



Japan Society of Civil Engineers International Activities Committee Newsletter

No. 23, January 2008

June 2007- May 2008

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The JSCE Contribution to ACECC



*SUMIYOSHI, Yukihiro, Dr. Eng.
JSCE Representative to ACECC
(President, Central Consultant Inc.)*

It is a great pleasure for me to extend my cordial New Year greetings and best wishes to the JSCE members and to the members of the JSCE International Sections in particular. On this occasion I, as JSCE Representative to ACECC (Asian Civil Engineering Coordinating Council), would like to introduce you to the activities of ACECC and the contribution of JSCE to ACECC.

Based on the success of the 1st International Civil Engineering Conference in Manila, in February 1998, PICE (Philippines), ASCE (USA), and JSCE had a series of meetings of discussion aiming at creating an international association to coordinate cooperation among civil engineering societies/institutions in the Asian region. In September, 1999, ACECC was established as a result of the discussion and the proposal by three societies, and the initial members of ACECC were five societies/institutions including KSCE (Korea) and CICHE (Taiwan) in addition to the three societies mentioned above. After the creation of ACECC, Engineers Australia (formerly the Institution of Engineers, Australia), VIFCEA (Vietnam), MACE (Mongolia), HAKI (Indonesian Society of Civil and Structural Engineers) joined in ACECC and therefore nine societies/institutions are the members of ACECC so far.

The Civil Engineering Conference in the Asian Region (CECAR) which is one of the main activities of ACECC was held in a triennial basis and the 2nd Conference (Tokyo) in April, 2001, the 3rd Conference (Seoul) in August, 2004, the 4th Conference (Taipei) in June 2007 were held respectively following the 1st Conference in Manila, 1998. I believe many of you participated in the 4th Taipei Conference where the special lectures, forums and dozens of presentations were made and the "ACECC Taipei Declaration on Sustainable Development" was adopted as a result of the discussion by the presidents of member societies at the Asian Summit. In the Taipei Conference, it was decided that the 5th CECAR would be held in Sydney in 2010.

Abundant human resources (approximately 60% of the world population), rich natural resources, improved manufacturing abilities and

Huge markets have made Asia the fastest growing economy in the world. On the other natural resources and strains the environment and ecosystem. In addition, Asia is one of the most vulnerable regions to damages caused by natural disasters such as earthquakes, tsunamis, typhoons, floods, landslides and volcano eruptions, etc. With these facts, having sustainable development in Asia is necessary.

The first objective of the ACECC activities is defined as “to promote and advance the science and practice of civil engineering and related professions for sustainable development in the Asian region”. To respond to this objective, JSCE as one of the proposing societies for ACECC creation will continue to play an active role in the operation of ACECC and contribute to the association’s development focusing on the activities described below towards the 5th CECAR to be held in Sydney in 2010.

- *Expand the ACECC membership;
- *Develop and introduce the Asian Code;
- *Develop civil engineering and technology issues such as Natural Disaster Prevention Technology, Preservation Technology for Environment and R&D of Advanced Technology; and
- *Implement the Asian Human Network

JSCE will act, with the cooperation of its technical committees and the JSCE international sections, to contribute to the sustainable development of the Asian region through the ACECC activities.

Greetings from President of Korea Section, JSCE



Kook-il Kim, Ph.D
President of Korea Section of JSCE
(President/CEO, at Dongbu Engineering Co., Ltd.)

Dear Colleagues of Japan Society of Civil Engineers,

It gives me a great pleasure to inform you that I am taking the chairmanship of the Korea Section of JSCE.

The Korea Section of JSCE was inaugurated in July 2000, and has been chaired by Mr. Hak-ju Hwang as the 1st president and Mr. Kyung-boo Park as the 2nd and 3rd president. I was elected as the 4th president of the Korea Section of JSCE on Sept. 1, 2007 at the JSCE General Meeting.

