The 22nd IEEE International Conference on Scalable Computing and Communications (ScalCom 2022)

December 16-18, 2022, Haikou, Hainan, China

http://www.ieee-smart-world.org/2022/scalcom/

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Important Dates

Workshop Proposal
July 15, 2022
Paper Submission
September 01, 2022
Authors Notification
October 01, 2022
Camera Ready Submission
October 31, 2022

Call for Papers

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 data deluge and to solve difficult or large scale problems, new architectures like computing accelerator, e.g., GPU and MIC have appeared. Improvements to these architectures are still needed in order to use them in large scale heterogeneous systems. Similarly, new parallel algorithms, softwares, and tools are needed to improve scalability.

The 22nd IEEE International Conference on Scalable Computing and Communications (ScalCom 2022) 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.

IEEE ScalCom 2022 Tracks and Topics

Track 1: Cloud and Fog Computing	**Track 3: Modelling and Simulations**
- X as a Service	- Data analytics tools for extreme big data
- Performance and dependability in Cloud	- Distributed architecture models
- Cloud programming models and tools	- Parallel programming tools
- Fog computing algorithms design	- Tools for machine learning and deep learning
- Cloud infrastructure management	- Convergence of communication and computing
- Deploying large-scale analytics	- Distributed database technology
- Performance and scalability for Fog	- Scalable applications deployment
- Tools for Cloud and Fog	- Distributed robotics modelling
Track 2: Scalability Rethinking	**Track 4: Blockchain and Distributed Ledger**
- Parallel programming models	- Distributed consensus and fault tolerance
- Heterogeneous platforms with GPU and FPGA	- Performance and Scalability Issues
- Peta-scale and extra-scale workloads	- Blockchain in cyber physical systems
- High-throughput computing	- Blockchain in edge and cloud computing
- Fault-tolerance in large scale applications	- Blockchain-based applications and services
- Near-data and data-centric processing	- Distributed database technology
- Integrated approach for scalability optimization	- Scalability issues in Blockchain

Paper Submission

Main conference papers are limited to 8 pages (regular paper), or 6 pages (short paper), and 2-4 pages for a poster paper following the IEEE proceedings format, and are to be submitted as PDF via the site: (Coming soon). High-quality papers will be recommended to the special issue of Computer Modeling in Engineering & Sciences journal (CMES, SCI index with IF: 2.04).

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. Selected papers, after further extensions and revisions, will be recommended to special issues.

Co-located with Four Conferences

- The 2022 IEEE International Conference on Ubiquitous Intelligence and Computing (UIC 2022)
- The 2022 IEEE International Conference on Metaverse (Metaverse 2022)
- The 2022 IEEE International Conference on Privacy Computing (PriComp 2022)
- The 2022 IEEE International Conference on Digital Twin (Digital Twin 2022)
- The 2022 IEEE International Conference on Autonomous and Trust Vehicles Conference (ATC 2022)

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