NZSEE 2026 Draft Programme (at 17.03.26)

TUESDAY 14 APRIL	
	Pre-Conference Site Tours – RSVP Required – more info on the conference website
10.00 - 11.30	Ngaio Gorge Retaining Wall Seismic Strengthening
12.00 - 13.00	Manners Street
13.00 - 14.00	Wellington Town Hall Annex
14.30 - 15.30	Turnbull House
16.00 - 17.30	New Parliament Buildings
	Pre-Conference Workshop - RSVP Required – more info on the conference website
09.00 - 16.00	Rapid Building Assessment (RBA) Training Session

WEDNESDAY 15 APRIL	
08.00 - 18.00	**Registration & Exhibition Open** (Level 2, Tākina Wellington Convention & Exhibition Centre)
09.00 - 09.30	**Mihi Whakatau** Kura Moeahu (Te Rūnanganui o Te Āti Awa) **Conference Opening** **Opening Address by Mayor Andrew Little** Room: Tāwhirimātea A
09.30 - 10.30	**Keynote 1: Masayoshi Nakashima** **Japanese Approaches to Repairability and Recovery of Building Structures Subjected to Strong Ground Shaking** Room: Tāwhirimātea A

10.30 - 11.00	**Morning Tea Break** in the Exhibition area		
11.00 – 12.45	**01A: Low damage -Energy Dissipation Systems & Seismic Dampers for Improved Seismic Performance** Room: Tāwhirimātea A	**01B: Infrastructure** Room: Tāwhirimātea E	**01C: Sustainability Performance of Non-Structural Components & Structural Connections** Room: Whātaitai
11.00 - 11.15	**01A.1 Bringing Low Damage Seismic Design to Retrofit** Alistair Cattanach	**01B.1 Seismic Protection of Cryogenic Freezers: Enhancing the Resilience of High-Value Assets in Critical Facilities** Ali Roufegarinejad	**01C.1 Assembly-Scale Seismic Verification of MODFRAME NSE Restraint Systems Using Quasi-Static Cyclic Testing** Kyle Segmiller
11.15 - 11.30	**01A.2 Parametric Study of Supplemental Viscous Damping Combined with Seismic Isolation in Wellington, New Zealand** David Whittaker	**01B.2 Enhancing the Seismic Resilience of Lifeline Infrastructure: Strengthening of Ngaio Gorge Wall 7, Wellington** Akhila Palat	**01C.2 A System-Level Evaluation of the Seismic Performance of Different Drywall Partitions in Shake-Table Experiments** Mojtaba Hosseini
11.30 - 11.45	**01A.3 Supplemental Viscous Damping Combined with Seismic Isolation – A Case Study on Relative Seismic Performance** Dion Marriott	**01B.3 Earthquake Design of Retaining Walls Using a Refinement to Limit State Analysis** John Wood	**01C.3 Capacity-Based Shake Table Testing Approach for Seismic Qualification of Non-Structural Building Elements** Kieran Haymes
11.45 - 12.00	**01A.4 Techniques and Lessons Learned from Office to Residential Conversions in High Seismic Regions** Nathan Canney	**01B.4 Integrated ground improvement for an earthquake-damaged complex TC3 site using the Subsurface Compacted Rubble Raft (SCRR) system** Zhaodong Du	**01C.4 Precast Concrete Construction in a High Seismic Zone: Te Puna Hapori Whanganui Courthouse** Michael Geddes, James de Lisle
12.00 - 12.15	**01A.5 Lessons Learned from the First Real-World Retrofit to Include Recommendations from the ReCast Programme** Mike Parr	**01B.5 Machine learning-driven recovery modelling for Critical Infrastructure networks: Integrating topological and data-driven approaches in Aotearoa New Zealand** Yaseen Mahmood	**01C.5 Improving the Seismic Resilience of Buildings through Improved Seismic Performance of Non-Structural Elements - Comparison of NZ and US approaches** Jan Stanway
12.15 - 12.30	**01A.6 Seismic Strengthening of the Carillon Tower - a National Historic Landmark in Wellington, New Zealand** Renee Brook	**01B.6 Novel Seismic Assessment of the ACC Tower and Garage Integrating Advanced Nonlinear Analyses, Probabilistic Collapse Evaluations, and ASCE 41 Methodologies** Ali Roufegarinejad	**01C.6 Seismic Performance of Fire-rated Timber and Steel-Framed Partition Walls with "No-Fix Zone" Detailing Following New Zealand Industry Practice** Jitendra Bhatta
12.30 - 12.45	**01A.7 Bridging Current and Future Seismic Hazards Through Friction Damping Systems** Soheil Assadi	**01B.7 Innovative Ductile Self-Centring Joint for Low-Damage Bridge Design** Jason Jia	**01C.7 Assessing the cost, embodied carbon, and constructability of seismic retrofits** Samantha Krieg
12.45 - 13:45	**Lunch** in the Exhibition Area		

