



Topics from the EAJ newsletter are listed up.

If you like to know further on particular topics, please contact EAJ Secretariat.

1. Dialogue between members of the Club of Rome and the Nobel laureates

Prof. Ernst Ulrich von Weizsaecker, Co-President of the Club of Rome, received the honorary doctorate from Nagoya University for his great contribution to the university as a visiting professor of the Graduate School of Environmental Studies more than ten years and as an external reviewer of the Global COE program "From Earth System Science to Basic and Clinical Environmental Studies." In conjunction with the ceremony, the Engineering Academy of Japan whose president (Prof. Hiroshi Komiyama) is a full member of the Club of Rome organized a talk session inviting two Nobel laureates of Profs. Isamu Akasaki and Hiroshi Amano just after Prof. Weizsaecker's talk on "New message from the Club of Rome." In his talk, he presented an idea of 'Factor 4' to seek for double affluence and half consumption of resources and actions that the Club had taken to address related issues to resources, global environment and economic system. In the talk session, Profs. Akasaki and Amano who received the Nobel Prize for their invention of blue LEDs that realize 'Factor 4,' Prof. Komiyama, a promoter of the Platinum Society/Platinum Vision <http://platinum.mri.co.jp/platinum-society/preface/index> and Prof. Yoshitsubu Hayashi who was a coordinator and promoter of the idea of smart shrinking cities discussed philosophy toward global environmental issues, technology and future society.

2. Members Decorated by the Emperor in the fall of 2015 at higher level Honorary

Prof. Yasuharu Suematsu, Tokyo Institute of Technology, was awarded the 2015 Order of Culture.

Prof. Yuichiro Anzai, President of the Japan Society for the Promotion of Science, was designated as a Person of Cultural Merits.

3. Joint Workshop between the Royal Academy of Engineering (RAEng), UK and the Engineering Academy of Japan (EAJ) on Robotics

On the occasion of the UK Robotics experts coming to Japan under the campaign of "Innovation is Great" by the UK government, the RAEng and EAJ, in cooperation with the British Embassy in Tokyo, organized a workshop on "Japan's Perspective of Robotics industry in Light of the Robotics Revolution Era" on 1 December 2016 in Tokyo. At the request of the RAEng who wished to discuss with people related to the Robot Revolution Realization Council, the EAJ invited three lecturers to give a talk representing a policy-maker, a former national research institute to implement the government policies and a robotics expert: 1) Dr. Kiyoshi Sawaki, Director of Industrial Machinery Division, Manufacturing Industries Bureau, METI on "Toward the realization of Robot Revolution," 2) Dr. Kotaro Ohba, Deputy Director, Robot Innovation Research Center, AIST on "Robotics for Innovation" and 3) Emeritus Prof. Susumu Tachi, the University

of Tokyo and an EAJ member on “Human Augmentation and Telexistence.” In the beginning of the workshop prior to the lectures, members of the RAEng briefed about the up-to-date robotics strategy in the UK. The attendees at the meeting mutually shared useful information.

Prior to it on 30 November, the seminar on “UK Robotics Innovation Showcase” focusing on disaster and healthcare was organized by and held at the British Embassy in Tokyo and the EAJ members deepened up-to-date knowledge about the UK robotics technology. The members of the UK delegation contributed as speakers and panelists.

From Wednesday 2 to Saturday 5 December at the Tokyo Big Sight, Ariake, several UK companies as part of the UK delegation participated in the International Robotics Expo (iREX) 2015 in the UK booth.

4. Lecture Meeting organized by the Hokkaido-Tohoku Branch

A lecture meeting was organized by the Hokkaido-Tohoku Branch on 10 December 2015 at the Tohoku University in Sendai. With about 30 attendees and Prof. Toshiyuki Hayase as a facilitator, the meeting started with a greeting by Prof. Hiroyuki Abe, Vice President of the EAJ, which was then followed by two lectures. Prof. Hirotosugu Takizawa, Dean of the Graduate School of Engineering of the Tohoku Univ. gave a talk on two topics: “Toward problem solving in the future society—Research promotion by the Graduate School of Engineering of the Tohoku University” and “Microwave processing of materials.” Prof. Toshiaki Yoshioka, Dean of the Graduate School of Environmental Studies of the Tohoku University, talked on two topics: “Possibility of human resource development through environmental studies” and “Chemical process toward recycling society.”

