



AC21 Newsletter

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Tongji's Initiative for a Sustainability-oriented University

Pei Gang

**Professor of Biochemistry and Cell Biology
President, Tongji University**



finance, epidemics and communicable diseases. The urgency of these challenges requires the common effort of all humanity before they can be addressed. What can universities do in this process? Should they provide talent and solutions? Views differ on this matter, but I believe that world-class universities of the future must be capable of contributing to tackling these challenges in order for them to live up to their name. They must offer secure talent and knowledge to support the sustainable development of society and humanity.

Tongji University is known for applied science and engineering technology. While it has been making outstanding contributions to social and economic progress, its frequent interaction with society enables its members to gain first-hand insight into the societal needs and trends of the times. As humanity's social development and its living planet are confronted with looming challenges to sustainability, we bravely embrace these challenges and deliver on our responsibility to establish a philosophy of a "Sustainability-oriented University". Such a university takes sustainable development as its guideline or assumes a leading position in that field. Not only is the development of the university itself sustainable, but sustainability is also an over-

In the face of an increasingly globalized world, multiple challenges emerge, such as those relating to energy, environment, religion and cultural communication, trade and

arching principle in education, research, social service, cultural heritage and innovation, and campus construction and management. These efforts ultimately serve the sustainable development of the people and the community, and contribute to the leading role of the university. The Sustainability-oriented University has its ultimate purpose in the sustainable development of its students and its community.

Education at Tongji is based on sustainable development, focusing on sustainability-oriented general education and cross-disciplinary studies. Students are equipped with engineering foundation knowledge, a scientific mindset, humanistic literacy, international vision, a strong sense of social responsibility, and awareness of and capability for sustainable development; and they will in turn make new contributions to the sustainable development of humanity.

As the upcoming AC21 Student World Forum 2013 is to be hosted by Tongji, I wish to welcome all students from across the world to explore the theme of this forum, "Sustainable Mobility and the City of the Future". Given increasing global mobility and a greater number of megacities, AC21 creates a platform to enable young people around the world to discuss possible solutions to the intertwined and complicated issues of sustainable development from different perspectives such as technology, economics, sociology, humanism, policy, law, and ethics. They will provide insights into the sustainable development of cities, communities, and humanity, and will be prompted to think and reach common views. My heartfelt thanks go to AC21 for making an effort of such significance!

AC21 International Graduate Summer School

AC21 International Graduate Summer School Implementation Report

Yoshihito Watanabe
Trustee and Vice President, Nagoya University
Director of AC21 General Secretariat

The AC21 International Graduate Summer School, which we introduced in detail in the last issue (AC21 Newsletter Vol.15), took place from May 31 to June 4, 2013 at Chulalongkorn University and Kasetsart University in Bangkok; it was co-hosted by three of our member universities (Chulalongkorn University, Kasetsart University, and Nagoya University).

This Summer School was held with the main aims of 1) stimulating the intellectual curiosity of graduate students by offering opportunities to learn about cutting-edge academic research concerning global-scale issues in the fields of science and technology, and 2) furthering AC21's international academic contribution by advancing the higher education of member countries, the host country Thailand, and the countries surrounding it. The Summer School is a new project, planned as an initiative to broaden the activities of AC21.

The main theme was "Green Science and Technology for a Sustainable Future," with the two sub-themes of 1) Green Mobility

and Energy and 2) Agricultural Sciences and Food Production.

With the kind cooperation of the member universities, we were able to invite top-level researchers and business leaders (including alumni) from each specialist field to participate as keynote speakers (5 persons) and lecturers (15 persons). We were lucky enough to have Nobel Prize Laureate Dr. Ryoji Noyori, who is connected with Nagoya University, and Mr. Takeshi Uchiyamada, the developer of the first-generation Prius and chairman of the board of Toyota Motor Corporation (vice chairman of the board at the time of the Summer School), as keynote speakers. We are delighted to have been able to offer the unique opportunity of listening



to both their speeches.

81 students from 15 countries participated in the Summer School. These included graduate students (master's level and above) enrolled in 15 universities from eight countries (member universities and non-member university from Thailand's neighboring country), as well as international graduate students from seven Asian countries studying at Chulalongkorn University and Kasetsart University.

At the opening ceremony, the presidents of the three host universities (Professor Pirom Kamolratanakul of Chulalongkorn University, Associate Professor Vudtechai Kapilakanchana of Kasetsart University, and Dr. Michinari Hamaguchi of Nagoya



University) each began by giving a short welcome speech; Etienne Clément, Deputy Director at the UNESCO Bangkok office, and Boonsom Lerdkhirunwong, dean of the Chulalongkorn University's Faculty of Engineering, then said a few words. After this, Dr. Ryoji Noyori gave a special lecture titled "Science Shapes Your Future." This event also marked the 100th anniversary of Chulalongkorn University's Faculty of Engineering, and was attended by around 500 people.

