



Japan Society of Civil Engineers

International Activities Center

IAC News No.117

Message to Mark Inauguration as JSCE President

I was appointed as the 110th president of JSCE at the General Meeting held on June 10. JSCE has a long history, and I feel a great sense of responsibility in being appointed this role. Amidst this once-in-a-century set of circumstances with the coronavirus pandemic and the situation in Ukraine, I have been put in charge of steering the future of JSCE. Civil engineering must play a part in solving such global issues. In this sense, JSCE must also pay close attention to what is happening around the world.

JSCE is unique. Why? Because domestically it has not split and become independent from The Japan Federation of Engineering Societies but continued to assist the Federation, and internationally because it is one of the few organizations where engineers from industry, government, and academia come together to undertake engineering activities. Accordingly, JSCE was founded more recently than compared to other societies, and it can be said that organizations like JSCE do not typically exist in other countries, or even if such an organization does exist, its activities do not carry much weight. That is, JSCE is, globally speaking, a rare organization that can deal with various issues in the all-encompassing field of civil engineering. I hope that all the members of the society will take advantage of this feature to use JSCE to contribute where possible as a civil engineer or a civil engineering stakeholder to help resolve domestic and international issues.

The current civil engineering situation in Japan is by no means positive. The construction market has been shrinking over the long term, and civil engineering as a research field is considered to be not as essential as other fields. In fact, the reason for this is thought to be that the civil engineering capacity of Japan is inferior to that of major overseas countries. Under the 108th president, Hitoshi Ieda, JSCE conducted an “Infrastructure Report Card” initiative to clarify the reality of the situation, and under the 109th president, Hiroaki Taniguchi, JSCE highlighted a future vision for civil engineering with the “Big Picture of Civil Engineering.” As my project as president, I will focus on civil engineering human resources, and by having researchers and engineers understand what Japan is capable of and engaging in discussions with each other, I will build a platform to create a path to develop individuals who can solve global issues in the future. Furthermore, I will aim to create civil engineering projects that are accepted by other countries.

To finish, I would like to inform you about the initiating of a collaborative effort between the Architectural Institute of Japan and JSCE that was created in 2021 to realize the ultimate vision for the Japanese construction field in collaboration with the construction field, whose status is subsiding just like that of the civil engineering



Photographer: Rumiko Ito

Tamon Ueda
110th JSCE President

field. This collaboration is also important for tackling global issues.

During this year as president, I will do my best to ensure JSCE contributes further to society by looking at things from new perspectives. I ask for your understanding and cooperation, and I look forward to hearing what you think via the JSCE feedback page (「多門に多聞&多問」: <https://committees.jsce.or.jp/chair/>).



Suez Canal Bridge Maintenance and Repair Project



Suez Canal Bridge

Stretching over the Suez Canal, which sees some of the world's largest vessels pass through its waters, the Suez Canal Bridge was completed in October 2001 as a project undertaken with grant aid from the Japanese government. Built in the desert across the Suez Canal, the Suez Canal Bridge has pylons standing about 140 meters tall (with a 70-meter clearance under the bridge), which is roughly the same height as the Great Pyramid of Giza, and is shaped like a magnificent ancient Egyptian-style cable-stayed bridge inspired by the Pharaonic obelisks (an ancient Egyptian monument). By connecting the mainland of Egypt and the Sinai Peninsula, the Suez Canal Bridge is an important route that contributes significantly to facilitating logistics and networking as well as regional development as a symbol connecting African and Asian.

In 2010, more than eight years after the bridge opened, damage was confirmed to some of the piers and part of the road surface, and after a follow-up survey by those involved on the Japanese side, work to repair the substructure, road surface, and steel deck plate was carried out from 2012 to 2016 as follow-up construction work involving the parties on both sides.

