

# **Japan Society of Civil Engineers**

International Activities Committee

# <u>Newsletter</u>

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# **Enhance and Encourage the International Activities of JSCE**



FURUTA Hitoshi, Dr. Eng. Chair of International Committee, JSCE Kansai University

Following Prof. Kusakabe, I have become the chair of the international committee of JSCE. Taking this opportunity, it is my pleasure to explain the direction and emphasizing point of the future activity of the international committee. The international committee will continue to perform the action plans and focus on the followings:

- 1. Expansion of JSCE network and promotion of international collaboration.
- 2. Informing and usage of Japanese civil technology
  - 3. Distribution of overseas news

In order to achieve the above targets, it is necessary to exploit the advantage of symposia and seminars. For instance, the summer special program on management of civil structures is held at the head office of JSCE from August 24 to 27, 2009. This summer program is organized by the task committee on international education program creation for structural engineering. It provides lectures for international students and engineers including Japanese to learn and discuss the maintenance of the civil structures in English. The program is conducted by widely-recognized professors in the management and maintenance engineering field.

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June 2009- May 2010

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Tel: +81-3-3355-3452 Fax: +81-3-5379-2769 http://www.jsce-int.org iad@jsce.or.jp The 11<sup>th</sup> international summer symposium is held at Tokyo Institute of Technology. The international summer symposium provides a platform for international students and engineers to present, discuss and exchange their research interest in English.

Furthermore, it is desirable to collaborate with the international conferences to be held in Japan in a more positive manner. In fact, there are many international conferences in this year. ICOSSAR2009 (International Conference on Structural Safety and Reliability) is described as an example. The aim of ICOSSAR2009 is to encompass every aspect of safety, reliability and risk analysis and life-cycle management of structures, infrastructures and engineering systems, which have become emergent and key issues due to the frequent occurrence of natural and man-made disasters (such as earthquakes, hurricanes, tsunamis, terrorist attacks, and airplane and nuclear power plant accidents), the infrastructure crisis, sustainability issues and global warming. In dealing with these problems uncertainties are unavoidable. The society can no longer afford to ignore congested roads, deficient bridges, aging dams, broken levees and water mains, among others. The importance of costs associated with managing existing structures, infrastructures and engineering systems is increasingly recognized.

It is easily understood that the topics treated in such international conferences are quite complicated and multi-disciplinary, in which globalization takes an important role to solve the raised problems. To enhance and encourage the international activities, the continuing efforts are inevitable and desirable based upon both domestic and overseas activities for international corporation and collaboration.

# Australia Japan Joint Workshop on Steel and Composite Structures

Australia Japan Joint Workshop on Steel and Composite Structures was held on March 31, 2009 at the historic 175 year old Sydney Mechanical School of Arts. This workshop was a follow up to an initial meeting between the JSCE and Center for Infrastructure Engineering and Safety at the University of New South Walls (UNSW), Australia. Prof, Nagai in Nagaoka University and Prof. Mark Bradford in UNSW were mainly leaded opening the workshop. This workshop was cosanctioned by JSCE and Engineers Australia Expenses for the facilities and (EA). publication costs were supported by their fund. Organization of the workshop could have been possible with the support of the School of Engineering, University of Western Sydney.

Workshop was started at 9:30 by welcome address from Australian organizer, Prof. Brian Uy. 2 keynote presentations were followed by 10 invited presentations. Topics of speakers were as follows, Mark Bradford (University of New South Wales), "A design model for bolted T-stubs in joints in steel and composite frames subjected to a compartment fire", Masatsugu Nagai (Nagaoka University of Technology), "Recent technological innovation in steel-concrete hybrid bridge engineering in Japan", Brian Uy (University of Western Sydney), "Design of concrete-filled steel tubular members according to Australian Standard AS 5100", Eiki Yamaguchi (Kyushu Institute of Technology), "JSCE standard specifications for steel and composite structures", Gianluca Ranzi (University of Sydney), "Finite element formulation for the analysis of composite bridges with complex static schemes", Takuyo Konishi (Technology Center of Metropolitan Expressway), "Inspection and retrofitting of fatigue damaged



