

Special session**Deadline: 30 May 2020****Title:*****Challenges for the design of Cyber Physical Production Systems*****Organised by:***Olivier Cardin (LS2N, Université de Nantes, France) - olivier.cardin@univ-nantes.fr**Virginie Goepf (ICube, INSA de Strasbourg, France) - virginie.goepf@insa-strasbourg.fr**Néjib Moalla (DISP, Université Lumière Lyon 2, France) - Nejib.Moalla@univ-lyon2.fr***Abstract:**

Cyber Physical Systems are the basis for Industry 4.0 resulting in so called Cyber Physical Production Systems (CPPS). "A CPPS is a combination of human, technological and IT agents, collaborating within a synergistic production environment to carry out technical, decision-making or cognitive tasks autonomously, using the best capabilities of each kind of agents involved". This new generation of production systems raises a lot of questions both in the academic and industrial worlds.

During the last years, research on CPPS has led to many contributions in different disciplines. However, the industrial spreading off of such systems seems rather poor and gives rise to new research challenges mainly linked to the ways to design CPPS.

Therefore, the "Challenges for the design of Cyber Physical Production Systems" session focuses on the main challenges the design of CPPS has to deal with.

List of topics:

Authors are invited to submit original contributions on all aspects of CPPS design, including but not limited to:

- Organisational, conceptual and technical barriers of CPPS
- Sustainability issues in CPPS
- Human in the loop
- Lack, limitations and improvement of modelling and enterprise architecture frameworks with regards to CPPS design issues
- Interoperability reference models, frameworks and interoperability maturity model relevance or usage in CPPS context, ...

Keywords:

Production System, CPS, Industry 4.0, Cyber Physical Production System, Sustainable Industry, New Design approaches