TORINO - ISPRA, Italy 20 -22 September 2016

Conference venues:
Politecnico di Torino (Castello del Valentino), Torino
European Commission’s Joint Research Center (JRC), Ispra

Local Organizing Committee
Gian Paolo Cimellaro (Chair)
Marco Domaneschi
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John W. van de Lindt, USA - John Wallace, USA - Helmut Wenzel, Austria - Andrew Whittaker, USA - Zhishen Wu, Japan
During the last decade several devastating earthquakes have occurred, reminding us that destructive events still threaten the lives of millions, property, social structure, and economic wellbeing of individuals, communities, and countries all over the world.

The recent events in Europe, Asia and America demonstrate that natural and manmade hazards represent one of the most considerable threats to communities in Europe and on a global scale.

In this context, the 1st International Workshop on Resilience will address topics such as recovery, mitigation strategies, innovative technologies, resilience and downtime estimation, economic aspects etc. To address these pressing issues has never been more timely and relevant for resilience and sustainable development.

The workshop will provide an opportunity for researchers working on resilience from various domains to present and discuss their current work and discuss work in progress.

The aim of the workshop is to develop a common global vision for Disaster Resilience, while recognizing unique regional traditions. The goal of the workshop is to present and compare different strategies and frameworks on how to improve community resilience against a major event.

The first two days of the workshop will take place in Torino in one of the most prestigious Politecnico conference facilities, the Hall of Honour of the Valentino Castle a 16th century royal residence, while the third day will be hosted in the European Commission’s Joint Research Center (JRC), a science hub located in Ispra on the Lake Maggiore, about 130 km far from Torino.

September Tuesday 20 and Wednesday 21
Castello del Valentino, Torino

Recognised by UNESCO in 1997 as a part of the Residences of the Royal House of Savoy (Italy) World Heritage site, and situated on the banks of the River Po, the Castello del Valentino is an important historic monument in Piedmont’s regional capital, and hosts the main offices for the Department of Architecture at Politecnico di Torino. The workshop will take place in the beautiful Hall of Honour. This large, lofty hall is the most significant area in terms of iconography; architecturally it marks the link between the two symmetrical apartments for the Princess Regent Cristina and the Crown Prince through the loggia and the double ramp staircase. The background of painted scenes on the walls draws attention to the many and long-standing alliances that were forged between the dukes of Savoy and the kings of France. Restoration of the frescoes and vaulted ceiling in the hall began in the early 1990s. A new floor of terracotta tiles was also laid, in keeping with the original materials. The Hall of Honour is now used as meeting room with up-to-date audiovisual equipment.

September Thursday 22:
JRC site, Ispra

The JRC Site in Ispra, the third biggest EU Commission site after Brussels and Luxembourg, covers an area of 167 hectares with ca 138 buildings hosting ca 1850 staff. After more than 50 years of development, Ispra is firmly established as one of Europe’s leading research campuses. Nested in the beautiful setting of the Italian lakes, Ispra provides a fascinating, multicultural working environment for people from all over Europe and beyond.

Early registration fee (until June 30, 2016)
EUR 300,00 - VAT 22% included

Late registration fee (after June 30, 2016)
EUR 350,00 - VAT 22% included

Registration fees include:
- access to all scientific sessions on September 20, 21 in Turin and 22 in Ispra;
- coffee breaks and buffet lunches;
- transfer to and from Ispra;
- welcome cocktail reception on September 19;
- social dinner on September 20;
- city tour “Turin under the stars” on September 21.

The registration form is available at www.workshop-torino2016.resiltronics.org/registration.html
Monday, September 19

Attendees arrival in Turin
19:00 Welcome cocktail reception
Hotel NH Santo Stefano via Porta Palatina, 19

Tuesday, September 20
Castello del Valentino - Hall of Honour

8:45 Workshop opening
M. Gilli - Rector of the Politecnico di Torino
C. Scavia - Head of DISEG Department
S. Bovo - Civil Protection Regione Piemonte

OPENING LECTURES

9:00 Resilience: the structural engineering dilemma. M. Bruneau – A. Reinhorn, USA
9:30 Consideration of time dependent risk in resilience assessment. A. Kiremidjian – D. Lallemant – L. Ceferino-Rojas, USA
10:00 Prescription for economic resilience to natural hazards. H. Tatano, Japan
10:30 The social landscape of disaster resilience. S. Cutter, USA
11:00 Break

