Lehrstuhl für Baustatik und Baudynamik

RWTH AACHEN UNIVERSITY

Master Thesis

Innovative approaches for improvement of behaviour of masonry infilled RC frames under seismic loading

Background

Masonry infilled RC frames are type of buildings which can be encountered all over the world, especially in the earthquake-prone regions, such as Mediterranean area. The intricate issue of effect of masonry infills on seismic performance of RC buildings is the topic of numerous researches. A plenty of research groups have been engaged to better understand the behaviour of these structures and develop solutions which should improve their performance under earthquake loading. In the scope of the running project in cooperation with CWE, the innovative decoupling system based on elastomeric materials is being developed with the aim to improve the behaviour of masonry infilled RC frames under seismic loading.

Damaged infilled walls: Emilia Romagna (2012) and L´Aquila (2009)

Aim

The main task of this Thesis is the investigation of the existing approaches applied for the improvement of behaviour of masonry infilled RC frames under seismic loading. In addition to this the decoupling approach developed within running project at CWE will be analyzed thoroughly. By the means of the detailed numerical simulations results of experimental campaign carried out on full scale specimens will be calibrated and validated.

Contact

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