



FERRARA INTERNATIONAL MEETING, MARCH 20-21, 2014

ARCHITECTURAL HERITAGE SUSTAINABILITY (ARHES)

HOW TO LIVE WITH THE EARTHQUAKE

Edited by Alessandra Aprile, University of Ferrara

PRELIMIARY PROGRAM

MARCH 20th, 2014 (ECONOMICS DEPARTMENT, AULA MAGNA, VIA VOLTAPALETTO 11, FERRARA)

- 9:30-9:40 Giorgio Vannini (University of Ferrara, IT), Head of the Engineering Department: *WELCOME TO PARTICIPANTS*
- 9:40-10:00 Antonio Tralli (University of Ferrara, IT), Head of the Structural Engineering Area: *Natural and Anthropic Hazards impact on Critical Infrastructure Protection*
- 10:00-10.15 Fabio Donato (University of Ferrara, IT), Italian representative for Horizon 2020 Societal Challenge "Europe in a changing world: innovative, inclusive and reflective societies": *Cultural heritage and reflective societies in the Horizon 2020 framework*
- 10:15-10:30 Alessandra Aprile (University of Ferrara, IT): *ARHES project and proposed UE network presentation*
- 10:30-10:45 Pere Roca (Polytechnic University of Catalonia, ES): *Analysis of historical masonry structures. Application of experimental and numerical methods*
- 10:45-11:00 Luca Pelà (Polytechnic University of Catalonia, ES): *Numerical modelling and analysis of masonry structures*
- 11:00-11:30 COFFEE BREAK
- 11:30-11:45 Dermot O'Dwyer (Trinity College Dublin, IE): *Structure and material analysis for historical building preservation.*
- 11:45-12:00 Francesco Pilla (Trinity College Dublin, IE): *The use of Geographic Information System (GIS) for risk assessment*
- 12:00-12:15 Joaquim Antonio Oliveira de Barros (University of Minho, PT): *Advanced materials for innovative constructions and rehabilitation*

- 12:15-12:30 Thanasis Triantafillou (University of Patras, GR): *Strengthening and seismic retrofitting of historic structures with textile-based composites*
- 12:30-12:45 Frederic Lebon (University of Aix-Marseille, FR): *Modelling of imperfect interfaces: application to masonry structures*
- 12:45-13:00 Katrin Beyer, Sarah Petry (Ecole Polytechnique Fédérale de Lausanne, CH): *Deformation capacity of unreinforced masonry walls and spandrels*
- 13:00-15:00 LUNCH
- 15:00-15:15 Giorgio Monti (University of Rome "La Sapienza", IT): *Safety and resilience of historical centres*
- 15:15-15:30 Enrico Spacone (University of Chieti-Pescara, IT): *Seismic Risk at Urban Level*
- 15:30-15:45 Rabih El Fadel (Zero Energy First, ZEF Ltd, UK): *Sustainability, the quantum leap*
- 15:45-16:00 Andrea Benedetti (University of Bologna, IT): *Vulnerability of historic buildings with environmental degradation in accidental situations*
- 16:00-16:15 Tomaso Trombetti (University of Bologna, IT): *Seismic Hazard, Vulnerability, Risk for monument conservation*
- 16:15-16:45 COFFEE BREAK
- 16:45-17:00 Carmela Vaccaro (University of Ferrara, IT): *Chemical-mineralogical characterization of waste material and their reuse in concrete and mortar*
- 17:15-17:30 Domenico Capuani (University of Ferrara, IT): *Failure of materials with pre-stress*
- 17:30-17:45 Raffaella Rizzoni (University of Ferrara, IT): *Constitutive modelling of shape memory alloys*
- 17:30-17:45 Alessandra Aprile (University of Ferrara, IT): *Sustainable methods for resilience increasing of existing structures*
- 17:45-18:15 Alessandra Zambrano (HORIZON 2020 Consultant, IT): *Horizon 2020 overview: proposed selected calls, scheduling, keywords, structure outline*
- 18:15-19:00 RESUME AND DISCUSSION