Track: Circuits and Systems (CAS) Designs for Future Artificial Intelligence, Internet of Things, and Big Data Applications

AI/IoT tsunami is affecting every aspect of our daily lives, ranging from smart cars, smart homes, smart cities, smart factories to smart health, and smart environments. Although AI/IoT vastly expanded the possibilities to fulfill many of our needs, numerous challenges still should to be addressed. Particularly, new computing solutions are required support emerging algorithms/applications, from edge nodes to cloud servers, from circuit level to system level. Facing this new challenge and opportunity, this track of IEEE COINS solicits papers and proposals accompanying submissions for presentations in the Vertical and Topical Tracks.

- Emerging devices and materials for AI
- Emerging Technologies in CAS (e.g., Beyond CMOS)
- Sensory Circuits and Systems
- Digital Signal Processing
- Communications Circuits & Systems for IoT
- Energy-aware Circuits and Systems for IoT applications
- Circuits & Systems for Data Processing
- Artificial Intelligence Circuits and Systems
- Neural Networks & Neuromorphic Engineering
- Application and architecture of artificial neural network
- Deep learning/machine learning/AI algorithms
- Architecture for AI computing
- Edge and cloud AI computing platforms
- Hardware accelerators for IoT and AI
- Neuromorphic processors
- Approximate Computing
- Advanced neural network design
- Big Data Processing
- Cyber-Physical Systems
- After 5G and Multi-Gigabit Communications for IoT applications
- Emerging applications: e-Health, Autonomous Vehicle, Smart Factory and Environment, etc.

IEEE COINS will publish accepted papers in the conference proceedings and the proceedings will be submitted to the IEEE Xplore Digital library and indexing services.

Selected best contributions of IEEE COINS will be invited to submit expanded versions of their studies to IEEE IoTJ (IF=9.936) for review and potential publication.

Track Chair
Kun-Chih Chen (Jimmy), National Sun Yat-Sen University, Taiwan
Teresa Serrano-Gotarredona, National Microelectronics Center (IMSE-CNMCSCIC) Sevilla, Spain

TPC Members
Francesca Palumbo, University of Naples Federico II, Italy
Ioannis Savidis, Drexel University, USA
Danella Zhao, Old Dominion University, USA
Hassan Mostafa, Cairo University, Egypt
Francesca Palumbo, University of Sassari, Italy
Hideharu Amano, Keio University, Japan
Theocharis Theocharides, University of Cyprus, Cyprus
Saket Srivastava, University of Lincoln, UK
Arjuna Madanayake, Florida International University, USA
Mayank Parasar, Samsung Austin R&D Center (SARC), USA

Hybrid Event:
(On-site In-person Presentation & Virtual Presentation)

Barcelona, Spain
August 23-25, 2021
https://coinsconf.com

IEEE COINS 2021
IEEE International Conference on Omni-layer Intelligent Systems