

地震研究所金曜日セミナー  
Earthquake Research Institute Friday Seminar

国際室短期招聘者 Rajesh Dhakal 先生によるご講演  
Presentation from Professor Rajesh Dhakal (ER I short term visiting researcher)

## **“Beyond Life-Safety: The Quest Continues”**

日時: 8 月 19 日 (金) 16:00 – 17:00

ZOOM リンク:

<https://u-tokyo-ac-jp.zoom.us/j/87116138633?pwd=emtjYTRvTXVlNFhvRGF0dG1uRnMzZz09>

Meeting ID: 871 1613 8633

Passcode: 530734

場所: 東京大学地震研究所 1 号館 2 階セミナー室

Time: Friday, August 19, 16:00 – 17:00

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Location\*: Seminar Room, 2<sup>nd</sup> floor, ERI Building 1



## 概要・Abstract

Current versions of seismic design codes worldwide aim to achieve life-safety in severe and rare earthquakes. As a result, not many modern buildings have collapsed, and people have rarely died in such buildings even in severe earthquakes. However, current seismic design principles allow structures to be damaged even in minor-moderate shakings. Consequently, modern building stocks have suffered damage in all recent earthquakes, and the financial losses to the community arising from damage and downtime of these buildings have been unacceptably high in many earthquakes.

Following the 2010-11 Canterbury (New Zealand) earthquake sequence, New Zealand engineers (justifiably) claimed that the performance of building stock in general was better than what they were designed to achieve. This has perplexed the New Zealand public who are still struggling to cope with the huge scale of financial loss caused by this earthquake sequence. Hence, it is necessary that the seismic design objectives be revised to meet public expectations.

Observations from recent earthquakes have highlighted that the majority of seismic loss in buildings are attributable to damage of secondary components (known as *non-structural elements*; i.e. NSEs). Hence, enhancing seismic performance of non-structural elements (SPONSE) is a must if we want to minimize financial implications of future earthquakes. Unsurprisingly, awareness of the importance of SPONSE research has significantly increased lately, and researchers are striving to better understand the inherent weaknesses in the current NSEs' design and installation practices and to develop low-damage solutions for key NSEs.

## 講師紹介・Biography

- Professor of Structural and Earthquake Engineering at University of Canterbury in New Zealand
- Performed research into various facets of structural and earthquake engineering, with current interests in *Seismic performance and design of RC structures*, *Seismic performance of non-structural elements (SPONSE)*, and *Seismic loss minimisation in buildings*.
- Supervised over 50 postgraduate research students and authored more than 450 papers.
- Recipient of many awards and fellowships for his contribution to earthquake engineering in New Zealand.
- Delivered invited and keynote lectures in multiple international conferences, served in many national/international review/advisory panels, been part of multiple earthquake reconnaissance missions, and has contributed to the amendment of design standards in different countries.
- Current president of the International Association of SPONSE (*Seismic Performance of Non-Structural Elements*).
- Associate Editor of the *ASCE Journal of Structural Engineering* for six years, currently an editorial board member of five international journals, and is the Chief Editor of the *Bulletin of the New Zealand Society for Earthquake Engineering*.