CALL FOR PAPERS

2017 IEEE BIPOLAR/BiCMOS CIRCUITS AND TECHNOLOGY MEETING

The Miami Biscayne Bay Marriott, in Miami, FL, USA, www.ieee-bctm.org
Short Course: October 21, 2017; Conference: October 19-20, 2017

The IEEE Bipolar/BiCMOS Circuits and Technology Meeting (BCTM) is the premier forum for technical communication mainly focused on the needs and interests of bipolar and BiCMOS technology and circuit community. Papers covering the design, modeling, performance, fabrication, testing and application of bipolar and BiCMOS integrated circuits and devices as well as high-performance circuits using other competitive technologies such as CMOS, SiC, GaN, GaAs, and InP are solicited. All papers must be suitable for a twenty-minute presentation. Text and figures must not have been presented at other conferences or published in any scientific or technical publications prior to BCTM.

Publication in the BCTM Proceedings does not preclude publication in an IEEE journal, and authors are encouraged to do so after the conference. A Special Section of the IEEE Journal of Solid-State Circuits will include selected circuit papers from 2017 BCTM. This year, BCTM will be co-located with the IEEE Compound Semiconductor IC Symposium (CSICS), which will be held at the same location from Sunday October 22 to Wednesday October 25. Information about CSICS can be found at https://csics.org/.

Papers are solicited in the following areas:

ANALOG/MIXED SIGNAL: Analog ICs, Mixed analog/digital ICs - Digital ICs - DACs and ADCs - Operational amplifiers - Voltage references and regulators - Integrated filters - Sensors and actuators - Networking ICs, MUX/DEMUX, Clock and data recovery, Decision circuits, Equalizers - Optical data links, Laser and modulator drivers - Gate arrays - Cell libraries - High-voltage ICs - Photonic Integrated Circuits - Analog-Mixed-Signal ICs for Neuromorphic Computing and Quantum Computing - Biomedical electronics - Power Management ICs - Energy harvesting ICs - Motor controls - Analog subsystems within a VLSI chip - Packaging of high-performance ICs.

DEVICE PHYSICS: New device physics phenomena in Si, SiGe, SiC, GaN, MOS, and III-V HBTs - Device design issues and scaling limits - Hot electron effects and reliability physics - Transport and high field phenomena - Noise - Linearity/Distortion - Novel measurement techniques - Operation in extreme environments (low and high temperatures, radiation effects).

MODELING/SIMULATION: Improved BJT and HBT models - Physics-based modelling techniques - Parameter extraction methods and test structures - High-frequency measurement, calibration and de-embedding techniques - RF and thermal simulation techniques - Modelling of passives, interconnect and packages - Statistical modelling - Device, process and circuit simulation - CAD/modelling of power devices - packaging of power devices and ESD phenomena.

PROCESS TECHNOLOGY: Advances in processes and device structures demonstrating high speed, low power, low noise, high current, high voltage, etc. BiCMOS processes - Advanced process techniques - Si and SiC homojunction bipolar/BiCMOS devices - III-V and SiGe heterojunction bipolar/BiCMOS devices - Manufacturing solutions related to Bipolar and BiCMOS yield improvements - Fabrication of high-performance passive components, sensors, and MEMs - Process technology related to discrete and integrated bipolar/BiCMOS power devices - IGBT, RF power devices. Wide bandgap bipolar devices (e.g., SiC, GaN, GaAs) and related process technology - 3D Integration - Reliability and testing for IC manufacturing.

WIRELESS CIRCUITS: RF and millimeter - wave circuits and systems - THz circuits - Radio and transceiver subsystems - Low Noise Amplifiers - Automatic gain control - Mixers - Voltage controlled oscillators - Frequency synthesizers - Power amplifiers - High-speed data converters - RF switches - Suppression of noise and distortion - RF Packaging - Integrated RF passives.

Best Paper Awards: Papers must be clearly marked as 'STUDENT SUBMISSION' in the paper submission system to be eligible for the Best Student Paper Award. Non-student papers will be eligible for the Best Paper Award.

IMPORTANT DEADLINES FOR AUTHORS

Friday, May 5, 2017:	Deadline for receipt of abstract and four page manuscript (no extension is planned).
Friday, June 16, 2017:	Notification of acceptance to be sent by email.
Tuesday, September 5, 2017:	Final proceedings manuscript due.

SUBMISSION AND CONTACT INFORMATION

Visit the conference website: http://www.ieee-bctm.org, or contact: Catherine Shaw, Conference Manager, Phone: 1-732-501-3334, e-mail: cshaw.cmpevents@gmail.com; Fa Foster Dai, General Chair, daifa01@auburn.edu; Technical Program Chair, Peter Magnee, e-mail: peter.magnee@nxp.com.