13.45 - 15.35	**02A: Timber Structures** Room: Tāwhirimātea A	**02B: Engineering Seismology, Seismic Hazard and Ground Motions** Room: Tāwhirimātea E	**02C: Structural Response & Experimental Testing of Structural Systems** Room: Whātaitai
13.45 - 14.00	**02A.1 Comparative Numerical Study of Conventional and Low-Damage timber Eccentrically Braced Frames with Horizontal and Vertical Frictional Links** Alireza Zare	**02B.1 Geophysical Techniques for Geotechnical Investigations of Complex Urban Environments** Jack Fleming	**02C.1 Novel steel-FRP composite anchorage system for concrete diaphragm strengthening** Aniket Borwankar
14.00 - 14.15	**02A.2 Base Dissipation of Kiwi Homes: From R&D into the Real World** Ben Exton	**02B.2 Multiple approaches toward floor shaking predictions for a Wellington building** Caroline Holden	**02C.2 An Overview of Post-Installed Rebars in Moment Resisting RC Connections from International Research: Performance, Design Implications and Applicability in NZ** Samuel Caloba Aguiar
14.15 - 14.30	**02A.3 Seismic implications associated with unreinforced masonry parts within timber-framed buildings** Yuni Azhari	**02B.3 Comparing the Damaging Power of Darfield, Lyttlelton and Alpine Fault Earthquakes on Buildings in the Christchurch CBD** David Hopkins, Quincy Ma, Charlotte Toma	**02C.3 The Adequacy of Using Cumulative Inelastic Ductility to Predict BRB Fracture Capacity: Comparing CID to Fracture Damage Index** Brandt Saxey
14.30 - 14.45	**02A.4 Coupled Vertical–Horizontal Seismic Response of Prefabricated Modular Mass Timber Structures with Inter-Story Isolation** Rajnil Lal	**02B.4 Effects of the Long-Period Ground Motions from the 2025 Mandalay Earthquake on RC Buildings in Bangkok, Thailand** Sutat Leelataviwat	**02C.4 Introduction to Shape Memory Alloys - Advanced Technology for the Active Strengthening and Repair of Earthquake Affected Structures** Stuart Robertson, Daniel Schmidig
14.45 - 15.00	**02A.5 Dissipating diaphragm joints – A novel approach for resilient mass timber structures** Setu Raman Agarwal	**02B.5 Rethinking Building Earthquake Response: How Real Measurements Improve Seismic Design** Paul Drummond	**02C.5 Performance and Repairability of Radiata Pine Cross-Laminated Timber Central Spline Connections using different Spline Materials** Vimesh Paudel
15.00 - 15.15	**02A.6 Pinching-Free Connector (PFC): Development and Application in Rocking Timber Walls and Steel Braced Frames** Nicholas Chan	**02B.6 Long-Period Ground Motions and Dynamic Response of Tall Buildings in the Bangkok Basin: Observations from the 28 March 2025 Earthquake** Nakhorn Poovarodom	**02C.6 Improving seismic performance of panel-to-foundation connections in low-rise precast concrete buildings** Gokarna Sijwal
15.15 - 15.35	**02A.7 Resilient Shear Wall Steel Panels Equipped with Self-Restoring Friction Hold-downs for Earthquake Protection of Timber-Framed Residential Buildings** Qurban Ali	**02B.7 Site-Specific Effects on Rapid Shaking Intensity Estimation for Earthquake Early Warning in Aotearoa New Zealand** Chanthujan Chandrakumar	**02C.7 Enhancing the understanding of design for earthquake resilience as part of an Architectural Education** Ranjana Bhattarai, Ranjana Pokharel Bhattarai
15.35 - 16.05	**Afternoon Tea Break** in the Exhibition Area		

