

IISEE Newsletter



International Institute of Seismology and Earthquake Engineering BRI Japan 1 Tachihara Tsukuba Japan 305-0802 tel+81-29-879-0678 facsim+81-29-864-6777

In This Issue

- Final Presentation held on August 3rd and 4th
- Visit of Ex-Participants from Tonga to the IISEE
- The 2022-2023 Training Course Closed
- Closing Ceremony Speech
- Visit of Ex-Participants from Indonesia to the IISEE
- Report on Kansai Study Trip
- Report on Tokyo · Gunma Study Trip
- Newly Published
 Papers

Final Presentation held on August 3rd and 4th

By Dr. Bunichiro Shibazaki, Director of IISEE

The final presentations for individual study for the 2022-2023 Regular Course were held on August 3 and 4. The final presentations were held jointly by the three courses: Seismology, Earthquake Engineering, and Tsunami Disaster Mitigation and all 14 participants could join the final presentation and present the results of their master's thesis research. We are very pleased that all participants were able to complete their master's theses.

We would also like to thank supervisors for their thoughtful guidance and online participation in the final presentations. We would like to express our sincere gratitude to all.





Ms. Nur Shajihan Binti Mohamed Iabal (Malaysia) E-Couese

Visit of Ex-Participants from Tonga to the IISEE

By Mr. Yasuhiko Akiba, Head of Administration Division, IISEE

The ex-participants, Mr. Mafoa Latu PENISONI (2020-2021 Seismology course) and Ms. Victorina Stephanie Nodis LEGER (2021-2022 Earthquake Engineering course) from Tonga visited the IISEE on the 29th and 30th in August. Due to COVID, both participants took lectures remotely and completed the training course without coming to Japan. On the 29th, they had a tour of the IISEE and had a meeting with their advisor. On the 30th, they made research presentations, paid a courtesy call to President Sawachi, had a lunch at the IISEE, and concluded with an exchange of opinions.



IISEE Net and Training

Synopsis Database Bulletin Database IISEE E-learning IISEENET IISEE-UNESCO Lecture Note

The 2022-2023 Training Course Closed

By Mr. Yasuhiko Akiba, Head of Administration Division, IISEE

On Sep 12, we had a closing ceremony of the training courses in Seismology, Earthquake Engineering, and Tsunami Disaster Mitigation, which started on Oct 5, last year. 14 participants from 8 countries (India(1), Indonesia(2), Egypt(3), Comoros(1), Fiji(2), Philippines(1), Bhutan(1), and Malysia(3)) joined the training course. In the ceremony, the representative of participants received a certificate of completion and Post Graduate Diplomas. After that, all the participants were awarded.



Ms. Emiko MUTSUYOSHI, Deputy Director General, Tsukuba Center, JICA



Dr. Hiroshi FUKUYAMA, Vice President of BRI

During the training period, the participants were divided into three courses, Seismology, Earthquake Engineering, and Tsunami Disaster Mitigation, and have attended specialized lectures considering their field. They summarized the research and solutions for the problems in their countries.

In the closing ceremony, the Director of Disaster Management



Mr. Koji KATAYAMA, Director of Disaster Management

Policy Program of GRIPS, Mr. Katayama announced 3 participants of the best research award. Dr. Shibazaki, the director of IISEE, announced 4 participants of the IISEE director's award. Lastly, Mr. Harvan from Indonesia made an address in reply to congratulatory speeches.

Earthquakes

Reports of Recent Earthquakes

Utsu Catalog Earthquake Catalog We wish their success in their country using the knowledge from this training course and the network of the people.



