

Special Issue

From Industry 4.0 to Industry 5.0 in Sustainable Operations Management: AI-Driven, Human-Centric and Resilient Pathways

Message from the Guest Editors

This Special Issue aims to explore how AI-driven approaches are transforming operations management and how their integration with enabling technologies can support the transition toward Industry 5.0. More specifically, we seek to examine how human–AI collaboration creates new forms of organizational intelligence that transcend traditional automation paradigms.

By emphasizing the relational dimension of AI in operations management, this Special Issue positions itself at the intersection of:

- Technical excellence in smart manufacturing and Industry 5.0 technologies
- Cognitive innovation in understanding how human and artificial intelligence can amplify each other
- Systemic thinking that recognizes operations as evolving socio-technical ecosystems rather than merely optimizable processes

This comprehensive approach aims to stimulate debate and foster collaboration between academia and industry to guide the transition from Industry 4.0 to Industry 5.0, not as a purely technological evolution but as a transformation in how we conceive intelligence, agency, and collaboration in industrial systems. We look forward to receiving your valuable contributions.

Guest Editors

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I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

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