

### **Japan Society of Civil Engineers**

International Activities Committee

# Newsletter

No. 22, October 2007

2007

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U.K. Section SOGA, Kenichi

Mongolia Section
Dorjderem Chirchin

**Turley Section** Zeki Hasgür

Indonesia Section Sutanto Soehodho

Yotsuya 1-chome, Shinjuku-ku, Tokyo 160-0004 JAPAN

Tel: +81-3-3355-3452 Fax: +81-3-5379-2769 http://www.jsce-int.org iad@jsce.or.jp

### The Activities of Japan Society of Civil Engineers Message from President Ishii



ISHII, Yumio, Dr. Eng. President

When I took the office as the 95th president of JSCE, I set three objectives to pursue during my one-year tenure: to make more contribution to further development and welfare of nearby Asian countries, to implement an infrastructure assessment program, and to set up a plan to celebrate the JSCE 100th anniversary to be held in seven years. Since then, I have been pursuing these objectives with my JSCE colleagues and feel getting on the right track. Besides working for these objectives, I have also put my efforts to promote "Speaking out" to improve communication with society.

#### (1) Contribution to further development and welfare of Asia

Civil engineer's responsibility is to construct infrastructure such that the three conditions- Safety, Convenience and Good Environment are ensured in people's daily life.

Our country, building good skills and technologies to deal with its sever environmental conditions and overcoming the limited knowledge and financial resource, accomplished modernization in the late 19th century and the high economic growth started in the 1950's. The country owed these achievements to our senior civil engineers' dynamic leadership and significant efforts.

Meanwhile, there are many people in Asia who have not received benefits from modernization and economic growth in society yet. Rather, we have even recalled with a bitter feeling that the Indian Ocean Earthquake and Tsunami afflicted the people living in the countries surrounding the ocean and many of them have been suffered from the aftermath of the disaster still.

Seeing the impact on the people and their lives, we have come to notice that what we have learned from our successful and unsuccessful experiences in the past could be shared with the people in the Asian region to give ideas to improve their knowledge and skills towards further development of society, and we earnestly hope that. Besides sharing the experience, we are taking other approaches to contribute to that region: reinforcing JSCE investigation team's assistance and support to disaster-afflicted areas and countries, establishing International Sections, promoting the JSCE CPD system to get referred to more widely in the civil engineering industry, and devising unified technical standards taking into account the

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social and physical features of the region. These steady efforts of ours are yielding fruit as time goes on.

#### (2) Infrastructure Assessment and Report Card

The existing infrastructures that were built in the high economic growth period have come to or over 50 years old one after another.

In August 2007, a 40-year-old bridge in Minneapolis, Minnesota collapsed. This incident was very shocking to us. We can't leave it just another country's problem, but should take it as a warning about the future of the aging infrastructures in our country.

In order to keep the aging infrastructures maintained as well as to make the people realize the importance of having healthy infrastructures for their safety, convenience and environment, we will conduct infrastructure assessments and release the results to the public

#### (3) Celebration on the JSCE 100th Anniversary

JSCE, which was established in 1914, will mark it 100th anniversary in seven years. Toward the memorable anniversary, we would like to take this opportunity as a turning point in the history of the Society and to look back what civil engineers have achieved so far and what they should do in the future.

During the course of that, we will focus on reviewing the Society's mission and aims, polishing them to more responsive to our present society's needs, stating the importance of infrastructures in society with the civil engineers' remarkable achievements in the past 100 years. And we will examine what we can do, should do as the leaders of civil engineering in the 21st century.

#### (4) Silence is Not Golden

As we may remember the bridge collapse in Minneapolis vividly, we would not like to leave the aging infrastructures as they are. If we do so, it is no doubt that our society will follow the example of America- "Japan in Ruins."

On the other hand, the public and politicians hold a misunderstanding about infrastructure: they assume that the infrastructures once constructed will stand there for good without diminishing their performance. In order to correct the misunderstanding, we have determined to "speak out" in society. Silence is not golden any longer.

Since the beginning of the year, we have held a meeting with mass media once a month, and also have started up the Editorial Committee to publicize the opinions exchanged in the meeting.

Last, as mentioned earlier, we will conduct infrastructure assessments and publish the results in the form of report card.

