

TECHNISCHE UNIVERSITÄT CHEMNITZ







Networks of innovation for the transformation of society through science



8th AC21 International Forum 2016 30 April - 03 May 2016 Chemnitz University of Technology Germany



NETWORKS OF INNOVATION FOR THE TRANSFORMATION OF SOCIETY THROUGH SCIENCE



Looking back at the 2016 International Forum of the Academic Consortium for the 21st Century, we cannot help but wonder about the diversity and richness the participants have brought to its palette of panels, excursions, and workshops. Our sincere thanks go to all who have joined us for the 2016 AC21 International Forum. It was a true honor and pleasure to welcoming you at Chemnitz!

A chain, a common saying goes, is only as strong as its weakest link. Judging from the memorable experiences we were able to share during the days of the 2016 International Forum, AC21 presents a set of diverse, but equally strong parts. Together, they form the powerful AC21 network and provide the basis for so many great initiatives and projects.

This year's International Forum invited us to think through the role, networks of innovation play for the transformation of society through science. As a key driver within these environments, universities are forming networks with partners in academia, commerce, politics, and society.

Bearing in mind this theme, the Forum itself arguably forms a core element in making AC21 a prolific network. Its rich palette of sessions and events thus offered to zoom in on the implementation and use of scientific insights and results for economic and social progress. Thus, it allowed for taking the opportunity to share ideas, experiences, and insights about international cooperation across different sectors. For sure, universities need strong partners to answer the complex tasks modern societies face – and they are strong partners themselves generating much needed expertise for industry, policy-making, and social welfare.

In an increasingly globalized world, it has become impossible for institutions to work in a sustainable way without appropriate partners in different disciplines, sectors, and countries. To further these networks, one task will be to stimulate innovation and a "transfer culture" within trans-disciplinary, cross-sector networks. Connected to that, another task will be to identify key innovation drivers and to create framework conditions and infrastructures. Overall, universities throughout the globe will have to identify collaborators who correspond to their strategic profile so to create new networks and maintain established ones. These networks should enable its partners to bring in their strengths, their skills, and their resources for multiplying effectiveness and sustainability.

The 2016 International Forum was in many ways a platform for building and strengthening such networks within and around AC21. We thank you very much for your enthusiasm and commitment, which were essential in making our meetings and conversations productive.

As of now, we do not hope to sum up the Forum's outcomes. Rather, we assume that its effects will only matter when they infuse our day-to-day work of establishing sustainable networks and bring forward the AC21 community. As one step, we have prepared this review report which are, together with some audiovisual impressions and a photo gallery, available from the Forum's website under **www.tu-chemnitz.de/ac21**.

AC21 is, after all, a networking endeavor. Hence, it lives through interconnections and communication and we are very much looking forward to hearing from you and to seeing you at one of the upcoming events, which promise to further deepen our networks!



Acting Rector Prof. Dr. Andreas Schubert

Chancellor and AC21 Forum Coordinator Eberhard Alles





Chemnitz University of Technology - Addressing the Issues of Tomorrow

Situated in the center of the Chemnitz "Wissenschaftsregion" ("science region"), the Technische Universität (TU) Chemnitz is home to more than 12,000 students from 90 countries – in less than 25 years, the number of students has increased by about 4,000. With approximately 2,300 employees in science, engineering and management, the TU Chemnitz is among the most important employers in the region. Today, the TU Chemnitz stands for outstanding research.

Within the core competencies "Materials and Smart Systems", "Resource-efficient Production and Lightweight Structures" and "Humans and Technology", solutions for the challenges of tomorrow are developed. The main focus in economic and social development is the creation of value, which in turn is influenced by major trends such as globalization, demographic change and the availability of resources. The TU Chemnitz's profile is characterized by a unique constellation of competencies across eight faculties. Thanks to this constellation, Chemnitz is emerging as an internationally visible research hub for future value creation processes and sustainable growth for the future.

Chemnitz - The City of Modernism

The third-largest city in Saxony constitutes one of Germany's foremost industrial and technology centres. New companies, especially in the areas of toolmaking, textiles, automotive engineering and machine building, have been formed here and are exporting goods all over the world. Chemnitz boasts a large number of cultural institutions, including the Opera House with its highly successful productions, the Chemnitz Art Collections, and the Gunzenhauser Museum.

