

AEARU Joint Workshop-ICASS 2007

International Collaboration for Asia Sustainable Society

The University of Tokyo held an AEARU Joint Workshop titled “ICASS07,” in Nanjing on October 25 & 26 in cooperation with Nanjing University and in Wuxi on October 29 & 30. This event took place as one of the series of celebratory events for the University of Tokyo’s 130th anniversary, aiming to construct a global cooperation network and to find key solutions to maintain a sustainable social system in East Asia, where economy has been accelerating in the recent decade.

While several regional ranking officers, such as Director General Yu ZHU of Intellectual Property Office of Jiangsu Province, Secretary Keang SHENG of Wuxi Organization Department and Wuxi’s Vice Mayor Hongzhi LIU, and two Vice presidents of Nanjing University and the University of Tokyo attended this joint workshop, the participants from diverse fields amounted to nearly 300. A wide variety of 70 significant presentations were animatedly given; AEARU and the host universities again achieved a successful outcome.

The following is the program of the workshop:

AEARU Joint Workshop-ICASS 2007

Nanjing Workshop, October 25-26, Nanjing New Era Hotel

Wuxi Workshop, October 29-30, Wuxi Kapok Hotel

1. *3rd AEARU Science and Technology Park Workshop: University & Industry Cooperation*
2. *3rd International Conference on Eco-electronics*
3. *Workshop on Engineering for Resources, Energy and Manufacturing Technology*

Opening Ceremony of Nanjing Workshop

October 25, Jia He Function Room / 嘉和厅, 2nd Floor, Nanjing New Era Hotel

09:00-09:05 Kimihiko HIRAO, The University of Tokyo

09:05-09:10 **Yi PAN, Nanjing University, Nanjing University**

09:10-09:30 Break

Nanjing Workshop-1

3rd AEARU Science and Technology Park Workshop: University & Industry Cooperation

October 25, Meeting Room 6 / 6 号会议室, 3rd Floor, Nanjing New Era Hotel

- 09:30-09:35 Session Opening, Toshiya Watanabe, University of Tokyo
- 09:35-10:20 Research University, A Foundation of Independent Innovation
LI Cheng, Office of Science & Technology, Nanjing University
- 10:20-11:05 Constitution and Implementation of Intellectual Property in Jiangsu Province
Yu ZHU, Intellectual Property Office of Jiangsu Province
- 11:05-11:35 New Challenge For University-Industry Collaboration in TU, 2 samples of Collaboration Style
Makiko Takahashi, Center for Research Strategy & Support, Tohoku University
- 11:35-11:50 Discussion
- 12:00-13:00 Lunch & Break - Western Food Restaurant / 西餐厅, 2nd Floor
- 13:00-13:30 The Challenges of the University of Tokyo Edge Capital Co., Ltd. (UTEC)
Tomotaka Goji, The University of Tokyo Edge Capital
- 13:30-14:15 Prourokinase from lab bench side to hospital bedside: A story about the biopharmaceutical discovery and development
Jian-Ning LIU, Institute of Molecular Medicine, Nanjing University
- 14:15-14:45 A case analysis, KFS of university start-up in pharmaceutical area
Megumi TAKATA¹, Hardy KAGIMOTO², ¹Kyushu University Business School, ²Aqumen Biopharmaceuticals
- 14:45-15:00 Coffee Break
- 15:00-15:30 Cooperation between the University of Tsukuba and Japanese Pulp and Paper Industries
Hiroshi OHI, Graduate School of Life and Environmental Science, University of Tsukuba
- 15:30-16:00 From Start-up to Joint Venture
Tony R Eastham, Matthew M F Yuen, Claudia J Xu, Rocky C S Law, Shirley S W Woo, HKUST
- 16:00-16:30 Internet Data Base of Proposals for U-I Collaborative Researches (CCR-DB)
Kazuya MATSUO, Center for Collaborative Research, The University of Tokyo
- 16:30-17:00 Patenting and Licensing from University - Still controversial but inevitable for open innovation era.
Toshiya Watanabe, Collaborative Research Center, University of Tokyo
- 17:00-17:40 Discussion
- 18:00-20:00 Banquet - Western Food Restaurant / 西餐厅, 2nd Floor

October 26, Meeting Room 6 / 6 号会议室, 3rd Floor, Nanjing New Era Hotel

- 09:00-11:40 Discussion
- 12:00-13:00 Lunch & break - Western Food Restaurant / 西餐厅, 2nd Floor
- 14:00-17:00 Industry Tour
- 18:00-20:00 Dinner (TBD)

