



Components, Packaging, and Manufacturing Technology Society Newsletter



THE GLOBAL SOCIETY FOR MICROELECTRONICS SYSTEMS PACKAGING

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President's Column....



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The past year, 2009, was undoubtedly a tough year. However, economic news covering the first weeks of 2010 has reported that the great 2008 – 2009 economic depression has hit the bottom, and recovery is now in full mode. Despite this brighter news, the job situation continues to be dismal for many people, including some in our sector of the industry. We are extremely hopeful that the electronics industry will rebound vigorously throughout 2010, and that the job picture will improve too. One good sign is the excitement generated by a slew of new electronic products on the horizon. Many were unveiled at the Consumer Electronics Show (CES) in Las Vegas in early January, and included 3D TVs and Cell TV, tablets, e-book readers, as well as new generations of smart phones, ultrathin laptops, new generation netbooks, and pocket PCs.

Following CES was the International Auto Show held in Detroit. While I seldom pay much attention to new cars, it does seem that every car manufacturer is increasingly investing in sophisticated electronics in order to create hybrid, green, electric, and intelligent vehicles, which meet the expectations of today's environmentally conscious drivers. Beyond automotive, the role of electronics is also continuing to gain momentum, and strongly influence the rise of emerging technologies and applications, such as green electric power drive trains, internet-based electronic networks in the home, and much more. In fact, we are seeing strong indication of a pervasive electronics trend expanding from consumer to transportation and safety. What does this mean? In my mind, "mobility", in whatever form, will be the factor that drives the electronic industry. Fortunately for us, there has been a great surge of innovation and invention across the packaging technologies spectrum, from 3D



Perhaps Professor Brown is getting too intense with his IEEE Student Recruitment

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15 August 2010
15 November 2010
15 February 2011

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Chapters and Student Branches

Refer to www.cpmt.org for CPMT Society Chapters and Student Branches list

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President's Column.... (cont.)

packaging, including 3D-IC - TSV, wafer level packaging, new generations of wirebond and flip chip technologies, and many versions of SiP and PoP. Electronic packaging stands at the crucial stages of the electronic product supply chain in product design, development and manufacturing technology. As a true-blue packaging technologist at heart, I am optimistic that packaging is and will be the major and crucial enabler and competitive edge to the growing global "mobility" and "pervasive" electronic product market.

As we welcome the New Year, I would like to mention some important changes in the CPMT neighborhood. I have had the privilege of writing this column for four years as the President of the Society. This is my last President's message. In November 2009, the Board of Governors (BoG) elected a new slate of officers for the Society for 2010 - 2011. They are:

PRESIDENT -- Rolf Aschenbrenner

VICE PRESIDENT -- N. Rao Bonda (incumbent)

VICE PRESIDENT -- Jie Xue

VICE PRESIDENT, PUBLICATIONS -- R. Wayne Johnson (incumbent)

VICE PRESIDENT, EDUCATION -- Kitty Pearsall

VICE PRESIDENT, FINANCE -- Thomas G. Reynolds III (incumbent)

Together with the BoG, this talented, dedicated, and eclectic team will lead the CPMT Society into 2010, and beyond. In our profession, technological innovation is at the heart of progress. The CPMT Society value propositions are all about enabling our membership and stakeholders to cultivate the knowledge, tools and people network to succeed in this uncertain world. They will be steering the directions of the value propositions in your service. We wish them great success.

Lastly, I would like to extend my most sincere thanks to the CPMT Society, the BoG, and many friends for the great support received during my term as President over the past four years.

CPMT Society News....

INTRODUCING YOUR CPMT SOCIETY OFFICERS FOR 2010-2011

Every two years, the CPMT Society Board of Governors elects a President and five Vice Presidents to serve a two-year term of office. Following are photos and biographies of the Officers elected for 2010 through 2011.

President:

ROLF ASCHENBRENNER



Rolf Aschenbrenner (M'97, SM '04) was born in Buchen, Germany, in 1961. He received the B.S. degree in mechanical engineering from the University for Applied Science, Gießen, Germany, in 1986 and the M.S. degree in physics from the University of Gießen, Germany, in 1991.