Thank you very much.

## **Greetings from Vice Chair of International Activities Committee**



KAMIYAMA, Makoto, Fellow Member Vice Chair, International Activities Committee June 2007-May 2009 (Prof. at Tohoku Institute of Technology)

On the occasion of being newly appointed Vice Chair of the International Activities Committee (IAC) of JSCE, I would like to convey my cordial greetings and best wishes to the friendly JSCE members and to the members of the JSCE International Sections in particular.

Though having little experience with the IAC, I have fully realized the importance of JSCE's international activities. It may be necessary for an academic society such as JSCE to take a long-term strategy and futureoriented manner in order to successfully carry out international activities. From such a standpoint, I have no doubt that young international students studying engineering at college in Japan will play an important role in accelerating internationalization of JSCE and strengthening the friendly relationship between their country and Japan.

Nowadays some 120,000 students from all over the world are studying here in Japan in various fields including civil engineering. This number needs to be further expanded for the benefit of the real internationalism of the Japanese society.

The IAC has set up a task-force team to support international students studying in the civil engineering field, and with the team already started various activities.

I would like to extend my efforts into that task-force team as the IAC's Vice Chair. I sincerely hope that the members of the International Sections will keep working with us to enhance the international exchange of civil engineering students. In closing, I pray for the progress and development of each International Section.

### **JSCE Taiwan Section Shield Tunnel Technology Seminar**

The seminar on "Shield Tunnel Technology by Japanese specialist" was held on June 8th, 2007. The Senior Managing Director Shuichi Yahagi of Tokyo Metro Co., Ltd. and Professor Atsushi Koizumi of Waseda University were two invited lecturers in the seminar. Director Shuichi Yahagi presented on "Current State of Shield Method in Japan and Required Direction of New Technological Development", and Professor Atsushi Koizumi's presentation was on "Technology of Shield Machine and Segment". Both presentations were presented in Kaohsiung at 9:00-12:00 and in Taipei at 15:00-18:00.

This seminar provided a valuable opportunity for more than 320 participants to exchange information with one another.



Japanese invited lecturers at the seminar

By KO, Wute (Secretary General of Taiwan Section, JSCE)

### **Report of the 4th Civil Engineering Conference in the Asian Region** (4th CECAR)

#### Introduction

The 4th Civil Engineering Conference in the Asian Region (4th CECAR) was held in Taipei from June 25 to 28. There were more than 1,000 participants from 22 countries, and among the participants, approximately 130 participants came from Japan. "Working for Asian Sustainability" was the main theme of this conference.

From Japan, Dr. Yumio Ishii, JSCE President, Mr. Hideo Kayahara, President-Elect, Prof. Osamu Kusakabe, Vice President

of and Chair International Activities Committee, participated in the conference together with Prof. Masanori Hamada, Immediate Past President, who was invited as a special lecturer, and many other former JSCE presidents.

In terms of the program, since JSCE was in charge of two special forums and the Committee on ACECC (Asian Civil Engineering Coordinating Council) had been working on the preparation, coordinating the participants, collecting materials and so on, JSCE made a great contribution to the management of the 4th CECAR and succeeded in showing its active presence. Also, the outcome of the Presidential Meeting was announced as the "Taipei Declaration", where a lot of comments made by JSCE were adopted.

In implementing JSCE's relevant activities at the 4th CECAR, we were able to collect contributions offered from companies/organizations. As well, we gained great cooperation from the Taiwan Section of JSCE, Chinese Institute of Civil and Hydraulic Engineering. I'd like to express my sincere gratitude for their support and assistance.

#### 1. ACECC related meetings

#### (1) ACECC 15th Executive Committee Meeting

On June 24, the day before the CECAR, Planning Committee Meeting and Technical Coordinating Committee Meeting were held. JSCE made a report about the TC on Interregional Cooperation for Great Mekong Subregion (Chair: Prof. Osamu Kusakabe, Tokyo Institute of Technology), and made a proposal of establishing a new TC on Harmonization of Design Code in the Asian Region (Chair: Prof. Yusuke Honjo, Gifu University), of which was approved. These items were formally approved of at the 15th Executive Committee Meeting on 25th, which Dr. Yukihiko Sumiyoshi attended as the JSCE representative together with other delegates.



