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### From the President

Dear NZSEE Members,

We are approaching the busiest time of the year for NZSEE, as we build towards our Annual Technical Conference, invite applicants for our annual awards, consider nominations for Fellows, and receive nominations for members of the new Management Committee. This is a busy period for all involved in the Society, but it is also a great opportunity for us all to engage and interact, share the learnings of the last year, and to acknowledge and celebrate those doing great things in our profession. Any society is at its strongest when it has active engagement of its members, so please give some thought about the different opportunities that this time of year presents, and whether yourself or a colleague may want to get more involved, or you feel you have a colleague that deserves recognition for their contributions to earthquake engineering.



I am delighted that we will be heading back to Wellington for the 2024 NZSEE conference, having not had an in-person conference there since 2017. We have tried twice, in 2020 and in 2022, but Covid-19 and the related restrictions scuppered both attempts. We look forward to welcoming you all to Tākina Wellington Convention and Exhibition Centre from April 9-11, and to meet in our nation's capital once again. Full papers are undergoing review, and early-bird registration rates close on March 1<sup>st</sup>, so please take the chance to register early at the cheaper rate.

In this last year, we have crossed the significant milestone of 1,000 members, reflecting the growth of NZSEE within the earthquake engineering community. It is heartening to see our community expanding and becoming a more powerful force for advancing the research and practice of earthquake engineering in New Zealand.

Last week, Standards New Zealand published drafts of Technical Specification TS 1170.5 and its commentary. This release is important for our profession, and I encourage you all to engage with the consultation process, as well as attending the webinars presented by members of the Seismic Risk Working Group explaining development of the key elements of the Technical Specification.

On a very bittersweet note, I am sad to announce the departure of our Executive Officer, Lauren Mulcahy. Lauren has been an invaluable member of our team for the past two and a half years, contributing significantly to NZSEE. She is leaving us to pursue a full-time role in education, and we wish her all the best in her future endeavours. We are currently recruiting her replacement, and hope to have a new person in that role in the near future. I wish to extend my thanks to Lauren for all that she has done in her time as our Executive Officer.

Thank you to all our members for your support and contributions to NZSEE, and please do consider the different opportunities offered to engage with the Society in the coming months.

Warm regards,

Geoff Rodgers  
President

## UPCOMING EVENTS



### 2024 NZSEE Annual Technical Conference

Tākina Wellington Convention and Exhibition Centre

Wellington, New Zealand

April 9<sup>th</sup>-11<sup>th</sup> 2024

<https://confer.eventsair.com/nzsee2024/>

### 8<sup>th</sup> International Conference on Earthquake Geotechnical Engineering (8ICEGE)

Osaka, Japan

May 7<sup>th</sup> – 10<sup>th</sup> 2024

### 18<sup>th</sup> World Conference on Earthquake Engineering

Milan, Italy

June 30<sup>th</sup>-July 5<sup>th</sup> 2024

<https://www.wcee2024.it/>

### 11<sup>th</sup> International Conference on the Behaviour of Steel Structures in Seismic Areas (STESSA2024)

Salerno, Italy

July 8<sup>th</sup> – 10<sup>th</sup> 2024

<https://stessa2024.it/>

### Fib Symposium 2024 – ReConStruct – Resilient Concrete Structures

Otautahi, Christchurch

November 11<sup>th</sup> – 13<sup>th</sup> 2024

<https://confer.co.nz/fib2024/>

## Draft Technical Specification 1170.5 released for consultation



Standards New Zealand have published drafts of Technical Specification TS 1170.5 and its commentary. NZSEE has worked in conjunction with SESOC and NZGS to prepare an advisory for members, available on the NZSEE website [here](#).

NZSEE strongly encourages members to engage with this consultation process by reviewing and commenting on the draft Technical Specification. **Public comment closes on 14 March 2024.**

We also encourage you to attend the two webinars being organised by Engineering New Zealand, in which members of the Seismic Risk Working Group will explain the development of the key elements of the Technical Specification.

This is a two-part webinar series, so you will need to register for each webinar separately. Registrations are limited.

Topics will include:

- **Webinar One:** Hazard, Spectral Shape, Site Classification, and Risk.  
**Date:** Tuesday 27 February  
**Time:** 12-2PM  
**Where:** Online  
Register for this first webinar [here](#).
- **Webinar Two:** Geotechnical Considerations, Parts, and Rocking.  
**Date:** Thursday 29 February  
**Time:** 12-1:30PM  
**Where:** Online  
Register for this second webinar [here](#).

Each webinar will include a Q&A session and be recorded and placed on the Engineering New Zealand website. **Please register for each webinar separately. Registrations are limited.**

## NZSEE Management Committee nominations close on Monday 26<sup>th</sup> February

Nominations for the 2024/2025 NZSEE Management Committee are now open. The Society will annually elect nine members to the society. Nominations shall be on a form supplied by the Executive Officer ([available here](#)), shall be signed by the candidate, his or her proposer and seconder, all of whom shall be financial members of the Society and members for at least one year.