From 1991 to 1992 he worked at the University of Gießen in the area of new materials and was engaged in a project for the German Space Lab Mission D2. In 1993 he joined the Research Center for Microperipheric Technologies at the Technical University of Berlin, working in the area of electroless metal deposition. Since March 1994 he has been employed at the Fraunhofer Institute for Reliability and Microintegration Berlin (IZM) and from 2000 until 2006 he was Deputy Director of the IZM. He is presently department head of the largest department of the Fraunhofer IZM "System Integration and Interconnections Technologies".

Rolf Aschenbrenner's research work has spanned from manufacturing process fundamentals in adhesive joining to applied manufacturing problems. Broadening his research contributions beyond those are made in thin and flexible electronic assemblies and development and analysis of innovative process technologies for all aspects of system level packaging.

He has authored and co-authored more than 100 articles in journals or proceedings in the area of electronic packaging and he holds more than 14 patents in the field of microelectronic packaging. In 1995 he obtained the Best Paper Award as the main author from the Surface Mount International Conference (SMI) in San Jose. He also co-authored a number of papers that received Best Paper Awards.

In January 2005 he received the "iNEMI International Recognition Award" which was presented during the Fraunhofer Packaging Day.

In terms of professional services, Rolf Aschenbrenner has taken roles as a member of the Board of Governors for the IEEE CPMT Society. Until spring 2009 he was also a member of the Board of IMAPS Germany.

He was General Chair of the first International IEEE Conference on Polymers and Adhesives in Microelectronics and Photonics (Polytronic) in 2001.

In 2000 he was the Program Chair of the European VLSI Packaging Workshop in 2001 and of the IEEE European System Packaging Workshop. He also served as a member on several technical committees including ISEPT, Materials Conference, Adhesives in Electronics, EMAP, EPTC, Interpack and Electronic Goes Green.

He has been member of the Conference Committees of the China SMT Forum since 2007 and of the Smart System Integration since 2006. He also forms member of the International Advisory Board of the IMPACT and of the ICEPT-HDP Advisory Committee.

As the General Chair of the ESTC 2010, which will take place in Berlin, Germany, he is now preparing the upcoming conference.

Apart from a number of invited talks at different conferences, he was keynote speaker at the ICEPT 2006 and 2008. In 2006 he was also keynote speaker at the EMAP in Hong Kong and in 2008 at the NSTI in Boston and the IEMT in Malaysia. In 2009 he was the keynote speaker of the IWLPC in Santa Clara.

As a member of the IEEE CPMT Society Board of Governors, Rolf has worked as a European representative on the Conference Advisory Committee, and has played an active role in the globalization of IEEE CPMT in terms of Membership and Chapter development. He previously served as Strategic Program Director, European Activities. From 2003 until 2005 he was Vice President, Technical and from 2005 until 2009 he was the Vice President, Conferences.

Vice President, Technical:

N. RAO BONDA



N. Rao Bonda (M'97, SM'02) was until recently a senior member of technical staff and program manager at Freescale Semiconductor, Inc. (formerly known as Motorola's Semiconductor Products Sector) in Tempe, AZ. He received a Ph.D. in Materials Science and Engineering from the University of Pennsylvania, Philadelphia, PA, in 1985. He has been a member of the IEEE CPMT Society Board of Governors since 1997. He is currently the Vice President-Technical for the Society.

After receiving Ph.D., Rao continued research in materials science at the Ohio State University, Columbus, OH and the University of Wisconsin, Madison, WI until 1989. From 1989 to 1994, he was a research member at IBM T.J. Watson Research Center, Yorktown Heights, NY, and IBM Microelectronics Division, Endicott, NY. In IBM, he developed electronic packages and processes involving C4 and wire bond chip joining methods, and worked on qualification of several ceramic and plastic packages. His other research work in IBM included failure mechanism studies of Pb/Sn solder alloys to improve the thermal fatigue and reliability of solder joints in electronic packages.

In 1994, Rao joined Motorola's Semiconductor Products Sector in Tempe, AZ, as a team leader for packaging of an optical display module. He developed a fine pitch flip chip bonding process for this display module and improved its yield and reliability through innovative designs. After completion of the display module project, he led new package introductions from design to manufacture implementation and qualified plastic packages for wireless communication and networking systems applications. He currently provides packaging development and technical support for a major wireless communications customer and works with package assembly subcontractors to fulfill the customer's product requirements and packaging roadmaps. He has over 20 technical publications and a US patent.