Key members in the seminar

orthotropic steel decks", Zora Vrceli (University of New South Wales), "Buckling strength of continuously restrained composite steel-concrete T-section beams", Takeshi Mori (Hosei University), "Fatigue strength of cruciform welded joints failing from weld roots under bi-axial loading", Fidelis Mashiri (University of Western Sydney), "Fatigue behavior of welded composite tubular T-joints under in-plane bending", Akira Takaue (Chodai Co, Ltd), "Application of design codes utilized in international bridge construction projects in the Asian region", Xingun Zhu (University of Western Sydney), "Dynamic assessment of shear connection conditions in steel-concrete composite structures", Yoshiaki Okui (Saitama University), "A case study for after fracture redundancy analysis of a truss bridge in Japan", Zhong Tao (University of Western Sydney), "Behavior of concrete-filled stiffened thin-walled steel tubular columns. "

After the workshop, we had a special marvelous dinner party at the Café Sydney just front of the famous Harbor Bridge. We have to express gratitude to all the contributors for their willingness to share their latest research work with others by sparing their precious time and money. We believe that this workshop will be a catalyst for future collaboration in steel & composite structure research between Japan and Australia.

# Lectures by the award-winning hydrologists on the occasion of the 2008 JSCE International Contribution Award

Dr. Andras Szollosi-Nagy, deputy assistant director general of UNESCO, and Dr. Kuniyoshi Takeuchi, director of International Centre for Hazard and Water Risk Works Management (ICHARM), Public Research Institute (PWRI), were awarded the 2008 International Contribution Award by the Japan Society of Civil Engineers (JSCE) for their outstanding contributions to global water issues. To celebrate the distinguished worldclass hydrologists, the National Institute for Land and Infrastructure Management (NILIM) and the Public Works Research Institute (PWRI) jointly held a special lecture meeting on "Global Climate Change and Challenges in Water Management" on May 29 in Tokyo. The lecture meeting was also supported by the Japanese National Commission (JNC) for UNESCO, JSCE, and the Japan Society of Hydrology and Water Resources.

The two hydrologists gave a lecture in front of a large audience gathering to celebrate the special occasion. Dr. Takeuchi spoke first on "Disaster Management for Sustainable Well-being." In the lecture, he addressed "human empowerment" as a key concept in disaster management. He pointed out that, to reduce water-related disaster damage worldwide, the elimination of vulnerability factors within communities are imperative in addition to the protection of communities from external forces of natural hazards. For that reason, he emphasized the enhancement of the ability to cope with water-related disasters at the local and individual levels. In this context, Dr. Takeuchi explained that ICHARM "Localism" prioritizes in its efforts. introducing the centre's contribution to development and dissemination of satellitebased early warning systems as well as trainings in water hazards and risk management.

Dr. Szollosi-Nagy followed Dr. Takeuchi to speak on "Global Changes and Their Impacts on Water Resource: New Challenges and Opportunities for Civil Engineers." He shared his insightful views on how global climate as well as socio-economic changes may affect prospective work and roles of civil engineers. He suggested that those engineers should pay special attention to securing adequate reservoirs in basin water management. Pointing out the significance and difficulty in solving global water issues, he concluded the lecture by quoting the words of John. F. Kennedy: "Anybody who can solve the problems of water will be worthy of two Nobel Prizes, one for peace and one for science."



Left: Dr. Takeuchi, Right: Dr. Szollosi-Nagy

Dr. Szollosi-Nagy and Dr Takeuchi have been good friends for 35 years since they shared a laboratory at the International Institute for Applied Systems Analysis in Austria. It was quite a pleasant surprise for the two to find out that they were given the same award at the same time. Meanwhile, the Hungarian scientist celebrated his 60th birthday just a week before the event and was doubly happy calling the honorable award "the best birthday present I have ever had."

