

Algerian Minister of Post and Communications Visits AIST Tsukuba

On December 7, Dr. Boudjamâa Haichour, Minister of Post, Information Technology and Communications of the People's Democratic Republic of Algeria, visited AIST Tsukuba, accompanied by Ms. Ghania Houadria, Director-General of Algerie Poste: the Postal Service, and Mr. El Hachemi Belhamdi, President-Director-General of Mobilis: the Mobile Telephone Service. The Minister and his colleagues first met with Vice President Yoshikai and later visited Science Square and other facilities of AIST.

During the tour, the visitors showed interest in robot technologies such as a humanoid robot and PARO, photocatalysts, drug-delivery systems and Cyber Button.

Their tight schedule restricted the tour duration to one

hour, which meant they were unable to see every laboratory, but they promised to spend more time at the center on their next visit. The Minister stated, "Thanks to today's visit, we've gained a good understanding as to why AIST is at the heart of Japan's industrial technology development. We are hoping to expand the scale of exchange programs between AIST and our own research centers."



International Workshop 'Application of Life Cycle Assessment (LCA) to Local Measures'

On November 30, we held an international workshop at Hatsumei Kaikan Hall under the theme, "Application of LCA to Local Measures". Organized by the Research Center for Life Cycle Assessment, this event attracted 111 participants from Japan and other countries.

The primary purpose of the workshop was to present the results of application of LCA to local measures, which has been spearheaded since 2003 by the Ministry of Economy, Trade and Industry (METI). Actual domestic and overseas cases were also

introduced. Results of case studies were presented by domestic representatives from Iwate, Chiba and Mie Prefectures, and there were also presentations on EU cases, mainly dealing with waste disposal, and some German cases.

During the latter part of the workshop, a panel discussion was held to discuss the central issue of how LCA could be utilized in regional environmental administration, and domestic and overseas participants were given an opportunity to exchange ideas on topics such as unification of indices of environmental influence. This was very successful and a great deal of useful discussion took place.

This is a research field in which discussion has primarily taken place between domestic researchers, but we are now at the stage to start positive interaction with overseas researchers in pursuit of multinational cooperation and information exchange.



Joint Japanese-French Robotics Laboratory (JRL): Renewal of Research Agreement and Workshop

On December 8, 2003, the Intelligent Systems Research Institute of AIST and the Institute of Communication and Information Science & Technology of CNRS (Centre National de la Recherche Scientifique) established JRL (Joint Japanese-French Robotics Laboratory) as a part of a research cooperation program pertaining to individual research fields under the General Agreement, signed November 22, 2001, between AIST and CNRS. These relationships are ongoing.

As a result of the transfer of the French research center to the CNRS Laboratory for Analysis and Architecture of Systems (LAAS) in Toulouse, September 1, 2005, we renewed the collaborative research agreement, at LAAS on November 14, 2005, and held a JRL workshop to discuss trends in Japanese-French research on humanoid robots, as well as reviewing JRL activities.

Series of International Workshops held in Thailand

As part of AIST's Asia strategies and Asia environment/energy partnerships, a number of international conferences, primarily involving AIST, were held in Bangkok, Thailand, on December 13-16, 2005. The intensive, consecutive conferences proved to be very efficient and synergetic.

Second Biomass-Asia Workshop – Multilateral Conferences

The 2nd Biomass-Asia Workshop was held on December 13-15, co-organized by AIST, which serves as the secretariat for the “Biomass-Asia Research Consortium” (agro-industrial coalition research team comprised of domestic public research institutions, universities, and industries), the Ministry of Agriculture, Forestry and Fisheries (MAFF, head office for the “Biomass Nippon Comprehensive Strategy Council”), and the government of Thailand (Biomass-Asia Committee involving the Minister of Science and Technology, under-secretaries of other ministries, and core research institutions).

