



清华大学

Tsinghua University

UICC Newsletter

UICC (University-Industry Cooperation Committee), Tsinghua University

Focus:

TSINGHUA-MIT-CUHK RESEARCH CENTER FOR THEORETICAL COMPUTER SCIENCE INAUGURATED

The Tsinghua-MIT-CUHK Research Center for Theoretical Computer Science was inaugurated on June 21, 2010 in the Reception Hall of the Main Building at Tsinghua University. The Center was co-founded by the Institute for Theoretical Computer Science at Tsinghua University, the Computer Science and Artificial Intelligence Laboratory at the Massachusetts Institute of Technology, and the Institute of Theoretical Computer Science and Communications at the Chinese University of Hong Kong. The Research Center is the first joint venture of its kind that MIT has established in China. It is also the first established by Tsinghua University with a top American university in the field of theoretical computer science.



This event was witnessed by students and members of relevant schools at Tsinghua University as well as a number of distinguished guests. Among them were the Vice Minister of Education, Professor Chen Xi, the President of MIT, Professor Susan Hockfield, the Vice

Chancellor Designate of CUHK, Professor Joseph Sung, Tsinghua University President, Professor Gu Binglin, and the A.M. Turing Award laureate (2000) and Director of Tsinghua's Institute for Theoretical Computer Science, Professor Andrew Chi-Chih Yao.

Professor Yao and Professor Silvio Micali from MIT will serve as co-directors of the joint center. Following the signing of the Memorandum of Understanding by representatives from the two universities, Professor Gu, Professor Hockfield, Professor Sung, Professor Andrew Yao and Vice Minister Chen Xi each delivered a short address to the audience.

The Research Center was founded to conduct collaborative scientific research in the field of theoretical computer science and to provide a platform for international exchange of both students and faculty members in the field. Professor Yao stressed that the Center would enhance collaborative research in theoretical computer science and would help to develop a comprehensive exchange program for students. It is hoped that more world-class findings and scientists will emerge as a result of the establishment of the Research Center.

The Center's initial research agenda will be broadly based on the theory of computation. However, the agenda of the Center will gradually be expanded to include various other research areas in the field of computer science, such as computational biology and machine learning.

The inauguration ceremony concluded with the unveiling of a new plaque for the Center and a short forum in which students were able to express their thoughts and ask questions regarding the Center.

The founding of the Tsinghua-MIT-CUHK Research Center for Theoretical Computer Science has paved the way for a new era of strategic cooperation linking Tsinghua University, MIT and CUHK.

September 30, 2010

Inside this Issue

- 1 Focus
- 2 Spotlight
- 3 Partnership
- 4 UICC Activities

This edition is prepared by the staff of the

Overseas R&D Management Office, UICC, Tsinghua University

Room 1203, Hua Ye Building Tsinghua University Beijing 100084, P.R. China
Tel: +86-10-62773190 +86-10-62796025
uicc@tsinghua.edu.cn

Spotlight

SUMMIT ON IT VISION 2020 HELD

The "Summit on IT Vision 2020", organized by Tsinghua National Laboratory for Information Science and Technology (TNList), was held in Tsinghua from July 12 to 13.

Tsinghua University President and Chairman of TNList Gu Binglin attended the summit and delivered the opening speech. A total of eleven world-renowned experts delivered lectures at the summit. Academician Sun Jianguang, Dean of Tsinghua's School of Information Science and Technology and Director of TNList, also spoke at the opening ceremony.

Distinguished speakers included Academician James Plummer, Dean of Engineering School of Stanford University, Academician Vincent Poor, Dean of Engineering School of Princeton University, Academician Shankar Sastry, Dean of Engineering School of University of California, Berkeley, Academician Yannis Yortsos, Dean of Engineering School of University of Southern California, Academician P. R. Kumar from the University of Illinois, Academician Michael Waterman from the University of Southern California, Professor Jeannette Wing, President's Professor of Computer Science in Carnegie Mellon, Professor Byeong Gi Lee, Former Commissioner of the Korea Communications Commission (KCC), Professor Hideo Miyahara, Director of National Institute of Information and Communications Technology of Japan (NICT), and Dr. Nim Cheung, Chief Executive Officer of Hong Kong Applied Science and Technology Research Institution (ASTRI).



