First Call for Papers

IEEE 68th Electronic Components and Technology Conference
www.ectc.net
To be held May 29 - June 1, 2018
at the Sheraton San Diego Hotel & Marina, San Diego, California, USA

The Electronic Components and Technology Conference (ECTC) is the premier international electronics symposium that brings together the best in packaging, components and microelectronic systems science, technology and education in an environment of cooperation and technical exchange. ECTC is sponsored by the Components, Packaging and Manufacturing Technology (CPMT) Society of the IEEE. You are invited to submit abstracts that provide non commercial information on new developments, technology and knowledge in the areas including, but not limited to as given below under each technical program subcommittee name. Authors are encouraged to review the sessions of the previous ECTC programs to determine the committee selection for their abstracts.

Advanced Packaging:
Fan-Out, 2.5 & 3D, TSV and Interposer, Heterogeneous Integration and SiP, Embedded and Advanced Substrates, MEMS & Sensors, Automotive, Power Module, Wearable & IoT, Bio and Medical, RF, Microwave, Millimeter-Wave & EMI, High Performance Computing and Data Center, Wafer Level & Panel Level Process, Advanced Flip-Chip, Advanced CSP and POP.

Applied Reliability:
Advanced Package Reliability (Including TSV/2.5D/3D Packaging, WCSP, Fan-Out, Embedded Technologies), Challenges in SiP Reliability, Interconnect Reliability (Including Flip-Chip, Wire-Bond), LED, RFID, High Voltage Packaging and IoT Reliability, System Level Reliability Testing/Modeling, Reliability Test Methods and Life Models, Physics of Failure, Failure Analysis Techniques and Materials Characterization, Drop and Dynamic Mechanical Reliability, Probabilistic Design for Reliability (PDfR), Automotive Reliability Requirements.

Assembly and Manufacturing Technology:
Embedded/Hybrid Package Manufacturing Process, Wearable/IoT Package Assembly, Healthcare/Fitness Component Assembly, Warpage Control/ Management in Board Level Assembly, Thin Die/Thin Mold/Thin Package Handling and Assembly, Large/Ultra Large Package (SiP, SIM, MCP) Integration and Processing, Panel Level Manufacturing for WLP, Dicing and Singulation.

Emerging Technologies:
Wearable and Medical Electronics, Flexible, Bendable, Stretchable, Disposable, or Dissolvable Packaging, Bio-Sensor Packaging, Implantable Device Packaging, New Materials and Methods for Packaging Microfluidics, MEMS and NEMS, Nano-Battery. 3D Printing, Self-Alignment and Assembly, New Additive Packaging Process Technologies and Materials. Novel Substrates, Materials and Approaches to Interconnects and Packaging, Packaging for Wireless, Photovoltaic, Redundancy, Repair, Security, Anti-Counterfeiting, Components for Internet of Things (IoT) and Smart Electronics, Heterogeneous Integration. Compact & Autonomous Sensor Packaging, Wafer Level Integrated Silicon Photonics.

High-Speed, Wireless & Components:
Modules & Sub-Systems; High-Speed, RF to THz Devices & Passive Components, Mixed-Signal; Electrical Modeling and Design; Advanced Components: Materials, Structures, Fabrication and Characterization; Power and Signal Integrity; High-Speed Data Transfer/Communications; Power Modules, Power Management; Integrated Voltage Regulators (IVR); LTE, WLAN, 5G, mm Wave and THz T/R Modules; Radars; Imagers; Wearable and Sensor Technologies for Internet of Things (IoT); Flexible Electronics; 3D Printed RF Components and Modules; Automotive Sensors; RF-MEMS, RF-Opto, RFID and Tagging; M2M Platforms; Proximity Sensors; Ambient Intelligence; Wireless Power; Wireless Sensor and Computing Nodes; Wearable and Biomedical Electronics.