# Seminar on Construction Management and Contract Administration

#### Introduction:

A seminar on "Construction Management and Contract Administration" was organized on 21 September 2009 in Kathmandu, Nepal by the initiation of and support from the Japan Society of Civil Engineers (JSCE). The seminar was jointly organized by JSCE, Nepal Engineers' Association (NEA), Federation of Contractors' Associations of Nepal (FCAN), Nepal Engineers' Association – Japan Chapter (NEA-JC) and Kochi University of Technology (KUT). The JSCE had proposed and extended support through the international scientific exchange fund to organize the seminar in order to exchange practical, academic and research resources on Construction Management and Contract Administration accumulated especially in Japanese construction industry.

#### **Participants**:

More than 70 participants from governmental/non-governmental/private/ professional organizations and international lenders had attended the seminar. There was representation from all governmental organizations responsible for infrastructure development and construction (such as Ministry of Physical Planning and Works, Ministry of Energy, Ministry of Irrigation, Department of Roads, Department of Irrigation, Department of Urban Development and Building Construction, Department of Water Supply and Sewerage, Department of Education, Department of Local Infrastructure District Agriculture Roads, and Nepal Electricity Authority, Melamchi Water Supply Development Board, Town Development Fund, Public Procurement Monitoring Office, etc.), major donor agencies (such as ADB, JICA, UNDP), contractors, consultants, auditors, universities and professional societies. There was a very active participation in the discussion period.

#### **Topics Covered/Discussed:**

There were 6 presentations including 1 presentation from Nepalese participants. Prof.

Shunji Kusayanagi, Dr. Takashi Goso, Mr. Seiichi Hamada and Dr. Rajendra Niraula from JSCE and Mr. Nugal A. Viadva from FCAN made presentation in the seminar. The topics covered were 'Contract Administration in the Japanese Construction Industry', 'Overview of the Nepalese Construction Industry, Application of Information Technology (IT) for Productivity Assessment and Improvement', *Construction management in Tunneling* Works in Japan', 'Standard Conditions of Contract for Public Works in Japan', and 'Contract Administration Training Program Developed in Japan'. There was overwhelming interest on the Japanese construction management and the contract administration training program.

#### Impact of the Seminar and Future Prospect:

Contract administration has been realized as an axle of the project management in construction international project. and competency on the same has been required for efficient delivery of construction project in Nepal also. The presentation made by Prof. Kusayanagi had also covered the brief contents of the 'Contract Administration training program developed under JBIC/JICA cooperation'. There was a great interest in the ministries and construction industry to continue such seminar in order to enhance the contract administration skills of Nepalese industry professionals. The participants have requested us (JSCE participants) to conduct 'Contract Administration' training program and to establish such program at suitable organization in Nepal in order to provide opportunities for Nepalese industry professionals to acquire hands on knowledge and skills contract administration. The participants and the organizers realized that the seminar was successful in exchanging the experience and resources on the said topics.



Seminar in Kathmandu

#### Conclusion

As Nepal is in need of infrastructure development and rehabilitation the Nepalese industry professionals are required to be equipped with contemporary knowledge and skills on contract administration. However, there is no opportunity for the professionals to acquire such skills domestically. Federation of Contractors' Association of Nepal (FCAN) and Society of Consulting Architectural and Engineering Firms (SCAEF) and some universities are willing to establish such capacity building program. For this, they need external support from such as international lenders since the domestic organizations do not have enough capacity and resources to establish such program.

> By Rajendra Niraula, Takashi Goso, Prof. Shunji Kusayanagi

# The Eleventh International Summer Symposium

The Eleventh International Summer Symposium organized by the International Activities Committee of JSCE (Chair: Prof Hitoshi Furuta, Kansai University) was held at Tokyo Institute of Technology on 11 September 2009. The symposium is held annually so as to provide an opportunity to exchange information and ideas associated with various aspects of civil engineering among international students and engineers, including Japanese. Another objective of the symposium is to promote international exchange and mutual understanding between international communities and Japanese students and engineers. The symposium started in 1999 and has received high reputation as a valuable opportunity for exchanges among students and engineers in English. From last year, a full paper review process was introduced to enhance quality of paper. The Eleventh Summer Symposium was supported by the International Scientific Exchange Fund, JSCE.