Presentation of Certificate Ms. Mariama Madi from Comoros, S course



Presentation of Diploma Mr. Lesikikabara Koroi from Fiji, T course



Best Research Award Mr. Sawi Paulo from Philippines, S course



Best Research Award Mr. Sulthan Faiz from Indonesia, E course



Best Research Award Mr. Chodavarapu Patanjali Kumar from India, T course



IISEE Director's Award Mr. Dendup Tshering from Bhutan, E course



IISEE Director's Award Mr.Adam Hany Abuelnaga Amen from Egypt, S course



IISEE Director's Award Ms. Nurul Nasuha Binti Md Zin from Malaysia, E course





IISEE Director's Award Mr. Elbehiri Hani Saber Abdelsalam Farag from Egypt, T course



Closing Ceremony Speech By Mr. Harvan Muhammad from Indonesia, T-course

Good Afternoon. Director Emiko Mutsuyoshi, the Director General of JICA Tsukuba Center. Doctor Takao Sawachi, the President of the Building Research Institute. Professor Koji Katayama, the Director of the Disaster Management Policy Program. Doctor Bunichiro Shibazaki, the Director of the International



Mr. Harvan Muhammad

Institute of Seismology and Earthquake Engineering. And all the distinguished guests and participants.

As we gather here at this moment, to celebrate the end of our study, I am reminded of one of my favorite Japanese proverbs: "Senri no michi mo ippo kara", which can be translated to, "Even a journey of a thousand miles begins with a single step."

It has been almost a year since we, the participants, came to Japan, and the proverb reminded me of the very first time we were here, starting our journey. Some of us came alone, some of us came by leaving our loved ones back home, some of us came with no knowledge of what we were going to get while being here. However, what I saw a year ago were faces that were filled with determination to take their very first steps in their academic journey.

I could argue that our time in this program has been an incredible journey, filled with countless steps, each representing a moment of growth, learning, and discovery. We've faced challenges, embraced opportunities, and worked tirelessly to reach our goals. But let us not forget that it all began with that very first step—the decision to pursue knowledge and embark on this educational adventure.

But of course, our journey here will not be anything sort of worthy and joyful without the help from all the professors and the staff members here. Therefore, on behalf of all the participants, I would like to express the most heartfelt gratitude for them. Our professors, from IISEE, GRIPS, and other campuses and institutions, have not only imparted us with knowledge, but have also inspired us, and challenged our thinking with their expertise and offering guidance. Their dedication to our education was the reason we can be here today.

I also want to acknowledge the unwavering hard work of the supporting staff members from IISEE/BRI, who work tirelessly to assist us, to ensure that the study program can function smoothly, and ensure that our academic life is as convenient as possible.



Enjoy, Now

Last but not least, I am also profoundly grateful to JICA, and the officers for their continuous support during our study. Because, without them we participants would not even be here. The JICA Scholarship program and Initiatives have played an important role in shaping our path to this very moment. So, thank you, for believing in our potential and giving us the opportunity to receive a world-class education.

To end my speech, I want to congratulate us, the graduates, for successfully finishing our study and reaching our goals. But don't forget, this is not the end of the journey. In fact, this is just the beginning of another journey that life will throw at us. So, let us keep our unwavering determination to live and enjoy another adventure.

Once again, thank you very much, have a safe trip to your home country, stay in touch with each other, and see you again in the future.

GRIPS Graduation Ceremony

By Mr. Yasuhiko Akiba, Head of Administration Division, IISEE

With the collaboration of the National Graduate Institute for Policy Studies (GRIPS), IISEE participants are awarded the degrees of Master of Disaster Management when they complete a one-year training course.

Unlike in previous years, when some participants participated remotely, this year, all the participants attended the graduation ceremony at the GRIPS on Wednesday, September 13 In closing the 2022-2023 IISEE training course, we would like to express our sincere gratitude to all the people involved for their cooperation. Thank you very much.

Dean's Award: Mr. Harvan Muhammad



GIPS Graduation Ceremony

Contact Us

The IISEE Newsletter is intended to act as a gobetween 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

https://iisee.kenken.go.jp /en/

Report on Kansai Study Trip

(1)Nurul Zawani Binti Hamidon (Malaysia) E-Course

During our educational excursion to the Kansai region from 22nd to 25th August 2023, we immersed ourselves in understanding the profound impacts of natural disasters, specifically the Great Hanshin Earthquake, and the subsequent innovations in disaster mitigation and infrastructure resilience in Japan.



