



PRO-VE 2026

27th IFIP/SOCOLNET Working Conference on Virtual Enterprises
Dynamics of Hybrid Collaborative Networks

PRO-VE 2026 Special Session

Hybrid Collaborative Networks for Critical and Complex Situations

Scope

Hybrid Collaborative Networks (HCNs) are increasingly relevant in socio-technical environments where human actors must operate under uncertainty, time pressure, and high levels of complexity. Critical and complex situations are understood here as high-stakes contexts involving risks to people, the environment, services, or critical infrastructures, where conditions are dynamic, information may be incomplete or rapidly evolving, and effective action depends on timely coordination across multiple heterogeneous actors and interdependent systems.

This special session focuses on the design, development, and application of HCNs to support human and organizational activities in such contexts, including situational assessment, monitoring, collaborative decision-making, coordinated intervention, resource allocation, response, and recovery. Particular attention is given to approaches that combine human expertise with technologies such as artificial intelligence, IoT, digital twins, edge computing, and distributed decision-support systems to enhance situational awareness, coordination, and adaptive response.

Conceptual, methodological, technological, and application-oriented contributions are welcome, including case studies and pilot experiences in domains such as civil protection, disaster response, humanitarian operations, health and wellbeing emergencies, safety-critical industry, and water and energy infrastructures. The session seeks contributions showing how **Hybrid Collaborative Networks for Critical and Complex Situations (HCN4CCS)** can improve assistance capacity, response quality, and collaboration in dynamic and demanding socio-technical settings.

Session Organizers

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Topics/ Keywords

- HCN4CCS supporting human decision-making
- Multi-actor coordination across organizations, intelligent systems, and infrastructures in HCN4CCS
- Human-AI collaboration in critical and complex operational environments
- Distributed situational awareness and collaborative monitoring systems in HCN4CCS
- Collaborative decision-support systems and real-time coordination platforms for HCN4CCS
- Digital twins supporting collaborative monitoring and incident response
- Collaborative networks for civil protection and emergency response
- Hybrid networks supporting incidents in water and energy infrastructures
- Trust, governance, security, and resilience in HCN4CCS

Submission procedure

Special sessions are included in the main Conference and follow the same reviewing process.

10 Apr 2026 - Abstract submission (optional)

8 May 2026 - Full paper submission

19 June 2026 - Results notification

3 July 2026 - Camera-ready version

26-28 October, 2026 - Conference

Acceptance of papers is based on the **full paper** (up to **16** pages). Each paper will be evaluated by three members of the International Program Committee.

When submitting on the web site, you have to indicate the name of the special session.

Submission procedure via EasyChair available on: <http://www.pro-ve.org>, with copy by email to the chairs of the special session.