



Session ID: RES-2

Title

IMPROVING EARTHQUAKE ENGINEERING IMPLEMENTATION IN DEVELOPING NATIONS

Convenors

A. Charleson 1, S. Alcocer 2, V. Rawal 3

Description

This session addresses the serious situation of well-established earthquake engineering knowledge, such as embodied in building codes, not being implemented fully or properly during the design and construction of buildings. As tragically illustrated during the recent February 2023 Turkey earthquakes, the consequences of not implementing earthquake engineering knowledge can be disastrous.

In order to identify and initiate improvements to code compliance, we need to understand existing impediments. They may be widespread and are likely to reside in the attitudes and approaches of national and local building authorities, building industries and material suppliers. Citizens understanding and beliefs around the likelihood of earthquakes and possible safety during earthquakes, as well as their financial circumstances, are also very important.

Having identified blockages to earthquake engineering implementation, we must develop actions leading to improvements. Individuals and groups, such as national engineering institutions, associations for earthquake engineering or other professional bodies, can take key roles and initiate actions. These may focus on national and or local government but if there is unresponsiveness, it may be necessary to work for change from the bottom up. In this case, awareness raising of the general public may lead to safety improvements during earthquakes. A recent example is Earthquake-safe buildings: A Series of Educational Articles for Developing Nations to Improve the Earthquake Safety of Buildings, published by the World Housing Encyclopedia in 2022. This technical session welcomes papers responding to one or more of the issues outlined above including:

- 1. Raising public awareness to improve the earthquake safety of buildings.
- 2. Developing strategies to inform decision makers approaches to earthquake safety,
- 3. Education, training and certification of personnel in the construction industry, and
- 4. Improving the effectiveness of building controls.

Invited Speakers

K. Mltra ⁴, M. Ahmed Ansary ⁵, M. Lopez Menjivar ⁶, M. Kumar ⁷

Affiliations

¹ Victoria University of Wellington, Wellington, New Zealand, ² Universidad Nacional Autonoma de Mexico, Mexico City, Mexico, ³ People in Centre Consulting, Ahmedabad, India, ⁴ Indian Institute of Engineering Science and Technology, Shibpur, India, ⁵ Bangladesh University of Engineering and Technology, Dhaka, Bangladesh, ⁶ Universidad de El Salvador, San Salvador, El Salvador, ⁷ Indian Institute of Technology, Gandhinagar, Gandhinagar, India