In their presentations the experts looked ahead to the development of information technology in 2020 from a variety of perspectives, including

electronics and telecommunications, computer science and software applications, and systems control technology. They also shared their insights into the cross-disciplinary development of information technology, and its influence on the sustainable development of the society.

R&D OF FUEL CELL BUS AND OLYMPIC DEMONSTRATION WINS INTERNATIONAL TECHNICAL ACHIEVEMENT AWARD



The International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE) recently held its 2010 Technical Achievement Awards Conference as part of the 18th World Hydrogen Energy Conference (WHEC18) in Essen, Germany. The R&D of a Fuel Cell Bus (FCB) and related Olympic Demonstration, carried out by Tsinghua's Department of Automotive Engineering, won the 2010 Technical Achievement Award. In the award ceremony, Mr. Veit Steinle, the German Federal Minister of Transport, chaired the conference and spoke highly of the Tsinghua R&D team and its project leader, Tsinghua Professor Ouyang Minggao. Supported by the 863 Plan during the tenth- and eleventh-five years plans, the FCB R&D team of Tsinghua has successfully developed 15 FCBs in 4 generations since 2002, and have achieved a series of key advances in FCB technology. The team also built the first vehicular hydrogen production and refilling station, compiled relevant standards and regulations for a hydrogen economy. The winning Fuel Cell + Battery hybrid configuration significantly reduced both the vehicle cost and failure rate, and met the needs for a commercial demonstration vehicle. This helped the team to serve the 2008 Beijing Olympic Games successfully and to successfully complete a one-year public transit demonstration.

→ continued from page 4

UICC Activities:

On June 7, delegates from the Korean SK Group Technology Innovation Center visited the Robotic and Automation Lab of the Department of Precision Instruments and Mechanology at Tsinghua University, and exchanged views on the status and future development of robotics technology and related products in the Chinese market with Professor Chen Ken, Director of the Robotic and Automation Lab. Both parties also discussed the possibility of potential R&D collaboration in this area.

☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆

On July 20, the first KONE R&D workshop was held in Tsinghua University.

In the workshop, professors from the Departments of Materials Science and Engineering, Electronic Engineering, Chemical Engineering and Automotive Engineering at Tsinghua University each gave an introduction about their research and discussed the technical details of the collaborative project with the experts from KONE.

☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆☆

On September 16, delegates from SK Group, Technology Innovation Center, visited Tsinghua University and had discussions with professors from the Departments of Electrical Engineering and Thermal Engineering on the topics of the status and development of micro-grid technology and on micro gas turbines in China. They also exchanged views on the possibility of bilateral R&D cooperation in these areas.

COMING EVENT:



Forum on Energy, Environment and Economy -2010 UICC Annual Meeting will take place on Oct 15, 2010 at Tsinghua University.

Partnership

TSINGHUA VICE PRESIDENT KANG KEJUN ATTENDS “TRAINING THE GLOBAL LEADERS IN NORTHEAST ASIA” SEMINAR

On September 14, Tsinghua University Vice President Kang Kejun attended the “Training the Global Leaders in Northeast Asia” seminar organized in Beijing by the National Research Foundation (NRF) of South Korea. The seminar was dedicated to promoting Sino-Korean scientific research cooperation and talent cultivation. Leaders from 8 prestigious universities in China, including Tsinghua University, Peking University, Fudan University, Shanghai Jiaotong University, Nanjing University, China University of Science and Technology, Xi'an Jiaotong University, Harbin Institute of Technology University, participated of the seminar. In his speech, entitled “Cutting-edge Research and Innovative Talents Fostering”, Kang Kejun addressed the topic of how Tsinghua University has been striving to build first-class university and to nurture student creativity through initiating innovative activities.

Established in 2009, the NRF provides support for research in nearly all disciplines, covering science, engineering, humanities and social sciences, as well as interdisciplinary studies.

THE HEAD OF FUJITSU RESEARCH LAB VISITS TSINGHUA

On June 24, Tsinghua University Vice President Kang Kejun met the President of the Fujitsu Laboratories Ltd., Mr. Tatsuo Tomita.



