



## IAC News No.145

The IAC News introduces significant and unique international projects, technologies, symposium, communication undertaken by JSCE IAC, International Section, ACECC, and Research & Development Section with over 30 committees, state-of-art- civil engineering technologies and projects, great and interesting achievements of civil engineer and researcher once a month.

Wish you happy new year in 2025, Many interesting, informative events like events for 30<sup>th</sup> Anniversary of the Great Hanshin-Awaji Earthquake and Expo 2025 Osaka are going to be held around the country this year.

This issue introduces 7 articles: 1) Prof. SASAKI, the JSCE President's message: She looks back for the past half year and expresses her resolution as the president, 2) Mr. Kyrato Kondo a JICA expert introduces the project for capacity development on tunnel project management in Thailand, 3) Wood Engineering Committee introduces its activities: the committee explains about its exhibition they have run at Science Agora events; they demonstrate the functions, tasks, effectivity of wood materials and new technologies, 4) IAC Int'l Civil Engineer Group introduces some of their activities and invites you to join the group, 5) a report on 12<sup>th</sup> East Asian Area Dam Conference (EADC), which focuses on the issue "sustainable development and management of dams and reservoirs for future generations faced by dams around the world as well as considered the high priority by the Int'l Commission on Large Dams (ICOLD), 6) a report on 9<sup>th</sup> GEWEX-OSC 2024 Sapporo; GEWEX is the major program co-funded by Int'l Science Council (ISC), World Meteorological Organization (WMO), and Intergovernmental Oceanographic Commission-UNESCO (IOC-UNESCO), and with the approval and recognition for Japan's efforts, achievements and contribution, the GEWEX appointed Japan the host of 9<sup>th</sup> GEWEX, and 7) the report on the international program "Junction, Path and Future Crossroads of Civil Engineering- Paradigm Shift", 2024 JSCE Annual Meeting, in which experts reviewed the past major natural disasters, accidents and JSCE's responses and considered JSCE's duties and responsibility to society.

We hope you will find this issue interesting and informative.

We are looking forward to your comments, feedback, and requests anytime. Thank you.

### **-President's New Year Message- Making the JSCE a More Enjoyable Place for Interaction!**

Happy New Year to all JSCE members.

It's been about six months since I was appointed JSCE President. During this time, I have been helped by many people and have undertaken important JSCE events, as well as my President Project.

In the Annual Meeting in September 2024, I gave a keynote lecture entitled: "Considering Civil Engineering from the Perspective of Landscapes." I assume this became the first president's keynote lecture tackling this topic. While giving specific examples of landscapes from the Tohoku region, I spoke about how the landscapes came about from within a mutual relationship between nature and people's lives, as well as the fact that building



**Sasaki Yoh**  
(JSCE President)

civil engineering infrastructure is a job that makes this relationship possible.

The 110th JSCE Anniversary Ceremony was held on November 19, 2024. With all the organizing committee's hard work, they delivered a wide-ranging event lineup based on the theme of "The Core and Expansion of Civil Engineering." In my greeting address, I said that the day was an "opportunity to envision an identity for civil engineering so that JSCE can continue to enjoy future success while simultaneously celebrating its 110th anniversary." I thoroughly enjoyed the event myself.

Also, I went to Florida in October to participate in the American Society of Civil Engineers (ASCE) annual convention. Unfortunately, the main festivities were all canceled because a giant hurricane was approaching Florida. Nonetheless, I could see the president's inauguration ceremony during the reception. It was an inspiring event with an open-minded and fun atmosphere. There were many moments in which I felt a sense of pride and solidarity as the civil engineers, for example, at the end when everyone chanted the Engineers Creed. Everyone was delighted for me that JSCE had finally appointed a female president, albeit 20 years after ASCE had first done so.

My President Project is also beginning to take shape. Many people have created networking business cards, catalyzing connections with fellow members. We also released short videos that convey all kinds of things about JSCE in a fun way.

I hope to get the help of all kinds of people to make JSCE bigger and better as a society that brings to life the wishes of each member.

