

AC21 Newsletter

9th AC21 International Forum 2018 at Jilin University

Contents:

9th AC21 International Forum 2018 at Jilin University.....	1
AC21 International Forum 2018: Participant Reports.....	4
Report 1.....	4
Report 2.....	4
AC21 Special Project Fund(SPF)2017: Reports from Awardees.....	5
AC21 Special Project Fund(SPF): Results of the 2018 Round SPF Awarded to 4 Projects This Year.....	8
APAIE 2018.....	9
NAFSA 2018	9
From Dr. Watanabe of Nagoya University.....	11
Upcoming AC21 Activities and Event	12
AC21 General Secretariat Activities (Apr 2018 - Sep 2018)	12
AC21 Members	12
What is AC21?.....	12

“Comprehensive Enhancement on the Innovation Capability among Universities and the Lead in Social Development”

Li Yuanyuan

President of Jilin University; Academician of Chinese Academy of Engineering



As the founding member and the rotating presidency of AC21, Jilin University was much honored to hold the 9th AC21 International Forum which took place in Changchun, China from July 4th-7th, 2018. On behalf of Jilin University, I would like to sincerely thank all the representatives of AC21 member universities and non-AC21 member universities who contributed to this year’s splendid and productive event!

Over 100 representatives of 30 universities and educational institutions from 10 countries attended the International Forum.

The forum theme focused on “University Innovation and Social Development” were widely expressed, and excellent speeches with precious experiences on “Interdisciplinary Research and International Cooperation”, “Reform in Higher Education and MOOCs” and “Innovation and Entrepreneurship” were shared accordingly by presidents, experts and scholars. It is quite delightful that since the establishment of AC21 in 2002, a good channel has been created among universities for the interaction and mutual understanding, and science & technology collaborative innovations have been promoted through the further international scientific research cooperation. The new round of the science-technology revolution and industrial transformation is reconstructing the global innovation domain, and the traditional modes of university education are facing unprecedented challenges. To achieve the connotative development,

open-up and cooperation, attracting capable personnel and boosting collaborative innovations are the only routes for all the universities.

In the dramatic improvement of informatization and globalization, under the ever-changing world structure, the traditional model of higher education is under unprecedented challenges. As the biggest university in terms of the student population and a full range of disciplines in China, Jilin University would like to further discuss on how to confront the new challenges to higher education in the new era and would consolidate the cooperation between universities and colleges and promote the advancement of human societies by virtue of this forum. How do we innovate thoughts on education, to reform the mode of higher education, and to develop world-class universities which meet the requirements of the new era? Those questions have become key topics for all the universities in the world.

The world has evolved into the competition of talents and innovation. The collaboration between the science-technology and innovation has become the fundamental need for human progress. The global structure of higher education is changing nowadays. It has become widely realized among universities home and abroad that it is through opening-up and cooperation, recruiting talents and professionals in all fields, and collaborating innovation with science and technology we can achieve the full potential for development of higher education.

Based on the fertile and productive activities derived from the AC21 network, we can speak up and learn from each other through exchanges. We can fully explore more effective resources, and promote bilateral and multilateral cooperation, to cultivate internationalized and interdisciplinary talent needed for the new era, contribute to the progress of human civilization, and realize the original intention of AC21.

In order to further adapt to a changing global landscape and technological development, and meet new requirements for technological revolution and industrial reforms, and deeply integrate higher education with economic, social, and industrial development, universities need to keep optimizing disciplinary structure, and taking the initiative to make an overall planning in line with the international frontiers of technology and in answer to the needs of major national strategies, through building first-rate disciplines and schools.

Universities need to provide students with multi-disciplinary educational resources such as knowledge education, innovation and entrepreneurship, cultural experiences, social services and international cooperation, in order to jointly create an open and international education environment, and jointly cultivate multi-disciplinary talent with a global perspective and feelings for his home country for the new area.

Universities need to expand bilateral and even multilateral cooperation networks,

strengthen coordinated talent training, and promote interdisciplinary cooperation and scientific research. Universities need to promote the construction of advantageous disciplines, and support the “Double First-Class Initiative” construction of JLU with AC21, so as to jointly cope with international and domestic competition and achieve comprehensive and coordinated development.

