

2019 The 19th IEEE International Conference on Scalable Computing and Communications (ScalCom 2019)

19-23 August 2019, Leicester, UK

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IMPORTANT DATES

Paper Submission Deadline: 19 March 2019
(the extended absolute deadline)

Authors Notification: 19 April 2019

Camera-ready Submission: 19 May 2019

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Towards Scalable Computing Systems and Networks

Scalability is one of the key evaluation criteria of computing systems. In particular, scalability is essential in HPC systems. High scalability represents a kind of elasticity, which can guarantee high throughput, small delay and high performance. Additionally, with the need to process the data deluge and to solve complex large scale problems, new architectures using computing accelerator, e.g., Graphic Processing Unit (GPU) and Many Integrated Core (MIC) have emerged. Improvements to these architectures are still needed in order to use them in large scale heterogeneous systems. Similarly, new parallel algorithms, software, and tools are needed to improve scalability.

The 19th IEEE International Conference on Scalable Computing and Communications (ScalCom 2019) will provide a forum for researchers to present their original work on scalable parallel and distributed computing. This conference will also offer a unique opportunity to exchange ideas at the highest technical level related to communication networks, performance analysis and distributed applications with particular emphasis on scalability.

Scope and Topics

- ◆ **Cloud and Fog Computing** (e.g. Cloud programming models and tools; Fog and Edge computing algorithms and infrastructures)
- ◆ **Extreme Scale, Multicore, GPU Accelerators and Novel Architectures for Scalability-Rethinking** (e.g. Parallel programming models and tools; GPU, MIC, and FPGA based parallel systems and heterogeneous platforms; Performance modeling and evaluation of Parallel Algorithms; Extreme scale systems and applications/workloads; High-performance and high-throughput computing; Fault-tolerance in large scale applications; Near-data processing and data-centric approaches).
- ◆ **Tools for Big Data** (e.g. New data analytics tools for extreme big data; Distributed architectures/parallel programming models for machine learning/Deep Learning).
- ◆ **Modelling and Simulation of Large Complex Systems** (e.g. Cellular automata/genetic algorithms/swarm Intelligence implementations; Integrated approach to optimization and simulation; High-performance software developed to solve sciences (e.g., biological, physical, and social), engineering, medicine, and humanities problems).
- ◆ **Mobile, Wireless and Pervasive Computing** (e.g. design and performance analysis of communication networks; Communication protocols of IoT; Distributed applications with emphasis on scalability; Pervasive computing, distributed robotics)
- ◆ **Scalable Machine Learning** (deploying large scale analytics)
- ◆ **Blockchain and Distributed Ledger Technology** (e.g. Distributed Consensus and Fault Tolerance, Performance and Scalability Issues for Blockchain, Blockchain in cyber physical systems, Blockchain in edge and cloud computing, Blockchain-based Applications and Services, Distributed Database Technology for Blockchain)

IEEE ScalCom 2019 Call for Papers

- ✓ Papers must be submitted electronically via the ScalCom 2019 conference website
- ✓ Workshop and Special Session Proposals in relevant areas
- ✓ Tutorial Proposals in addressing the emerging smart world areas

Accepted papers will be published by IEEE (IEEE-DL and EI indexed) in Conference Proceedings. Best Paper Awards will be selected from the presented papers. Selected papers will be recommended to prestige journal special issues.

Contact: Please email inquiries concerning IEEE ScalCom 2019 to Conference Organizers: scalcom2019@gmail.com

IEEE ScalCom 2019 Website: <http://www.smart-world.org/2019/scalcom/>