

Flagship 4 Monthly Group Meeting Archives

Overview

Agendas and presentations of Flagship 4 Monthly Group Meetings are archived below.

24th June 2021 (Overview and update) ([Meeting](#))

1. Risk-targeted seismic design considering factors to be applied to hazard maps (Nick Horspool)
2. Recent advances in probabilistic displacement-based seismic assessment (Tim Sullivan/Amir Orumiyehi).
3. Setting criteria for the seismic design and rating of non-structural elements (Mayank Tripathi).
4. Advancing a simplified loss-oriented design and assessment procedure (Rajesh Dhakal/Shreedhar Khakurel).
5. Use of limit-state loss assessment to inform seismic design criteria (Tim Sullivan).
6. Advancing means to achieve risk-oriented design/assessment as part of the RNC project (Reagan Chandramohan/ Teja Sistla)
7. Plans for risk-targeted design/assessment research as part of QuakeCoRE 2 (Max Stephens/Nick Horspool).
8. Closing comments.

1st June 2021(Overview and update) ([Meeting](#))

1. Welcome and Introductions
2. Overview of research plans for QuakeCoRE II Disciplinary Theme 2: Whole of Building Behaviour (Rick Henry and Santiago Pujol)
3. Overview of research plans for QuakeCoRE II Interdisciplinary Programme 1: Achieving Functional Recovery with Repairable Multi-storey Buildings
4. Brief updates from RNC researchers
5. Any other business and end of the meeting.

22nd March 2021 (Overview and update) ([Meeting](#))

1. Welcome & Introductions (Tim)
2. Developing NZ-specific consequence functions for seismic loss assessment (Matt Fox)
3. RNC project updates (All those with on-going RNC projects)
4. Upcoming workshops (Tim&Rick)
5. Any other business (All)
6. Closing discussion (All)

28th January 2021 (Overview and update) ([Meeting](#))

1. Welcome & Introductions
2. QuakeCoRE planning update
3. RNC project updates (All those with on-going RNC projects)
4. Discussion (ALL)
5. Research Presentation: Modelling of viscous damping for NLTH analyses (Giovanni De Francesco)
6. Closing discussion (ALL)

14th May 2020 (Overview and update)

1. Welcome & Update on QuakeCoRE rebid (Tim) ([Presentation](#))
2. Whole of Building Seismic Performance (Rick) ([Presentation](#))
3. Functional Recovery with Repairable Multi-Storey Buildings (Ken) ([Presentation](#))
4. NZSEE Resilient Buildings Project (Helen) ([Presentation](#))
5. Closing discussion (ALL)

9th May 2019 (Overview and update)

1. Tim Sullivan - Intro and welcome
2. Rajesh Dhakal - Overview of plans for research into the seismic performance of non-structural elements in next ILEE project ([Presentation](#))
3. Tim Sullivan - Update on the 2019-2020 Flagship 4 coordinated project
4. Rick Henry - Plans for structural engineering research in QuakeCoRE rebid

14th March 2019 (Seismic design objectives - Themed Meeting)

1. Tim Sullivan - Introduction
2. Reagan Chandramohan - Structural collapse risk assessment and building code calibration ([Presentation](#))
3. S.R. Uma - An overview of the loss assessment process used at a regional scale
4. Kieran Haymes - Developing procedures for the prediction of floor response spectra ([Presentation](#))

31st Aug 2018 (Concrete building residual capacity and repair - Themed Meeting)

1. Rick Henry - Introduction
2. Kai Marder - Residual capacity of damaged and epoxy-repaired RC plastic hinges ([Presentation](#))

3. Giuseppe Loporcaro - Damage assessment of steel reinforcement ([Presentation](#))
4. Mehdi Sarrafzadeh - Determination of a Reparability Limit State for Concrete Structures ([Presentation](#))
5. Rick Henry - RC Wall Residual Capacity and Repair ([Presentation](#))
6. Des Bull - Large frame precast floor tests and opportunities for repair
7. Ken Elwood - ATC/FEMA project and E-defence test opportunity

