

# The 29th IEEE International Conference on Parallel and Distributed Systems (ICPADS 2023)

Ocean Flower Island, Hainan, China,  
December 17-21, 2023

## Call for Papers

The 29th IEEE International Conference on Parallel and Distributed Systems (ICPADS 2023) will be held in **December 17-21, 2023, Ocean Flower Island (玫瑰岛), Hainan, China**. The conference provides an international forum for scientists, engineers and users to exchange and share their experiences, new ideas, and latest research results on all aspects of parallel and distributed systems. Contributions are solicited in all areas of parallel and distributed systems research and applications. We invite you to submit your original contributions to ICPADS 2023.

We welcome high quality papers that describe original and unpublished research advancing the state of the art in ubiquitous intelligence and computing. Topics for submissions include but not limited to the following:

### Track 1: Algorithms & Architecture

- Algorithms for distributed control systems
- Algorithms for artificial intelligence
- Algorithms for network optimization
- Algorithms for databases and information retrieval
- Distributed/parallel algorithms and application
- Multi-core and massively parallel computing architectures

### Track 2: Security & Block-chain

- Blockchain-based applications and services
- Blockchain security and privacy
- Security of NFT
- Blockchain in cyber physical systems
- Distributed database technology
- Scalability issues in blockchain
- Blockchain in edge and cloud computing
- Blockchain-based applications and services

### Track 3: IoT & CPS

- Smart city applications
- Intelligent cyber-physical systems
- Cyber-physical social systems
- IoT, mobile and embedded architectures
- IoT security and privacy
- Industrial IoT
- Cyber-physical system security
- Model checking for autonomous and trusted vehicles
- Model-based system design for autonomous and trusted vehicles

### Track 4: Big data & Machine Learning Systems

- Algorithms for big data
- Big data applications
- Big data security and privacy
- Data analytics
- Distributed autonomous robotic systems
- Distributed and federated machine learning systems
- Machine learning for autonomous and trusted vehicles

### Track 5: High-Performance Computing & Communications

- High performance computing theory
- High performance computing architectures
- System software and middleware
- Instruction-level and thread-level parallelism
- Performance modeling and evaluation
- Massively multicore systems
- Network and system architectures
- Microscale simulations of complex systems
- Large-scale molecular dynamics simulations

### Track 6: Cloud & Edge Computing

- Algorithms for cloud computing
- Edge intelligence applications
- Cloud computing security
- Performance modeling and analysis of parallel or distributed computing
- Cloud programming models and tools
- Cloud and edge computing algorithms design
- Cloud and edge infrastructure management
- Deploying large-scale analytics
- Performance and scalability for cloud and edge
- Tools for cloud and edge

## Paper Publication

Papers accepted by ICPADS 2023 conference will be published by the IEEE Computer Society Press. All accepted papers will be submitted to IEEE Xplore and EI. Distinguished papers presented at the conference, after further revision, will be invited for submission to a special issue (coming soon.....)

## Organizing Committee

### General Chairs

- Laurence T. Yang, *Hainan University, China*
- Thomas Rauber, *University of Bayreuth, Germany*
- Zihong Chen, *University of California, Riverside, US*

### Program Chairs

- Blackang Wang, *Hainan University, China*
- Jon Calhoun, *Chuncheon University, USA*
- Zimu Zhou, *City University of Hong Kong, Hong Kong*

### Program Vice Chairs

- Quan Chen, *Shanghai Jiao Tong University, China*
- Parimala Thulasiraman, *University of Manitoba, Canada*

### Track Chairs

- Junkang Zhou, *Nanjing University of Science and Technology, China*
- Arcangelo Castiglione, *University Degli Studi Di Salerno, Italy*
- Jieming Yin, *Nanjing University of Posts and Telecommunications, China*

### Publication Chairs

- Jieming Yang, *Hainan University, China*
- Shaolin Zou, *Hainan University, China*

### Web Chairs

- Xiaoli Wang, *The University of Warwick, UK*

## Sponsors

Co-sponsored by



IEEE



IEEE  
COMPUTER  
SOCIETY



IEEE COMPUTER SOCIETY



TCPP



TCDP

WORKSHOP PROPOSAL  
Jul. 15 2023

PAPER SUBMISSION  
Sep. 01 2023

AUTHORS  
NOTIFICATION  
Oct. 01 2023

CAMERA-READY  
SUBMISSION  
Oct. 31 2023