Invited session

"Human-Centric AI and Data-Driven Innovations in Operations and Supply Chain"

Organizers

Name and Surname	Organization	Email
Leonardo Leoni	*Università degli Studi di Firenze*	leonardo.leoni@unifi.it
Alessandra Cantini	*Politecnico di Milano*	alessandra.cantini@polimi.it
Filippo De Carlo	*Università degli Studi di Firenze*	filippo.decarlo@unifi.it
Saverio Ferraro	*Università degli Studi di Firenze*	saverio.ferraro@unifi.it
Francesco Mancusi	*Università degli Studi della Basilicata*	francesco.mancusi@unibas.it
Simone Arena	*Università degli Studi di Cagliari*	simonearena@unica.it

Abstract: (limited to 300 words)

Human operators can make mistakes. Artificial Intelligence (AI) technologies have the potential to interpret, quantify and predict human cognitive intelligence in human-centric industrial settings. This special session aims to explore the opportunities offered by AI and data-driven solutions in operations and supply chains, with a focus on aspects related to human interaction with innovation. The aim is to analyze how the interaction between AI and human factors can improve the efficiency, resilience and sustainability of industrial systems. Topics covered will include:

- Human-AI interaction in operations and supply chain management.
- The adoption of big data analytics for improving strategic, tactical and operational decisions.
- The impact of cognitive and environmental innovations on productivity and safety.
- Case studies and experiments on how AI technologies and digital can be integrated with humans to optimize production and distribution systems.
- Human-machine bi-directional control strategies towards safety and reliability growth

Keywords:

This special session calls high-quality contributions that investigate the main research challenges, reviews, case studies, and applications related to the following topics (but not limited to):

- Human-centric AI data-driven model Human factor in Operations and supply chains
- Human-AI interaction
- Cognitive intelligence for sustainable manufacturing systems
- Digital transformation and Data-driven solutions for operational decisions
- Technology and digital solutions for performance innovation
- Prediction-based Big data analytics
- Machine learning and deep learning supporting safety and efficiency
- Industry 5.0
- Human-centric operations and supply chains