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## Скорашњи земљотреси у Новом Зеланду: лекције и инжењерски изазови у вези пројектовања армиранобетонских конструкција

### Recent New Zealand earthquakes: lessons and emerging challenges in concrete design

Предавач:

*Mr Andrew Charleson*

*Професор архитектуре у пензији, Victoria University of Wellington, Novi  
Zeland*

12. децембар 16:00 -17:30 часова (регистрација 15:45)

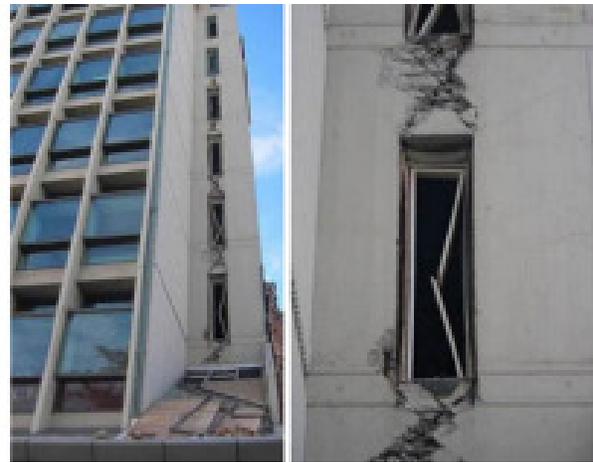
Свечана сала Грађевинског факултета, Булевар краља  
Александра 73 (први спрат)

# Скорашњи земљотреси у Новом Зеланду: лекције и инжењерски изазови у вези пројектовања армирано бетонских конструкција

## Recent New Zealand earthquakes: lessons and emerging challenges in concrete design

### Abstract

This lecture will discuss the lessons and challenges for structural engineers arising from the two most recent damaging earthquakes in New Zealand (2011 Christchurch and 2016 Kaikoura). For both earthquakes, overviews of structural damage will be followed by discussion of the main issues to emerge. These include the residual capacity of ductile plastic hinges and the poor performance of precast floor systems due to beam elongation and incompatibility with seismic moment resisting frames. The final section of the lecture will discuss the (in)adequacy of seismic performance objectives and illustrate the current engineering response to overcoming problems highlighted by the earthquakes.



### Speaker

Andrew Charleson has recently retired as an Associate Professor, School of Architecture, Victoria University of Wellington, New Zealand. He has taught the subject of architectural structures in lecture theatre and studio settings for over 30 years. Prior to that he worked as a structural engineer.

Andrew has two main strands of research interest. The first strand, how structure can enrich architecture, was brought together in the book *Structure as Architecture: a Source Book for Architects and Structural Engineers*. The first edition was published by Elsevier in 2005, and the second by Routledge in 2014. The second research strand relates to earthquake engineering. Andrew is the former Director of the Earthquake Hazard Centre, a NGO that disseminates earthquake damage mitigation information to developing countries. In 2008 his book *Seismic Design for Architects: Outwitting the Quake* was published by Elsevier, and he is the co-author of *Seismic Isolation for Architects*, published by Routledge in 2016.

