



SCHOOL OF ENVIRONMENT
TSINGHUA UNIVERSITY

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Newsletter

Issue 13



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SOE Tops China's First-Level Discipline Ranking in the Discipline of Environmental Science and Engineering

China Academic Degrees & Graduate Education Development Center(CDGDC) released the result of 2012 China's Discipline Ranking in the news conference held by the Ministry of Education on January 29, 2013. SOE received a score of 97 and ranked NO.1 in the discipline of Environmental Science and Engineering.

The evaluation, conducted by CDGDC for a whole year, is the third discipline evaluation in history. All participants volunteered to be involved in the evaluation, which was basing on both objective and subjective estimations. All data was publicly collected from governments, social

organizations or participants themselves. Many experts from universities, academic institutes, governments and enterprises were also invited for helping achieve better results on the evaluation and examination.

The evaluation of the discipline of Environmental Science and Engineering covered a total number of 82 universities, including 37 of 50 universities who have the authority to deliver first-level Ph.D. degrees, as well as 45 universities that can offer second-level Ph.D. degrees or master degrees.

SOE Held Memorial Service for Academician GU Xiasheng

More than 50 people participated in a memorial service held by SOE for Academician GU Xiasheng, former SOE professor and a prestigious academic in China's environmental field, on February 24, 2013, one year after his death.

Prof. ZUO Jian'e, Vice Dean of SOE, presided over the service. Dean of SOE Prof. YU Gang delivered a speech reviewing the life and achievements of Mr. GU. He encouraged all teachers and students of SOE to carry on Mr. GU's pursuit for environmental protection and develop SOE into a first-class environmental academic school.

As a student of Mr. GU, Academician DUAN Ning, shared several stories about his experience with Mr. GU and emphasized Mr. GU's strict attitude towards academic research. Academician HAO Jiming said he had been impressed by Mr. GU's deep concerns about the education



of environmental engineering in China and his caring for students' development. Many other Mr. GU's respectful and grateful qualities were recalled by the other people.

Prof. DU Pengfei, Chairman of SOE Council delivered a conclusive speech at the end of the memorial. He promised to edit all shared stories of Mr. GU in order to carry on the memory of the master in Chinese environmental community.

Water Pollutants Multi-index Fast Detector Project Kicked off

The kick-off meeting of Water Pollutants Multi-index Fast Detector Project was held at Tsinghua University on January 5, 2013. Sponsored by Anheng Environmental Technology Company and technically supported by Tsinghua, the project is a national major developing program.

Mr. WU Xueti, Deputy Director-General of the Department of Facilities and Financial Support of the Ministry of Science and Technology, and Prof. KANG Kejun, Vice President of Tsinghua, attended the meeting. Prof. SHI Hanchang, technical leader of the project, made an introduction about the project. Chinese Academy of Engineering (CAE) Academician. QU Jiuhui, Academician CHENG Jing, and representatives from other participating units attended the meeting and raised suggestions on

practical issues of the project.

The water pollutants multi-index fast detector is designed as a novel piece of equipment based on the principle of total internal reflection, biological affinity reactions and quantitative fluorescence detection. It contains several modules that are able to simultaneously test toxic organic matters, heavy metals and biotoxins in a quick rate. The whole project will be divided into the three following steps: 1) the study of the multi-index core unit and relative functional materials; 2) The set-up of the fast detector and whole system; 3) The practical application and industrialized demonstration. This detector will be trial run in areas of water

environment monitoring, drinking water safety monitoring, environmental emergency monitoring and food safety monitoring etc.

The project also formed a technical expert group, SOE Professor and CAE Academician QIAN Yi serves as the leader. Prof. CHEN Jining, President of Tsinghua University, leads the general management group and Mr. YIN Shiyong, Director of Yangtze River Water Environment Monitoring Center, is in charge of the usercommittee.



Seminar on Environmental Sustainable Development—Ecological Progress and Role of International Community Held in Beijing

Asian Development Bank (ADB), Tsinghua University and World Resources Institute (WRI) co-hosted the Seminar On Environmental Sustainable Development—Ecological Progress And Role Of International Community in Beijing on January 14, 2013.

The Chinese version of *Toward an Environmentally Sustainable Future: Country Environmental Analysis of the People's Republic of China* was released at the seminar. This is the second environmental analysis of China from ADB and regarded as a

reference for China's Twelfth Five-year Plan.