Chemnitz was, and still is, a city with a flourishing economy and inventive talent. The filing clip, thermos flask, laundry detergent and much more were invented here. And Chemnitz today is once again a competitive centre for technological innovation, for which it owes its numerous entrepreneurs and their proximity to the research centres.

The fact of the matter is: since 2004, Chemnitz has been counted among the ten strongest growing cities of Germany every year. Source: chemnitz.de





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Shanghai Jiao Tong University



University of Minnesota





North Carolina State University

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Stellenbosch

University

TECHNISCHE UNIVERSITÄT CHEMNITZ

Technology

Chemnitz University of

The "Academic Consortium for the 21st Century" (AC21) was established in 2002 during the "International Forum" hosted by Nagoya University, Japan. The overarching theme of this event "The Role of the Universities in the 21st Century" became until today the guideline for the activities of this network. The founding members, among them also Chemnitz University of Technology, defined a set of missions of the AC21 network: First, that in an era of continuous change it should take initiative to respond to the rapidly transforming needs of society.

Second, that it should make use of its common pool of knowledge, expertise, and experience to promote cooperation in education and research between its members and beyond. Third, that it should bridge different societies around the world and that it should deliver insights to all people so to mutually understand and share values, knowledge, and cultures which are necessary for improving the quality of life and foster co-existence beyond national and regional boundaries in the 21st century.



Jilin University

Peking



Strasbourg

Chulalongkorn



Peking University

Chulalong University

Nanjing University



Ser.

Kasetsart University

Northeastern University

Nagoya University

The University of Adelaide

Since then, the AC21-network has been developing a range of activities in order to implement these objectives. Thus, the "International Forums" became a set tradition bringing together high-ranking delegations from administration and academia of the AC21-member universities and other institutions. They take place every two years at a changing AC21-host university in order to discuss an overarching theme in accord with global megatrends and of special interest for the further development of the network.

Integrated in these events are also meetings of the main bodies of the AC21-network, namely, the AC21 Steering Committee and the AC21 General Assembly. The overall management of the network rests with the AC21 General Secretariat located at Nagoya University, Japan.

8TH AC21 INTERNATIONAL FORUM



8th AC21 International Forum from 30 April to 3 May 2016 at Chemnitz University of Technology

Dr. Eberhard Alles

Chancellor and International Forum 2016 Coordinator, Chemnitz University of Technology

The bi-annual AC21 International Forums are the most extensive and most prominent events of the AC21 network. For this reason, Chemnitz University of Technology as one of its founding members was very delighted and honored to be selected for hosting the 8th AC21 International Forum, which took place from 30 April to 3 May 2016. It coincided with the celebrations of the 180-years-jubilee of Chemnitz University of Technology whose roots go back to the year 1836.

Under the overarching theme of the AC21 International Forum 2016 "Networks of innovation for the transformation of society through science", more than 120 participants shared their ideas and insights. For the major part they came from AC21-member universities but also involved guests from international partner universities of Chemnitz University of Technology, for instance the Czech Technical University at Prague or the University of Akron, Ohio, from extramural research partners like the Fraunhofer-Institute for Machine Tools and Forming Technology and the Fraunhofer-Institute for Electronic Nano Systems, from industrial partners, for example Audi AG or the KraussMaffei Group as well as from politics and professional academic organizations like the German Academic Exchange Service. Last but not least, also many interested professors and faculty members of Chemnitz University of Technology took part in the conference.

Preluded by a Welcome Reception on 29 May 2016 in the Chemnitz Arts Collections, the program of the AC21 International Forum 2016 started on the following day with the meeting of the AC21 Steering Committee – jointly with the AC21 General Assembly the main body in order to take decisions for the further development of the AC21 network. The Forum was then officially opened in the evening of that day within the festive "Spring Gala" at the Archeological Museum of Chemnitz. There, the Forum's opening linked to the 180-years jubilee of Chemnitz University of Technology as hosting university.

