



**MONGOLIAN UNIVERSITY OF SCIENCE
AND TECHNOLOGY**
SCHOOL OF CIVIL ENGINEERING AND ARCHITECTURE



THE 17TH INTERNATIONAL CONFERENCE
OF THE **BUILDINGS,**
STRUCTURES AND
GEO TECHNICAL ISSUES,
MONGOLIA 2024

WHEN: 09:00–17:00 28 MAY 2024

WHERE: 8TH BUILDING OF MONGOLIAN UNIVERSITY
OF SCIENCE AND TECHNOLOGY,
ULAANBAATAR MONGOLIA

Organizers: SCHOOL OF CIVIL ENGINEERING AND ARCHITECTURE,
MONGOLIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY.

MONGOLIAN NATIONAL CONSTRUCTION ASSOCIATION

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THE BUILDINGS, STRUCTURES AND GEOTECHNICAL ISSUES,
MONGOLIA 2024**

AGENDA

SESSION-I: Moderator Tsoggerel Tsamba, Ph.D.		
09:00–09:15	<i>Opening remarks</i>	
09:20–09:40	"Earthquake early warning and smartphone seismology"	<i>Julien Marty, Ph.D.,</i> University of California, Berkeley, USA (Online)
09:45–10:05	"Real Time Seismic Structural Monitoring at California Geological Survey's Strong Motion Instrumentation Program (CSMIP)"	<i>Daniel Swensen, Ph.D., P.E.</i> California Geological Survey, USA (Online)
10:10–10:30	"A brief report on housing damage in the 2024 Noto Peninsula earthquake in Japan"	<i>Ryuta Enokida, Ph.D.,</i> Tohoku University, JAPAN (Online)
10:35–10:55	<i>Coffee break (20 min)</i>	
11:00–11:15	"Application of Augmented Kalman Filter to Estimate Nonlinear Response at Unobserved Floors"	<i>Susumu Ohno, Ph.D.,</i> Tohoku University, JAPAN (Conference Hall)
11:20–11:35	"Variation of Vibration Characteristics of a Repeatedly Damaged Pile–Foundation RC Building"	<i>Kazuya Mitsuji, Ph.D.,</i> Yamagata University, JAPAN (Conference Hall)
11:40–11:55	"Retrofitting of The National Center of Maternal and Child Health" (NCMCH) by Buttress wall"	<i>Bayasgalan Ganbayar,</i> JICA Project for Strengthening the National Capacity of Earthquake Disaster Protection and Prevention
12:00–12:15	"Application of High–resolution Electrical Resistivity Tomography (ERT) for Permafrost Engineering Research"	<i>Saruulzaya Adiya, Ph.D.,</i> Institute of Geography and Geoecology, Mongolian Academy of Sciences
12:20–12:35	"The Strong Motion Network in Ulaanbaatar"	<i>Tsoggerel Tsamba, Ph.D.,</i> School of Civil Engineering and Architecture, Mongolian University of Science and Technology
12:40–13:00	<i>Photo session</i>	
13:00–14:00	<i>Lunch time (60 min)</i>	
SESSION-II: Moderator Amarbayar Jugdernamjil, Ph.D		
14:00–14:15	"Geotechnical issues on Foundations of high–rise buildings"	<i>Nyamdorj Setev, Sc.D.,</i> Geotechnical Research Center, Mongolian University of Science and Technology
14:20–14:35	"Road safety improvements on pedestrian crossing in school zone"	<i>Bolormaa Renchindorj, Ph.D.,</i> School of Civil Engineering and Architecture, Mongolian University of Science and Technology
14:40–14:55	"The combination method to increase Ongi river flow, restore Ulaan lake and supply shortage of central energy system peak load"	<i>Nasanbayar Narantsogt, Ph.D.,</i> School of Civil Engineering and Architecture, Mongolian University of Science and Technology
15:00–15:15	"Current State of Green Building Development in Mongolia"	<i>Oyuntsatsral Tseyenbaljir, Ph.D.,</i> School of Civil Engineering and Architecture, Mongolian University of Science and Technology
15:20–15:35	"Seismic assessment of Reinforced Concrete structural wall buildings in Mongolia"	<i>Gombosuren Dagvabazar, Ph.D.,</i> School of Civil Engineering and Architecture, Mongolian University of Science and Technology
SESSION-III: Moderator Ninjragav Enebish, Ph.D.		
15:50–16:10	"Features of Determining the Physical and Mechanical Characteristics of the Base made using Jet Grouting Technology in Weak Water–Saturated Soils"	<i>R. A. Mangushev, Ph.D.,</i> Saint Petersburg State University of Architecture and Civil Engineering, RUSSIA (Online)
16:15–16:30	"Research on the Use of Bottom Ash of Darkhan Thermal Power Station"	<i>Ankhubayar Khadbaatar,</i> School of Technology in Darkhan, Mongolian University of Science and Technology
16:30–17:00	<i>Closing Ceremony</i>	

