



# IISEE Newsletter



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International Institute of Seismology and Earthquake Engineering BRI Japan

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## Dear All IISEE Readers

By Dr. Tatsuya Azuhata, Director of IISEE

We would like to take this opportunity to wish you, your family and colleagues all the best in the New Year 2022.

Two years has quickly passed since the World Health Organization (WHO) declared on March 11, 2020 COVID-19 as a pandemic. During this period, COVID greatly affected the IISEE training courses. However, thanks to the enthusiasm of many young researchers and engineers for the IISEE training courses, we were able to carry on without disruption the regular course for 2020-2021. As of today, we have accepted 19 participants from 12 countries in the one for 2021-2022.



Dr. Tatsuya Azuhata,  
Director of IISEE

In addition, we currently conduct two other short-term training courses; the Latin American Course and the Global Seismological Observation Course. While we had to defer them in 2020, online training made it possible to continue to conduct in 2021. For the Latin American Course, it is impossible to give a real-time lecture because of the time difference. Therefore, we implemented a new method combined with viewing the on-demand video materials and the Q&A session in the early morning, Japan time. This was how the 12 participants from 7 countries completed the course last December. The Global Seismological Observation Course for 2021 has started on a real-time basis on January 11, this year, with 10 participants from 8 countries. For those countries that are affected by the time

## IISEE Net and Training

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## Earthquakes

The 2011 off the Pacific coast of Tohoku Earthquake

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difference, we adjusted the class schedule that starts from 15:00 in the afternoon, Japan time.

As mentioned above, even under the extremely severe ongoing COVID-19 situation, we have been able to continue the training course in order to respond to the enthusiasm of the participants, thanks to the support and understanding of many people, which I strongly feel from bottom my heart. We would like to thank you once again.

In the meantime, it has been informed that the target regions or countries of the regular course participants for the next year will be Algeria, Bhutan, Comoros, Egypt, Fiji, India, Indonesia, Malaysia, Mexico, Philippines, Thailand, Timor-Leste and Vanuatu. JICA and government agencies in each country are expected to distribute General Information (GI) in their respective countries during January. If you have a chance to obtain GI, please encourage young researchers and engineers around you to apply for this training course.

We would appreciate your continued support in the same way as last year. For questions and requests, please feel free to email [iisee@kenken.go.jp](mailto:iisee@kenken.go.jp).

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## Message of Condolence Following the Eruption of the Volcanic Island of Hunga Tonga Hunga Ha'apai

By Dr. Tatsuya Azuhata, Director of IISEE

The eruption of the volcanic island of Hunga Tonga Hunga Ha'apai and the resulting earthquake and tsunami have caused great damage in the Kingdom of Tonga.

We are deeply saddened by the news of this damage. We would like to express our heartfelt sympathy to the people of Tonga who have been affected by this disaster.

It has also been reported that tsunami generated by atmospheric wave related to the volcanic eruption caused the damage to distant areas such as Peru.

We would like to express our deepest sympathy to those who have been affected by the fury of nature.

Fortunately, we were able to confirm that the two remote participants in the current annual course and an ex-participant of the previous course in Tonga are safe.

We would like to express our deepest sympathy to those who are suffering from the disaster.

We hope that the country and the affected areas will recover as soon as possible.

## Call for Papers

IISEE Bulletin is now accepting submissions of papers for the seismology, earthquake engineering, and tsunami. Developing countries are targeted, but are not limited.

Your original papers will be reviewed by the editorial members and some experts.

NO submission fee is needed.

Try to challenge!!

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## 2020 · 2021 IISEE Global Seismological Observation Course Has Started

By Mr. Takahiro Yamada, Head of Administration Division, IISEE

IISEE Global Seismological Observation Course (2020 · 2021) started from January 11, 2022, by fully online access as part of measures against the ongoing COVID-19 situation. This year, 10 participants from 8 countries (Bhutan, Egypt, India, Iran, Kenya, Nepal, Philippines, and Uganda) have joined the course.

In the orientation, Dr. Azuhata of IISEE Director made an a welcome speech and provided them with an overview of the IISEE training courses. This course is carried out with the support and the cooperation of Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), Ministry of Foreign Affairs (MOFA), Japan International Cooperation Agency (JICA), Japan Meteorological Agency (JMA), and other organizations in the aim of developing human resources having obtained the skills necessary for detecting nuclear tests applying seismological knowledge.

The number of graduates has grown to 270 from 78 countries since 1995. The participants are working actively to learn the knowledge about the international seismological observation and acquire advanced earthquake analysis technique, where they are also expected to work out effective earthquake disaster prevention measures in their home countries.

While this course is short-term ending on March 4, we hope all of the participants will acquire the knowledge so that they take best advantages of what they have learned for their future career.

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## “The Best Presentation Award” Winner

By Mr. Takahiro Yamada, Head of Administration Division, IISEE

As mentioned under the topic, “Lecture on Disaster Management Policies at GRIPS,” in the last IISEE Newsletter No.200 of 2021-12-22, the students and the lecturers voted to select the three Best Presentation Award Winners on December 27, 2021. Among them



Mr. SIMBORIO Tom Carlo Enriquez (center) of Earthquake course, Dr. Azuhata (left) and Dr. Hara (right)

was Mr. SIMBORIO Tom Carlo Enriquez of the IISEE Earthquake Course participant from the Republic of the Philippines, who received such a prestigious award. We hope he will continue his ardent research, and look forward to his excellent papers. Congratulations, Tom!

## IISEE Seminar by Prof. Satake

By Dr. Bunichiro Shibazaki, Senior Researcher, IISEE

A remote IISEE seminar by Prof. Satake was held on Monday, December 20, 2021.