In addition to the forum, AC21 16th Steering Committee Meeting and AC21 9th General Assembly were carried out accordingly, resulting in lively discussions on further developing the cooperation between member universities in the areas of teaching, research, and staff & student mobility. Moreover, Nanjing University was elected to host the Forum in 2021.

Finally, Jilin University sincerely thanks the AC21 General Secretariat for supporting and co-funding the AC21 International Forum, 2018. Heartfelt thanks also go to all the speakers, moderators and participants in the event as well as the organizers and volunteers who have made concerted effort to this year’s forum. Wish a complete success for AC21 3rd International Graduate School to be held in 2019 at Chemnitz University of Technology, German and AC21 10th International Forum to be held in 2020 at Kasetsart University, Thailand!



AC21 International Forum 2018: Participant Reports

Report 1

Prof. Ladawan Puangchit
Kasetsart University

It was the first time that I, together with two other delegates from Kasetsart University, had a chance to attend the Academic Consortium 21 International Forum (IF), which most recently met on 4-6 July 2018. Jilin University, China, set a very good example as a host university. We were highly satisfied with the information and communication before, during, and after the forum, and were thankful for the hospitality extended to us throughout the event.

We were impressed by the good organization and also with the related activities, namely meetings, excursions, and networking opportunities. The keynote addresses and panel discussion were insightful and provided valuable

information and recommendations. We also appreciated the information obtained during our visit to the CRRC Changchun Railway Vehicles, Co. Ltd.

Apart from this, I was honored to present our progress report regarding the upcoming Academic Consortium 21 International Forum 2020, scheduled to take place 6-10 December 2020 at Kasetsart University in Bangkok, Thailand. I was glad to receive some valuable comments and will adjust the program accordingly.

We will do our utmost to make the 2020 Forum at Kasetsart just as impressive as the program Jilin University successfully hosted this year. We took note of the efficiency of this year's organizing team.



We are enthusiastically looking forward to welcoming the Consortium participants to KU's campus in Bangkok in 2020, and pledge to make our best efforts to provide well-organized, informative sessions to the participants!

Report 2

Katarina Aly, Director, International Office
University of Freiburg

The AC21 International Forum 2018 in Changchun, China, hosted by Jilin University, was a wonderful experience.

The topics of the plenary sessions, ranging from "Interdisciplinary Research & International Collaboration" to "Innovation & Entrepreneurship" and "Reform in Higher Education & MOOCs", covered some of the most important fields of action for Higher Education Institutes. Speakers coming from Australia, Indonesia, China, Japan, Germany and the U.S. showcased the biggest strength of the Academic Consortium 21: providing insights into different academic systems and political backgrounds all around the globe. Inviting professional external speakers like Justin Tay, Manager Asia at

Times Higher Education (THE) also greatly added to the value of the sessions.

The wonderful "Welcome Reception" by Prof. Li Yuanyuan, President of Jilin University, as well as the lunch and tea breaks provided welcome opportunities to greet old acquaintances, make new contacts and continue the discussions. A stunning highlight of the evening reception was the Chinese artist "at work", who, in only a few breathtaking minutes, created a beautiful painting which was then bestowed to AC21.

Our host truly did a marvelous job! The event was well organized, and thus it ran like a clockwork. I very much appreciated the chance to connect with Jilin faculty and students at the matchmaking event after the conference. Another wonderful and



thoughtful part of the program which our Jilin colleagues set up for me specially was the visit to Jilin campus the day before the conference, where I was able to see some of the university's facilities and speak with deans, researchers and academic staff.

I feel certain that many new collaborations will result from this forum, and I am looking forward to the International Forum 2020 at Kasetsart University, Thailand!

AC21 Special Project Fund(SPF)2017: Reports from Awardees

Report on Biomaterials Workshop for Tissue Engineering and Regenerative Medicines