The Korea Section of JSCE has contributed to the technology exchange between Korea and Japan by promoting visits by Korean public officials and engineers engaging in civil engineering services in Korea to the construction sites and seminars in relevant fields in Japan and other international conferences on civil engineering technologies in the Asian region.

Civil engineering technology of Japan has been recognized as among the best in the world, in spite of the difficult geological features of the country, with its frequent typhoons and earthquakes, and soft ground conditions. Given this situation, I believe JSCE has rendered distinguished services to the development of the highest level of civil engineering technology. I feel greatly honored to be chairman of the Korea Section of JSCE.

I had a conference with JSCE President Ishii Yumio on November 30, regarding the advertisement and member increasing activities of the Korea Section, and cooperation among overseas branches of JSCE.

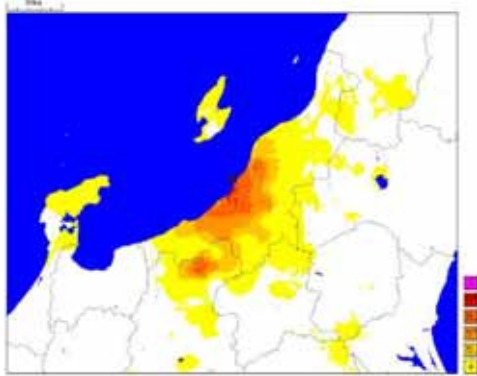


Dr. Kook-il Kim (Left) and Dr. Ishii
at JSCE Headquarters

I would like to conclude with my promise that I will devote myself to the development of civil engineering technology through the exchange of technical information between Korea and Japan.

Thank you.

Summary of the damage caused by the July 16th, 2007, Niigata-ken Chuetsu-Oki (Niigata Prefecture Chuetsu Off-shore) Earthquake, Japan



JMA Seismic Intensity

An earthquake with a magnitude of 6.8 on the JMA (Japan Meteorological Agency) scale (6.6 on Richter scale) occurred on July 16th, 2007 in Chuetsu region, Niigata prefecture, Japan. The epicenter was located off shore of Kariwa village and Kashiwazaki city. Preliminary results of the source inversions show a reverse fault and the rupture propagated to North and South directions. The JMA seismic intensity was 6+ (IX in MMI) in Kariwa village, Kashiwazaki city and Nagaoka city in Niigata prefecture, and Ohzuna town in Nagano prefecture.

The quake caused the loss of 11 lives and injured about 2,000 people. About 1,100 houses and building was subjected to heavy damage, and about 3,800 houses and buildings were moderately damaged in Niigata prefecture. Collapses occurred almost exclusively to old houses built of wood and clay walls and heavy kawara (clay-tile roof).



Collapsed wooden houses in Kashiwazaki city

Landslide activity was concentrated near the coast with steep slopes. Where transportation lines crossed the areas, landslides blocked or destroyed roadways and
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railways. Landslide at the Oumigawa Train Station on the Shin-etsu Line, located at the south of Kashiwazaki city, was one of the largest landslides. Lateral spreading, liquefaction, and slope failures also occurred extensively. A zone of lateral spreading, sand boils and settlements adjacent to Sabaishi River was associated with a buried sand deposit of a former channel. A failure of a road occurred on the north of the river adjacent to the Kashiwazaki Municipal Incinerator.



Landslide at Oumigawa Railway Station



Lateral spread on road to Kashiwazaki Municipal Incinerator

The lifeline utilities of gas, water and electricity were also damaged. Power outage occurred at about 35,400 households right after the quake, but the services were recovered within a day in most of the epicentral areas. The water and supply systems were also damaged. The water suspension occurred at about 61,500 households and stop of gas supply at 35,150 households. The recovery from water suspension was on August 4th and recovery of gas stop on August 27th.

Kariwa village is home to the largest nuclear power plant in the world with seven reactors and a total output of 8,200 Megawatts. Critical structures appeared to have performed well given the intensity of the ground shaking, large ground settlements, and evidence of liquefaction near the waterfront.

Japan Society of Civil Engineers (JSCE) dispatched an investigation team on the

day of the event. The report of JSCE team is now available at the following URL: <http://www.jsce-int.org/>.