16.05 - 17.05	**Plenary 1: Challenges and Solutions for Next Update of NSHM** **Annemarie Christophersen, Matt Gerstenberger, Genevieve Coffey, Brendon Bradley** Room: Tāwhirimātea A
17.05 - 18.00	**Plenary 2: Infrastructure Resilience** **Room:** Tāwhirimātea A
18.00 - 18.30	**NZSEE Annual General Meeting** Room: Tāwhirimātea A
18.30 - 20.00	**Welcome Reception & Poster Session** Room: Exhibition Area & Tāwhirimātea C *Kindly sponsored by* Beca

THURSDAY 16 APRIL			
07.00 - 18.00	**Registration & Exhibition Open** (Level 2, Tākina Wellington Convention & Exhibition Centre)		
07.15 - 08.15	**Breakfast Session 1: Design Competition Presentations** Room: Tāwhirimātea A		
08.30 - 09.30	**Keynote 2: JoAnn Browning** **Research-to-Code Pathways for Safer, More Resilient Structures & Communities** Room: Tāwhirimātea A		
09.30 - 10.30	**Keynote 3: Reid Zimmerman** **Resilient Seismic Design and Project Applications in the United States** Room: Tāwhirimātea A		
10.30 - 11.00	**Morning Tea Break** in the Exhibition area		
11.00 - 12.00	**Plenary 3: When the Ground Rarely Shakes - Understanding and Communicating Risk in Low Seismic Hazard Regions** **Caroline Orchiston, Pennung, Warnitchai, Marti Michèle** Room: Tāwhirimātea A		
12.00 - 13.00	**Lunch and He Tohu Pupu Seismic Design Competition** Room: Exhibition Area *Kindly sponsored by* Natural Hazards Commission Toka Tū Ake		
13.00 - 15.00	**03A: Steel Structures** Room: Tāwhirimātea A	**03B: Concrete Structures** Room: Tāwhirimātea E	**03C: Risk & Resilience** Room: Whātaitai

13.00 - 13.15	**03A.1 Evaluating Inelastic Rotation Demands for Seismic Performance of Steel EBFs** Ali Rad	**03B.1 WDHinge: A Novel Macro-Element for Evaluation of Seismic Performance of RC Frames** Zakariya Waezi	**03C.1 Resilience Assessment of Transportation Networks in Hill Cities of the Northwestern Himalayan Region** Mahipal Kulariya
13.15 - 13.30	**03A.2 Shake table testing of Full Scale Cold-Formed Steel Pallet Rack in The Down-Aisle Direction** Nima Shokrollahi	**03B.2 Push-over analysis of precast reinforced concrete cores with welded stitch plate connections** Xiangzhe Weng	**03C.2 Probabilistic approach to estimating regional building damage from an earthquake and its cascading hazards** S R Uma
13.30 - 13.45	**03A.3 From theory to test: seismic and gravity loading insights into platform-framed cold-formed steel structures via review and full-scale experiments** Ankeeta Karmakar	**03B.3 Seismic Assessment and Strengthening of 26-Story Tower Wellington, New Zealand** Mohamad Yousef-Beik	**03C.3 Navigating Seismic Risk in Schools: Adapting to Regulatory Change** Paul Campbell
13. 45 - 14.00	**03A.4 How simple is too simple: Estimating Seismic Drift Demands of a Hybrid-Irregular Structure** Alejandro Saenz Calad	**03B.4 FRP Retrofit Challenges and Solutions in Seismic strengthening** John Gin, Andrew Gaul	**03C.4 Post-disaster function - an Australian perspective** Jordan Bartlett
14.00 - 14.15	**03A.5 Prediction of Steel Tubular Pile Response Under Combined Lateral Cyclic and Constant Axial Loading: Insights from a Blind Prediction Contest** Gopal Adhikari	**03B.5 Accounting for higher mode effects when designing the primary structure and floor diaphragms of a tall building** Rick Van Ballegooy, Sam Corney	**03C.5 Considerations for communicating changes to and details of the earthquake-prone building system** Lauren Vinnell
14.15 - 14.30	**03A.6 A Review of Weld Detailing and Design Recommendations for Seismic Moment-Resisting Connections** Dinesh Lakshmanan Chandramohan	**03B.6 Low-damage design to enhance seismic performance of reinforced concrete buildings** Kasra Habibi	**03C.6 Beyond %NBS: understanding user needs and international approaches to communicating seismic risk** Catalina Miranda
14.30 - 15.00	**03A.7 The decarbonisation of local steelmaking and steel construction** Israel Macdonald	**03B.7 Deep Learning-Based Reinforced Concrete Design and Seismic Damage Evaluation of Low-Rise Residential Buildings** Juan Pablo Pascua, Eric Augustus Tingatinga	**03C.7**
15.00 - 15.30	**Afternoon Tea Break** in the Exhibition Area		
15.30 - 16.15	**Plenary 4: Designing for Continuity - Architectural Leadership in Resilient and Sustainable Futures** **Marc Woodbury, Ilona Haghshenas, Colin Russell** Room: Tāwhirimātea A		
16.15 - 17.45	**Perspectives on the EPB Changes**		