On Sunday, 1 May 2016, the participants took the opportunity to take part in the social program including a guided tour through the Industrial Museum of Chemnitz, a barbecue in the inner courtyard of the university and an excursion to the vineyard and winery "Schloss Wackerbarth" near Dresden.

The following two days were dedicated to speeches and panel discussions dealing with the different aspects of the overarching theme of the Forum "Networks of innovation for the transformation of society through science". The keynotes in the morning of 2 May 2016 were held by the President of the German Academic Exchange Service, Professor Margret Wintermantel, and the Head of the Department of Technology Development of Audi AG, Dr Michael Korte. The Federal Minister of Education and Research, Professor Johanna Wanka, sent her anniversary congratulations to Chemnitz University of Technology and her recognition for hosting the AC21 International Forum 2016. The entire conference program can be found on the website of Chemnitz University of Technology created for the AC21 International Forum 2016 (https://www.tu-chemnitz.de/ac21).

Some of the more tangible outcomes of the AC21 International Forum 2016 rest with the decision of the AC21 Steering Committee and General Assembly to further develop cooperation between member universities in the areas of studies, research, and staff mobility based on the results of prior surveys. Moreover, Nanjing University and Chemnitz University of Technology signed a student exchange agreement in the presence of the President of the German Academic Exchange Service, Professor Wintermantel.

For documenting the event a conference diary was published online. In addition, all AC21-participants will receive an extent information package including an overview of the Forum, audiovisual impressions, and photos.

Chemnitz University of Technology sincerely thanks the AC21 General Secretariat for supporting and co-funding the AC21 International Forum 2016 as well as all speakers, panelists, participants, and organizers for their valuable contributions. Taken together, they made this event – to quote of one attendant – an "outstanding conference in a splendid environment". Looking back at the great experiences during the AC21 International Forum 2016, Chemnitz University of Technology sends best wishes to Jilin University Changchun as the host of the 9th AC21 International Forum in 2018!



Welcome Reception

Arts Collections Chemnitz





Day 1: Saturday, April 30, 2016

On Friday evening, participants of the International Forum attended the "Welcome Reception" in the Chemnitz Art Museum. There, they were given the chance to view art from many various art periods in several different exhibits. Afterwards, they had the chance to enjoy relaxed conversations and networking.

The official program of the AC21 International Forum 2016 began with the meeting of the AC21 Steering Committee, which – together with the AC21 General Assembly – is responsible for making strategic decisions for the future development of the network. Along with reports about past AC21 events and from the General Secretariat, several surveys were presented. Among those to present was the TU Chemnitz Vice-Rector for Research and Promotion of Young Scientists, Prof. Dr. Heinrich Lang, who discussed the results of a "Research Profile Mapping". This was evaluated by the participants as an important basis to further strengthen cooperation in the future. Many additional possibilities for networking were demonstrated by other surveys, for instance regarding student and employee mobility.

On Saturday, guests also had the opportunity to take part in a tour through the city of Chemnitz. The route passed by not only the city's most famous attraction – the Karl Marx Monument – but also included a tour of the courthouse where visitors could visit the city council hall and climb to the top of the tower.

The 8th AC21 International Forum was officially opened with the Spring Gala in the evening under the patronage of the Saxon State Minister for Higher Education, Research and the Arts, Dr. Eva-Maria Stange. More than 60 guests of the International Forum accepted the invitation to visit the State Museum for Archaeology in Chemnitz, where they enjoyed a program of welcome addresses, cultural entertainment performances and music.



Guided city walk through Chemnitz (primarily for participants in the AC21 Steering Committee) Pick up from the conference hotel ("Hotel an der Oper")

AC21 Steering Committee Meeting Please find further information on the next pages > Fraunhofer Institute for Machine Tools and Forming Technology

Guided city walk through Chemnitz (primarily for non-participants in the AC21 Steering Committee) Pick up from the conference hotel ("Hotel an der Oper")

Spring-Gala

(Official Opening of the AC21 International Forum 2016) State Museum of Archeology Chemnitz







