Pre-Conference Meeting

Thursday 24 November 2016

SeismOz – The Annual Meeting of Australian Seismologists
2.00pm – 5.00pm
Fritz Lowe Theatre
University of Melbourne
(ground floor, School of Earth Sciences, McCoy Building, 253-283 Elgin St, Carlton)

An annual forum where Australian seismologists report on networks changes, and significant projects or developments, and discuss everything from education to monitoring technology. Speakers typically include representatives from Geoscience Australia, the Seismology Research Centre, AuScope and other regional earthquake observatories.

If you would like to attend please email the organiser at webmaster@aees.org.au
AEES 2016 – Program, Day 1

Friday 25 November 2016

12.00  **Registration** (Foyer)
       Register from 12nn.

1.00pm  **Conference Opening** – Paul Somerville

**Session One – Innovative Structures** *(Chair: Associate Professor Helen Goldsworthy)*

1.10pm  **Keynote** - **Gregory MacRae** – Canterbury University, New Zealand
        New Zealand Research Applications of, and Developments in, Low Damage Technology for Steel Structures (Paper 390)

1.30pm  **John Jing** – Harrison Griersen, Auckland, New Zealand
        Seismic Damage-Resistant System for Multi-Storey Modular Light Steel Framed Buildings (Paper 345)

1.45pm  **Minghao Li** – University of Canterbury, New Zealand
        Ductility of dowelled and nailed CLT and LVL connections under monotonic and cyclic loading (Paper 323)

2.00pm  **Tilak Pokharel** – University of Melbourne, Victoria, Australia
        Improved Performance of Moment Resisting Connections To Concrete Filled Square Hollow Sections Using Double-Headed Anchored Blind Bolts (Paper 353)

2.15pm  **Yusak Oktavianus** – University of Melbourne, Victoria, Australia
        The Behaviour of Replaceable Buckling Restrained Fuses (RBRFs) in Composite Structures under Earthquake Events (Paper 363)

2.30pm  **Geoscience poster mini presentations**
        Quantitative estimation of basin effects based on statistical analysis (Paper 324)
        **Chuanbin Zhu**, Queensland University of Technology, Australia
        Seismotectonic Model for the Australian Plate - Beyond Borders (Paper 325)
        **Vicki-Ann Dimas**, Seismology Research Centre, Richmond, Victoria, Australia
        The Bredbo NSW earthquake near Canberra, January 2016 (Paper 327)
        **Kevin McCue**, Australian Seismological Centre, Canberra, Australia
        Estimation of TDOA Based on Cross Wavelet Analysis (Paper 329)
        **Linqi Huang**, Curtin University, Western Australia
        2015 Fraser Island Earthquake Sequence (Paper 356)
        **Elodie Borleis**, Seismology Research Centre, Richmond, Victoria, Australia
        Clustered seismicity in the Southwest Australia seismic Zone, 2015-2016 (Paper 389)
        **Vic Dent**, Curtin University, Perth, Western Australia
        A preliminary map of cluster locations in southwest Western Australia, 1990 – 2016 (Paper 391)

3.00pm  **Afternoon Tea & Poster Session**
Concurrent Session Two

Room 1 – Australian Seismic Hazard Map

Chair: Jonathan Griffin

3.30pm – 4.00pm
Development of the 2018 Australian National Seismic Hazard Assessment (NSHA) (Paper 340) Jonathan Griffin, Geoscience Australia

4.00pm – 4.15pm
Incorporating fault sources into the Australian National Seismic Hazard Assessment (NSHA) 2018 (Paper 339) Dan Clark, Geoscience Australia

4.15pm – 4.30pm
Towards a homogeneous earthquake catalogue for Australia (Paper 341) Hadi Ghasemi, Geoscience Australia

4:30pm – 4:45pm
Earthquake Source Zones in Intraplate Australia without Binning (Paper 342) Kevin McCue, Australian Seismological Centre