【Reported by Sasaki Yoh, JSCE President】

## Project for Capacity Development on Tunnel Project Management in Thailand

The intercity highway network in Thailand is in the development stage. There is about 300 km of road currently in use, with the majority of it around the capital of Bangkok. The 20-Year Master Plan to Build a Intercity Highway Network (2017–2036), formulated by the Ministry of Transport in Thailand in 2016, is a plan to establish 6,600 km of road by investing approximately two trillion baht (about nine trillion yen). This master plan includes routes connecting major cities in mountainous areas. It therefore requires tunnels to ensure good alignment. While there is some experience with mountainous tunnels in Thailand, primarily for rail transport and aqueducts, there is limited expertise in constructing road tunnels with large cross-sections and that require the operation and maintenance of emergency facilities. In order to ensure the smooth implementation of the project, it is necessary to improve the counterpart's capacity relating to planning, surveying, designing, construction management, as well as operation and maintenance.

Against this backdrop, since December 2020, JICA has implemented a capacity development project for the Ministry of Transport's Department of Highways (DOH), which is the main road administrator in Thailand. The objective of this project is not to complete a specific tunnel project but to build the foundations for DOH to carry out tunnel projects smoothly. That is why these efforts include creating various manuals.

Manuals were created in each project cycle phase (planning, investigation, design, construction, operation



**Kurato Endo**  
(JICA expert on a long-term placement)

and maintenance). These manuals were based on Japanese standards, in which, for example, Japanese approaches were adopted for the geological survey methodologies, ground type classifications, and standard support structure combinations. Some DOH personnel have knowledge of tunnels in various countries such as in Europe and the US, and so that everyone was satisfied with why Japanese approaches would be used in the creation of the manuals, we explained that it is because Japan and Thailand have the similar complex geological structures. Furthermore, as it is generally impossible to fully grasp the geological conditions at the investigation stage of a tunnel project, the design changes are necessary as the construction work progresses. The necessity and importance of the design changes were repeatedly explained to DOH personnel and guidelines for possible design changes were created. As a result, the completed manuals should help pave the way for Japanese companies to undertake tunnel projects in Thailand in the future.

A pilot study was also implemented in this project. The pilot study saw the manuals created in this project applied to the design work of a separate DOH tunnel project contracted to a local construction consultancy firm. The DOH personnel deepened their understanding of the manuals and improved them by incorporating the unique conditions in Thailand into the manuals. As a result of the JICA team's thorough review of the design outcomes provided by the local construction consultancy firm during this process, the team gained the trust of DOH, which helped facilitate the project

Future challenges for DOH include building on their skills and experience, ensuring consistent execution of construction management, operation and maintenance, and handling highly complex tunnels that go beyond the manual guidelines. In June of this year, Thai university professors in charge of an academic society related to tunnels in Thailand visited Japan, calling in at JSCE and the Japan Tunnelling Association. Japan's wealth of project experience is of great use to Thailand. I believe that firsthand information from Thailand is also invaluable for Japanese companies looking to do business there. I have the idea that it would be extremely worthwhile if networking through academic societies serve as a forum for such sharing of information going forward.

The road tunnel project in Thailand is still in its early stages. I think the project to build a bypass in Krabi, southern Thailand, will be the first DOH project to build a tunnel in a mountainous area. The JICA team also has contributed to the project as part of the aforementioned pilot study. Starting with this Krabi Bypass Project, we will continue to create an environment in which exchange between Japan and Thailand remains strong and develops.



**Near the land to be used for the Krabi Bypass tunnel (March 2022)**



**Road tunnel constructed on Highway 304 using cut-and-cover construction method**

**【Reported by Kurato Endo, JICA expert on a long-term placement】**

# Introduction to the Activities of the Wood Engineering Committee: Booth Exhibition at Science Agora

## 1. About Science Agora

Science Agora is a forum connecting science and society that is open to everyone. With the vision of “A future woven through dialogue between science & daily life,” Science Agora is organized by the Japan Science and Technology Agency, which is a national research and development agency, and has been held every year since 2006. Statistics from the 2023 event show 137 exhibition programs and 8,800 visitors. Science Agora is attended by a lot of elementary and junior high school students, making it a valuable opportunity to win the hearts of and deepen interactions with future generations who will lead science and technology.



