



SEISMOLOGY
RESEARCH
CENTRE



Pre-Conference Seismologist Meeting

Australian Seismologists Meeting

Friday 21 November 2014

Cumberland Lorne Resort

Auditorium

8.30am - 11.30am



AEES 2014 – Program, Day 1

Friday 21 November 2014

12.00 **Registration** (Auditorium Foyer)

Register from 12nn. A light standing lunch will be available from this time.

All conference sessions will be held in the Auditorium.

12.55pm **Conference Opening** – Paul Somerville

Session One – Chair: Professor Helen Goldsworthy

1.00pm **James Daniell** – The General Sir John Monash Fdtn, Vic & Karlsruhe Inst of Technology, Germany
The production of a robust worldwide rapid socio-economic loss model for earthquake economic loss and fatality estimation: success from 2009-2014

1.15pm **Elisa Lumantarna** – The University of Melbourne, Vic
State-of-the-Art Review of Methodologies for Seismic Vulnerability Assessment of Buildings

1.30pm **Hyeuk Ryu (Mark Edwards)** – Geoscience Australia, ACT
Proposed Australian Building Stock Categorisation for Bushfire and Natural Hazards CRC Earthquake Project

1.45pm **Kevin McCue** – Australian Seismological Centre, ACT
Balancing the Earthquake Budget in NSW

2.00pm **Tim Mote** – Arup Pty Ltd, Sydney, NSW
Seismic Hazard Implications of the Newer Volcanic Province, Australia

2.15pm **Kaiming Bi** – Curtin University, WA
Preliminary Study on the Effectiveness of Using Sandwich Pipe to Mitigate Seismic Induced Vibrations of above Ground Pipelines

2.30pm **Poster Talks**

Alireza Mohyeddin – Edith Cowan University, WA
FE Analysis of RC Frames with and without Masonry Infill Panels

Mehdi Sarrafzadeh & Victoria Shrimpton – University of Auckland, New Zealand
Effects of Nonlinear Soil-Foundation-Structure Interactions on a Multi-Storey Building during Earthquakes

Kevin McCue – Australian Seismological Centre, ACT
Clustered Seismicity at Narromine NSW

Nivithigala Karunaratne – Queensland University of Technology
Magneto-Rheological Dampers for Seismic Mitigation of Building Structures

Bipin Shrestha – Curtin University, WA
Numerical Investigation on Rotational Friction hinge damper based restrainers to mitigate relative displacement induced damages in simply supported bridges

Javad Hashemi – Swinburne University of Technology, Hawthorn, Vic
State-of-Art System for Hybrid Simulation at Swinburne

AEES 2014 – Program, Day 1 cont.

3.00pm **Afternoon Tea & Poster Session** (Loutit Bay Room)

Session Two – Chair: Adjunct Professor Kevin McCue

3.30pm **Keynote – Dan Clark**, Earthquake Geologist, Geohazards & Science Support Section, Geoscience Australia

Regional variations in neotectonic fault behaviour in Australia, as they pertain to the seismic hazard in capital cities

4.10pm **Anita Amirsardari** – University of Melbourne, VIC

Seismic site response analysis for Australia

4.25pm **John Woodside** – J Woodside Consulting, Adelaide, SA

The Design of Suspended T-bar Ceilings in accordance with AS 1170.4 for the New Royal Adelaide Hospital

4.40pm **Rojit Shahi** – University of Melbourne, Vic

Choice of Intensity Measure in Incremental Dynamic Analysis

4.55pm **Scott Munter** – Steel Reinforcement Institute of Australia

A Guide to Seismic Design & Detailing of Reinforced Concrete Buildings in Australia

5.10pm **Poster Talks**

James Daniell – The General Sir John Monash Foundation, Vic & Karlsruhe Institute of Technology, Germany

Making an Australian brick house more earthquake-resistant for \$100 or less: Ideas, Practice and Loss Analysis

Wayne Peck (Adam Pascale) – Seismology Research Centre, Richmond, Vic

The Australian Geophysical Observing System Ocean Bottom Seismograph Resource

David Love/Alison Wallace – Geological Survey of SA, Department of State Development, SA

Improved Earthquake Monitoring around Adelaide

David Love – Geological Survey of SA, Department of State Development, SA

The Belair Earthquake - 6th January 2014, Magnitude 2.6

Nicholas Haritos – Swinburne University of Technology, Hawthorn, Vic

Experimental observation of forklift-induced vibrations on a PSC floor

Nicholas Haritos – Swinburne University of Technology, Hawthorn, Vic

Simplified Assessment of Forklift-Induced Floor Vibrations

5.40pm End of Sessions Day 1

7.00pm Conference Dinner (included in full registrations, student & retiree registrations)

Mantra Lorne – Mountjoy Parade (beach side opp end of town to Cumberland)

7pm drinks

7.30pm dinner

Dress: Smart casual

AEES 2014 – Program, Day 2

Saturday 22 November 2014

8.00am Registration/Arrival (Tea/Coffee)

Session Three – Chair: Professor Paul Somerville

8.30am **Ryan Hoult** – University of Melbourne, Vic
The 2012 Moe Earthquake and Earthquake Attenuation in South Eastern Australia

8.45am **Minly So** – Arup Pty Ltd, Sydney, NSW
Liquefaction Assessment using Site-Specific CSR

9.00am **Kevin Walsh** – University of Auckland, NZ
Out-of-Plane In-Situ Testing of Masonry Cavity Infill Walls in As-Built and Improved Conditions