5. Outreach Efforts of the Kyushu Branch at the Miyako High School

“In what manner engineering, science and technology improve our standard of living”

Developing human resources who will play a leading role in the field of engineering in Japan is extremely important for a resource-poor country to sustain prosperous development and it is one of the significant missions for the Engineering Academy of Japan. To this end, the Kyushu Branch of the EAJ sent three eminent researchers to the Miyako High School in Fukuoka that was adopted by the Super Global High School (SGH) program to give a talk so that students would take interest in engineering through understanding how engineering, science and technology support our comfortable and safe living. The ultimate goal is to increase engineers who would play an active role as future leaders in global scenes. The lecture meeting started with a brief explanation of the objectives by Prof. Tisato Kajiyama, Vice President of the EAJ and the opening remarks by Prof. Toyoki Kunitake, Advisor of the EAJ. Greetings by the principal was followed by three lectures. Prof. Sunao Yamada performed as a facilitator.

Prof. Shuji Hayase, Kyushu Institute of Technology, gave a talk on “A future society created by solar power generation.” He illustrated a wide range of application of energy from sunlight, the ultimate energy source, from a wristwatch to a satellite and then, explained in a comprehensive manner how important it is to familiarize solar power generation in promoting future energy savings and how the costs could be lowered. Prof. Yuji Onoie, Kyushu Institute of Technology, gave a talk on “Computer science and technology shape

the future.” On the premise that IT will lead globalization, taking Email as an example, he explained that communication technology dramatically advanced in the late 2000s while it had gently spread in the past. Further, he clearly stated that utilization of IT for the Social Security and Tax Number System and for the preparation of the Olympics Game in Tokyo would help create an increasingly prosperous society.

Prof. Keiji Tanaka, Kyushu University, gave a talk on “Research and development of nanomaterials, and contribution to the society.” His talk started with “What is Nano?” Taking an automobile tire and an artificial dialysis membrane as examples, he explained that high-polymer materials were commonly used in our lives. He also passionately talked that material design and functional assessment on Nano-scale were critical for feature upgrades and technological innovations and that nanomaterials were important for our daily lives and healthy lives.

6. The Royal Technology Mission 2016 from Sweden

The Royal Technology Mission 2016 led by Carl XVI Gustaf of Sweden: His Majesty The King came to Japan for a week from 15 February 2016 and paid a visit to companies, universities and research institutes. On the 18th, the IVA organized a dinner party in which several EAJ members attended including Prof. Tomoko Nakanishi who was elected as a foreign member of the IVA in November last year.

7. New Year Party 2016

On 19 January 2016, the EAJ’s New Year Party 2016 was held at the Hotel JAL City Tamachi, which was followed by the debrief session of the ERLEP(Emerging Research Leaders Exchange Program) and nine Japanese participants reported about the outcomes to the stakeholders of the program and those who were interested in the program.

8. New EAJ Members

Makoto Ando, Executive Vice President for Research, Tokyo Institute of Technology

Takafumi Aoki, Vice President for Public Relations, Community Collaboration and Information Systems, Tohoku University

Isamu Chiba, Managing Executive Officer, Mitsubishi Research Institute, Inc.

Hiroto Izumi, Special Advisor to the Prime Minister, Cabinet Secretariat

Kenjiro Kamijo, Professor Emeritus, Tohoku University

Ichiroh Kanaya, Professor, University of Nagasaki

Maki Kawai, Professor, Division of Transdisciplinary Sciences, The University of Tokyo

Yoshinao Mishima, President, Tokyo Institute of Technology

Yoko Mitarai, Deputy Director-General, Research Center for Structural Materials, National Institute for Materials Science

Masato Murakami, President, Shibaura Institute of Technology

Yoshikazu Nakajima, Associate Professor, School of Engineering, The University of Tokyo

Ken Sakamura, Professor, Interfaculty Initiative in Information Studies, The University of Tokyo

Koichi Tsuchiya, Managing Director, Research Center for Strategic Materials, National Institute for Materials Science

Mitsuru Uesaka, Professor, School of Engineering, The University of Tokyo

Muneyoshi Yamada, President, Tohoku Seikatsu Bunka University and Junior College