

Best Management Practice Seminar held with French National Center for Scientific Research (CNRS) and Environmental Catalysis (ECSAW) Cooperative Research Agreement Signed

On February 7, President Yoshikawa, Vice-President N. Kobayashi, Vice-President Yamazaki and other AIST executives visited the French National Center for Scientific Research (CNRS) where, together with President Brechignac and other executives of CNRS, the above seminar aimed at contributing to best laboratory management practices was held.

CNRS, with a total of 26,000 researchers and technologists, is France's largest public industrial technology research organization, possessing a large number of collaborative research laboratories with universities and stressing industry - academia - government collaboration and the development of innovation clusters. Since its entry into a comprehensive agreement with CNRS, AIST has promoted collaborative research such as the Joint Robotics Laboratory, but in addition, since both organizations have common issues regarding innovation and industrial technology management, this seminar came about because of the great benefit to be



Best Management Practice Seminar



ECSAW Signing. President Yoshikawa (center), President Brechignac (left) & Director-General Migus (right)

derived from an exchange of opinions and mutual instruction concerning laboratory management.

The current situation of respective laboratories with regard to innovation, evaluation and venture strategy etc. was reported and opinions exchanged. It is planned that a similar seminar addressing other topics will be held at a future opportunity.

Also the signing of the "environmental catalysis for sustaining clean air and water (ECSAW)" cooperative research agreement was held. This agreement aims at innovations in catalysis technology which represents one of the core technologies in the field of environment/energy, with AIST and CNRS multiple research units cooperating over a period of 4 years. With this signing, it is expected that a stimulus will be provided to research cooperation in environmental research, including the development of European and Asian markets

Nanotechnology Symposium held at the Jawaharlal Nehru Research Center

On February 8 and 9, at Jawaharlal Nehru Research Center (Bangalore, India), a nanotechnology symposium entitled "Nano & Soft Matters" was held. From AIST, the Director of the Electronics Research Institute and the Director of the Nanotechnology Research Institute etc., all together 10 members, attended.

There were 4 themes: liquid crystals and nano-soft materials, nano/bio/molecular electronics, nano-oxides and green chemistry. All together, a total of 19 Japanese and Indian research projects were presented. In his speech, Chairman of the Scientific Advisory Committee to the Cabinet Dr. Rao explained the importance being placed on university education in India and India's nanotechnology policy and laid stress on the importance of short term personnel exchange between Japan and India.

In the summary session, there was a discussion of

concrete methods of pursuing cooperative research, such as personnel exchange, joint workshops, joint research projects, external budgets, joint laboratories etc. There is to be an increase in the promotion of cooperative research in the field of nanotechnology, with the Jawaharlal Nehru Center taking a central role.



Participants of the Nanotechnology Symposium

Signing of the Comprehensive Cooperative Research Agreement based on the Japan - India Prime Ministerial Joint Declaration

On February 12, a comprehensive cooperative research agreement with the Council of Scientific and Industrial Research (CSIR) in New Delhi, India was signed. Also, on the same day, a comprehensive cooperative research agreement was signed with the Ministry of Science and Technology, Department of Biotechnology (DBT).

With regard to India, AIST has, since its establishment, effectively entered into 3 cooperative research agreements, with CSIR, Jawaharlal Nehru Center and others.

At the Japan - India summit meeting in April 2005, the governments decided to promote a Japan - India global partnership as part of which an increased focus would be placed on cooperation in science and industrial technology.



Signing of Comprehensive Cooperative Research Agreement with CSIR

The summit joint declaration given by Prime Minister Abe and Prime Minister Shin in December of last year expressed the intention of increasing the promotion

of cooperation in the field of science and industrial technology, including collaboration/cooperation between AIST and CSIR and DBT.

Before the AIST/CSIR signing, AIST and CSIR gave introductions to their respective research and exchanged opinions on methods of pursuing the cooperative research to come. In the case of DBT, before the signing, AIST's Director of the Research Center for Medical Glycoscience and Director of the Computational Biology Research Center gave introductions to their research and opinions were exchanged.