Rao has served as the Chair of the CPMT Awards Committee for nine years, and has coordinated the selection process for the awards. Working with the Awards Committee and the Board of Governors, he has facilitated several strategic decisions to align the awards process with the CPMT Society goals. He has also served on the selection committee for the CPMT Chapter of the Year award. He is very active in CPMT Phoenix Chapter and IEEE Phoenix Section. He has served as the Chair and Program Chair for the Chapter and as the Chair for the IEEE Phoenix Section.

Rao has been actively participating in the Electronic Components and Technology Conference (ECTC) for several years. He has served as the chairman of the Components and RF sub-committee and has chaired the sessions at the ECTC. He has chaired the ECTC's Professional Development Courses committee and served on the committee for three years. He was the Web Administrator for the 55ECTC, Assistant Program Chair for 56ECTC, Program Chair for 57ECTC, Vice General Chair for 58ECTC and General Chair for 59ECTC. He is currently the Junior Past General Chair for 60ECTC.

Rao is a senior member of the IEEE, CPMT Society and Electron Devices Society. In addition to a Ph.D., he holds an MS and a BS in Metallurgical Engineering from Indian Institute of Technology, Kanpur, and Regional Engineering College, Warangal (India), respectively. He also received an MBA from the Arizona State University, Tempe, AZ, in 1998.

Action plans as the Technical VP of CPMT Society: Promote the technical interests of our members through Technical Committees (TCs) and policy enhancements in the BoG. Increase the participation and collaboration of TCs in conferences, both in US and abroad. Look for new and emerging technologies and form TCs in those areas. Enhance communication among the TCs to share their activities and opportunities for growth.

Vice President, Conferences:

JIE XUE



Jie Xue (M'93, SM'09) is currently the director of Component Quality and Technology Group at Cisco Systems, Inc., San Jose, California. Her team is responsible for component technology development and qualification of ASIC, network processors and optical modules, as well as the development of advanced semiconductor and packaging technologies. Since joining Cisco in 2000, she has been working on developing high performance flip chip packaging, system-in-package, multi-chip modules, chip-scale-packaging for high reliability networking products. Prior to joining Cisco, Jie held several management and engineering positions in Motorola Inc., working on R&D and product development in the areas of high density interconnect for wireless applications, and packaging materials for MEMS sensors, automotive Engine Control Unit (ECU), displays, and optical interconnects.

Jie received a BS degree from Tsinghua University, a MS and Ph.D. from Cornell University. Her research has resulted in over 60 technical publications and conference presentations. She holds memberships in IEEE, IMAPS, SMTA, and EDFAS. She

was in the technical committee and session chair for the ICEPT 2007-2009. She chaired technical sessions for the IEEE CPMT HDP 2004 and 2005 in China, and the IEEE CPMT EMAP 2006 in Hong Kong. She is the member of the IEEE CPMT Technical Committee (TC) on IC and Package Assembly. She is the chair of the Technical Committee at iNEMI.

Vice President, Publications:

R. WAYNE JOHNSON



Wayne Johnson (S'77, M'79, S'80, M'82, S'85, M'87, SM'94, F'04) is a Professor of Electrical and Computer Engineering at Auburn University and Director of the Laboratory for Electronics Assembly & Packaging (LEAP). During his 22 years at Auburn, he has established teaching and research laboratories for advanced packaging and electronics assembly. Research efforts are focused on materials, processing, and reliability for electronics assembly and for extreme environment electronics. Current research projects span the temperature range for -180oC to +485oC. He is a CPMT Distinguished Lecturer on Extreme Environment Electronics. He has published and presented numerous papers at workshops and conferences and in technical journals. He has also co-edited one IEEE book on MCM technology and written book chapters in the areas of silicon MCM technology, MCM assembly, automotive MCMs (IEEE Press), flip chip assembly and high temperature packaging (IEEE Press). He is the Editor-in-Chief of the IEEE Transactions on Electronics Packaging Manufacturing and served as an Associate Editor prior to this appointment. Wayne was elected a Fellow of IEEE in 2004 for "his contributions to electronics that must operate in harsh environments."

Dr. Johnson received the B.E. and M.Sc. degrees in 1979 and 1982 from Vanderbilt University, Nashville, TN, and the Ph.D. degree in 1987 from Auburn University, Auburn, AL, all in electrical engineering.

