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 OH, Graduate School of Life and Environmental Science, University of Tsukuba
             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
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

Dell's engagement on China RoHS legislation
Frank SHOU, Worldwide Environmental Affairs, Dell

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

Lunch & Break -- Western Food Restaurant / 西餐厅, 2nd Floor

Industry and Global Overview
Session Chair: Frank SHOU, Dell

Some European Initiatives in EcoElectronics
Otto Andersen, Western Norway Research Institute

Status of European Ecodesign legislation
Alexander Schloesser, IZM, Fraunhofer Institute, Germany

Eco-Material, energy and process technology
Session Chair: Otto Andersen and Takasuke Morita

The Application of XR-Instrument in Environmental Protection
Renpu CHEN, SII

Si-Based Environmentally Friendly Semiconductors for Future Electronic and Photonic Devices
Takashi Suemasu1,2, Shigemitsu Murase1, Teruhisa Ootsuka1, Mitsuhi Suzuno1 and Kosuke Morita1, 1Institute of Applied Physics, University of Tsukuba, and 2PRESTO of Japan Science and Technology Agency

BGA with Lead-free Solder Reliability Evaluation on Drop Test
Yahong Wang, Jim Liu, Motorola(China) Electronic Ltd.

Coffee Break

Development and Clean Production of PCB Industry
Zhang Lin-nan1,2, Wu Yan-jun1, Sun Li-ying2, Kong Ling-yu2, Ni Jin-ren2, 1School of Science, Shenyang University of Technology, 2Department of Environmental Engineering, Peking University

Experimental study of the temperature parameter for the PCB disassembly
Yang CHENG, Jiping YANG, Dong XIANG, Department of Precision Instrument and Mechanology, Tsinghua University

A recycling process for waste PCB substrates and the analysis of pulverizing machine tool wear mechanics
1Yehong Dong,1 Peng Mou, 1Dong Xiang, 1Guanghong Duan, 1Tsinghua TopSearch R&D Center of Green Manufacturing, Tsinghua University

Field Trial of LFG Collection and Study on Engineering Design Parameters
XU Xue-song, CHEN Ze-zhi, LIU Peng, LIU Ke-qing, Nanjing University

Simulation and optimization of flow field of bellows
Lv Chuanyi, Yang Xianhai, Li Jiniang, School of Mechanical Engineering, Shandong University of Technology

Aerobic Biodegradation of Polybrominated diphenyl ethers
Juan Ding, Juan Zhou, Weiying Jiang, Shixiang Gao*, School of Environment, Nanjing University

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 Residents' willingness to pay for advanced electronic waste recycling in Qingdao
May Jiang, Fortune Recycling (Shanghai) Ltd.

13:25-13:50 Explore “The precious metal mine” in the city
Lu XING¹, Lei SHU², ¹School of Environmental Nature Resources, Renmin University of China, ²School of Environment, Nanjing University

13:50-14:15 The Research of Copper Leaching from the Waste Computer Mainboards
Wang Yanfeng, SHANGHAI MITSUI XIN YUN PRECIOUS AND RARE METAL RECYCLE CO., LTD

14:15-14:40 Pilot Plant for UEEE Recovery Base in the University
Li Jingying¹, Sheng Guangneng², ¹College of Environment and Safety Engineering, Qingdao University of Science & Technology

14:40-15:05 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, 1st 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  
Jiang Feng¹, Derek Ho-wai Leung², Li Shiyu¹, Guang-Hao Chen², ¹Department of Environmental Engineering, Sun Yat-sen University, PRC, ²Department of Civil Engineering, The Hong Kong University of Science & Technology

13:20-13:40  
Accelerated Removal of Chemical Pollutants Using Interaction between Aquatic Plants and Bacteria in Rhizosphere  
Kazunari Sei, Michihiko Ike, Division of Sustainable Energy and Environmental Engineering, Osaka University

13:40-14:00  
Investigation of Rice-Straw Burning Emissions in a State of the Art Aerosol Chamber  
Jianmin Chen†*, Xing-Nan Ye†, Hefeng Zhang†, Xin Yang†, Hong Chen†, and Renyi Zhang†, ¹Center of Atmospheric Chemistry Studies, Department of Environmental Science & Engineering, Fudan University, ²Department of Atmospheric Sciences, Texas A&M University

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)  
¹Minoru MORITA, ²Hiroaki YODA, ³Kazuhiko TAKEUCHI, ¹¹Matsudo Research Laboratory, Hitachi Plant Technologies, Ltd., ²²Tsuchiura Research Laboratory, Hitachi Plant Technologies, Ltd., ³³The University of Tokyo

Risk Evaluation of Waterborne Infectious Diarrhea in the Mekong Watershed and Possible Scenarios of Water Utilization for Risk Reduction

14:20-14:40  
Toru Watanabe¹*, 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