With the signing of the cooperative research agreement, the strengthening of exchanges of personnel using external funds and invited overseas personnel funds, and the promotion of cooperative research between the two countries has been confirmed.



Signing of Comprehensive Cooperative Research Agreement with DBT

Conclusion of Comprehensive Research Agreement with Australian Commonwealth Scientific and Research Organization (CSIRO) and Holding of Research Workshop

From March 6 to 7, a comprehensive research agreement was concluded in Newcastle, Australia between the Australian Commonwealth Scientific and Research Organization (CSIRO) and AIST, and in conjunction with this a research workshop was held. CSIRO is Australia's largest government general research organization, with 6600 employees and pursuing research in a wide range of areas such as environment, energy, resources, manufacturing, minerals and agricultural economics etc.

Research unit base collaboration with AIST has continued from its period as Industrial Research Institute, particularly in areas such as coal liquefaction, materials, resources and measurement standards etc. Recently, CSIRO Chief Executive Dr. Garrett, who was an AIST 2nd-term Advisory Board



Participants in the AIST/CSIRO Research Workshop

Meeting member, has been involved in detailed exchanges of opinion regarding research structure and management. Although Australia is not a signatory of the Kyoto Protocol, it held the AP6 (Japan,

China, South Korea, Australia, America, India) Environment Ministerial Conference and is positively pursuing post-Kyoto Protocol measures against global warming. Australia, which has suffered the largest drought in history, is as this year's chair nation of APEC, positively pursuing "diplomacy for anti-global warming measures" such as the development of clean coal technology and carbon dioxide reduction technology etc.

The research workshop was attended by 14 people from AIST including Senior Vice-President Kodama, Research Coordinator Tsukuda and others and there was an exchange of opinions on a diverse range of fields centered on environment, energy and nano-related such as clean coal, distributed energy production, solar power, geological remote sensing, methane hydrate, underground carbon dioxide storage and nanotechnology etc. After the workshop had finished, researchers separated according to research theme and visited research organizations in Newcastle, Brisbane, Clayton or Sydney etc, and there were further specialized exchanges of opinion in the respective research fields. It is planned that the two organizations will aim to strategically strengthen their collaboration, including information exchange, research personnel exchange and acquisition of outside funding, according to action plans in the respective research fields.

Exhibition at International Engineering & Technology Fair India

From February 13 to 16, the International Engineering & Technology Fair India (IETF 2007) was held in New Delhi. Japan, as a partner country (for the 2nd time, the 1st



AIST's Exhibition Booth

being in 1997), assisted in holding the fair, with the Japan External Trade Organization (JETRO) acting as representative and producing an exhibition including information on a large number of private enterprises. There were

around 10,000 visitors to the Japanese pavilion on the first day and 3,000 to 4,000 daily on the remaining days.

AIST presented posters regarding 12 items, describing summaries of laboratories, technology transfer and main research results (10 items). Various people from junior high school students to the elderly, both men and women visited and showed interest in the AIST booth. Amongst the visitors, there were people who made enquiries about postdoctoral positions, use of patents etc.

There were so many visitors that on the final day, the last of the posters prepared by AIST were all taken.

Vietnamese Minister of Science and Technology Visits Tsukuba Center

On March 9, the Vietnamese Science and Technology Minister Hoang Van Phong, together with Ministry of Science and Technology related personnel and Vietnamese Embassy related personnel resident in Tokyo etc., visited the Tsukuba Center.

In August of last year with the signing between the two governments of the Japan - Vietnam Science and Technology Cooperation Agreement, the 1st Japan - Vietnam Joint Committee on Science and Technology was held on March 7 in Tokyo, with around 20 people attending from Vietnam. This meeting was the first regarding science and technology to be held between the two governments and Minister Hoang Van Phong and Sanae Takaichi, minister responsible for science and technology, attended. There was also a report from AIST of the details of collaboration with the Vietnam Academy of Science and Technology.

AIST signed a comprehensive agreement with the Vietnam Academy of Science and Technology in December 2004, with the 1st workshop being held in Hanoi, the 2nd being held in October 2005 and the 3rd being held in November 2006, both at the Tsukuba Center. Various fields were promoted as areas for a strengthening of collaboration: environmental measures such as waste water processing, biomass related technology, marine/geological related research, GEO Grid and multi-language processing and open source software. The visit of the Vietnamese Science and Technology Minister to AIST, as a representative Japanese research organization, was arranged at the minister's request.