4.45pm – 5.00pm
A Proposed PSHA Source Zone for Australia (Paper 335) Kevin McCue, Australian Seismological Centre

5.00pm – 5.15pm
Revised AUS6-Model: Significant Changes & Approaches to the Seismotectonic Model (Paper 371) Vicki-Ann Dimas, Seismology Research Centre

5.15pm – 5.30pm
Automatic determination of seismicity rates in Australia (Paper 370) Russell Cuthbertson, Seismology Research Centre

5.30pm – 5.45pm
Generation of Synthetic Earthquake Accelerograms based on up-to-date Seismological Ground Motion Models (Paper 336) Yuxiang Tang, The University of Melbourne

5.45pm – 6.00pm
Discussion

6.00pm – 7.30pm
Welcome Reception - Foyer

Room 2 - Masonry Buildings

Chair: Professor Jason Ingham

3.30pm – 4.00pm KEYNOTE
Recent developments in the seismic assessment of masonry buildings (Paper 396) Michael Griffith, The University of Adelaide, South Australia

4.00pm – 4.15pm
Controlling and predicting effects on masonry buildings of ground vibrations from blasting (Paper 328) Bill Jordan, Bill Jordan & Associates

4.15pm – 4.30pm
Characterisation of Heritage Masonry Construction in NSW - State Heritage Register” (Paper AEES 394) Milon Howlader, The University of Newcastle

4.30pm – 4.45pm
A case study of seismic performance of retrofitted URM electrical distribution substations (Paper 354) Noor Aina Misnon, The University of Auckland, New Zealand

4.45pm – 5.00pm
Seismic Design of Tunnels in the Sydney Region: Selection of Earthquake: Parameters and Approach (Paper 347) Beatriz Estrada, Pells Sullivan & Meynink

5.00pm – 5.15pm
Seismic Hazard Modelling for Malaysia (Paper 386) Nelson Lam, The University of Melbourne

5.15pm – 6.00pm
Engineering mini poster presentations

Rapid Seismic Retrofit of Existing Bridge Piers through Gravity-Anchored Cable-Bracing System (Paper 382) Hing-Ho Tsang

Failure of structures: can you see it coming? (Paper 368) Hinke Oisinga, The University of Auckland, New Zealand

Non-seismic and seismic qualification and design of anchor channels with channel bolts (Paper 326) Christoph Mahrenholtz, Jordahl, Germany

Numerical Study on the Effectiveness of Using Viscoelastic TMD to Mitigate Seismic Response of Above-Ground Pipelines (Paper 334) Kaiming Bi, Curtin University, Perth, Western Australia

Seismic performance of high-rise buildings featuring a transfer plate taking into account displacement-controlled behaviour (Paper 357) Mehair Yacoubian, The University of Melbourne, Victoria, Australia

Retrofitting RC Beam-Column Joint in Australia using Single Diagonal Haunch (Paper 378) Alireza Zabihi, Swinburne University of Technology, Hawthorn, Victoria, Australia

Replaceable reduced web link section for link-to-column connections in EBFs (Paper 367) Daniel Abebe, Chosun University, Gwangju, Korea

Seismic Performance of Buried Cables during the Canterbury Earthquake Sequence (Paper 372) Sheng Lin Lin, GNS Science, N.Z.

Displacement Based Design of Bridge Abutments (Paper 337) Rohit Tiwari, The University of Melbourne, Victoria, Australia
AEES 2016 – Program, Day 2

Saturday 26 November 2016

8.00am     Registration (foyer)

Session Three – Recent Earthquakes

Chair: Paul Somerville

8.15am     Keynote – Kenji Satake - Earthquake Research Institute, University of Tokyo, Japan
The Kumamoto, Japan, earthquake series of April 2016 (Paper ASC41)

8.35am     Gary Gibson/Tamarah King – Seismology Research Centre / University of Melbourne, Victoria, Australia
The Petermann Ranges Mw 6.1 Earthquake of 2016-05-20 1814 UTC and its Aftershocks (Paper 383)