31th July 2018 (Seismic Design of Non-structural Elements - Themed Meeting)

1. Sullivan - Introduction
2. Filiatrault - Automated Seismic Design of Non-structural Elements using Building Information Modelling ([Presentation](#))
3. Welch - Estimation of floor acceleration response spectra ([Presentation](#))
4. Rashid - Experimental research plans for sprinkler piping systems ([Presentation](#))
5. Dhakal - Plans for testing non-structural elements in the ILEE project ([Presentation](#))
6. Stanway - Industry views on the challenges facing seismic performance of non-structural elements ([Presentation](#))

6th June 2018 (Low Damage Devices- Themed Meeting)

1. Rodgers - Introduction
2. Quinnville - RSFJ research and implementation in Nelson Airport ([Presentation](#))
3. Sause - Viscous damper research and the important influence of damper connection flexibility ([Presentation](#))
4. Tobber - Overview of the on ILEE-EERF shake table test project

24th May 2018 (Steel-Themed Meeting)

1. Clifton - Introduction
2. MacRae - RoBust project overview ([Presentation](#))
3. Clifton, Ramhormozian, Bagheri, Zhenduo - RoBust project structural concept including GripNGrap (Design Details) ([Presentation](#))
4. Dhakal, Sullivan, Rashid - RoBust project specific nonstructural element
5. Chaudhari - Slab participation in moment floors
6. Alizadeh - Composite floor diaphragms overview and WSP connections ([Presentation](#))
7. Hooman Rezaeian - Composite floor diaphragm testing ([Presentation](#))
8. Jian - Buckling restrained brace studies and frame testing ([Presentation](#))
9. Zaboli - Buckling restrained brace research
10. Ramhormozian - Optimized sliding hinge joint for moment resisting steel frames ([Presentation](#))
11. Hatami - Update on UoC friction sliding research
12. Tjahjanto - Moment frame connections of beams to columns including slab partitions
13. Orumiyehei - Effectiveness of friction connections through loss modeling studies ([Presentation](#))
14. Jared Keen (BECA) - Steel seismic issues from consulting engineers perspective ([Presentation](#))

9th April 2018 (Timber-Themed Meeting)

1. Minghao Li - Introduction
2. Smith - International trends in timber design and current industry challenges
3. Morris - overview of timber - BRB research at Auckland ([presentation](#))
4. Wenchen - Overview of timber - BRB research at Canterbury ([presentation](#))
5. Brown - Research into flanged CLT Core-Wall systems ([presentation](#))

21th March 2018 (Concrete-Themed Meeting)

1. Henry - Welcome and Introduction
2. Sritharan - NEES rocking wall project ([presentation](#))
3. Watkins - Modeling of post-tensioned building tested at e-defence. ([presentation](#))
4. Yiqiu Lu - Update on ILEE building test. ([presentation](#))
5. Ryan - Testing of new low damage concrete wall designs. ([presentation](#))
6. Liu - Recent tests on low-damage bridge piers

2017

12th December 2017

1. Welcome and general update
2. Henry - low damage wall construction project updates
3. Yeow - cost-effectiveness of steel beam-column friction connections ([presentation](#))
4. Khakurel - development of contribution functions for building cladding elements ([presentation](#))

5. MacRae - Update on ROBUST (new ILEE project for steel systems)

10th November 2017

1. Welcome
2. Elwood - Update on RfP and PhD scholarships
3. Clifton - Update on low damage steel and composite steel concrete seismic projects at UoA ([presentation](#))
4. Hare - Update on low damage guidelines
5. Rodgers - Update on development and system-level implementation of novel damping devices ([presentation](#))

12th September 2017

1. Welcome
2. Review of Flagship 4 thrust areas for research in next 3 years
3. Objectives for 3-year integrated project
4. Opportunities available via RFP process and QuakeCoRE PhD Scholarships
5. Proposal for focused monthly meetings in 2018