On the day of the visit, welcoming greetings were given by Senior Vice-President Kodama, an outline explanation of AIST was given by Vice-President Yamazaki, an introduction to the details of the collaboration between AIST and the Vietnamese Academy of Science and Technology was given by Research Coordinator Yamabe and an introduction to waste water processing technology, which is a particularly



Senior Vice-President Kodama welcoming Minister Phong

strong field of collaborative research with the Vietnamese Academy of Science and Technology, was given by Research Institute for Environmental Management Technology Vice-Director Tao. Then, a lively question and answer session was held regarding the details of establishment as an independent administrative institution, history and differences from universities and other research institutions. Following this, there was an inspection of the various facilities and of the research that they are pursuing: the Grid Technology Research Center, Research Center for Photovoltaics and the Nanotechnology Research Institute.

At the Grid Technology Research Center, in particular, the GEO Grid was introduced as an area of cooperative research aiming at development in the ASEAN area. Also, regarding solar cells, Minister Phong showed strong interest in the promotion of cooperative research with AIST and showed interest in the utilization and value of nanotech processing facilities. At the end of the tour, Minister Phong stated that because AIST was pursuing extremely advanced research, he hoped that a large number of researchers could be accepted from Vietnam. With this visit to AIST, it is expected that collaboration between the two countries will be given a further boost.

GEO Grid Workshop (Several-Country Cross-Discipline International Meeting) held in Thailand

AIST and the Thailand National Science and Technology Development Agency (NSTDA) National Electronics and Computer Technology Center (NECTEC), with the support of the Coordinating Committee for Geoscience Programs in East and South East Asia (CCOP) and the American GEON (Geosciences Network), jointly held the GEO Grid Workshop on March 20 at the NSTDA Convention Center in the Bangkok Science Park (attended by from AIST Vice-President Kato, Research Coordinator Tsukuda, Grid Technology Research Center Director Sekiguchi, International Affairs Department Director Matsuo etc.).

This workshop was held as the first several-country international meeting to promote the merging of geoscience information systems with grid technology in order to achieve a solution that transcends national boundaries to the common issues faced by every country such as global environment, energy resource problems and natural disasters etc.

The workshop was attended by around 100 people from AIST's comprehensive MOU agreement contact organization the Thai NSDTA, the Vietnamese VAST and researchers in related areas from various South East Asian countries, with



Participants in the workshop

presentations of the GEO Grid, CCOP's activities (resources, environment, geological information etc.), the American GEON's activities and efforts relating to South East Asian GEO information, including usage of satellite data such as from ASTER etc.



Center Director Sekiguchi explaining the GEO Grid

In addition, the sharing of information and strengthening of collaboration across disciplines and national borders, the multi-country common issue of global environment and measures to cope with natural disasters such as earthquakes and tsunamis were discussed, with AIST Vice-President Kato giving an overall summary. The importance of promoting, from now on, concrete international collaborative projects was emphasized.

With the coming incentives such as the United Nation's GEOSS (Global Earth Observation System of Systems) implementation plan, and the UN designation of 2008 as "International Year of Planet Earth," promotion of concrete international collaborative research aimed at overcoming Asia's common global issues is expected and, together with the collaborative research organizations of the comprehensive MOU agreement, the two countries will pursue definite action in this direction.

Also with regard to Grid international collaboration, the 12th PRAGM Workshop (Pacific Rim Application and Grid Middleware Assembly) was simultaneously held in Bangkok.

For more detailed information on the GEO Grid, please see the special article in the previous issue of this publication (AIST TODAY 2007 - 4).

