
Seism-Knowledge initiative

Málaga, Spain, 17th October 2016

Introduction

HABITEC research center (www.cthabitec.com/en), would like to disseminate the existing technical knowledge about earthquake resistant design of buildings, as well as the mistakes that should not be done when designing buildings in seismic zone. This way we will raise awareness among professionals and general public about the importance of designing buildings taking into account the seismic behavior.

The objective of this initiative is to promote building structural seism resiliency knowledge along project proposals for different EU instruments (H2020, ENPI...)

The scope of the projects where this type of knowledge is important could be very broad. We list here after some project examples:

- Building Retrofitting
- Design of new Close to Zero Energy Buildings
- Smart Cities and Communities
- ICT projects collecting data from buildings (and other structures in cities)
- ...

Contents proposed in this document only refer to dissemination activities. We could also manage and develop contents related with research activities depending on the interest of the concrete project.

Proposed contents

There are a variety of common design errors committed quite often in the design and the execution of buildings in seismic zone. Some examples are the following ones: soft floor joints between inadequate buildings, plant or great irregularity in elevation ... These factors greatly increase the seismic vulnerability of buildings, and therefore the risk of personal injury and property damage.

To support the dissemination goal, different events could be organized along Europe. In Spain we would like to choose Granada and Malaga (two of the areas with highest seismic hazard of Spain). Events will be focused on three different audiences: professionals in the construction industry, architecture students and the general public.

In addition to the scientific and technical dissemination, a web platform with the following content is going to be created:

- Good practices on earthquake resistant buildings design and most common errors identified in existing buildings.

- Simplified form to evaluate the vulnerability index.

- List of buildings (in different EU locations, Malaga and Granada in Andalusia) where seismic design deficiencies have been detected. Some of them will be collected through the end user participation.

To get the end user involvement and help them in learning, several actions could be executed as follows:

- dissemination events,
- web implementation
- broadcast in social media.

The main seismic design defects, especially those easily identifiable by the end user, will be disseminated, giving guidelines to the target audience.

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