2024 OkIP International Conference on Advances in High-Performance Computing (AHPC)

Tuesday, 1 October 2024 - Thursday, 3 October 2024

Tiako Center, Oklahoma City, OK, USA & Online

Scientific Tracks

HPC Advanced Concepts

High-Performance Computing (HPC)
Performance | Scalability | Virtualization
Visualization | Simulation | Modelisation
Prediction | Program Optimization | Workloads
Algorithms | Networks | Efficiency |Scheduling
Compiler Design and Technologies
HPC Components and Technologies
Data Management and Transport | Compilation
Load Balancing | Resource Management
Fault Tolerance | Reliability | Availability
Multicore Algorithms | Operating System
Software Design and Implementations
Asynchronous Methods | Interconnects
Interconnections | Distributed Computing
High Scalability Computing | Accelerators
High-Performance Modeling/Software/Tools
Routing Protocols | Quality of Service
Allocation Framework | Benchmarks |...

Parallel Computing

Parallelism | Automatic Parallelization
Programming Languages/Libraries/Tools
Programming Models/Environments
Parallel Metaheuristics/Application-Behavior
Parallel/Distributed Algorithms/Architectures
Energy Factors/Technological Factors
Partitioning and Optimal Scheduling
Systems Performance/Potential/Efficiency
Distributed/Heterogeneous Systems
System Synergy and Optimization
Advances in Parallel Models/Systems/Tools

Mobile & Wireless Computing

Communication Modeling/Designing/Analysis
Mobile Communication Prediction/Control
Mobile/Wireless Systems-of-Systems
Mobile/Wireless Software and Hardware
Heterogeneous Wireless Networks
Medical Alert Devices/Privacy Consideration
Wireless Sensor Network | IoT Platforms
Mobile Network Loss Issues
Ultra-Dense Networks | Mobile Performance
Sensor Networks and Embedded Applications
Innovative Mobile/Wireless Networks/Systems

Network Architecture/System

Interconnection Networks and Architectures
Memory Architecture Evaluation
I/O, File Systems, and Memory Systems
Power-Efficiency | Systems-on-Chip
System Modeling Methodologies
Fault-Tolerant Algorithms/Systems
Scalable Servers and Systems
Shared Memory Implementation
Memory Exploitation/Management Techniques
Network Storage Systems and Services
Cluster Management/Architecture
Heterogeneous Architectures/Accelerators
Multi/Many-Core/CPU Framework/Systems
Micro-Architecture Techniques
Reconfigurable Architectures/Systems

HPC AI/Simulation/Security

Surrogate Modeling | Machine Learning
Neural Architecture Performance
Deep Learning | Agent-based Modeling
Intelligent Algorithm| Artificial Neural Network
Distributed Deep Learning Systems
Hybrid/Complex System Modeling/Simulation
Advanced/Stochastic Simulation Frameworks
Security, Policy, and Management Issues
Configuration, Policy, and Management issues
Graph Partitioning/Analysis/Analytics
Spiking Neural P Systems | Data Integrity
Enabling Blockchain-as-a-Service
Fuzzy Logic Approach | Streaming Algorithms
Association Rule Mining | Anomaly Detection
Big Data Analytics and Applications

HPC Applications

HPC Applications and Case Studies
Grid/Cloud/Fog/Bio-inspired Computing
Scientific/Engineering/Commercial Workloads
Augmented/Virtual Reality
Biotechnology, Nanotechnology, and Finance
Space Research, Urban Planning, and Energy
Teleimmersion | Collaborative Applications
Media/Entertainment Industry | Visualization
Workflow Management | HPC Resiliency
Advanced Computational Methods/Applications