At this workshop, policymakers and researchers involved in Asian biomass utilization were given the opportunity to gather in one place and exchange ideas on practical approaches to and future directions for technology development in the respective countries. On the first day, participants heard greeting remarks from Minister Pravich of the Ministry of Science and Technology of Thailand, the under-secretaries of other Thai ministries, Prof. Nakajima, Vice-President of AIST (representing the Research Consortium), and Mr. Some, Director-General for Technical Affairs, MAFF. Subsequently, the 500 attendees listened to presentations on the current situations and future directions of biomass utilization in each country. Prof. Sakarindr, President of NSTDA (National Science and Technology Development Agency) presented the keynote speech, while Dr. Fujimura, Chairman, Zero-emission Forum of the United Nations University, and other speakers presented papers on interesting biomass utilization technologies. Mr. Kobayashi, the Japanese ambassador to Thailand, also welcomed the audiences. The second day was dedicated primarily to

in-depth panel discussions on important topics such as sustainable utilization of agricultural/forestry resources, applications to automobile fuels, future biomass energy technologies, materials technologies, LCA evaluation, etc. Latest research results were presented in the poster session. Summarizing the day's discussions, the chairperson remarked on the superiority of Asia in biomass utilization, future directions for research and development, follow-ups, etc. On the final day, a plant tour enabled participants to see at first hand an example of bio-ethanol production, which Thailand is pushing ahead.

Following this workshop, an international workshop, "Capacity Building on Life Cycle Assessment in APEC Economies" was held on December 15-16, cosponsored by NSDTA and AIST.

Third Thailand-Japan Workshop (NSTDA-TISTR-AIST)

In November 2004, AIST signed comprehensive research cooperation agreements with NSDTA and TISTR (Thailand Institute of Scientific and Technological Research). A follow-up meeting was held in March 2005 for an overall exchange of ideas to refine strategies for partnership subjects and future developments. In September 2005, Japan and Thailand endorsed a program of collaborative research and development, as part of JTEPA (Japan-Thailand Economic Partnership Agreement).

These agreements led to organization of the 3rd Japan-Thailand Workshop, aimed at ascertaining the current status, and progress from the previous meeting, of individual collaborative research and development subjects, involving energy/environment, IT, and geological information-related fields, and discussing future action plans.

Topics of discussion in the workshop included the application for NEDO funds in accordance with the progress on each theme, and the AIST Fellowship program started in FY2005. Both measures will promote personnel exchange and accelerate collaborative research activity.

It was reported that one NEDO fund, “Cooperative Research Programs for Development Support”, is already being actively used for “Research and Development for the Standardization of Solar Cell Characterization Technology in Low Latitude Region”. Also, a facility to verify solar panels was recently built in order to collect outdoor exposure data in tropical areas and develop standardization technology for evaluation schemes, providing evidence that the project is on course. It was further reported that, as part of the overall project, a workshop organized by the Institute of Research and Innovation, AIST Research Center for Photovoltaics, and NSTDA was held in Bangkok on December 14, to facilitate information exchange for project promotion.



Representatives from institutions at the opening ceremony of the 2nd Biomass-Asia Workshop. Vice-President Nakajima is third from right.

Minister of Information & Communication, Republic of Korea, visits AIST Tsukuba

On January 16, Dr. Daeje Chin, Minister of Information & Communication, the Republic of Korea, visited AIST Tsukuba. He was greeted by Dr. Kodama, Senior Vice-President, and Mr. Matsuo, Director-General for International Affairs, before being briefed on AIST.

At the Minister's request, the subsequent tour concentrated primarily on the Intelligent Systems Research Institute. He was briefed by Dr. Hirai, Director, about overall activities of the Institute, and then visited laboratories of humanoid robot, task intelligence, ubiquitous function, and PARO, receiving explanation from each researcher. A scientist himself, the Minister showed great interest in a number of specific subjects,

including the ability of a humanoid robot to stand up from a face-down position, and global standardization of IC tags and sensors. "I was impressed with AIST's broad range of research interests and high-level research qualities," the Minister remarked. He also expressed his hopes for expanded cooperation between Korean research institutions and AIST, and suggested his attendants to adopt a similar approach.