A welcome reception followed the opening ceremony; after welcome remarks by President Kamolratanakul of Chulalongkorn University, Deputy Director Clément of the UNESCO Bangkok office and Shuichi Ikeda, Chief Representative of the Japan International Cooperation Agency (JICA) Thailand office, gave their addresses. Next, the students, keynote speakers and lecturers from all the participating countries as well as the members of support institutions and co-host universities had the chance to meet one another and chat, while enjoying a display of traditional Thai dance.

From the second day, speeches and lectures were carried out by the keynote speakers and lecturers, focusing on cutting-edge academic research surrounding global-

scale issues such as energy technologies, food production, and global warming. The students actively asked questions and gave their opinions, leading to lively debate. Participating students were also split into groups for group discussion, and, having heard the speeches and lectures, considered which global-scale issues they thought were most important and debated possible solution strategies; they then gave group presentations on the final day.

There was also a rich program offered aside from the indoor lectures and group discussions. As well as a walking city tour of Bangkok, an opportunity was given on the final day to go on a field trip to Toyota Motor Thailand Co., Ltd.'s Ban Pho plant, Toyota's environmental model factory in Asia.

A dinner party was held on the evening of the fourth day. After greetings from Siree Chaiseri, vice president of Kasetsart University, Kuniaki Yamashita, director of the Japan Society for the Promotion of Science (JSPS) Bangkok office, and myself, who represented the AC21 General Secretariat, we enjoyed traditional Thai dance and music, held a photo session, and spent a very happy evening.

We have had favorable opinions from par-



ticipating students, such as "it was really motivating for me to have this amazing opportunity to learn so much about so many cutting-edge research results in such a short space of time," and "I was able to network with overseas students." The participating students are also deepening their interaction using Facebook, etc.

Through events aimed at students, such as this Summer School, I feel that AC21's activities will be able to broaden even further from now on. In addition to the Student World Forum, which mainly targets undergraduate students, we may be able to regularly hold events targeting different levels of students, with changing themes and formats. This Summer School promoted the increase and strengthening of networks between consortium universities, and was a project rich in hints on how AC21 can advance as a consortium in the future.

For the implementation of this project we



were provided with backing from support institutions (Ministry of Education, Culture, Sports, Science and Technology – Japan (MEXT) G30 Project, UNESCO, JICA, and JSPS), donations from 15 supporting companies, and assistance from two organizations, as well as having the cooperation of keynote speakers and lecturers from various

businesses. We would like to express our gratitude to them, and would be delighted if future AC21 activities can further strengthen industry-academia-government collaboration.

The successful conclusion of this project and the fruitfulness of this Summer School is all due to the participating students,

keynote speakers and lecturers, people affiliated with member universities and with the co-hosts, Chulalongkorn University and Kasetsart University, support institutions and support companies, and everyone who was involved and has worked so hard. I would like to take this opportunity of offering you all our deepest thanks.

AC21 International Graduate Summer School : Student Report

Julia Weißhuhn, 1st Year Ph.D. Student, Chair of Polymer Chemistry, Chemnitz University of Technology



It was a great honor for me to attend the AC21 International Graduate Summer School 2013 and represent my university, Chemnitz

University of Technology, at this interdisciplinary and very special event. The meeting, held from May 31 to June 4, brought together 81 students from all over the world to discuss the topic of green mobility and energy as well as sustainable agriculture and food production. The academic input was given through various lectures and keynote speeches by speakers from all over the world, addressing the overall theme of the summer school, “Green Science and Technology for a Sustainable Future”.

At the opening ceremony held on May 31 at Chulalongkorn University, a very interesting keynote speech was given by Dr. Ryoji Noyori, the 2001 Nobel Laureate in Chemistry. For me, as a chemist, his presentation about the collaboration between different scientists for sustainable development in the future and the current issue of green chemistry was inspiring and encouraging.

Beyond the academic research, industrial partners like the Toyota Motor Corporation also presented interesting, practice-oriented lectures concerning Toyota’s initiatives in Thailand towards green mobility and the development of the Prius. Other talks were given on topics like organic solar cells, LEDs, use of biomass, bio-oil, bio-gas and hydrogen fuel cells. Each day after the presentations we took the opportunity to discuss the key principles in small groups.

These groups were made up of students from different countries and majors, giving everyone the chance to contribute to the dialog on the basis of their own cultural and academic backgrounds. As a summary of our achievements, each group delivered a final presentation on the last day.

