

Time	Presentation Title	Speaker (* online)
08:30 – 09:00	Registration	
<b>Chair: Kuo-Fong Ma</b>		
09:00 – 09:15	Opening	<p><b>Chung-Che Chou</b> National Center for Research on Earthquake Engineering, NARLabs, Taiwan</p> <p><b>Sun-Lin Chung</b> Institute of Earth Sciences, Academia Sinica, Taiwan</p> <p><b>Yue-Gau Chen</b> Center for Sustainability Science, Academia Sinica, Taiwan</p>
09:15 – 09:45	<p><b>1</b> Overview of RESIST Project -- Resilient societies through smart-city technology: Assessing earthquake risk in ultra-high resolution</p> <p><b>2</b> Smart Sensor Deployments in the Tokyo Area: New Means of Communicating Earthquake Risk and Chances for Seismology</p> <p><b>3</b> Overview of UCLA Smart City Research Program</p>	<p><b>Kuo-Fong Ma</b> Institute of Earth Sciences, Academia Sinica, Taiwan E-DREaM, National Central Univeristy, Taiwan</p> <p><b>Naoshi Hirata</b> Earthquake Research Institute, The University of Tokyo, Japan</p> <p><b>Yousef Bozorgnia*</b> Department of Civil and Environmental Engineering, UCLA, USA</p>
<b>Online</b> 09:45 – 10:05	Long-term building safety assessment under a series of earthquake excitations	<b>Chin-Hsiung Loh*</b> Department of Civil Engineering, National Taiwan University, Taiwan
10:05 – 10:25	Distributed Computing with Dense Seismic Arrays for Structural Health Monitoring	<b>Monica Kohler</b> Department of Mechanical and Civil Engineering, California Institute of Technology, USA
10:25 – 10:45	Break	
<b>Chair: Silvia Mazzoni</b>		
10:45 – 11:05	Implementation of a structural health monitoring system in Japan	<b>Akihiro Kusaka</b> Kobori Research Complex Inc., Japan
<b>Online</b> 11:05 – 11:25	The Pivotal Role of Low-Cost Instrumentation in Achieving a Resilient Civil Infrastructure — A Structural Engineer's Perspective	<b>Farzad Naeim*</b> Farzad Naeim, Inc., USA
11:25 – 12:10	Discussion on the perspective of low-cost sensor building arrays for smart city	<p><b>Kuo-Fong Ma</b> Institute of Earth Sciences, Academia Sinica, Taiwan E-DREaM, National Central Univeristy, Taiwan</p> <p><b>Silvia Mazzoni*</b> UCLA, USA</p>
12:10 – 13:30	Lunch	

Time	Presentation Title	Speaker (* online)
<b>Chair: Chung-Han Chan</b>		
13:30 – 13:50	The application and development of the CWB earthquake early warning system	<b>Da-Yi Chen</b> Central Weather Bureau, Taiwan
13:50 – 14:10	Application of low-cost instrumentation for filling instrumentation gaps on ground surface and in structures	<b>Hamid Haddadi</b> California Geological Survey, USA
14:10 – 14:30	Progress on the earthquake early warning and shakemaps system using low cost sensors in Taiwan	<b>Yih-Min Wu</b> Department of Geosciences, National Taiwan University, Taiwan
14:30 – 14:50	Development of web and questionnaire system using small seismometer	<b>Hiroshi Tsuruoka</b> Earthquake Research Institute, The University of Tokyo, Japan
14:50 – 15:05	Smart QGIS Seismic Network (QSN) for in-situ Intensity notification and Structural Health Monitoring	<b>Utpal Kumar</b> UC Berkeley, USA Institute of Earth Sciences, Academia Sinica, Taiwan
15:05 – 15:20	Extracting Building Response from the Low-Cost QGIS Seismic Network (QSN) for Structure Integrity Monitoring	<b>Wen-Tzong Liang</b> Institute of Earth Sciences, Academia Sinica, Taiwan
15:20 – 15:40	Break	
<b>Chair: Hamid Haddadi</b>		
15:40 – 15:55	Development of a smart building monitoring system using high performance-cost MEMS sensors	<b>George C. Yao</b> Department of Architecture, National Cheng Kung University, Taiwan
15:55 – 16:10	Using subspace identification and subspace tracking for online monitoring of modal parameters under seismic events	<b>Shieh-Kung Huang</b> Department of Civil Engineering, National Chung Hsing University, Taiwan
16:10 – 16:50	Discussion on National and Private network toward building resilient cities & infrastructures	<b>Chung-Han Chan</b> E-DREaM, National Central University, Taiwan <b>Hamid Haddadi</b> California Geological Survey, USA

