



Japan Society of Civil Engineers

International Activities Center

IAC News No.124

A Message from the JSCE President **The Lack of Japanese Construction Projects Overseas**

About half a century ago, industrial products that were exported by Japan were cheap but were not of high quality. When I lived in the United States 40 years ago, the difference between an automobile made in Japan and one made in the United States was obvious. However, today, with high quality and functionality in demand, people from all over the world and not just Japan purchase Japanese products. If you can satisfy users with easy-to-use, long-lasting, and good-looking products, naturally, you can secure buyers. At present, I spend a lot of time in China and feel these features of Japanese products on a daily basis.

The fact that civil engineering structures are also a product of industry will not change. In that sense, civil engineering structures can also be called industrial products. However, there is one big difference. The fact that civil engineering structures have many users and that buyers represent users makes a difference in buyer behavior. Currently, users do not think hard about what kind of civil engineering structure is needed in the sense of it being their own property, and buyers do not use mechanisms to select necessary civil engineering structures as an expert representing many users. What is a required civil engineering structure and what are the quality and functions that it must have are dependent on both the natural environment of the country and people's lifestyles and economic standards. Furthermore, the fact that the usage period of civil engineering structures is far longer than that of industrial products makes buyer selection criteria difficult. Based on this backdrop, Japanese civil engineering structures have less of a presence overseas when compared to other industrial products.

Japan has deployed infrastructure overseas mainly through Official Development Assistance (ODA). Because the economic standards in the respective countries are low, the quality and functions of necessary civil engineering structures are often different from those in Japan. However, as I mentioned earlier, the usage period of civil engineering structures is long and there is also a need to choose quality and functions with a view to greater living and economic standards in the future. One other point that must not be forgotten is that social



Photographer Rumiko Ito

Tamon Ueda
110th President of the Japan Society
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requirements differ depending on the country and the era. Even if something is deemed suitable in Japan, high-priority infrastructure in the country on the receiving end of ODA may be different.

As the overseas deployment of infrastructure going forward, like other major countries, Japan must adopt an approach that does not solely rely on ODA. This is because there are still many, many civil engineering structures that are required all over the world. Construction projects that comply with the global issue of carbon neutrality (CN) and civil engineering structures that make up such projects are infrastructure needed in every corner of the globe, and overseas deployment that is backed by infrastructure technologies needed for CN is the direction of future efforts. JSCE currently has an International Project Examination Sub-Committee (Chairperson: Makio Shichijo) and aims to present specific construction project case studies that can be taken on overseas. We are building mechanisms to support the overseas deployment of construction projects and diligently analyzing and researching successful case studies of projects deployed overseas by countries other than Japan.

I strongly hope that after clearly understanding the competence of infrastructure in Japan by comparing it with the rest of the world, everyone will see the infrastructure that is needed in the world both today and in the future and engage in the deployment of infrastructure overseas at a market scale that matches Japan's economic prowess. This is surely necessary for the future of the Japanese construction industry as well.

CECAR 9 and the 43rd ECM of the Asian Civil Engineering Coordinating Council (ACECC) in Goa, India

1. Overview

The Asian Civil Engineering Coordinating Council (ACECC) is an organization established in September 1999 to maintain and grow sustainable social capital in Asia. JSCE is one of the main members of this organization. At present, 16 academic societies are affiliated with the ACECC, with the organization engaged in various activities to promote learning and skills with the cooperation of civil engineering-related academic societies. The Executive Committee Meeting (ECM), which is the supreme decision-making body of the ACECC, was held online and in person in Goa, India on September 20, 2022. Likewise, the 9th Civil Engineering Conference in Asian Region (CECAR 9) was held in a similar fashion between September 21 to September 23, 2022. This is a report on the 43rd ECM and CECAR 9.

2. The 43rd ECM

(1) Technical Coordination Committee Meeting

The Technical Coordination Committee Meeting (TCCM) played host to reports on the activities of the 12 active technical committees (TC). With regard to Transdisciplinary Approach for Building Societal Resilience to Disasters (TC21), for which JSCE is the chair, a report was given on the research after the recovery work from

Typhoon Yolanda in the Philippines as well as the activities planned for implementation after CECAR9. Furthermore, the application to extend TC21's activities for a further three years was unanimously approved by the committee. With regard to Application of Monitoring Technology for Infrastructure Maintenance (TC28), for which JSCE is also the chair, a report was given about the work to translate/draw up guidelines regarding infrastructure maintenance.