*By MIYAJIMA, Masakatsu, Dr.Eng.
(Kanazawa University)*

Kenichi Soga is awarded the ASCE Walter L. Huber Civil Engineering Research Prize

Kenichi Soga, Professor of Civil Engineering at Cambridge University and the President of the JSCE UK Section, is a recipient of the 2007 Walter L. Huber Civil Engineering Research Prize from the American Society of Civil Engineers (ASCE) “for pioneering research on the fundamental behaviour of soils with application to in-situ monitoring, site remediation, and soil structure interaction”. This prestigious award is presented to recognize notable achievements in research related to civil engineering. In July 1946, the ASCE Board of Direction authorized annual awards on recommendation by the Society's Committee on Research, to stimulate research in civil engineering. In October 1964, Mrs. Alberta Reed Huber endowed these prizes in honor of her husband, Walter L. Huber, Past President, ASCE.



*Prof. Soga (left), with other winners
at the awarding ceremony*

Kenichi Soga was born in New York, but received most of his education in Japan. He went to Kyoto University to study Civil Engineering and obtained B. Eng. and M. Eng. in 1987 and 1989, respectively. In 1989, he was awarded a two-year scholarship from the Murata Overseas Scholarship Foundation to continue his study at the University of California at Berkeley. At Berkeley, he worked as a Research Assistant between 1991 and 1994 and was awarded a Ph.D. in 1994. He joined the Cambridge group in 1994 as lecturer and then was senior lecturer (2000-2003) and

Reader (2003-2007). He was promoted to Professor of Civil Engineering in 2007.

His past and current research includes ground loading on old London Underground tunnels, time effects on soil behavior and their influence on construction activities, the mechanisms of tunnelling-induced ground movements and their progressive effects on buildings, in-situ assessment of contaminant containment systems, foundation monitoring with fibre optics distributed strain technology, and wireless sensor network system for condition assessment and monitoring of ageing infrastructure. He has published more than 140 journal and conference papers. He is co-author of “Fundamentals of Soil Behavior, 3rd edition” (with Professor James K. Mitchell) from John Wiley & Sons. He is recipient of George Stephenson Medal (2006) and Crampton Prize (2007) from the Institution of Civil Engineers (ICE). He delivered 2007 Géotechnique Lecture in September 2007 at ICE.

KSCE - JSCE Joint Seminar on Concrete Technology

The KSCE (Korean Society of Civil Engineers) - JSCE Joint Seminar on concrete technology was held during the Annual Conference of KSCE at Daegu, Korea on 11th October, 2007.



Dr. Ishii and key members in the seminar

The seminar is held every year with different theme based on the MOU between the concrete committees of JSCE and KSCE. This was the third seminar following the one held in Japan last year. The theme of this year was “Concrete: Recent Developments and Future perspective”. The seminar began with the opening speech by Dr. Yumio Ishii, JSCE President. Then, 6 topics (3 each from JSCE and KSCE) related with environmental axis of concrete, new material, structural design and strengthening were presented. More than 40

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

participants attended the seminar and actively engaged in discussions. Proceedings of the seminar will be available in "JSCE Concrete Committee Newsletter No.12" to be published in January 2008 at the following website: <http://www.jsce.or.jp/committee/concrete/e/index.html>.

*By NAKAMURA, Hikaru, Dr. Eng.
(Nagoya University)*

JSCE-KSCE-CICHE/TCI Joint Seminar

The joint seminar organized by JSCE, KSCE (Korean Society of Civil Engineers), and CICHE (Chinese Institute of Civil and Hydraulic Engineering) together with TCI (Taiwan Concrete Institute) was held at the JSCE headquarters, Tokyo on November 7-8, 2007. This event consisted of lectures, a technical tour and a discussion about future collaboration among these organizations. The seminar's theme was "Recent Progress of Hybrid Structures."

