

# ECTC 2008

May 27 - May 30, 2008  
Disney's Contemporary Resort  
Lake Buena Vista, Florida USA

## The 58th Electronic Components and Technology Conference

### Introduction

On behalf of the ECTC Program Committee, it is my pleasure to invite you to submit an abstract for the 58th Electronic Components and Technology Conference (ECTC), to be held May 27 – May 30, 2008, in Lake Buena Vista, Florida. This premier international conference is sponsored jointly by the IEEE Components, Packaging and Manufacturing Technology Society (CPMT) and the Electronic Components, Assemblies, and Materials Association (ECA), the electronic components sector of the Electronic Industries Alliance (EIA). You are not required to be a member of either organization to present a paper or attend the conference.

The ECTC comprises papers covering a wide spectrum of topics, including electronic components, materials, assembly, interconnections, packaging, system packaging, optoelectronics, reliability, and simulation. We have also included a topic on emerging technologies in the program to address exciting new developments and applications in the area of biomedical, nano-scale, organic device packaging and portable power supply. A plenary session and a panel discussion address selected topics each year, in addition to a seminar organized by the IEEE CPMT Society. Authors from companies, research institutes, and universities located around the world presented more than 300 papers and posters at the 2007 ECTC to more than 1,000 conference participants.

Professional Development Courses covering 16 different topics are offered by world-class experts in their fields. Participants can catch up with new technology developments and broaden their technical knowledge base. The technical program and professional development courses are supplemented by the technical exhibition corner. Leading companies primarily in the electronics components, materials, and packaging fields exhibit their latest technologies and products.

The ECTC Program Committee represents a wide range of disciplines and expertise from the electronics industry and is committed to put together an excellent technical program at the ECTC. Please submit an abstract on your recent, previously unpublished work to the 58th ECTC at [www.ectc.net](http://www.ectc.net). In addition to abstracts for papers, I also invite you to submit proposals for Professional Development Courses. The deadline for abstract submission is October 15, 2007. I look forward to seeing you in beautiful Lake Buena Vista, Florida in May 2008.

Jean Trehwella  
IBM Corporation  
2455 South Road  
Mail Drop: P371  
Poughkeepsie, NY, 12601 USA  
Phone: +1-845-435-1901  
Fax: +1-845-435-5902  
Email: [jeanh@us.ibm.com](mailto:jeanh@us.ibm.com)



Visit the ECTC website ([www.ectc.net](http://www.ectc.net))  
for additional conference information.

### Major Topics

Papers presenting new developments and knowledge in the following areas are invited. Please select two subcommittees that should consider your paper: **The work submitted should be original, not previously published, and avoid the inclusion of commercial content.**

- **Advanced Packaging:** New packaging technologies, systems packaging, first level thermal solutions for high power applications, designs, materials, and configurations addressing performance, density and cooling for single chip, multichip, 3D, SIP, wafer-level, MEMS and power packages. Special emphasis on flip-chip, fine pitch and high lead count packaging in CSP, BGA, CGA, LGA and SMT packages for both Pb-based and Pb-free bumps and package assembly.
- **Electronic Components & RF:** Discrete/integrated/embedded passives and passive networks - design, technology and characterization, embedded active components, integrated antennas, RFID/sensors, RF MEMS design & technologies, RF/microwave/millimeter wave components and modules integration in semiconductor, ceramic, organic, glass type substrates, EMI & innovative shielding and isolation techniques for passive components and mixed signal modules, new high frequency characterization methodologies.
- **Emerging Technologies – Biomedical, Nano-Scale, Organic Device Packaging and Portable Power Supply:** Packaging of digital health technologies, including biomedical, bioelectronics, bio-sensing devices, micro-fluidic devices, and bio-compatible materials. Nano packaging and electronics, micro-to-nano transition, nano-electro-mechanical systems (NEMS), flexible electronics, nano fluidics, organic electronic devices (active and passive), and systems. Novel emerging technologies for embedded, portable power supplies and RFID. Materials, fabrication, characterization, mechanics, optical properties, packaging, reliability, and applications.
- **Interconnections:** Interconnect innovation/design/process on all packaging levels including wire bonding, flip chip, 3D and through Si via connections, first-level package, printed circuit board, and connectors/sockets. Topics may range from bump and under bump metallurgy, electromigration, conductive polymers and nano material based interconnects, novel enabling techniques, electrical performance, to environmental concerns.
- **Manufacturing Technology:** Advanced fabrication and assembly process and equipment capability enablement for emerging technologies including: system in package, package on package, wafer thinning, bumping, stacking, low-k chip, Pb-free and MEMS packaging. Product-level integration and system-level optimization of emerging technologies focusing on manufacturability, yield improvement, quality and reliability improvement, electrical/mechanical/environmental performance, supply chain development, and new product introduction.
- **Materials & Processing:** Materials and processes for IC and microsystems packaging that enhance mechanical, thermal and electrical performance and cost effectiveness. This includes advances in materials and processing of adhesives, encapsulants, nano-materials, chip underfills, solders and alloys, magnetic and optical materials, thermal interface materials, polymers, ceramics, composites, flexible dielectrics and substrates, thin films, coating, bonding, plating and assembly processes.
- **Modeling & Simulation:** Electrical, thermal, optical, and mechanical modeling, simulation, and characterization of packaging solutions including system-level applications. Example topics include - assembly manufacture modeling, Cu low-K interconnects, drop impact models, embedded passives, equivalent circuit models, full-wave modeling, lead-free solders, macromodeling, measurements, and thermo-mechanical reliability.
- **Optoelectronics:** Packaging and technology for optoelectronic modules, components and devices including: amplifiers, transmitters, receivers, integrated photonics, passive components, plastics packaging, chip to chip, backplanes and storage. Special interest topics include high power devices, thermal management and reliability, micro-optic packaging & manufacturing technology, silicon photonics devices and packaging, and advanced materials for optoelectronics.
- **Posters:** Papers may be submitted on any of the major topics listed by the subcommittees. Presentation of papers in a poster format is highly encouraged at ECTC.
- **Quality & Reliability:** Reliability assessment and prediction at the system, PWB or package level; reliability testing and data analysis; failure analysis of field and test failures; reliability modeling of accelerated testing; reliability issues in emerging technologies; testing and predictive simulation; advances in reliability test methods and failure analysis.

Submit your Abstract today, at  
[www.ectc.net](http://www.ectc.net)