

Call for papers

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Local Committee:

Silviu Răileanu, chair Florin Anton
Silvia Anton Iulia Iacob

Venue:

Research Centre PRECIS, University
Politehnica of Bucharest, RO

Scientific Partners



Registration Fees

(physical/online participation)

	Before 01.09.2022	After 01.09.2022
Ph.D. Students	200 € / 150 €	300 € / 250 €
Regular	350 € / 250 €	450 € / 300 €
Companies	400 € / 300 €	500 € / 400 €

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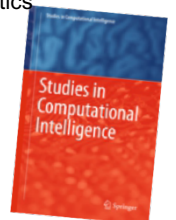
It is our pleasure to invite you to participate in the 12th International Workshop on Service Oriented, Holonic and Multi-Agent Manufacturing Systems for Industry of the Future - SOHOMA'22, organized in hybrid format (physical and on line participation) by University Politehnica of Bucharest, Faculty of Automatic Control and Computers in collaboration with Polytechnic University Hauts-de-France (LAMIH Laboratory of Industrial and Human Automation Control, Mechanical Engineering and Computer Science) and Polytechnic Institute of Bragança (CeDRI Research Centre in Digitalization and Intelligent Robotics). The SOHOMA'22 workshop has the scientific support from IEEE-IES Technical Committee on Industrial Agents, GDR MACS-IMS2 of CNRS and the General Association of Engineers in Romania AGIR.

The main objective of SOHOMA workshops is to foster innovation in smart and sustainable manufacturing and logistics systems and in this context to promote concepts, methods, and solutions for the digital transformation of manufacturing through service orientation and agent-based control with distributed intelligence.

The theme of the SOHOMA'22 Workshop is 'Virtualisation - a multifaceted key enabler of Industry 4.0 from holonic to cloud manufacturing'.

Workshop Topics

- Modelling of discrete event dynamic industrial systems
- Multi-Agent Systems and control with distributed intelligence in industry
- Product intelligence: concepts, architectures, implementation, use cases
- Holonic Manufacturing Execution Systems
- Intelligent Manufacturing Systems
- Dynamic and green infrastructure for sustainable manufacturing
- Mixed production planning and scheduling
- Virtual factory, networked supply chains and customer-oriented logistics
- Manufacturing Integration Framework
- Digital Twins with resource and product virtualization
- Edge and Fog Computing for Industrial Internet of Things
- Industrial Internet of Things / Physical Internet
- Cloud Manufacturing and resource virtualization
- Servitization and Product-Service Systems
- Swarm intelligence in manufacturing
- Multi-robot systems in manufacturing, control and applications
- Bio-inspired theories for smart manufacturing and evolutionary robotics
- Big Data streaming and the contextual enterprise
- Artificial intelligence and machine learning in large scale manufacturing
- Predictive resource health monitoring and maintenance
- Cyber-Physical Production Systems and Industry 4.0
- Manufacturing as a Service, product design for open manufacturing
- Universal Manufacturing: models, cloud manufacturing, enterprise specifications
- Digitalization of supply chains and Logistics 4.0
- Reconfigurable manufacturing systems
- Humans-Systems integration in Industry 4.0 environments
- Ethics of autonomous intelligent systems



Paper submission and publication

Papers must be submitted via the Submission menu of the SOHOMA'22 website for the above topics or for the Special Sessions of the Workshop. The submitted papers must be original, not published or being considered elsewhere. The working language is English. Papers are limited to 12 pages edited in the Springer book series format described at <http://www.springer.com/series/7092>.

All papers accepted and duly presented at the workshop will be included in the SOHOMA'22 post conference Proceedings published in the Springer series 'Studies in Computational Intelligence', indexed in the Scopus, DBLP Computer Science and WoS databases. Selected, extended papers will be proposed for publication in a special issue of one journal representative for the workshop's domain.

Author's Schedule

Proposals of Special Sessions: **7 March 2022**

Full paper submission: **15 July 2022** 8 July 2022

Notification of acceptance: **1 August 2022**

Camera ready paper submission, registration and fee payment: **1 September 2022**

Workshop: **22-23 September 2022**