AC21 Steering Committee Meeting

Greetings from the Chair

Opening Address Andreas Schubert, Chemnitz University of Technology

AC21 General Secretariat Report AC21 General Secretariat, Nagoya University

Previous Event Report: 6th AC21 Student World Forum 2015 and 13th AC21 STC Meeting 2015 University of Strasbourg AC21 General Secretariat, Nagoya University

Future AC21 Activities: Hosts of the 2019 and 2020 Events Announcement of Host Candidates AC21 General Secretariat, Nagoya University

Progress Report on Future Event #1: 2nd International Graduate School 2017 Gadjah Mada University

Progress Report on Future Event #2: 9th International Forum 2018 Jilin University STC Membership
1) Rotation and Election: Announcement of Nominees
2) Supplementary Changes to AC21 Articles (requirement of an interval to be eligible for re-election)
AC21 General Secretariat, Nagoya University

Special Project Fund 1) Survey Results 2) Disclosure to Applicants AC21 General Secretariat, Nagoya University

Research Profile Mapping (Interim Report) Chemnitz University of Technology

Student Mobility: Survey Results (Interim Report) The University of Adelaide

Staff Exchange (Interim Report) University of Minnesota

Free Discussion

Adjournment





Day 2: Sunday, May 1, 2016

Today, the participants of the AC21 International Forum had the possibility to learn more about both the City of Chemnitz and the state of Saxony. In the morning, 34 guests enjoyed a tour of the Industrial Museum Chemnitz, and they were impressed by the architecture of the building. One of the international participants found interesting connections to his own scientific field – industrialization. Others praised the holistic approach of the museum, which presents various technical as well as social aspects of Saxony's industrialization.

For lunch, the guests came together in the courtyard of the main building of the TU Chemnitz. Here they found the possibility to network while enjoying a barbecue, Saxon beer and good weather.

During the afternoon and evening, 47 participants took part in an excursion to the vineyard "Schloss Wackerbarth" near Dresden. Here they were given a glimpse into the production of Saxon wine. A dinner in the wine cellar of Schloss Wackerbarth completed the day.







Guided Tour through Industrial Museum Chemnitz Industrial Museum Chemnitz

"Altes Heizhaus"



Guided tour and dinner at "Schloss Wackerbarth" (vineyard, winery and restaurant)

Barbecue

"Schloss Wackerbarth"





Day 3: Monday, May 2, 2016

Today's conference program began with the official opening of the AC21 International Forum, which was integrated into the 180th Anniversary Ceremony of the TU Chemnitz. During this event, the overarching theme of the International Forum – networks – was particularly in focus.

Afterwards, the sessions of the conference began. The first panel discussion addressed the topic "Achieving Excellence in Research and Research Transfer". Prof. Wim de Villiers, Rector and Vice-Chancellor of Stellenbosch University (South Africa) – who in his opening statement described the International Forum as an "outstanding conference in a splendid environment" – gave an insight into his university's definition of excellence: a triad of scientific excellence, social relevance and a transfer which makes products out of research on the one hand and communicates knowledge about research results to society on the other hand. Representatives of other universities also presented challenges and solutions of their institutions related to the subject. In the final discussion, participants talked about the role of AC21 in this field and developed ideas: AC21 could – for example – function as an incubator to promote the cooperation between universities and industry. In addition, the network might be helpful to support the application for national funding projects by bringing universities together.

After lunch, a visit to TU Chemnitz's Federal Cluster of Excellence "Merge Technologies for Multifunctional Lightweight Structures" (MERGE) was on the agenda. Here, among others,

the speaker of the cluster, Prof. Lothar Kroll, gave an overview of the research. As a souvenir, the participants were able to take along a frisbee made at MERGE. It illustrates the challenge the cluster is dealing with: the merging of different materials.

The subsequent panel discussion had the title "Stimulating innovation and a transfer culture within trans-disciplinary, cross-sector networks". The opening statement was held by Prof. Olfa Kanoun of the TU Chemnitz. She defined the concept of innovation as "turning ideas into manufacturable and marketable ideas". According to Kanoun, it is important to overcome the gap between prototype and product through combination of basic and applied research.

