



Topics from the EAJ newsletter are listed up.

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

1. The Annual General Meeting 2015

The 19th (the 3rd since the change of corporate status) Annual General Meeting of the EAJ was held on 2 June 2015 in Tokyo. With 41 attendants and 351 proxies, the agenda were all approved as determined at the board of directors. Following it, activities of committees, projects and region-based activities (branch activities) were reported by the respective chair persons. For the special lecture, Prof. Yutaka Takahashi was invited to talk on his innovative concept for watershed management leading to mitigation of water disaster.

2. The 10th Safety Engineering Forum “Let’s think about Safety that Japan boasts to the world”

The above mentioned forum was held on 6 March 2015 in Tokyo focusing on the 5 areas of railway, ship, labor, food and product. The first speaker was invited from JR Tokai and explained that the safe and stable transport by Tokaido Shinkansen was enabled by the double protective measures for hardware and software and stressed that the importance of cultivation, education and training for employees. The second speaker who was invited from Nippon Yusen Kabushiki Kaisha (NYK Line) talked about the company’s safety and quality control system including the “Near miss 3000 activities.” The company has a unique system called NYK Maritime College, which provides standardized education and training for employees (95% are from overseas), and established a nautical college in Philippines to foster executives. A speaker from JISHA (Japan Industrial Safety and Health Association) indicated the limitations in achieving no disaster only with observation of regulations and laws, and proposed an approach with a fresh eye to management of safety and health. A speaker from Calbee, Inc. explained about the mission of its QOL department with a framework of quality review, quality audit, quality check and cultivation of human resources referring to current food-related accidents. He emphasized the importance of labor control that would not give the employees bad feelings toward the company and of the field management as a deterrent. He also presented as an issue that a major gap exists between Japan and global standard when food products materials are increasingly coming in from overseas. A speaker from National Institute of Technology and Evolution (NITE), focusing on an oil burner and a stove burner, explained that employment of advanced protective function and an alarm would still more efficiently reduce fire accidents compared to foreign products without. Also, he illustrated that Japan boasts of world-lowest risk of electric fire accidents thanks to employment of a periodic inspection. In the panel discussion at the end, speakers commonly pointed out the importance of a human: a man plays a key role.

3. Lecture Meeting organized by the Hokkaido-Tohoku Branch

A lecture meeting was organized by the Hokkaido-Tohoku Branch of the EAJ on 18 March 2015 in Fukushima, with about 60 attendees. Prof. Yoshihito Ozawa, Fukushima University facilitated the meeting. Greetings by Prof. Hiroyuki Abe, Vice President of EAJ and Prof. Katsumi Nakai, President of Fukushima University were followed by two lectures. First, Prof. Takayuki Takahashi, Director of the Institute of Environmental Radioactivity (IER for afterward) of Fukushima University gave a talk on “Functional enhancement of the IER and challenges in its globalized activities.” Then, Prof. Akira Watanabe, Fukushima University gave a talk on “Fukushima’s efforts for regional cooperation–based innovation aspiring to be the spearhead of renewable energy.”

4. Lecture Meeting organized by the Kyushu Branch

A lecture meeting was organized by the Kyushu Branch of the EAJ on 21 May 2015 in Kitakyushu on “International activities in resources development and the role of engineering”, with 81 attendees. The meeting started with greetings from Prof. Toyoki Kunitake, Advisor, EAJ. He talked about the history and role of an engineering academy and stressed the importance of global securing of resources. With Prof. Tadashi Hano as facilitator, three lectures followed. Prof. Kazuharu Yoshizuka, Faculty of Environmental Engineering, The University of Kitakyushu, gave a talk on “A project for the development of lithium resources in South America.” Prof. Yoshihiro Shirai, Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, talked on “A biomass recycling project in MSSC, Kyushu Institute of Technology, Malaysia.” Dr. Ryoichi Sato, Manager, Sumitomo Metal Mining Co., Ltd., talked on “Current copper mining development taking as an example of Shierra Gorda Mine in the Republic of Chile.”

5. Lecture meeting on “Innovation in Smart Grid business by Meta Engineering”

The above-mentioned meeting was jointly organized by the “Meta-Engineering” project of the EAJ and IEEJ Professionals on 28 April 2015 in Tokyo. While innovation is considered to be a key to further economic development and welfare, it is not easy to make it happen. Prof. Hiroshi Suzuki, lecturer, promotes “Meta Engineering” as a new perspective to systematically support innovation. He explained about the idea of “Meta Engineering” and demonstrated specific examples of applying the idea to smart grid business. Schumpeter says innovation is to destroy existing values in order to create new values not only by technical innovation but through new connections. As an approach to identify new connections, Prof. Suzuki points out the importance of “MECI process” in Meta Engineering: Mining (of potential issues and needs in society), Exploring (of necessary knowledge and KANSEI leading to solutions in a comprehensive point of view), Converging (of technology and science and art–based areas/disciplines to create solutions) and Implementing (of solutions in society in order to create new social values). In the stage of “Mining” in particular, Prof. Suzuki emphasizes the importance of WHY behind WHAT and HOW. In smart grid, he says that creating a lot of values through converging traditional hardware with remarkably growing software is possible. In Implementing, smarter grid can be achieved with software

triple the size of hardware. As an example of increasing soft power in power system, object-oriented network asset management and real-time visualization of stable condition by phase measuring of some spots on power system were illustrated.

6. New EAJ Members

Nobuaki Kawakami, Director-General, Science and Technology Policy Bureau, MEXT

Takayuki Kitamura, Professor, Graduate School of Engineering, Kyoto University

Yoshikazu Miyanaga, Professor and Dean, Graduate School of Information Science and Technology, Hokkaido University

Tetsuya Sumi, Professor, Water Resources Research Center, Disaster Prevention Research Institute, Kyoto University

Mami Tanaka, Professor, Department of Bioengineering and Robotics, Graduate School of Engineering, Tohoku University

Yoshiro Utaka, Visiting Professor, Tamagawa University

Toyonobu Yoshida, NIMS Fellow, National Institute for Materials Science