



**46th ESReDA Seminar on
Challenges in Structural Safety and Risk Analysis
(May 29th - 30st, 2014)**

Politecnico di Torino, Turino, Italy

46th ESReDA Seminar Draft Schedule

1st day, Wednesday May 28th, 2014

9:00-12:30	Project Group meetings
12:30-14:00	Lunch
15:00-18:00	61st ESReDA Board of Directors Meeting

2nd day, Thursday October 29th, 2014

9:00-9:10	Welcome to participants and Events Schedule <i>Henrik Kortner, ESReDA Director</i>
9:10-9:20	Welcome to participants Politecnico di Torino <i>Director of Politecnico di Torino</i>
9:20-9:30	Seminar Program and Presentation of ROLCCOST Project Group <i>Alaa Chateauneuf, Chairman</i>
9:30-10:10	Keynote lecture <i>Review of degradation models and their integration in life-cycle analysis</i> <i>Mauricio Sanchez-Silva, University Los Andes, Colombia</i>
10:10-10:40	Coffee Break
10:40-12:00	SESSION 1: Life-cycle management of structures and infrastructures <i>Robustness and Life-Cycle Analysis (LCA) of Structures and Infrastructures</i> <i>J. R. Casas, Tech. Univ. of Catalonia- BARCELONATECH, Spain</i> <i>Target reliability levels – needs for harmonisation in present standards</i> <i>M. Holicky, J. Markova and M. Sykora, Klokner Institute, Czech Republic</i> <i>Assessment of modeling uncertainties in the FE analysis of deteriorated concrete structures</i> <i>D. L. Allaix, V. I. Carbone, G. Mancini, Politecnico di Torino, Italy</i> <i>Life cycle costs of passenger transportation system. case study of wroclaw city agglomeration</i> <i>I. Dziaduch, T. Nowakowski, A. Tubis, S. Werbińska-wojciechowska, Wroclaw University of Technology, Poland</i>

12:00-13:30	Lunch
13:30-14:00	Invited lecture <i>A sustainable approach to existing structures</i> Giuseppe Mancini, Politecnico di Torino, Italy
14:00-15:40	SESSION 2: Risk assessment of existing structures <i>The ageing in major risk process plant: review of the approaches with a glance to the Seveso III Directive</i> M. Demichela and G. Camuncoi, Politecnico di Torino, Italy <i>Safety Assessment of existing structures: methodologies and limitations</i> A. Chateaufneuf ¹ , Y. Aoues ² , G. Prod'homme ³ , M. Remeireinger ³ , ¹ UBP, ² INSA Rouen, ³ INERIS, France <i>Using Asset Management in Container Terminal Design</i> S. van Bente, S. Kleiweg, J. van der Let, S. de Rijke, IES Asset Management, Netherland <i>Identification and assessment of domino sequences initiated by loss of containment</i> N. Alileche and L. Estel, INSA de Rouen/ Université du Havre, France <i>Design optimization of progressive collapse-resistant structural systems</i> Dimos C. Charmpis, University of Cyprus, Cyprus
15:40-16:00	Coffee Break
16:00-17:00	SESSION 3: Uncertainties in structural systems <i>Modeling model uncertainty in structural reliability: a variety of approaches</i> E. Ardillon and S. Audebert, EDF, France <i>Methodology of probabilistic analysis for building structures of nuclear facilities</i> Dimitri Suchard, Gesellschaft für Anlagen- und Reaktorsicherheit (GRS), Germany <i>Analysis of failure probability in the network pipelines</i> G. Dundulis, I. Zutautaitė, S. Rimkevicius, Lithuanian Energy Institute, Lithuania
17:00-17:30	Presentation of the ESReDA Project Group: “Assessment of Critical Infrastructures”
17:30-19:00	ESReDA General Assembly
20:00	Seminar Dinner

3rd day, Friday May 30th, 2014

- 9:00-9:40 **Keynote lecture**
On-line monitoring and resilient design for a longer construction life
Alessandro De Stefano, Politecnico di Torino, Italy
- 9:40-10:10 **Invited Lecture**
Evidence-based, mission-oriented Corporate Real Estate Management
C. van Rijn¹, R. Kollaard² and V. Faasen², ¹Asset Management Consultancy and ²The Government Buildings Agency.
- 10:10-10:30 Coffee Break**
- 10:30-12:10 **SESSION 4: Degradation and Reliability-based Maintenance**
- Periodic inspection strategy for systems subject to competing failure*
Inmaculada Castro, Ewha Womans University, Korea, and University of Extremadura, Spain
- A fault tree-based Bayesian network construction for the failure rate assessment of a complex system*
E.-H. Ait Mokhtar, R. Laggoune, A. Chateauneuf, University of Béjaia, Algeria
- Phase type distributions in shock-based structural deterioration: fitting to real data and reliability estimation*
J. Riascos-Ochoa, M. Sanchez-Silva, R. Akhavan-Tabatabaei, University Los Andes, Colombia.
- Impact of the different life cycle cost models on design decisions for insulation systems*
A. Aissani, A. Chateauneuf, J.-P. Fontaine and Ph. Audebert, Blaise Pascal University, France
- Cost-Effectiveness of Climate Change Adaptation Strategies for Existing Coastal Reinforced Concrete Structures*
E. Bastidas Artaega¹, M. G. Stewart², ¹University of Nantes and ²Australian Research Council Professorial, France and Asutralia
- 12:10-13:30 Lunch**
- 13:30-14:00 **Invited Lecture**
Reliable, resilient; towards a dialectic synthesis?
E. A. van Kleef and J.A. Stoop, TU Delft, Netherland
- 14:00-15:20 **SESSION 5: Numerical methods**
- DSM reliability: Do we care about?*
F. Bayle, D. Regis, THALES AVIONICS, France

Reliability structure issues in Natech Risk Assessment

M. Borysiewicz, T. Jackowski, S. Potemski. d'eric Kihm, NCBJ, Poland

Reliability assessment of offshore floating renewable structures by AHP methodology

I. Dagkinis, N. Nikitakos, University of Aegean, Greece

An imperfect repair model based on reduction of virtual age

Sofiane Gasmi, National High School of Engineers Tunisia

15:20-15:40 Coffee Break

15:40-17:00 SESSION 6: Stochastic analysis and Reliability-based Optimization

Stochastic finite elements: a B-spline approach

D. L. Allaix, V. I. Carbone, G. Mancini, Politecnico di Torino, Italy

Optimal design of embedded mechatronic systems using Reliability-based design optimization approach.

Y. Aoues, A. Makhloufi, Ph. Pougnet, A. El-Hami, INSA de Rouen, France

A New Approach of Reliability-based Design Optimization in embedded electronics and mechatronical system.

A. EL HAMI, A. Makhloufi, A. Younes LOFIMS – INSA de Rouen, France

Improved metaheuristic approach to skew reinforcement optimization in concrete shells

G. Bertagnoli, L. Giordano, S. Mancini, Politecnico di Torino, Italy

17:00-17:20 Closure session: discussions and conclusions