Research on the Configuration and Application of Hybrid of PV/Wind Pump System in Polluted Water Restoration

14:40-15:00  
CHEN Wei¹, LI Xiao-ping¹, ², SUN Cong-jun², ¹School of Environment and Chemical Engineering, Shanghai University, ²Shanghai Academy of Environmental Sciences

Development of Molecular Tools for Identification of Microorganisms involved in Wastewater Treatment  
Kengo Kubota¹, Shuji Kawakami², Hiroyuki Imachi², Hideki Harada¹ and Akiyoshi Ohashi², 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

15:00-15:20

15:20-15:35  
Coffee

Session 2: Clean Coal Technology  
Session Chair: Sohei SHIMADA, The University of Tokyo
Cleaner Use of Coal Resources - Clean Coal Technology and Coalbed Methane
Sohei SHIMADA, Department of Environment System, Graduate School of Frontier Science, The University of Tokyo

Study on Coal Combustion and Pyrolysis Gas Tar and Steam Polygeneration System

Progress and expectation in R & D on clean coal technology in China
Changsui, ZHAO, Southeast University

Exploitation, Recovery and Utilization of CBM & CMM in Henan Province, Northern China
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

WAVELET ANALYSIS APPLICATION ON AERODYNAMIC FIELD MEASUREMENT IN FURNACE BY ACOUSTIC METHOD
LI Yan-qin, Huoyin Li, Research Center on Energy-saving, School of Chemical Engineering, Zhengzhou University

Banquet Bi Li Hall / 碧丽宫, 1st Floor

October 30, Bi Li Hall / 碧丽宫, 1st Floor, Hotel Kapok, Wuxi
Session 3: Energy Production Including Nuclear Technology
Session chair: Satoru TANAK, The University of Tokyo

Increase of Nuclear Energy in Asia and Importance of International Collaboration
Satoru TANAKA, School of Engineering, The University of Tokyo

Thermochemical Conversion of Biomass to Liquid Fuels
Xifeng Zhu, Quanxin Li, Qing-Xiang Guo, Anhui Key Laboratory of Biomass Clean Energy, University of Science and Technology of China

SURVEY ON FUTURE ENERGY SYSTEM STRUCTURE UNDER CO2 CONSTRAINTS
Hiroshi UJITA and Kazuaki MATSUI, The Institute of Applied Energy, Tokyo, Japan

New concept solar cell: the learning curve
Deng Changsheng Cheng Ping, Institute of Nuclear and New Energy Technology, Tsinghua University

Research on Energy Consumption Control based on Resource Optimal Allocation
Li Xu, Chen Yusheng, Zhu Daoli, School of Management, Fudan University

Coffee Break

Session 4: Cleaning Manufacturing Technology
Session chair: Fumihiko KIMURA, The University of Tokyo

Fumihiko KIMURA, The University of Tokyo

EU directive on used automobile and Chinese Solution
Ming CHEN, Shanghai Jiaotong University

Development of Life Cycle Environmental Impact Quantification Model for Livestock Industry based on Agricultural Material Flow Analysis
Tomoko IWATA, Sohei SHIMADA, Graduate School of Frontier Sciences, The University of Tokyo

Green Design of Mechatronic Products and Its Implementation
Zhifeng LIU, Heifei University of Technology

Introduction of Tsinghua TopSearch R&D Center of Green Manufacturing (TTCGM)
Professor Guanghong DUAN, Jiping YANG, Department of Precision Instruments and Mechanology, Tsinghua University
Session 5: Asian Logistics Research and Practice
Session chair, Hiroyuki YAMATO, The University of Tokyo

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
A Study on Product Delivery Planning Improvement: Case Study at Cementhai Logistics Co., Ltd.
Hiroyuki Yamato, Maytouch Udommahuntsuk*, A.A.B. Dinariyana, Graduate School of Frontier Sciences, The University of Tokyo
Science Originates from Discussion and Develops through Communication
Yaoqiu Wang, Zhao Rui, Wang Yujie, School of Logistics Research, Beijing Jiaotong University

13:20-13:40
A Study on Product Delivery Planning Improvement: Case Study at Cementhai Logistics Co., Ltd.
Hiroyuki Yamato, Maytouch Udommahuntsuk*, 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 Hiekiata2, Maytouch Udommahuntsuk1, 1Graduate School of Frontier Sciences, The University of Tokyo, 2Graduate School of Engineering, The University of Tokyo
Marine inventory routing for multi-commodity petroleum products in a hub-and-spokes network
A.A.B. Dinariyana1, Hiroyuki Yamato1, Hiroshi Matsukura2, Udommahuntsuk 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

14:20-14:40
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

14:40-15:00
Coffee Break

Session 6: Advanced Packaging Technology
Session chair: Tadatomo SUGA, 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)