	1. **JCSAR overview of impact of EPB reform on how we manage seismic risk - Dave Brunsdon** 2. **Panel - Life after EPB system reform** Chair: Charlotte Brown 3. **Implications for engineering practice - Alistair Cattanach** 4. **BRiDGE - Paul Campbell** Room: Tāwhirimātea A
	Break
19.15 - 22.00	**Conference Dinner & NZSEE Awards** *Kindly sponsored by* Room: Tāwhirimātea A

FRIDAY 17 APRIL			
07.00 - 18.00	**Registration & Exhibition Open** (Level 2, Tākina Wellington Convention & Exhibition Centre)		
07.15 - 08.15	**Breakfast Session 2: Future Directions for Earthquake Research in Aotearoa New Zealand** Room: Tāwhirimātea A		
08.30 - 09.15	**Plenary 5: Celebrating Resilience Innovation Across Research and Practice: 20 years of the Ivan Skinner Award** **Caleb Dunne, Kaley Crawford-Flett, Ben Exton, Liam Wotherspoon, Tim Sullivan** Room: Tāwhirimātea A		
09.15 - 10.45	**Plenary 6: Seismic Risk Working Group & Low Damage Design Update** **Michelle Grant, Dion Marriott, Kiran Makan, Hamish McKenzie** Room: Tāwhirimātea A		
10.45 - 11.15	**Morning Tea Break** in the Exhibition area		
11.15 - 12:45	**04A: Geotechnical Performance, SSI & Liquefaction Assessment, Tsunami & Their Impact** Room: Tāwhirimātea A	**04B: Masonry Structures** Room: Tāwhirimātea E	**04C: Life Line - Special Session** Room: Whātaitai

