

ECTC 2013

The 63rd Electronic Components and Technology Conference



Introduction

On behalf of the Electronic Components and Technology Conference (ECTC) Program Committee, it is my pleasure to invite you to submit an abstract for the 63rd ECTC, to be held May 28-31, 2013, at the Cosmopolitan of Las Vegas, Nevada, USA. This premier international conference is sponsored by the IEEE Components, Packaging and Manufacturing Technology (CPMT) Society. ECTC papers comprise a wide spectrum of topics, including 3D packaging, electronic components, materials,

assembly, interconnections, device and system packaging, optoelectronics, reliability, and simulation.

ECTC is truly an international conference attracting more than 1,200 attendees representing approximately 25 countries. At the 62nd ECTC in 2012, authors from companies, research institutes, and universities located around the world presented more than 350 papers and posters in 41 sessions. The ECTC Program Committee strives to make the scope of the annual conference address exciting new developments and application areas. Also at the 2012 conference, 10 sessions were held on 3D/TSV/interposer topics covering 140 papers. These topics have seen significant technological growth in our industry. In 2013, ECTC will continue to be the venue for showcasing the latest developments in 3D/TSV/interposer technology, as well as other trends and developments in the electronic components industry where assembly and packaging provides a competitive advantage.

As in past years, the 63rd ECTC program will include technical sessions in the mornings and afternoons, along with special topic panel discussions in the

CALL FOR PAPERS

May 28-31, 2012

The Cosmopolitan Hotel of Las Vegas

Las Vegas, NV, USA

evenings, which provide high-level perspectives of trends and best practices in the industry. Professional Development Courses covering 16 different topics will be offered by world-class experts in their fields, where participants can catch up with new technology developments and broaden their technical knowledge base. The technical program and Professional Development Courses will be supplemented by Technology Corner Exhibits that provide opportunities for leading companies in the electronics components, materials, and packaging fields to exhibit their latest technologies and products. Further contributions are welcome through visible sponsorship opportunities.

The ECTC Program Committee represents a wide range of disciplines and expertise from the electronics industry and stays committed to putting together an excellent technical program. Please submit an abstract containing 250 to 750 words that describes the scope, content, and key points of your proposed paper to the 63rd ECTC at 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 8, 2012. Manuscripts conforming to the ECTC format are due in final form for publication in the Conference Proceedings by February 25, 2013. All abstracts and manuscripts must be original, free of commercial content, and non-confidential. Please note that this year we are using software to identify and eliminate plagiarism (including self-duplication). I look forward to meeting you in sunny Las Vegas, Nevada on May 28, 2013.

Beth Keser
63rd ECTC Program Chair
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Major Topics

Abstracts are rated by technical subcommittee members. Highly rated abstracts are selected by session chairs from the subcommittees. It is therefore important that authors identify the right technical subcommittee while submitting their abstracts. You are invited to submit abstracts that provide original previously unpublished, non-confidential and non-commercial information on new developments, technology and knowledge in the areas, including but not limited to, those given below each technical subcommittee name.

Advanced Packaging: 3D integration, embedded, and wafer level packaging, flip chip, advanced substrates, novel assembly technologies, interposers, TSVs, MEMS & sensors, electronic (digital, analog, & RF), and optoelectronic & photovoltaic device packaging.

Applied Reliability: Package reliability, characterization and test methods, interconnection reliability; solder and material characterization, and next generation/novel packaging reliability.

Assembly and Manufacturing Technology: Assembly challenges and solutions, manufacturing aspects of 3D/TSV, manufacturing challenges of wafer thinning and flip chip processing.

Electronic Components & RF: Components (including embedded components) and modules for RF/THz systems and bio applications, metamaterials, wireless sensors, RFID, RF MEMS, flexible & printed electronics, "green" RF electronics, wireless power transmission, power scavenging components, nano-based RF structures, and low-power RF designs.

Emerging Technologies: Emerging packaging concepts and technologies, novel approaches to packaging, organic IC & TFT, microfluidics and MEMS, anti-counterfeiting packaging, and packaging for biosensing.

Interconnections: First- and second-level interconnections: designs, structures, processes, performance, reliability, test including TSV, Si interposer, and interconnections for 3D integration, flip chip, solder bumping and Cu-pillar, wafer-level packaging, advanced wirebonds, non-traditional interconnections (e.g. ECA, CNT, graphene, optical, etc), substrates and PCB solutions for the next generation systems, system packaging and heterogeneous integration.

Materials & Processing: Adhesives and adhesion, lead-free solder, novel materials and processing; underfills, mold compounds, and dielectrics, emerging materials and processing for 2D and 3D.

Modeling & Simulation: Thermal, mechanical, electrical modeling and related measurements, signal and power integrity, fracture and warpage in packages, material and fabrication modeling, first-level and second-level interconnects, high-speed interconnects.

Optoelectronics: Fiber optical interconnects, active optical cables, parallel optical transceivers, silicon and III-V photonics devices, optical chip-scale and heterogeneous integration, micro-optical system integration and photonic system-in-package, optoelectronic assembly and reliability, materials and manufacturing technology, high-efficiency LEDs and high power lasers, and integrated optical sensors.

Interactive Presentations (formerly Posters): Papers may be submitted on any of the listed major topics; presentation of papers in an interactive format is highly encouraged at ECTC. Interactive presentations allow significant interaction between the presenter and attendees, and are especially suited for material that benefits from more explanation than is practical for oral presentations. Highly rated abstracts not fitting the theme of an oral session or submitted specifically for interactive presentation, and abstracts that are selected at the discretion of the Program Chair are included in the Interactive Presentation sessions.

Visit the ECTC website (www.ectc.net)
for additional conference information.