The seminar, following the 1st KSCE-JSCE Joint Seminar on Hybrid Structures held in Gwangju, Korea on October 13, 2006, was organized as an international event of the 7th JSCE Symposium on Research and Application of Hybrid Structures. The objective was to understand updated situations of each country in the field of research and practical applications on hybrid structures of steel-concrete, FRP-concrete and other connections of concrete with different materials.



Lecturers and organizers

The seminar began with the opening speech by Dr. Yumio Ishii, President of JSCE. A total of five lectures (2 from Japan, 2 from Korea and 1 from Taiwan) were provided with very active discussions sharing views and opinions. There were approximately 40 participants in the seminar. It was expected that the seminar would promote future

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collaboration among engineers and researchers of Japan, Korea, and Taiwan. The next seminar will be held in Taiwan in November 2008.

As for the technical tour on the 7th, 30 participants visited four bridges on New Tomei Expressway under construction: Saruta River Bridge (PC/steel composite superstructure), Uchimaki Viaduct (PC superstructure), Shibakawa Viaduct (PC box girder supported with inclined struts), and Fujikawa Bridge (hybrid arch with steel girder and concrete arch rib), all of which were very unique representing the most advanced technology.

The organizing committee greatly acknowledges the members of Central Nippon Expressway Company Limited for their arrangements for the tour.

*By YOKOTA, Hiroshi, Dr. Eng.
(Port and Airport Research Institute,
Vice Chair, Committee on Hybrid Structures)*

Report of International Cooperation Committee of Civil Engineers in the JSCE Shikoku Branch

The 9th Annual Forum titled "Construction Market in Asia and Obstacles Facing Japanese Civil Engineers in Overseas Activities" was held, chaired by Prof. A. Mochizuki, Tokushima Univ., on the 28th of November at Port Tower building in Takamatsu City, Kagawa Prefecture. International Cooperation Committee was established in 1998 under the leadership of Prof. Sadaji Ohkubo, Ehime Univ. in order to promote overseas activities for civil engineers in the Shikoku area through studying the construction market and technical problems of construction in foreign countries.

Although the main activity of the committee in the past nine years has been to hold an annual forum with guest speakers who have rich experience abroad through work in the field of civil engineering, the committee also has sent study groups overseas for learning ongoing projects such as the construction site of the huge Three Gorges Dam in China and the cities which were under development in Switzerland.

For the previous annual forum on the construction market in Asia and obstacles facing Japanese Civil Engineers in overseas activities, three guest speakers were invited: Mr. Ranjan Kumar Dahal, Mr. Hiroshi Ichikawa and Dr. Mitsuo Nozu. The first speaker Mr. Ranjan Kumar Dahal, a lecturere of Tribhuvan University, Nepal who were

working in the doctoral program at Kagawa University, delivered a lecture titled “Existing condition of natural hazard in Nepal and expecting support of civil engineers and engineering in Japan.” Mr. Dahal showed several photos of disaster sites and talked about the needs for both financial and technical supports from Japan and Japanese civil engineers. The second speaker was Mr. Hiroshi Ichikawa who is working as an adviser/consultant specializing in international construction business. He delivered an interesting presentation titled “Notes for over sea construction business for Japanese civil engineer,” which explained about the misunderstandings and faults Japanese engineers often encountered in overseas projects. The third speaker, Dr. Mitsuo Nozu, who was working in the overseas construction section of Fudo Tetra Co., talked about reports on foreign construction projects in southeast Asia, titled “Experiences of ground improvement projects based on Japanese technology in overseas countries.” Over 60 participants including student members attended the forum and gained useful information through presentations and discussions.

The committee is planning to have the 10th anniversary symposium with a special forum with guest speakers and panelists in October 2008. The committee expects to have fruitful discussions with many participants. Thank you.

*By NONOMURA, Atsuko, PhD.
(Research Associate, Kagawa University)*

ICE-JSCE Gathering at the Christmas Season

On Tuesday evening, 11 December, ICE and JSCE members gathered at New Hall in the British Embassy to have a year-end party.

