The University of Adelaide - Faculty of Engineering, The University of Auckland - Faculty of Engineering, supported by The Australian Earthquake Engineering Society and The New Zealand Society for Earthquake Engineering present:

Fundamentals of Seismic Assessment and Improvement of Unreinforced Masonry Buildings

Why You & Your Employees Should Attend This Seminar

This full day seminar is intended as an introduction to the procedure for seismic assessment of unreinforced masonry (URM) buildings. Attendees are expected to have a sound understanding of AS1170.4 and basic structural engineering principles, but little prior experience in the detailed seismic assessment of unreinforced masonry buildings.

In particular, the seminar is targeted at recent structural engineering graduates, structural engineers that have trained overseas but are unfamiliar with the seismic response of unreinforced masonry buildings and those that already have experience with the subject but are interested in a ‘refresher’.

The Seminar will cover topics including:

- Site inspections
- Selection of material properties
- Out-of-plane analysis of walls
- Determination of diaphragm characteristics
- Determining demands on wall-diaphragm anchorages
- Equivalent frame analysis on in-plane loaded walls

A particular feature of the seminar is that the final 2 sessions of the day will address methods for improving the seismic performance of unreinforced masonry buildings.

All information will be presented in a manner consistent with the AS 3826 Strengthening Existing Buildings for Earthquake, NZSEE Section C8 Seismic Assessment of Unreinforced Masonry Buildings and ASCE-41 Seismic Evaluation and Retrofit of Existing Buildings document. Reference will also be made to the new “Minister’s Code for upgrading health and safety in existing buildings” which has a section on Earthquake requirements.

Other Benefits

- Comprehensive resource through the seminar notes
- Knowledgeable experienced speakers with good platform skills
- The opportunity to network with industry peers

Who Should Attend

Designers, Specifiers, Site Engineers, Contractors, Building Certifiers, Local Authorities, Consulting Engineers, Project Managers, Graduate Engineers

Investment details

- $500 (GST exclusive)

Seminar fees include:

Tea and coffee on arrival Morning Tea Lunch Afternoon Tea Comprehensive seminar notes
Programme

8.30 - 9.00am  Registration

Session 1: Overview of general structural seismic re-
spose, definition of terms, local and global failure modes,
observations from past earthquakes

Session 2: Out-of-Plane wall response

Morning Tea

Session 3: Flexible diaphragm assessment

Session 4: Masonry materials; tension & shear anchors

Lunch

Session 5: In-plane pier and spandrel response

Session 6: Equivalent frame analysis

Afternoon Tea

Session 7: Retrofit philosophy, securing, methods of wall
remediation, ties and straps, base isolation

Session 8: Diaphragm retrofits, ‘splints and bandages’,
wall overlays, post-tensioning, supplementary structure

Optional attendance. Group discussion and/or break out
into working groups to discuss how to tackle attendee
current or past projects. Those wishing to participate
should bring appropriate project details.

You may wish to download and bring either a digital or
hard copy version of the assessment document with you
to the seminar.

Speakers’ Profiles

Professor Jason Ingham

Jason obtained his doctorate from the University of
California San Diego in 1995 and is Professor of
Structural Engineering at the University of Auckland. His research interests are primarily focussed
on the seismic behaviour of masonry and concrete buildings,
with his interest for over a decade having been primarily di-
rected towards seismic assessment and improvement of unre-
inforced masonry (URM) buildings. Jason and his research
students have received several international awards for their
masonry research and Jason led the collection of data related
to the performance of masonry buildings following the Canter-
bury earthquakes, with evidence subsequently presented at
the Canterbury Earthquakes Royal Commission.

Jason has also undertaken post-earthquake building inspec-
tions in Sumatra (Indonesia) and in Nepal. In 2015 Jason was
a member of a study tour to inspect URM building damage
following the Napa (California) earthquake and in 2016 Jason
was a member of the NZAid-funded team that provided tech-
nical training to Nepalese engineers on the seismic assess-
ment and improvement of masonry and concrete buildings.

Jason is a past member of the executives of SESOC, NZSEE
and the NZ Concrete Society, and is a Fellow of IPENZ. Jason
is also QuakeCoRE Flagship leader for Flagship 3 pertaining
to earthquake-prone buildings.

Professor Michael Griffith

Michael Griffith is Professor in the School of Civil,
Environmental and Mining Engineering at the Uni-
versity of Adelaide. He obtained his PhD in Struc-
tural Engineering from the University of California
at Berkeley (1988) after completing his BSc(Civil Eng.) and
MSc (Civil Eng.) degrees at Washington State University in the
US. Dr. Griffith is a member of the Standards Australia Aus-
tralian Earthquake Loading Code committee, a Fellow of the
Institution of Engineers, Australia, state committee member of
the SA Structural College and Past-President and now Honor-
ary Life Member of the Australian Earthquake Engineering
Society. His main professional and research interests are in
the field of earthquake engineering and structural dynamics
with a particular interest in the performance of unreinforced
masonry structures in earthquakes. He has co-authored over
200 research papers in the field of structural engineering and
sits on the Board of Directors for the International Association
of Earthquake Engineering which is based in Tokyo.
Venues

Monday 28 November

Swinburne University of Technology
Engineering Building (EN) - Room EN214
John Street, Hawthorn, Victoria

Accessible by train, tram or bus. All-day ticketed parking is available at Swinburne. There are also ticketed off-campus car parks and on-street parking options.

Tuesday 29 November

The University of Adelaide
Ingkarni Wardli Building - Room 5.57, Level 5
North Terrace, Adelaide, South Australia

Note: The organisers reserve the right to cancel individual seminars should registration numbers for that venue be unviable. Should this situation occur, delegates will be offered a full refund.

Registration (Please register online for Melbourne seminar at https://www.trybooking.com/NJBL or for Adelaide seminar at https://www.trybooking.com/NPJN OR complete the form below, scan, and return to sandersonseminars@gmail.com)

Name(s):

Company:

Mobile: Email:

Dietary Requirement:

Please indicate which seminar:

☐ Melbourne - Swinburne University of Technology  ☐ Adelaide - University of Adelaide

No. of registrants at $500.00ea = $

Credit Card Details

Visa  ☐ Mastercard  ☐

Card Number: ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___

Expiry Date: 3 digit security no: Name on Card:

Please register online or complete form, scan & email to sandersonseminars@gmail.com OR mail to PO Box 4014, McKinnon, Vic 3204. For all enquiries please call 03 9015 8350. NOTE: Full payment must be received prior to each seminar.