During the meeting, Kang Kejun outlined developments at Tsinghua University in disciplines of computer networks, software, electronics, automation, and IT, and also briefed Mr. Tomita on the university's cooperation with overseas enterprises, especially with Japanese enterprises.

In return, Mr. Tomita outlined the global R&D plan of the Fujitsu Research Lab and its future strategy to strengthen R&D in China. Both sides recognized the achievements already made through bilateral cooperation in semiconductors, server, and software, and stated that they expect to see collaboration in more areas in the future.

Kang Kejun expressed his sincere wish that cooperation and mutual development could be strengthened through collaboration in fundamental research and industrialization of technology. The Vice Dean of Tsinghua's School of Information Science and Technology, Niu Zhisheng, and the Director of the Overseas R&D Management Office, Ma Jun, also attended the meeting.

The Fujitsu Corporation, listed in the Global 500, ranks third among IT companies worldwide, and is the top server supplier and the second PC supplier in Japan.

THE THIRD TSINGHUA-SIEMENS R&D COOPERATION DAY HELD

On September 6, a Tsinghua-Siemens R&D Cooperation Day was held in the FIT Building at Tsinghua University. The symposium, entitled “System Integration for Low Carbon Energy”, attracted more than 50 researchers and experts from Tsinghua and Siemens. This event was the third R&D Cooperation Day jointly held by Tsinghua and Siemens.

Tsinghua University Vice Chairman of the University Council, Ceng Zhangzhi, delivered a speech at the opening ceremony. He first expressed his warm welcome to experts from Siemens on behalf of Tsinghua University, and then continued to say that Tsinghua and Siemens have established sound collaborative research relations in areas of energy and environmental protection, which are now areas of global focus. He hoped that both sides could work together to make important contributions to the development of clean energy and renewable energy research.

Dr. Reinhold Achatz, Vice President of Siemens and Head of Siemens Corporate Technologies, as well as Cheng Meiwei, CEO of Siemens Northeast Asia and President of Siemens China, also spoke at the opening ceremony, giving speeches entitled “Green Future” and

“Cooperation and Innovation” respectively.

Deputy Director of the Tsinghua Low Carbon Energy Laboratory, Wang Zhanji, gave a keynote speech at the opening ceremony. His speech, describing the development and achievements of low carbon energy research in Tsinghua, sparked great interest and in-depth discussions among the participants.



Professors from the Departments of Thermal Engineering and Electrical Engineering at Tsinghua University also introduced their research work in the areas of clean coal, smart grids, and renewable energy to Siemens experts. Siemens expressed their expectation of carrying out large-scale cooperation with Tsinghua University in these areas next year.

Tsinghua and Siemens have a close long-term collaborative relationship. In 2007, a comprehensive research cooperation agreement was signed by both parties, and in 2008 the Tsinghua-Siemens Center for Knowledge Interchange (CKI) was set up to serve as a platform to promote bilateral cooperation. This platform involves 19 departments at Tsinghua University, in areas of industry and automation, healthcare, energy and the environment.

TOSHIBA CORPORATE SENIOR VICE PRESIDENT VISITS TSINGHUA

On July 19, a delegation led by Toshiba Corporate Senior Vice President and Director of the R&D Center, Mr. Akira Sudo, visited Tsinghua University to participate in the 6th Tsinghua-Toshiba Technology Exchange Seminar, with a theme of “Electric Locomotive • High-speed Rail”. Tsinghua University Vice President Xie Weihe, attended the seminar and met with the Japanese delegation.

In his talk, Mr. Akira Sudo described the development of research collaborations between Tsinghua University and Toshiba in areas of smart grids, CCS and electric cars, and water processing. Both parties shared

their views on future prospects for joint research. Xie Weihe suggested that Tsinghua and Toshiba strengthen collaboration on proposal research and showcase their research achievements during Tsinghua University's centenary celebrations. Mr. Akira Sudo pledged to enhance and expand comprehensive cooperation with Tsinghua University in the future.

UICC Activities

FIRST UICC OVERSEAS COOPERATION SALON HELD

On June 23, the first UICC Overseas Cooperation Salon was held in the Hua Ye Building at Tsinghua University. Over 30 guests from 17 multinational companies participated in the salon.

