IEEE COINS 2023

IEEE International Conference on Omni-layer Intelligent Systems

IEEE | IEEE RAS | IEEE CEDA | IEEE COMPUTER SOCIETY | VSA-TC & NCAS TC IEEE CAS | E-HEALTH-TC IEEE COMSOC | CONTROL, ROBOTICS, AND MECHATORNICS TC & CLOUD AND WIRELESS SYSTEMS FOR INDUSTRIAL APPLICATIONS TC IEEE IES | IEEE IOT

Berlin, Germany | Hybrid
July 23-25, 2023
https://coinsconf.com

Call for Papers

Track: Internet of Things: From Device, to Edge, and Cloud

COINS is the premier conference devoted to omni-layer techniques for smart IoT systems, by identifying new perspectives and highlighting impending research issues and challenges. Topics of interest of **IoT track** include, but are not limited to, the following:

Smart Things
- Sensors and Sensor Systems
- Personal, wearable, and other embedded networked front-ends
- Embedded Computer and System
- Low Power devices
- Design Space Exploration Techniques for IoT Devices and Systems
- Interfaces
- Optimization of data traffic and latencies
- Machine-to-Machine Communications for Smart Environments
- Smart devices and tools signal processing
- Wearables, Body Sensor Networks, Smart Portable Devices

Communications and Connectivity
- Legacy Networks
- Network Design and Architecture
- 5G Networks and IoT
- Low Power Wide Area (LPWA) networks
- IoT communication protocols (6LoWPAN, RPL, 6TiSCH, LoRaWAN, etc.)
- IoT data protocols (MQTT-SN, COAP, XMPP-IoT, AMQP, etc.)
- Networking and Communication Protocols and Standards
- D2d and M2M Communications
- Self-organization and self-healing of IoT networks
- Routing and Transport Protocols for IoT
- IoT short-range communications
- Network planning
- Traffic Theory, Modeling and Simulation
- Performance Evaluation and Modeling
- Edge Computing, Fog Computing and IoT
- Software Defined Networks

IoT Platforms, Applications and Services
- Cyber-physical systems
- Platforms and Framework
- Cyber-physical systems
- Service Experiences and Analysis
- IoT Experimental Results and Deployment Scenarios
- Cloud for IoT applications
- Cloud back-ends and resource management for IoT applications
- Data Ingestion, Processing, Storage, Analytics, and Visualization across Edge, Fog and Cloud
- Distributed Storage, Data Fusion
- Resource Management, Access Control
- Identity Management and Object Recognition
- Heterogeneous Networks, Web of Things, Web of Everything
- Sensors Data Management, IoT Mining and Analytics
- Collaborative Applications and Systems
- Horizontal application development for IoT
- Design principals and best practices for IoT application development

IoT Pilots, Testbeds, and Experimentation Results
- Large scale pilots on IoT
- IoT testbeds and testing tools
- Closing the Gap between Research and Implementation
- Experimental prototypes, Test-Bed and Field Trial Experiences
- Multi-Objective IoT System Modeling and Analysis—Performance, Energy, Reliability, Robustness
- IoT Interconnections Analysis—QoS, Scalability, Performance, Interference
- Real case deployment scenarios and results
- IoT Deployment at Government and ISPs
- IoT Deployment on Agriculture, Retails, Smart Cities, etc.
- IoT Interconnections among ISPs Analysis—QoS, Scalability, Performance, Interference
- Gaps Analysis for Real Deployment
- IoT and Future Internet Architectures
- Standardization and Regulation