CODES AND STANDARDS

11:15 Holistic design of concrete structures for resilience to blast, impact, fire and earthquake. M. N. Fardis, Greece
11:45 Resilient seismic codes in Chile: a possible challenge. G. R. Saragoni, Chile
12:00 Building resilient communities: a systemic approach based on lessons and challenges from grass root level initiatives in India and Japan. B. Misra, India
12:30 Sustainability and resilience in seismic areas: an exciting challenge for civil engineers. P. Clemente – G. Bongiovanni – G. Buffarini – F. Saitta, Italy
12:45 Break

EUROPEAN FRAMEWORKS

13:45 Introduction to European Projects. A. P. Contaretti, European Commission–Belgium
14:00 Operationalize European resilience management guidelines in urban transport system: The RESOLUTE project approach (H2020 project). E. Bellini – P. Nesi, Italy
14:30 The PEOPLES framework for building, community and State level. G. P. Cinellaro, Italy
14:45 The RESILENS project approach (H2020 Project). W. Hynes, Ireland
15:00 DARWIN- H2020 project – Expect the unexpected and know how to respond. Current findings and way forward. L. Save, Italy
15:30 XP-RESILIENCE. O. S. Bursi, Italy
15:45 Assessment of civil infrastructure system seismic resilience using a compositional supply/demand frame work. M. Didier – M. Broccardo – S. Esposito – B. Stojadinovic, Switzerland – S. Ghosh, India
16:00 Break

NORTH AMERICA: NIST FRAMEWORK


16:45 Functionality fragility assessment in the context of community resilience. M. Koliou – J. W. Van de Lindt, USA

17:00 Earthquake and tsunami fragility surfaces for a masonry infilled reinforced concrete building structure. A. R. Barbosa – M. Alam – D. Cox – J. W. Van de Lindt, USA

Wednesday, September 21
Castello del Valentino – Hall of Honour

NORTH AMERICA: OTHER FRAMEWORKS

8:30 Risk management considering resilience and environmental impact. Y. Dong – D. M. Frangopol, USA

9:00 Acceptable and tolerable levels of risk: the role of immediate impact, resilience and human rights. A. Tabandeh – P. Gardoni – C. Murphy, USA

9:30 A community model for residential sector recovery. E. J. Sutley, USA

9:45 A sequential decision model for the design of resilient and sustainable buildings. G. Warn, USA

ECONOMIC RESILIENCE

11:15 Business resilience against earthquake disasters: observations from past Japanese earthquake disasters. Y. Kajitani – H. Tatano, Japan

11:30 Resilience-based geotechnical design. M. Uzielli – M. Zei, Italy

EMERGING TECHNOLOGIES

11:45 Chile resiliency: a review of the housing and health sector. R. L. Boroschek – R. Retamales, Chile


12:45 Novel connection for accelerated bridge construction with dissipation and recentering capabilities. S. A. Mitoulis – J. R. Rodriguez, UK

13:00 Use of seismic isolation for improving the seismic resilience of existing steel structures. D. Lignos, Switzerland

13:15 Break

INFRASTRUCTURE RESILIENCE

14:15 Field reconnaissance of August 24 Central Italy earthquake. G. P. Cimellaro, Italy


15:00 Resilience of isolated bridges with soil structure interaction. D. Forcellini, San Marino – M. Tanganelli – S. Viti, Italy

15:30 Time-series analysis for the calibration of causative models of spatially distributed infrastructure interdependencies in post-disaster recovery.  
*F. Rigato – M. A. Zanini, Italy – P. Bocchini, USA*

15:45 Derivation of bridge functionality loss curves for the resilience analysis of a road network exposed to seismic risk.  
*P. Gehl, France – D. Ayala, UK*

16:00 Immediate resilience: numerical simulation and implementation issues.  
*M. Domaneschi – L. Martinelli, Italy*

16:15 Closing Remarks

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**Thursday, September 22**

7:45 Transfer by bus to Ispra - JRC Center.

10:30 Welcome at the JRC Visitor Center.  
Visit of the European Laboratory for Structural Assessment.  
Visit of the European Crisis Management Laboratory.

13:15 Lunch

14:15 Welcome address by Mr. Dan Chirondojan, Director of Space, Security & Migration.

14:35 Advances in risk and resilience assessment for the built environment. *G. Tsionis, JRC*

14:55 Resilience of networked interdependent infrastructures. *G. Giannopoulos, JRC*

15:15 Break

15:45 Panel discussion

18:00 Closing remarks

19:00 Welcome dinner

21:00 Return to Torino