Aside from the lectures, we also had the opportunity to attend a factory tour at the plant of Toyota Motor Thailand and a campus tour at the Kasetsart University. I appreciated seeing the large campus and recognizing the beautiful green landscape and high-quality facilities which represent very good learning conditions for Thai students. In our spare time we were also able to experience the real lifestyle of Thailand, during some sightseeing guided by the local students. I learned a lot about Thai culture and encountered the great generosity and



cordial hospitality of the Thai people. During the summer school program I met a lot of international colleagues with very different cultural backgrounds, who in the end became my friends. On this occasion, I would like to thank

the AC21 team and all the helping hands around this summer school for their excellent organization. The various presentations on current research concerning the design of the future, and the discussions with researchers and academic teachers from all

over the globe, gave me many interesting topics to think about and to debate with my colleagues in Germany. I think these topics involve all of us. I am glad to have had this unique experience and I will never forget my incredible time in Bangkok.

AC21 International Graduate Summer School : Student Report

**Settasak Tivananthakorn, 2nd Year Student of Master's Course,
School of Engineering, Chulalongkorn University**



On behalf of the participants of Chulalongkorn University and Kasetsart University, I would like to thank all of the AC21 staff for

making all these excellent activities and events possible. It was a great pleasure and honor to attend the AC21 international Graduate Summer School.

The main theme of this AC21 IGSS (International Graduate Summer School) was “Green Science and Technology for a Sustainable Future”, hosted by Chulalongkorn University and Kasetsart University in Bangkok, and Nagoya University. I spent a fantastic week that I will never forget, making friends with students from all over the world through the program.

First, I am very proud to have been able to attend lectures such as the plenary speech from Chemistry Nobel Laureate Dr. Ryoji Noyori, Professor at Nagoya University, and RIKEN president, who spoke on the topic “Science Shapes Your Future”. It was a great opportunity to take a group photo with Dr. Noyori. That day we had a welcome party, where the students participating in the program got together and had dinner. At that time I got to meet my Chinese roommate and make many foreign friends from around the world.

From the second day to the final day we had lectures, and separated into two sub-themes, A: “Green Mobility and Energy”, and B: “Agricultural Sciences and Food Production”. I chose sub-theme B because this theme is related to my thesis. At every lecture we took some notes necessary for discussion in our group, and then prepared a presentation to give on the final day. The

lecture I was most interested in was titled “Crop Improvement by Genome Design for World Food Security”, given by Dr. Motoyuki Ashikari. This presentation was so exciting, and I was very surprised at the results of his research. At the end of the lecture we had a discussion in our groups. The most important issue that we discussed was about the social impact of the spread or adoption of the utilization of biotechnologies, and how to apply biotechnologies in order to solve global hunger issues.

On the third day, we listened to three lectures, related to food processes, application of modern biotechnology, and sustainable rice production in Indonesia. After that, it was time for the social events, and we visited “ASIATIQUE the Riverfront” on the banks of the Chao Phraya River. Because I am Thai, I acted as an amateur guide for shopping and sightseeing, and I was also a photographer. On the final day, which was



a very hectic day, we gave a presentation to show our ideas for solving problems regarding agricultural sciences and food production. The examples that we provided and proposed included decreasing the gap between rich and poor, and increasing education and awareness of, and changing public perception of, biotechnologies, etc.

Lastly, we not only gained knowledge and information about agricultural sciences and technology at this Summer School, but we could also learn about various cultural activities and find a way to properly understand one another's countries. Again, I would like to thank all the people who were involved, especially AC21 for offering me this great

opportunity to be a participant in the AC21 International Graduate Summer School. Moreover, I was delighted to be able to meet and collaborate with the participants from all over the world, making this one of my most inestimable and precious memories.

AC21 International Graduate Summer School : Student Report

Jason Whitham, 2nd Year Graduate Student, Dual Ph.D. Microbiology and Forest Biomaterials, North Carolina State University



“Science has no borders, but scientists have their own fatherlands.” This quote by Louis Pasteur was followed by a challenge for

the students of the Academic Consortium 21 International Graduate Summer School 2013 to make global progress through forging strong friendships. This challenge was delivered by the 2001 Nobel Laureate in Chemistry and RIKEN president, Dr. Ryoji Noyori, and resonated as a conference theme. Dr. Noyori's keynote speech provided inspiration by highlighting several high-impact scientific contributions, such as the development of insecticides that prevent millions of cases of malaria annually and antibiotic stabilizers that protect newborns worldwide from pathogenic bacteria.