Elsewhere, there was a proposal for a new TC, entitled "Digital Technologies for Smart Construction," from the Korean Society of Civil Engineers, and its establishment was approved as TC30. As this is an important topic in the field of civil engineering these days, JSCE is also considering dispatching its members to TC30.

(2) Planning Committee Meeting

At the Planning Committee Meeting (PCM), a report was made on the status of formulating the ACECC's Strategic Plan, which examines the direction of ACECC's forthcoming activities and the outlook of the civil engineering field in Asia. Regarding the Future Leaders Forum (FLF), which brings together upcoming researchers and engineers of each affiliated academic society, there were reports on the monthly seminars as well as discussions on matters such as establishing an ACECC Young Researcher/Engineer Award.

(3) Executive Committee Meeting

At the ECM, the decisions made at the TCCM and PCM were approved. In particular, the ACECC Code of Ethics Guideline prepared by Ethical Practices to Reduce Corruption (TC17) was unanimously approved as the guideline to be referenced for the code of ethics at each academic society.

The holding of the forthcoming ECMs was also discussed, and it decided that the 44th ECM will be held from April 24 to April 25, 2023, on Jeju Island, Korea, and the 45th ECM will be held in September 2023 in Taiwan.

3. CECAR9

Despite the ongoing COVID-19 pandemic, eight members from JSCE attended CECAR9 in person. Meanwhile, many attendees participated and listened to proceedings online. In addition to many papers being presented during the two-day general paper session, sessions by each TC were held, with passionate presentations and discussions taking place. An award ceremony was held on the evening of the second day, at which commemorative trophies were presented to JSCE members who won the following three ACECC awards:

- Project Award: Aso Ohashi Bridge Area Slope Disaster Prevention Measure Construction by Kumagai Gumi and Kyushu Regional Development Bureau of the Ministry of Land, Infrastructure, Transport and Tourism
- Achievement Award: Dr. Osamu Kusakabe (former ACECC Chair, Executive Director of International Press-in Association, Professor Emeritus of Tokyo Institute of Technology)
- TC Award: TC21 Transdisciplinary Approach for Building Societal Resilience to Disasters

A video related to the Project Award was shown and there was a video message from Professor Emeritus Dr. Osamu Kusakabe to the CECAR9 attendees that really grabbed the attention of many in attendance.

The final day consisted of the closing ceremony, and the ACECC flag was passed onto KSCE, which will host the next CECAR event. CECAR10 is scheduled to be held during October 21-24, 2025 on Jeju Island in South Korea.

4. Conclusion

Despite the fact that the COVID-19 pandemic has not let up, in India, hardly anyone wears a mask. I was flustered by this significant difference from the mask-wearing culture of Japan. In fact, it was touch and go as to whether the event would go ahead right up until the start, but I was relieved that CECAR 9 ultimately went ahead without any problems. While it was difficult for people to attend the event in person due to the impact of the pandemic, for CECAR 10, which will take place three years from now, I expect to see more JSCE members attend in person as well as networking and passionate discussions between the stakeholders of each Asian country and the Korean locals. For information on CECAR 10, please check the related website (<http://www.cec10.org/>) as new information will be posted from time to time.

With ACECC, a diverse range of TC activities are undertaken under a cooperative international framework. If you have any requests relating to matters such as participation in active TCs or the establishment of a new TC that aims to carry out international activities in Asia, please contact the Committee on Asian Civil Engineering Coordinating Council.



CECAR 9 Opening Ceremony



CECAR 9 Presentation Session



Group Photo at the ACECC Award Ceremony



The ACECC ECM Held the Day Before CECAR 9

【Reported by Masashi Inoue, Secretary-General of the Committee on Asian Civil Engineering Coordinating Council, JSCE (Eight-Japan Engineering Consultants Inc.)】

Concrete Committee

JSCE Online Joint Seminar "Advanced Technologies and Issues Related to Thermal Effect of Concrete in Singapore and Japan"

The seminar held jointly by the JSCE Concrete Committee in cooperation with Nanyang Technological University was held on 26th Sept. 2022. Although still occurring every year, this seminar has been held online since 2020 as a consequence of the coronavirus pandemic. This year's theme, "Advanced technologies and issues related to thermal effect of concrete in Singapore and Japan", was selected because issues related to the quality control of concrete in hot weather are becoming more serious due to global warming. Lectures on issues relating to thermal effects, countermeasures and their practical application, and related advanced technologies were given by six leading experts in this field (Photo).