Our journey began with a visit to the Disaster Reduction and Human Renovation Institution. This institution serves as a poignant reminder of the 1995 Kobe earthquake's devastation and showcases Japan's dedication to disaster preparedness and urban resilience. Through interactive displays, we learned about the tragedies that befell the citizens and the subsequent recovery and revitalization initiatives. The narratives of survivors imbued us with a renewed appreciation for the need to foster robust disaster response systems.

Later the same day, we headed to the Hyogo Earthquake Engineering Research Center (NIED). Here, cutting-edge research is conducted to counter the unpredictable forces of nature. We were introduced to advanced earthquake simulation techniques and infrastructural designs aimed at minimizing earthquake damage. The facility's proactive approach towards forecasting and simulating earthquake responses highlights Japan's commitment to safeguarding its citizens and infrastructure against future calamities.

On the subsequent day, our group marveled at the Akashi Kaikyo Bridge, the second world's longest suspension bridge. At the Exhibition Center, we learned about the bridge's unique engineering adaptations, which were redesigned post the 1995 earthquake that extended the bridge by nearly one meter. One of the most striking narratives revolves around the 1995 Great Hanshin Earthquake. The bridge was under construction when the quake struck, moving its two towers by almost





a meter and causing significant damage. Instead of seeing it as a setback, engineers took it as an opportunity to incorporate additional features, making the bridge even more resilient. The tour atop the bridge was particularly exhilarating, offering a panoramic view of the surrounding seascape and a tangible example of infrastructural resilience. It stands as a testament to humanity's ability to innovate in the face of adversity. Concluding our trip was a visit to the Nojima Fault Preservation Museum. Here, the raw scar of the 1995 earthquake, the Nojima Fault, is preserved in its ruptured state. It serves as a stark reminder of the earth's unpredictable power. The museum extensively documented the seismic studies post-earthquake, fostering a deeper understanding of tectonic movements and their consequences. The museum also plays a role in ongoing geological and seismological research. Scientists and researchers utilize the site for studies, contributing to the broader understanding of earthquakes and aiding in disaster prevention efforts. Our four-day study trip to the Kansai Region was a blend of somber memories and awe-inspiring innovations. We left with a

Back Numbers

https://iisee.kenken.go .jp/en/newsletter/ heightened awareness of the importance of disaster preparedness and a deep admiration for Japan's indomitable spirit and advanced technological strides in ensuring a safer future.



(2)Harvan Muhammad (Indonesia) T-Course

Day 2 – Hirogawa Town and Osaka City ·Hamaguchi Goryo Archives On the second day, we travel to Hirogawa Town, Wakayama prefecture to visit the

Hamaguchi Goryo Archives. It is a building dedicated to one of Japan prominent figure named Hamaguchi Goryo and also act as Tsunami Educational Center. In this place we



learnt about the life of Hamaguchi Goryo and his effort in saving the lifes of people of Hirogawa Town during the 1854 Ansei era tsunami. He burned his own rice sheaves (Inamura) in order to alert the people of upcoming tsunami and showing them the way to evacuate. The heroic story was told to next generation as the legend of Inamura no hi or Fire of the Rice Sheaves.

The village was severely devastated by the tsunami, thus encourage Goryo-san to take remarkable actions to restore his hometown. He dedicated himself to revitalization efforts, such as erecting shelters for disaster survivors. He also initiated to build a 600-meter- long and 5-meter-high protective barrier, significantly reducing the impact of future tsunamis.

The Tsunami Educational Center also provide several attractions for visitor regarding the science and impact of tsunami, as well as how to prepare ourselves against the disaster. Visitors can learn how to prepare for a tsunami through games and videos, watch a mini tsunami learn about the impact and how the shape of tsunami waves are different from normal waves, and find out about how tsunami preparation has been passed on throughout the history of tsunami.



Several tourist attractions in the Tsunami Learning Center. (left) Games and videos for learning tsunami preparedness, (right) infographic wall about the "Inamura-no-Hi".

