

## SS3: Decentralized Computing and Blockchain Technologies

### Special Session

#### Abstract

The main goal of this session is to explore the use of the blockchain technologies in decentralized computing environment. In relatively short period, the blockchain paradigm become a very hot research topic that is being investigated along with its inherent properties to describe how it could be leveraged to create various solution that exploit the blockchain's permanent, verifiable, immutable storage of data mechanisms.

During this session, various case studies of system design and prototype implementations of blockchain based solutions will be presented and discussed. Also, it is expected that presented papers will include cases of successful development of systems that use blockchain technologies and discussion of the elements necessary to build such systems. Various platforms, models, packages and technological options can be used in blockchain-based applications. Various uses of the technology will demonstrate the functionality blockchain systems in decentralized environment decentralized system.

Presented papers shall provide an evaluation of the discussed prototypes and stimulate discussion on the topic. There are many advantages that make a blockchain based systems suitable for replacing classical architectural solution. The blockchain prototypes promise to offer more efficient solutions and in many cases and give the user absolute ownership of their data. Items of discussion shall include extended use cases of blockchain distributed systems, discussing confrontation of the current limitations and identifying possible solutions. It is hoped, the session will include presentation of papers that demonstrate how decentralised systems can be reimagined as a distributed and robust applications. These applications are to promote the blockchain technology, show how it can empower the end-users and how it is applicable to variety of systems and ensuring they are built effectively and reliably.