**Kaori Mimura**  
(Wood Engineering Committee)

## 2. Exhibition Contents

The Wood Engineering Committee exhibited a booth at the 2023 and 2024 Science Agora events. The booth showcased (1) liquefaction measures using wooden materials, (2) a temporary wooden bridge erected during disasters, and (3) cross-laminated timber (CLT), and also introduced its main efforts, including books it has published.

There are all kinds of visitors to the event, and so we used lots of models and photos to try to make our exhibition contents easy to understand and interactive even for people outside the world of civil engineering. For the liquefaction measures, we brought compact vibration equipment and demonstrated the liquefaction phenomenon for visitors to see first-hand. We received lots of positive feedback that those who saw the simulation were able to get a real sense of the impact of the measures. The temporary wooden bridge, which spanned about 2.5 meters in length, caught the attention of many visitors passing by. Lots of visitors told us that they would really like to see the wooden bridge put to practical use. For the CLT, to help visitors understand the characteristics of this engineered wood created by stacking/combining blocks of timber, we prepared three boards used when manufacturing CLT panels. Visitors were able to get a sense of how the strength of the material differs by changing the orientation of the stacked timber.

## 3. Results of the Questionnaire

Visitors to the booth over the two-day period exceeded 100 groups. The results of the visitor questionnaire included lots of positive feedback about the use of wooden materials in the civil engineering field, such as “I hope to see more wood used all around us” and “I especially want to see cedar used, as I suffer from hay fever.” Other feedback included, “I’m glad I got to learn about what technologies Japan needs,” “The explanation about wooden materials was interesting,” and “I didn’t know that the amount of wooden materials actually exceeds demand.” Science Agora proved to be really worthwhile as an opportunity to be able to actively network with people we would not usually meet through society activities and for them to learn about what we do as a committee.



**Booth at Science Agora 2023**



**Simulating the Liquefaction Phenomenon Using Vibration Equipment**

**【Reported by Kaori Mimura, Wood Engineering Committee】**

## Introduction to the International Civil Engineer Support Group (ICES) , IAC

We are the International Civil Engineer Support Group Japan (ICES), and we have created a comprehensive set of guidelines to help foreign engineers live and work comfortably in Japan. Our materials cover a range of topics designed to support your professional and personal life.

We provide an overview of essential manners and mindsets for working in Japan. Understanding workplace culture and expectations specific to Japan will help you start off on the right foot. Additionally, we've compiled practical information on various support systems, including working visas, pensions, taxes, credit card applications, and tips for obtaining professional qualifications. For those wanting to enhance their technical expertise, our glossary of civil engineering terminology in Japanese is a valuable resource.



**Tan Yen Xin**  
(Nippon Koei Co., Ltd.)



**Hou ChenWei**  
(Obayashi Corp.)



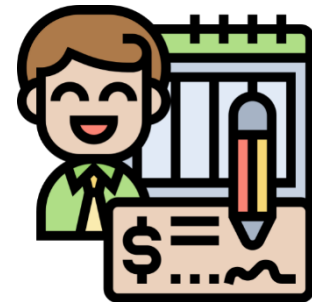
## FAQ Guide for International Civil Engineering Students and Professionals in Japan



International Civil Engineer Support Group  
Japan (ICES)  
Japan Society of Civil Engineers (JSCE)  
2024

In the future, we will address common challenges that foreign engineers may encounter in their work and daily lives in Japan with practical solutions, providing a step-by-step guide for civil engineers to secure positions in the Japanese construction industry. We will also share tips and strategies to help you enjoy your work and life in Japan. An example of a typical week of a foreign engineer's life will also be introduced soon.

We hope to be a helpful companion as you embark on your journey and overcome challenges in Japan. If you're interested or have specific needs, please feel free to reach out to us!