The AC21 Summer School in Bangkok covered a broad range of topics concerning timely and futuristic green science and technologies. For five days, Chulalongkorn University and Kasetsart University graciously hosted over 50 international students and fostered the development of international connections, scientific collaborations, educational exchange, and seeds for long-term friendship among the participants. An impressive line-up of speakers was con-

vened for the Summer School. Dr. Peeradet Tongumpai, Director of Agricultural Research Development Agency, gave both a historical and current perspective of agricultural research in Thailand. Dr. Ruzhu Wang, Professor in the School of Mechanical Engineering at Shanghai Jiao Tong University, China, showcased green buildings from around the world designed and constructed by his team of graduate students over the last five years. Dr. Gregory Parsons, Alcoa Professor in the Department of Chemical Engineering at North Carolina State University, USA, presented an interactive lecture in which he made the argument that solar energy and solar-generated chemicals like methane are the only global sustainable energy solutions. Mr. Takeshi Uchiyamada, Vice Chairman of the Board of Toyota Motor Corporation, described his thought process and project management methods for the creation of the Prius, and then shared Toyota's progressive strategic initiatives, including the development of fuel cell vehicles.

Throughout the Summer School students were afforded world-class hospitality and many opportunities for engaging with colleagues. Student participants were provided with a hotel room, a roommate, a team for breakout sessions and final presentations, delicious and plentiful meals and snacks, a night out on the town, a Toyota factory

tour, and a graduation party. Besides these structured activities, students had some free time in the evenings to enjoy together.

Even after the official 2013 meeting adjournment, the Summer School continues today with the program graduates using free messaging and video conference applications, including LINE and Skype, to keep in contact. With enduring friendships, the students of the AC21 Summer School 2013 may discover opportunities in the future for scientific collaboration and graduate school attendance in other countries. Perhaps, by working together, the AC21 Summer School 2013 graduates will make international, even global impacts that would otherwise be difficult if isolated to an individual and their country.



AC21 International Graduate Summer School : Student Report

Lei Gong, 1st Year Student of Doctoral Course, Graduate School of Engineering, Nagoya University

It is an honor for me, as a representative of Nagoya University, to have taken part in the AC21 international graduate summer school in Bangkok, Thailand from May 31 to June 4. This summer school was hosted by Chulalongkorn University, Kasetsart University and Nagoya University, and I took part in the Program of Green Mobility and Energy. It offered lectures on cutting-edge research in this field as well as opportunities to discuss and present our own ideas of future energy and mobility with other international students.

On the first day we were separated into several groups for the upcoming discussion and presentation of our own ideas. Then Dr. Noyori, the Nobel Prize Laureate, gave us a speech titled "Science Shapes Your Future"; he enlightened me and made me think more about the responsibility of our young researchers in the future. Neither hard work nor diverse cooperation should be absent during future research.

From the second day we had lectures about green mobility and energy, given by famous professors. Thanks to these lectures, we came to understand the severity of fossil

energy depletion and its pollution effects. We also realized that the solution includes not only higher usage efficiency of energy but also the discovery of new energies. Meanwhile, we got to know about the great things achieved by applying green energy to the construction and automobile industries. After the lectures, during the discussion time and tea breaks, we talked about the contents of the lectures, any doubts and our own ideas with our groups. On the afternoon of the fourth day we prepared the presentation file for the final day. Because time was limited, after each of us had expressed our own ideas everyone was assigned a different task, which included considering the whole structure of the presentation, making the PowerPoint file, and searching for materials on the internet, etc. In the final presentation, we expressed our ideas that sustainable energy in the future should be according to the following principles: safe, fair, applicable and well-coordinated.

Besides the interesting lectures given, we also had an opportunity to visit the Toyota's Banpho plant. Although I have visited some automobile factories in Japan, this plant was

slightly different: there we could not only see the assembly line for vehicles, but also an eco-forest. It was attractive to me and I believe it is a good example of the sustainable development of industry and harmony with the environment.

The tour to Asiatique was also an unforgettable memory for me. There we saw what the Thai commercial zones look like. It was also an opportunity to experience the public transportation system and road system in Bangkok. I could feel the urgency and necessity of a green mobility system for this city.

In summary, this Summer School has been an amazing experience for me, not only in obtaining state-of-the-art knowledge, but also in making new friends from various universities around the world. We got together and enjoyed the lectures, exchanged our own ideas on sustainable energy and mobility in the future, and had fun with the local entertainment. I very much appreciate this opportunity to attend the AC21 International Graduate Summer School and hope to have the chance to take part in other related events next time.



(Author, second from right)



AC21 International Graduate Summer School : Student Report

Nava Derakhshani, 2nd Year Student of Master's Course, Sustainability Institute, Stellenbosch University



I had a most fascinating stay in Bangkok during the AC21 International Graduate Summer School 2013. We were hosted by the

major local institutions of Chulalongkorn University and Kasetsart University, as well as by Japan's Nagoya University. We were taken excellent care of: every last detail was well planned and we, as the participants of the conference, had absolutely nothing to worry about, as we were in incredibly considerate and hospitable hands.