Nanjing Workshop 2

3rd International Conference on Eco-electronics

October 25, Jia He Function Room / 嘉和厅, 2nd Floor, Nanjing New Era Hotel

- 09:30-09:35 Session Opening, Tadatomo SUGA, The University of Tokyo
- 09:35-10:05 Recycling of nickel and cadmium from spent Ni-Cd batteries
ZHENG Zheng, Zhao Guo-hua, Luo Xing-zhang, School of Environment, Nanjing

University

- 10:05-10:35 Reliable Products and Reliable Action, Realistic Eco-Design for the World Majority -The Resolution of Environmental Issue and Economic Disparity-
Hidetaka HAYASHI, The University of Tokyo
- 10:35-11:05 Dell's engagement on China RoHS legislation
Frank SHOU, Worldwide Environmental Affairs, Dell
- 11:05-11:35 Environment-Friendly and High-Efficiency White and Blue Light Emitting Devices and Materials for New Lighting Echo
Zhenchuan FENG, Graduate Institute of Photonics & Optoelectronics and Department of Electrical Engineering, National Taiwan University
- 12:00-13:00 Lunch & Break -- Western Food Restaurant / 西餐厅, 2nd Floor

Industry and Global Overview

Session Chair: Frank SHOU, Dell

- 13:00-13:30 Some European Initiatives in EcoElectronics
Otto Andersen, Western Norway Research Institute
- 13:30-14:00 Status of European Ecodesign legislation
Alexander Schloesser, IZM, Fraunhofer Institute, Germany

Eco-Material, energy and process technology

Session Chair: Otto Andersen and Takasuke Morita

- 14:00-14:20 The Application of XR-Instrument in Environmental Protection
Renpu CHEN, SII
- 14:20-14:40 Si-Based Environmentally Friendly Semiconductors for Future Electronic and Photonic Devices
Takashi Suemasu^{1,2}, Shigemitsu Murase¹, Teruhisa Ootsuka¹, Mitsushi Suzuno¹ and Kosuke Morita¹, ¹Institute of Applied Physics, University of Tsukuba, and ²PRESTO of Japan Science and Technology Agency
- 14:40-15:00 BGA with Lead-free Solder Reliability Evaluation on Drop Test
Yahong Wang, Jim Liu, Motorola(China) Electronic Ltd.
- 15:00-15:20 Coffee Break
- 15:20-15:40 Development and Clean Production of PCB Industry
Zhang Lin-nan^{1,2}, Wu Yan-jun², Sun Li-ying², Kong Ling-yu², Ni Jin-ren², ¹School of Science, Shenyang University of Technology, ²Department of Environmental Engineering, Peking University
- 15:40-16:00 Experimental study of the temperature parameter for the PCB disassembly
Yang CHENG, Jiping YANG, Dong XIANG, Department of Precision Instrument and Mechanology, Tsinghua University
- 16:00-16:20 A recycling process for waste PCB substrates and the analysis of pulverizing machine tool wear mechanics
¹Yehong Dong, ¹Peng Mou, ¹Dong Xiang, ¹Guanghong Duan, ¹Tsinghua TopSearch R&D Center of Green Manufacturing, Tsinghua University
- 16:20-16:40 Field Trial of LFG Collection and Study on Engineering Design Parameters
XU Xue-song, CHEN Ze-zhi, LIU Peng, LIU Ke-qing, Nanjing Univeristy
- 16:40-17:20 Simulation and optimization of flow field of bellows
Lv Chuanyi, Yang Xianhai, Li Jinliang, School of Mechanical Engineering, Shandong University of Technology
- 17:20-17:40 Aerobic Biodegradation of Polybrominated diphenyl ethers
Juan Ding, Juan Zhou, Weiying Jiang, Shixiang Gao, School of Environment, Nanjing University*
- 18:00-20:00 Banquet -- Western Food Restaurant / 西餐厅, 2nd Floor

October 26, Jia He Function Room /嘉和厅, 2nd Floor, Nanjing New Era Hotel

China-Japan Joint Workshop on UEEE Inverse Distribution as a Part of Circular Economic System in China