### International Civil Engineer Support Group

For inquiries, please contact:

HP: [https://committees.jsce.or.jp/kokusai13/f\\_e\\_support\\_team2](https://committees.jsce.or.jp/kokusai13/f_e_support_team2)

FB: International Civil Engineer Support Group Japan – JSCE  
<https://m.facebook.com/61560484611508/>

### ICES Members



【Reported by Tan Yen Xin, Transportation Planning & Management Dept. Transportation Policy & Planning Division, Transportation Operations, Nippon Koei Co., Ltd. and Hou ChenWei, Civil Engineering Construction Division, Obayashi Corp.】

# International Scientific Exchange Fund (From JSCE) Grant Report (Public Recruitment)

## 1. Outline

Conference Name: 12th East Asian Area Dam Conference (EADC)

Dates: June 3rd – June 8th, 2024 (See table 1 for details)

Location: The Nagoya Convention Hall, Nagoya City.



**Hiroaki Noguchi**  
(Secretary General, JCOLD)

Date		Program	Cultural Events
Jun 3	PM	City Tour (Nagoya Castle, SCMAGLEV and Railway Park)	Dinner (IZAKAYA (Japanese Pub) night)
Jun 4	AM	Symposium Opening Ceremony	
	PM	Keynote Lecture, Report of 2024 Noto Peninsula Earthquake, General Sessions	Welcome Reception
Jun 5	AM	Special Lecture, Special Session	
	PM	Poster Core Time, General Sessions	Young Engineer Gathering
Jun 6	All Day	Technical Tour (Koshibu Dam)	
Jun 7	All Day	Technical Tour (Shin Maruyama Dam, Origawa Dam)	Farewell Ceremony

**Table-1 The 12th EADC Program Schedule**

The main theme of this EADC symposium, “Sustainable Development and Management of Dams and Reservoirs for Future Generations”, is an issue that is not only faced by Japan, China, and Korea, but is also considered a matter of high priority by the International Commission on Large Dams (ICOLD) as it is an urgent issue faced by dams around the world. As such, individual member states of ICOLD, in addition to the Chinese National Committee on Large Dams (CHINCOLD) and Korea National Committee on Large Dams (KNCOLD), were invited to participate in this symposium. Thanks to these efforts, 331 participants (244 from Japan, 87 from other countries) from a total of 15 countries attended, and 45 papers were submitted to be presented. Michel Lino, President of ICOLD was in attendance as well. It was a great honor to have him present as this is a very rare occurrence for EADC

## 2. Symposium

The symposium’s official language was English, so simultaneous interpreters were provided to facilitate attendance for the large number of Japanese participants. The International Scientific Exchange Fund (from JSCE)’s funds were used to outsource interpreters for simultaneous interpretation as well as cover the cost of



interpretation devices. Simultaneous interpretation was exceedingly effective in assisting the Japanese participants to understand symposium details.

## 2.1. Theme

The theme of this EADC symposium was “Sustainable Development and Management of Dams and Reservoirs for Future Generations” and called for papers on five sub-themes. They are:

1. Management of Reservoirs and Sediment in the Era of Climate Change
2. Dam Safety Assessment and Surveillance
3. New Technologies and Digital Transformation of Construction and Management for Dams
4. Environment and Biodiversity of Dams and Reservoirs
5. Promoting Renewable Energy with Dams

## 2.2. Oral Presentations and Poster Displays

45 papers were submitted for this symposium. A breakdown was 27 papers, 10 papers, and 2 papers from Japan, China, and Korea, respectively, with an additional 6 submitted from 6 other countries. 31 were selected for oral presentation while 14 were displayed as posters.