Wayne is also a member of the International Microelectronics and Packaging Society (IMAPS), the Surface Mount Technology Association (SMTA) and IPC. He was the Technical Vice President of IMAPS from 2000-2004.

Vice President, Education:

KITTY PEARSALL



Kitty Pearsall (A'84, M'01, SM'02) Kitty Pearsall received the BS degree in Metallurgical Engineering in May 1971 from the University of Texas at El Paso. In 1972 she joined IBM as a Materials Engineer. In 1976 she left IBM on an educational leave of absence. During this absence, Kitty received the MS and PhD degree in Mechanical Engineering, Materials Option from the University of Texas at Austin in May 1979 and May 1983 respectively. From 1983 to present Kitty has served as an IBM technical resource in materials/package engineering in manufacturing, procurement and development environments.

Twelve of these years were spent in technical management focusing on the qualification of various commodities.

In 2005 Kitty was appointed an IBM Distinguished Engineer (DE) and was elected into the IBM Academy of Technology. As a DE in the Integrated Supply Chain Kitty serves as a process consultant and subject matter expert working on strategic initiatives impacting qualification and end quality of procured commodities. She is engaged with WW teams implementing these cross-brand, cross commodity processes/products. As a technical executive in IBM Kitty is passionate about the development of the ISC technical pipeline and was awarded the Women in Technology Fran E. Allan Mentoring Award (2006) in recognition of her people development both in and outside of IBM.

Kitty has been a licensed Professional Engineer in the State of Texas since 1993. She is the holder of 2 US patents, 7 patent pending and several disclosures that have contributed to the IBM patent portfolio. She has numerous internal publications as well as 18 external publications in IEEE conferences and journals. Kitty was recognized as a 2007 recipient of the Cockrell Engineering Distinguished Engineering Graduate by University of Texas Austin. In 2008 she was inducted into the University of Texas Mechanical Engineering Department Academy of Distinguished Alumni.

Kitty is an active member in IEEE and CPMT. She holds memberships in TMS, American Society of Metals and CPMT. Kitty has been a member of the ECTC Manufacturing Technology Committee since 1993 and has been on the Professional Development Course (PDC) Committee since 2006. Since 2008 Kitty assumed the Chair position of the PDC.

During Kitty's tenure on the CPMT Board of Governors she has served as the Strategic Awards Director as well as a Member at Large. As VP of Education for CPMT Kitty hopes to broaden the reach of the DL program by extending more into local and student chapters as well as maintain DL participation in conferences. Kitty will work aggressively to enhance CPMT mentoring of our junior members as well as new members to the Society. Nurturing the development and growth of our technical population is key to the health of any society.

Vice President, Finance:

THOMAS G. REYNOLDS, III



Thomas G. Reynolds III (M'92, SM '04) Dr. Reynolds received his PHD from Brown University in 1972 where he worked on synthetic inorganic chemistry of electronic materials. His MS (1966) and BS (1964) were from the University of Virginia in Materials Science and Mechanical Engineering respectively. Tom has worked in the field of electronic ceramic materials and other advanced technologies for more than 35 years.

Retiring in 2003, from 1992 Tom was the Director of Technology at Murata Electronics N.A., Inc. He has worked in the areas of leading edge designs in decoupling capacitors, hard disk drive activation, LTCC modules, and integrated passive components. He has acted as liaison between American designs and Asian development activities, as well as in merger and acquisition analysis. Prior to joining Murata, Dr. Reynolds

worked for Philips Electronics for 18 years in both the US and Europe, developing processes and methods for electronic (dielectric) ceramics, and from 1968 to 1973 he was staff scientist at Texas Instruments.

Tom has been involved with CPMT and ECTC (Electronic Components Technology Conference) for more than 15 years. He was General Chair for ECTC in 2000 and was active for several years following this as Finance Chairman. He is also a Senior Member of IEEE.

Additional activities and responsibilities include Treasurer of the Ft Walton Sail & Power Squadron of the United States Power Squadron and he was Commodore of the Ft Walton Yacht Club in

2006. Tom is also a member of the Institute for Senior Professionals, an association of business, professional, medical and military professionals to advise and serve the local community based on their experience and expertise.

As VP of Finance for CPMT, Tom would like to continue to work actively to make the budgeting process more transparent to the Board of Governors and to enable it to be a planning and management tool for the officers and board.