University of Adelaide

The Biomaterials Workshop was successfully held at the University of Adelaide, Australia on Nov. 16-17, 2017. The workshop welcome speech was addressed by Acting Deputy Vice-Chancellor in Research Prof. Julie Owen. Prof. Jiang Chang from Shanghai Jiaotong & Institute of Ceramics of Chinese Academic Sciences, Prof. Yuhong Xu from Shanghai Jiaotong University, Prof. Jinying Zhang and Dr. Junnan Tang from Zhenzhou University, Prof. Qiguang Wang from Sichuan University, Dr. Xiaojuan Hao from CSIRO, Dr. Xiaolin Cui from Otago University, New Zealand, and Dr. Tao Wang from Western Australian University were invited to deliver an oral talk of their recent research outcomes. Locally, Prof. Stan Gronthos and Mr Jiabin Zhang from the University of Adelaide, Prof. Hans Griesser, Prof. Krasimir Vasilev, and Dr. Anton Blencowe from University of South Australia, and Prof. Hong-ping Zhang and Dr. Javad Tavakoli shared the research results of the biomaterials with the audience (details in Appendix 1: Agenda for Biomaterials Workshop). PhD students and postdoctoral researchers from the University of

Adelaide and University of South Australia attended the workshop. Around 30 people participated in the two-day workshop. However, unfortunately, Prof. Ke Cheng from North Caroline State University could not make it for the workshop due to visa issue. He did not have the visa before the flight departure date.

The workshop covers biomaterials synthesis by RAFT polymerization, biomaterials functionalization via plasma treatment, biomaterials for bone repair, cartilage regeneration, mesenchymal

stem cells therapy, cardiac stem cell therapy, antibacterial coating, and computational modeling of the biomaterials. All participants actively discuss and communicate during the workshop through the question sessions, tea/coffee breaks, lunch breaks and dinner session. It turns out to be a great success for the biomaterials-focused workshop. We have discussed with Prof. Xu from Shanghai Jiao Tong University and encouraged her to submit the application for the second biomaterials-focused workshop.



Fostering Collaboration in Future Particle Physics Detectors

University of Adelaide

This SPF brought together particle physicists from Adelaide, Freiburg and Nagoya to plan their joint involvements in the construction and operation of particle detectors and the interrogation of data in current running experiments. The groups who participated in the SPF activities are all members of the ATLAS collaboration at the CERN Large Hadron Collider.

A 3.5 day workshop, hosted at the University of Adelaide saw a variety of topics presented, with considerable time reserved for discussion and planning. The main outcomes centred on themes where each of the participants shares contributions and has active participants. The upgrade efforts of the ATLAS experiment in the inner tracking detector, trigger and data acquisition and physics analyses were seen as places where a synergistic approach to future efforts would benefit all. The group members and participants have been drawing on the experience of the workshop to present the efforts and conclusions to the broader community of particle physicists and this nascent collaboration has been well received.

The workshop provided a crucial platform for the young people in the groups and we were happy to welcome multiple graduate students from each of the groups to present their work and share their ideas. This has helped the students extend their horizons and build research collaboration outside of their home institute. One of the

most refreshing outcomes of the workshop was that young people from each group got to present, discuss and socialise with their peers and this made for healthy, open discourse where many topics were described at great length. Beyond this work there has been an active sharing of person power with weekly phone meetings attended by members of all three groups, and students visiting partner institutes. Furthermore, there has also been sharing of resources in collaboration on the Belle II experiment at the KEK laboratory in Japan.

This allegiance will make each of the groups stronger, adding crucial human capital to all efforts and help with sharing ideas, common infrastructure and computing resources in future endeavours. We hope to broaden the scope of our collaboration in the future, continuing to

share our expertise as we work to upgrade the ATLAS detector to be a new instrument by the middle of the next decade, and design new ways to operate experiments and analyse their data. As our relationships grow future exchanges of personnel will help each of the groups continue to benefit from this global partnership.

Attendees at the AC21 SPF workshop at the University of Adelaide taking time out to meet other locals at the Cudlee Creek Wildlife park. Delegates fed some of the local wildlife and then enjoyed the views in the Adelaide hills.



A Trinational Joint Master Program in Applied Computer Science

University of Freiburg

The University of Adelaide, the University of Strasbourg and the University of Freiburg, are currently developing a joint trinational Master Program in Computer Science scheduled to start in 2019. These plans were presented at the International Day for Teaching and Learning in April 2018 in Freiburg.

While international collaboration programs even at master level are relatively common in arts and humanities, they are less common in natural sciences and in particular quite rare in engineering and computer science. The objective of the three partners of the AC21 consortium is to provide to the students a unique curriculum by linking in particular complementary aspects of teaching and research expertise of the three partners. As a result, students are offered a master course going far beyond what would be possible in either of the partner institutions alone.