Assembly Session	Times		Contents	
	Jun 4	AM	<ul style="list-style-type: none"> <li>• Opening Ceremony, Guest speech by H.E. Mr. Li Liangsheng (Vice Minister of the Ministry of Water Resources of China)</li> <li>• Country reports by CHINCOLD, KNCOLD, and JCOLD</li> <li>• Message from the president of ICOLD, Michel Lino</li> </ul>	
PM		Keynote Lecture, Prof. Anton Schleiss (Former ICOLD President)		
		Special report on the impact of the 2024 Noto Peninsula Earthquake on dams (Mr. Masafumi Kondo (National Institute for Land and Infrastructure Management))		
Jun 5	AM	Special Lecture: Prof. Kenzo Hiroki (National Graduate Institute for Policy Studies)		
General Sessions	Times		Sessions (Chairpersons)	Oral Presentation of Papers (By country)
	Jun 4	PM	Dam Safety Assessment and Surveillance Parts(1) and (2) ( (1)Yoshikazu Yamaguchi <sup>1</sup> ), Zheng Cuiying <sup>2</sup> (2)Tsuyoshi Arimitsu <sup>1</sup> , Joon woo, Noh <sup>3</sup> )	10 Papers (Japan (2), China (5), Indonesia (2), North Macedonia)
	Jun 5	AM	Special Session: Management of Reservoirs and Sediment in the Era of Climate Change (Tetsuya Sumi <sup>4</sup> ) , Mohamed Saber <sup>5</sup> )	7 Papers (Japan (6), Korea (1))
		PM	Environment and Biodiversity of Dams and Reservoirs and Promoting Renewable Energy with Dams (S.A. Kantoush <sup>5</sup> , Chen Guanfu <sup>2</sup> )	6 Papers (Japan (2), China (2), The Netherlands (1), Germany (1))
			New Technologies and Digital Transformation of Construction and Management for Dams (Goro Yasuda <sup>1</sup> , Amgad Omer <sup>6</sup> )	8 Papers (Japan (4), Korea (1), Malaysia (1), China (1), Switzerland (1))
PM		Poster Core Time (1 Hour)	14 Papers (Japan (12), China (2))	

Table-2 12<sup>th</sup> EADC Symposium Program

<sup>1)</sup> JCOLD, <sup>2)</sup>CHINCOLD, <sup>3)</sup>KNCOLD, <sup>4)</sup>ICOLD, <sup>5)</sup>Kyoto University, <sup>6)</sup>Deltares



**The Opening Ceremony**

**(Front row, center, left to right, Tetsuya Sumi (ICOLD, Vice President), Michel Lino (ICOLD, President), Prof. Anton Schleiss (former ICOLD President), and Hideki Hirai (JCOLD, President))**

**3. Technical Tour**

Two days of technical tours were offered on June 6th and 7th. Day one's destination was the Koshibu Dam and day two's was the Shin Maruyama and Origawa Dams. Participants were invited to stroll around Magome-juku as well as take Ena Vally cruise ships. Participation was limited to two busloads of people out of consideration for local capacity, and approximately 80 individuals (Japanese and non-Japanese) took part.



**Technical Tour at the Shin Maruyama Dam**

**4. Cultural Events**

Many symposium attendees participated in a tour of Nagoya and joined IZAKAYA night on June 3rd, as well as the Welcome Reception on the 4th and the Farewell Ceremony on the final day, the 7th. The IZAKAYA night was a big hit with international attendees. At the beginning of the Farewell Ceremony, there was a Farewell Concert performed by Ensemble Civil, a string ensemble made up volunteer musicians who are also JSCE members. Their live performance was delightful and akin to listening to a professional orchestra performance.

**【Reported by Hiroaki Noguchi, Secretary General, JCOLD (Japan Commission On Large Dams)】**

# Report on 9th GEWEX-OSC 2024 Sapporo

## 1. Total Participants

The conference was attended by 911 researchers and professionals from 45 countries and regions. With an additional 372 participants from sponsor organizations and companies, as well as stakeholders (including the Ministry of Land, Infrastructure, Transport, and Tourism), the total number of attendees reached approximately 1,300.



