

August 11th – 14th 2024

www.mwscas2024.org

MWSCAS
SPRINGFIELD, MA **2024**

IMPORTANT DEADLINE DATES

- Feb 23:** Tutorial and Special Session proposals deadline
- March 22:** Regular papers and Invited papers submission deadline
- May 3:** Notice of acceptance
- May 24:** Final camera-ready paper deadline

CALL FOR PAPERS IEEE INTERNATIONAL MWSCAS 2024

The 67th IEEE International Midwest Symposium on Circuits and Systems will be held at the Sheraton Hotel in Springfield, MA, USA, August 11 – 14, 2024. Springfield is twenty minutes from Hartford CT Springfield/Hartford airport (BDL) and an hour and forty-five minutes from Boston MA airport (BOS). MWSCAS 2024 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:

Conference Committee

General Co-Chairs

Neeraj Magotra
Western New England
University
neeraj.magotra@wne.edu

Randy Geiger
Iowa State University
r.geiger@ieee.org

Technical Program Committee Co-Chairs

Jose Silva-Martinez
Texas A&M University
jose-silva-martinez@tamu.
edu

Kouros Rahnamai
Western New England
University
kouros.rahnamai@wne.edu

Robert Brennan
ON Semiconductor
Robert.Brennan@onsemi.
com

Finance

Robert (Bob) Alongi
r.alongi@ieee.org

Publications

Stephen Adamshick
Western New England
University
stephen.adamshick@wne.
edu

Special Sessions

Ayman Fayed
Ohio State University
fayed.1@osu.edu

John Burke
Western New England
University
john.burke@wne.edu

Sudipto Chakraborty
IBM
schakraborty@ibm.com

Samuel Palermo
Texas A&M
spalermo@tamu.edu

Tutorials

Gabriel Rincon-Mora
Georgia Tech
rincon-mora@gatech.edu

Nicole McFarlane
University of Tennessee
mcf@utk.edu

Track 1. Analog and Mixed Circuits and Systems

- 1.1 Analog Circuits and Systems
- 1.2 Linear and Non-linear Analog Systems
- 1.3 Biomedical Systems and Bio Chips
- 1.4 Physical Design, Test, Verifications
- 1.5 Converters, ADC, DAC and others
- 1.6 Regulators, References and Reliability Methods
- 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 and security
- 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, 5G & 6G Circuit and Systems
- 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. Trends in Quantum computing & Photonics

- 6.1 Qubit Architecture and Design
- 6.2 Quantum Error Correction
- 6.3 Quantum Hardware Systems
- 6.4 Electronic/Photonic Integration
- 6.5 Visible/Near-IR/IR integrated Photonic
- 6.6 Education and Workforce in Quantum Computing and Integrated photonics
- 6.7 Other Topics in This Area

Track 7. Signal and Image Processing

- 7.1 Analog, Digital and Mixed Signal Processing
- 7.2 Streaming and Human Computer Interactions
- 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/Software Design and Security

- 8.1 Processor and Memory Design
- 8.2 MEMS/NEMS
- 8.3 Nano-Electronics and Technology
- 8.4 Flexible Circuits and Systems
- 8.5 Emerging Memory and Memristor
- 8.6 Photovoltaic Devices/Panels and Energy Harvesting
- 8.7 Other Hardware/Software Design and Security

Track 9. Artificial Intelligence (AI) and Internet of Things (IoT), and Systems

- 9.1 AI digital, analog cores and Machine Learning
- 9.2 Sensors, connectivity and systems
- 9.3 Embedded processors and controllers
- 9.4 Signals, Systems and Controls
- 9.5 Neural Networks and Fuzzy Logic
- 9.6 Energy Harvesting and power management
- 9.7 Other AI, IoT, Controls and Systems

Track 10. Biomedical Circuits and Systems

- 10.1 Bio-signal Amplifiers
- 10.2 Wearable and Implantable/injectable Systems
- 10.3 Human/Brain Machine Interfaces
- 10.4 Integrated Biomedical Systems
- 10.5 Lab-on-CMOS and Lab-on-Chip
- 10.6 Biomedical Singal/Image Processing
- 10.7 Point of Care Biomedical Diagnostics
- 10.8 Other Areas in Biomedical Circuits and Systems

Track 11. Power and Sensory Circuits and Systems

- 11.1 Smart Power Management for High-Performance Cloud and AI Data Centers
- 11.2 Wireless Charging and Energy Harvesting
- 11.3 Power Management of Electric Vehicles
- 11.4 Renewable Energy Systems, Wireless Charging and 11.5 Energy Harvesting
- 11.6 Smart Grid for Cloud Computing
- 11.7 Mechatronics and Robotics
- 11.8 Other Smart Power



IEEE



MWSCAS
Steering
Committee

WESTERN NEW ENGLAND
UNIVERSITY

