**Location: National Center for Research on Earthquake Engineering, Taipei**
**Date: 2025/9/24 (Wednesday)**
**Time: 10:30-11:30**

## Speaker 1: Shigeki Unjoh, Dr. Eng. PE

Professor, Creative Design Engineering for Structural Systems Lab.
Department of Civil and Environmental Engineering, Tohoku University


## Presentation Title:

## Some Recent Research Topics to Enhance Seismic Performance of Infrastructures

## Biography:

Dr. Shigeki Unjoh graduated from Hokkaido University in 1985 and joined the governmental research institute (Public Works Research Institute, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)). After about 30 years practical work there. he moved to Tohoku University in 2017. His research interest is in the field of earthquake engineering and structural dynamics, including the understanding of damage mechanisms of structures subjected to strong ground motions, seismic design methods and design codes for structures (in particular, for ordinary and long-span bridges), and structural control design such as seismic isolation and damping augmentation systems. He joined the JSCE damage investigation team for the 1999 Chi-Chi earthquake and learned lessons on the effect of large fault displacement on structures.

Dr. Unjoh authored the chapter "Seismic Design Practice in Japan" in the Bridge Engineering Handbook: Seismic Design (edited by Wai-Fah Chen and Lian Duan, 2014) and co-authored several major Japanese design codes and manuals, including the Reference Manual for Specifications for Highway Bridges, Part V: Seismic Design (道路橋示方書・同解説V 耐震設計編に関する参考資料, 2015), the Manual for Seismic Isolation Design of Highway Bridges (道路橋の免震設計法マニュアル, 2011), and the Handbook for Road Earthquake Disaster Countermeasures (道路震災対策便覧, 2010). These are among his key publications that have influenced modern seismic design and retrofit practices for infrastructures in Japan and abroad.

**Speaker 2: Xinhao He, Ph.D**
Assistant Professor, Creative Design Engineering for Structural Systems Lab.
Department of Civil and Environmental Engineering, Tohoku University

**Presentation Title:**

## Recent Advances in the Application of Friction Pendulum Bearings in Isolation Bridges in Japan: Monitoring and Evaluation Across Laboratory, Field, and Seismic Conditions

**Biography:**

Dr. Xinhao He received his Ph.D. from Kyoto University and is currently an Assistant Professor at Tohoku University. His research addresses various challenges in critical infrastructure structures, with a focus on sparse monitoring, dynamic control, and intelligent diagnostics. His goal is to enhance infrastructure resilience and develop advanced life-cycle maintenance systems. He has been recognized as Predominant Researcher by Tohoku University.