Executive Committee Meeting

#### (2) ACECC Presidential Meeting

On the afternoon of 25th, a meeting for the presidents of ACECC member societies/institutions was held, which the present and past presidents attended. They discussed about the content of "Taipei Declaration".

## (3) Asian Summit, Announcement of "Taipei Declaration"

"Taipei Declaration" was announced at a restaurant on the 85th floor of the Taipei 101, the current world's highest building, and then the agreement signing ceremony was conducted. It is the declaration of the civil engineers' commitment to the sustainable development of Asia with great consideration of the environment, for which Mayor of City of Taipei joined in signing it. "Taipei Declaration" is posted in the page of "From the President's Office" on he JSCE website.



Taipei Declaration and its signees

## **2.** Opening Ceremony, Awarding Ceremony (June 26)

On the morning of 26th, Opening Ceremony was held and the host society addressed a welcome speech. In the ceremony, this article's writer sat as the Chair of the Awarding Subcommittee.

Subsequently, ACECC Award Presentation Ceremony was held. Late Dr. Fumio Nishino, Professor Emeritus of University of Tokyo, received ACECC Award for Achievement posthumously, he being one of the three awardees, and the Recovery Project from the Niigata Chuetsu Earthquake (JR East, East NEXCO) received ACECC Award for Technology, in which five projects were awarded.

## 3. Special Lectures, Special Forums, Student Essay Presentation, Parallel Sessions

On 26th and 27th, one keynote lecture, nine special lectures, four special forums, student essay presentation, and parallel sessions were held.

#### (1) Special Lecture

From JSCE, Prof. Masanori Hamada, Waseda University, Immediate Past President,

delivered a special lecture titled "Roles of Civil Engineers for Disaster Mitigation under Changes of Natural and Social Environment".

#### (2) Special Forum (SF)

1) SF1: Sustainable Rural and Urban Development

Presenter: JSCE President Yumio Ishii; Title: "Outline of the Water Resources Policy in Japan"

2) SF2: The 2004 Indian Ocean Tsunami - Their damage, lessons and disaster mitigation

Chair: Prof. Fumihiko Imamura, Tohoku University

Presenters: Prof. Fujima, National Defense Academy, Prof. Kosa, Kyushu Institute of Technology, Prof. Hamada, Waseda University

Content: Activity Report of the ACECC TC on the Sumatra Offshore Earthquake and the Indian Ocean Tsunami as well as the discussion about the future direction. The

SF2 was sponsored by the JSCE Science Promotion Foundation. 3) SF3: Harmonization of Design Codes in the Asian Region

Chair: Prof. Yusuke

Honjo, Gifu University, Coordinator: Dr. Kenichi Horikoshi, Secretary General, Committee on ACECC

Content: The purpose was to discuss the necessity of design code harmonization in the Asian region and identify problems. Discussion was made about the possibility of the design code harmonization on the common recognition that Asian countries have the similar environmental and physical conditions and disaster problems.

#### 4) Parallel Sessions

There were 159 oral presentations and 36 poster presentations in the parallel sessions. Of these presentations, 45 oral and 7 poster presentations were done by Japanese engineers.

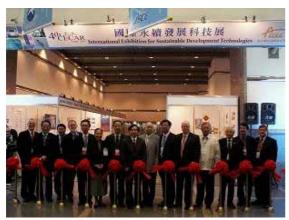
#### 5) Student Essay Contest

Student Essay presentations were made by the seven students recommended by ACECC member societies/institutions. From Japan, Mr. Yosuke Shinoda, a senior at Nagoya University, made a speech titled "The Duties of Civil Engineering".

#### 4. Booth Exhibition

JSCE, together with the supporting companies, had a booth exhibition introducing the Japanese civil engineering technology

centering on the projects which had received JSCE Technology Award. Five continuous booths were allocated for JSCE. Since they were situated by the entrance, we had a lot of visitors.



Opening Ceremony of International Exhibition

#### 5. "Getting-Acquainted" meeting (June 26)

A getting-acquainted meeting was held for the purpose of enhancing exchanges between the JSCE members of Taiwan Section and those participating in the conference from Japan. 52 people including Dr. Ishii, JSCE President joined this gathering.