9.00am     Dmitry Storchak – ISC, United Kingdom
ISC Contribution to Global and Regional Seismic Hazard Assessment and Civil Engineering (Paper 387)

9.15am     Paul Somerville, AECOM and Risk Frontiers, Sydney, NSW, Australia
Use of Conditional Mean Spectra in Seismic Hazard Analysis in Australia (Paper 365)

9.30am     Morning Tea & Poster Session

Session Four – Hazard, Fragility & Damage

Chair: Elisa Lumantarna

10.00am    Shannon Abeling – The University of Auckland and QuakeCoRE, New Zealand
A multidisciplinary evaluation of URM buildings successfully retrofitted prior to the 2010/11 Canterbury earthquake sequence (Paper 388)

10.15am    Natalie O’Brien – Bonacci Group
Comparison of Earthquake Loads and Wind Loads for Low and Mid Rise Concrete Buildings with Respect to Ductility Requirements and Reinforced Concrete Detailing (Paper 355)

10.30am    Muriel Naguit – Australian National University
Earthquake Scenario-based Assessment for Empirical Seismic Fragility Functions (Paper 358)

10.45am    Adam Pascale – Seismology Research Centre, Richmond, Victoria, Australia
Structural Monitoring Policy: What Australia Could Learn From the Philippines (Paper 384)

11.00am    Tim Mote – ARUP
Simplified Probabilistic Aftershock Hazard Analysis (AEES Paper 364)

11.15am    James Daniell – Geophysical Institute/Center for Disaster Management and Risk Reduction Technology, Karlsruhe Institute of Technology, Karlsruhe, Germany
The historical socioeconomic cost of earthquakes vs. other natural disasters types globally - an argument for greater funding for research and prevention (Paper 343)

11.30am    Discussion

11.45am    Buffet Lunch

7.00pm     Conference Dinner
AEES 2016 – Program, Day 3

Sunday 27 November 2016

8.00am  AEES Annual General Meeting (Members only)

Session Five – Australian Ground Motion Hazard Map

Chair: Professor John Wilson

9.00am  Keynote - Mark Leonard – Geoscience Australia
Inclusion of multiple seismic source models in the Australian PSHA (Paper 385)

9.20am  Trevor Allen – Geoscience Australia
Inclusion of 3rd party models and the expert elicitation process (Paper 397)

9.30  Discussion

10.40am  Morning Tea & Poster Session (Foyer)

Session Six – Concrete Structures

Chair: Peter McBean

11.10am  Hing-Ho Tsang – Swinburne University of Technology, Hawthorn, Victoria, Australia
Framework for Seismic Vulnerability Assessment of Reinforced Concrete Buildings in Australia (Paper 377)

11.25am  Ryan Hoult – The University of Melbourne, Victoria, Australia
Displacement Capacity of Lightly Reinforced Rectangular Concrete Walls (Paper 362)

11.40am  Anita Amirsardari – The University of Melbourne, Victoria, Australia
Modelling non-ductile reinforced concrete columns (Paper 393)

11.55am  Elisa Lumantarna – The University of Melbourne, Victoria, Australia
Seismic Vulnerability Assessment of Asymmetrical Reinforced Concrete Buildings in Australia (Paper 379)

12.10pm  Alireza Mehdipanah – The University of Melbourne, Victoria, Australia
Analytical Simulation of Limited Ductile RC Beam Columns (Paper 331)

12.25pm  Hamdolah Behnam - The Hong Kong University of Science and Technology
Behaviour of RC spandrel beam in exterior wide beam-column connections (Paper 348)

12.40pm  Scott Menegon – Swinburne University of Technology, Hawthorn, Victoria, Australia
Plastic Hinge Development in Limited Ductile Rectangular Reinforced Concrete Walls (Paper 373)

12.55pm  CONFERENCE CLOSING – Paul Somerville
Best Student Paper Award

1.10pm  CONFERENCE CLOSES