PRO-VE 2019

20th IFIP / SOCOLNET
Working Conference on Virtual Enterprises
23-25 September 2019 – Turin, Italy

Call for Papers

Collaborative Networks and Digital Transformation

- Challenges and Opportunities –

Participation in networks has become a main enabler for any organization that strives to achieve differentiated competitive advantage. Collaboration became the nucleus for all dimensions of the 4th Industrial Revolution characterized by increasing digitalization and the interconnection among systems, products, value chains, and business models.

The increasing availability of sensors, and smart and mobile devices connected to the Internet, powered by the pervasiveness of Cyber-Physical Systems and Internet of Things with distributed computational power and intelligence, have boosted hyper-connected organizations. The focal points of this revolution span over: vertical integration of smart production systems, horizontal integration of organizations through global value chain networks, adoption of through-engineering across the entire value chain, acceleration in manufacturing and services, digitalization of products and services, and giving rise to new business models and customer intimacy. Further to *Industry 4.0*, this trend also surfaces in other sectors: *Economy 4.0*, *Health 4.0*, *Agriculture 4.0*, *Transportation 4.0*, *Water 4.0*, *Tourism 4.0*, *Logistics 4.0*, ... *Everything 4.0*.

This emerging reality challenges the way collaborative networks and systems are designed and operate. Previously proposed solutions e.g. in terms of the organizational structures, applied algorithms and mechanisms, and governance principles and models, need to be revisited and redesigned in order to comply with the speed of the evolving scenarios. Furthermore, the new solutions need to consider a convergence of advanced technologies, addressing CPS, IoT, Linked Data, Data Privacy, Federated Systems, Big Data, Data Mining, Sensing Technologies, etc., and the impact of variables, such as time, location, and population, which suggest a stronger focus on system dynamics.

PRO-VE 2019 aims at addressing all viewpoints on these timely challenges. It will provide a forum for sharing experiences, discussing trends, identifying opportunities, and introducing innovative solutions for collaborative networks in the era of digital transformation. Contributions are invited from multiple and diverse areas and disciplines, including: computer science, manufacturing, industrial, electrical and computing engineering, social sciences, organization science, and technologies, among others, which are well tuned to the interdisciplinary nature of the research and development in collaborative networks, as well as the spirit of the PRO-VE Working Conferences.

Topics

Possible topics for proposed papers, special sessions or position papers can notably include (but are not limited to):

- Collaborative models, platforms and systems for digital revolution
- Manufacturing ecosystem and collaboration in Industry 4.0
- Big data analytics and intelligence
- Risk, performance, and uncertainty in collaborative networked systems
- Semantic data/service discovery, retrieval, and composition, in a collaborative
- networked world
- Trust and sustainability analysis in collaborative networks
- Value creation and social impact of collaborative networks to the digital revolution
- Technology development platforms supporting collaborative systems
- Collective intelligence and collaboration in advanced/emerging applications
    - Collaborative manufacturing and factories of the future, e-health and care, food and agribusiness, and crisis/disaster management.

Important dates:

- Abstracts: 17 Mar 2019
- Special session proposals: 24 Feb 2019
- Full paper: 07 Apr 2019
- Acceptance notification: 18 May 2019
- Camera ready: 28 May 2019

*Evaluation of papers is double-blind and based on **full text**, considering original scientific and technological contribution. However, prospective authors should also submit a short abstract to the conference in advance, in order to check if the proposed topic fits within the conference scope.*

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