•Tsunami/Storm Surge Disaster Prevention Station Next destination was to visit the Tsunami and Storm Surge Disaster Prevention Station in Osaka city. Osaka is one of the biggest and most populous cities in Japan, the city was originally located in flood plain area and used to submerged under the sea level. But as the sea level decreasing, a lot of people start to inhabit the area and build the city around it. However, as the urban development progressing, several problems were emerged, and one of them is land subsidence. Some part of Osaka city is under the averaged sea level. This has made Osaka particularly susceptible to flooding during heavy rainfall, typhoons, and storm surges.

The station was established as the focal point in preventing the coastal and water disaster related in Osaka City. It provides monitoring, controlling, and first responder services for tsunami and tidal surge protection facilities, such as seawalls and gates. But now, the facility also acts as learning center to improve awareness of disaster prevention among Osaka residents.



The building of Tsunami/Storm Surge Disaster Prevention station and one of the visitor attractions inside

· Disaster Reduction and Human Renovation Institution This facility was located in Kobe City, and built to commemorate the 1995 Great Hanshin Earthquake, also known as the Kobe Earthquake. The institution acts as a memorial to the victims of the Great Hanshin Earthquake and provides educational programs related to disaster risk reduction, preparedness, response, and recovery, which aims to raise awareness about the importance of disaster resilience and promote knowledge sharing. During our visit, we watch several documentary movies regarding the situation during the Kobe earthquake. We also visit the museum that shows the diorama, documents, artifacts, and photograph showing the devastating aftereffect of the disaster. The institution hoping that by providing this material, it will serve as a valuable resource for researchers, students, and the public in general to learn about the earthquake's impact and the recovery process.



Disaster Reduction and Human Renovation Institution. The room shows the artifact and memento for the Kobe earthquake event.

Report on Tokyo · Gunma Study Trip

(1) Mariama Madi (Comoros) S-Course

Day1 Honjo Life Safety Learning Center, Tokyo

On the first day, we visited Honjo Safety Learning Center the deployed efforts by Japan for disaster resilience. At the Center, floods are simulated where in some areas water flow took more than two weeks and expanded more rapidly from area to



another. We experienced simulated heavy rain and storm in the

experience room and realized how severe heavy rains can be. Earthquakes as well caused a negative impact through damages and lots of lost lives. Devastating earthquakes have been simulated as well, were we experienced shaking table for intensity 6 and 7 of earthquakes that occurred in Japan and how the shaking was severe.

This visit has been an opportunity for ICHARM participants to experience earthquakes, while IISEE participants experienced heavy rain and flooding throughout simulations.



(2)Adam Hany Abuelnaga Amen (Egypt) S-Course

Yanba Dam

Yanba Dam, situated in Naganohara, Gunma Prefecture, serves a vital role in safeguarding lives from floods and meeting the water needs of the Tokyo metropolitan region. Constructed over several decades, it reached effective completion in October 2019 and was officially opened on April 1, 2020. This impressive dam



stands 131 meters tall, spans approximately 336 meters in length, and boasts a total water storage capacity of 107.5 million cubic meters.









Tomioka Silk Mill

Established in 1872, the Tomioka Silk Mill, Japan's inaugural modern silk factory, was constructed with French expertise to enhance silk quality through contemporary machinery and improved worker conditions. Over the years, its well-preserved structures, particularly three long brick buildings, including the silk reeling mill and east and west warehouses, have maintained their original appearance, offering a glimpse into its historical significance and processes.







Newly Published Papers

(Newly published papers by IISEE staff and alumni are introduced.)

Review Paper by Dr. Shibazaki (Progress in Earth and Planetary Science)

Title: Progress in modeling the Tohoku-oki megathrust earthquake cycle and associated crustal deformation processes Author: B. Shibazaki

DOI: https://doi.org/10.1186/s40645-023-00575-x

Research Paper by Dr. Hayashida et al. (Seismological Research Letters)

Title: Tracking the effect of human activity on MeSO-net noise using seismic tata traffic—Did seismic noise in Tokyo truly decrease during the COVID-19 state of emergency? Authors: T. Hayashida, M. Yoshimi, H. Suzuki, S. Mori, T. Kagawa, K. Ichii, and M. Yamada DOI: https://doi.org/10.1785/0220230015