



19th triennial symposium on Information, Control and Optimisation in Manufacturing INCOM 2027

« AI and digital technologies for resilient and sustainable production and logistics »

The 50th Anniversary of the Symposium

Call for invited sessions and tracks

The general theme of the 19th IFAC Symposium on Information, Control and Optimisation in Manufacturing (INCOM 2027) will be “AI and digital technologies for resilient and sustainable production and logistics”. The aim of this meeting is to bring together researchers and practitioners to present and discuss emerging topics in modern management and control of manufacturing systems, their information systems and supply chains. Incom’2027 will follow a rich tradition of previous IFAC conferences and symposia in Manufacturing and Logistics held in France. IFAC INCOM 2027 will focus in particular on the most innovative methods proposed in the last few years in the context of applications of artificial intelligence in manufacturing and logistics, the role of new technologies (e.g., blockchains, IoT, edge computing) and emerging scientific domains (e.g., big data, analytics, digital twins, autonomous and smart manufacturing systems, risk management) in the production management and control in the era of Industry 5.0 and artificial intelligence. An additional focus will be on management and control under uncertainty, resilience, stress tests, and viability of production systems and supply networks. Other aspects will be also considered, e.g. human-centric production, optimizations with specific society constraints, explainability and ethics in decision aid models, human-machine interaction issues, generative design approaches, interoperability, etc. and their place in new decision aid tools in industry.

Invited sessions consist of 5-6 papers of the regular format focusing on targeted subjects and presenting a unifying theme. Invited session organizers should submit an abstract that summarizes the aim and the content of the invited session. A code will be assigned to such a session. The invited author should submit their papers by using this code. If at least 5 papers are accepted, the session is included in the conference program as an invited session. If an invited session is not accepted, accepted papers submitted to this session will be included in regular sessions. Invited sessions, grouped together in a track must be submitted independently. The track chairs are asked to contact the organizers prior to session proposal submissions.

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Accepted papers that have been presented at an IFAC meeting will be published in the proceedings of the event using the open-access IFAC-PapersOnLine series hosted on ScienceDirect (<https://sciencedirect.com/>). To this end, the author(s) must grant exclusive publishing rights to IFAC under a Creative Commons license when they submit the final version of the paper.

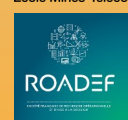
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June 28 to 30, 2027 INCOM symposium, Parc d'exposition, Nantes, France





The conference will cover all topics related to specification, design, implementation and operation of modern manufacturing systems and their supply chains, including (but not limited to) the following:

- Additive manufacturing for sustainable and resilient supply chain
- AI and digital twins for sustainable and resilient manufacturing
- Autonomous manufacturing systems
- Bio-inspired, soft and collaborative robotics
- Blockchain technology applications
- Cloud manufacturing for sustainable and resilient production and logistics
- Cyber-physical systems
- Cyber-security issues in production and logistics
- Data science for manufacturing and logistics
- Enterprise modelling and information systems
- Generative AI in manufacturing and logistics
- Human role in AI and machine learning applications in production and logistics
- Knowledge management in production
- Maintenance, quality, reliability, safety and dependability
- Modelling, control and monitoring of production systems
- New advances in human-robot collaboration
- New challenges dealing with Metaverse, 5G, IoT, Internet of Behaviour, etc.
- New generation of assembly systems with cobots
- Operations management in adaptive and accessible factories
- Place of virtual reality in production management
- Pricing, outsourcing and market responsive supply chains
- Probabilistic & statistical models in industrial plant control
- Product/process design, process planning and configuration
- Production planning and scheduling
- Reconfigurable supply network dynamics and control
- Reconfigurable, agile and flexible manufacturing systems
- Resilient, human-centric, and sustainable manufacturing systems
- Risk management and control
- Robot/human collaborations in manufacturing
- Robust control and neural network based predictive control
- Service oriented architecture for production management and control
- Stress tests for Supply Chains
- Supply network viability
- Sustainable manufacturing and supply chains
- Synergy between manufacturing and services
- Theory of large-scale systems and its applications in logistics
- Warehouse design, management and control
- Web-enabled manufacturing control and wireless automation
- Zero defect manufacturing and sustainability

Key dates

Nov 1, 2026 : Invited session and session submission deadline

Jan 31, 2027 : Notification to authors

Nov 15, 2026 : Full paper in regular session deadline

Apr. 1, 2027 : Final paper submission deadline

Dec 14, 2026 : Full paper in invited track/session deadline

Apr. 1, 2027 : Early registration rates expired

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