



TRACK OF SESSIONS (TS1.3)

“New enterprise challenges between emerging IT technologies and industry 4.0 solutions”

The Track “New enterprise challenges between emerging IT technologies and industry 4.0 solutions” is divided in 3 special sessions as follows:

Session 1: Cyber-Physical System (CPS) for manufacturing (SS1.14)

Scope

The integration of CPS mechanisms in manufacturing opens new research perspectives. We propose in this track to address different interest and viewpoints related to CPS: (i) design issues concern the challenges of industrial process control and the design of CPS architectures; (ii) analytics issues aim to analyze and measure the impacts of the integration of CPS system in manufacturing; (iii) servicisation issues concern the definition of service oriented architecture frameworks for CPS; (iv) behavioral perspective aim the extraction and the analysis of qualitative and quantitative proprieties of CPS system behaviors

Topics of Interest

Topics of interest include, but are not limited to, cyber-physical aspects of:

- Distributed decision systems
- Multi agent systems
- Data-driven mechanisms
- Servicisation of CPS architecture
- Quality and resilient control of manufacturing systems
- Specification languages for monitoring and testing
- Combination of static and dynamic analysis

Co-Chair:

- Chair: Prof. Yacine Ouzrout (yacine.ouzrout@univ-lyon.fr), Université de Lyon, France

Session 2: Key Enabling Technologies (KET) for SMEs (SS1.15)

Scope

The concept of Key Enabling technologies is widely shared by the communications of the European commission as challenging enablers for excellent science, industrial leadership and societal challenges. The session aims to share original research works about the appropriation of KETs in SMEs. Several European programs (i.e. FIWARE, I4MS - Phase II, etc.) generate several enablers already designed, tested and tuned with industry. Researchers are invited to share their scientific approaches and solutions to reuse these enablers in industry.

Organizing Committee:



Topics of Interest

Topics of interest include, but are not limited to, KET appropriation for:

- New solutions building blocks for enterprise architecture
- KET based enterprise operating systems
- Integration architectures for open solutions in industry
- Concurrent solutions for modelling, simulation and analytic
- IT enablers to accelerate enterprise transformation
- Change management processes and sustainability growth of SMEs

Co-Chair:

- Prof. Sergio Terzi (sergio.terzi@polimi.it), Politecnico Di Milano, Italy.

Session 3: Emerging technologies and enterprise transformation (SS1.16)

Scope

The emergence of new IT capabilities disrupts the evolution of enterprise information systems by providing new promising and attractive technologies and solutions. Enterprise transformation could be driven by (i) the integration of data-based technologies (i.e. BigData, etc.); (ii) the integration of technologies or prepackaged system solutions (i.e. new cloud based business solutions, etc.); (iii) or the integration of technologies related to new physical solutions (i.e. cyber-physical system). We expect original research papers addressing scientific approaches and proposals dealing with technology-driven enterprise transformation.

Topics of Interest

Topics of interest include, but are not limited to:

- Agility enterprise information system
- Towards API oriented applications in industry
- Reengineering of information systems
- Cloudification of enterprise IT solution
- Enabling more dynamic and self.* behavior of enterprise business processes

Track-Chair:

- Prof. Néjib Moalla (nejib.moalla@univ-lyon2.fr), Université Lyon, France