Welcome greeting

The 17WCEE Organizing Committee welcomes all participants and thanks all those who have cooperated in the preparations of the 17WCEE to date.

The 17WCEE is the third WCEE to be held in Japan after the 2WCEE (1960) and the 9WCEE (1988). Japan is one of the world's most earthquake-prone countries and an advanced country in earthquake engineering, but since the 9WCEE, there have been 24 earthquake disasters with at least 100 casualties (injuries and fatalities), with various types of earthquake mechanisms and disaster characteristics. These experiences and lessons should be shared in order to reduce earthquake damage around the world, but the most serious damage was inflicted in the 1995 Kobe Earthquake and the 2011 Great East Japan Earthquake.

Japanese researchers have worked hard to deepen their knowledge, put in place technologies and institutional systems including legal systems, and have steadily reduced the damage caused by similar earthquake hazards in the past. In the process, same as in other research fields, the efficiency of research progress was improved by subdividing the research fields and deepening the research in each field. However, the issues that existed between the subdivided research fields were left behind, and communication among the fields was insufficient. This problem became apparent in the 2011 Great East Japan Earthquake and Tsunami Disaster. Many of the issues that emerged from this disaster could not be solved by combining the results of conventional earthquake engineering and a small number of subdivided research fields, and it became clear that research is needed to combine the results of many related fields. Recovery activities are still in the process, especially in Fukushima Prefecture where the accident involving the Fukushima first nuclear power plant of Tokyo Electric Power Company happened. The problems behind this disaster are the lack of awe and humility of researchers towards nature and their blind belief in their scientific knowledge and technologies.

We have greatly reflected the above issues. Since Japan was approved to host the 17WCEE at the 16WCEE, setting the theme of the 17 WCEE as "Towards Disaster Resilient Society", we have been seriously discussing various ideas for providing an appropriate time and place where delegates from around the world can share excellent opportunities and experiences, for both developed and developing countries to implement policies to build disaster resilient societies and to create new directions through integrating various fields of earthquake disaster reduction specialties. It was under such circumstances that the COVID-19 pandemic occurred, starting in 2019, and the 17WCEE, which was originally scheduled to be held in September 2020, was postponed by one year due to the worldwide spread of COVID-19 in 2020 and the 17WCEE is now being held as originally planned in Sendai, Miyagi Prefecture, in 2021, tenth anniversary year of the Great East Japan Earthquake and Tsunami Disaster. Sendai is called the "City of Trees", and a "Disaster resilient and Environmentally-friendly City" and it is the gateway to Northern Japan with a mild climate, abundant and beautiful greenery, and both traditional and modern culture. The coastal area of the city was devastated by the 2011 Tsunami and the city is now moving forward strongly as a role model for a resilient recovery. In March 2015, Japan hosted the Third UN World Conference on Disaster Risk Reduction in Sendai and the "Sendai Framework for Disaster Risk Reduction" was adopted. The Sendai Framework is well known for the statement of BBB (Build Back Better). Sendai has been a frontier city to implement earthquake disaster mitigation programs.

While COVID-19 has caused major problems around the world, it has also triggered new ingenuity and innovations. For us, the 17WCEE Organizing Committee, the one-year postponement due to COVID-19 also caused various problems, such as with the publication of conference proceedings, difficulty for participants in visiting Sendai City, a significant decrease in capacity of the venue, program organization and presentation methods, reconsideration of meals, exhibitions, technical tours, and social programs, emergence of financial issues and review of budget plans, etc. We regard this difficulty as an opportunity for generating new ideas and creating various new projects.

The 17WCEE will be held in a hybrid manner, combining in person and online formats. At the 17WCEE, more than 2,900 research papers will be presented, including the 2020 17WCEE Proceedings published in September 2020 as originally scheduled, and new papers on updated research carried out during the postponement period. By making effective use of videos and PDFs of the presentation provided in advance, we have made it possible to watch the presentations on demand, in addition to viewing the presentations in regular sessions. We also have set the online virtual conference period from one week before to one month after the face-to-face conference period so that more people can participate.

The 17WCEE will be held in a different style from conventional WCEEs, but we believe that it will be a conference that can greatly contribute to the progress of research by all the participants and to the reduction of future earthquake disasters around the world. At the same time, we hope that the 17WCEE will serve as the place "to connect various regions, genres, and generations" embodying the vision for the goal of the IAEE by Dr. Masayoshi Nakashima, President of IAEE.

We hope all the participants will greatly enjoy the 17WCEE for which we have been doing our best to prepare.

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