Japanese - French (AIST - CNRS) Robotics Laboratory Management/Assessment Committee Meeting

On April 16, a management meeting and research assessment committee meeting of the Joint Japanese - French Robotics Laboratory (JRL), which is jointly run by the AIST Intelligent Systems Research Institute and the French National Center for Scientific Research (CNRS: comprehensive MOU agreement) Department of Information and Engineering Sciences and Technologies, was held at the CNRS Laboratory of Analysis and Architecture of Systems (LAAS) in Toulouse, which houses the French research site (JRL - France). There was a demonstration using the humanoid robot HRP-2, introduced into the Toulouse laboratory last year from Japan, which received high praise from the members of the Research Assessment Committee, which comprises not only Japanese and French members, but

also researchers from Germany and America. It is expected that with the further progress of JRL activities, the Intelligent Systems Research Institute's research collaboration will be further strengthened, of course with France but also with other EU robotics research organizations.



Demonstration of Humanoid Robot HRP-2

European Commission Member Reding Visits AIST Tsukuba Center

On April 5, European Commission Member Viviane Reding (EC Commissioner responsible for information and communications) and her staff visited AIST's Tsukuba Center. At the start, following welcoming greetings from Senior Vice-President Sora, there was an outline explanation of AIST from Vice-President Yamazaki, and after an explanation of AIST's ICT related research activities by Research Coordinator Ohmaki, an explanation of Framework Program 7 (FP7), starting from this financial year, was given by the EC party. Following this, Commissioner Reding, Vice-President Yoshiumi and other AIST and EU members engaged in a lively exchange of opinions regarding research collaboration between Europe and AIST, centering on FP7.

After this, the group moved to the Tsukuba Open Space Laboratory (OSL) and Intelligent Systems Research Institute Director Hirai explained AIST's robotics research, following



Senior Vice-President Katsura, showing around Commissioner Reding (right) and her group

which the group saw the seal-shaped robot "Paro" and the Joint Japanese - French Robotics Laboratory (JRL) humanoid robot, with Commissioner Reding enthusiastically exchanging opinions with researchers particularly regarding collaboration in the field of robotics.

In 1984, the European Commission started the first Framework Plan (FP) and from 2002, the 5 year plan FP6 was put into operation, with international joint research within the EU area (also including international cooperative research support from outside the



Commissioner Reding exchanging opinions regarding collaboration in the field of robotics

EU) being pursued. 2007 sees the start of FP7, which apart from the stressing of infrastructure, will further strengthen cooperative research and networking and will run for 7 years with a planned total budget of 55 billion euros, with expectations of the strengthening of an open research network outside Europe also being expressed.

At the Intelligent Systems Research Institute, Joint Japanese - French Robotics Laboratory (JRL) formed with the French National Center for Scientific Research (CNRS), Department of Communication and Information Science and Technology, as an international laboratory, has participated in FP6 and with regard to future developments, at the CNRS/AIST Board Director Meeting held in Toulouse, France on April 16, further increases in the promotion of collaborative research, including FP7, were discussed. It is expected that with Commissioner Reding's visit, there will be a step up in the strength of research collaboration between the EU and AIST and, of course, the Intelligent Systems Research Institute.

Vietnamese Ministry of Planning and Investment Vice-Minister visits Tsukuba Center

On April 23, the Vietnamese Ministry of Planning and Investment Vice-Minister Truong Von Doan together with personal connected to the ministry's Small & Medium Sized Business Agency visited AIST's Tsukuba Center.

Vice-Minister Doan is the person with responsibility on the Vietnamese side for the Small and Medium Sized Business Support Center which is a joint project between JICA and Vietnam. This JICA project which aims to train leaders to develop small and medium sized businesses, started in the 2006 financial year and will run for a total period of 2 years.

After welcoming greetings from Senior Vice-President Sora, an outline explanation of AIST and an introduction to the details of the collaboration between AIST and the Vietnamese Academy of Science and Technology were given by Vice-President Yamazaki, and an introduction to AIST's industry - academia - government collaboration system was given by Collaboration Promotion Department



Vice-Minister Truong Von Doan (center) and his party with Katsura Senior Vice-President and Executives of AIST

Director Hama.

Vice-Minister Doan expressed his gratitude for the strengthening of collaboration between AIST and Vietnam and for cooperation given to the Vietnamese Small and Medium Sized Business Support Center and a lively question and answer session was held regarding reversion of patents and small/medium business support.