TRACK: Digital Foundations of Resilient Built Environments

International Conference on Resilient Systems

ICRS 2026 Delft, the Netherlands, 23-25 March, 2026

INTRODUCTION TO THE TRACK

As cities and infrastructure become increasingly digitalized, ensuring the resilience of the built environment is more critical than ever. This track explores the technical and social dimensions of digitalization that contribute either to vulnerabilities or to enhanced resilience.

Rather than focusing on future technological innovations, we aim to understand how current digital ecosystems and governance models address cyber-physical risks, system dependencies, and digital vulnerabilities.

We welcome contributions that present applied solutions—from smart grids and mobility systems to emergency response coordination and the implementation of Digital Twins—highlighting effective strategies already in use. Our goal is to learn from concrete cases and to bring together practitioners, researchers, and policymakers to reflect on proven practices that support secure and resilient built environments.

This track is co-organized by the TU Delft Safety & Security Institute.

TRACK TOPICS

This track includes, but is not limited to, the following topics.

- Digital trust and misinformation in disaster management: Examining the role of human behavior in digital vulnerabilities and evaluating the impact of misinformation on resilient decision-making.
- Resilient communication networks for emergency response: Addressing vulnerabilities in ICT systems supporting disaster response.
- Cybersecurity threats in resilient critical infrastructure (e.g., transportation networks, power grids, hydrogen supply networks, etc.): Assessing digital risks, cascading and compounding effects and mitigation strategies for cyberattacks in the built environment and its societal impact.

- Digital governance, data privacy and security in smart cities: Examining the challenges of protecting sensitive data in interconnected urban systems and evaluating power dynamics and regulations and standards to enhance a just cybersecurity in urban systems.
- Potential of Digital Twins for scenario-based resilience management: Application of digital twins in risk-informed planning and resilience assessment, enabling simulation of cascading effects, stress testing of interdependent systems, and exploration of adaptation strategies under various hazard scenarios.

TYPE OF CONTRIBUTIONS:

1. **Call for Extended Abstracts** (1.000 words) - see website for the template.

   Including the possibility of submitting a Case Study - in this same template

2. **Call for Posters & Demonstrations** - see website for the template

3. **Call for Pitches** (500 words) - see website for the template

   The pitches (5 min.) will serve as the starting point for round table discussions among stakeholders, policy makers, and researchers."

TRACK CHAIR AND CO-CHAIR

The proposed track will be co-chaired by Maria Nogal, Simon Parkin, and Eveline Vreede. The co-chairs bring extensive experience in organizing tracks and special sessions at international conferences, including events such as ICASP, ESREL, ECCOMAS in the field of resilience of the built environment, and STAST on sociotechnical aspects of security and Singapore International Cyber Week and at Taiwan Cybersec on cybersecurity.

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