

Najif Ismail

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Contact details



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EDUCATION

University of Auckland NEW ZEALAND – 2012

PhD in Civil Engineering with specialization in structural/earthquake engineering

Thesis Title: Selected strengthening techniques for the seismic retrofit of URM buildings

Honours/Awards: 2013 Best PhD Dissertation Award, The Masonry Society USA.

Otago Polytechnic NEW ZEALAND- 2012

Graduate Certificate in Tertiary Learning and Teaching (Level - 7)

University of Engineering and Technology Taxila - 2008

MSc in Civil Engineering with specialization in structural/earthquake engineering

University of Engineering and Technology Taxila - 2006

BSc in Civil Engineering with Honours

Honours/Awards: Dean's List Merit Certificate

EXPERIENCE

2013 – 2014 Assistant Professor at United Arab Emirates University UAE

2013 – 2014 Principal Lecturer at Otago Polytechnic NEW ZEALAND

2012 – 2013 Senior Lecturer at Otago Polytechnic NEW ZEALAND

2008 – 2012 Tutor and Research Assistant at University of Auckland NEW ZEALAND

2007 – 2008 Office Engineer at CDM Smith Constructors Incorporation

2005 – 2007 Structural Engineer at National Engineering Services Pakistan

GOVERNANCE ROLES

- ☐ Director Solid Ground Limited, New Zealand
- ☐ Research Coordinator/Mentor, School of Architecture Building and Engineering, Otago Polytechnic, New Zealand
- ☐ Member technical committee for the 4th International Conference on Structural engineering and Construction Management (ICSECM), Kandy, 13-15 Dec. 2013.
- ☐ Chair for structural health monitoring session during the 4th ICSECM, Kandy, 13-15 Dec. 2013.
- ☐ Member of the code review committees ASCE 41-13 and ASCE 41-31
- ☐ Corresponding member for the review of the NZSEE Guidelines 2006

PROFESSIONAL AFFILIATIONS

- ☐ Chartered Professional Engineer (CPEng), New Zealand
- ☐ Professional Engineer, Pakistan Engineering Council

- ☐ Professional Member of the Institution of Professional Engineers New Zealand
- ☐ Member of the New Zealand Society for Earthquake Engineering
- ☐ Member Structural Engineering Society of New Zealand
- ☐ Member The Masonry Society, USA
- ☐ Reviewer for Proceedings of ICE - Structures and Buildings, Journal of Structural Engineering (ASCE), and Construction and Building Materials (Elsevier)

AWARDS AND HONOURS

- ☐ Otago Polytechnic Staff Award for Excellence in Research - 2013
- ☐ TMS Outstanding PhD Thesis Award – 2013
- ☐ Research funding from Mapei New Zealand – 2013
- ☐ Performance Based Research Funding from the Tertiary Education Commission of New Zealand – 2013 to 2018
- ☐ Travel grant for attendance at the 9th CUEE & 4th ACEE Joint Conference – 2012
- ☐ Research funding from Reid construction systems and Mapei New Zealand – 2010
- ☐ Research funding from Helifix Private Limited Australia – 2009
- ☐ Letter of appreciation from Catholic Relief Services – 2007
- ☐ First class honours and merit certificates in B.Sc. Civil engineering – 2006

CPD TRAININGS

- ☐ Labview Core 1 and Data Acquisition Training, National Instruments – 2013
- ☐ Seminar on seismic assessment and improvement of buildings, IPENZ – 2013
- ☐ Self-managing teams, Otago Polytechnic (OP) New Zealand – 2013
- ☐ Fire wardens training, OP New Zealand – 2012
- ☐ Introduction to Te Tiriti o Waitangi, OP New Zealand – 2012
- ☐ Earthquake Engineering, IPENZ – 2011
- ☐ OSHA Certificate for Construction Safety, Advance Online USA – 2008
- ☐ Total Quality Management, Pakistan Engineering Council – 2008
- ☐ QA/QC for Construction, CDM Constructors Inc. – 2008
- ☐ Diploma of Primavera Project Planner, Pakistan Engineering Congress – 2004

RESEARCH INTERESTS

Aspects of damage avoidance design, pre-stressed concrete and masonry, finite element analysis, seismic assessment, and seismic strengthening.

PUBLICATIONS

Book/ Book Chapters

1. N. Ismail (2012). Strengthening techniques for the seismic retrofit of unreinforced masonry buildings, LAP Lambert Academic Publishing, Berlin (Germany), ISSN: 978-3-659-15561-1, pp. 304.
2. N. Ismail (2011). Design actions on unreinforced masonry out-of-plane loaded walls, Assessment and Improvement of the Structural Performance of Buildings in Earthquakes, edited by J. M. Ingham, New Zealand Society for Earthquake Engineering, Wellington, New Zealand.
3. N. Ismail (2011). Unbonded post-tensioning, Assessment and Improvement of the Structural

Performance of Buildings in Earthquakes, edited by J. M. Ingham, New Zealand Society for Earthquake Engineering, Wellington, New Zealand.