Nearly a hundred officials, academics and representatives from Governments, development partners, research institutions, and universities attended the seminar. President of Tsinghua University Prof. Chen Jining, ADB Chief Representative in China Mr. Hamid L. SHARIF, Director of the Department of International Cooperation of the Ministry of Environmental Protection Mr. TANG Dingding, Chief Representative of WRI China Mr. LI Lailai gave speeches on

the opening ceremony. The seminar explored on the solutions to improve ecological civilization, including topics as ecological function zones, sustainable urbanization, water safety, energy conservation, ecosystem remediation, pollutants management, ecological compensation, tax reform for green growth, regional knowledge sharing of green growth.



SOE Prof. LI Jinhui Attended the 4th Regional 3R Forum in Asia

The 4th Regional 3R (Reduce, Reuse and Recycle) Forum in Asia was held from March 18 to 21, 2013 in Hanoi, Vietnam.

277 delegates from 30 governments, 37 intergovernmental and academic institutes, 4 Vietnam organizations, 6 companies and associations, 11 NGOs and 3 media attended the forum.

Under the overall theme of the forum is 3R in the Context of Rio+20 Outcome—The Future We Want, representatives focused their discussions around a series of issues regarding how

to promote 3R measures for the sustainable development in Asia-Pacific. Representatives from the National Development and Reform Commission, Ministry of Housing and Urban-Rural Development and Tsinghua University comprised the Chinese delegation. SOE Prof. LI Jinhui, Executive Secretary of Basel Convention Coordinating Centre for Asia and the Pacific (BCCC China), took part in the discussion about the new and emerging waste issues in terms of policy, institutional and technological considerations. Prof.

LI also joined the discussion on performance indicators of 3R and resource conservation, and jointly presided over one sub-seminar.

The 3R forum was hosted by the United Nations Centre for Regional Development, and sponsored by many Asian countries. The forum aimed at accelerating policy dialogue among relevant agencies to solve the issue of 3R and solid waste management, and sustainable production and consumption. BCCC China is also one of the initiators of this forum.

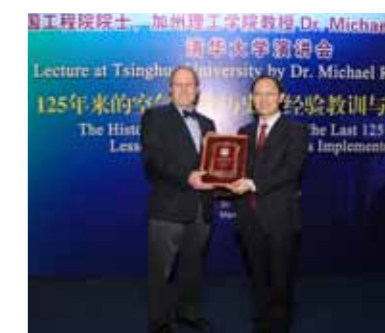
The 127th Tsinghua Global Vision Lectures Held in SOE

Prof. Michael R. HOFFMANN, Academician of the American Academy of Engineering from California Institute of Technology, delivered a lecture on *The History of Air Pollution over the Last 125 Years: Lessons Learned and Solutions Implemented* at the 127th Tsinghua Global Vision Lectures in SOE on March 20, 2013.

Dean of SOE Prof. YU Gang, presided over the lecture. More than 200 faculty

members and students were present. During his report, Prof. HOFFMANN briefly described the different mechanisms of "the Great Smog of '52" in London and "the Los Angeles smog" in 1940s from perspective of environmental chemistry. He also introduced the collaboration among academic circles, governments, industries and public in controlling air pollution. By reviewing the famous air pollution events, Prof. HOFFMANN summarized the air pollution control

experience in the U.S. and provided some suggestions on the Chinese current air pollution issue.



Tsinghua Environmental Forum Invites Experts from Worldwide

The 42nd Session: Green Energy and Artificial Photo-synthesis Catalyst for the Future

Prof. Michael R. HOFFMANN, Academician of American Academy of Engineering from the California Institute of Technology, gave an academic speech on *Green Energy and Artificial Photo-*

synthesis Catalyst for the Future to around 50 faculty members and students on the 42nd Environmental Forum on March 27, 2013. Dean of SOE Prof. YU Gang, presided over the forum.

Focusing on the multiple photocatalysis decomposition of carbon dioxide and water, Prof. HOFFMANN elaborated on the application of artificial photosynthetic systems to decomposing water to produce

hydrogen and carbon dioxide. He also introduced the principle of photocatalytic decomposition of water, several kinds of relative semiconductor materials and his experiment on the photovoltaic panel catalytic reactor. In the end, he further analyzed the characteristics

of several semiconductor materials in the process of photocatalysis and the application of one photocatalytic device in treating domestic wastewater. After the lecture, the audience had a warm discussion with Prof. HOFFMANN upon interesting issues about devices, materials, products of decomposition

of carbon dioxide and the application to wastewater treatment.



