

Joint Topics – AMEST 2027 & IMS

From Predictive to Intelligent

AMEST topic

IMS topic

Shared topic

1 Advanced Maintenance Engineering & Management

- AMEST: Maintenance strategies, RCM and risk-based maintenance
- AMEST: Maintenance planning, scheduling, simulation and optimization



2 Condition Monitoring, Prognostics & Asset Health

- AMEST: Condition monitoring, diagnostics and prognostics
- AMEST: Predictive and prescriptive maintenance
- AMEST: Deterioration, degradation and asset health modelling



3 Asset Performance, Investment & Intelligence

- AMEST: Asset investment planning, LCC, TCO and TOTEX
- AMEST: Asset performance and lifecycle management
- Shared: Asset & production intelligence



4 Artificial Intelligence, Agentic AI & Intelligent Decision Support

- AMEST: AI, machine learning, agentic AI and multi-agent systems
- IMS: AI, machine learning and intelligent decision support
- IMS: Agentic and multi-agent production systems
- Shared: Human-centered & trustworthy AI
- Shared: Agentic & multi-agent AI



5 Digital Twins, Cyber-Physical Systems & Interoperability

- AMEST: Digital twins, CPS and IIoT for maintenance
- AMEST: Industrial interoperability and knowledge systems for maintenance and Asset Management
- IMS: Digital twins and cyber-physical production systems
- IMS: Interoperability, ontologies and knowledge representation
- Shared: Digital twins
- Shared: Industrial interoperability & knowledge systems



6 Integrated Production, Maintenance & Operations

- AMEST: Integrated production and maintenance systems
- IMS: Intelligent production planning, scheduling and control
- IMS: Integrated production, maintenance and intelligent quality
- IMS: Data-driven manufacturing and industrial analytics
- Shared: Integrated production & maintenance



7 Servitization, Smart Services & Industrial Transformation

- AMEST: Maintenance services, servitization and industrial case studies
- IMS: Manufacturing services, servitization and smart product-service systems
- Shared: Servitization



8 Sustainability, Circular Economy & Resilience

- AMEST: Human-centered, sustainable and resilient maintenance
- IMS: Resilient, sustainable manufacturing and industrial case studies
- Shared: Sustainability, circular economy & resilient industrial systems



9 Smart Manufacturing & Industrial Digital Transformation

- IMS: Smart factories, Industry 5.0 and industrial digitalization



10 Human-Centered & Adaptive Industrial Systems

- IMS: Intelligent, adaptive and reconfigurable manufacturing systems
- IMS: Human-centered manufacturing and Human-AI collaboration
- IMS: Robotics, autonomous systems and human-robot collaboration

