# PRO-VE 2021

**Smart and Sustainable Collaborative Networks 4.0**
**22nd IFIP Working Conference on Virtual Enterprises**
**2021, 22 -24th November**
*www.pro-ve.org*

*Saint Etienne, France*
*Unesco City for Design*

## PRO-VE 2021 Special Session

## Interoperability of IoT and CPS for industrial collaborative networks

### Scope

Industrial collaborative networks are characterised by heterogenous business capabilities, business processes, products and data structures. Sustainable systems interoperability represents one of the key challenge to support the development and the integration of new smart, digital and virtual assets in collaborative networks.

The digital transformation of product, systems and business models brings new paradigms and requirements for value cocreation in industry. Scientific initiatives dealing with digitalisation propose innovation concepts for IoT and data analysis, cognitive systems, production resources smartification, security and resilience, etc. The integration of new cyber and physical assets in industry requires the development of innovative interoperability enablers implementing model-driven engineering, semantic and security concepts to enable the communication between cyber and physical systems. The emergence of IoT and CPS concepts in industry contributes to build innovative smart manufacturing systems, effective control processes, innovative maintenance processes, etc.

The session aims to attract original scientific papers dealing with interoperability in industrial digital transformation with impact in manufacturing, quality control and maintenance.

### Session Organizers

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### Topics/ Keywords

- Interoperability requirements for digital transformation
- Model-Based interoperability
- Interoperability of IoT networks
- Interoperability of collaborative cyber-physical production systems
- Semantic interoperability of networked cyber and physical systems
- Collaborative IoT and CPS for smart manufacturing
- Collaborative IoT and CPS for effective control
- Collaborative IoT and CPS for innovative maintenance
- Intelligent decision support systems in collaborative networks
- Machine/Deep learning and Big data analytics for collaborative CPS applications
- Blockchain technology and Smart contracts
- Scheduling, Optimization & Logistics management in collaborative networks

### Submission procedure

Special sessions are included in the main Conference and follow the same reviewing process.
Short abstracts submission (100-150 words): March,15th, 2021
Full papers submission: April, 16th, 2021
Acceptance Notice: May, 31st, 2021
Camera Ready Submission: June, 20st, 2021

Acceptance of papers is based on the **full paper** (up to **8** pages). Each paper will be evaluated by three members of the International Program Committee.

When submitting on the web site, you have to indicate the name of the special session.
Submission procedure available on: www.pro-ve.org, with copy by email to the chairs of the special session.