As a prestigious research-oriented university, Tsinghua has always strived to keep close cooperative relations with a number of well-known multinational companies. Up till now, more than 30 overseas companies have established joint research institutes with Tsinghua University, and 40 overseas companies have joined the UICC. In addition, about 500 collaborative projects with overseas companies are undertaken by Tsinghua every year.

The salon was organized to create a platform for easy exchange among UICC overseas member companies and strategic partners. In the salon, representatives from GM, Siemens and UTC were invited to give a brief introduction on the status and development of R&D collaboration with Tsinghua, to share their experience on how to expand and strengthen the collaboration with Tsinghua gradually, and to describe problems encountered in developing such collaborations. Currently, the above three companies all maintain a close and active partnership with Tsinghua, though they differ from one another in their collaboration mode.



The speeches were followed by lively warm discussions. The participants exchanged their views on a range of stimulating questions, such as intellectual property, interdisciplinary collaboration, cooperation modes with universities, and collaboration among companies.

KONE CORPORATION JOINS THE UICC

On August 1, the KONE Corporation signed a cooperative agreement with Tsinghua University and joined the Tsinghua UICC, becoming the 39th overseas member enterprise.

Established in the year 1910, KONE is one of the world's leading elevator and escalator companies. The Finland-based KONE Corporation has subsidiaries in over 50 countries with approximately 34,800 employees worldwide. In 1996 KONE entered the Chinese market and set up a R&D center and manufacturing bases in Kunshan in Jiangsu Province. Its competence in technology and quality made it the largest elevator and escalator supplier for the construction of the 2008 Beijing Olympic Games as well as for the 2010 Shanghai World Expo.

KOREAN SK GROUP JOINS TSINGHUA UICC

On September 1, the Korean SK Group signed a cooperative agreement with Tsinghua University and joined the Tsinghua UICC, thereby becoming the 40th overseas member enterprise.

The SK Group, the third largest multi-national corporation in South Korea, runs three major areas of business: energy and chemical engineering, information and communication, and trade and services. With two of its subsidiary companies listed in the Global 500, its total sales in 2009 reached 79.6 billion U.S. dollars. Through in-depth cooperation with Tsinghua University in areas such as scientific research, talent fostering and information services, the SK Group hopes to explore and develop new innovative and technology-leading business opportunities to cater to the needs of the Chinese market.

DR. REINHOLD ACHATZ APPOINTED ADVISORY PROFESSOR OF TSINGHUA

Dr. Reinhold Eugen Achatz, Global Vice President of Siemens and Head

of Siemens Corporate Technologies, was appointed as an Advisory Professor of Tsinghua University on September 7. The conferral ceremony was held in the Department of Thermal Engineering. Tsinghua University Vice President Kang Kejun participated in the ceremony and presented an honorary appointment book to Dr. Achatz.

In his address, Kang Kejun praised Dr. Reinhold Achatz's effort in promoting the cooperation between Tsinghua and Siemens, as well as his contribution in pioneering Siemens' global innovation initiative. Mr. Kang also expressed his hope that Dr. Achatz could impart his expertise in scientific research, technological innovation and management to Tsinghua students. In his speech of appreciation, Dr. Achatz promised to continue to strive always to promote the cooperation between Siemens and Tsinghua in R&D and talent fostering.



The Head of the Department of Thermal Engineering, Yao Qiang chaired the ceremony. Other participants included the Party Secretary of the Department of Thermal Engineering, Yuan Xin, and the Deputy Head of the Department of Thermal Engineering, Cai Ningsheng as well as representatives from the Tsinghua-BP Clean Energy Research and Education Center and the Overseas R&D Management Office, Tsinghua University.

Dr. Achatz joined Siemens AG in 1980, and has been key member of the Siemens' Innovation Steering Committee. In 2006 he was appointed Global Vice President of Siemens as well as the Head of Corporate Technologies. Additionally he has also been a committee member and Vice President of the OPC Alliance, a committee member and Vice Chairman of NESSI, and Vice Chairman of M ünchner Kreis.

→ continued on page 2