With regards to the substructure, the damage to the piers was particularly serious, and the peeling of the surface concrete and the corrosion of the reinforcing steel bars were so severe that they were of a level not witnessed in Japan. It came to light that the damage was caused by a large salt pan on the east side of the bridge and a large amount of condensation due to low temperatures at night. The repair work saw the removal of damaged parts and reinforcing steel bar rust, and the imperfections were filled with repair mortar before coating the surface.

As for the damage to the steel deck plate under the road surface, it was presumed that the main cause was the rusting of the steel deck plate caused by cracks in the road surface from the frequent passing of heavy military vehicles (loaded with rocks and estimated to weigh around 50-60 tons) over the bridge and subsequent water ingress due to the occurrence of condensation (a large build-up of water was confirmed in the drainage basin even during the dry months of the year). As a result of examining possible ways to repair this damage, a fine-grained asphalt road surface that has maintained its structural integrity for at least 10 years in other projects in Egypt was adopted.

The series of surveys and repair work on the Suez Canal Bridge made the engineers of the ministry of construction of Egypt (GARBLT: General Authority for Roads, Bridges and Land Transport) aware of the importance of maintenance, and instruction and construction management were conducted focusing on whether the repair work that may occur again in the future could be carried out by Egyptian engineers and contractors.

While everyone recognized the importance of bridge maintenance, this work made us aware of how difficult it is to propose an appropriate maintenance method that is suited to the specific circumstances in the said country and the technical capabilities of the organization that carries out maintenance. There is a tendency to impose Japan's technological capabilities on developing countries, but the key is to cooperate from the perspective of training engineers in the respective country while adjusting to the specific circumstances in the country.

Substructure Repair Work



Rust on Piers



**Removal of Rust on Reinforcing Steel Bars
Rust on Piers**



Egyptian Engineers Inspecting Rust Prevention Coating



Filling of Repair Mortar



Egyptian Engineers Inspecting Japanese Company's Construction Work



Site Tour Explanation by Egyptian Engineer

Road Surface & Steel Deck Plate Repair Work



Cracks in Road Surface



Rust on Surface of Steel Deck Plate (#1)



Rust on Surface of Steel Deck Plate (#2)



Measuring Reduction in Thickness of Steel Deck Plate



Sandblasting Treatment of Steel Deck Plate Surface



Applying Primer After Surface Treatment of Steel Deck Plate

【Reported by Tatso Mukoyama (Oriental Consultants Global Co., Ltd.)】

FY2021 JSCE Awards



FY2021 JSCE Awards Ceremony

Twenty-eight civil engineers including seven non-Japanese engineers were recognized with International Lifetime Contribution Award, Continuing International Contribution Award, and International Outstanding Collaboration Award on June 10, 2022. The recipients by award are listed in the table below.

For further details, please visit http://www.jsce-int.org/a_t/international.

< International Lifetime Contribution Award: 4 recipients >

The Award recognizes (1) Japanese civil engineers for their significant contributions to the development of civil engineering technology and/or the infrastructure development through their professional practices in and outside Japan; (2) non-Japanese civil engineer(s) for his/her commendable achievements to the progress and promotion of Japanese civil engineering.

NAME	AFFILIATION
Naoki Kita	SHIMIZU CORPORATION
Yasushi Nakagawa	TEKKEN CORPORATION
Susumu Naruse	MIYAJI ENGINEERING GROUP, INC.
Kenzo Hiroki	The National Graduate Institute for Policy Studies

< Continuing International Contribution Award: 17 recipients >

The Award recognizes young professionals who have made and will make a significant contribution to the development of civil engineering and/or the development of infrastructure outside Japan with their unique and inspiring perspectives and solid technical skills.