Session Chair: Hidetaka HAYASHI, The University of Tokyo

- 08:30-08:50 Opening Speech by Hidetaka HAYASHI, The University of Tokyo
- 08:50-09:15 The management of life cycle information of electronic products
Zhenjie GAO, Ministry of Information Industry of China
- 09:15-09:40 Review of Chinese e-waste raw material market and development
Yan WANG, WEEE Recycle society, Chinese Home Application Association
- 09:40-10:05 The Sustainable Use of Electronics, An Economic Analysis of WEEE in Japan
Fumikazu Yoshida and Haruyo Yoshida**, Hokkaido University*
- 10:05-10:20 Coffee Break
- 10:20-10:45 Construction of Chinese WEEE Recycle System
Huan DU, Jiaxing University and Director of the Institute of Recycling Economic Technology of the Yangtze Delta
- 10:45-11:10 Suggestion on the construction of second EEE product market
Benyao SHEN, Chinese Electronic Engineering Design
- 11:10-11:35 Study on Establishing new model of Second-hand Appliance Market in WEEE Recycling System in China
Hui TIAN, China Household Electrical Appliances Research Institute
- 11:35-12:00 Study on the Best Choice of Used or Waste EEE in China Based on the Long Chain Recycling Value Mode--Empirical Analysis on Recycling Modes of Used or Waste EEE of Dalian
Wang Jie¹, Hidetaka Hayashi², Cui Yanjuan¹, Sun Xiaocheng¹, Circular Economic Research Center, ¹Dalian Polytechnic University, ²Japan Science and Technology Agency
- 12:00-13:00 Lunch & Break -- Western Food Restaurant / 西餐厅, 2nd Floor

China-Japan Joint Workshop on UEEE Inverse Distribution as a Part of Circular Economic System in China

- 13:00-13:25 WEEE Recycling in China & Fortune Recycling Solution
May Jiang, Fortune Recycling (Shanghai) Ltd.
- 13:25-13:50 Residents' willingness to pay for advanced electronic waste recycling in Qingdao
Lu XING¹, Lei SHI², ¹School of Environmental Nature Resources, Renmin University of China, ²School of Environment, Nanjing University
- 13:50-14:15 Explore "The precious metal mine" in the city
Wang Yanfeng, SHANGHAI MITSUI XIN YUN PRECIOUS AND RARE METAL RECYCLE CO.,LTD
- 14:15-14:40 The Research of Copper Leaching from the Waste Computer Mainboards
Li Jingying¹, Sheng Guangneng², ^{1,2}College of Environment and Safety Engineering, Qingdao University of Science & Technology
- 14:40-15:05 Pilot Plant for UEEE Recovery Base in the University
Chao Huang¹, Hidetaka Hayashi², Xiuqin Ma¹, Miaomiao Liang¹, Chengwei Wang¹, ¹School of energy and environmental engineering, Hebei University of Technology, ²The University of Tokyo, Japan
- 18:00-20:00 Dinner – (TBD)

Wuxi Workshop

Workshop on Engineering for Resources, Energy and Manufacturing Technology

October 29, Bi Li Hall / 碧丽宫, 1st Floor, Hotel Kapok, Wuxi

Opening Ceremony

09:00-09:30	Prof. Kazuhiko TAKEUCHI, Director of Division for International Relations, The University of Tokyo Prof. Yoichiro MATSUMOTO, Dean of School of Engineering, The University of Tokyo Wuxi Government (TBD)
09:30-09:40	Break

Special Session: Review of Water Resource Management in East Asia

09:40-11:40	Professor Keisuke HANAKI, The University of Tokyo Hongzhi LIU, Vice Mayor of Wuxi Government Liuyan YANG, Nanjing University
12:00-13:00	Lunch, Jiang Shan Restaurant / 江山餐厅, 1 st Floor