9.15am **Poster Talks**

Chao Li – Curtin University, WA
Life-Cycle Seismic Response Analysis of RC Bridges Considering Chloride Induced Corrosion

Javad Hashemi – Swinburne University of Technology, Hawthorn, Vic
Collapse Simulation of Multi-Story RC Buildings through Hybrid Testing

Javad Hashemi – Swinburne University of Technology, Hawthorn, Vic
Modelling 3D Limited-Ductile RC Frame Structures for Collapse Risk Assessment

Hugh Glanville – Geoscience Australia, ACT
50 years of Large Australian Earthquakes

9.35am **John Wilson**, Swinburne University of Technology, Hawthorn, Vic
Updates to AS1170.4

9.50am **Keynote** – **John Hare** – Holmes Consulting Group, Christchurch, New Zealand
What Can Australia Learn From Christchurch?

10.30am **Morning Tea & Poster Session** (Loutit Bay Room)

Session Four – Chair: Professor Michael Griffith

11.00am **Paul Somerville** – URS Corp, LA / Risk Frontiers, NSW
What is the likelihood that Christchurch-like ground motion could happen in Australia?

11.10am **Des Bull** – Holmes Consulting Group/University of Christchurch, New Zealand
What the Christchurch experience tells us about what could happen to buildings in Australia.

11.40am **Peter McBean** – Wallbridge & Gilbert/Aztec Analysis Group, SA
Evaluating & Improving Robustness of Buildings – a practitioner's perspective.

12.10pm **Helen Goldsworthy** – The University of Melbourne, Vic
Evaluating & Improving Robustness of Buildings – a researcher's perspective.

12.40pm **AEES Building Robustness Initiative – Next Steps**
Michael Griffith - Moderator

AEES 2014 – Program, Day 2 cont.

- 1.00pm **Lunch** at Conference venue (for non tour participants)
- 1.15pm Optional Tour – 12 Apostles
Bus departs Cumberland Lorne Resort
(take-away lunches provided)
- 7.30pm Pre-dinner drinks – Cumberland Lorne Resort
- 8.00pm Dinner served
- Dress: Smart Casual

AEES 2014 – Program, Day 3

Sunday 23 November 2014

8.00am **AEES Annual General Meeting** (Auditorium)

Session Five – Chair: Associate Professor Nelson Lam

9.00am **Russell Cuthbertson** – Seismology Research Centre, ES&S, QLD
Comparison of Australian Earthquake Models with Recorded Seismicity

9.15am **Mark Leonard** – Geoscience Australia, ACT
Deaggregating the differences between seismic hazard assessments at a single site

9.30am **Andreas Schaefer** – Karlsruhe Institute of Technology, Germany
Earthquake forecasting - a review and combination logic to multilayer earthquake forecasting

9.45am **Hong Hao** – Curtin University, W.A.
Performance of Non-Buckling Segmented Brace Members for Mitigating Seismic Responses of Frame Structures

10.00am **Bipin Shrestha** – Curtin University, WA
Experimental study of seismic pounding effects on bridge structures subjected to spatially varying ground motions

10.15am **Emma Leitner** – The University of WA
Three-dimensional finite element modelling of a bridge structure with rocking piers under cyclic loading

10.30am **Poster Talks**

Andreas Schaefer – Karlsruhe Institute of Technology, Germany
A stochastic hazard assessment for Australia based on an external perspective

Ryan Hoult – University of Melbourne, Vic
Seismic Performance of Typical C-Shaped Reinforced Concrete Shear Cores in Australia

Yasuto Nakamura – University of Adelaide, SA
Comparison of pushover methods for simple building systems with flexible diaphragms

Vic Dent – Curtin University, WA
Pinpointing the Dumbleyung, West Australia, earthquake cluster of 2013-2014

Kinzang Thinley – Curtin University, WA
Seismic Performance of Reinforced Concrete Buildings in Bhutan

Mohd Zamri Ramli – Universiti Teknologi, Malaysia
Seismic Performance of East Malaysia Bridge under Sulawesi subduction zone and shallow crustal zone

11.00am **Morning Tea & Poster Session** (Loutit Bay Room)

Session Six – Chair: Dr Gary Gibson

11.20am **Massoud Sofi** – University of Melbourne, Vic
The Effects of Building Parameters on the Modal Displacement Shapes of Tall Buildings

11.35am **Vic Dent** – Curtin University, WA
Earthquake clusters in southwest Australia in 2013-14

AEES 2014 – Program, Day 3 cont.

- 11.50am **Andrew Chan** – **Federation University of Australia, Vic**
Influence of Ground Type on the Seismic Response of Non-structural Components
Integrated on Asymmetrical Reinforced Concrete Buildings
- 12.05pm **Tilak Pokharel** – **University of Melbourne, Vic**
Displacement-Based Seismic Assessment of Moment Resisting Frames with Blind Bolted
Connections
- 12.20pm **Yusak Oktavianus** – **University of Melbourne, Vic**
Behaviour of Headed Anchor Blind Bolts Embedded in Concrete Filled Circular Hollow
Section Column
- 12.35pm **William Twycross**
The Origins of Instrument-Based Earthquake Engineering
- 12.50pm **Gary Gibson** – **University of Melbourne, ESS Earth Science, Melbourne, Vic**
Earthquake Recurrence Models for Small and Large Magnitudes
- 1.05pm Discussion & Wrap up – Professor Paul Somerville
- 1.20pm Conference Closes