CALL FOR PAPERS

IEEE CogSIMA™

06-10 June 2022
University of Salerno
Salerno, Italy

2022 IEEE International Conference on Cognitive and Computational Aspects of Situation Management

Hybrid physical-virtual conference

http://cogsima2022.org/

Where Cognitive Science meets Computer Science

Since 2011 the CogSIMA conferences promote a multidisciplinary approach to research on dynamic, cyber-physical-social systems of systems, emerging from the interaction of people, machines, computer systems and organizations situated in complex dynamic environments.

Critical to these systems of systems are their cognitive and computational capabilities to sense, comprehend, and predict situations, reason and act on situations, facilitate learning, self-organization and collective intelligence, and their ability to assess the interdependencies between systems.

Continuing in its successful, interdisciplinary tradition, CogSIMA 2022 will provide an inspiring forum for scientists and practitioners from diverse backgrounds including cognitive science, computer science, artificial intelligence, psychology, and human factors.

Important Dates

Paper submission (extended): February 28, 2022
Acceptance notification: March 31, 2022
Conference dates: June 06-10, 2022

For questions concerning CogSIMA 2022 contact us at

admin@cogsima.org

We look forward to seeing you in Salerno!

IEEE IEEE SMC Systems, Man, and Cybernetics Society

Topics of Interest

Situation Management - Foundations

- Advances in conceptual frameworks, architectures, models or other formalizations of situation management, decision support, and control
- Scale in situation awareness (public vs. organizational vs. team vs. individual; distributed vs. shared awareness)
- Situational "Big Data" analysis such as social media analytics
- Predictive situation awareness
- Situation modeling including anomaly and pattern detection, validation, metrics, and performance measures
- Computer aided decision-making
- Human-computer interfaces for situation management
- Visualizations for situation awareness
- Mental models and cognitive processes
- Bio-inspired models of situation management
- Context and knowledge representation
- Impact of human ability (e.g., physical and/or mental impairment, demotivation) on situation management
- Trust, including fake data
- Self-awareness and self-* capability models and their integration into cognitive situation management
- Artificial Intelligence (including machine learning and neural network learning) in situation management
- Psychological aspects of situation management
- Design, development, and adaptation of resilient systems for situation management

Collective Situation Management and Control

- Collective intelligence and emergent behavior in situation management
- Cooperation and collaboration in multi-agent situation management
- Models of collective, autonomous, and resilient situation control
- Socially sensitive design and socially responsive design
- Innovations in mixed initiative systems, protocols, and architectures
- Human-centered AI and human-machine symbiosis

Situation Management Applications

- Pandemic and disaster situation awareness, response, and recovery
- Cyber security situation awareness and control
- Internet of Things (IoT), edge computing, and wearable computing
- Cognitive robotics and human-robot interaction
- Cyber-physical systems situation awareness, monitoring, and management
- Autonomous vehicles and transportation systems
- Resilient health care situation management
- Situation management in international relations and diplomacy
- Defense and autonomous mission control
- Application-specific system effectiveness and performance evaluation
- Computational International Relation and Detection of fake data

ORGANIZING COMMITTEE

General Chair
Giuseppe D'Aniello
University of Salerno, Italy

Honorary Chair
Gabe Jakobson
CyberGem Consulting, USA

Vice Chair
Kirstie Bellman
Topcy House Consulting, USA

TPC Co-Chairs
Galina Rogova
The State University of New York at Buffalo, USA
Alicia Ruvinsky
ERDC US Army, USA
Tom Ziemke
Linköping University, Sweden

Keynotes/Tutorial Chair
Giancarlo Fortino
University of Calabria, Italy

Finance Chair
Ken Baclawski
Northeastern University, USA

Industry/Government Chair
Mario Vento
University of Salerno, Italy

Challenge Problem Chair
Scott Fouse
Independent Consultant, USA

Publications Chair
Mary Freiman
Aptima, USA

International Liaisons Chair
Andrea Salfinger
Johannes Kepler University Linz, Austria

Web/Communication Chair
Michael Kozak
Lockheed Martin, USA

Student Program Chair
György Eigner
Óbuda University, Hungary

Local Co-Chairs
Vincenzo Carletti
University of Salerno, Italy
Antonio Greco
University of Salerno, Italy