Time	Presentation Title	Speaker (* online)
<b>Chair: Naoshi Hirata</b>		
09:00 – 09:20	A structural health monitoring system with accelerometers based on the capacity spectrum method –examples with national heritage monuments to high-rise towers	<b>Koichi Kusunoki</b> Earthquake Research Institute, The University of Tokyo, Japan
09:20 – 09:35	From Bridge Damage due to the 2016 Meinong Earthquake and Rehabilitation Experience to Building a Seismic Array of Bridges	<b>Fang-Yao Yeh</b> National Center for Research on Earthquake Engineering, Taiwan
<b>Online</b> 09:35 – 09:55	The use of cellular-enabled, MEMS-based sensors to assist public and private earthquake response efforts	<b>Evan Reis*</b> Safehub, USA
09:55 – 10:10	Development and Experimental Verification of Machine Learning Damage Detection for Seismically-Excited Buildings	<b>Chia-Ming Chang</b> Department of Civil Engineering, National Taiwan University, Taiwan
10:10 – 10:25	Dynamic characteristics of TAIPEI 101: from monitoring to prediction of ambient vibration	<b>Yaochieh Chen</b> Department of Earth Sciences, National Taiwan Normal University, Taiwan
10:25 – 10:50	Break	
<b>Chair: Kate Huihsuan Chen</b>		
<b>Online</b> 10:50 – 11:10	Minimal Sensing and Model-Data Fusion for Performance-based Seismic Monitoring of Instrumented Buildings	<b>Milad Roohi*</b> University of Nebraska-Lincoln, USA
11:10 – 11:25	Structural Damage Early Warning Technique for Structures without Installing Monitoring Systems	<b>Shu-Hsien Chao</b> National Center for Research on Earthquake Engineering, Taiwan
11:25 – 11:40	Sustainability Evaluation of a Long-term Monitored Residential Building based on Entropy Analysis	<b>Tzu-Kang Lin</b> Department of Civil Engineering, National Yang Ming Chiao Tung University, Taiwan
11:40 – 11:55	Implementation Aspects of Building Seismic Array toward Intelligent Long-term Building Information Management in METAVERSE	<b>Shih-Yu Joseph Chu</b> Department of Civil Engineering, National Cheng Kung University, Taiwan
11:55 – 13:30	Lunch	

Time	Presentation Title	Speaker (* online)
<b>Chair: Monica Kohler</b>		
13:30 – 13:45	Development of the Taiwan Earthquake Risk Assessment System (TERA)	<b>Chin-Hsun Yeh</b> National Center for Research on Earthquake Engineering, Taiwan
<b>Online</b> 13:45 – 14:05	Development of training scenario design methods and training programs based on past earthquake disasters to improve high-level decision-making ability	<b>Keiko Tamura*</b> Niigata University, Japan <b>Munenari Inoguchi*</b> University of Toyama, Japan
14:05 – 14:25	Survey research on changes in disaster prevention awareness and behavior of residents by their perception of indoor seismic intensity	<b>Takashi Furuya</b> Institute of Scientific Approaches for Fire & Disaster, Japan
14:25 – 15:05	Summary of Round-Table Workshop on Leveraging Low-Cost Seismic Networks In Building Resilient Cities & Infrastructures	<b>Naoshi Hirata</b> Earthquake Research Institute, The University of Tokyo, Japan <b>Monica Kohler</b> Department of Mechanical and Civil Engineering, California Institute of Technology, USA
End of the workshop		
15:30 – 16:30	Close door discussion for “How to move on and What for the next?”	<b>TEC Meeting Room (7009)</b>

March 20-21, 2023

Hall 1004, RCEC Building, Academia Sinica, Taipei, Taiwan

Number	Poster Title	Authors
PP01	Building array of the CWB, analysis to M > 6.5 earthquake in 1999-2016	<b>Min-Cheng Huang</b> Department of Earth Sciences, National Taiwan Normal University, Taiwan
PP02	Earthquake GMPEs and DYFI data relations from the Durres, 2019 Mw6.4, Albania, earthquake	<b>Edlira Xhafaj</b> Institute of Earth Sciences, Academia Sinica, Taiwan
PP03	Obtaining QSiS structural waveform data using the Web Service Platform	<b>Chung-Hung Lo</b> Institute of Earth Sciences, Academia Sinica, Taiwan
PP04	Building Footprint Recognition from Satellite Imagery with Convolutional Neural Networks and its applications to Taiwan	<b>Wei-An Chen</b> Department of Earth Sciences, National Central University, Taiwan
PP05	Real-Time Hybrid Testing of Full-Scale TMD with 3D Digital Twin Technique	<b>Chan-Jung Kang</b> Department of Civil Engineering, National Cheng Kung University, Taiwan
PP06	Identification of sliding behavior of isolators - Utilize full-scale base isolated platform	<b>Yi-Lin Hsu</b> Department of Civil Engineering, National Cheng Kung University, Taiwan
PP07	A Rapid Structure Damage Assessment Scheme Based on the Normalized- Relative- Displacement-Vibration-Shape	<b>Guan-Yu Cheng</b> Department of Civil Engineering, National Cheng Kung University, Taiwan