



Call for Workshop Papers

AI beyond efficiency: Interoperability towards Industry 5.0

Workshop Chairs:

- **Stefano Modafferi** (University of Southampton, UK), **Maria José Nunez** (AIDIMME, SP), **Francesco Lelli** (University of Tilburg, NL), **Davide Dalle Carbonare** (Engineering, IT)

Program Committee:

- Emiel Caron (University of Tilburg, NL); Luca Caviglione (CNR-IMATI, IT); Francesco D'Andria (Atos ARI, SP); Angelo Di Iorio (Universita' di Bologna, IT); Akpofure Enughwure (Nigeria Maritime University, NG); Nicholas Fair (University of Southampton, UK); Alessia Focareta (FIDIA SPA, IT); Simone Fratini (Solenix Engineering GmbH, DE); Javed Khan (Sappi Europe, BE); Florian Kunneman (Vrije Universiteit Amsterdam, NL); Manuel Mazzara (Innopolis University, RU); Raffaele Montella (Universita' di Napoli Partenope, IT); Alexandros Nizamis (CERTH/ITI, GR); Antonio Nocera (Universita' di Pavia); Joao Sarraipa (Universidade NOVA de Lisboa, PT); Usman Wajid (Information Catalyst, UK).

You are cordially invited to participate in the Workshop „ **AI beyond efficiency: Interoperability towards Industry 5.0**“ in the **International Conference on Interoperability for Enterprise Systems and Applications (I-ESA 2022)**. Since several years, I-ESA is the major event regarding Enterprise Interoperability and the official conference of Virtual Laboratory for Enterprise Interoperability (**INTEROP-VLab**) with the sponsorship of the International Federation for Information Processing (**IFIP**).

Accepted and presented papers will be published by [CEUR Workshops Proceedings](#).

Objectives

Industry 4.0 is the integration of IoT, artificial intelligence (AI), cyber-physical systems, and Cloud that brought us smart factories, putting technology at the forefront of manufacturing. It heavily focusses on maximizing given set of mainly technology and economic KPIs: in other words, the systems efficiency. Industry 5.0 provides a vision of industry that aims beyond efficiency and productivity as the sole goals and reinforces the role and the contribution of industry to society.

The workshop will discuss what are the drivers, the barriers and the implications of leveraging the technological solutions developed in Industry 4.0 (I4.0) to address relevant societal impacts, so aligning with the EC agenda¹.

With the final goal of further interconnecting Civil Society, Government & Policy Makers, Academia and Industry, the workshop will discuss how to shape the Industry 5.0 (I5.0) paradigm to enable a human-centric, resilient society, the green transition, and the related awareness, what is the role of interoperability, and how the SMEs can contribute to this process.

It will discuss methodological approaches and models to describe from both an ICT and Social Science perspective the ever-increasing complexity of socio-technical systems that are core of I4.0 and I5.0 and foresee an extensive use of AI-based solutions. This will include, but not limit to, how to identify, measure, monitor and feedback key features and attributes to keep all the stakeholders informed and satisfied.

The workshop will also touch upon the key concepts of Data Spaces and Testing and Experimentation Facilities as a way to answer current challenges in I4.0 and support the transition to I5.0 exploring interoperability challenges reaching solutions to industry.

Topics

Interoperability in the transition to the human centric approach. Interoperable socio-technical systems. SME supporting interoperability in I5.0. AI as a support to Civil Society, Government & Policy Makers. Digital

¹ https://ec.europa.eu/info/research-and-innovation/research-area/industrial-research-and-innovation/industry-50_en.



Education and impact of ICT and data sharing on the green agenda. Multi-Stakeholders monitoring models and tools. The role of AI in governing the transitioning I4.0 to I5.0. The workforce in I5.0. Methodologies, prototypes, and tools addressing the human-centric approach in socio-technical systems. SME vs large industry approach to provide tools in interoperable socio-technical systems. Addressing privacy and trust in interoperable human-centred systems. Best practices and guidelines to foster the collaboration among Social and ICT Scientists. Practical experiences of AI solution used beyond efficiency improvement. Experiences, insights, and vision on setting up and use of Data Spaces to support I5.0. Experiences on setting up and use of Testing and Experimentation Facilities to support I5.0

Paper Submission

Papers must be in English, describes original work and must follow the [CEUR guidelines](#) for authors. Paper length should be 6 pages for a full paper and 4 pages for a short paper.

Authors should submit their contributions by email to the Workshop Chairs: sdm2d11@soton.ac.uk, mjnunez@aidimme.es, F.Lelli@tilburguniversity.edu, davide.dallecarbonare@eng.it

Key Dates

January 31st, 2022	First draft paper submission
February 15 th , 2022	Notification of acceptance
March 23 rd , 24 th , 2022	I-ESA 2022 Workshops
April 18 th , 2022	Camera-ready
June 20 th , 2022	Publication of Proceedings

Please, consider that **at least one author per paper must register** to the Workshops. If none of the authors is registered, the paper will not be included in the workshop programme and in the proceedings.

Further Information about this Workshop

Enquiries to: Stefano Modafferi(sdm2d11@soton.ac.uk)

Further Information about Conference

Website: www.i-esa.org