11.15 - 11.30	**04A.1 Beyond Mononobe-Okabe: Evaluating Seismic Earth Pressures in '*c*-ϕ' Materials under High PGA Conditions** Usama Fauzi	**04B.1 From practice to field guideline: principles for retrofitting URM school buildings in Pakistan** Jitendra Bothara	**04C.1 Improving Infrastructure Resilience in New Zealand: The Role of Lifelines Engineering** Dave Brunsdon
11.30 - 11.45	**04A.2 When Simplified Methods Fall Short: What Advanced Analyses Reveal About Liquefaction** Bhavesh Rama	**04B.2 Simplified Non-Linear Response History Analysis of Low-Rise Residential Masonry Buildings** Dion Marriott	**04C.2 Building Infrastructure Resilience: A Framework for Regulatory Integration** Charlotte Brown
11.45 - 12.00	**04A.3 Challenges Associated with Geotechnical Design of Pump Stations in Tauranga** Paul Tan	**04B.3 Experimental evaluation of a new crack stitching system for masonry crack repair and strengthening** Francisco Galvez	**04C.3 Lifelines Group studies – publicising findings** Richard Mowll
12.00 - 12.15	**04A.4 Influence of soil–structure interaction and nonlinearity on seismic performance of a historic concrete substation building** Stephen Brinkman	**04B.4 Seismic strengthening of the three-storey URM CApSc Building** Sean Gardiner	**04C.4 Exposure of critical infrastructure networks to seismic and co-seismic hazards** Liam Wotherspoon
12.15 - 12.30	**04A.5 Application of an Equivalent Building Roughness Model in Tsunami Simulations** Vinod Sadashiva	**04B.5 Beyond Conventional Guidelines: Seismic Assessment of New Zealand's Monumental URM Structures Using NTC 2018 and EN 1996-1-1** Clara Caponi	**04C.5 Modelling approaches for natural hazard impacts on critical infrastructure networks and dependencies** Conrad Zorn
12.30 - 12.45	**04A.6 A Geotechnical Perspective on the 1.5 CALS Scaling Factor: Why Site-Response Analysis Is Not the Solution** Usama Fauzi	**04B.6 Modelling In-Plane Failure of New Zealand Unreinforced Masonry (URM) Buildings Using OpenSees** Son Le	**04C.6 Household adaptations to infrastructure service outages in an Alpine Fault earthquake scenario (AF8)** Finn Scheele
12.45 - 13.30	**Lunch** in the Exhibition Area		
13.30 - 14.50	**05A: Seismic Design & Code** Room: Tāwhirimātea A	**05B: Learnings from Earthquakes** Room: Tāwhirimātea E	**05C: AI and Digital** Room: Whātaitai
13.30 - 13.45	**05A.1 Options for structural analysis in future seismic loadings standards** Tim Sullivan	**05B.1 Lessons from the Netherlands' GMC Retrofit Catalogue for Securing Façades of New Zealand's Low-Rise Unreinforced Masonry Buildings** Juliane Spaak, Hamish Tocher	**05C.1 Advanced Non-linear Modelling for Heritage Resilience: LSDyna Finite Element Seismic Assessment of the Dunedin Town Hall and Municipal Chambers** Jono Dymock
13.45 - 14.00	**05A.2 The Whakapapa of the New Zealand Seismic Design Response Spectrum** Richard Sharpe	**05B.2 Integration of the QSEERB Smart Sensor Platform and Quantitative Frameworks for Real-Time Structural Health Monitoring of Seismically**	**05C.2 AI for post-earthquake rapid damage assessment** Alice Chang-Richards

		Resilient Buildings Buntara Sthenly Gan	
14.00 - 14.15	**05A.3 Updates to Section C8 (Unreinforced Masonry Buildings) of the Engineering Assessment Guidelines** Hamish Tocher, Francisco Galvez, Nicki Vance	**05B.3 Post-Earthquake Assessment and Remediation: Findings from the December 2024 Port Vila Earthquake** Sean Gardiner	**05C.3 Detection of prestress loss in prestress concrete bridges under moving vehicle using autoencoder** Patricia Vanova
14.15 - 14.30	**05A.4 Practical Guidelines for Void Surveying in New Zealand following the Canterbury Earthquake Sequence** Richard Mellis	**05B.4 Learning from the reconnaissance on seismic performance of buildings after the 2024 Hualien earthquake, Taiwan** Ming-Chieh Chuang	**05C.4 Structural Seismic Response Prediction Based on Physics-Informed Neural Operators** Pan Liu
14.30 - 14.45	**05A.5 Evaluating Low Probability, High Consequence Risk: Economic Loss Modelling for New Zealand's Earthquake Prone Buildings System** Juliane Spaak, Alex James, Rob Jury, Ken Elwood	**05B.5 Building Damage Observations in Bangkok from the 2025 M7.7 Myanmar Earthquake** Panon Latcharote	**05C.5 Digital Standardization of Seismic Compliance: An Open and Automated Framework for Non-Structural Systems** Nima Shokrollahi
14.45 - 15.15	**Afternoon Tea Break** in the Exhibition Area		
15.15 - 16.15	**Keynote 4: Misko Cubrinovski** **Engineering Evaluation and Design for Liquefaction Hazards** Room: Tāwhirimātea A		
16.15 - 17.00	**Conference Closing & Conference Awards:** **Best Student Paper Award** **Best Research Paper Award** **Best Practice Paper Award** Room: Tāwhirimātea A		

