

Session ID: RES-3

Title

CONFINED MASONRY CONSTRUCTION FOR ENHANCED SEISMIC RESILIENCE OF HOUSING AND INFRASTRUCTURE

Convenors

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Description

Confined masonry (CM) has been globally recognized as a construction technology which is more resilient to earthquake effects compared to unreinforced masonry and poorly engineered reinforced concrete frame construction. A few ongoing international initiatives, such as the EERI sponsored Confined Masonry Network, have been promoting application of CM technology by developing and disseminating guidelines and other resources for construction industry. CM technology has been practiced for several decades in many countries and regions (e.g. Latin American countries, Indonesia, Iran, China, some European countries), mostly for construction of housing and school buildings. In most cases, design and construction of CM structures in countries in which the technology has been practiced have been addressed by building codes. Post-earthquake recovery projects have offered opportunity for application of CM construction by governments and NGOs, e.g. Indonesia, Haiti, Philippines, etc. In spite of several success stories and good performance of CM structures in major damaging earthquakes, there are challenges related to design codes and field implementation of this technology. The proposed session will focus on sharing experiences related to CM implementation in various countries.

This technical session welcomes papers that respond to one or more of the issues outlined above, including:

- challenges related to design and construction of CM buildings,
- field applications of CM construction technology case studies,
- seismic retrofitting of CM buildings,
- recent development in seismic design and construction codes, and
- research studies leading to improvements in the CM design and construction practices.

Invited Speakers

L. Blaisdell Collins ³, J.J. Perez Gavilan ⁴, V. Singhal ⁵, L. Masmia Putri ⁶, S. Jain ⁷, D. Kusumastuti ⁸

Affiliations

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