

# Analysis and Mitigation of Risks in Infrastructures INFRARISK-

3<sup>rd</sup> Summer School Workshop  
28<sup>th</sup> July 2017

## Program

9:30	<p><b>Opening Session</b></p> <p>Eng. Carlos Pina <i>President of LNEC</i></p> <p>Eng. Laura Caldeira <i>Head of the Department of Geotechnics of LNEC</i></p> <p>Prof. Rita Bento <i>Director of the Doctoral Programme INFRARISK-</i></p> <p>Prof. Atilla Ansal <i>Member of the Evaluation Committee</i></p> <p>Dr. Desmond Hartford <i>Member of the Evaluation Committee</i></p>	
9:50	<p><b>Research Project Presentations – 3<sup>rd</sup> year students</b> Chairpersons: Prof. Paulo B. Lourenço, Eng. Laura Caldeira</p> <p><b>Probabilistic Seismic Vulnerability Assessment of “Gaioleiro” Buildings</b> <i>Ana Simões</i> Supervision: Rita Bento (IST), Sergio Lagomarsino (U Genova), Paulo B. Lourenço (U Minho)</p> <p><b>How to identify critical hotspots in coastal zones? Challenges and solutions</b> <i>Pedro Narra</i> Supervision: Carlos Coelho (U Aveiro), Francisco Eduardo da Ponte Sancho (LNEC)</p> <p><b>Robustness of multi-storey timber buildings in seismic regions</b> <i>Leonardo Rodrigues</i> Supervision: Jorge Branco (U Minho), Luís Neves (U Nottingham)</p> <p><b>Robustness of transportation networking systems – Application to a case study</b> <i>Hugo Guimarães</i> Supervision: José Campos e Matos (U Minho), Dan Frangopol (U Lehigh), António Abel Henriques (FEUP)</p> <p><b>Statistical analysis of the effect of the angle of seismic incidence on probabilistic inelastic seismic demand</b> <i>Despoina Skouliidou</i> Supervision: Xavier Romão (FEUP)</p> <p><b>The influence of correlated spectral parameters in risk analysis of scour protections</b> <i>Tiago Ferradosa</i> Supervision: Francisco Taveira Pinto (FEUP), Luciana Neves (FEUP), Teresa Reis (LNEC)</p>	
11:20	<p><b>Coffee break</b></p>	
11:40	<p><b>Keynote Lecture</b> Chairpersons: Eng. Alfredo Campos Costa, Eng. António A. Correia</p> <p><b>An application of Natural Hazards Risk Modelling: Wine!</b> <i>Dr. James Daniell</i> <i>Invited Speaker</i></p>	
12:40	<p><b>Lunch break</b></p>	
14:10	<p><b>Research Project Presentations – 1<sup>st</sup> year students</b> Chairpersons: Prof. Rita Bento, Prof. Rui Calçada</p> <p><b>The Influence of Timber Floors on Masonry Structures</b> <i>Maria Pia Ciocci</i> Supervision: Paulo B. Lourenço (U Minho), Rui Marques (U Minho)</p> <p><b>Experimental investigation and numerical modelling of dyke failure</b> <i>Teresa Alvarez</i> Supervision: Rui Ferreira (IST), Teresa Viseu (LNEC)</p>	
14:50	<p><b>Risk Analysis of Transmission Lines Systems to Natural Hazards with emphasis on Earthquakes and Extreme Winds</b> <i>Fábio Paiva</i> Supervision: Luís Guerreiro (IST), Rui Carneiro de Barros (FEUP)</p> <p><b>Risk-Based Analysis of Bridge Scour Prediction with Live Bed Conditions</b> <i>Ana Margarida Bento</i> Supervision: Teresa Viseu (LNEC), João Pedro Pêgo (FEUP), Lúcia Couto (LNEC)</p>	
14:50	<p><b>Research Project Presentations – 2<sup>nd</sup> year students</b> Chairpersons: Prof. Rita Bento, Prof. Rui Calçada</p> <p><b>Fragility Curves for Concrete Pre-seismic code Portuguese Building stock</b> <i>Sanam Moghimi</i> Supervision: Alexandra Carvalho (LNEC), Paulo B. Lourenço (U Minho)</p> <p><b>Optimization of numerical modelling in the context of sensitivity analysis</b> <i>Bruno Oliveira</i> Supervision: Rodrigo Maia (FEUP), Francesco Ballio (Politecnico di Milano)</p> <p><b>Categorization of bridges according to dynamic behavior and definition of a framework for optimization</b> <i>Vitor Camacho</i> Supervision: Mário Lopes (IST), Carlos Sousa Oliveira (IST)</p>	
15:35	<p><b>Coffee break</b></p>	
15:55	<p><b>Research Project Presentations – 2<sup>nd</sup> year students</b> Chairpersons: Prof. Carlos Sousa Oliveira, Prof. Romeu Vicente</p> <p><b>Earthquake Risk Mitigation of Urban Cultural Heritage Assets</b> <i>Rui Maio</i> Supervision: Romeu Vicente (U Aveiro), Sergio Lagomarsino (U Genova)</p> <p><b>Stability analysis of a SDOF system in hybrid simulation with a uni-axial shake table</b> <i>Gidewon Tekeste</i> Supervision: António A. Correia (LNEC), Anibal G. Costa (U Aveiro)</p> <p><b>Risk management applied to cultural heritage buildings. The effect of soil settlements and vibrations induced by underground structures</b> <i>Georgios Karanikoloudis</i> Supervision: Paulo B. Lourenço (U Minho), João Bilé Serra (LNEC)</p> <p><b>Seismic vulnerability assessment of old frame-wall buildings in Lisbon</b> <i>Claudia Caruso</i> Supervision: Rita Bento (IST), José Miguel Castro (FEUP)</p>	
16:55	<p><b>Discussion: Board of Studies and Researchers/Scholars</b></p>	
17:15	<p><b>Closing Session</b> Eng. Laura Caldeira Prof. Carlos Sousa Oliveira Members of the INFRARISK-, Board of Studies</p> <p>Prof. Atilla Ansal Head of the Department of Civil Engineering, Ozyegin University, Istanbul, Turkey</p> <p>Dr. Desmond Hartford Principal Engineering Scientist, BC Hydro, Vancouver, Canada</p> <p>Dr. James Daniell Senior Research Scientist, CEDIM – KIT, Karlsruhe, Germany</p>	
17:30	<p><b>Visit to LNEC shake table facility</b></p>	