POSTER SESSION
Wednesday 15 April, 18.30 - 20.00

Poster Title	Presenter
Seismic performance of suspended ceilings with Velcro-secured lay-in tiles via shake table tests	Aasish Tiwari
Reassessing Earthquake-Induced Downtime: A Comparison of Impeding Factor Delays Between US Recovery Models and the New Zealand Post-Earthquake Context	Adel Taheri Qazvini
Experimental Evaluation of Steel Fuse Performance under Monotonic and Cyclic Loading for Seismic Applications	Ali Akbari
Review of Low-Cycle Fatigue and Strain Aging Research in G300E and G500E Steels	Ali Akbari
Seismic bracing behaviour of timber pile systems in light timber-framed residential houses	Angela Liu
Externally Bonded FRP Strengthening for Shear Friction at Reinforced Concrete Wall-to-Diaphragm Connections	Aniket Borwankar
Long period ground motion simulations of Alpine Fault earthquakes using ambient seismic noise towards hazard assessment and earthquake early warning.	Carmen Juarez-Garfias
Relationships Between Site Amplification and Measured and Modeled Site Parameters in New Zealand	Elena Manea
Proof testing of mechanical and hybrid screw anchors in masonry and concrete using an innovative torque method	Francisco Galvez
Experimental Validation and Numerical Modelling of a Three-Story Steel Structure with Seismic Friction-Sliding Connections	Gholamreza Hashemi
Full-scale experimental study of a demountable precast concrete subassembly with low-damage floor-frame connections	Gonzalo Lozano
A Multivariable Linear Regression Benchmark for Early-Stage URM Retrofit Costs within New Zealand's EPB system	Jasper Fang
Finite element analysis of gravity column base-plate connections under cyclic loading	Jin Chang Winston He
Enhancing QMAP for Earthquake Engineering: Linking Geological Units to Geotechnical and Geophysical Parameters	Katie Jones
Numerical Analysis of Flexural Behaviour of Glued-Laminated Timber Beams Reinforced with Cold-Formed Steel Sections	Mahmood Khodadadi Dashtaki
Assessing Basin Amplification and Rupture Directivity Using Physics-Based Ground-Motion Simulations in Wellington	Matt Gerstenberger
Soil Structure Interaction of Liquid Storage Tanks in High Seismicity Regions	Mehrdad Seifi
Physics-Based Seismic Hazard Assessment Using 100 m Spatial Resolution for the South Island of New Zealand: Cybershake NZ v25.11	Morteza Abbasnejadfard
Paradigm Shift from Self-Centering to Post-Centering Systems: Demonstration with a Novel Vibration-Induced Friction (VIF) Modulation Method for Friction Joints	Nicholas Chan
A PhD research outline considering GIS and operational planning enhancements to Building Emergency Management systems	Patrick Cummuskey
Sentinel – A Cost-Effective Approach to Structural Seismic Monitoring	Paul Drummond
Application of Artificial Intelligence (AI) methods to engineering seismology	Peter Davenport
Seismic performance of 'rocking' precast cladding and partition wall assemblies in a full-scale three-storey building	Rajesh Kumar Shrestha
Controlling Vibration in Cross-Laminated Timber Composite Flooring Systems	Reza Masoudnia
Earthquake risk communication with culturally and linguistically diverse people	Sajan Neupane
Earthquakes and Citizen Science: Understanding human behaviour through GeoNet Felt Detailed Reports	Sajan Neupane
Investigating Options for Simplified Seismic Design of Mixed Structural Systems	Samuel Gordon
The role of land-use planning in understanding cascading earthquake hazard risks	Scott Kelly, Faye Nielsen
Variations of the design parameters in friction-sliding seismic resisting connections	Shahab Ramhormozian
From Data to Decisions: Automating Exposure-Hazard Analyses with RiskScape	Vinod Sadashiva
Estimating tsunami casualties using agent-based evacuation models.	William Power
A digital twin framework for buildings	Yaseen Mahmood

Full-scale steel rocking structure shaking table behaviour - displacement prediction	Yudi Zhang