Journals

1. N. Ismail and J. M. Ingham (2014). Seismic strengthening of historic unreinforced masonry buildings using polymer textile reinforced mortar. *Engineering Structures*, In Review.
2. N. Ismail and J. M. Ingham (2013). Polymer textiles as a retrofit material for masonry walls. *Proceedings of the Institution of Civil Engineering - Structures and Buildings*, 167(1), 15-25.
3. N. Ismail, K. McGrannachan and G Hazelton (2013). Characterisation and seismic vulnerability assessment of unreinforced masonry buildings in Dunedin. *Bulletin of the New Zealand Society for Earthquake Engineering*, 46(3), 131-140.
4. N. Ismail and J. M. Ingham (2013). Time dependent prestress losses in historic clay brick masonry walls seismically strengthened using unbonded posttensioning. *Journal of Materials in Civil Engineering*, 25(6), 718-725.
5. N. Ismail and J. M. Ingham (2012). Cyclic out-of-plane behaviour of slender clay brick masonry walls seismically strengthened using posttensioning. *Journal of Structural Engineering*, 138(10), pp 1255-1266.
6. N. Ismail and J. M. Ingham (2012). In-situ and laboratory based out-of-plane testing of unreinforced masonry walls strengthened using near surface mounted twisted steel bars. *Construction and Building Materials*, 36(1), pp. 119-128.
7. R. B. Petersen, N. Ismail, M. J. Masia, and J. M. Ingham (2012). Finite element modelling of unreinforced masonry shear wallettes strengthened using twisted steel bars. *Construction and Building Materials*, 33(1), pp 14-24.
8. N. Ismail, R. B. Petersen, M. J. Masia, and J. M. Ingham (2011). Diagonal shear behaviour of unreinforced masonry wallettes strengthened using twisted steel bars. *Construction and Building Materials*, 25(12). pp 4386-4393.
9. N. Ismail, D. L Lazzarini, P. T. Laursen, and J. M. Ingham (2011). Seismic performance of face loaded unreinforced masonry walls retrofitted using posttensioning. *Australian Journal of Structural Engineering*, 11(3), pp 243-252.
10. D. Dizhur, N. Ismail, C. Knox, and J. M. Ingham (2010). Performance of unreinforced and retrofitted masonry buildings during the 2010 Darfield earthquake. *Bulletin of the New Zealand Society for Earthquake Engineering*, 43(4), pp 321-339.

Conference Proceedings

1. N. Ismail (2013). Lessons from 2010/2011 New Zealand Earthquakes and way forward, *Proceedings of the 4th International Conference on Structural Engineering and Construction Management*, Kandy, December 13-15.
2. N. Ismail (2013). Cathodic corrosion protection to enhance the long term performance of

- concrete bridges, Proceedings of the 9th International Concrete Conference, Bahrain, February 11-14.
3. N. Ismail, A. E. Schultz, and J. M. Ingham (2012). Out-of-plane seismic performance of unreinforced masonry walls retrofitted using unbonded post-tensioning, Proceedings of the 15th International Brick and Block Masonry Conference, Florianópolis, Brazil, June 3-6.
 4. N. Ismail, J. M. Ingham (2012). Effectiveness of polymer textile reinforced matrix systems for seismic retrofitting of historic clay brick masonry buildings, Proceedings of the 9th CUEE and 4th ACEE Joint Conference, Tokyo, Japan, March 6-8.
 5. N. Ismail, A. E. Schulz, and J. M. Ingham (2011). Cyclic out-of-plane behaviour of posttensioned clay brick masonry. Proceedings of the 12th North American Masonry Conference, Minneapolis, USA, June 5-8.
 6. N. Ismail, M. Griffith, and J. M. Ingham (2011). Performance of masonry buildings in the 2010 Darfield Earthquake. Proceedings of the 12th North American Masonry Conference, Minneapolis, USA, June 5-8.
 7. N. Ismail, J. M. Ingham (2011). Post-tensioning seismic retrofit for slender unreinforced masonry walls, Proceedings of the International Conference in Earthquake and Seismology, Islamabad, Pakistan, April 25-26.
 8. N. Ismail, C. Oyarzo Vera, and J. M. Ingham (2010). Field testing of URM walls retrofitted using twisted steel inserts. Proceedings of the X Chilean Conference on Seismology and Earthquake Engineering, Santiago, Chile, May 24-27.
 9. N. Ismail, P. T. Laursen, and J. M. Ingham (2010). Performance based out-of-plane flexural seismic retrofit design of unreinforced masonry walls. Proceedings of the NZSEE Annual Conference 2010, Wellington, New Zealand, March 26-28.
 10. N. Ismail and J. M. Ingham (2010). Structural testing of unreinforced assemblages retrofitted using twisted steel inserts. Proceedings of the 8th International Masonry Conference, Dresden, Germany, July 4-7.
 11. N. Ismail, P. T. Laursen, and J. M. Ingham (2009). Out-of-plane testing of seismically retrofitted URM walls using posttensioning. Proceedings of the AEES 2009 Conference, Newcastle, Australia, December 11-13.
 12. N. Ismail, H. Mahmood, H. Derakhshan, W. Clark and J. M. Ingham (2009). Case study and development of retrofit application strategy for a heritage building. Proceedings of the 11th Canadian Masonry Symposium, Toronto, Canada, May 31-June 3.
 13. N. Ismail and J. M. Ingham (2009). Reconstruction project after devastating 2005 Pakistan earthquake. Proceedings of the NZSEE Annual Conference 2009, Christchurch, New Zealand, April 3-5.
 14. N. Ismail and J. M. Ingham (2008). State-of-the-art retrofit interventions for unreinforced

masonry walls. Proceedings of the AOTULE Postgraduate Conference, Auckland, New Zealand, November 26-28.

15. N. Ismail (2008). Comparative Studies of IMRF and SMRF. Proceedings of the 2008 Architectural Engineering National Conference, Denver, USA, September 24-27.

16. N. Ismail (2007). Strengthening of bridges using CFRP composites. Proceedings of the 5th International Conference on Current and Future Trends in Bridge Design, Construction and Maintenance, Beijing, China, September 17-18, 217-224.

Feature Magazine Article

1. N. Ismail and K. McGrannachan (2013). Dunedin's earthquake prone buildings. BUILD (BRANZ Quarterly Magazine), Issue 134 - Feb/Mar 2013, pp. 59-61.