The last panel of the day made the next steps in international academic networks a subject of discussion. Participants agreed that cooperation can only be effective if one focuses on priority areas. As such, they defined the themes of mobility, joint research projects, joint applications for third-party funding, and the creation of communication platforms.

At the end of this conference day, a field trip brought the participants to Chemnitz' company NILES SIMMONS Industrieanlagen GmbH. Here they received a closer look at a functioning cooperation between a university and a company. The guests of the International Forum were especially entertained by the guided tour through the production plant.



Exhibition – Networks of Innovation for the Transformation of Society Through Science Chemnitz University of Technology, Main Lecture Hall Building (Vestibule)

Anniversary Ceremonial Act Welcome Addresses and Keynotes Chemnitz University of Technology, Main Lecture Hall Building

Within this session, the AC21 International Forum 2016 at Chemnitz University of Technology will be opened by several welcome addresses and keynotes with regard to global networking in science and economy. The abstracts and biographical information can be accessed here: www.tu-chemnitz.de/ac21

Prof. Dr. Andreas Schubert

Acting Rector of Chemnitz University of Technology, Germany **Prof. Dr. Johanna Wanka** Federal Minister of Education and Research, Germany **Uwe Gaul** State Secretary of the Saxon State Minister of Science and the Arts, Germany

Barbara Ludwig Mayor of the City of Chemnitz, Germany Dr. Peter Seifert Head of University Council **Yvonne Pajonk** Student and scholarship holder at Chemnitz University of Technology Prof. Dr. Yoshihito Watanabe AC21 General Secretariat Director. Trustee and Vice-President of Nagoya University, Japan Dr. Eberhard Alles Chancellor of Chemnitz University of Technology, AC21 International Forum Coordinator, Germany Prof. Dr. Margret Wintermantel President of the German Academic Exchange Service, Germany Dr. Michael Korte Head of Predevelopment of Car Concepts at AUDI AG Ingolstadt, Germany

Plenary Panel Discussion: Achieving Excellence in Research and Research Transfer

Chemnitz University of Technology, Main Lecture Hall Building

This plenary will assemble experience and expertise in achieving excellence in research and research transfer within the AC21-network. Presidents and Vice-Presidents respectively from AC21-member institutions will join in the panel with short input talks so to spark a lively debate with the audience. The abstracts and biographical information can be accessed here: www.tu-chemnitz.de/ac21

Moderation: Prof. Dr. Dietrich R.T. Zahn

Professorship for Semiconductor Physics of Chemnitz University of Technology

Prof. Wim de Villiers

Rector and Vice-Chancellor of Stellenbosch University, South Africa **Prof. Seiichi Matsuo** President of Nagoya University, Japan **Meredith McQuaid** Associate Vice-President and Dean of International Programs of the University of Minnesota Minneapolis, USA **Prof. Julie Owens** Pro Vice-Chancellor for Research Strategy of the University of Adelaide, Australia **Prof. Zhiqiang Wu** Vice-President of Tongji University Shanghai, China Guided tour around the Technology Center of the Federal Cluster of Excellence "Merge Technologies for Resource Efficiency" (MERGE) of Chemnitz University of Technology Chemnitz University of Technology, MERGE Technology Center

In the MERGE-Technology Center, the delegates and guests will have the opportunity to visit the facilities and to get to know the equipment for cutting-edge R&D within the only Federal Cluster of Excellence in the future-oriented field of lightweight engineering in Germany located at Chemnitz University of Technology. Furthermore, they will be provided an insight in the profile and work of this cluster by the CEO, Prof. Dr. Lothar Kroll.

Prof. Dr. Lothar Kroll

CEO of the Federal Cluster of Excellence "Merge Technologies for Multifunctional Lightweight Structures" – MERGE of Chemnitz University of Technology

Panel Discussion: Stimulating innovation and a "transfer culture" within trans-disciplinary, cross-sector networks

Chemnitz University of Technology, Main Lecture Hall Building

This plenary panel sheds light on the topic of stimulating innovation and a "transfer culture" within trans-disciplinary, cross-sector networks. For this purpose, it brings together vistas from academia, commerce and politics. It starts with ignite talks and then opens up to public debate. The abstracts and biographical information can be accessed here: www.tu-chemnitz.de/ac21

