Join us for

INTERNATIONAL

SEMINAR

ON

SiP
Cross-ministerial Strategic Innovation Promotion Program

Development of a Resilient Smart Network System against Natural Disasters

Monday 30th June, 2025

11:00-16:40

Sign up here!

Seminar Room A/B

Earthquake Research Institute, The University of TOKYO

/ZOOM Webinar: https://zoom.us/j/92901168814?pwd=Yaw7bzwR10SO5SQD2lXH7eUP10u4IL.1

THE SPEAKERS

Charlotte Brown | Ryan Paulik | Kenneth Elwood | Sarah-Jayne McCurrach | Xinzheng Lu

We are pleased to welcome five invited speakers to the seminar this time. We explore New Zealand's evolving strategies for natural hazard risk management. Like Japan, New Zealand is one of the most hazard-prone countries in the world and has become a global reference for integrating science, engineering, policy, and community values to build resilience. Our speakers will share these valuable insights in detail during the seminar, offering you a deeper understanding of best practices in disaster risk management.

In addition, we will hear from a distinguished professor from China, who will present on physics-based and AI-driven urban disaster simulation—an innovative approach to enhancing urban resilience against multiple hazards.

Don't miss this opportunity to explore how we can better understand, communicate, and manage disaster risks in the face of increasingly frequent and severe events such as wind and flood disasters, as well as the imminent threat of a large-scale earthquake.

SIP International Seminar

MONDAY, JUNE 30th
11:00 - 16:40

Seminar Room A/B in Earthquake Research Institute
The University of TOKYO

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PROGRAM

11:00	INTRODUCTION Seminar Objective
11:10	An overview of SIP Development of a Resilient Smart Network System against Natural Disasters Professor KUSUNOKI Koichi *University of Tokyo*
11:40	Natural Hazard Disaster Risk Management in New Zealand Ms. Sarah-Jayne McCurrach *Natural Hazards Commission Toka Tū Ake*
12:20	Toward a national understanding of flood disasters in New Zealand Dr. Ryan Paulik *The National Institute of Water and Atmospheric Research*
13:00	LUNCH Break
14:40	Community service-centred hazard risk management and risk tolerance Dr. Charlotte Brown *ResOrgs-Resilience & Risk Experts*
15:20	National Seismic Hazard Model and Impacts on Building Design in New Zealand Professor Ken Elwood *Ministry of Business Innovation and Employment*
16:00	City-Scale disaster simulation and resilience assessment: From physics-based method to AI method Professor Lu Xinzheng *Tsinghua University*
16:40	Closing

CONTACT
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THE SPEAKERS

Working at the boundary of research and engineering practice, Ken is an internationally recognised expert on the seismic assessment and design of concrete buildings.

With over 15 years of experience on international standards and code committees, he is dedicated to the balance of technical excellence and practical policy implementation. In 2021, Ken started a six-year secondment (0.8FTE) to the New Zealand Government to serve as the MBIE/NHC Chief Engineer (Building Resilience). Through this co-funded role for the Ministry for Business Innovation and Employment (MBIE) and Natural Hazards Commission Toka Tū Ake, Ken champions the resilience of New Zealand's built environment, by establishing strong stakeholder connections and promoting collaboration between relevant research, policy, and practice players.

Prof. Kenneth Elwood
Ministry of Business Innovation and Employment

Dr. Charlotte Brown
ResOrgs-Resilience & Risk Experts

Charlotte is Joint Managing Director of ResOrgs, a research, consulting and training group helping organizations, groups and communities to be future ready (www.resorgs.org.nz).
As a social scientist with a civil engineering background, Charlotte works at the interface between physical and social sciences. Charlotte's areas of specialty include risk management, systems thinking, decision-making and organizational resilience. Charlotte also has strengths in the practical application and communication of research.

Charlotte is an Adjunct Fellow with the Department of Civil and Natural Resources Engineering at the University of Canterbury, New Zealand and has a PhD in Disaster Waste Management.

Ryan Paulik is a natural hazards risk researcher at the National Institute of Water and Atmospheric Research (NIWA) in Wellington, New Zealand, with 15 years of professional and research experience in natural hazard risk assessment and management.
Ryan leads NIWA's RiskScapeTM programme, a joint partnership with GNS Science and Natural Hazards Commissions Toka Tū Ake (NHC), focusing on developing tools for natural hazard impact and risk analysis. His research encompasses natural hazard impact and risk assessment, post-event damage surveys, vulnerability modelling, and software development for risk analysis. Ryan collaborates with various government and non-government organizations to apply hazard impact and risk information in disaster risk management activities.

Dr. Ryan Paulik
The National Institute of Water and Atmospheric Research

THE SPEAKERS

Ms. Sarah-Jayne McCurrach
Natural Hazards Commission
Toka Tū Ake

Sarah-Jayne is a leader in natural hazard risk management, working at the interface of disaster risk finance and disaster risk reduction as Head of Risk Reduction at the Natural Hazards Commissions Toka Tū Ake (NHC). Her work emphasises evidence-based policy and decision-making. She is trusted for her strategic systems thinking and translating complex science into practical applications. These skills were demonstrated when she initiated and led the development of New Zealand's DART Buoy system, establishing the second-largest tsunami monitoring network globally.

She has represented New Zealand in several governance roles, including 8-years within the Intergovernmental Oceanographic Commission (IOC) of UNESCO for the Pacific Tsunami Warning System (PTWS).

Her efforts in creating key strategies and frameworks, such as the PTWS Strategy 2022-2030, NHC Risk Reduction Strategy, and New Zealand's first Sendai reporting framework, highlight her commitment to systems leadership in disaster risk reduction.

Key initiatives include leading the development of New Zealand's first national risk assessment framework, tsunami vertical evacuation guidance, and New Zealand's Natural Hazard Portal.

She has also been involved in emergency response and recovery to several national and regional natural hazard events.

Prof. Xinzheng Lu
Tsinghua University

Prof. Xinzheng Lu is a Professor at the Department of Civil Engineering at Tsinghua University of China, the Head of the Institute of Disaster Prevention and Mitigation at Tsinghua University, the Editor-in-Chief of the Engineering Mechanics journal (China Society of Theoretical and Applied Mechanics), the Associate Editor of the Journal of Structural Engineering-ASCE and Journal of Computing in Civil Engineering-ASCE, and the Advisory Editorial Board Member of Earthquake Engineering & Structural Dynamics.

His major research interests cover disaster prevention and mitigation and intelligent design of civil engineering. He has published more than 200 papers and 8 books and his publications have received over 20000 citations. He has been listed as one of the "most cited Chinese researchers" by Elsevier (2014-2024). His research outcomes have been adopted by Chinese and American design codes, major disaster simulation systems, and structural calculation software, and have been applied to numerous landmark projects.

He delivered multiple keynote presentations at significant international conferences, including the 18th World Conference on Earthquake Engineering. He has received several important awards including the National Natural Science Award (Second Prize, 2/4), the First-Class Science and Technology Progress Award of Beijing (1/15), the First Class Natural Science Award of Ministry of Education of China (1/5), the "Gold+" Award at the Geneva International Exhibition of Inventions, and the JM Ko Award.