The study program is designed as an elite program and the three partners hope to attract the best students. The goal is to help

them obtain an expertise that will make them attractive for a wide range of employers. Students in this new trinational study program will visit all three partner universities during their studies and will receive a joint degree all three universities.

Apart from the challenge to select attractive, complementary modules, the three partners faced the issue of a conflicting calendar with the semesters in Freiburg/Strasbourg and Adelaide. As a solution, students will now follow the European track or the Australian track starting, depending on their admission place. Both ways, students will acquire 30 ECTS at each partner university in Freiburg, Strasbourg and Adelaide.

The partners of this AC21 project are Prof. Christian Schindelbauer, Freiburg in cooperation with Prof. Yannick Hoarau, Strasbourg, Prof. Frank Neumann, Adelaide and Prof. Bernd Fischer, Adelaide. However, they would not achieved much without Prof. Joern Pütz, who is established an interna-



national study program before and shared his experience.

The common theme between Freiburg and Strasbourg is computational fluid mechanics, where Prof. Yannick Hoarau in Strasbourg emphasizes the physical aspect, while Prof. Matthias Teschner in Freiburg works on computer vision of fluids. The Institute of Computer Science in Freiburg and the School of Computer Science in Adelaide share several areas of interest. In particular, they share a common interest in Artificial Intelligence, where Freiburg is especially creating a new profile line, motivated by Prof. Wolfram Burgard prestigious Leibniz award for his work in this area. So, the areas of fluid mechanics and artificial intelligence form cornerstones of the recommended study plan, which otherwise give a freedom of choice from the faculties' programs.

This project strengthens the interaction between the project partners Adelaide, Freiburg and Strasbourg within the AC21, and will also provide valuable feedback for establishing similar programs between other partners of the AC21.



AC21 Special Project Fund (SPF) : Results of the 2018 Round SPF Awarded to 4 Projects This Year

Four projects funded by Special Project Fund 2018 (SPF) were selected this year and are currently running. The number of awarded projects for 2018 was increased from its initial maximum awardee of three to four as a special case after thorough consideration, determination and approval by the STC members.

The SPF that was established in 2009 provides support to projects involving multiple AC21 members in order to encourage collaboration and partnership. Applications are open from November 1 until January 31 each year.

Project Title	Participating Universities
➤ Promoting the uptake of the modern sampling theory in agriculture research and extension applications	<ul style="list-style-type: none"> ✓ The University of Adelaide ✓ University of Canterbury ✓ National University of Laos
➤ Mini Multi-style Workshop on Understanding Water-Energy-Climate Change Nexus in a Transitional World	<ul style="list-style-type: none"> ✓ Nanjing University ✓ Nagoya University ✓ The University of Adelaide ✓ University of Freiburg ✓ Shanghai Jiao Tong University <p>Non-member universities:</p> <ul style="list-style-type: none"> ✓ University of Göttingen ✓ University of Lancaster
➤ Joint mini-symposium on “Agro-Industry Research for well-being”	<ul style="list-style-type: none"> ✓ Kasetsart University ✓ University of Stellenbosch ✓ Gadjah Mada University ✓ Nagoya University
➤ Finding software errors, before they find You	<ul style="list-style-type: none"> ✓ University of Stellenbosch ✓ University of Minnesota ✓ North Caroline State University ✓ University of Freiburg



APAIE 2018

General Secretariat Attends APAIE at Marina Bay Sands in Singapore

The AC21 General Secretariat exhibited a joint Nagoya University/AC21 booth at APAIE 2018 (The Annual Asia Pacific Association for International Education Conference) which was held at the Marina Bay Sands in Singapore from March 25-29. Our booth was kept busy by many curious participants eager to learn more about the consortium, our specific goals and objectives, and the role we play for our member institutions. The theme of this year's conference was "The Impact of the Fourth Industrial Revolution on Higher Education in the Asia Pacific" and the hosts did a wonderful job of providing a platform for professionals in international education of all levels to engage in discussion on this pertinent topic. During the conference, the AC21 delegation was able to connect with representatives from the *Technische Universität Chemnitz*, *Jilin University*, *the University of Adelaide*, and



Chulalongkorn University, as well as meeting many new people, which aid in the creation of potential future connections. At the meeting with Chemnitz colleagues, we discussed the agenda for the upcoming AC21 International Graduate School (IGS), which will be hosted in Chemnitz next year. The

AC21 General Secretariat will continue to be present at international conferences, including APAIE, to actively exchange information with other member universities. Next year's APAIE will be held in Kuala Lumpur, Malaysia and will run from March 25-29, 2019.