**Prof. Tomohiro Yamada**  
(Hokkaido University)

## 2. Overview of the Conference

This international conference was held in Japan for the first time in recognition of the country's contributions to advancing intensive observations of energy and water cycles in Asia, satellite observations, modeling studies, human resource development in various countries, and the societal implementation of policies in the field of climate change. The conference served as a platform for sharing cutting-edge research presented by scientists who visited Japan from overseas. Moreover, it brought together stakeholders from academia, industry, and government within Japan, facilitating interactions and collaboration transcending disciplines and professional boundaries.



**Asso. Prof. Tomonori Sato**  
(Hokkaido University)



**Opening Ceremony**



**Specially Appointed Assist.  
Prof. Hiroki Okachi**  
(Hokkaido University)

## 3. Program

The program included an opening and closing ceremony, plenary sessions featuring 16 keynote addresses by experts, oral presentation sessions (30 sessions; 370 presentations), poster sessions (30 sessions; 445 presentations), and stakeholder sessions (12 sessions).

**[Plenary Session (keynote address)]**

During the plenary session following the opening ceremony on July 8, Takashi Koyari, Parliamentary Vice-Minister of Land, Infrastructure, Transport, and Tourism, delivered a keynote address. He introduced the Ministry's initiatives, including flood control measures based on climate change prediction data and hybrid dams utilizing meteorological forecast data. He stressed the importance of international cooperation in addressing challenges intensified by climate change, including floods, droughts, and the maintenance and restoration of the water cycle. He also expressed hope that the Water By All concept would gain widespread acceptance through advancements in government-academia collaborative research and the societal implementation of practical solutions.



**Takashi Koyari**  
**Parliamentary Vice-**  
**Minister**

**[Stakeholder Sessions: organizations/titles]**

**July 8:** Ministry of Land, Infrastructure and Transport/Flood risk assessment and flood control efforts using climate change impact prediction

The University of Tokyo, Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Kyoto University, Japan Meteorological Business Support Center/Water cycle changes over Asia: from attribution to adaptation—how to communicate advanced information on climate and hazard projections to the general public

Tokyo Metropolitan Government/Initiatives taken by the Tokyo Metropolitan Government against flood and storms considering climate change

**July 9:** Ministry of Agriculture, Forestry and Fisheries/Challenges Facing Agricultural Production Infrastructure Development under Climate Change and Responses

Hokkaido University, River Center of Hokkaido/Advancements and Future Directions of Risk Evaluation Methodologies on Water Disaster Considering Climate Change

The Japan Civil engineering Consultants Association (JCCA) Expert Committee on River Planning/Examples of Practitioners' Efforts on Climate Change and "River Basin Disaster Resilience and Sustainability by All"

**July 10:** Ministry of the Environment/Climate Resilience: Toward Science-Based Adaptation Practices

Japan Society of Civil Engineers Hokkaido Branch/Risk assessment and adaptation to water/soil compound disasters in climate change-vulnerable regions

Hokkaido Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism/Challenges by local governments and stakeholders towards social implementation of climate change mitigation and adaptation measures

**July 11:** Japan Science and Technology Agency (JST), Japan International Cooperation Agency (JICA)/JST and JICA's SATREPS Program: Addressing Global Issues with Partner Countries- Progress and Prospects of International Joint Research Projects on Climate Change and Water Supported by the Government of Japan

Civil Engineering Research Institute for Cold Region (CERI)/Civil Engineering Research Institute's efforts to understand the impact of climate change on disasters and the environment in snowy and cold

regions, and adaptation measures of climate change

Hokkaido University/Initiatives to resolve social problems related to water and climate at Hokkaido University

#### 4. Related Programs

##### 1) Public Lectures, Young Researchers Seminar

As part of public outreach efforts, public lectures were held on Sunday, July 7, the day before the start of the international conference, at Hokkaido University's Akira Suzuki Hall. The lectures attracted 121 in-person participants and 260 online participants.