Moderation: **Prof. Dr. Welf-Guntram Drossel** (Professorship for Adaptronics and Lightweight Design of Chemnitz University of Technology; Director of the Fraunhofer-Institute for Machine Tools and Forming Technology Chemnitz, Germany)

Prof. Dr. Olfa Kanoun

Professorship of Electrical Measurements and Sensor Technology at Chemnitz University of Technology

Dennis Kekas

Associate Vice-Chancellor for Partnership, Industry Alliances and Economic Development of North Carolina State University Raleigh, USA

Dr. Stephan Meyer

Member of the Committee on Science and Higher Education, Cultural and Media Affairs of the Saxon State Parliament, Germany

Dr. Micaela Schönherr

CFO of KRAUSSMAFFEI GROUP GmbH Munich, Germany

Prof. Shigeaki Zaima

Vice-President for Academia-Industry Collaboration of Nagoya University, Japan

Plenary Panel and Workshop: Taking next steps in international academic networking

Chemnitz University of Technology, Main Lecture Hall Building

Following up on AC21's plans to intensify and further enhance cooperation and exchange within the network, the panel and workshop aim at gauging the range of potential paths for international academic networking. The session will be based on the delegate's positions mapping the current state of academic networking following a survey made by AC21 among its member institutions. It will start with a set of incentive talks opening up a comprehensive discussion on how to take the next steps in academic networking. The abstracts and biographical information can be accessed here:

Moderation: Prof. Dr. Heinrich Lang

Vice-Rector for Research and Promotion of Young Scientists of Chemnitz University of Technology

Plenary Panel

Katharina Aly

Director of the International Office of the University of Freiburg, Germany

Prof. Dr. Francis Kern

Vice-President for International Relations of the University of Strasbourg, France

Robert Kotzé

Senior Director of the Postgraduate & International Office of Stellenbosch University, South Africa

Prof. Bailian Li

Vice-Provost for International Affairs of North Carolina State University **Prof. Julie Owens**

Pro Vice-Chancellor for Research Strategy of the University of Adelaide, Australia

Prof. Jianhua Wang

Vice-President of Northeastern University Shenyang, China

Prof. Yoshihito Watanabe

AC21 General Secretariat Director, Trustee and Vice-President of Nagoya University, Japan

Workshop

Prof. Dr. Buncha Chinnasri

Acting Assistant to President of Kasetsart University Bangkok, Thailand **Dr. Hamish Cochrane**

Deputy Vice-Chancellor of the University of Canterbury Christchurch, New Zealand

Dr. Paripurna C. Poerwoko

Vice-Rector for Cooperation & Alumni of Gadjah Mada University Jogyakarta, Indonesia

Molly Portz

Chief of Staff of GPS Alliance of the University of Minnesota, USA Jun Xu

Regional Director of Shanghai Jiao Tong University Global Affairs, China **Guangcui Zhang**

Director of the Division of International Relations of Jilin University Changchun, China

Excursion and Dinner

Welcome address and guided tour through the plant by the Chairman & CEO of NILES SIMMONS Industrieanlagen GmbH Chemnitz, **Dr. Gero Martel**

NILES SIMMONS Industrieanlagen GmbH, Zwickauer Str. 355, Chemnitz











Day 4: Tuesday, May 3, 2016

At the beginning of the conference day, the Fraunhofer-Gesellschaft's research and technology transfer initiatives were presented to the guests. The Chemnitz-based Fraunhofer Institute for Machine Tools and Forming Technology also presented a cooperation with the Royal Institute of Technology in Stockholm. Here, they take on the challenge of transferring research on heavy vehicles into products in cooperation with companies and other scientific partners. From the Fraunhofer Institute for Electronic Nano Systems ENAS, guests gained an inside view of the work that is conducted with Tohoku University in Sendai, Japan, with whom they have established an active scientist and student exchange program since 2012. Additionally, the Fraunhofer-Gesellschaft model was presented, which represents the close linkage between fundamental and applied research – especially through a strong partnership with universities – as well as global networking.

