# The 18th IEEE International Conference on Scalable Computing and Communications (ScalCom 2018)

## October 8-12, 2018, Guangzhou, China

**IMPORTANT DATES**

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| **Workshop Proposal Due:** | **April 8, 2018 (Closed)** |
| **Proposal Notification:** | **Within two weeks after submission** |
| **Paper Submission Deadline:** | **May 15, 2018 (Extended Firm Deadline)** |
| **Authors Notification (for all papers submitted before May 30, 2018):** | **June 25, 2018** |
| **Authors Notification (for all papers submitted after May 30, 2018)** | **July 8, 2018** |
| **Camera-ready Deadline:** | **August 8, 2018** |

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## Towards Scalable Computing Systems and Networks

Nowadays, parallel architectures are ubiquitous and the arena of computing and communicating devices is quickly reaching an unprecedented scale. The trend is to keep increasing both the number of cores in a single device as well as the number of communicating devices. In this massively parallel and heterogeneous context, the need for scalable computing is everywhere and scalability is rapidly becoming a central aspect of computing.

The 18th IEEE International Conference on Scalable Computing and Communications (ScalCom 2018) will provide a forum for researchers willing to present their original work on scalable parallel and distributed computing. ScalCom 2018 will 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.

We invite submissions of high-quality research papers describing fully developed results or on-going foundational and applied work relating to all aspects of scalable computing and communications. The program committee will interpret it very broadly; everything from engineering principles to practical experiences on different levels of a parallel and distributed system including High Performance Computing (HPC), massively parallel systems and heterogeneous computing. We particularly encourage submissions on topics of emerging interest in the research and development communities. The topics of the 18th IEEE International Conference on Scalable Computing and Communications include, but are not

**Cloud and Fog Computing**
- -X as a Service, where X includes backend, business process, database, infrastructure, network, platform, security, software, and storage
- -performance, dependability, and service level agreements
- -cloud programming models and tools
- -fog computing algorithms and infrastructures

**Tools for Big Data**
- -statistical data mining
- -extreme big data
- -Hadoop
- -convergence of IoT, cloud and big data

**Extreme Scale, Multicore, GPU Accelerators and Novel Architectures for Scalability-Rethinking**
- -parallel programming models and tools
- -GPU, MIC, and FPGA based parallel systems, heterogenous platforms
- -extreme scale systems and applications
- -peta-scale and exa-scale workloads
- -high-performance and high-throughput computing
- -fault-tolerance in large scale applications
- -near-data processing and data-centric approaches

**Modelling and Simulation of Large Complex Systems**
- -cellular automata, genetic algorithms, neural networks, 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**
- -queueing theory, design and performance analysis of communication networks
- -communication protocols of IoT
- -distributed applications with emphasis on scalability, distributed applications deployment
- -pervasive computing, distributed robotics
- -convergence of communication and computing

**WORKSHOPS AND SPECIAL SESSIONS**
We invite proposals for workshops associated with the conference, addressing research areas related to the conference. Accepted workshop papers will be included in the proceedings published by IEEE. Send your proposals to: ieeescalcom2018@googlegroups.com

**PAPER SUBMISSION**
Main conference papers are limited to 8 pages (full papers), or 6 pages (short papers), following the IEEE proceedings format, and are to be submitted as PDF via the ScalCom 2018 submission site: https://easychair.org/conferences/?conf=scalcom2018.

**PAPER PUBLICATION**
Accepted conference papers will be published by IEEE (IEEE-DL and EI indexed). At least one author of each accepted paper is required to register and present their work at the conference; otherwise the paper will not be included in the proceedings. Best papers will be awarded at the conference and invited to submit an extended version of the paper in a special issue of an ISI and Scopus indexed journal. Selected papers, after further extensions and revisions, will also be recommended to special issues. More details at: http://www.smart-world.org/2018/scalcom/

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