NAFSA 2018

AC21 members met at Breakfast Meeting at NAFSA 2018

Jiro Takai
 Nagoya University, AC21 Secretariat

It's become a NAFSA tradition for AC21 members to gather together for a breakfast meeting during the conference, generously held by our good friends from Chemnitz University of Technology (TUC). As a matter of fact, 2018 marked the 10th anniversary of this important AC21 event, called the AC21 Network Meeting.

On May 29, 2018, delegates from eight AC21 universities were greeted by Wolfgang Lambrecht, with his usual, charming, smile. A total of 18 representatives gathered together from University of Freiburg, Chulalongkorn University, Jilin University, North Carolina State University, Canterbury University, University of Minnesota, and Nagoya University, aside from our host,

Chemnitz University of Technology. Like always, we started out by greeting each other over a delicious breakfast, which actually provided an excellent opportunity for us to connect. Some were new to AC21, but the veterans were quick to brief them on our *raison d'être*.

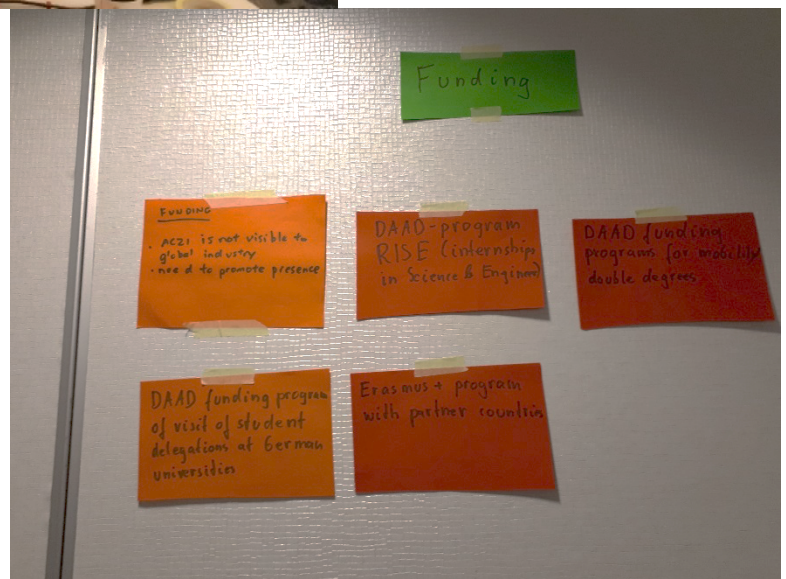
The event was opened by Wolfgang, who was given the sole honor of planning and executing this year's event. A presentation by myself titled, "The downward spiral: Japan's higher education policy backfires" detailed some of the ill effects of massive and continued budget cuts toward universities in Japan. This was followed by Wolfgang's presentation on the "AC21 network from the perspective of Chemnitz University of Technology," which outlined the mission, and the activities that help to achieve this

mission of our consortium. Afterwards, a presentation by Aileen Liu of Jilin University previewing the features of what had subsequently become the highly successful AC21 International Forum 2018 had raised our intent to participate.

The final item on the agenda was a workshop lead by Wolfgang to have attendees brainstorm about what AC21 needs to enhance our mission. This workshop was incredibly productive, generating new ideas

on how we can facilitate our worth, and addressing current issues and problems which may impede us in achieving our goals.

All in all, we spent a highly pleasurable morning getting to know each other, exchanging our ideas and opinions, and enjoying good company in a casual and comfortable atmosphere. I would like to take this opportunity to thank Wolfgang Lambrecht for the wonderful job he had done in planning, organizing, and running this network meeting. Great job, Wolfgang!