Afterwards, three parallel sessions took place. Here, presentations were given by representatives of institutions including the University of Minnesota, the German Federal Environment Agency and the city of Saerbeck on the topic of developing a network of communities, universities and administrative agencies regarding the future-oriented topic of renewable energy. Further emphasis was on the Morgenstadt-Project of the Fraunhofer-Gesellschaft, which is carried out in Chemnitz within the framework of a close alliance between the city and university.

Guests spent the lunch break on the university campus and were able to attend the Campus and Sport Fest held by the TU. Afterwards, the AC21 General Assembly Meeting took place. At this

session, the hosts of AC21 events in the years 2019 and 2020 were announced. The TU Chemnitz's bid to organize the 2019 AC21 International Graduate School was accepted. TU Chancellor Eberhard Alles presented the initial plans for this event to the General Assembly and announced the focus to be on technologies for resource-efficiency. Likewise, Kasetsart University Bangkok presented their initial ideas for the International Forum 2020.

Participants of the AC21 International Forum 2016 who did not take part in the General Assembly had the opportunity to take a look at the Department of Electrical Engineering and Information Technology's laboratories located in the Weinhold-Bau on the TU Campus. From the roof of the building, they enjoyed a view over the Chemnitz Smart Systems Campus which is located in an area directly adjacent to campus and represents successful technology transfer, particularly in the field of intelligent systems.

After a walk through the Fraunhofer Institute for Machine Tools and Forming Technology, this year's AC21 International forum was brought to a close with the formal handover of the symbol of the AC21 Presidency from the TU Chemnitz to the Jilin University Changchun. The Chinese university will host the next AC21 International Forum in the year 2018. TU Chancellor Eberhard Alles and TU Acting Rector Prof. Dr. Andreas Schubert thanked all international guests during the closing reception for the constructive work that had been done and for the many ideas that were generated during the conference, particularly with regard to the overarching topic: "Networks of Innovation for the Transformation of Society through Science". These ideas can now be pursued and developed all over the world with the support of the Academic Consortium for the 21st Century (AC21) networks.



Workshop and Discussion: Examining a role model and best practices for creating networks with scientific, economic, political or societal partners in a global context Chemnitz University of Technology, Main Lecture Hall Building

The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 67 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of 24,000, who work with an annual research budget totaling more than 2.1 billion euros. International collaborations with excellent research partners and innovative companies around the world ensure direct access to regions of the greatest importance to present and future scientific progress and economic development.

In this workshop, a particular German model of innovation networks across basic and applied research is presented. Leading experts from Fraunhofer will bring in their experiences in creating and fostering networks with scientific, economic, political or societal partners in a global context. The abstracts and biographical information can be accessed here: www.tu-chemnitz.de/ac21 Prof. Dr. Thorsten Posselt
 Institute Director of the Fraunhofer Center for International Management and Knowledge Economy Leipzig, Germany
 Hendrik Rentzsch
 Fraunhofer Institute for Machine Tools and Forming Technology Chemnitz, Germany
 Dr. Danny Reuter

Head of the Department of Lithography of Fraunhofer-Institute of Electronic Nanosystems Chemnitz, Germany

Prof. Frank Treppe

Director Corporate Strategy and International Affairs of the Fraunhofer Gesellschaft Munich, Germany

Parallel Session 1: Workshop: Identifying key innovation drivers and creating appropriate framework conditions and infrastructures Chemnitz University of Technology, Main Lecture Hall Building

Moderation: **Prof. Dr. Silke Hüsing** (Professorship for Business Taxation and Auditing of Chemnitz University of Technology).

