

Special Session **SS_01**

Manufacturing and management approaches and tools for companies in era of digitalization

Brief description of the specific scientific scope of the Special Session:

This special session on manufacturing and management approaches and tools for a sustainable change of companies to the era of digitalization has as main objective to provide advanced contributions in current areas, fundamental in the context of Industry 4.0 (I4.0), regarding cyber-physical production systems, additive manufacturing, collaborative and real-time management, advanced logistics and networked supply chain management, as well as on advanced business models, along with varying kind of tools and platforms, by applying different kind of technologies and techniques, for instance based on simulation, along with other I4.0 oriented technologies, such as digital twins, augmented reality, among others, for instance applying artificial intelligence and big data analytics. Besides the more technological contributions, it is also intended in this special session to provide some insights to contribute to a sustainable and innovative development of companies, contributing to their know-how and preparation for a transformative change to the current era of digitization and remaining requirements inherent to the I4.0.

List of topics of interest

1. Collaborative Manufacturing and Management
2. Production Planning and Scheduling
3. Optimization-based Decision Support Models
4. Soft Modeling in Production Engineering
5. Intelligent Manufacturing Systems
6. Intelligent Models and Control Systems
7. Web-based Decision Support Systems
8. Digital Manufacturing Platforms
9. Knowledge Management and Decision Support Systems
10. Advanced manufacturing technologies

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