

Call for Papers: Special Session on Artificial Intelligence and Dynamic Sensing for Security and Collaboration in Smart Environments

The development of smart environments—from critical infrastructure to busy airports and evolving 'phygital' retail spaces—presents significant challenges in security, operational efficiency, and multi-stakeholder coordination. This special session invites submissions exploring the cutting-edge integration of Artificial Intelligence (AI) and advanced dynamic sensing techniques to overcome these hurdles.

We encourage submissions detailing novel theoretical and applied research in, but not limited to, the following areas:

- **AI-Driven Security & Risk Management:** Machine learning for threat detection, predictive maintenance, and incident response in sensitive systems.
- **Multi-Modal Data Fusion:** Techniques for seamlessly integrating and reasoning over diverse sensor data streams (e.g., video, LiDAR, IoT telemetry) for holistic situational awareness.
- **Secure Open Collaboration Platforms:** Architectures and AI methods for enabling secure, real-time data sharing and operational collaboration across different organizations.
- **Cognitive Assistants & Human-AI Interaction:** Development of smart assistants and immersive technologies (e.g., VR/AR) to aid human operators in complex physical-digital environments.
- **System-Level Optimization:** AI for optimizing complex logistics, resource allocation, and customer experience in dynamic operational settings.
- **Ethical AI and Data Governance:** Approaches to ensure compliance, privacy (e.g., GDPR), and ethical use of AI in security and surveillance applications.

Authors are invited to submit their original, unpublished work. Accepted papers will be included in the special session proceedings. Similar Sessions Organized in the Past