##### **Part 1: Addressing Climate Change Together- Starting Adaptations to Climate Change from Our Own Communities**

○ Lecturers: Professor Jan Polcher (French National Centre for Scientific Research), Kyoichi Kawahara (Global Warming Information Officer, Japan Meteorological Agency's Sapporo Regional Headquarters), Professor Masaru Inatsu (Hokkaido University Faculty of Science), Tadashi Sagae (Chief Engineer, Zero Carbon Promotion Bureau, Department of Economic Affairs, Hokkaido Government), Yoshimichi Tachikawa (Deputy Director, Erosion Control Division, Bureau of Public Works, Department of Construction, Hokkaido Government), Keiko Hayashi (Chief, Eco-City Promotion Department, Environmental Bureau, City of Sapporo)

○ High School Research Presentations

“Changing Perspectives: Turning Nuisances into Allies!” by Hokkaido Iwamizawa Agricultural High School

“Living with Disasters: What Junior High and High School Students Can Do” by Sapporo Kaisei Secondary School



○ Panel Discussion Featuring Experts, University Students, and High School Students (pre-discussion introduction by Tatsuo Shirakawa, associate professor, Faculty of Engineering, Kitami Institute of Technology)

##### **Part 2: Weather Modification Talk Event**

○ Participants: Kosei Yamaguchi, Tetsuya Takemi, Kazuyoshi Nishijima, Kazuaki Yorozu (Kyoto University), Tsuyoshi Hatori (Ehime University), Kuro-love Professor (The University of Tokyo, Yoshimoto Kogyo Co., Ltd.)

“Comedy Science,” a fun and engaging session was held by science communicator Kuro-love Professor.

On the day before the start of this international conference, study sessions by young researchers were also held.

##### 2) Corporate Technology Exhibition

Ten booths were set up at the venue of the international conference. The exhibiting organizations were as follows:

Japan Aerospace Exploration Agency (JAXA), National Institute of Information and Communications Technology (NICT), National Aeronautics and Space Administration (NASA), European Space Agency (ESA), River Center of Hokkaido, Docon Co., Ltd., Nippon Koei Co., Ltd., Yachiyo Engineering Co., Ltd., CTI Engineering Co., Ltd., Tokyu Construction Co., Ltd.

### 3) Bicycle Tour

A bicycle tour was held during the international conference (July 8 – 12) from 1 PM to 5 PM daily. A total of 43 participants joined over the five days (45 registered from 14 countries, with two no-shows). The approx. 30-kilometer route started and ended at JR Ainosato-Koen Station and featured scenic areas along the Ishikari River, Roadside Rest Area “Tobetsu,” Sweden Hills, and ROYCE’ Cacao & Chocolate Town.

### 4) Technical Tour

A technical tour was held on Saturday, July 13, following the conclusion of the international conference. The tour had 84 participants, including 75 general attendees and 9 guides and administrative staff. The tour showcased not only climate change but also the broader story of Hokkaido, including its geological formation, flood control measures, cultural and artistic heritage, land development, and industrial growth.

【Reported by Prof. Tomohito Yamada, River and Watershed Engineering Laboratory, Faculty of Engineering, Hokkaido University, Asso. Prof. Tomonori Sato, Faculty of Environmental Earth Science Hokkaido University, and Specially Appointed Assist. Prof. Hiroki Okachi, River and Watershed Engineering Laboratory, Faculty of Engineering, Hokkaido University】

## Report on the International Program at the 2024 JSCE Annual Meeting

### International Program

The special international conference has been held together with the special conference and general debate session as the main festivities of the JSCE Annual Meeting since the 2022 JSCE Annual Meeting in Kyoto. Last year and this year, the special international conference, “Junction, Paths, and Future Crossroads of Civil Engineering - Paradigm Shift,” was held by Sakura 1, the Sendai International Center, on Wednesday, September 4, the midpoint of the five-day JSCE Annual Meeting event, both online and in person with the use of simultaneous interpretation. This “Crossroads of Civil Engineering,” which was the theme of the conference, is a point that must be crossed by the civil engineering industry and civil engineers. Especially in recent years, civil engineering has experienced multiple challenges such as the COVID-19 pandemic, increasingly severe natural disasters occurring more often, carbon-neutrality goals, and a lack of personnel. The conference invited civil engineering and civil engineering-related researchers and engineers from Japan and overseas to review the current state of affairs and consider and discuss what we should realize and do, as well as the direction or approach to take to overcome this crossroads.



