



66th ESReDA Seminar

Transformative safety and resilience models in a smart digital and sustainable world

May 22th - 23th, 2025

University of Salento, Lecce (Italy)



Announcement and 1nd CALL FOR PAPERS

Scope

Several factors are contributing to increase dynamism and complexity of current approaches to prevent accidents and to guarantee business continuity: one critical factor to evaluate is the massive diffusion of digital technologies, which is forcing the adoption of new models to prevent accidents and to support more effective resilience models. Briefly, from one side, digitalization is characterized by a transformative potential mainly oriented to improve operational performance, reduce accidents and increase system reactivity through several ways. One example could be related to the enabling effectively the potential of acquiring in real time an huge quantity of safety data – also related to early warning signals -, which will be treated and analysed by AI models for extracting knowledge to prevent accidents. New risk management models and approaches are, thus, required. Moreover, from another side, digitalization is the source of new emerging risks, e.g. due to the massive use of intelligent robotics systems interacting directly with humans (like collaborative robots), to the use of decision support systems (e.g. based on algorithmic management) that provide automatic feedbacks to humans, e.g. workers as well as safety managers and/or analysts.

Similar conditions could be outlined in the resilience field, where digital technologies are contributing to increase also forecast capabilities and preparedness in complex systems, like critical infrastructures and



complex organizations, thus transforming traditional approaches, tools and organizational models. Digital technologies could help to apply more proactive methods, e.g. to predict insight of what in the process can go wrong because of internal or external disruptive disturbance

In addition, the increasing attention towards sustainability issues is transforming safety and resilience approaches by adding new factors and impacts to be evaluated in an effective and holistic way; potential contributions and impacts of digital technologies for supporting this transformative paths must be also evaluated.

Knowledge and experiences about these topics will be shared in a seminar organized by ESREDA and University of Salento from 22th to 23th May 2025 in Lecce (Italy). This seminar aims to bring together researchers, practitioners, experts from public and private sectors for sharing their knowledge about current and future challenges, tools and new approaches for accompanying the digital and the sustainable transformation in safety ad resilience models applied in complex systems.

Topics (to be enriched)

We invite researchers and professionals to submit their original and high-quality papers related to the following topics (but not limited to):

- Digital technologies for supporting resilience and business continuity.
- Tools and models for managing safety data for preventing accidents.
- Human centric approaches for designing digital technologies applied for safety and resilience;
- Digital technologies for predict and mitigate potential hazards;
- Digital tools and new models for supporting analysis of early warning signals.
- Resilience of cyber-socio-technical systems.
- Digital Technologies for Resilient and Socially Sustainable Systems.
- Digital twins technologies for supporting safety and/or resilience.
- Cyber physical systems for dynamic risk analysis.
- Models and tools for integrating sustainability in safety and resilience impact analysis models;
- Models for supporting safe human and robot collaboration especially in hazardous environments;
- Tools for supporting cybersecurity in hazardous sectors.
- Algorithmic management models and safety.
- Risk assessment of complex socio-technical systems.
- Digitalisation and Occupational Safety & Health Challenges.
- AI for maintenance management and failure diagnosis and prognosis.

Domains

- Process and hazardous industry: chemical, petrochemical and pharmaceutical industries.
- Critical infrastructure: electricity, water, telecommunications, information systems.
- Renewable and Non-Renewable energy production plants and distribution networks.
- Manufacturing and supply chains.
- Hydrogen Technology applied for mobility, production and energy sectors.
- Logistics and Transportation.



- Aerospace industry.
- Urban planning.
- Public sector and government.

Technical Program Committee

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Local Organising Committee (LOC)

- Maria Grazia Gnoni (University of Salento, Italy)
- Fabiana Tornese (University of Salento, Italy)
- Ali Aghazadeh Ardebili (HSPI, Italy)

Relevant dates

- Submission of abstracts: February 14th, 2025
- Authors notification: February 27th, 2024
- Full papers or extended abstract: April 15th, 2024
- Dates of seminar: 22^{sd} - 23th May
- ESReDA project group’s meetings: 21st May, 2024
- ESReDA Board of Directors meetings: 21th May, 2024
- ESReDA General Assembly: 22nd May, 2024
- ESReDA Gala dinner: 22th May, 2024

Procedure to submit an abstract, paper and to register

Authors wishing to present a paper are invited to submit a short abstract (max. 400 words) and author’ names online, before **14th February 2025**.



Extended abstracts are an alternative to full papers. An extended abstract should be at least one page in length, and it should include a list of most relevant references (5 or 6). Both extended abstracts and full papers will be published in the JRC technical report.

The full papers or extended abstracts should be submitted **before April 15th 2025**.

The language of the seminar is English.

The abstracts, not exceeding 400 words, should address:

- Objectives of the paper
- Relevance to the Seminar
- Novelty or relevant contribution to the subject
- Methods and findings
- Main conclusions.

The language of the seminar is English.

Final papers (4 to 12 A4 pages) should be submitted after the notification to the authors. Extended abstracts (2-5 pages A4 pages including references) are an alternative to full papers. Both extended abstracts and full papers will be published by ESReDA in the online proceedings.

Proposals should be sent to Maria Grazia Gnoni (Mariagrazia.gnoni@unisalento.it) and Fabiana Tornese (fabiana. tornese@unisalento.it)

Guidance for authors and speakers about the format to be used for ESReDA camera-ready papers will be sent directly to authors who expressed interest to write a contribution.

More information will be announced soon at ESReDA webpage: <http://www.esreda.org/>

Seminars Proceedings

The final proceedings of the 65th Seminar will be edited in the form of Technical Report and e-published with public access.

Registration and Seminar Fee

A registration form and the practical information package will be made available on the ESReDA website. Fees, according to ESReDA's rules, are:

- Speakers: one speaker per accepted paper is exempted.
- ESReDA members: 3 participants/member are taken in charge by the Seminar.
- Others: 300€/participant
- Accompanied persons for Gala dinner: 40€/acc. person.

To be paid by bank transfer to ESReDA account:

- Holder: ESReDA
- Bank: BNP Paribas Fortis Bank, Boulevard Jamar 1 D, 1060 Brussels, Belgium
- IBAN: BE69 0012 3728 1678
- BIC: GEBABEBB
- Subject: Registration in the 66th ESReDA Seminar



Venue and accommodation

The seminar will take place in **Officine Cantelmo** (<https://www.officinecantelmo.it/>), in the old town of Lecce.

Some recommended accommodations as the seminar location could be reached in 10-15 minutes walking are listed below:

- Grand Hotel Tiziano e dei congressi <https://www.grandhoteltiziano.it/en/>
- Patria palace Hotel <https://patriapalace.com/>
- Hotel Sanata Chiara <https://www.santachiaralecce.it/en/>