#### <u>6. VIP Breakfast among Taiwan, Korea and</u> Japan (June 27)

Hosted by Prof. Yeong-Bin Yang, CICHE President, VIPs from the three countries had a breakfast meeting and exchanged opinions about infrastructure development. After Prof. Yang's welcome greetings and the participants' introduction, Dr. Hiroshi Mitani, a JSCE former president, made presentation to introduce Japan's infrastructure development and advanced After that, the construction technology. participants had an active discussion and agreed to continue appealing for importance of infrastructure. They also agreed to continue opinion exchanges among the three countries.



Former President Dr. MITANI at the VIP Breakfast Also available on web: http://www.jsce-int.org/

## 7. Closing Ceremony, Gala Dinner (June 27) (1) Closing Ceremony

At the Closing Ceremony, the ACECC Flag was handed over to Mr. Paul Mitchell, Engineers Australia, Incoming Chair of ACECC Executive Committee, from outgoing Chair, Prof. J. C. Chern.

#### (2) Gala Dinner

There were the performances of KSCE Civil Engineers Choir and the Taiwanese native folkdance. JSCE participants sang "Sukiyaki Song" and got a big hand.

#### 8. Technical Visits

Four technical visits were offered on 28th:

- 1) Visit to "Taipei 101", the world's highest building, and MRT Shinchung Line Tour.
- 2) Visit to "Hsuehshan Tunnel", the longest road tunnel in Southeast Asia.
- 3) Visit to Middle Taiwan by Taiwan High Speed Railway including the 921 Earthquake Museum of Taiwan.
- Visit to Southern Taiwan (Kaohsiung, "Love River") by Taiwan High Speed Railway

#### At the End

ACECC, founded in 1999 under the initiative of JSCE, now with nine members, has been even further expanding its activities and furthering discussions dynamically. Now that the 4th CECAR was successfully closed, we are moving towards the 5th CECAR to be held in Sydney, Australia, in 2010.

By OKUMURA, Fuminao, Dr. Eng. (Railway Technical Research Institute, Chair, Committee on ACECC, JSCE)

### EIT-JSCE Joint Seminar on Rock Engineering 2007

The joint seminar between the Engineering Institute of Thailand (EIT) and JSCE, sponsored by the JSCE International Scientific Exchange Fund, was held in Bangkok on 17-19 September 2007. This event consisted of a general seminar, a field trip, and a seminar for students and young engineers. It was organized by the two co-chairmen Dr. Noppadol Phienwej, Asian Institute of Technology and Prof. Hiroyasu Ohtsu, Kyoto University.

The general seminar held at Imperial Queen's Park Hotel on September 17 began with an opening speech by Dr. Noppadol Phienwej, followed by Dr. Yoshifumi Nishiwaki, Chairperson of the Committee of Rock Mechanics, JSCE. More than 70 participants from Thailand and Japan attended the seminar and actively engaged in discussions on rock engineering and related fields. The seminar included 22 oral and poster presentations on various topics such as rock mechanics, landslide, geo-exploration and so on.

As for the field trip, Japanese participants visited Tha Dan Dam and the landslide monitoring site Nakhon Nayok on September 18. The Tha Dan Dam, which was built to facilitate irrigation, is one of the biggest roller compacted concrete (RCC) type dam with a height of 93m and a length of 2,720m. Also the participants visited the slope monitoring site adjacent to the dam, where under the leadership of Prof. Hiroyasu Ohtsu, Kyoto Univ. group members has been undertaking hydrogeological monitoring in collaboration with Kasesart University



Seminar for students and young engineers on September 19

The seminar for students and young engineers was held at the EIT headquarters in Bangkokon September 19, which was the first trial to provide an opportunity of international collaboration to young generations related to rock engineering field. 7 students from the local graduate schools-Asian Institute of Technology, Kasesart University, Suranaree University of Technology and 13 Japanese graduate students from Kyoto University, Kobe University, Yamaguchi University, and Kansai University joined to make oral presentations on various topics such as rock mechanics, landslide and slope failure, and geo-exploration and exchanged their opinions. It was a good opportunity for those graduate students to exchange information with their counterparts in other universities and in another country. It would be our great pleasure if what the young engineers gained at this seminar would encourage them to engage international collaboration on civil engineering and to develop their research activities.

