Special Issue on

Large Scale Cooperative Virtual Environments

● **Scope:**

The recent advances in networking have determined an increasing use of information technology to support distributed networked cooperative applications. Several novel applications have emerged in this area: social networks, connected devices collaboration systems, and many other ones. These applications may greatly benefit from the support of different kinds of platforms, both cloud and peer to peer. An interesting technology recently adopted to handle cryptocurrencies (such as Bitcoin) is the block-chain technology, that has now taken the more general role to handle several distributed applications. Furthermore, the analysis and validation of the huge amount of content generated by these applications asks for big data analysis and processing techniques.

This special issue calls for researchers to present and discuss important aspects of large scale networked collaborative applications and of the platforms supporting them. The definition of these applications requires to afford several challenges, like the design of user interfaces, coordination protocols, and proper middle-ware and architectures.

The aim of the special issue is to investigate open challenges for such applications, related to both the applications design and to the definition of proper supports. Some important challenges are, for instance, adaptation of the classical block-chain technology to support collaborative applications, protocols design, distributed consensus algorithms, privacy and security issues.

The special issue will accept contributions both presenting an assessment of current state and introducing further directions.

● **Topics**

This special issue expects original and high quality submissions related (but not limited) to one or more of the following topics:

- Distributed Large Scale Collaborative Environments (LSCE) and applications
- Distributed Online Social and Multimedia Environments
- Large scale collaborative health-care applications
- Location aware collaborative systems
- Participatory sensing crowdsourcing
- Distributed computer-supported collaborative work

- Distributed financial transactions systems
- Connected devices tracking in distributed systems
- Platforms for large scale collaborative applications
- bock-chain support for LSCE
- block-chain platforms for IoT and e-health
- block-chain based smart contracts
- cloud platforms for LSCE
- P2P platforms
- Big Data processing for LSCE
- Security and Privacy in LSCE

- **Guest Editors:**
  - Laura Ricci, University of Pisa
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  - Alexandru Iosup, TU Delft.
  - Radu Prodan, Institute of Computer Science, Innsbruck, Austria.

- Important dates (tentative)
  - submission deadline: 30 November 2017
  - notification of Initial decision: 28 February 2018
  - final version of the paper: 30 April 2018

- The special issue will collect both extended versions of the papers presented at the LSDVE@EUROPAR 2017 workshop and will be also opened to further contributions.