NAME	AFFILIATION	NAME	AFFILIATION
Yoshihisa Asada	Oriental Consultants Global Co., Ltd.	Yuichi Takemura	SHIMIZU CORPORATION
Koichi Ota	The Kansai Electric Power Company, Incorporated	Koji Naito	CTI Engineering International Co., Ltd.
Gou Orukawa	Electric Power Development Co., Ltd.	Hideki Fukami	OBAYASHI CORPORATION
Osamu Kutami	Dai Nippon Construction	Futoshi Mitsuhata	EAST JAPAN RAILWAY COMPANY
Takumi Kodaki	TOBISHIMA CORPORATION	Hirotsugu Mori	Japan International Cooperation Agency
Kenichiro Kobayashi	Kyoto University	Mitsuhiro Yao	Ministry of Land, Infrastructure, Transport and Tourism
Yoshimoto Koyanagi	Japan International Cooperation Agency	Dai Yamashita	PENTA-OCEAN CONSTRUCTION CO., LTD
Shinji Sassa	The Port and Airport Research Institute	Kenji Yoshikawa	Kajima Overseas Asia (Singapore)
Masakazu Sota	TAISEI CORPORATION		

< International Outstanding Collaboration Award: 7 recipients >

The Award recognizes foreigners who has made contributions to the development of civil engineering in Japan or other countries, through the exchange and collaboration with Japan, and is expected to play an active role in the progress and development of civil engineering field.

NAME	AFFILIATION
Masanori Teddy Kartasmita	Nippon Koei Co., Ltd.
Nguyen Quoc Thai	Oriental Consultants Global Co., Ltd.
Nguyen Trung Viet	Thuyloi University
Jian-Guo Dai	The Hong Kong Polytechnic University
Noel Sun Aguas	TAISEI CORPORATION
Panganayi Cleopatra	Oriental Consultants Global Co., Ltd.
Jan Dirk Schmoecker	Kyoto University



FY2021 JSCE Awards Celebration

Updates

- ◆ The 10th Civil Engineer's Lounge "DOBOKU" (Japanese)

<https://committees.jsce.or.jp/kokusai/node/284>

- ◆ JSCE-ASCE Infrastructure Resilience Research Group

<https://www.infracresil.jp/>

- ◆ 2022 JSCE Annual Meeting International Program (Japanese)

<https://committees.jsce.or.jp/kokusai/node/286>

- ◆ 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/>

- ◆ JSCE Concrete Committee Newsletter No.65, May 2022

<https://www.jsce.or.jp/committee/concrete/e/newsletter/newsletter65/index.html>

- ◆ IAC "News Pick Up!!" on the JSCE Japanese website

https://committees.jsce.or.jp/kokusai/iac_dayori_2022

- ◆ Summary of featured articles in JSCE Magazine Vol. 107, No.7 July 2022
<http://www.jsce-int.org/pub/magazine>
- ◆ Journal of JSCE
<https://www.jstage.jst.go.jp/browse/journalofjsce>
- ◆ 5th Japan Construction International Award
<https://www.mlit.go.jp/JCIA/en/award/5/>
- ◆ The 9th Civil Engineering Conference in the Asian Region (CECAR9)
<https://cecar9.com/>
- ◆ The 4th Asian Concrete Federation (ACF) Symposium on Emerging Technologies for Structural Longevity (ACF2022_ETSL): <https://acf2022.aconf.org/index.html>
- ◆ American Society of Civil Engineers (ASCE)
 - ASCE Convention 2022
<https://www.asce.org/education-and-events/events/meetings/asce-convention-2022/>
- ◆ The 9th International Conference on Flood Management (ICFM9)
<https://www.icfm9.jp/index.html>



§ IAC News Subscription §

The IAC News is one of the communication tools to share information and ideas with the members. We would like to invite you, your friends and colleagues to join the communication and to subscribe the IAC News. Please register online: (<http://www.jsce-int.org/node/150>). We look forward to meeting you.

§ IAC Facebook §

Recent activity of International Activities Center is introduced on this Facebook. Please see this home page (<https://www.facebook.com/JSCE.en>).

Comments and Questions

Please send us your feedback and comments to help us improve the IAC news. We look forward to hearing from you.
JSCE IAC: [iac-news@ jsce.or.jp](mailto:iac-news@jsce.or.jp)