Prior to the gathering, Prof. A. R. Burden, the ICE representative contacted the International Affairs Section via email to invite JSCE members to a year-end party to be held at the beginning of December, in which the two organizations would get together and celebrate the occasion. The invitation was forwarded to former members of the JSCE-UK Section, International Activities Committee board members.

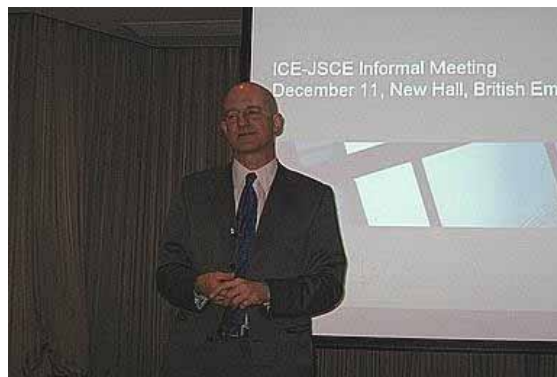
24 members from ICE and JSCE joined at New Hall on that day. Prof. Burden opened the party with a beautiful speech in fluent Japanese, and next Mr. Furuki Executive

Director on behalf of the JSCE members expressed his thanks to the kind invitation and talked about the ICE-JSCE relationship in these years. Also he hoped that the relationship would be enhanced for mutual benefits. After these speeches, each member introduced themselves for thirty seconds in a light-flashing speed.

Then, Mr. D. Macintyre of ICE proposed a toast to everyone’s health and happiness in the coming year and the people lifted their glass merrily. On the table were colorful refreshments served: various kinds of cheese and sandwiches placed beside wine and beer added a British flavor to the festive atmosphere. Many of the JSCE members had had some experience of living in England so that they could easily relate to each other and share their memories.

Meanwhile, Prof. Burden talked about the ICE Membership; the current membership was 82,000. It was interesting to learn about the JSCE’s counterpart and its activities.

Two hours passed very quickly. All the guests there must have reminded themselves, “Time flies by when you are having a good time.” Before leaving the party, the people took a group photo and promised to have such gathering again.



Prof. Burden’s opening speech



ICE & JSCE members at the party

*By KATAYAMA, Kozo
(Manager, International Affairs Section, JSCE)
Also available on web: <http://www.jsce-int.org/>*

Student Network -Voice from the Students-

“My impression about the subway and high-speed train in Japan”



Name: Woo-Seok Shin
Country: South Korea
School: TOHOKU UNIVERSITY

It was in November 2005 when I left South Korea for the first time in my life, and headed to Japan, a country I knew very little about, except that it is way ahead of the rest of the world when it came to research in civil engineering. I had very little idea of what to expect. I of course had some images of Japanese comics, Samurai and many cities in Japan which were very crowded.

In my daily life in Japan I sometimes use subway and high-speed train. Allow me to share with you some of my impressions about the differences in transportation between South Korea and Japan.

First of all, the subway systems in Japan are located mostly in a city center where they are very easy to access to and convenient for users. Accidents at subway terminal have become a hot issue in South Korea recently. Compared to South Korea, the Japanese subway system and safety structural devices that can prevent accidents beforehand seem to be more prepared. The country seems to pay more attentions to what so called: “safety first” for all users.

Recently, a high-speed train from Seoul to Busan has officially started and it takes about 3 hours. This is one of the biggest improvements of transportation technology in South Korea in the past few years. While the development of Shinkansen networks has carried out continuously in Japan, I also have heard that Japan is now developing a linear Chuo Shinkansen project to connect Tokyo and Osaka by way of Nagoya, in approximately 1 hour at a speed of 500km/h. That is extremely rapid, and I do believe that making this thing happen totally relies on the technology that has been accumulated and developed in Japan for many years. For me, Japan is far ahead of

South Korea in term of. know-how of development the latest technology.

I do hope that South Korea will have some merits from Japanese experiences and technology in order to modernize the transportation networks in South Korea in the near future.