Call for Professional Development Courses
See page two.

Abstract and Paper Submission

You are invited to submit an abstract of 250 to 750 words that describes the scope, content, and key points of your proposed paper via the website at **www.ectc.net**. Additional details on how to submit abstracts electronically can be found on the web site. An example of a well-written abstract can be found on the ECTC website in the author section. Submitted abstracts become the property of ECTC, and ECTC reserves the right to publish the abstracts accepted for the conference. ECTC also reserves the right to prohibit, limit, or reject any editing of submitted abstracts. Abstracts accepted for the conference may not be edited until manuscript submission.

Abstracts must be received by **October 8, 2012**. Your submission must include the mailing address, business telephone number, and email address of the presenting author and affiliations of all authors. Please indicate two program subcommittees in order of preference that should evaluate your paper for acceptance. Authors will be notified of paper acceptance with instructions for publication by December 15, 2012. At the discretion of the program committee, abstracts submitted may be considered for interactive presentation sessions.

Manuscripts conforming to the ECTC format are due in final form for publication in the Conference Proceedings by February 25, 2013.

The submitted content must be original, previously unpublished, non-confidential, and without commercial content. For additional information regarding abstract and paper submission, please contact

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Special Paper Recognition

Best Paper Award: Each year the ECTC selects the best paper whose author(s) receive an ECTC personalized wall plaque and share a check for \$2500.

Best Poster Award: Each year the ECTC selects the best poster paper whose author(s) receive an ECTC personalized wall plaque and share a check for \$1500.

Outstanding Paper Award: An outstanding conference paper is also selected for special recognition by the ECTC. The author(s) receive a personalized wall plaque and share a check for \$1000.

Outstanding Poster Award: An outstanding poster paper is also selected for special recognition by the ECTC. The author(s) receive a personalized wall plaque and share a check for \$1000.

Intel Best Student Paper Award: Intel Corporation is sponsoring an award for the best paper submitted and presented by a student at the ECTC. The winning student will be presented with a wall plaque and a check for \$2500. See next column for details.

Technology Corner Exhibits

Reserve Your Space Early!

Exhibit your products or services to more than 1,000 engineers and managers from all areas of the high density microelectronics packaging industry. These include Materials for High Density Packaging & Assembly; Materials & Processes for High Density Interconnect Technologies; Assembly, Test & Other Equipment; Connectors & Other Interconnect Solutions; Advanced Semiconductor Assembly & Test Solutions; Simulation & Other Software Tools; Wafer Bumping Services & Equipment; Market Research; Consulting; and Research Centers.

Two days: May 29 – 30, 2013
All of the 2012 exhibitors plan to exhibit in 2013.

For information and an application contact Bill Moody at b.o.moody@ieee.org. Additional information is available at **www.ectc.net** under Technology Corner Exhibits.

Contribution and Visibility Opportunities through Sponsorship

ECTC also offers excellent opportunities for contributions and visibility through gala, badge lanyard, USB drive proceedings, media, internet kiosk, refreshment break, program, and student reception sponsorships.

David McCann

63rd ECTC Jr. Past General Chair and Sponsorship Chair

Call for Professional Development Courses

Proposals are solicited from individuals interested in teaching educational professional development courses (4 hours) on topics described on the previous page. From the proposals received, 16 Professional Development Courses will be selected for offering at the 63rd ECTC. Each selected course will be given a minimum honorarium of \$1000. In addition, instructors of the selected courses will be offered the speaker discount rate for the conference.

Attendees of the professional development courses will be offered Continuing Education Units (CEUs). These CEUs are recognized by employers as a formal measure of participation and attendance in "noncredit" self-study courses, tutorials, symposia and workshops. Using the format "Course Objectives/Course Outline/Who Should Attend," 200-word proposals must be submitted via the ECTC website at **www.ectc.net** by **October 8, 2012**. Authors will be notified of course acceptance with instructions by December 15, 2012. If you have any questions, contact:

Kitty J. Pearsall, ECTC Professional Development Courses Chair
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IEEE CPMT Society Travel Award

IEEE CPMT is pleased to continue the CPMT Travel Grant Program for the 63rd ECTC. The goals of this award are to foster maximum student participation in the ECTC and to recognize students with superior ECTC papers.

Description: Grants are available to apply towards actual travel expenses, including airfare, hotel, and meals. Grants will be awarded competitively, based on abstracts submitted by student authors. One student from each winning abstract will be provided a travel grant. The student who is named as the primary author will receive the grant.

Eligibility: The competition is open to all full-time graduate students enrolled at an accredited institution in a program of study within the scope of ECTC. The student must be listed as the primary author on the abstract. A maximum of two authors (one per paper) from any one institution will receive a travel grant.

Application Process: To apply, check the "IEEE CPMT Society Travel Grant" box in the "Awards" section of the on-line abstract submission form.

Intel Best Student Paper Award

Intel Corporation is sponsoring an award for the best paper submitted and presented by a student at the ECTC. The winning student will be presented with a wall plaque and a check for \$2500.

Eligibility: To be considered for the award, the student must be a full-time student for at least one semester after the conference conclusion. The student must be the lead author and present the paper at the 63rd ECTC conference. It is the convention at ECTC for the presenter to be listed as the first author. Finalists will be determined by review of the completed manuscripts by the judging committee. Manuscripts will be reviewed for relevance to the competition topics, technical content, and originality. The author of the best student paper will be notified after the conference and must submit an affidavit from the student's faculty advisor certifying that the student meets the eligibility requirements.

Application Process: To enter the Intel Best Student Paper Award competition, please check the "Intel Best Student Paper Award" box in the "Awards" section of the online abstract submission form.

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