Dr. Reynolds will bring a breadth of experience, both local and international, to the Board. He will enthusiastically offer his efforts to the CPMT vision of continuing globalization and service to the profession.

CALL FOR CANDIDATES CPMT SOCIETY BOARD OF GOVERNORS

The CPMT Society is governed by a Board of Governors composed of officers, 18 elected members-at-large, and various committee chairs and representatives (see inside cover of this Newsletter for details.)

Annually, Society members are asked to elect six members-at-large for a three-year term of office. Candidates for member-at-large are selected in two ways -- either by the Society Nominating Committee, or by petition.

This year's election is the fourth in which members-at-large will be elected to achieve totals proportionate to the geographic distribution of CPMT members. Voting members will elect members-at-large from within their Region only (that is, members in Region 8 will vote for members-at-large from Region 8, etc.)

Elected Members of the Board of Governors must be willing to attend two annual Board meetings and participate actively in areas of their interest (publications, conferences, membership development, chapter development, etc.) The term of office for this election is 1 January 2011 through 31 December 2013.

If you are an IEEE and CPMT Society member in good standing and are interested in serving on the Board of Governors, you can become a candidate via petition by following the procedures below.

Request establishment of electronic petition process, allowing signatures to be collected on-line.

You must contact Marsha Tickman to implement electronic petition process.

OR

Prepare a petition that contains your name, member number, and statement of your qualifications for office.

Provide lines for signatories. Each line should include space for a printed name, member number, and signature.

Have the petition signed by a MINIMUM of 46 CPMT Society members in good standing (Student grade members are not eligible to sign.)

Submit your petition by mail no later than Friday, 16 July 2010 to:

CPMT Society Nominations Committee
c/o Marsha Tickman
IEEE CPMT Society Executive Office
445 Hoes Lane
Piscataway, NJ 08854 USA

Membership status of all signatories will be validated. It is suggested that you gather more than 46 signatures in order to assure meeting the minimum required number of valid signatures.

If you have questions or need additional information, contact Marsha Tickman at the above address, by phone at 732-562-5529, or by e-mail at m.tickman@ieee.org.

Support the IEEE CPMT Society and its Chapters

**Participate in Seminars, Workshops, and Conferences
by Organizing and Attending**

Additional Information at www.cpmt.org/conf/

Member News....

John Liu (MC2) has been elected a Member of Royal Swedish Academy, IVA. The Royal Swedish Academy of Engineering Sciences, IVA. IVA has 842 Swedish and 260 foreign members.

Ephraim Suhir has been elected as a Foreign Full Member (Academician) of the Academy of Engineering (Technological) Sciences of Ukraine.

Chapter News....

Hu&Ro Joint CPMT Chapter Hosted Nanotechnology for Electronics EuroTraining awareness course 16, 17 & 19 Nov 2009, in Bucharest, Romania

The IEEE-CPMT Hungary & Romania Joint Chapter hosted, organized and technically sponsored a EuroTraining awareness course on **Nanotechnology for Electronics**. Engineers and scientists were invited from companies, SMEs, universities and institutes to upgrade their knowledge and learn about the important topics of nanoscience from highly qualified experts.

The course focused on the most important trends of nanotechnologies according to the recommendations of ENIAC's **Roadmap of Nanoelectronics** (Figure 1). ENIAC is the industry driven European Technology Platform of Nanoelectronics, acknowledged and sponsored by the European Commission as well. It proved to be very useful that an industry survey was also carried out to define the course content for the special requirements of the New Member States (NMS) of the European Union.

The course was held in Bucharest, Romania: the first day tutorials on 16th of November, 2009, at the Politehnica University of Bucharest; and the second day technical lectures and demonstrations in two repeated cycles 17 & 19 November, 2009, at IMT-Bucharest, the National Institute for Research and Development in Microtechnologies.

The course was announced on a website dedicated to the "Nanotechnology for Electronics" course at www.ett.bme.hu/ET_NE2/, and on the EuroTraining portal (www.eurotraining.net).

The **course program** and the **lecturers** were as follows:

First day tutorials:

Introduction, theory, basic approaches and applications:

Prof. Göran Wendin, Department of Microtechnology and Nano-science, Chalmers University of Technology, Sweden (Figure 2);

Processing techniques & tools, applications in biosensing & optics:
Dr. Harry Heintelmann, Nanotechnology & Life Sciences, CSEM Centre Suisse d'Electronique et de Microtechnique SA, Switzerland.