I arrived at 9pm and was welcomed by both an AC21 escort and the warm, humid air of Bangkok outside the air-conditioned airport. My journey from South Africa took over 14 hours, and so my rest at the hotel accommodation was well-deserved and appreciated. The hotel arrangements were very thoughtfully prepared, each *farang* (foreign) student being paired with a local Thai student as a clever catalyst for cultural exchange.

Our summer school started with an opening ceremony, in which Nobel Laureate in Chemistry, Dr. Ryoji Noyori, gave the plenary speech. He spoke of chemistry and the importance of science for shaping the

future and the need for sustainable innovations. We were asked to dress formally for this occasion, and we took an official group photograph after the presentations were made. We were spoiled with amazing local cuisine and traditional Thai cultural dance performances. It was here also that I was introduced to the very considerate Thai tradition of presenting a token of appreciation to presenters. The host universities would present a token of appreciation to each and every presenter and speaker to acknowledge their contribution and thank them for their input.

We had a range of speakers, as well as students, representing the whole academic consortium. I thoroughly enjoyed the input from the variety of speakers and appreciated the representation of research from around the world. I was fascinated by the scope of the varied approaches there are to "Green Science and Technology for a Sustainable Future," the theme of this year's Summer School. I also attended the sub-theme of "Agricultural Sciences and Food Production," and participated as an eager student, asking questions unreservedly.

The conference was sponsored by a conglomerate of supportive and eager-to-employ companies, including Denso – from whom I won a teddy bear – and Toyota.

After the close of the conference we were taken to Toyota's Thailand plant, where we were given a tour of their factory and their eco forest project. It was amazing to see the mass-production process first-hand. I was impressed at the workmanship of the people compiling the cars and how their tasks were broken down strategically into smaller parts of the whole. I loved their eco forest, where they told us they plant a million trees per year. This is a great idea, and for a company that makes products contributing so largely to pollution, creating 1000 new cars daily in Thailand alone, I was encouraged to see them creating an eco plantation annually in their efforts to take their social ecological responsibility seriously.

All in all, I feel very fortunate to have been chosen to take part in this conference. Meeting peers and researchers from around the globe was truly remarkable, and being exposed to a larger variety of thought, which often challenged me, was really beneficial. Being in hot, beautiful Thailand where people are so polite and helpful was lovely, and to be able to be exposed to South East Asia within the sphere of local institutions and individuals was a great privilege. Thank you for having me, and for the opportunity to create relationships on a global level.



AC21 International Graduate Summer School : Student Report

**Kanako Uehara, 2nd Year Student of Master's Course,
Graduate School of Bioagricultural Sciences, Molecular Biosystem laboratory
Nagoya University**

From May 31 to June 4, 2013, I participated as a representative of Nagoya University at the AC21 International Graduate Summer School held in Bangkok.

This Summer School was targeted at graduate students of master's level and above, and, with the main theme of "Green Science and Technology for a Sustainable Future", aimed to explore solutions to international issues through lectures and speeches. I am part of the School of Agricultural Sciences, so I attended the lectures relating to one of the sub-themes, "Agricultural Sciences and Food Production". Using the knowledge we gained through attending keynote speeches and lectures we were split into groups of several people to hold discussions, and on the final day we presented the conclusions our groups had reached.

My group was made up of six people from five countries; compared to some of the other groups, ours was quite multinational, and I was able to feel the differences between us. The difference I felt most strongly was that between Asian and non-Asian countries. The two group members from Germany and South Africa expressed their opinions clearly and, compared to how often they spoke up, I felt that the four members from Asian countries (China, Thailand, Japan), including myself, had our own opinions but did not stick to our guns and assert them

so much. Because it was the first time we had met and because I felt such great differences between us, although I was aware that I should speak up and actively give my opinion midway, I often felt overwhelmed by the opinions of the two members I just mentioned. I think this has a strong connection to my complex about speaking English. For students from Asian countries English is a weak point, and it was difficult to assert my opinion even when I had one; I feel like I came across as if I had no opinions, which was such a waste. From this I came to understand that English is indispensable if you want to be active in international society, and that you should recognize the importance of asserting your own opinions. I also spotted characteristic differences during the presentations; namely, that the groups with students from English-speaking countries had those students act as presenters, whereas groups made up of only Asian students each had multiple speakers. This was very interesting, and I thought it might be down to the difference between Western cultures, where importance is placed on the "individual", and Asian cultures, where the importance of the "group" is stressed instead.

By participating in this Summer School, I was able to understand "cultural differences" and "differing values" from first-hand

experience, rather than just theoretically as before; it was a good experience that has led me to rethink how I should behave as a Japanese person and a Nagoya University student when engaging in international activities.