By OHTSU, Hiroyasu, Dr. Eng. (Kyoto University, Committee of Rock Mechanics, JSCE)

# The Ninth International Summer Symposium

The Ninth International Summer Symposium organized by the International Activities Committee of JSCE (Chair: Prof. Kusakabe. Tokyo Institute of Osamu Technology) was held at Yokohama National University, Yokohama, on September 18, 2007. The symposium is held annually to provide not only Japanese, but international students and engineers with an opportunity to exchange information and ideas concerned with various aspects of civil engineering. The symposium's main objective is to promote international exchange and mutual understanding between Japanese engineering students and engineers and their international peers. The symposium

started in 1999, and since then it has gained a high reputation as a valuable meeting for students and engineers to exchange information in English. This symposium was supported by the International Scientific Exchange Fund, JSCE.

number of The attendants 103: international was students/engineers: 72: Japanese students/engineers: 31. This year's keynote lectures were given by Dr. Yoshimi Goda, Professor Emeritus, Yokohama National University, titled "Call for Engineering Judgment in Coastal Engineering Research" and by Prof. Osamu Kusakabe, titled "Towards sustainable civil engineering". These lectures will serve as a reference for the international students and help them define their vision of the future.



Keynote Lecture by Prof. Goda

Moreover, there were a total of 82 presentations in 7 areas in civil engineering: A. Structural Mechanics and Earthquake Engineering: 20; B. Hydraulic, Coastal and Environmental Engineering: C. 16: Geotechnical Engineering: 18: D. Infrastructure Planning and Management: 5; E. Materials, Concrete Structures and Pavements: Construction Management Engineering: 2; G. Environmental Systems and Engineering: 11.

The symposium was closed with a reception in which there were lively exchanges among the participants. Before the reception, the "Certificate of Excellence" was awarded to 14 speakers for their outstanding papers and presentations.

The award winners were:

Ahmed Kamal (Nagoya Univ.),

Rabin Tuladhar (Saitama Univ.),

Pang-jo Chun (Wayne State Univ.),

Sohail Ahmed (Saitama Univ.),

Napayalage Aruna Kithsiri Nandasena (Saitama Univ.),

Gyeong-Seon Yeom (Nagoya Univ.),

**Ruta Ireng Wicaksono** (the Univ. of Tokyo), **Olivhal Paghangaan Borda** (the Univ. of Tokyo),

Deepagoda Thuduwe Kankanamge Kelum Chamindu (Saitama Univ.),

Manalo Allan Capilar (Saitama Univ.),

Marish S. Madlangbayan (Tokyo Institute of Technology),

Matiko Samson (Yokohama National Univ.), Sasikala Shanmugasuntharam (Saitama Univ.),

Kasige Anusha Priyanthi (Saitama Univ.)

At the end of the reception, all participants promised to meet again next year.



The award winners with Prof. Kusakabe

By YAMADA, Hitosh, Dr. Eng. (Yokohama National University, Chair, Organizing Committee of the Ninth International Summer Symposium, JSCE)

Report on International Program, 2007 JSCE Annual Meeting

The 2007 JSCE Annual Meeting was held on September 12-14 at Hiroshima University, Higashi-Hiroshima Campus.

It is our great pleasure that this year again the International Activities Committee (IAC) had many international guests from JSCE's cooperation agreement societies/institutions to the two major international meetings Roundtable Meeting and Panel Discussion, International Session and social activities, having many international guests.

These meeting, which the IAC hosts every year, have been offered as international functions in the JSCE Annual Meeting, and are open to any JSCE annual meeting registrants who are interested in hearing discussions to be made among international engineering experts.

In addition, the IAC held an international symposium in cooperation with Science Council of Japan and others in response to the request of the Japan Federation of Engineering Society (JFES) and World Federation of Engineering Organization (WFEO).

The Roundtable Meeting centered around the discussion on "Sustainable Infrastructure Development and Operation Now and for the Future" taking into account the Presidential Committee's activities. At the meeting, Dr. Yumio Ishii President and Prof. Kazuhiro Ohta a member of the aforesaid committee took the chair and the moderator respectively.

