporate Taxation (Faculty 6) from March 1, 2019

**NEW HONORARY PROFESSORS**

- **Prof. Dr. Gert Noize**
  from 1.4.2018, Field: Electron Beam Microphase Analysis (EBSD)
- **Prof. Dr. Torsten Dietze**
  from 1.4.2018, Field: Mining economics
- **Prof. Dr. Silvio Zeibig**
  from 1.10.18, Field: Geology and exploration of potash and rock salt deposits

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**SAXONY'S FIRST FEMALE MINER**

Sophia Will studies mining in her 5th semester at TU Bergakademie Freiberg, works as an assistant at the Chair for Underground Mining Methods and is involved in the Mine Rescue Team Association. She currently studies for a Diploma in Geoengineering and mining, which remains a typically male vocation. For a long time, it was even forbidden for women to work underground. It was only ten years ago that the ban on underground work for women was abolished across Germany. Sophia Willis (21), and comes from a mining region known as Lusatia in the eastern part of Germany. During her internship at the lignite mining specialist LEAG, she discovered that her down-to-earth work resonated with her employer. "Raw materials are always needed, regardless of structural crises," she says. She has not had any bad experiences to date as a woman in a male-dominated profession. "They are actually happier when there is a woman on their team, because we are regarded as 'team players'. Ultimately, as an engineer, I want to work primarily in planning, and not in hauling heavy railway sleepers! But physical work doesn't bother her either, as she is also involved in the renovation of a historic water wheel in Freiberg's Turnerhof. "I like everything that has to do with people, and not just office work." In 2019, as a student ambassador for TU Freiberg at her alma mater high school, she aimed to get girls interested in engineering. "I want to communicate that working in a male-dominated profession is not a problem, and that my fellow students really stand behind me if someone says something impolite."

At TU Bergakademie Freiberg, 38 women (12.9 percent) are currently studying for a Diploma in Geo-engineering and mining. Among the 44 doctoral students in the field of geo-engineering and mining, nine are women: corresponding to a share of 20.5 percent.
**MUSIC CARRIES YOU THROUGH LIFE: 70 YEARS IN COLLEGIUM MUSICUM**

The Collegium Musicum e.V. at TU Bergakademie Freiberg celebrated its 70th anniversary with a special concert in the Nikolaikirche in Freiberg on November 17. We took this as an opportunity to take a closer look at two of its members:

**The Veteran:** Fritz Zeissler is the veteran in the Collegium Musicum. Shortly after its foundation in 1948, he joined the Bergakademie’s then still-manageable chamber orchestra. Born in Freiberg, he was only 20 years old at the time, but he has remained as a violinst until today – for staggering 70 years!

For a man of almost 90, his mental and physical agility are astonishing. But, he says, “Without a hearing aid, I don’t always understand what our orchestra leader is saying. I often ask my neighbor, who is only 80...”

The violin has been his companion since childhood. Even as a seven-year-old, he liked how a friend and the friend’s father played the violin, and they lent him a three-quarter sized violin to try out. “Scratched under the living-room table, which my mother didn’t like at all.”

So he received proper violin lessons from a real teacher for six years. Mr. Zeissler played in the string orchestra of his high school, and was recruited by a friend of a student of string chemistry called Brouse. Even after the war, music carried him onwards into a new life. He played as a ‘standing violinist’ at countless festivals. “The people were simply mad about dancing in those days.”

During his time with the Collegium Musicum, he has played at least 120 big concerts and about 220 Jugend- weile (coming-of-age) celebrations. “We are predominantly focused on classical music,” he says, adding that the new students at the university always bring a breath of fresh air.

A few years ago, he and his partner moved into an assisted living facility in downtown Freiberg. “The garden became too much for me,” he says. He has also travelled extensively with his mother-in-law, and his travels have led him as far away as the USA and Australia. He also likes to exchange ideas with his daughter-in-law, who plays with the Collegium Musicum in Potsdam.

