63rd IEEE International Midwest Symposium on Circuits and Systems

Springfield, MA, USA
August 9th–12th, 2020
www.mwscas2020.org

CALL FOR PAPERS IEEE INTERNATIONAL MWSCAS 2020

The 63rd IEEE International Midwest Symposium on Circuits and Systems will be held at the Sheraton Hotel in Springfield, MA, USA, August 9 – 12, 2020. Springfield is twenty minutes from Hartford CT Springfield/Hartford airport (BDL) and an hour and forty-five minutes from Boston MA airport (BOS). The conference theme is Artificial Intelligence (AI) and the Internet of Things (IoT) — Making the Future Happen! MWSCAS 2020 will include oral and poster sessions, student paper contest, tutorials given by experts in circuits and systems topics, and special sessions. Topics include, but are not limited to:

Track 1. Analog Circuits and Systems
- 1.1 Analog Circuits and Systems
- 1.2 Linear and Non-linear Analog Systems
- 1.3 Biomedical Electronics
- 1.4 Bioengineering Systems and Bio Chips
- 1.5 System Architectures
- 1.6 Neuromorphic Systems
- 1.7 Other Analog Circuits and systems

Track 2. Digital Circuits and Systems
- 2.1 Digital Integrated Circuits
- 2.2 System On a Chip (SOC) and Network on a Chip (NOC)
- 2.3 Digital Filters
- 2.4 Hardware-Software Co-Design
- 2.5 Other Digital Circuits and Systems

Track 3. Communications Circuits and Systems
- 3.1 Communications Circuits, Computers and Applications
- 3.2 Communications Systems and Control
- 3.3 Information Theory, Coding and Security
- 3.4 Communications Theory
- 3.5 Other Communications Circuits and Systems

Track 4. RF and Wireless Circuits and Systems
- 4.1 RF Front-End Circuits
- 4.2 Mixed-Signal RF and Analog and Baseline Circuits
- 4.3 Wireless Mobile Circuits and Systems and Connectivity
- 4.4 VCO's and Frequency Multipliers, PLL's and Synthesizers
- 4.5 Other RF and Wireless Circuits and Systems

Track 5. Sensor Circuits and Systems
- 5.1 Technologies for Smart Sensors
- 5.2 Sensor Fusion
- 5.3 Control Systems
- 5.4 Mechatronics and Robotics
- 5.5 Other Sensor Circuits and Systems

Track 6. Converter Circuits and Systems
- 6.1 Analog to Digital Converters
- 6.2 Digital to Analog Converters
- 6.3 DC-DC Converters
- 6.4 Other Converter Circuits and Systems

Track 7. Signal and Image Processing
- 7.1 Analog and Mixed Signal Processing
- 7.2 Digital Signal Processing
- 7.3 Signal Processing Theory and Methods
- 7.4 Image, Video and Multi-Dimensional Signal Processing
- 7.5 Other Signal and Image Processing

Track 8. Hardware Design
- 8.1 Processor and Memory Design
- 8.2 MEMS/NEMS
- 8.3 Nano-Electronics and Technology
- 8.4 Optics and Photonics
- 8.5 Power Management, Power Harvesting and Power Electronics
- 8.6 Photovoltaic Devices/Panels and Energy Harvesting
- 8.7 Other Hardware Design

Track 9. Artificial Intelligence (AI) and Internet of Things (IoT)
- 9.1 AI digital, analog cores and Deep Learning
- 9.2 Sensors, connectivity and systems
- 9.3 Embedded processors and controllers
- 9.4 Quantum computing
- 9.5 Neural Networks and Fuzzy Logic
- 9.6 Energy Harvesting and power management
- 9.7 Other AI and IoT

Track 10. Hardware Security
- 10.1 Hardware and System Authentication
- 10.2 Physically Unclonable Functions (PUFs)
- 10.3 Watermarking
- 10.4 Obfuscation and Logic-locking
- 10.5 Trojan Detection/Mitigation
- 10.6 Side Channel Leakage/Resistance
- 10.7 Embedded Cyber Physical Security
- 10.8 Other Security-Hardware/Software

Track 11. Smart Power
- 11.1 Smart Power Management for High-Performance Cloud and AI Data Centers
- 11.2 Low Power Design techniques for IoT applications
- 11.3 Fully Integrated Voltage Regulators
- 11.4 Renewable Energy Systems, Wireless Charging and
- 11.5 Energy Harvesting
- 11.6 Smart Grid for Cloud Computing
- 11.7 Other Smart Power

Prospective authors are invited to submit a full paper (4 pages) describing original work. Only electronic submissions will be accepted. Papers should include title, abstract, and topic category from the list above in standard IEEE two-column format for consideration as lecture or poster. Both formats have the same value, and presentation method will be chosen for suitability. All submissions should be made electronically through the MWSCAS 2020 web site (http://www.mwscas2020.org). Students are encouraged to participate in the best student paper award contest. Accepted papers will be published in the conference proceedings subject to advance registration of at least one of the authors.

IMPORTANT DEADLINE DATES

February 17: Tutorial and Special Session Proposal Submission Deadline

May 29: Regular Paper Submission Deadline
May 29: Special session and invited paper deadline
July 3: Notice of Paper Acceptance
July 17: Camera-Ready Paper Due for all papers