Session 1: Management of Air and Water Environment

Session Chair, Keisuke HANAKI, The University of Tokyo

13:00-13:20	Modelling of Biofilm in a Saline Sewage Sewer <i>Jiang Feng¹, Derek Ho-wai Leung², Li Shiyu¹, Guang-Hao Chen^{*2}, ¹Department of Environmental Engineering, Sun Yat-sen University, PRC, ²Department of Civil Engineering, The Hong Kong University of Science & Technology</i>
13:20-13:40	Accelerated Removal of Chemical Pollutants Using Interaction between Aquatic Plants and Bacteria in Rhizosphere <i>Kazunari Sei, Michihiko Ike, Division of Sustainable Energy and Environmental Engineering, Osaka University</i>
13:40-14:00	Investigation of Rice-Straw Burning Emissions in a State of the Art Aerosol Chamber <i>Jianmin Chen^{†*}, Xing-Nan Ye[†], Hefeng Zhang[†], Xin Yang[†], Hong Chen[†], and Renyi Zhang[‡], [†]Center of Atmospheric Chemistry Studies, Department of Environmental Science & Engineering, Fudan University, [‡]Department of Atmospheric Sciences, Texas A&M University</i>
14:00-14:20	A hybrid water purification system combining magnetic separation to remove total phosphorus (T-P) and ecological treatment with aquatic plants to remove total nitrogen (T-N) <i>¹Minoru MORITA, ^{2*}Hiroaki YODA, ^{3*}Kazuhiko TAKEUCHI, ^{*1}Matsudo Research Laboratory, Hitachi Plant Technologies, Ltd., ²Tsuchiura Research Laboratory, Hitachi Plant Technologies, Ltd., ³The University of Tokyo</i>
14:20-14:40	Risk Evaluation of Waterborne Infectious Diarrhea in the Mekong Watershed and Possible Scenarios of Water Utilization for Risk Reduction <i>Toru Watanabe^{†*}, Takayuki Miura¹, Tsukasa Sasaki¹, Yoshifumi Masago¹, Satoshi Nakamura² and Tatsuo Omura¹, ¹Department of Civil and Environmental Engineering, Tohoku University, ²Research Institute, International Medical Center of Japan</i>
14:40-15:00	Research on the Configuration and Application of Hybrid of PV/Wind Pump System in Polluted Water Restoration <i>CHEN Wei¹, LI Xiao-ping^{1, 2*}, SUN Cong-jun², ¹School of Environment and Chemical Engineering, Shanghai University, ²Shanghai Academy of Environmental Sciences</i>
15:00-15:20	Development of Molecular Tools for Identification of Microorganisms involved in Wastewater Treatment <i>Kengo Kubota^{1,*}, Shuji Kawakami², Hiroyuki Imachi³, Hideki Harada¹ and Akiyoshi Ohashi⁴, ¹Department of Civil and Environmental Engineering, Tohoku University, ²Environmental Systems Engineering, Nagaoka University of Technology, ³Subground Animalcule Retrieval Program, Extremobiosphere Research Center, Japan Agency for Marine-Earth Science & Technology, ⁴Department of Social and Environmental Engineering, Hiroshima University</i>
15:20-15:35	Coffee

Session 2: Clean Coal Technology

Session Chair: Sohei SHIMADA, The University of Tokyo

15:35-15:55	Cleaner Use of Coal Resources - Clean Coal Technology and Coalbed Methane <i>Sohei SHIMADA, Department of Environment System, Graduate School of Frontier Science, The University of Tokyo</i>
15:55-16:15	Study on Coal Combustion and Pyrolysis Gas Tar and Steam Polygeneration System <i>M. Fang*, J. Cen, Q. Wang, Luo Z., Cen K., Institute for Thermal Power Engineering, Zhejiang University, Z. Cao, X. Zhang, J. Shu, X. Rao, G. Dong, J. Wang, Y. Wang, Huainan Mining Industry</i>
16:15-16:35	Progress and expectation in R & D on clean coal technology in China <i>Changsui, ZHAO, Southeast University</i>
16:35-16:55	华东理工大学
16:55-17:15	Exploitation, Recovery and Utilization of CBM & CMM in Henan Province , Northern China <i>Huoyin LI¹, Yanqin LI¹, Sohei SHIMADA², ¹Research Center on Energy-saving, School of Chemical Engineering, Zhengzhou University, ²Institute of Environment studies, Graduate School of Frontier Science, The University of Tokyo</i>
17:15-17:35	WAVELET ANALYSIS APPLICATION ON AERODYNAMIC FIELD MEASUREMENT IN FURNACE BY ACOUSTIC METHOD <i>LI Yan-qin, Huoyin Li, Research Center on Energy-saving, School of Chemical Engineering, Zhengzhou University</i>
18:30-20:00	Banquet Bi Li Hall / 碧丽宫, 1 st Floor