The number of attendants of the symposium was 124(international students/ engineers: 80; Japanese students/engineers: 44). This year's keynote lecture was given by Prof Chitoshi Miki, Tokyo Institute of Technology, titled "Creativity Developing Education at Tokyo Tech." In the technical sessions, 68 technical presentations from 7 areas in civil engineering were presented. The symposium was brought to a close with the Reception where there were lively exchanges between the participants. The "Certificate of Excellence" was awarded, during this reception, to 17 speakers for their outstanding papers and presentations.

The award winners are: Nishigandha Gajanan Kulkarni (Nagoya University) / M. Kashif Razzaq (Saitama University) / Priza Kavestha (Tokyo Institute of Technology) / Ke Jin (International Center for Water Hazard and Risk Management, Public Works Research Institute) / M.B. Samarakoon (Saitama University) / Cokorda Bagus (The University of Tokyo) / Masline Makasi (Hokkaido University) / Jina Lee (The University of Tokyo) / Adriana Lucia Beltran-Galvis (The University of Tokyo) / Pran Nath Dadhich (Tokyo Institute of Technology) / Ang Li (University of Yamanashi) / Wael K.M. Alhajyaseen (Nagoya University) / Myo Zarni Win (Tokyo Institute of Technology) / Khoa Kim Tran (Nagoya University) / Saphouvong Khamhou (Tokyo Institute of Technology) / Reni Desmiarti (Gifu University) / S.K. Weragoda (Saitama University).



Keynote Lecture by Prof. Chitoshi Miki



The award winners with Prof. Furuta

This symposium was closed with a promise to meet again in the Twelfth International Summer Symposium to be held next year.

Also available on web: http://www.jsce-int.org/

By Junichiro Niwa, Chair, Organizing Committee of the Eleventh International Summer Symposium, JSCE

# TCG - JSCE Joint Seminar on Concrete Engineering

The TCG (Technical Chamber of Greece) - JSCE Joint Seminar was held on 20th November 2009 at Athena, Greece.

The JSCE concrete committee has held joint seminars with several Civil Engineers' Societies foreign countries, with which JSCE has an agreement for collaboration, including CICHE (Taiwan), MACE (Mongolia), VIFCEA (Vietnam), KSCE (Korea), and SVR (Sweden). The seminar was held in Europe to establish a strong collaboration with partner societies in Europe.



Key members in the seminar

The theme of this seminar was "New developments in Technology and Standards for Reinforced Concrete in Europe and Japan." Based on this theme, six recent research topics (three each from JSCE and TCG) were presented. The topics from JSCE were "Recycling concrete - the present state and future perspective" (K. Sakai). "JSCE specifications on stainless steel bars and anchorage/splice technologies" new (T. Shimomura) and "Advancement of technology to improve seismic performance of concrete bridge after Kobe earthquake" (H. Nakamura). The topics from TCG were "European Standard EN 206-1 for Concrete Technology and the application in Greece" (T. Dragkiotis), "Design of Concrete Structures according to Eurocode 2 Part 1-1 (EN 1992-1-1) " (P. Yannopoulos), and "European Standards: Eurocode 8: Design of Structures for Earthquake Resistance and Design of Structures for Earthquake Resistance" (M. Fardis). There were many discussions during each presentation, which means that the joint seminar was successful.

The seminar was supported by the International Scientific Exchange Fund, JSCE.

# Civil Engineering Design Prize (CEDP) 2008 Report

#### 1. The award ceremony 2008

CEDP held its annual award ceremony at the JSCE hall on April 25, 2009. (Photo 1) There were twenty-five distinct Civil Engineering submissions that included a wide variety of projects; bridge, station, road, river, park, promenade and so on.