Anita Nel

Stellenbosch University, South-Africa University-industry networks as hubs of "knowledge regions" Prof. Dr. Douglas Reeves North Carolina State University Raleigh, USA Integrating international work and study experiences Prof. John E. Taplin University of Adelaide, Australia & Shandong University, China Towards an innovation driven economy – Australia and China as case studies Dr. Nils Kroemer Plant manager Chemnitz of Siemens AG Industrial production in a digital environment

The abstracts and biographical information can be accessed here: www.tu-chemnitz.de/ac21

| Parallel Session 2: Workshop: Developing a network for policy exchange on renewable ener- gy among policy leaders in Germany and Minnesota | AC21 General Assembly (General Assembly Representatives only) Please find further information on the next page ► | Fraunhofer Institute for Machine Tools and Forming Technology, Reichenhainer Str. 88, Chemnitz |
|---|---|--|
| Dr. Sabine Engel University of Minnesota, USA Stephen Kelley University of Minnesota, USA Dr. Harry Lehmann Federal Environment Agency, Germany Guido Wallraven City of Saerbeck, Germany | Guided tour through the "Wein- hold-Building" of Chemnitz University of Technology (for guests not participating in the AC21 General Assembly) | Chemnitz University of Technology, "Weinhold-Building" Reichenhainer Str. 70, Chemnitz |
| The abstracts and biographical information can be accessed here: www.tu-chemnitz.de/ac21 | Guided tour through Fraunhofer Institute for Machine Tools and Forming Technology | Fraunhofer Institute for Machine Tools and Forming Technology |
| Parallel Session 3:Chemnitz University ofWorkshop: Creating comprehen- sive networks across academia,Chemnitz University of Technology, Main Lecture Hall Building | AC21 International Forum Closing Session | Fraunhofer Institute for Machine Tools and Forming Technology |
| culture and society Bernd Bienzeisler Researcher for transitions at the Fraunhofer Institute for Industrial Enginee- | This session will include the transition of the AC21 presidency from Chemnitz University of Technology to the host of the next AC21 Internati- onal Forum in 2018, Jilin University Changchun, by the handover of a cup within a short ceremonial act. | |
| ring and Organization Stuttgart, Germany André Dettmann Researcher at the Professorship of Ergonomics and Innovation Manage- ment of Chemnitz University of Technology, Germany Eva-Maria Gräfer Project Manager of the City of Chemnitz, Germany Dr. Urs Luczak Coordinator of the "Morgenstadt"-project of the City of Chemnitz, Germany | Prof. Dr. Dirk Landgrebe Managing Director of the Fraunhofer-Institute for Machine Tools and Forming Technology Chemnitz, Germany Dr. Eberhard Alles Chancellor of Chemnitz University of Technology, AC21 International Forum Coordinator Prof. Dr. Andreas Schubert Acting Rector of Chemnitz University of Technology, Germany Prof. Li Du | |
| The abstracts and biographical information can be accessed here: www.tu-chemnitz.de/ac21 | Vice-President of Jilin University Changchun | |

Closing Reception

Fraunhofer Institute for Machine Tools and Forming Technology

AC21 General Assembly

Welcome Address Andreas Schubert, Chemnitz University of Technology

AC21 General Secretariat Report AC21 General Secretariat, Nagoya University

Previous Event Report: 6th AC21 Student World Forum 2015 and 13th AC21 STC Meeting 2015 University of Strasbourg AC21 General Secretariat, Nagoya University

Progress Report on Future Event #1: 2nd International Graduate School 2017 Paripurna Poerwoko, Gadjah Mada University

Progress Report on Future Event #2: 9th International Forum 2018 Li Du, Jilin University

Future AC21 Activities: Hosts of the 2019 and 2020 events
1) Announcement of Host Candidates
2) Presentations by Host Candidates
AC21 General Secretariat, Nagoya University

Rotation and Election of STC Membership 1) Announcement of Nominees 2) Supplementary Changes to AC21 Articles AC21 General Secretariat, Nagoya University

Special Project Fund1) Survey Results2) Disclosure to ApplicantsAC21 General Secretariat, Nagoya University

Research Profile Mapping (Interim Report) Chemnitz University of Technology

Student Mobility Survey (Interim Report) The University of Adelaide

Staff Exchange (Interim Report) University of Minnesota

Free Discussion

Closing Address Seiichi Matsuo, Nagoya University

Adjournment



Transition of AC21 Presidency to Jilin Upinity Changer



Altes Heizhaus

Arts Collection Chemnitz

Hotel an der Oper

State Museum of Archeology Chemnitz

Ritterstr.





Industrial Museum Chemnitz

NILES SIMMONS Industrieanlagen GmbH

28





Beinsdorfer Str

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