Interconnections:
Interconnections: Fan-Out and Fan-In, Wafer- and Panel-Level Interconnects, 2.5D/3D, TSV Interconnect Structures for Heterogeneous Integration and SiP, Co-Designs and Process/Performance Trade-Off, Thermal/Mechanical/Electrical Tests & Reliability, Embedded Systems; Si/Glass/Organic Interposers, PoP, WLCSP, Flip-Chip, Solder Bumping and Cu Pillar, TC Bonding, IMC Interconnect, Wirebonds, RDL, Conductive Adhesives, Flexible Substrates, Power Modules, Wearables, Interconnects for Bio-Medical, Automotive, Bio-Sensor, Energy Harvesting, and Harsh Environments.

Materials & Processing:
Wafer Level Packaging, Panel Processing & Materials, Next Generation Packaging Substrates, Flexible and Wearable Electronics, Carbon Electronics, Battery Materials, 3D Materials and Processing, Emerging Electronic Materials, Novel Conductive and Non-Conductive Adhesives, Solder Alloys, Photoresist, Dielectrics and Under-Fill, Molding Compounds, Thermal Interface Materials, Optoelectronic Materials.

Thermal/Mechanical Simulation & Characterization:
Thermal, Mechanical Simulation and Characterization Including: Component, Board and System Level Modeling for Microelectronics, e.g., 3D Interconnects (TSV, Stacked Die, etc.), 2.5D Packaging (Si, Glass, Flexible Interposer, etc.), Wafer-Level-Package (WLP), Ball-Grid-Array (BGA), Embedded Packages with Active and Passive Components, System-in-Package (SiP), Power Electronic Modules, LED Packaging, and MEMS; Fab/Thin Wafer Handling, Wire Bonding and Assembly Manufacture Process; Reliability Modeling Related Fracture Mechanics, Fatigue, Electromigration, Warpage, Delamination/ Moisture, Drop Test, Material Constitutive Relations and Characterization; Novel Modeling Including Multi-Scale and Multi-Physics Techniques and Solutions; Measurement Methodologies, Characterization and Correlations.

Optoelectronics:
Integrated Photonics Modules, Fiber Optical Interconnects, Advanced Optical Connectors, Optical Waveguide Circuits, Optical Printed Circuit Board, Mid-Board/ On-Board Optical Modules, Silicon and III-V Photonics Packaging, Optical Chip-Scale and Heterogeneous Integration, Micro-Optical System Integration and Photonic System-in-Package, 3D Photonics Integration, Optoelectronic Assembly and Reliability, Materials and Manufacturing Technology, High-Efficiency LEDs and High Power Lasers, Integrated Optical Sensors.

Interactive Presentations:
Abstracts may be submitted related to any of the nine major program committee topics listed above. Interactive presentations of technical papers are highly encouraged at ECTC. They allow for significant interaction between the presenter and attendees, which is especially suited for material that benefits from more explanation than is practical in oral presentations. Interactive presentation session papers are published and archived in equal merit with the other ECTC conference papers.

You are invited to submit an abstract of no more than 750 words that describes the scope, content, and key points of your proposed paper via the website at www.ectc.net.

If you have any questions, contact:
Dr. Christopher Bower, 68th ECTC Program Chair
X-Celeprint Inc.
3021 Cornwallis Road, Research Triangle Park, NC 27709, USA
Phone: +1-919-522-3230
E-mail: cbower@x-celeprint.com

Abstracts must be received by October 9, 2017. All abstracts must be submitted electronically at www.ectc.net. You must include the mailing address, business telephone number, and email address of presenting author(s) and affiliations of all authors with your submission.

Professional Development Courses

In addition to abstracts for papers, proposals are solicited from individuals interested in teaching educational professional development courses (4 hours) on topics described in the Call for Papers. Using the format "Course Objectives/Course Outline/Who Should Attend," 200-word proposals must be submitted via the website at www.ectc.net by October 9, 2017.

If you have any questions, contact:
Kitty Pearsall
68th ECTC Professional Development Courses Chair
Boss Precision, Inc.
1806 W. Howard Lane, Austin, TX 78728, USA
Phone: +1-512-845-3287
E-mail: kitty.pearsall@gmail.com