Also, after the lectures and speeches, there were questions arising from the content that further developed some of the points; I perceived that most of the students have an interest in social issues that is based on their everyday lives, and felt the depth of the knowledge of graduate students from the various countries, and their high awareness of those issues. Being able to exchange opinions with engineering and education students from all over the world, whom I would not get to meet in my normal research activities, and having earnest discussions on building a dynamic society, was an amazing experience for me.

In addition, not only during the lectures but in sleeping, eating, and sharing leisure time together, we got to know more about each other. Being surprised at how much chili is used in cooking here, going out to the night market... Friendships bloomed with members from so many countries, and I was able to have a really fun stay in the wonderful country of Thailand. I believe that in this way, by making friends with people from different backgrounds and gaining mutual



(Author, second from right)



understanding, the current conflicts and the dislike born of insufficient understanding of different cultures will vanish, and we will be able to build better relationships and move toward the creation of a sustainable society. I want to make sure we keep in touch and

continue these friendships that cross national borders.

Finally, I would like to give my best thanks to all the Nagoya University AC21 staff and everyone else who enabled me to have this opportunity. This Summer School was of

great significance both academically and in building friendships, and was a wonderful and unforgettable experience for me. Thank you very much indeed.

AC21 International Forum Report

Science for Society: Higher Education as Builder of Hope — 7th AC21 International Forum 2014

Robert Kotzé
Senior Director, Postgraduate & International Office



“In a world weaved together by a global economy, universities have become major players in supporting sustainable development” (Nico

Cloete, Peter Maassen and Teboho Moja, IIE Networker, Spring 2013 issue).

Higher education institutions in Africa face an unprecedented opportunity to play a constructive and critical role in Africa’s development. After decades of decay, Africa is now the world’s fastest growing continent.ⁱ This is mirrored in science: Africa’s research output grew 22 per cent faster than the overall world rate between 2005 and 2010.ⁱⁱ However, much still needs to be done to ensure that Africa’s universities play the key knowledge role in society that universities in other regions currently occupy: *“In furtherance of their developmental role, higher education institutions should aim to gain the support of universities in other developing and developed regions around the globe. The impact of bilateral and multilateral collaboration can be increased by moving beyond a narrow conception of institutional advancement, embracing instead the much broader*

idea of international knowledge coalitions for human development” (Professor Russel Botman, AC21 Newsletter 2012).

In the spirit of promoting cooperation in education and research between members, and bridging different societies in the interest of arriving at a shared understanding of the role of higher education in development and the instrumental role that international coalitions can play in achieving this, the 7th AC21 International Forum (IF) will be held at Stellenbosch University (SU) www.sun.ac.za in South Africa from April 13 – 16, 2014. The venue will be the Spier Conference Centre: www.spier.co.za/conference located just outside Stellenbosch.

The theme of the AC21 IF 2014, namely, **Science for Society: Higher Education as Builder of Hope**, will provide AC21 member institutions with a sound platform for exploring how international knowledge coalitions can focus on sustainable human development.

The following sub-themes are anticipated for the AC21 IF 2014:

- Higher Education and Community Development: Curriculum for Society (service learning)
- Knowledge coalitions and sustainable development
- Competitive Industry: Higher education,

research and innovation

- Internationalisation:
 - Building bridges between communities through academic mobility
 - Creating networks for training the next generation of academics
- Research outputs, uptake and impact on policy for development

The IF will be preceded by a meeting of the *Stellenbosch International Academic Network* (SIAN) from April 9 – 12. This annual gathering brings together representatives from different partner institutions (including SU’s partners elsewhere in Africa) and allows for deepening and strengthening of existing and new relationships. The SIAN meeting will focus on all modes of student mobility and will host a workshop on promoting Global Citizenship. SIAN participants will also have the opportunity to participate in a Study Abroad Fair on the Stellenbosch University campus.

By hosting the events back-to-back, Stellenbosch University would like to:

- facilitate networking across different networks
- discuss innovative approaches to creating south-south and south-south-north knowledge coalitions
- define an action-plan to implement bilateral student mobility programmes

We are looking forward to welcoming AC21 members to participate in the AC21 IF 2014 in combination with SU's SIAN 2014, with a delegation representing management, faculty and internationalisation practitioners. More

information will follow after the meetings at Tongji University in October 2014.

ⁱ Cf. *Annual Development Effectiveness Review 2013: Towards sustainable growth for Africa 2013*.

African Development Bank Group.

ⁱⁱ <http://www.research-africa.net/0/rr/news/africa/pan-african/2013/7/ranking-counts-africas-most-productive-researchers.html>.



