

IRIDeS faculty members visited Bangkok to investigate building damages and other impacts and responses caused by the 2025 Myanmar earthquake (2025/4/15-18)

Theme: The 2025 Myanmar earthquake
Place: Bangkok, Thailand

From the 15th to the 18th of April 2025, Prof. Shinichi Kuriyama (Disaster Public Health Lab), Assoc. Prof. Anawat Suppasri (Tsunami Engineering Lab), Assoc. Prof. Ryuta Enokida (Earthquake Engineering Lab) and Assist. Prof. Naruethep Sukulthanasorn (Nippon Koei Resilient City with Digital Twin Technologies Joint Research Lab) visited Bangkok, Thailand and conducted several visits to academic institutions and both governmental and private institutions that were affected or made emergency responses according to the 2023 Myanmar earthquake in Bangkok. Our team was officially supported by Hon. Miss Ratchaneekorn Thongthip, Member of the Senate of Thailand and director of the International Tsunami Museum in Khaolak, Thailand, and Mr. Nattapon Trumikaborworn, Asian Institute of Technology and member of the Earthquake Research Center of Thailand

At Chulalongkorn University, a meeting with Burmese faculty members and students to seek out their real voices and needs was conducted by a former IRIDeS faculty member and current faculty member at Chulalongkorn University, Assoc. Prof. Natt Leelawat. We learned from the Burmese people in Bangkok regarding the current disaster situation and the difficulties of recovery and reconstruction of this disaster, as well as preparation for the next disaster.

As for the governmental offices, IRIDeS members visited the National Assembly of Thailand, Bangkok Metropolitan Administration (BMA), Department of Disaster Prevention and Mitigation (DDPM), Rajavithi hospital, the Embassy of Japan in Thailand and the United Nations Office for Disaster Risk Reduction (UNDRR). As for the private sector, IRIDeS members visited the condominiums and villas of Magnolia Quality Development Corporation Limited (MQDC), King Power Mahanakhon building (the 2nd tallest building in Thailand) with executive members from Beca (Thailand) Company Limited and the Ritz-Carlton Residences, Bangkok Bank headquarter building (the tallest building in Thailand during 1981-1987) and Thai Fukuda corporation limited.

From our visits to both governmental offices and private sectors, our main findings and possible contribution from IRIDeS or Japan can be summarized below.

- 1) Earthquake Early Warning system (EEW): Especially in Bangkok, which is about 1,000 km apart from the epicenter, such an EEW will provide a certain amount of lead time and allow people to respond before the main ground shaking arrives.
- 2) Building design codes for earthquake resistance: The low to mid-rise buildings in Bangkok were OK, mainly due to the predominance of long-period components in the ground motions. However, the high-rise buildings were severely affected by the motions, which almost reached the intensity of the design spectra.
- 3) Structural health monitoring sensors: Especially for public buildings or tall buildings, such sensors can provide quantitative information on levels of structural damage and give guidance on whether residences or users are safe or not to return to their buildings.
- 4) Emergency plan for high-rise building against earthquake: As people in Thailand had never expected such large shaking caused by long-period ground motion, people were in panic and had no idea what to do next.

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- 5) Stranded commuter: Similar to Tokyo Metropolitan, every person who was working around the city center had long difficulties returning to their homes because of serious traffic jams and the shut-down of all train systems.
- 6) Disaster education: People in Thailand have a less correct understanding of earthquakes. Therefore, they had no idea what to do and must be included in a basic education in the future.
- 7) Mental health: Large numbers of people who are living and working in tall buildings have mental health-related issues which are mainly caused by not only their experience of large shaking, but also images and videos of the collapse of the under-construction 30-story building.

Text and photos : Anawat Suppasri



Left: At Chulalongkorn University with Burmese faculty member and students
 Right: At the Forestias with executive members of MQDC



Left: At the National Assembly of Thailand
 Right: At the Embassy of Japan in Thailand with the ambassador



Left: With the chief of UNDRR Regional Office for Asia and the Pacific
 Right: At Rajavithi hospital with the hospital director

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Left: At Bangkok Metropolitan Administration with the governor of Bangkok
 Right: At the King Power Mahanakhon building with executive members of Beca (Thailand) Company Limited and the Ritz-Carlton Residences



Left: At Department of Disaster Prevention and Mitigation and Thai Meteorological Department
 Right: At Bangkok Bank with vice president



At Thai Fukuda Company Limited with the managing director