

## Concrete Committee Webinars - Frontiers of Concrete Technology (FCT)

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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 the fourth seminar was held in September 2022.

The seminar aims to convey Japan’s cutting-edge research in concrete technology to the world. 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.

The fourth seminar was held on September 2 on the theme “Application of X-ray Computed Tomography for Concrete Durability Research”. The invited speakers were Professor Takafumi Sugiyama of Hokkaido University (Japan), and Professor Michael Angelo B. Promentilla of De La Salle University (Philippines). Both are distinguished researchers worldwide in the field of advancing concrete durability research through X-ray computed tomography.

4<sup>th</sup> 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 (50min).

#### Application of X-ray Computed Tomography for Concrete Durability Research

Invited researchers

Prof. Takafumi Sugiyama  
Hokkaido University  
Japan

Prof. Michael Angelo B. Promentilla  
De La Salle University  
Philippines

Moderator

Assoc. Prof. Shingo Asamoto  
Saitama University, Japan

Date & Time: Sept. 2<sup>nd</sup> 2022, 16:00-18:00 (JST/UTC+9:00)

Participation fee: **Free**

Registration: <https://form.run/@4th-JSCE-Concrete-Committee-Webinar>

\* After registration, you will receive an e-mail with the URL (Zoom) of the webinar.

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### Seminar Flyer

The seminars can be viewed on the JSCE YouTube channel.

Fourth seminar: <https://www.youtube.com/watch?v=SLrs46PqG7Y>

The number of participants in the seminar was about 100. As it was a webinar, there were participants from throughout the world, mainly from Asia. The seminars can be viewed on the JSCE YouTube channel. In the seminar, Prof. Promentilla explained the principals of X-ray CT and history of application to concrete research. He also introduced the examples of observation of concrete specimens in microstructural scale, such as 3-dimensional tortuosity, from his research. Prof. Sugiyama presented the latest results including concrete-steel interface, utilization of synchrotron radiation, and so forth. In the panel discussion, Prof. Shingo ASAMOTO of Saitama University was invited as moderator to raise the quality of panel discussion. They discussed the advantages and limitations of application, including the connectivity between meso-scale and nano-scale, and future possibility of X-ray CT.

The report of the past seminars is below.

First & Second Seminar

[http://www.jsce.or.jp/committee/concrete/e/newsletter/newsletter63/Newsletter63\\_files/FCT.pdf](http://www.jsce.or.jp/committee/concrete/e/newsletter/newsletter63/Newsletter63_files/FCT.pdf)

Third Seminar

[https://www.jsce.or.jp/committee/concrete/e/newsletter/newsletter65/index\\_files/data/report.pdf](https://www.jsce.or.jp/committee/concrete/e/newsletter/newsletter65/index_files/data/report.pdf)

YouTube channel.

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

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

Third seminar: <https://www.youtube.com/watch?v=hwfl7mrs7-I>