October 30, Bi Li Hall / 碧丽宫, 1st Floor, Hotel Kapok, Wuxi

Session 3: Energy Production Including Nuclear Technology

Session chair: Satoru TANAKA, The University of Tokyo

08:30-08:50	Increase of Nuclear Energy in Asia and Importance of International Collaboration <i>Satoru TANAKA, School of Engineering, The University of Tokyo</i>
08:50-09:10	Thermochemical Conversion of Biomass to Liquid Fuels <i>Xifeng Zhu, Quanxin Li, Qing-Xiang Guo, Anhui Key Laboratory of Biomass Clean Energy, University of Science and Technology of China</i>
09:10-09:30	SURVEY ON FUTURE ENERGY SYSTEM STRUCTURE UNDER CO ₂ CONSTRAINTS <i>Hiroshi UJITA and Kazuaki MATSUI, The Institute of Applied Energy, Tokyo, Japan</i>
09:30-09:50	New concept solar cell: the learning curve <i>Deng Changsheng Cheng Ping, Institute of Nuclear and New Energy Technology, Tsinghua University</i>
09:50-10:10	Research on Energy Consumption Control based on Resource Optimal Allocation [*] <i>Li Xu, Chen Yusheng, Zhu Daoli, School of Management, Fudan University</i>
10:10-10:25	Coffee Break

Session 4: Cleaning Manufacturing Technology

Session chair: Fumihiko KIMURA, The University of Tokyo

10:25-10:45	Fumihiko KIMURA, The University of Tokyo
10:45-11:05	EU directive on used automobile and Chinese Solution <i>Ming CHEN, Shanghai Jiaotong University</i>
11:05-11:25	Development of Life Cycle Environmental Impact Quantification Model for Livestock Industry based on Agricultural Material Flow Analysis <i>Tomoko IWATA, Sohei SHIMADA, Graduate School of Frontier Sciences, The University of Tokyo</i>
11:25-11:45	Green Design of Mechatronic Products and Its Implementation <i>Zhifeng LIU, Heifei University of Technology</i>
11:45-12:05	Introduction of Tsinghua TopSearch R&D Center of Green Manufacturing (TTCGM) <i>Professor Guanghong DUAN, Jiping YANG, Department of Precision Instruments and Mechanology, Tsinghua University</i>

12:05-13:00 Lunch, Jiang Shan Restaurant / 江山餐厅, 1st Floor

Session 5: Asian Logistics Research and Practice

Session chair, Hiroyuki YAMATO, The University of Tokyo

- 13:00-13:20 Financial Supply Chain
Daolin ZHU, Fudan University
- 13:20-13:40 A Study on Product Delivery Planning Improvement: Case Study at Cementhai Logistics Co., Ltd.
Hiroyuki Yamato, Maytouch Udommahuntisuk, A.A.B. Dinariyana, Graduate School of Frontier Sciences, The University of Tokyo*
- 13:40-14:00 Science Originates from Discussion and Develops through Communication
Yaoqiu Wang, Zhao Rui, Wang Yujie, School of Logistics Research, Beijing Jiaotong University
- 14:00-14:20 The Development of A New Public Transportation System: On-Demand Bus
Kota TSUBOUCHI¹, Hiroyuki YAMATO¹, Kazuo HIEKATA², Maytouch UDOMMAHUNTISUK¹, ¹Graduate School of Frontier Sciences, The University of Tokyo, ²Graduate School of Engineering, The University of Tokyo
- 14:20-14:40 Marine inventory routing for multi-commodity petroleum products in a hub-and-spokes network
A.A.B. Dinariyana¹, Hiroyuki Yamato¹, Hiroshi Matsukura², Udommahuntisuk Maytouch¹, ¹Institute of Environmental Studies, Graduate School of Frontier Sciences, The University of Tokyo, ²Environmental and Ocean Engineering, Graduate School of Engineering, The University of Tokyo
- 14:40-15:00 Effect of Cooperative Activities among Maritime Logistics Related Companies
Hiroshi MATSUKURA¹, Hiroyuki YAMATO², ¹School of Engineering, The University of Tokyo, ²School of Science, The University of Tokyo
- 15:00-15:15 Coffee Break

Session 6: Advanced Packaging Technology

Session chair: Tadatomo SUGA, The University of Tokyo

- 15:15-15:35 New surface finish technology for semiconductor packages
Shigeki SHIMIZU, Japan Pure Chemicals Co.
- 15:35-15:55 Development and Reliability of New Lead Free Solder System
Jusheng MA, Tsinghua University
- 15:55-16:15 Bumping technology
Tatsuo HIKIJI, Minami Co. Ltd.
- 16:15-16:35 Research on Electronic Packaging Material
Dingyan DONG and Ming LI, Shanghai Jiaotong University
- 16:35-16:55 International Cooperation of Research & Education of Packaging and Eco-electronics in China
Zhonghua XU and Tadatomo SUGA, School of Engineering, The University of Tokyo
- 16:55-17:05 Closing Speech
Satoru Tanaka, The University of Tokyo
- 18:00-20:00 Dinner (TBD)