Asso. Prof. Hiromasa Iwai  
(Kyoto University)

This year's event saw Koji Nakamura (news commentator at the Japan Broadcasting Corporation) asked to give a keynote lecture and welcomed IAC Senior Director Makoto Kimura, Masaki Tokubuchi (first-class structural design architect at ARUP), Shogo Matsunaga (Representative and CEO of Infrastructure Research Laboratory), and Associate Professor Ji Dang (Saitama University) as panel guests. Under the facilitation of host Associate Professor Hiromasa Iwai (Kyoto University), the participants determined what direction we should take from the crossroads we are currently at and examined how we should proceed by giving specific examples. Using examples such as the liquefaction damage during the Great Hanshin-Awaji Earthquake, the accident in which large concrete ceiling panels fell from the ceiling of the Sasago Tunnel, and the Linear Chuo Shinkansen project, the talk introduced cases in which past disasters/accidents and national civil engineering projects became turning points, leading to changes in design guidelines and public awareness. The panelists engaged in a discussion, focusing on how we can predict potential risks and obstacles and take action. This discussion emphasized the need for the Japanese government to think of national measures within the major trends of problems such as global climate change and ensuring enough food and water for the world's growing population, rather than simply estimating the good and bad that might happen in the immediate future. JSCE's role is especially important. I recognized that not only must JSCE share its academic insights, but it must also further demonstrate its expertise and involve itself in areas to advise the government. And instead of simply dismissing these opinions as 'easier said than done,' the panelists reached the conclusion that JSCE being ready to take action is the most critical aspect.

The "The 26th International Summer Symposium and 2024 Workshop for Global Civil Engineers: The Role of Civil Engineering in Achieving the SDGs," which is a pillar of the International Program, saw 73 research presentations on September 5 and 6. A total of 24 international students also took part in the workshop to give and think about specific examples of the roles of civil engineers and civil engineering and technology in helping to achieve the SDGs. It was a unique opportunity for the attendees to think about the significance of civil engineers and civil engineering technologies from their one-of-a-kind perspectives. I hope that the discussions reach new heights next year.



**Moderator, Keynote Speaker and Panelists of Special International Conference Workshop attendees**



Workshop Attendees Discussing Topics Passionately

【Reported by Asso. Prof. Hiromasa Iwai, Kyoto University】

## Updates

◆CECAR10 : <http://www.cecar10.org/> 【Abstract Deadline: February 3, 2025】

- ◆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\\_2024](https://committees.jsce.or.jp/kokusai/iac_dayori_2024)
- ◆Summary of featured articles in JSCE Magazine Vol.110, No. 1, January 2025  
<http://www.jsce-int.org/pub/magazine>
- ◆Journal of JSCE  
<https://www.jstage.jst.go.jp/browse/journalofjsce>
- ◆Safe and Healthy Work in the Digital Age 2023-2025 Campaign  
<https://healthy-workplaces.osha.europa.eu/en/media-centre/events/launch-ceremony-healthy-workplaces-campaign-safe-and-healthy-work-digital-age-2023-2025>
- ◆ECCE: Strategic Plan 2023-2030  
[http://www.ecceengineers.eu/news/2023/strategic\\_plan\\_2023\\_2030.php](http://www.ecceengineers.eu/news/2023/strategic_plan_2023_2030.php)
- ◆ASCE: Feniosky A. Pena-Mora 2025President&Marsha Anderson Bomar2025President-Elect  
[Meet ASCE 2025 President Feniosky Peña-Mora; Get to know your ASCE 2025 president-elect | ASCE](#)
- ◆IABSE Symposium Tokyo 2025  
<https://www.iabse.org/Tokyo2025/>
- ◆16th International Workshop on Micropiles  
<https://www.ismicropiles.org/workshops.asp>

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### Comments and Questions

Please send us your feedback and comments to help us improve the IAC news. We look forward to hearing from you.  
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