

## SECOND INTERNATIONAL SYMPOSIUM ON RISK ANALYSIS AND SAFETY OF COMPLEX STRUCTURES AND COMPONENTS (IRAS22)

October 2 – 4, 2022. Belgrade, Serbia

Organised by ESIS TC12 on Risk Analysis and Safety of Large Structures and Components (in-team TC12)

### Aim and Topics

The Symposium is intended to be a forum of discussion of the recent advances in maintenance, safety, risk analysis, probabilistic assessment, life-cycle performance, fatigue, fracture, damage mechanics, numerical simulation of a wide range of infrastructures, such as, engineering technical systems, transportation systems, bridges, buildings, dams, railways, underground constructions, wind and transmission towers, offshore platforms, pipelines, naval vessels, oceanic structures, nuclear power plants, airplanes and other types of structures including aerospace and automotive structures are considered. It is expected contributions from engineers, metallurgists, material scientists, among others, allowing a very multidisciplinary discussion.

The conference topics include but are not limited to:

Methods for reliability and probabilistic safety assessment; Sensitivity analysis; Data collection and analysis; Design and evaluation of technical systems and structures; Design innovation for safety and reliability; Codes, standards and safety criteria; Engineering structures; Structural integrity and durability; Management and life-cycle performance; Models for ageing and life extension; Fatigue, fracture and damage mechanics; Damage evaluation and fatigue design; Dynamic and fatigue reliabilities; Safety assessment (loads and environmental effects; material properties; prediction of response and performance); Analytical and numerical simulation; Structural health monitoring; Rock and soil structural integrity.

### Awards

It is our pleasure to announce the ESIS/TC12 Awards: Robert Moskovic Award and Award of Merit TC12, as well as the ESIS/TC12 Young Scientist Award. The winners will be announced at the Conference. Proposals should be sent to:

[iras2022@gmail.com](mailto:iras2022@gmail.com)

Robert Moskovic Award (deadline May 31, 2022)

Please visit official website for Regulations and Eligibility Criteria.

### Key dates

Abstract due: May 28, 2022 (send to [iras2022@gmail.com](mailto:iras2022@gmail.com))

Abstract acceptance notification: June 5, 2022

Please visit official website for Abstract submission and instructions.

Paper submission/extended abstract due: September 25, 2022

Domestic applicants are entitled to a reduced registration fee, half the price given on the official website.

### Publications

Peer-reviewed papers presented at the Symposium will be published in a Special Issue of the Open Access Procedia Structural Integrity, published by Elsevier. Extended versions of selected papers will be invited for Special Issues in ESIS affiliated journals (Elsevier).

Selected papers presented both in regular conference sessions and Symposia (Thematic Sessions organised within the Conference) will be published in following scientific journals (regular or special issues):

- Computer-Aided Civil and Infrastructure Engineering (Wiley)
- Engineering Failure Analysis (Elsevier)
- Engineering Fracture Mechanics (Elsevier)
- Applied Mathematical Modelling (Elsevier): Thematic sessions: A, B and F
- ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering (ASCE-ASME)
- Journal of Performance of Constructed Facilities (ASCE)
- Practice Periodical on Structural Design and Construction (ASCE)
- International Journal of Structural Integrity (Emerald): Thematic session J
- Maritime Engineering (ICE): Thematic session C
- Marine Systems & Ocean Technology (Springer): Thematic session C

### Organising Committee

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*ESIS TC12 WG2: Safety of technical systems*

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*ESIS TC12 WG3: Reliability and probabilistic approaches*

Chairs: Miguel Calvente & Shun-Peng Zhu

*ESIS TC12 WG4: Environmental effect on structural integrity*

Chair: Elena Federova

*ESIS TC12 WG5: Structural integrity of composite materials and structures*

Chairs: Lothar Kroll & Wojciech Błażejowski

### Secretariat

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