Conference News....

63rd Electronic Components and Technology Conference (ECTC): A True Banner Year

Submitted by Henning BraunischAssistant Program Chair, IEEE ECTC 2014

The 63rd Electronic Components and Technology Conference held May 28–31, 2013 for the first time at The Cosmopolitan of Las Vegas, Nevada, USA, set new records for this annual event in terms of number of attendees, abstracts received, presentations, exhibitors, and sponsorship. Widely considered to be the premier global conference for electronic packaging and interconnect technologies, this year's technical program featured 36 oral presentation sessions, four interactive presentation sessions, one student poster session, 16 professional development courses (PDCs), two special Tuesday sessions, and three evening panel and plenary sessions. In addition to daily luncheons, nightly receptions, a raffle drawing, and 95 exhibitors, the 63rd ECTC provided a multitude of options for technical engagement, networking, and business development.

Based on the increased number of attendees this year, the microelectronic packaging industry continued to show it is in a growth mode. Over 1300 attendees participated in ECTC this year, an increase of about 100 over last year's attendance. 646 abstracts were submitted for this year's conference from authors in 31 U.S. states and 26 countries, reflecting ECTC's global reach. 43% of the submitted abstracts were from universities and educational institutions, 43% were from corporations, and 14% from research institutes. 377 of these abstracts were accepted for presentation in oral, interactive presentation, and student poster sessions, reflecting a total acceptance rate of 58%. Once again this year, the Executive Committee formed a 3D/TSV workgroup to coordinate the 12 sessions dedicated to this important technology area. Chris Bower of Semprius led the workgroup comprised of members from all of the technical subcommittees to create topically-focused sessions on interposers, TSV fabrication, and design, modeling, and characterization of 3D systems. After successful introduction last year as a replacement of traditional poster sessions, Interactive Presentations continued to reflect the importance of the one-on-one interaction with authors that these presentations can provide. The four Interactive Presentation sessions also featured large video screens displaying quad chart summaries that provided at-a-glance information about the author's works. Once again, the technical subcommittees did an outstanding job in creating the technical program for ECTC, and their tireless efforts are very much appreciated!

On Tuesday, ECTC's PDCs were held, with 333 attendees participating in the 16 courses with topics ranging from 3D integration to multi-physics modeling. Participants in PDCs were eligible for Continuing Education Units at no additional cost. The courses were organized by the PDC Committee chaired by Kitty Pearsall of IBM.

The International Electronics Manufacturing Initiative (iNEMI) held their North American Workshop at ECTC again this year. This meeting, intended to solicit input for the 2013 iNEMI Research Priorities, was open to all conference attendees.

The special technical session chaired by Sam Karikalan of Broadcom on "The Role of Wafer Foundries in Next Generation Packaging" drew a large audience to hear representatives from several major wafer foundries to discuss the changes and challenges for their entry into the packaging world. Jerry Tzou (TSMC), David McCann (GLOBALFOUNDRIES), Kurt Huang (UMC), Jon Casey (IBM), and Herb Huang (SMIC) were the invited speakers.

A special modeling session held Tuesday afternoon and co-chaired by Yong Liu of Fairchild Semiconductor and Dan Oh of Altera on "Modeling and Simulation Challenges in 3D Systems" was also well attended. It included interesting technical paper

The 63rd ECTC Executive Committee


General Chair Wolfgang Sauter congratulates Maciej Wojnowski of Infineon, winner of the 62nd ECTC Outstanding Session Paper award


The 2013 Technology Corner was the largest in ECTC history in terms of number of exhibitors

presentations by Cielution, IMEC, Rambus, and Georgia Tech, as well as top notch keynotes by Eric Beyne (IMEC) and Vikram Jandhyala (University of Washington & Nimbic).

Tuesday evening, students were invited to participate in the annual ECTC Student Reception, hosted by Eric Perfecto of IBM. Students had the opportunity to interact with technical subcommittee chairs to learn about the abstract selection process and network with industry professionals. Session chairs and speakers attended the General Chair's Reception to welcome them to ECTC.

Rounding out the opening day, Ricky Lee of the Hong Kong University of Science and Technology and Kouchi Zhang of TU Delft & Philips Lighting co-chaired the ECTC Panel Session on "LED for Solid-State Lighting—For a Brighter Future". Ling Wu (China Solid-State Lighting Alliance), Mark McClear (Cree Components), Ron Bonne (Philips Lumileds), Nils Erkamp (TNO), and Michael McLaughlin (Yole Development) were the invited speakers.

Regular technical sessions began on Wednesday, starting at 8 AM each day with six parallel sessions running each morning and afternoon, for a total of 36. Each day started with a Speaker's Breakfast where session chairs and speakers gathered for a welcome message from ECTC Program Chair Beth Keser of Qualcomm.