In this seminar, Prof. Satake introduced the research results revealed over the past 10 years regarding the tsunami caused by the 2011 Tohoku-Oki Earthquake.

Date/Time: Monday, December 20, 10:00-11:00 (Japan time)

Title: Ten Years from Tohoku Earthquake and Tsunami (Zoom)

Lecturer: Prof. Kenji Satake (Director at Earthquake Research Institute, University of Tokyo)



**About 60 people (26 exparticipants and 12 current participants)** participated in the seminar in real time. There

were participants from the following foreign countries: Algeria, Azerbaijan, Colombia, Costa Rica, Dominican Republic, Ecuador, EL Salvador, Guatemala, Indonesia, Mexico City, Mexico City, Mexico City, Mexico City, Mexico City, Mexico City, EL Salvador, Guatemala, Indonesia, Iran, Malaysia, Mexico, Mongolia, Myanmar, Nepal, Peru

Myanmar, Nepal, Peru, Philippines, Solomon\_Islands, Thai, Tonga

Even though it was a Sunday evening, ex-participants from Latin America actively participated and had lively discussions. For those who were unable to attend in real time, the seminar was given on demand.

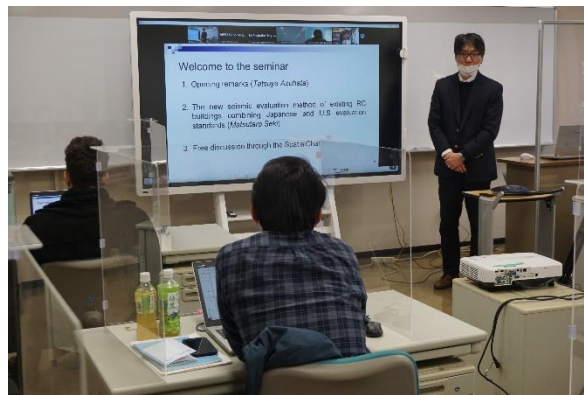
**About 45 participants** viewed the recorded lectures on demand.



Participants attended the Seminar from BRI

## Online IISEE Seminar by Dr. Seki

By Dr. Tatsuya Azuhata, Director of IISEE



Opening Remarks by Dr. Azuhata

We held the last event of the year, the online IISEE seminar on December 28, 2021, inviting Dr. Matsutaro Seki, a visiting research fellow at the Building Research Institute, as a lecturer. Dr. Seki gave a lecture entitled "The new seismic evaluation method of existing RC buildings combining Japanese and

U.S evaluation standards".

Japan's seismic diagnostic standards calculate an index called the IS value for existing buildings and evaluate their seismic capacity. IS stands for Seismic Index of Structure and the IS value can be very useful information to proceed with seismic retrofitting measures because it determines the priority order for seismic retrofitting. His lecture was to review the meaning of this IS value in light of the US seismic standards and the standards for seismic diagnosis of existing buildings.

We think that you understand that the evaluation method using the concept of IS value applies to not only Japan but also any country. After the lecture, we had an opportunity for Q&A session to discuss freely online, using Spatial Chat.

Online seminars have been held since last year. This time, 17 graduates from 12 countries participated. IISEE would like to continue to hold such online seminars and look forward to your participation.



Enjoy, Now

## Online IISEE Seminar by Dr. Hayashida(Feb.4)

By Dr. Takumi Hayashida, Senior Research Scientist, IISEE

We are going to hold an online IISEE seminar on February 4. Dr. Hayashida, a senior research scientist of IISEE, will talk about the newly developed method for Vs30 (average S-wave velocity for the upper 30 m) estimation using microtremor array data. We have sent an invitation email to former participants of the Seismology and Earthquake Engineering training courses on January 4. Please follow the instructions in the email and register if you wish to participate in the seminar.

## Contact Us

The IISEE Newsletter is intended to act as a go-between for IISEE and ex-participants.

We encourage you to contribute a report and an article to this newsletter. Please let us know your current activities in your countries.

We also welcome your co-workers and friends to register our mailing list.

[iiseenews@kenken.go.jp](mailto:iiseenews@kenken.go.jp)

## Back Numbers

<http://iisee.kenken.go.jp/nldb/>

In case you cannot attend in real time, you can watch the recorded video later.

We would appreciate it if you could share the information with your colleagues and young researchers at your institute.

We look forward to seeing you at the seminar.

Date and Time: February 4 (Fri.) 16:45-18:30 (Japan Standard Time)

Contents:

16:45-17:00 Introduction of recent IISEE activity (Zoom)

17:00-18:00 "A new Vs30 estimation method with microtremor array data" (Dr. Hayashida) (Zoom)

18:00-18:30 Discussion (SpatialChat)

Speaker: Dr. Takumi Hayashida (Senior Research Scientist, IISEE)

Host: IISEE, BRI

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## A paper by Senior Research Scientist Dr. Saeko Kita, published in Nature communications on 21 December 2021

By Dr. Saeko Kita, Senior Research Scientist, IISEE

Senior Research Scientist Dr. Saeko Kita published a paper on examination of relationship of earthquakes of the Philippine Sea plate (in-slab earthquake) with slow slips beneath southwestern Japan in Nature communications. By compiling seismic data for 17 years by the nationwide dense seismic network beneath Japan archipelago (MOWLAS by NIED), the results of studies implies that the fluid migration or fluid pressure propagation from the Philippine Sea plate into the fault plane of slow slips, following occurrence of slow slips next to the locked zone of the Nankai Megathrust earthquake. Please get the paper from here (<https://rdcu.be/cDCAD>) if you are interested in this work.

Kita, S., Houston, H., Yabe, S. et al. Effects of episodic slow slip on seismicity and stress near a subduction-zone megathrust. Nature Communications 12, 7253 (2021).

<https://doi.org/10.1038/s41467-021-27453-8>