

Joined research activities on seismic risk prevention

OBJECTIVES

The **Earthquake Engineering with Disaster Management (EEDM) MSc programme** and the **Earthquake and People Interaction Centre (EPICentre)** at the **University College London (UCL)** are conducting a reconnaissance field trip in Italy from the 4th to the 8th of June 2018.

The team will study the impacts of the 2016-2017 Central Italy Earthquakes and will also visit the areas affected by the 2009 L'Aquila Earthquake. The reconnaissance trip will be focused on six main themes: 1. Seismic performance observation of new and existing structures (masonry, reinforced concrete and steel, residential and industrial); 2. Non-destructive tests on diagnostics of existing buildings; 3. Detailed and systematic damage data collection for the development of fragility and vulnerability models for the building typologies damaged by the 2016-2017 Central Italy Earthquakes; 4. Seismic performance of schools and cultural heritage structures and their impacts on community resilience; 5. Emergency response and disaster management; 6. Experience and perspectives of people, local communities, and organizations involved in the 2016-2017 Central Italy Earthquakes.

The reconnaissance trip is coordinated by Dr Fabio Freddi, Valentina Putrino and Dr. Marco Baiguera.

During the first two days, the UCL team will be joining the partners from the **School of Architecture and Design** of the **University of Camerino (UniCam; Italy)** to conduct joined educational and research activities on earthquake engineering and risk prevention. Great support in these activities will be provided by Prof Andrea Dall'Asta, Prof Graziano Leoni, Prof Alessandro Zona and the structural team of the University of Camerino.

PROGRAMME

Monday, 4 June 2018

3:00pm - 6:00pm

Reconnaissance of the historic town of Camerino after the "Centre-Italy 2016" earthquake

Starting point: Computer Science building, via Madonna delle Carceri, Camerino

Tuesday, 5 June 2018

10:00am - 1:00pm

Non-destructive tests on diagnostics of existing buildings.

Location: "Fazzini" building, via Le Mosse, Camerino.

1:00pm - 2:30pm

Lunch

2:30pm - 7:00pm

Workshop: New perspectives in seismic risk assessment and resilience enhancement

Location: Law School building, via D'Accorso (SP 259), Camerino

**Monday & Tuesday
4 & 5 June 2018**



University of Camerino - University College of London

WORKSHOP

New perspectives in seismic risk assessment and resilience enhancement

PROGRAM

Welcome and introduction

Chairman: Graziano Leoni (UniCAM)

2:30pm

Claudio Pettinari – Provost of the University of Camerino
Giuseppe Losco - Director of the School of Architecture and Design
Fabio Freddi – UCL, EPICentre and the EEDM MSc
Graziano Leoni - The REDI Project
Andrea Dall'Asta - Introduction to the Workshop

Scientific contributions

Chairmans: Fabio Freddi (UCL) & Andrea Dall'Asta (UniCAM)

3:20pm - Advanced tools for seismic risk assessment

Fabrizio Scozzese (UniCAM - School of Advanced Studies)

3:40pm - Ground motion generation using real and synthetic seismic scenarios

Catalina Fortuno Jara (UCL - EEDM MSc Student)

4:00pm - Collapse probability and actual safety of seismic isolation

Fabio Micozzi (UniCAM - School of Advanced Studies)

4:20pm - Structural Reliability of RC connections: a comparison of building codes

Francesco Morfuni (UCL - EEDM MSc Student)

4:40pm – Coffee Break

5:00pm - Damage and vulnerability of churches during the Centre-Italy 2016 sequence

Michele Morici (UniCAM - School of Architecture and Design)

5:20pm - Masonry buildings: Code and evidences from the ground

Valentina Putrino (UCL - Department of Civil, Environmental & Geomatic Engineering)

5:40pm - Hybrid structures: the INNO-HYCO project

Alessandro Zona (UniCAM - School of Architecture and Design)

6:00pm - Seismic Analysis of a Water Tower: A Fluid-Structure-Soil interaction problem

Michail Spyridis (UCL - EEDM MSc Student)

6:20pm - External damping systems in the seismic upgrading of existing structures

Laura Gioiella (UniCAM - School of Architecture and Design)

6:40pm - A dual steel frame with high post-yield stiffness metallic dampers

Marco Baiguera (UCL – Department of Civil, Environmental & Geomatic Engineering)

7:00pm - Conclusions and joined activities perspectives

Fabio Freddi (UCL – Department of Civil, Environmental & Geomatic Engineering)

Tuesday 5 June 2018

2.30 pm – 7.00pm

University of Camerino

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62032 Camerino MC**