August 2017

- No meetings held this month due to QuakeCoRE Annual Meeting being held early September

25th July 2017

1. Welcome
2. Progress update on the five F4 projects for 2017
 - Yeow - Seismic loss assessment to motivate high performance building solutions ([presentation](#))
 - Hatami - Large Friction Connection Performance and Reparability ([presentation](#))
3. Update on the MBIE document on low-damage technologies
4. ILEE concrete building test update (Yiqiu Lu - [presentation](#))
5. ILEE steel building initiative (Gregory MacRae)
6. Future research projects
 - Performance of acceleration-sensitive components
 - Buckling restrained braces out-of-plane performance
 - Emerging steel systems

12th June 2017

1. Welcome
2. Presentations for projects aligned by Flagship 4's aims but not funded by QuakeCoRE
 - Clifton - Steel and composite steel-concrete seismic projects at UoA ([presentation](#))
 - Zarnani/Quenneville - Resilient slip friction joint ([presentation](#))
 - Ryan - NHERI TallWood ([presentation](#))
3. Case study buildings update and discussion ([presentation](#))

9th May 2017

1. Welcome
2. Feedback on Wellington Low-Damage Workshop
3. Update on QuakeCore Wiki webpage
4. Progress update on the five F4 projects for 2017
 - Yeow - Seismic loss assessment to motivate high performance building solutions ([presentation](#))
 - Hatami - Large Friction Connection Performance and Reparability
 - Henry - Exploration of Lower-Damage Modifications to Conventional Reinforced Concrete Walls ([presentation](#))
 - Rodgers - Development and System-Level Implementation of Novel Damping Devices ([presentation](#))
 - Clifton - Enhanced Seismic Resilience of Light Steel Frame Pallet Racking Systems
5. Description/progress update on other low-damage projects
 - Shahab - Update on Travel to Europe (FREEDAM Project) and Sliding Hing Joint Recent Developments ([presentation](#))
6. Other business
 - Elwood - Repairable Limit State ([presentation](#))

3rd April 2017

1. Welcome
2. Means of development of fragility functions ([presentation](#))
3. Case study buildings update ([presentation](#))
4. Update on low-damage workshop

28th February 2017

1. Welcome
2. Flagship 4 postdoc
3. Possibilities for collaboration to develop fragility functions

4. Case study buildings update and discussion ([presentation](#))
5. Flagship 4 workshop at the upcoming NZSEE conference
6. ILEE project update
7. Proposal for a dedicated zoom call to report on last year's projects
8. Possible update on the MBIE document on low-damage technologies
9. Any other business

19th January 2017

1. Overview of F4 structure and objectives for 2017 with review of RFP process and outcomes
2. Presentations of each successful proposal
 - Sullivan - Seismic loss assessment to motivate high performance building solutions
 - MacRae - Large Friction Connection Performance and Reparability ([presentation](#))
 - Rodgers - Development and System-Level Implementation of Novel Damping Devices
 - Henry - Exploration of Lower-Damage Modifications to Conventional Reinforced Concrete Walls ([presentation](#))
 - Clifton - Enhanced Seismic Resilience of Light Steel Frame Pallet Racking Systems
3. Thoughts on the selection of F4 case study buildings
4. Ideas for cross-collaboration
5. Any other items to discuss
6. Date for next meeting

2016

26 July 2016

- Presenters: Morris, Rodgers. [Link to Presentations](#).

28 June 2016

- [Agenda](#)
- Presenters: Norouzzadeh, Djojo. [Link to Presentations](#).

24 May 2016

- [Agenda](#)
- Presenters: Hogan, Motter. [Link to Presentations](#).

26 April 2016

- Presenters: Elwood. [Link to Presentations](#).

22 March 2016

- Presenters: Palermo, Sarti, Clifton. [Link to Presentations](#).