Analysis and Mitigation of Risks in Infrastructures
INFRARISK-

3rd Summer School Workshop
28th July 2017

Program

9:30 Opening Session
Eng. Carlos Pina
President of LNEC
Eng. Laura Caldeira
Head of the Department of Geotechnics of LNEC
Prof. Rita Bento
Director of the Doctoral Programme INFRARISK-
Prof. Atílio Arsal
Member of the Evaluation Committee
Dr. Desmond Hartford
Member of the Evaluation Committee

9:50 Research Project Presentations – 3rd year students
Chairpersons: Prof. Paulo B. Lourenço, Eng. Laura Caldeira
Probabilistic Seismic Vulnerability Assessment of “Galoleiro” Buildings
Ana Simões
Supervision: Rita Bento (IST), Sergio Lagomarino (U Genova), Paulo B. Lourenço (U Minho)
How to identify critical hotspots in coastal zones? Challenges and solutions
Pedro Narra
Supervision: Carlos Coelho (U Aveiro), Francisco Eduardo da Ponte Sancho (LNEC)
Robustness of multi-storey timber buildings in seismic regions
Leonardo Rodrigues
Supervision: Jorge Branco (U Minho), Luís Neves (U Nottingham)
Robustness of transportation networking systems – Application to a case study
Hugo Guimarães
Supervision: José Campos e Matos (U Minho), Dan Frangopol (U Lehigh), António Abel Henriques (FEUP)
Statistical analysis of the effect of the angle of seismic incidence on probabilistic inelastic seismic demand
Despoina Skoulidou
Supervision: Xavier Romão (FEUP)
The influence of correlated spectral parameters in risk analysis of scour protections
Tiago Ferradosa
Supervision: Francisco Taveira Pinto (FEUP), Luciana Neves (FEUP), Teresa Res (LNEC)

11:20 Coffee break

11:40 Keynote Lecture
An application of Natural Hazards Risk Modelling: Winel
Dr. James Daniell
Invited Speaker

12:40 Lunch break

14:10 Research Project Presentations – 1st year students
Chairpersons: Prof. Rita Bento, Prof. Rui Calçada
The Influence of Timber Floors on Masonry Structures
Maria Pia Ciocci
Supervision: Paulo B. Lourenço (U Minho), Rui Marques (U Minho)
Experimental investigation and numerical modelling of dyke failure
Teresa Alvarez
Supervision: Rui Ferreira (IST, Teresa Viseu (LNEC)

Risk Analysis of Transmission Lines Systems to Natural Hazards with emphasis on Earthquakes and Extreme Winds
Fábio Palva
Supervision: Luís Albuquerque (IST), Rui Camedo de Bamos (FEUP)

Risk-Based Analysis of Bridge Scour Prediction with Live Bed Conditions
Ana Margarida Bento
Supervision: Teresa Viseu (LNEC), João Pedro Pinto (FEUP), Lúcia Couto (LNEC)

Research Project Presentations – 2nd year students
Chairpersons: Prof. Rita Bento, Prof. Rui Calçada
Fragility Curves for Concrete Pre-seismic code Portuguese Building stock
Sanam Moghimi
Supervision: Alexandra Carvalho (LNEC), Paulo B. Lourenço (U Minho)

Optimization of numerical modelling in the context of sensitivity analysis
Bruno Oliveira
Supervision: Rodrigo Maia (FEUP), Francesco Balle (Politecnico di Milano)

Categorization of bridges according to dynamic behavior and definition of a framework for optimization
Vítor Caramacho
Supervision: Mário Lopes (IST), Carlos Sousa Oliveira (IST)

Research Project Presentations – 2nd year students
Chairpersons: Prof. Carlos Sousa Oliveira, Prof. Romeu Vicente
Earthquake Risk Mitigation of Urban Cultural Heritage Assets
Rui Maia
Supervision: Romeu Vicente (U Aveiro), Sergio Lagomarino (U Genova)

Stability analysis of a SDOF system in hybrid simulation with a uni-axial shake table
Gidewon Tekeste
Supervision: António A. Correia (LNEC), Aníbal G. Costa (U Aveiro)

Risk management applied to cultural heritage buildings. The effect of soil settlements and vibrations induced by underground structures
Georgios Karanikobidis
Supervision: Paulo B. Lourenço (U Minho), João Bili Sema (LNEC)

Seismic vulnerability assessment of old frame-wall buildings in Lisbon
Cláudia Caruso
Supervision: Rita Bento (IST), José Miguel Castro (FEUP)

Discussion: Board of Studies and Researchers/Scholars

Closing Session
Eng. Laura Caldeira
Prof. Carlos Sousa Oliveira
Members of the INFRARISK-, Board of Studies

Prof. Atílio Arsal
Head of the Department of Civil Engineering, Ozyegin University, Istanbul, Turkey

Dr. Desmond Hartford
Principal Engineering Scientist, BC Hydro, Vancouver, Canada

Dr. James Daniell
Senior Research Scientist, CEDIM – KIT, Karlsruhe, Germany

Visit to LNEC shake table facility