



CALL FOR PAPERS

IFAC Joint Workshops AMEST 2027 & IMS 2027
 Seville, Spain | 7- 9 April 2027 | amest-ims-2027.es

FROM PREDICTIVE TO INTELLIGENT

AMEST: Human-Centered AI for Resilient Maintenance | IMS: Human-Centered AI for Intelligent Manufacturing

The IFAC Joint Workshops AMEST 2027 & IMS 2027 will bring together researchers, practitioners and industry leaders to discuss advances at the intersection of **maintenance engineering, asset management, intelligent manufacturing and industrial digitalization**. The workshops will address the transition from sensing and diagnosis to prediction, decision-making, planning, scheduling and actuation, with particular attention to Human-Centered AI, Agentic and Multi-Agent AI, Digital Twins, Asset Health Management and intelligent decision support.

TOPICS OF INTEREST

AMEST 2027

Advanced Maintenance & Asset Management

- Advanced maintenance engineering, management and services
- Predictive and prescriptive maintenance
- Condition monitoring, diagnostics and prognostics
- Reliability, availability, maintainability and safety
- Asset Performance Management (APM)
- Asset Health Indices and Asset Health Management
- Asset Investment Planning (AIP)
- Maintenance planning, scheduling and optimization
- Digital Twins for maintenance and Asset Management
- AI, Agentic AI and Multi-Agent Systems for maintenance
- Life-cycle management, LCC, TCO and TOTEX
- Sustainable and risk-based Asset Management
- Industrial applications and case studies

IMS 2027

Intelligent Manufacturing Systems

- Intelligent and adaptive manufacturing systems
- Smart factories and Industry 5.0
- AI and Machine Learning in manufacturing
- Human-centered manufacturing and Human-AI collaboration
- Autonomous and agent-based production systems
- Digital Twins and cyber-physical production systems
- Intelligent production planning and scheduling
- Integrated production and maintenance
- Intelligent quality management
- Data-driven manufacturing and industrial analytics
- Interoperability of industrial systems
- Resilient and sustainable manufacturing systems
- Industrial applications and case studies

JOINT AMEST-IMS TOPICS

Cross-disciplinary contributions are particularly encouraged on: Human-Centered AI · Agentic AI · Multi-Agent Systems · Digital Twins · Asset Health · Integrated Production & Maintenance · Explainable and Trustworthy AI · Data, Model & Agent Management · Industrial Interoperability · APM-AIP Integration · Servitization · Sustainability & Circular Economy · Resilient Industrial Systems

CONTRIBUTIONS & PUBLICATION

The Joint Workshops welcome high-quality contributions from academia and industry, including **original research, methodological developments, application-oriented papers and industrial case studies**. Papers bridging scientific research and industrial practice are particularly encouraged. Authors will submit to either AMEST 2027 or IMS 2027; joint sessions will be organized for contributions of interest to both communities.

Accepted and presented papers will be published in IFAC-PapersOnLine on ScienceDirect.

IMPORTANT DATES

Draft Paper Submission
30 November 2026
Notification of Acceptance
To be announced
Final Paper Submission
To be announced
Joint Workshops
7- 9 April 2027

STRONG INDUSTRY ENGAGEMENT

Industry Keynotes · Application-Oriented Sessions · Tutorials · Industrial Case Studies · Industry Tracks · Problem-Solving Sessions · Panel Discussions
Contributions from energy, railways, manufacturing, process industries, aeronautics, and critical infrastructures are particularly welcome.

KEYNOTE SPEAKERS

Invited keynote speakers from academia and industry:

Ajith Kumar Parlikad · University of Cambridge, UK
Rosa Nieto · Enagás, Spain

Anders Skoogh · Chalmers University of Technology, Sweden
Gonzalo Santamaría Freire · ISDEFE, Spain

VENUE

Hotel Ribera de Triana · Seville, Spain

ORGANIZATION

NOC Chair
Adolfo Crespo Márquez · University of Seville
NOC Co-Chair
Antonio Sánchez Herguedas · University of Seville

IPC Chair
Marco Macchi · Politecnico di Milano
International Co-Chair
Christos Emmanouilidis · University of Groningen

SUBMISSION & INFORMATION

Submission: IFAC PaperCept | amest-ims-2027.es | Both Submissions and Website available soon

Supported by DIGEST-AMADIT

digest



DIGEST - DIGgitalization as key Enabler for aSset management | AMADIT - Asset MANAGEMENT in the new Dlgital Twins environment
PID2022-137748OB-C31 · MCIN/AEI
<https://digest.etsii.upm.es/project-overview/>