

Concrete Committee Webinars - Frontiers of Concrete Technology (FCT)

Kohei NAGAI, University of Tokyo

The Concrete Committee of the Japan Society of Civil Engineers (JSCE) has started the international webinar series “Frontiers of Concrete Technology” (FCT) from 2021. It is intended to hold the webinar 2 or 3 times a year, and this year it was held for the first time in April and the second time in August.

The seminar aims to convey Japan’s cutting-edge research in concrete technology to the world. However, if the lectures are only from Japanese researchers, the number of attendees from overseas will not increase. Therefore, themes are set for the seminars, and one Japanese researcher and one overseas researcher working on the selected theme are invited to deliver the lectures. The seminars provide time for a panel discussion, in which the overall history, the present status, and the future direction of that field of research are discussed. In this way, the numbers of overseas researchers and engineers participating will increase. Also, the seminars are made more attractive by clarifying the themes and providing discussion time. In addition, the seminars provide the Japanese participants with an opportunity to learn the status of world research.

The first seminar was held on April 16 on the theme “Use of FRP Composites for Sustainable Concrete Structures”. The invited speakers were Professor Tamon UEDA of Shenzhen University (China), and Professor Jian-Guo DAI of The Hong Kong Polytechnic University. Both are distinguished researchers worldwide in the field of repair and strengthening of concrete structures using FRP. Professor Dai received his doctoral degree from Hokkaido University, and his doctoral adviser was Professor Ueda, who was a professor at Hokkaido University. Having an overseas researcher with strong links to Japan present a lecture also provides an opportunity to expand his network in Japan. The number of participants in the seminar was about 270. As it was a webinar, there were participants from throughout the world, mainly from Asia.

The second seminar was held on August 4, on the theme “Aging Management of Concrete Structures in Nuclear Power Plants”. The invited speakers were Professor Ippei MARUYAMA of Nagoya University and Dr. Miguel FERREIRA of the VTT Technical Research Centre of Finland, Finland. Also, Professor Kenichiro NAKARAI of Hiroshima University was invited as moderator to raise the quality of the panel discussion. About 140 people participated in the seminar. Problems of regulations and systems are encountered in the management of nuclear power facilities. The scientific background to this is the phenomenon of aging, mainly the problem of swelling of concrete, and the speakers presented the latest research results in this field and introduced the link between research and management of facilities.

In the second seminar also the speakers introduced the latest research and its practical application, and the panel discussion covered the status of the research field as a whole and its future direction. The discussion provided an opportunity for the participants to learn not just about the latest research, but also the background to the research themes and the speakers’ ideas.

The seminars can be viewed on the JSCE YouTube channel.

First: <https://www.youtube.com/watch?v=IP65Dudd6tk>

Second: <https://www.youtube.com/watch?v=ArU-x-oyGig>

There is concern that the influence of Japanese research on the world is reducing. In the concrete field, for example the number of papers published in international academic journals is fewer compared with other countries. It is not easy to greatly increase the number of papers, so to raise the presence of Japan various other activities are necessary. Therefore this series of seminars is planned as one such activity. The Concrete Committee intends to positively increase its international activities in the future.

1st JSCE Concrete Committee Webinar

Frontiers of Concrete Technology

The Concrete Committee of the Japan Society of Civil Engineers (JSCE) holds a webinar on the frontiers in concrete research and technology to share and discuss the cutting-edge technologies of concrete materials and structures. We invite two leading researchers from the advanced field in concrete engineering. After their presentations (30min.x2), we discuss the field's current status and future direction (40min).

Photo: Otsukama Marine Bridge, JSCE Tanaka Award (2017)

Use of FRP Composites for Sustainable Concrete Structures

Invited researchers

 **Prof. Tamon Ueda**
Department of Civil Engineering
Shenzhen University, China

 **Prof. Jian-Guo Dai**
Department of Civil and Environmental Engineering
The Hong Kong Polytechnic University, China

Date: April 16th 2021
Time: 16:00-18:00 (JST/UTC+9:00)

Participation fee: **Free** zoom

Registration: <https://form.run/@1st-JSCE-Concrete-Committee-Webinar>
* After registration, you will receive an e-mail with the URL (Zoom) of the webinar.

Inquiry: Concrete Committee, Japan Society of Civil Engineering (JSCE)
Dr. Hayato Takahashi e-mail: hayato_takahashi@rs.tus.ac.jp



Concrete Committee, Japan Society of Civil Engineers (JSCE)
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Asian Concrete Federation

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2nd JSCE Concrete Committee Webinar

Frontiers of Concrete Technology

The Concrete Committee of the Japan Society of Civil Engineers (JSCE) holds a webinar on the frontiers in concrete research and technology to share and discuss the cutting-edge technologies of concrete materials and structures. We invite two leading researchers from the advanced field in concrete engineering. After their presentations, we discuss the field's current status and future direction.

Photo: Otsukama Marine Bridge, JSCE Tanaka Award (2017)

Aging Management of Concrete Structures in Nuclear Power Plants

- Internal swelling reaction of concrete -

Invited researchers

 **Dr. Ippei Maruyama**
Professor
Graduate School of Environmental Studies
Nagoya University
Japan

 **Dr. Miguel Ferreira**
Senior Scientist
Structural Materials group,
VTI Technical Research Centre of Finland Ltd.
Finland

Moderator

 **Dr. Kenichiro Nakarai**
Professor, Hiroshima University, Japan

Date: August 4th 2021 **Time: 16:00-18:00 (JST/UTC+9:00)**

Admission fee: **Free** zoom

Registration: <https://form.run/@2nd-JSCE-Concrete-Committee-Webinar>
※ After registration, you will receive an e-mail with the URL (Zoom) of the webinar.

Inquiry: Concrete Committee, Japan Society of Civil Engineers (JSCE), Dr. Hayato Takahashi e-mail: hayato_takahashi@rs.tus.ac.jp



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Seminar flyers