**The completed Nomination Form shall reach the Executive Officer no later than the due date of Monday 26th February 2024.** The nomination form can be sent to the Executive Officer as an attachment to an e-mail.

For more information or to email in a completed Nomination form please email [exec@nzsee.org.nz](mailto:exec@nzsee.org.nz)



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## NZSEE Conference 2024



Planning for the 2024 NZSEE Annual Technical Conference is well underway. The theme of the conference is 'Raising the Bar for Resilient Design', intentionally chosen to reflect the dynamic state in which we are all operating. The profession is currently facing challenges navigating current and forth-coming updates to the science that drives our decision making, including updates to the National Seismic Hazard Model and the impending release of the Earthquake Loadings Technical Standard, embedding sustainable principles into our designs (including the design and specification of mass timber), and responding to ongoing research pertaining to the performance of existing buildings. All of these issues speak to the need to remain current in the work we do, so we are best placed to respond to the need to provide our communities with resilient buildings and infrastructure.

Our conference committee have developed a very engaging programme and cannot wait to see you all at Takina Wellington Convention and Exhibition Centre from April 9-11<sup>th</sup>. To see the most recent programme update click [here](#).

This year we have four keynote speakers - Dr Silvia Mazzoni, Dr h. Kit Miyamoto, Professor Tiziana Rossetto and Daniel Zepeda. To read the bios of each speaker and all our other invited speakers please click [here](#). Watch out for communication from NZSEE with ore information as it is released or check out the conference website [here](#).

Please remember to register for the conference. Early bird registration rates are still open, and the deadline is the 1st March 2024. Click [here](#) for Registration rates and to register.

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## He Tohu Pūpū Seismic Design Competition

We are pleased to announce that the 3rd edition of the [He Tohu Pūpū Seismic Design Competition](#) will be held at the [2024 NZSEE Conference](#) in Wellington. Within the competition, teams of undergraduates, postgraduates, and early-career practitioners design and build a small-scale earthquake-resistant building that is tested on a shake table during the conference. Requirements for participants include (1) creating or joining a team – we can assist in finding you a team if you don't have one!, (2) designing and building a scale-building model, and (3) testing your model at the conference. Teams are limited to 4 participants (either Students or Young Professionals) and teams from individual consultancies and universities are encouraged.

The prize for the first-place team is \$2,000 to be shared amongst team members, plus one year of complimentary membership to NZSEE for each team member.

If you have any questions or you would like to register, please contact Catalina Miranda at [C.Miranda1@massey.ac.nz](mailto:C.Miranda1@massey.ac.nz)

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## NZSEE Webinar – The Retrofit of 8 Willis Street.

**The New Zealand Society for Earthquake Engineering invite you to join this webinar discussing the 2023 John Hollings Seismic Resilience in Practice Award winner – The Retrofit of 8 Willis Street.**

The 8 Willis Street retrofit is part of Argosy Property's redevelopment of Stewart Dawson's Corner in the heart of Wellington. Beca was engaged by design / build contractor McKee Fehl. Beca's design brought an earthquake-prone building constructed in 1986 to over 130%NBS, while doubling its size and adding five storeys to the existing eight.

This was done with a revolutionary performance-based structural design process, delivering an ultra-efficient seismic upgrade that left the interior clear from invasive structure. Interstorey drift of the concrete structure at ULS was reduced from circa 5% to 1.2%, helping maintain the integrity of the dycore floor units. The capacity of the shear walls was increased in the longitudinal direction, with twelve fluid viscous dampers added to the moment frames in the transverse direction. Further diaphragm strengthening was undertaken. Minimal foundation works were required. The process has provided an unprecedented level of design assurance.

Tenants StatsNZ and the Ministry for the Environment moved into the building in June 2022 – and the feedback from staff in the building is that they are reassured by the presence of the dampers. The project has won several international awards, including an IStructE Award and a CTBUH Award. It also won the John Hollings Seismic Resilience Award at the NZSEE Conference 2023. This talk provides an overview to the project and a description of how the enhancement in resilience and expected performance were achieved, how the structure was integrated with the architecture, and some of the challenges overcome along the way.

**Matthew Lander** is a Principal / Technical Director in Structural Engineering at Beca. He was the Beca Job Director on the 8 Willis St Stewart Dawsons Corner project. He holds a BE (Hons.) and an ME (Dist.) from the University of Canterbury and has over 20 years' experience in Structural Engineering in both New Zealand and the UK. He has particular expertise in the seismic assessment and retrofit of existing buildings and is a trusted advisor to both building owners and tenants.

**Arun M. Puthanpurayil** is a Principal/Technical Director in Structural Dynamics at Beca. His particular expertise is in Performance Based Seismic and Wind design using advanced inelastic computational dynamics using/adapting advanced local and non-local continuum theories. He holds a MSc (Dist.) in earthquake-structural dynamics from the University of Sheffield (UK) and a PhD. in Earthquake Engineering from the University of Canterbury (NZ). He has over 21 years of experience in specialized and generic structural engineering in New Zealand, UK and India.

