

Analysis and Mitigation of Risks in Infrastructures INFRARISK-

4th Summer School Workshop
18th July 2018

Program

9.00	Opening Session Prof. António Heleno Cardoso <i>Head of DECivil, IST</i> Prof. Rita Bento <i>Director of the Doctoral Programme INFRARISK-</i> Dr. Desmond Hartford <i>Member of the Evaluation Committee</i> Dr. Sébastien Proust <i>Member of the Evaluation Committee</i>	Supervision: Romeu Vicente (U Aveiro), Sergio Lagomarsino (U Genova), Tiago Ferreira (U Minho)
9:20	Inviting Lecture Chairpersons: Prof. Rita Bento, Dr. António A. Correia The Global Rapid post-disaster Damage Estimation (GRADE) Approach: Infrastructure and Sectoral Loss Estimates in a fast-paced world Dr. James Daniell (<i>Invited Speaker</i>)	Investigations on the seismic behaviour of URM buildings with timber floors: research methodology and introductory results Maria Pia Ciocci (<i>2nd year</i>) Supervision: Paulo B. Lourenço (U Minho), Rui Marques (U Minho)
9.40	Research Project Presentations – Earthquake Engineering Chairpersons: Prof. Rita Bento, Dr. António A. Correia Evaluation of the angle of seismic incidence effect on the collapse risk of RC buildings Despoina Skoulidou (<i>4th year</i>) Supervision: Xavier Romão (FEUP) Experimental Tests & Numerical Modeling of Cross-Laminated Timber Diaphragms Leonardo Rodrigues (<i>4th year</i>) Supervision: Jorge Branco (U Minho), Luís Neves (U Nottingham) Seismic risk assessment of “Placa” buildings. Cost-effectiveness analysis of techniques for risk mitigation Vasco Bernardo (<i>1st year</i>) Supervision: Paulo Candéias (LNEC), Aníbal Costa (U Aveiro) Mitigating earthquake vulnerability of mixed URM-RC buildings at the urban scale Gonçalo Lopes (<i>1st year</i>) Supervision: Romeu Vicente (U Minho), Miguel Azenha (U Minho, Tiago Ferreira (U Minho) Development of BRD_AL Prototype: Development of an aluminium alloy hysteretic damping system for seismic retrofitting of pre-coded reinforced concrete buildings Ricardo Ferreira (<i>1st year</i>) Supervision: Jorge Proença (IST), António Gago (IST) Seismic Loss Estimation and Strengthening of an old RC building in Lisbon Claudia Caruso (<i>3rd year</i>) Supervision: Rita Bento (IST), Miguel Castro (FEUP)	13.00 Lunch break 14:30 Keynote Lecture Chairpersons: Prof. Carlos Sousa Oliveira, Prof. Paulo Lourenço The hydraulic modelling of extreme flood events Dr. Sébastien Proust (<i>Invited Speaker</i>) 15:15 Research Project Presentations – Hydrological Engineering Chairpersons: Prof. Carlos Sousa Oliveira, Prof. Humberto Varum CERA: GIS-based assessment on coastal erosion risk Pedro Narra (<i>4th year</i>) Supervision: Carlos Coelho (U Aveiro), Francisco Eduardo da Ponte Sancho (LNEC) The Joy of Reliable Scour Protections - a PhD survival guide Tiago Ferradosa (<i>4th year</i>) Supervision: Francisco Taveira Pinto (FEUP), Luciana Neves (FEUP), Teresa Reis (LNEC) Sensitivity Analysis and Probability Density of Bed Morphodynamics Bruno Oliveira (<i>3rd year</i>) Supervision: Rodrigo Maia (FEUP), Francesco Ballio (Politecnico di Milano) Risk-Based Analysis of Bridge Scour Prediction with Live Bed Conditions - <i>2nd year</i> Ana Margarida Bento (<i>2nd year</i>) Supervision: Teresa Viseu (LNEC), João Pêgo (FEUP), Lúcia Couto (LNEC)
11:10	Coffee break	16:15 Coffee break
11:30	Research Project Presentations – Earthquake Engineering Chairpersons: Prof. Romeu Vicente, Prof. Xavier Romão Optimization methodology for the design of reinforced concrete bridge infrastructures based on evolutionary algorithms Vitor Camacho (<i>3rd year</i>) Supervision: Mário Lopes (IST), Carlos Sousa Oliveira (IST) Seismic risk of PreCode RC buildings retrofitted with Jacketing Sanam Moghimi (<i>3rd year</i>) Supervision: Alexandra Carvalho (LNEC), Paulo B. Lourenço (U Minho) Development and validation of an experimental platform for hybrid simulation and uncertainty quantification Gidewon Tekeste (<i>3rd year</i>) Supervision: António A. Correia (LNEC), Aníbal G. Costa (U Aveiro) Economic prospects of rehabilitation of UCH assets in Portugal: repair cost functions and cost-benefit analysis Rui Maio (<i>3rd year</i>)	16:30 Research Project Presentations – Infrastructures & Geotechnics Chairpersons: Prof. Paulo Lourenço, Prof. Humberto Varum Experimental investigation and numerical modelling of embankment failure by overtopping Teresa Alvarez (<i>2nd year</i>) Supervision: Rui Ferreira (IST), Teresa Viseu (LNEC) Multi-hazard assessment for the safety management of embankment dams Gonçalo Faustino (<i>1st year</i>) Supervision: Laura Caldeira (LNEC), João Bilé Serra (LNEC), Teresa Bodas Freitas (IST) Risk analysis of bridges using a new reliability-based robustness assessment methodology Hugo Guimarães (<i>4th year</i>) Supervision: José Campos e Matos (U Minho), Dan Frangopol (U Lehigh), António Abel Henriques (FEUP) Risk management applied to cultural heritage buildings. Georgios Karanikoloudis (<i>3rd year</i>) Supervision: Paulo B. Lourenço (U Minho), João Bilé Serra (LNEC) Dynamic Structural Health Monitoring of an Overhead Power Line using Interferometric Radar Fábio Paiva (<i>2nd year</i>) Supervision: Luís Guerreiro (IST), Rui Carneiro de Barros (FEUP)
		17:45 Discussion: Board of Studies and Researchers/Scholars
		18:15 Closing Session Prof. Carlos Sousa Oliveira <i>Members of the INFRARISK-, Board of Studies</i> Dr. Desmond Hartford <i>Principal Engineering Scientist, BC Hydro, Vancouver, Canada</i> Dr. Sébastien Proust <i>Member of the Evaluation Committee</i>