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Susumu Ohno, Ph.D.,
Tohoku University, JAPAN

“Application of Augmented Kalman Filter to Estimate Nonlinear Response at Unobserved Floors”

Dr. Susumu Ohno is an Associate Professor of Earthquake Engineering at International Research Institute of Disaster Science, Tohoku University, Japan. His work focuses on using the latest earthquake observation and information technology, and they are developing efficient earthquake damage reduction technology. Based on researches about ground motion, building response, and earthquake damage prediction, they are researching disaster prevention measures such as earthquake early warning, shake-map estimation, vibration damage estimation, and structure health monitoring using real-time earthquake observation network.



Kazuya Mitsuji, Ph.D.,
Yamagata University, JAPAN

“Variation of Vibration Characteristics of a Repeatedly Damaged Pile-Foundation RC Building”

Dr. Kazuya Mitsuji is a Professor of Yamagata University, Japan. He majors in earthquake and geotechnical engineering, especially, building foundation engineering, estimation of dynamic characteristics of pile-foundation building and dynamic property of ground using microtremor and earthquake observation data. After the 2011 Tohoku earthquake, he was experiencing lots of damage survey of buildings and ground in severely damaged area of Tohoku area. He is currently investigating structural health monitoring of damaged RC building, modern wooden building and traditional wooden temple building etc.



Ryuta Enokida, Ph.D.,
Tohoku University, JAPAN

“A brief report on housing damage in the 2024 Noto Peninsula earthquake in Japan”

Ryuta Enokida is an Associate Professor of Earthquake Engineering at International Research Institute of Disaster Science, Tohoku University, Japan. His work focuses on nonlinear system control, shake table experimentation, structural health monitoring and seismically isolated structures.



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Julien Marty, Ph.D.,
University of California, Berkeley, USA

“Earthquake early warning and smartphone seismology”

Dr. Julien Marty has a PhD in Environmental Science. After 5 years with the French Atomic Energy Commission, Dr. Marty worked for 11 years for the Comprehensive Nuclear-Test-Ban Treaty Organization in Vienna, Austria as the head of the seismo-acoustic group in the International Monitoring Division.

He now manages several teams of scientists and engineers at the University of California, Berkeley. He is involved in projects such as earthquake early warning, earthquake monitoring in Northern California, MyShake, or offshore monitoring through fiber optic cables.



Daniel Swensen, Ph.D., P.E.
California Geological Survey, USA

“Real Time Seismic Structural Monitoring at California Geological Survey's Strong Motion Instrumentation Program (CSMIP)”

Daniel Swensen is a Senior Civil Engineer with the California Strong Motion Instrumentation Program (CSMIP) of the California Geological Survey (CGS). He supervises the Structural Response and Data Utilization unit of the Program which provides oversight on structural instrumentation projects throughout the state of California.

Prior to joining CSMIP in 2009, he worked in industry as a structural engineer. Daniel received a Ph.D. from UC Davis in Civil Engineering.