The 43rd Session: From Research to Decision Making—the Practice in Hong Kong

Ms. Christine LOH, Deputy Director of the Environment Bureau of Hong Kong, was invited to the 43rd Environmental Forum on March 27, 2013. CAE Academician HAO Jiming from SOE presided over the forum.

Ms. Christine LOH introduced the air pollution problems in Hong Kong and said the key to reasonable decision-making is a comprehensive understanding of the pollution characteristics. The emission inventory of vessels in the Jjiang Delta and the

emission reduction estimation have been investigated in Hong Kong, supporting the government's future decision-making. The environmental problems will be incorporated into the urban planning. The experience of local pollution control by the Hong Kong government was also presented, including pollution source control, internal cooperation among departments in Hong Kong, and the external collaboration between Hong Kong and other areas of China. After the speech, Ms. Christine LOH answered questions raised by the



audience of faculties and students, e.g. policy making for transregional pollution, public participation in large engineering projects in Hong Kong, and the pollution reduction measures in place for power stations in Hong Kong.

Exchanges & Cooperation

Delegation from Wisconsin, US Meets SOE Officials for Potential Cooperation

A delegation of officials and experts from the State of Wisconsin, US, including Director of Wisconsin Department of Natural Resources Cathy STEPP, and former Deputy Director of US EPA Richard D. OTIS, visited SOE for communication of potential cooperation on March 18, 2013.

Dean Assistant of SOE LIU Shuming, Prof. JIA Haifeng from the Division of Environmental System Analysis of

SOE, and Associate Prof. CHEN Chao from the Division of Drinking Water Safety welcomed the Delegation which included former Deputy Administrator Richard D. Otis.

SOE Dean Assistant Dr. LIU Shuming gave the delegation an overall introduction about SOE's education and research. Prof. JIA Haifeng from the Division of Environmental System Analysis of SOE presented the current state of water resources in China,

through the research projects he has participated in. Dr. CHEN Chao introduced the research in the Division of Drinking Water Safety. Prof. NI Guangheng and Prof. WANG Zhaoyin from the Department of Hydraulic Engineering of Tsinghua University also attended the talks and introduced their research topics. The two sides exchanged their views on research fields of common interest, and explored the potential opportunities of future cooperation. Other members of the

Delegation visited the Environmental Biology lab, Microbial Fuel Cell lab, Drinking Water Safety lab and some public research platforms in SOE.

The delegation's visit to China was to communicate with relevant Chinese

institutions in the fields of environment, natural resources, energy, education and technology development, seeking for future cooperation opportunities. The delegation would

provide suggestions to the of the Wisconsin State Government on future collaborations between Mid-west U.S. and China.

Student Development

SOE Student Receive the 2012 IDRC - University of Nairobi Research Grants

SOE Ph.D. candidates BAI Hua under the supervision of Prof. CHEN Jining and Mujtaba HASSAN under the supervision of Prof. DU Pengfei from SOE were awarded the 2012 International Development Research Center (IDRC) - University of Nairobi Research Grants (IUNRG)

on Innovative Application of ICTs in Addressing Water-related Impacts of Climate Change, according to the awarding list released in January.

The IUNRG, charged by IDRC, mainly sponsors master students and Ph.D. candidates from Asia, Africa and South

America IN 2012, aiming to support research on climate change and regional water cycle, water resources distribution and sustainable water management etc. 15 master students and 15 Ph.D. candidates share the sponsorship.

Tsinghua Team Wins Most Professional Award in mai Bangkok Business Challenge

The final competition of the mai Bangkok Business Challenge was held in the Chulalongkorn University in Thailand from February 28 to March 4, 2013. The Tsinghua team "Bioclean" won the Most Professional Award with their business plan building upon the technology of Coupling of Wastewater Deep Purification and Biomass Production Based on Microalgae Cultivation developed by Prof. HU Hongying's group in SOE.

The Tsinghua team is made up by two students from SOE, and four students from Tsinghua School of Economics and Management. The key technology of their project is the deep purification of wastewater, which could not only yield high quality reclaimed water, but

also produce biodiesel and feed additive. The technology, which couples the reclaimed water and biomass production,

could create enormous environmental and economical benefits after large-scale application, and thus is assumed to be a promising innovative wastewater reuse technology. The team members designed the commercial promotion and marketing strategies for the technology with their own specialties and strengths, and finally distinguished themselves from the 16 other



participating teams.

The mai Bangkok Business Challenge is one of the world's most influential entrepreneur challenges. There were 63 teams in total for this year's challenge, including 11 teams from mainland China, e.g. Peking University and Fudan University.