On the way to Yamadera temple in Yamagata prefecture using a JR Senzan line

JSCE E-Friend Registration - the new member-networking service -

These days, as people are expanding their activities beyond national borders, the world is getting closer, and civil engineers are playing a more important role in developing infrastructure and creating a better life for people.

In response to the rapidly advancing globalization and increasing demand for our profession, JSCE is launching the new member-networking service “E-Friend” to offer the members the opportunity to get connected to their peers and to exchange information with each other. Through this service, we hope that technical cooperation will be attained and technology transfer will be achieved more often than ever.

E-Friend registration form on the Web

This new service is available to not only the JSCE members, but also to anybody who is interested in the JSCE activities such as international students currently studying in Japan and those living abroad who want to keep themselves updated with the latest news on the Japanese civil engineering.

All **E-Friend** registrants will receive timely, interesting and useful information about civil engineering including the JSCE activities and events.

To register for **E-Friend**, please access the following URL: <http://www.jsce-int.org/>.

Event Calendar

JSCE 94th General Assembly

Date: May 23, 2008

Place: Hotel Metropolitan Edmont, Tokyo

JSCE 2008 Annual Meeting & 63rd Annual Conference

Date: September 10-12, 2008

Place: Tohoku University, Sendai, Japan

February

24-26 ACECC 16th Executive Committee Meeting

Date: February 24-26, 2008

Place: Sydney, Australia

March

4-8 9th JSCE Student Study Tour on Environment Engineering Project in China

Date: March 4-8, 2008

Place: China

Contact: Prof. Murakami, Kochi Technology Univ.

E-mail: murakami.masahiro@kochi-tech.ac.jp

5-9 52nd Conference on Hydraulic Engineering

Date: March 5-7, 2008

Venue: Hiroshima University, Hiroshima, Japan

April

9-12 JAPAN INTERNATIONAL WELDING SHOW 2008

Venue: INTEX OSAKA, Osaka, Japan

Contact: Sanpo Publications Incorporated

Tel: +81-3-3258-6411/ Fax: +81-3-3258-6430

URL: <http://www.sanpo-pub.co.jp>

Call for Paper

JSCE 63rd Annual Conference

Date: September 10-12, 2008

Place: Tohoku Univ., Sendai, Japan

The 12th Japan Symposium on Rock Mechanics & The 29th West-Japan Rock Engineering Symposium

Sponsored by:

The Japanese Committee for Rock Mechanics,
The Japanese Society of Civil Engineers
and other organizations

Date: Sept 2-4, 2008

Place: Yamaguchi University, Ube, Japan

Important Dates

Abstract Submission: Jan. 7 – Feb. 29, 2008

Notification to Authors: Mar 17, 2008

Paper Submission: Mar 17 - May 16, 2008

Notification to Authors: Jun 16, 2008

Final Submission: Jun 16 – Jun 27, 2008

URL: [http://www.ac-research.jp/](http://www.ac-research.jp/jrock2008/top_EN001.html)

[jrock2008/top_EN001.html](http://www.ac-research.jp/jrock2008/top_EN001.html)

Publications

(From Jun 2007 to Jan 2008)

JSCE Guidelines for Concrete No.11:

JSCE-STANDARDS ON TEST METHODS OF REPAIRING MATERIALS USED FOR CONCRETE STRUCTURES, May 2007, Pages 120, Price: JPY1,890, ISBN 4-8106-0480-1

STANDARD SPECIFICATIONS FOR TUNNELING - 2006:Mountain Tunnels:

August 2007, Pages 287, Price: JPY3,990, ISBN 4-8106-0567-9

STANDARD SPECIFICATIONS FOR TUNNELING - 2006:Shield Tunnels:

August 2007, Pages 271, Price: JPY3,990, ISBN 4-8106-0568-6

Journal of Hydrosience and Hydraulic Engineering Vol.25:

No.1 Aug 2007, Pages 122, Price: JPY3,150,

No.2 Jan 8, Pages74, Price: JPY3,150, ISSN 0912-2508

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