The seminar schedule is shown in Table 1, Dr. Yoshinobu Ooshima, chairperson of the Sub-committee on International Affairs, gave the opening remarks. He explained the background to the seminar and that solutions related to the quality control of concrete exposed to high temperatures had significant meaning. In the first morning session, Dr. Tan Kang Hai of Nanyang Technological University gave a lecture on the topic of fire damage and the fire resistance of fiber reinforced concrete. Next, Mr. Lu Jin Ping of the American Concrete Institute (Singapore Chapter) lectured on the issues related to mass concrete in Singapore and its applications. In the last talk of the morning session, Dr. Akira Hosoda of Yokohama National University described the contents of the JSCE standard specifications regarding the quality control of hot weather concrete and, as a practical application, presented numerical analysis for a bridge suffering from thermal cracks. The afternoon session began with a lecture by Mr. Takuya Ono of Taiheiyo Singapore Pte. Ltd. on the effects of fly ash and blast furnace slag when applied to prevent delayed ettringite formation, which can be a problem for hot weather concrete casting. Mr. Toshifumi Kikuchi of Shimizu Corporation then introduced some practical applications of low-heat concrete for mass concrete in Singapore and Dr. Takumi Sugamata of Pozzolite Solutions Ltd. described some practical applications of chemical admixtures that provide hot weather concrete with high slump retention. During the question and answer sessions, many participants asked questions about various aspects of the theme.

The nationality of seminar pre-registrants was varied, with approximately 20% from Singapore and Indonesia, 14% from Myanmar, and the remainder from over 20 countries such as China, Japan, Vietnam, Bangladesh and Pakistan (Table 2). This wide range of nationalities points to one of the advantages of holding the seminar online, without the limitations of a particular venue. With over 100 people taking part, the seminar ended on a high note.

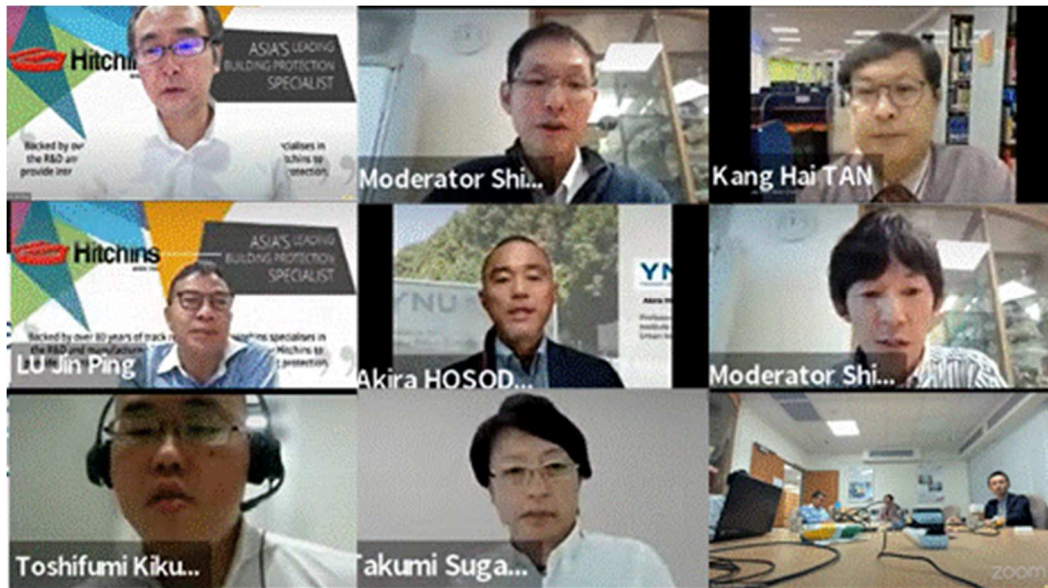


Photo Lecturers

Table 1 Seminar Schedule

Moderator: Dr. Shingo Asamoto (Saitama University)