"Symposium on Photoreaction Control and Photofunctional Materials (PCPM2006)"

"The 7th AIST International Symposium on Photoreaction Control and Photofunctional Materials (PCPM2006)" was held on January 17-18 at AIST Tsukuba Auditorium.

This symposium was a part of "Photoreaction Control/Photofunctional Materials", a COE development program



by the Special Coordination Funds for Promoting Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology (MEXT) since 1997, when this institute within the National Institute of Materials and Chemical Research of the former AIST. The last symposium was held in October 2003, i.e. 2 years and 3 months ago. The program included 9 overseas guest speakers, 15 oral presentations from AIST, and 100 presentations in the poster session. There was considerable intense discussion on photoreaction mechanism, light energy conversion, laser-induced reaction, and photofunctional materials. The 3-day event had a total attendance of 220 participants.

The First Japan-China Seminar on Hydrogen Storage Materials

On January 26, "The 1st Japan-China Seminar on Hydrogen Storage Materials" was held at the AIST Tokyo Waterfront, organized by the Energy Technology Research Institute of AIST. This institute, a hub of global hydrogen storage materials research, energetically promotes research and development and plays an active role as an interface channel for domestic and overseas researchers. Hydrogen storage materials represent a key technology for efficient storage and transport of hydrogen energy, and consequently worldwide involvement in research on this field is vigorous. This seminar was held on the occasion of a visit to Japan by Cheng Hui-Ming, First Deputy Director of the Institute of Metal Research, CAS, which is China's central research institution for hydrogen storage materials.

Following greetings by Mr. Xu Tongmao, Minister-

Councilor, Embassy of the People's Republic of China in Japan, and Mr. Haruhiko Ando, Director, New and Renewable Energy Division, METI, papers were presented by world-leading researchers, five each from Japan and China. The seminar was a great success, with 90 participants from universities, public research institutions, and industries. A post-seminar reception provided an opportunity for further interaction between attendees. AIST hopes to develop opportunities for enhanced interaction between researchers engaged in the field of hydrogen storage materials.



Workshop with Chinese Academy of Sciences: CAS-AIST-NEDO Workshop 2005

The CAS-AIST-NEDO Workshop 2005, co-hosted by CAS (the Chinese Academy of Sciences), AIST, and NEDO (New Energy and Industrial Technology Development Organization), was held in Guangzhou, China on November 17-18.

This workshop was planned as an action item to follow up on the Comprehensive Collaborative Research Agreement between AIST and CAS (signed May, 2004), and focused on the field of environment/energy, which is globally urgent and could generate mutual benefits for both China and Japan (Win-Win, or “双赢” in Chinese). At the same time, AIST and NEDO, which are mutually complementary institutions, were seeking a partnership with CAS, a core Chinese research institution. Consequently, the three organizations

came together for this workshop at GIEC (the Guangzhou Institute of Energy Conversion), which is regarded as a COE (Center of Excellence) of new-energy/renewable-energy research in China.

Designated as key topics were evaluation of biomass and energy systems (in particular, Dispersed/Renewable Energy). Participants included: representatives of CAS, mainly from GIEC and other related Chinese research institutions; Dr. Nakajima, Vice-President, Drs. Kamimoto and Yamabe, Research Coordinators, personnel of Dept. International Affairs, and researchers of related research units; Mr. Sasaki, Executive-Director, and Personnel of Headquarter and Beijing office of NEDO. A general session introducing each institution and its approaches to the environmental/energy field was followed by technical sessions, which produced spirited discussion on potential candidates for future collaborative research subjects. In respect of the biomass area, AIST and CAS agreed to move forward by establishing research relationships with a view to implementing NEDO's international joint project proposal.

On November 16, the day before the workshop, vice-Dr. Shi Er Wei, vice-President of CAS, Dr. Nakajima of AIST and Mr. Sasaki of NEDO held a tripartite meeting to present each organization's position and exchange ideas on the current status and directions of research in the environment/energy area, with particular focus, from the Chinese perspective on formulation of China's 11th 5-year Plan (commencing in 2006).



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