But Fritz Zeissler is a busy man. After the interview, he had to rush off to visit a travel agency in his electric wheelchair. His next trip will take him and his partner to Vienna.

**The Apprentice:** 15-year-old Vanesa-Lotte from Siebenlehn practices for one to two hours a day on her violin. She says that she does it voluntarily, and that she enjoys it. So much commitment pays off. She is now the youngest violinist in the long-established symphony orchestra of the Collegium Musicum. Vanessa spent five years at the Landesmusikgymnasium (State High School of Music) in Dresden and has taken both national and international prizes in Dresden and the Czech Republic.

At the last Advent concert, she was able to show what she can do: She played the solo for the second violin in a concerto grosso opus by the Italian baroque composer, Arcangelo Corelli.

His family is very supportive. “My parents often drive me to rehearsals and performances, and often attend as audience members.” Vanessa says that music will continue to occupy an important place in her life.
**EVENTS 2019**

**April 17**  
Opening of the special exhibition ‘Gesucht und gefunden: Einzigartige Entdeckungen aus Sachsen’ (‘Sought & Found: Unique Discoveries from Saxony’), terra mineralia, Freudenstein Castle (until August 25)

**April 30, 13:00**  
Inaugural Day of Teaching ‘Motivating Students to Succeed in Their Studies’, Alte Mensa

**May 8, 18:00**  
Lecture series ‘Science in Motion’, Krüger Colloquium with Prof. Ottmar Ette, University of Potsdam, Alte Mensa

**May 14, 11:00**  
Practice Workshop ‘Basics of Press Relations’, Department of University Communication / Saxseed, Campuscafé SIZ

**May 14, 18:00**  
Opening of the Humboldt exhibition ‘Flora Fribergensis’, University Library (open until October 4)

**May 15 & 16**  
20th Geo-Kinematics Day, Alte Mensa

**May 18, 10:00**  
Campus Day of TU Bergakademie Freiberg

**May 18, 10:00**  
Junior-Uni, Audimax

**May 20, 18:00**  
‘Daniel Kehlmann und der erfundene Humboldt’ (‘Daniel Kehlmann and the Invented Humboldt’), Dr. Frank Holl, Münchner Wissenschaftsakademie e. V., Campuscafé SIZ

**June 3, 18:00**  
‘Mein zweites Vaterland – Alexander von Humboldt und Frankreich’ (‘My Second Fatherland – Alexander von Humboldt and France’), Dr. David Blankenstein, TU Berlin, Werner-Bau

**June 5 – 7**  
70. BHT – Freiberg University Forum

**June 7, 10:00**  
Ceremony to mark 100 Years of the Reiche Zeche research and training mine, Alte Mensa

**June 14**  
Ceremony to mark the commencement of studies 228 years ago (June 14, 1791), Alte Mensa

**June 17, 18:00**  
‘Werner – Humboldt – Scotland’, Dr. Hildegard Wiegel, TU Bergakademie Freiberg, Werner-Bau, Brennhausgasse 14

**June 18, 10 Uhr**  
Health day, Neue Mensa

**June 21 & 22**  
Alumni meeting of the professorship ‘Fluid Mechanics and Fluid Machines’

**June 22**  
Long Night of Science and Business, Campus/Reiche Zeche

**July 1, 18:00**  

**July 3, 19:30**  
20 Years of Otto Night – The Grand Anniversary, Alte Mensa

**July 8 to August 16**  
High School Meets University

**August 27 to 30**  
28th Mentoring Program ‘Experimenting in Freiberg, Clemens-Winkler-Bau’

**September 14**  
Miners’ Parade in honor of von Humboldt, with Freiberg’s Historical Miner’s & Smelter’s Guild

**September 14**  
Concluding Event for the Humboldt Year, Seconda Pratica concert ensemble, Nikolaikirche Freiberg, Buttermarkt

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**IMPRINT**

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