APAIE Report, 2013

The AC21 General Secretariat exhibited its annual Nagoya University / AC21 joint booth at APAIE 2013, held in Hong Kong from March 11 – 14. The scale of the APAIE Conference and Exhibition seemed larger than the previous year, and according to the APAIE Secretariat's report, the number of registrants, at approximately 1500 people, was the highest ever.

This was the sixth time for the AC21 General Secretariat to exhibit a joint booth at APAIE; every year, the number of booths from AC21 member universities increases, and it really feels as though the Nagoya University / AC21 shared exhibit manages

to reach out to both member and non-member universities.

Chemnitz University of Technology, University of Freiburg, Kasetsart University, Jilin University, and Stellenbosch University participated in this APAIE, and we were able to have a lively exchange of thoughts on future AC21 activities and the AC21 International Graduate Summer School, which took place two months later. Although the AC21 General Secretariat has created a venue for opinion exchange by holding Steering Committee meetings and General Assemblies on a regular basis, it is also imperative that such exchanges can take place



outside of our regularly scheduled meetings.

The AC21 General Secretariat will therefore continue to make active use of opportunities such as this in the future, and intends to work hard to further encourage exchange between our members.



NAFSA Report, 2013

AC21 – an active network of strong partners at the forefront of internationalization

5th AC21 Working Breakfast held on the occasion of the NAFSA Conference on May 28, 2013

Katrin Schultz
Chemnitz University of Technology

The AC21 Working Breakfast, organized by Chemnitz University of Technology and held annually on the occasion of the NAFSA Conference, has become an excellent recurring tradition. This year, delegates of the AC21 member universities attending NAFSA in Saint Louis (Missouri) also met on May 28, 2013 to discuss the further development and deepening of their cooperation within the international network AC21.

After the welcome address by the Chancellor of Chemnitz University of Technology, Dr. Alles, who expressed his great pleasure and delight that delegates from so many AC21 members universities – in addition to Chemnitz University of Technology, Nagoya University, the University of Minnesota, North Carolina State University, and Shanghai Jiao Tong University – accepted the invitation and found their way to the Hilton St. Louis at the Ballpark.

Subsequently, the participants began the meeting proper. First, Prof. Wolfram Hardt, Vice-Dean for International Affairs and Professor for Computer Engineering at the Faculty of Computer Science at Chemnitz University of Technology, approached the topic of “e-learning, e-learning systems and platforms”, using the example of the “Center for IT-Enhanced Research & Education” established at Chemnitz University of Technology in cooperation with Cisco Systems, with the aim of developing demonstrators for modern teaching and learning scenarios in order to eliminate spatial, temporal and socio-cultural

barriers. For illustration, Prof. Hardt chose an application of the software “Webex Social”, which enables the creation of a “virtual classroom” by establishing a close teaching / learning relationship between students and professors regardless of geographical distance.

Next, Prof. Lothar Kroll, Dean of the Faculty of Mechanical Engineering and Head of the Department of Lightweight Structures and Polymer Technology at Chemnitz University of Technology, presented the Federal Cluster of Excellence, “MERGE Technologies for Multifunctional Lightweight Structures”, which – as the only one of its kind in Germany – seeks to merge currently separate technologies in order to allow resource-efficient mass-production of lightweight structures with high performance and functional density. Within an integrated strategy, the cluster offers a range of great career opportunities to attract scientific talent from all over the world – from an English-speaking Master’s program and funded PhD positions to research stays for postdocs.



During the following discussion the participants agreed that both projects presented offer great opportunities to further enhance and deepen collaboration between the AC21 member universities; they envisaged the launching of a model project between AC21 members on different continents to establish a virtual platform based on the Webex-Software for teaching and learning, and, furthermore, they expressed their willingness to increasingly engage as international partners in the Federal Cluster of Excellence of Chemnitz University of Technology.

In conclusion, the AC21 Working Breakfast has once again proved that AC21 is an active network with strong partners at the forefront of internationalization.



From the General Secretariat

Kumiko Kato
Professor
Graduate School of Letters, Nagoya University

A few days ago I received an email containing application guidelines for prospective 5th Student World Forum participants, so I printed it out and stuck it on the noticeboard. Before I became an AC21 Office member, I used to think “it would be nice if someone would take an interest and apply”, and that would be the end of it; but this time I tried to think a bit harder. The application requirements call for undergraduate or graduate students in a regular course of study — undergraduates take precedence — who have an interest in the theme and can actively participate, as well as have discussions and give a presentation in English. The number of successful applicants is two or less. So, what is the possibility of applying and the likelihood of really participating in this Forum for the students who gathered round me to look at the notice? Unfortunately, when I think about it, it doesn't seem too likely. I can think of three main reasons for this.

The first is simply a question of the number of successful applicants. The number to be chosen from the whole of Nagoya University is two or less, so if you look at it from the point of view of the numbers, it seems like a pretty tough hurdle to overcome.