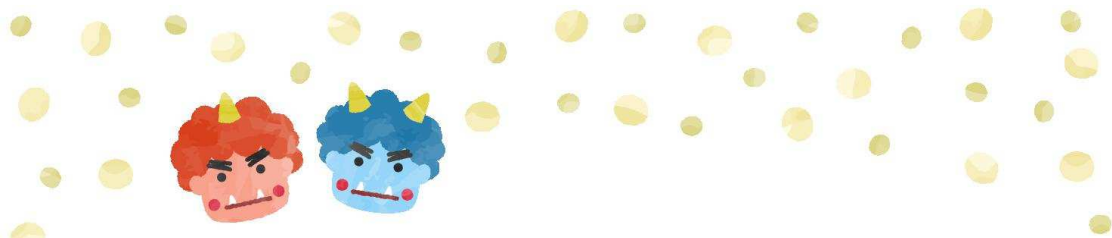
Time		Title	Presenter
GMT+7	GMT+9		
09:00~09:10	10:00~10:10	Opening remarks: Dr. Yoshinobu Ooshima, chairperson, JSCE, Concrete Committee, Sub-committee on International Affairs	
09:10~09:40	10:10~10:40	Fire-resistant HPC and UHPC from Materials to RC Column Performance under elevated temperature	Dr. Tan Kang Hai: Nanyang Technological University
09:40~10:10	10:40~11:10	Singapore experience on Temperature Control of Mass Concrete	Mr. Lu Jin Ping: American Concrete Institute – Singapore Chapter
10:10~10:40	11:10~11:40	Issues Related to Hot Weather Concrete and Mass Concrete Cracking - JSCE Standard Specifications of Concrete Structures	Dr. Akira Hosoda: Yokohama National University
10:40~11:10	11:40~12:10	Q&A Session	
12:00~12:20	13:00~13:20	Suppression Effect of Supplementary Cementitious Materials (SCMs) on Delayed Ettringite Formation (DEF) Expansion	Mr. Ono Takuya: Taiheiyo Singapore Pte. Ltd.
12:20~12:40	13:20~13:40	Application of Low-heat fly Ash Cement to Actual Massive Concrete	Mr. Toshifumi Kikuchi: Shimizu Corporation
12:40~13:00	13:40~14:00	Effectiveness of Mid-range Water Reducer with Super Slump Retention and Setting Retardation Effect in Hot Weather Concrete	Dr. Takumi Sugamata: Pozzolite Solutions Ltd.
13:00~13:30	14:00~14:30	Q&A Session	
13:30~13:40	14:30~14:40	Closing Remarks	

Table 2 Breakdown of Pre-registrations

Nationality	Number	Percentage (%)
Singapore	83	20.7
Indonesia	78	19.5
Malaysia	56	14.0
China	46	11.5
Japan	37	9.2
Vietnam	21	5.2
Bangladesh	12	3.0
Pakistan	11	2.7
India	8	2.0
Philippines	7	1.7
Sri Lanka	7	1.7
Others	35	8.7
Total	401	100.0

【Reported by Concrete Committee】

Updates



- ◆ JSCE Feedback Web Form 「多門に多聞&多問」

<https://committees.jsce.or.jp/chair/node/59>

- ◆ The International Infrastructure Archives

– A Compilation of Japan's Greatest Projects in Transfer of Civil Engineering Technology in Service –

<http://www.jsce.or.jp/e/archive/>



- ◆ IAC “News Pick Up!!” on the JSCE Japanese website
https://committees.jsce.or.jp/kokusai/iac_dayori_2023
- ◆ Summary of featured articles in JSCE Magazine Vol. 108, No.2 February 2022
<http://www.jsce-int.org/pub/magazine>
- ◆ Journal of JSCE
<https://www.jstage.jst.go.jp/browse/journalofjsce>
- ◆ JSCE D&I Café Talk, Vol. 37 (5:00~5:30 pm, 10th February (JST))
https://committees.jsce.or.jp/diversity/system/files/37th_E.png
- ◆ The 4th Asian Concrete Federation (ACF) Symposium on Emerging Technologies for Structural Longevity (ACF2022_ETSL): <https://acf2022.aconf.org/index.html>
- ◆ The 9th International Conference on Flood Management (ICFM9)
<https://www.icfm9.jp/index.html>
- ◆ Breakwaters 2023
<https://www.ice.org.uk/events/conferences/breakwaters-2023/>
- ◆ Integrated Flood Risk Management Basic Concepts and the Japanese Experience
<https://www.routledge.com/Integrated-Flood-Risk-Management-Basic-Concepts-and-the-Japanese-Experience/Takeuchi/p/book/9781032230733>
- ◆ CECAR9
<http://www.cecar10.org/>

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