



RE-OPENED CALL FOR ABSTRACTS and FULL PAPERS

ESREL 2020 PSAM 15

November 1-6, 2020 **Venice - Italy**

www.esrel2020-psam15.org

ESREL2020 PSAM15 Expo Tech: the World exposition of technical and scientific methods and solutions for the reliability of complex systems, safety of critical infrastructures, prevention and management of risk

Reliability, safety and security for a truly sustainable world

The ESREL2020 PSAM15 Conference takes place only every eight years (Crete 1996, Berlin 2004, Helsinki 2012, and next Venice 2020) and brings together the top experts of the World in the science and practice of reliability and safety. It is a unique opportunity to advance knowledge in the fields of reliability and safety, by sharing achievements and challenges. It provides a forum where to strengthen the multidisciplinary network of competent professionals, which is needed to face today's challenges in our rapidly evolving "risky" World.

Due to the covid-19 pandemic outbreak, the Abstracts and Full Papers submission has been re-opened.

Grasp the chance and come to share your latest research results and technical works.

Each abstract/full-paper will be evaluated for acceptance by peer reviewers.

The publication of the full set of accepted papers will be referenced by SCOPUS, EI COMPENDEX and THOMSON REUTERS (ISI Web of Knowledge, Conference proceedings) citation indexes. Publication of selected works in special issues of indexed scientific journals will also be pursued.

As customary, paid registration to the Conference is mandatory for abstract/paper inclusion in the program (one registration per abstract/paper).

Important Dates

2020

- May 1**
Submission opening
- July 15:**
Abstracts/full papers submission deadline
- August 15:**
Notification of acceptance
- September 1:**
Final revised abstract/full-paper submission

General Chair:

Enrico Zio

*CRC - Centre de recherche sur les Risques et les Crises, Mines ParisTech, Sophia Antipolis, France
Energy Department, Politecnico di Milano, Italy
Eminent scholar at Kyung Hee University, Republic of Korea
Distinguished guest professor at Tsinghua University, China
Adjoint Professor at Beihang University, City University of Hong Kong and Wuhan University, China
Co-Director of the Center for REliability and Safety of Critical Infrastructures (CRESCI) and the Risk Science and Engineering (RISE) laboratory at Beihang University, China*

General co-Chair:

Terje Aven

SEROS - Centre for Risk Management and Societal Safety, Faculty of Science and Technology, University of Stavanger, Norway

Technical Program Chairs:

Piero Baraldi

Energy Department, Politecnico di Milano, Italy

Francesco Di Maio

Energy Department, Politecnico di Milano, Italy

Technical Program co-Chair:

Johan Sörman

Lloyd's Register, Stockholm, Sweden



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VENICE - ITALY

Main Conference Topics

Accelerated Degradation and Life Tests
Accident and Incident Modeling
Artificial Intelligence for Reliability, Maintenance and Safety
Augmented Reality for Safety
Big Data and IoT Applications in Reliability and Maintenance
Computational Reliability/Risk Assessment
Consequence Modeling and Management
Crisis Management
Cyber Security
Dependability
Dependence and Common Cause Failures Modeling and Analysis
Disaster Management
Dynamic Reliability/Risk Assessment
Economic Analysis in Risk Management
Environmental Risk Analysis
External Hazards Risk Assessment
Foundational Issues in Risk Assessment and Management
Geologic Risk Assessment
Human Factors and Human Reliability
Industrial Safety
Industry 4.0 Reliability and Safety
Insurance Risk
Internal Hazards Risk Assessment
Machine Learning for Reliability, Maintenance and Safety
Maintenance Modeling and Applications
Mathematical Models and Methods for Reliability and Safety
Medical Risk
Natural Hazards Risk Assessment
Occupational Safety
Optimization of Reliability, Maintenance and Safety
Organizational Factors
Policy Making and Legislative Issues
Predictive Maintenance
Prognostics and System Health Management
Quality
Resilience Analysis, Assessment and Management
Risk Acceptance Criteria
Risk Analysis and Safety in Standardization
Risk Assessment
Risk Governance and Societal Safety
Risk Informed Applications
Risk Management
Risk Perception and Communication
Risk Prevention
Risk-based Decision Making
Safety Culture

Security
Site Level Multi-Unit Multi-Source Risk Assessment
Smart Devices and Systems Reliability
Software Reliability and Safety
Structural Health Management
Structural Reliability
System Reliability
Uncertainty and Sensitivity Analysis
Virtual Reality for Safety
Web Security

Main Industrial Areas

Aeronautics and Aerospace Industry
Agriculture and Aquaculture Systems
Automotive Industry
Autonomous Transportation
Banking and Finance
Chemical and Process Industry
Civil Engineering
Critical Infrastructures
Cyber-Physical Systems
Data Centers
Electric Power Industry
Electronics
Energy Industry
Food Industry
Health and Medicine
Health Service Industry
Information Technology and Telecommunications
Insurance
Land Transportation
Land Use Planning
Manufacturing
Maritime and Offshore Technology
Materials
Nuclear Industry
Oil and Gas Industry
Railways Industry
Renewable Energy Industry
Smart Cities and Systems
Socio-Technical-Economic Systems
Supply Chains
Water Transportation Systems
Web Systems

Special Sessions

Advanced Diagnosis and Prognosis in Bio-medical Engineering
Artificial intelligence for Maintenance Decision Support
Bayesian Network Modelling for Risk Assessment in the Oil&Gas Industry
Fault-Tolerant and Attack-Resilient Cyber-Physical Systems
Human Performance in Resilience, Risk and Safety Assessments
Life Cycle-Based Resilience Assessment and Management of Structural and Infrastructural Assets
Multi-Unit Nuclear Plant Probabilistic Risk Assessment
Natural Language Processing, Knowledge Graphs and Ontologies
Reinforcement Learning For Industry 4.0
Reliability of Passive Systems in Nuclear Power Plants – Perspective and Challenges
Text Mining applied to Risk Analysis, Maintenance and Safety
Use of Probabilistic methods in Sustaining the Existing LWR Fleet

Panels

How Can Risk Science Improve the Understanding, Communication and Handling of Risks in Society?
When and Why is it Important For Experts to Understand the Public Perceptions of Risks?
Past, Current and Future Challenges and Developments in Safety Culture Concept and Practice
HRA Challenges in the Nuclear Industry with Insight for Other Industries

Innovation Challenges

The NASA Langley UQ Challenge on Optimization under Uncertainty
Prognostic and Health Management in Evolving Environments

Conference Associations:



Conference Organizer:



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