The second issue is English ability. Undergraduates are prioritized from among the students enrolled in a regular course of study, but I have to wonder how many of the undergraduate students at Nagoya University can engage in discussions and give presentations in English with confidence. Nagoya University has come to put a lot of effort into its English teaching, but I feel that at this stage there are still not

that many undergraduates who can discuss and present in English, although the future enrichment of English language education at Nagoya University will no doubt resolve this.

The problems I have outlined so far can be applied to students in all fields of study at Nagoya University; the third, however, is specific to students in the School / Graduate School of Letters. The Student World Forum takes universally important issues as its themes, which one would hope all students could take an interest in regardless of their field of study; the problem lies, though, in the fact that the SWF themes are quite different from the humanities-based issues discussed daily in the School / Graduate School of Letters. Other than the students who happen to take an interest in issues outside their major, or those who want to try having discussions with students from overseas universities, it may be unlikely that even interested students will go so far as to actually apply.

The Student World Forum is extremely important as a program for the select few, so to speak, who take a serious interest in universally important issues and can have discussions and give presentations in English. But might we not also consider a program in which all kinds of students can participate more readily? When I was reading Volume 15 of the “AC21 Newsletter”, I came across Professor Suzuki's article on a student exchange with overseas students via video conference system. There are also some students who, having participated in the AC21-hosted Student World Forum or AC21 International Graduate Summer

School, have created groups on Facebook in order to keep in contact and share future academic experiences. These could be considered a hint when thinking of new ways of engaging in student exchange.

For instance, it might be good to have a webpage where the students of AC21 member universities can exchange opinions on particular topics online. That way, students who did not personally participate in the Student World Forum could also profit from discussions based on SWF lectures and reports from participants; this would be one way of resolving the first issue I raised. Also, establishing a number of topics that will attract the interest of students from various specialist fields would mitigate the third issue. Perhaps it would be worthwhile to make lectures from the many fields of study at various universities available to view on the webpage in some way, so that students from AC21 member universities can discuss the contents together. In addition, if the medium of the discussion is online chat rather than speaking and listening, it might lower the hurdle a little for students who are not confident about debating in English. If the students from member universities could apply for and receive an ID, they would be able to have discussions freely, secure in the knowledge that they would only be talking to other member university students.

What I've written here may only be a pipe dream but, thinking of the future, I do think it would be good if more students from member universities could reap the benefits of the valuable AC21 network and get involved in lively international exchange.

Upcoming AC21 Activities and Events

2013	October	Fifth Student World Forum, Tongji University Eleventh Steering Committee, Tongji University Sixth General Assembly, Tongji University
2014	April	Seventh AC21 International Forum, Stellenbosch University Twelfth Steering Committee, Stellenbosch University Seventh General Assembly, Stellenbosch University
2015	[TBA]	Sixth Student World Forum, The University of Strasbourg Thirteenth Steering Committee, [TBA]

AC21 General Secretariat Activities (2013.4 – 2013.8)

2013	April 25	115 th AC21 Office Meeting
	May 16	116 th AC21 Office Meeting
	May 26–29	NAFSA Attendance
	May 31–June 4	Hold AC21 International Graduate Summer School
	June 20	117 th AC21 Office Meeting
	July 18	118 th AC21 Office Meeting



The 7th AC21 International Forum

- Theme: Science for Society: Higher Education as Builder of Hope
- Date: April 13-16, 2014
- Venue: Stellenbosch University, Republic of South Africa



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Academic Consortium 21

AC21 Members

Chemnitz University of Technology (Germany)
Chulalongkorn University (Thailand)
Gadjah Mada University (Indonesia)
Huazhong University of Science and Technology (China)
Jilin University (China)
Kasetsart University (Thailand)
Nagoya University (Japan)
Nanjing University (China)
National University of Laos (Laos)
North Carolina State University (U.S.A.)
Northeastern University (China)
Peking University (China)
Shanghai Jiao Tong University (China)
Stellenbosch University (Republic of South Africa)
The University of Adelaide (Australia)
The University of Freiburg (Germany)
The University of Minnesota (U.S.A.)
The University of Strasbourg (France)
Tongji University (China)

What is AC21?

AC21 is an international academic consortium comprised of educational and research organizations from around the world. It was established at the Nagoya University International Forum, held on June 24, 2002, with the aim of creating an international academic network; the AC21 Secretariat is also located at Nagoya University.

Contact Information:

AC21 General Secretariat



Furo-cho, Chikusa-ku, Nagoya 464-8601 Japan
Tel: 81-52-789-5684/5686 Fax: 81-52-789-2045
e-mail: office@ac21.org
URL: <http://www.ac21.org>

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