NZSEE have chosen to move this webinar from the original date due to a scheduling conflict. The new date and time for this webinar is Monday 4<sup>th</sup> March between 12-1pm. There are still some spaces available. Click [here](#) for more information or to register.



*New Zealand Society for Earthquake Engineering Newsletter*

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## NZSEE Annual Awards are now open!

**Award applications are due by 5pm on Friday March 8<sup>th</sup>.**

We now welcome applicants to apply for these prestigious annual NZSEE awards. We are very excited to announce we have increased the prize of the Otto Glogau Award and the Research Scholarship as a reflection on the high calibre of candidates we have received in the past few years. A summary of each award and a link to the more detailed award criteria is provided below. We encourage you to read through each award, and to consider applying, or prompting a worthy colleague to apply.

### The Toka Tū Ake EQC/NZSEE Ivan Skinner Award

The Toka Tū Ake EQC/NZSEE Ivan Skinner Award aims to advance the common interest of Toka Tū Ake EQC and the New Zealand Society for Earthquake Engineering Incorporated (NZSEE) in promoting advancements in the research and/or practice of earthquake engineering and/or earthquake resilience, which reduces the impacts of earthquakes on New Zealand communities. **The Toka Tū Ake EQC /NZSEE Ivan Skinner Award includes a prize of \$10,000.**

The award is open to both practitioners and researchers contributing to reducing the impacts of earthquakes on New Zealand communities, as well as to applicants from disciplines other than engineering. For more information and details on how to apply please click [here](#)

### NZSEE/QuakeCoRE Emerging Women Leaders in Earthquake Engineering Award

Established in 2019, this award recognises younger women from engineering practice and/or academia for emerging leadership in the field of earthquake engineering, and to support increased participation of women in leadership roles in earthquake engineering. Applicants should be in the developing or expanding stage of her career and will be judged on a combination of past accomplishments and future potential. It is expected the awardee will use the award to further her career goals in earthquake engineering. **The NZSEE/QuakeCoRE Emerging Women Leaders in Earthquake Engineering Award includes a prize of \$10,000.**

In recognition that this award is about leadership in the field of earthquake engineering, the award criteria outline the wide range of potential ways in which leadership can be displayed. For more information and for details on how to apply please click [here](#)

### John Hollings Seismic Resilience in Practice Award

This award, originally named the Seismic Resilience Award, was established in 2019. Case study projects from practice are sought that have the objective of providing enhanced seismic resilience in an earthquake. Submitted projects may be new builds or seismic retrofits and can be a building, structure, or infrastructure.

**In 2023, the award was renamed the John Hollings Award for Seismic Resilience in Practice Award**, in honour of John's pioneering work in seismic resilience. His 1960s technical papers on reinforced concrete design and high rise structures generally led the way in thinking about how to design buildings that can withstand large earthquakes.

The award criteria includes both seismic retrofits as well as new-build projects, and widened to include all projects that seek to enhance seismic resilience of the structure or infrastructure. For more information and details on how to apply please click [here](#)

### NZSEE Research Scholarship

The New Zealand Society for Earthquake Engineering awards an annual Research Scholarship for applicants undertaking research projects in earthquake engineering at New Zealand universities and research institutes. The objectives of the scholarship is to promote research in earthquake engineering and encourage students of high ability to continue advanced studies in earthquake engineering. **The 2024 NZSEE Scholarship will have a value of \$10,000.** For more information and how to apply please click [here](#)

### Otto Glogau Award

Otto Glogau was the Chief Structural Engineer of the Ministry of Works. He was known as a great thinker in the development of engineering concepts and design loadings, for improving the structural performance of buildings to resist earthquake effects. Otto played a large part in the pioneering development of the 1976 Loadings Code. This award is offered annually to the author(s) presenting the best Bulletin paper during the three years ending 30 June preceding the date of the award.

**Papers that fit the eligibility criteria can be nominated, including through self-nomination, via an email to the NZSEE Executive Officer (at [exec@nzsee.org.nz](mailto:exec@nzsee.org.nz)) by the awards deadline of 5pm on Friday March 8th.** Paper nominations should include the title of the paper, the list of authors, and the Bulletin Volume and Issue in which the paper was published. Please include a statement about why you consider this specific Bulletin paper to be award-worthy, specifying how it has impacted the research and/or practice of Earthquake Engineering, or any other supporting evidence.

Any paper nominations received will be considered by the awards committee, alongside other papers published in the Bulletin. The authors of any paper published in the NZSEE Bulletin within the previous three years (ending 30 June preceding the date of the award), are eligible, whether members or non-members of the New Zealand Society for Earthquake Engineering.

**The award is in the form of \$2,000 to purchase books, or for other expenses to pursue earthquake engineering activities or initiatives.**