From Dr. Watanabe of Nagoya University

Dr. Yoshihito Watanabe
AC21 Director, Nagoya University

Since its establishment in 2002, AC21 has been encouraging the member universities to establish a variety of collaboration in research, education and campus internationalization including student as well as staff exchanges. *Student World Forum* (SWF) and *AC21 International Graduate School* (IGS) are programs for students to share and experience educational activities in a collegiate international atmosphere. *International Forum* (IF) provides great opportunities to member universities to share current challenges faced by world-class universities such as university innovation, education systems in new era, world university ranking, etc. And the *AC21 Special Project Fund* (SPF) supports research collaboration and a variety of networking among member universities.

While most of the AC21 activities are designated to encourage all member universities to contribute, we recognize that each member university has its own visions, goals, and strategies on education, research, internationalization, and innovation.

Therefore, I would like to encourage the member universities to utilize the AC21 networks, pipelines, and connections as great tools for each university to promote bilateral, trilateral, or even multilateral projects. The activities listed below show some examples of the efforts of Nagoya University (NU).

NU started the Joint Degree Programs (JDP) with The University of Adelaide and University of Freiburg in 2014 and 2017, respectively. The JDP idea was initially discussed during a private conversation between the three Presidents at the Dinner reception of the AC21 International Forum 2014 held in Stellenbosch. Immediately after the forum, the three universities continued discussions on the JDP more formally, and started a Joint Supervision of PhD students in the field of medicine as a pilot program. After the establishment of two JDPs, NU extended the program with Kasetsart University in the field of agriculture.



As well as the JDP, NU has maintained many international academic programs with AC21 member universities such as language programs, seminar series, joint seed funding, etc. Without AC21, NU would not have been able to engage in these international collaborations and as such, I wish to share these positive experiences with our AC21 member universities as concrete examples of the AC21 collaborations at work.

Joint seed funding	with North Carolina State University	(2017-)
Joint Biomedical Engineering seminar series	with North Carolina State University	(2014-)
Joint degree programs	with University of Adelaide	(2014-)
	with University of Freiburg	(2017-)
	with Kasetsart University	(coming soon)
Language programs	at Tongji University	(Chinese, 2010-)
	at University of Freiburg	(German, 2011-)
	at University of Strasbourg	(French, 2014-)
Chinese speech contest	organized by Nanjing University, and held at Nagoya University	(2011-)
Undergraduate student exchange	with Kasetsart University	(Agriculture, 2009-)
Nagoya University international offices	at University of Freiburg	(European Center, 2010-)
	at Shanghai Jiao Tong University	(China Center, 2005-)
	at Chulalongkorn University	(Bangkok Office, 2014-)

AC21 Activities and Event

YEAR	DATES	EVENT/ACTIVITY	LOCATION
2018	May 29 - June 3	Attendance at NAFSA 2018	Philadelphia, USA
	May 31	10th AC21-TUC NAFSA Working Breakfast 2018	Philadelphia, USA
	July 5	15 th Steering Committee Meeting	Jilin University (China)
	July 5	9 th General Assembly	Jilin University (China)
	August 1	Issued the Minutes of 15 th STC Meeting & 9 th GA	Nagoya University (Japan)

AC21 General Secretariat Activities (Apr 2018 - Sep 2018)

YEAR	DATES	EVENT/ACTIVITY	LOCATION
2018	TBA	Application for SPF 2019 to be started	
2020	TBA	10th AC21 International Forum 2018	Kasetsart University (Thailand)
	TBA	18th AC21 Steering Committee Meeting	Kasetsart University (Thailand)
	TBA	10th AC21 General Assembly	Kasetsart University (Thailand)
2021	TBA	AC21 International Student Forum	Nanjing University (China)

AC21 Members

Australia The University of Adelaide

China Jilin University

Nanjing University

Northeastern University

Shanghai Jiao Tong University

Tongji University

France University of Strasbourg

Germany Technische Universität Chemnitz

University of Freiburg

Indonesia Gadjah Mada University

Japan Nagoya University

Laos National University of Laos

New Zealand University of Canterbury

South Africa Stellenbosch University

Thailand Chulalongkorn University

Kasetsart University

USA North Carolina State University

University of Minnesota

What is AC21?

AC21 Website: <http://www.ac21.org/english/index>

AC21 is an international academic consortium comprised of higher education institutions from around the world. It was established in 2002 at the initiative of Nagoya University, with the aim of creating an academic network that transcends borders to address global issues by sharing knowledge and expertise. The network is managed by the AC21 General Secretariat located at Nagoya University.

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