The chair opened the meeting with a discussion about the current status of Japanese infrastructure and infrastructure assessment to be done with a professional point of view. The discussion raised so interesting issues that the audience did not hesitate to make comments and questions.

Then, the delegates of the agreement cooperation societies/ institutes delivered a presentation on sustainable development with their unique viewpoints, approaches, on-going projects and suggestions to act on the pledge of "Taipei Declaration". These presentations led the audience to explore the subject extensively and to get themselves engaged deeper in discussions. The allotted time for the meeting turned to be not long enough to complete the discussions.



After the Roundtable Meeting

In closing, the moderator summarized the meeting by stressing that it was important to achieve higher levels of efficiency and effectiveness in infrastructure development for the society. Civil engineers could acquire the public's better understanding and appreciation for their services and works if they could expand the benefits and convenience to that the public has access with their utmost efforts.

At the Panel Discussion, Prof. Kusakabe chaired, and five panelists-one delegate from PII-BKS, KSCE, MACE, ACECC and JSCE spoke about the theme "International Cooperation in the Civil Engineering Field". Those panelists introduced their unique viewpoints, focuses and approaches so that the audience could gain wide-range of knowledge, and share their ideas with each other.

After the discussions, the international guests got together with their old and new friends at a welcome reception on the first night. And on the second day, they had the opportunity to meet other participants came from around the country at a banquet and greeted them on the platform prepared in the room.

All the IAC members were very happy that the international program yielded more and richer fruits than last year.

Then they will be working harder to make the IAC's program more attractive, meaningful to anybody in and outside the country and get it recognized as "an international forum to attend."

I close the report with my deepest appreciation and gratitude to all of those who had worked with us to organize the international program. In particular, I gratefully acknowledge that the 62nd JSCE Annual Meeting Committee and Steering Committee, Chugoku Chapter and Hiroshima Univ.-Higashi-Hiroshima Campus staff made vital contributions to the success of that program. Thank you very much.

By FUKUMOTO, Katsuji (Obayashi Corp., Secretary General, the IAC) **7-8** JSCE-KSCE-CICHE/TCI Joint Seminar on Recent Progress of Hybrid Structures
Venue: JSCE Headquarters, Tokyo



Sarutagawa Bridge

In 2006, KSCE (Korean Society of Civil Engineers)-JSCE Joint Seminar on Recent Progress of Concrete/Steel/FRP Hybrid Structures was held in Gwangju, Korea, in conjunction with the Annual Meeting of KSCE. Taking this opportunity, JSCE, KSCE, and CICHE (Chinese Institute of Civil and Hydraulic Engineering) together with TCI (Taiwan Concrete Institute) promised to regularly hold joint seminars on hybrid structures for further strengthening mutual collaborations in this hybrid structures' fields.

Then, the 2nd joint seminar is held as an international event of the 7th JSCE Symposium on Research and Application of Hybrid Structures. Its objective is to learn about each other's most current researches, projects and technology on hybrid structures of steel-concrete, FRP-concrete and more.

**21-24** PICE (Philippine Institute of Civil Engineers) 33rd National Convention

Venue: Cebu International Convention Center

Prof. HAMADA, Masanori will deliver a special lecture on "Roles of Civil Engineers for Disaster Management Under Changes of Natural and Social Environments."

28 The international workshop on volcanic engineering

Venue: Earthquake Research Institute, the University of Tokyo

#### December

**6** CICHE-JSCE Joint Seminar on Steel Structures as a part of International Programs of the 2007 Annual Conference of CICHE in Taipei

Venue: National Taiwan University

7 Symposium on Taiwan Civil Engineering History and Heritages Conservation

Venue: National Taiwan University

Dr. TAKAHASHI, Yutaka will talk about "History and Heritages Conservation of Civil Engineering in Japan."

#### **Event Calendar**

#### November

1-3 ASCE 137th Annual Civil Engineering Conference

Venue: Orlando, FL

Theme: Infrastructure for all Generations: Plan,

Design, Build, Manage

Send your comments and suggestion to: iad@jsce.or.jp

JSCE Website: http://www.jsce-int.org

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