Entries were evaluated through a two tiered selection process by the seven member committee.

From the submitted designs, ten prizes were awarded inclusive of two Civil Engineering Grand Prizes. (Photos 2- 5)



Photo1. Award Ceremony

#### 2. About the CEDP

The CEDP program is managed by the Landscape and Design Committee, a group established within the JSCE. The program has provided eighty-four awards since its inception in 2001.

The objective of this program is to recognize individuals and organizations that have made notable contribution to landscape development and maintenance in public areas of Japan. The intention of this program is to offer the award to individual and organization that accomplished the project through the unique idea or the creative utilization of planning system, and it includes organizational activities of the NGO, NPO or designcommittee, etc.. This program emphasizes the individual and organization rather than work itself.

Applications for CEDP 2009 are continuously accepted from May.

\*CEDP Website: http://www.jsce.or.jp/committee/ prize/index.html By Akiyoshi Nii, Dr. of Eng. (Secretary of CEDP, JSCE, Kokushikan Univ.) Also available on web: http://www.jsce-int.org/

*Photo 2* **Civil Engineering Design Grand Prize** 



Manabinomori PARK (Gifu pref.)



Toyama Light Rail Transit(Toyama pref.)

*Photo3.* **Civil Engineering Design Prize** 



Tenmagawa Bridge (Aomori pref.)



Restoration of Ishiibi Historical Water System in Kase River (Saga pref.)



Uemura Naomi Memorial Museum (Hyougo pref.)



Development of Numazu Station North Gate Plaza (Shizuoka pref.)



Landscape Planning for Revitalization of Itsuki Village (Kumamoto pref.)

### *Photo4.* **Civil Engineering Design Encourage Prize**



Sunahase Park, Aiai Plaza, Katayamazu-Onsen (Ishikawa pref.)



Odakyu Odawara-LIne Odawara Station (Kanagawa pref.)

#### Photo5.

**Civil Engineering Design Special Jury Prize** 



Hoshinoya Karuizawa (Nagano pref.)

# Selection Committee

- Koichi Amano (Nihon Univ.) /Chairman of CEDP
- Kazuhiro Nishikawa

(National Institute for Land and Infrastructure Management)

- Kazuo Tanaka (GK Design Group Inc.)
- Kazuo Koide (Urban Design Institute co., ltd)
- Naoki Egawa (Kansai Univ.)

-Yasushi Onodera (Onodera-Yasushi City Planning Office)

-Shinichi Yoshimura (Yoshimura- Shinichi River Planning Office)

# Information

#### New annual membership fees – effective April 2010.

Membership Fees		(Unit: JPY)		
Memberships	Country/ Region	Current <sup>1</sup>	New <sup>2</sup>	
Regular	Those not included in either Group A or B	12,000	6,000	
Member	Group A	8,000	4,000	
	Group B	4,000	2,000	
Student Member	Those not included in either Group A or B	6,000	5,000 Free <sup>2</sup>	
	Group A	4,000	Free	
	Group B	2,000		

\*1: Applicable to those who subscribe to the JSCE magazine

Applicable to inose who subscribe to the SOCL magazine
\*2: Applicable to only the members who live in the area or the country where a JSCE International Section is located and do not subscribe to the JSCE magazine

# **Event Calendar**

96<sup>th</sup> General Assembly Date: May 28, 2010 Time: 13:15-17:00 Venue: Hotel Metropolitan Edmont, Tokyo

12<sup>th</sup> International Summer Symposium Date: Sept 18, 2010 Venue: Nihon University Funabashi Campus

# 2010 JSCE Annual Meeting

Date: Sept 1-3, 2010 \*International Program on Sept 1&2 Venue: Hokkaido University Sapporo Campus

Send your comments and suggestions to: iad@jsce.or.jp JSCE Website: http://www.jsce-int.org

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