The ECTC Plenary Session chaired by Lou Nicholls of Amkor

3D technologies proved to be the hot topic again this year. Up to 200 attendees packed the conference halls to hear about the latest developments in 3D bonding and assembly, interposer technology, and TSV manufacturing. Flip chip and wafer level packaging sessions also continued to draw a significant number of attendees. Sessions on package reliability, solder and material characterization, innovative testing, and optoelectronics were also popular and illustrate the breadth of technologies that were presented this year.

Chris Welty of IBM was Wednesday's ECTC Luncheon keynote speaker, where he spoke about engineering challenges in building Watson, a question answering computer system designed to compete against humans on the American TV show "Jeopardy!" As demonstrated in the presentation, ultimately the system was able to defeat the best players of the game's history, inspiring the audience in attendance to take on today's diverse challenges in microelectronic packaging. The 2012 ECTC best paper awards were also presented.

Wednesday evening's events began with the Exhibitor Reception held in the Technology Corner exhibit. This year's Technology Corner consisted of 95 exhibitors, by far the most ever at ECTC, and the exhibition hall was a great setting for networking and for exhibitors to present the most recent advances in services, equipment, and materials.

That night's ECTC Plenary Session, "Packaging Challenges Across the Wireless Market Supply Chain", was chaired by Lou Nicholls of Amkor. Speakers Timo Henttonen (Nokia), Steve Bezuk (Qualcomm), Waite Warren (RFMD), Roger St. Amand (Amkor), and Soonjin Cho (SEMCO) discussed wireless markets, applications, and technologies and the challenges posed by the advanced design of handheld devices such as smartphones.

CPMT sponsored the Thursday luncheon where the Society presented its 2013 awards. Among others, John Lau of ITRI was honored with the 2013 CPMT Award for his contributions to the literature in advanced solder materials, manufacturing for highly reliable electronic products, and education

Plenty of networking during the Gala Reception

in advanced packaging. Rolf Aschenbrenner of Fraunhofer IZM received the 2013 CPMT David Feldman Outstanding Contribution Award.

The 64th ECTC planning meeting was held Thursday afternoon, chaired by Alan Huffman of RTI International who will serve as the Program Chair for next year's ECTC. Alan detailed the 63rd ECTC statistics and presented the timeline for the 64th ECTC which will be held May 27–30, 2014 at the Walt Disney World Swan & Dolphin resort in Lake Buena Vista, Florida, USA. CPMT Representative C. P. Wong introduced Henning Braunisch of Intel as the Assistant Program Chair for the 64th ECTC.

The traditional Gala Reception was held Thursday evening. Attendees and volunteers enjoyed great food and great conversation with friends and colleagues. General Chair Wolfgang Sauter thanked attendees, exhibitors, sponsors, and volunteers for helping to make the 63rd ECTC one of the most successful conferences to date.

Thursday night was the CPMT Seminar, "Advanced Low Loss Dielectric Materials for High Frequency and High Bandwidth Applications", co-chaired by Kishio Yokouchi of Fujitsu Interconnect Technologies and Venky Sundaram of Georgia Tech and with invited speakers Yuya Suzuki (Zeon), Yasuyuki Mizuno (Hitachi Chemical), Shin Teraki (NAMICS), and Hirohisa Narahashi (Ajinomoto).

Although Friday was the last day of the conference, both morning and afternoon sessions were very well attended, a testament to the strength of the technical program from beginning to end. The Friday ECTC Program Chair's luncheon was a fun-filled event, as always, with ECTC Treasurer Tom Reynolds overseeing the annual raffle drawing where many prizes were given out including an Xbox with Kinect and a Surface tablet computer. C. P. Wong awarded Wolfgang Sauter the General Chair award in recognition of his leadership of the 63rd ECTC.

The first Call for Papers for the 64th ECTC and a link to ECTC's LinkedIn site are available at www.ectc.net. There you can also find a link to a Flickr site with pictures from ECTC. This year's abstract deadline is October 14, 2013. In addition to abstracts for papers, proposals are also welcomed from those interested in teaching PDCs. We look forward to seeing you next year in Lake Buena Vista, Florida, USA (Disney World) for the 64th ECTC!

IEEE Xplore® Table of Contents Alert

Any technologist – **member or non-member** – is welcome to receive alerts when upcoming issues of our CPMT *Transactions* are posted to the IEEE's Xplore database and all the papers are available for downloading. This is a handy way to scan the issue's Table of Contents and quickly learn about novel approaches to packaging, modeling, reliability, materials, assembly and other topics.

The website link is:ieeexplore.ieee.org/xpl/tocalerts_signup.jsp

If you already have an IEEE web account, you may sign in and select those journals you wish to track. If you don't have an account, all it takes is your name and email address! Then simply click the Alert Status box next to the journals you wish to monitor. You will receive an email each quarter when that journal is posted to Xplore.

Similarly, if you prefer to receive information by RSS feed, you may add our journals' feeds to your Reader. You'll get a listing of the papers in that issue, along with full abstracts and a link for downloading the paper. The RSS links are shown on this same web page.

Here are the journals we suggest you select for monitoring:

Transactions on Components, Packaging and Manufacturing Technology
Transactions on Semiconductor Manufacturing