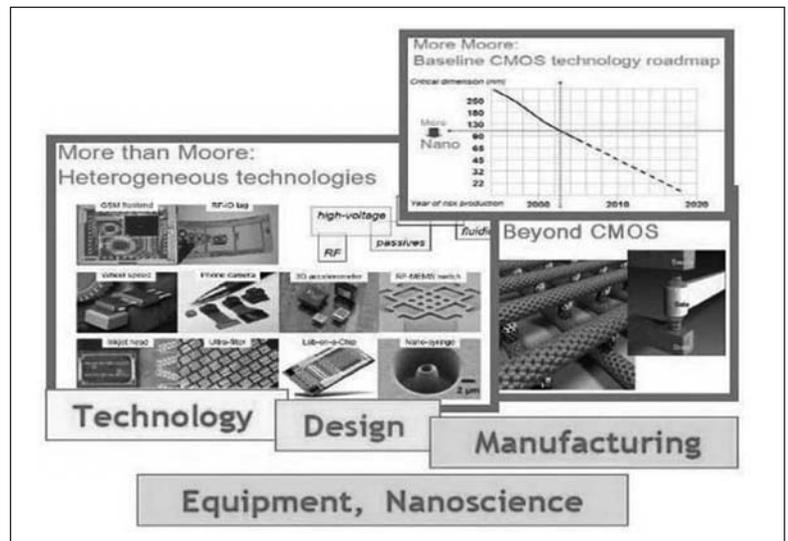


Fig. 1 Topics of the course were defined according to the ENIAC's Nanoelectronics Roadmap



Fig. 2 Prof. Göran Wendin during his lecture at the "Nanotechnology for Electronics" course in Bucharest.



Fig. 3..Prof. Dan Dascalu (CEO of IMT-Bucharest, in front on the left) and the first group of the participants are listening the talk of dr. Dirk Brüggemann about electron and ion beam nanoengineering and later Dr. Mircea Dragoman presents his talk about Carbon Nanoelectronics



Fig. 4 Scientists from IMT-Bucharest showed practical examples of nanofabrication, imaging and measuring technologies available in the institute.

Second day technical lectures and laboratory demonstration:

Electron & ion beam lithography, nanoengineering:

Mr. Dirk Brüggemann, Raith GmbH, Germany (Figure 3 in the middle)

Carbon Nanoelectronics:

Dr. Mircea Dragoman, IMT-Bucharest (Figure 3 on the left).

Laboratory visits to IMT-MINAFAB centre, demonstrations of the operation of nanotechnology equipment (Figure 4):

Dr. Mircea Dragoman and other researchers, IMT-Bucharest,

Altogether there were 69 registered participants on the course, including the lecturers and the organizers, who were also active

participants in all scientific parts of the event. Most of the participants were members of the Hu&Ro Joint Chapter and came from all around Romania, from Bucharest; Cluj-Napoca, Timisoara, Iasi, Pitesti and also from Budapest, Hungary. There were a few industrial participants coming from the Romanian subsidiary of Honeywell and Infineon.

In order to increase the recognition of the course, on the request of the participants, a Certificate was issued and awarded to all participants, who attended both days of the course. The Certificate was signed by the standard lecturers as well as the representatives of the host institute and the organizer of the EuroTraining Project.

Most of the **audience was young people** – students or PhD students – who were very open for the new principles, although had not gained too much knowledge about the specific topics of the course during their previous study. These young people considered as potential trainers / teachers / professors of nanoelectronics, therefore the courses were real **trainings for future trainers**.

The **course content**, including the strategy to provide an awareness course – with more focus on nanotechnology and treating nanoelectronics on the application level – **met the expectations of the audience**. A great fortune and success we had to find the two **excellent tutors** – Prof. Göran Wendin from Chalmers University and Dr. Harry Heinzelmann from CSEM – who had high level knowledge, extensive experience and proper enthusiasm to form and develop their course material to a homogeneous short course.

It proved to be very successful to organize **laboratory visits to local institutes**. By this latter activity the doors of nanotechnology research laboratories were opened for a large number of visitors, which is definitely an important aim and successful tool to disseminate the information and increase the public awareness of nanotechnology and nanoelectronics.

Conference News....

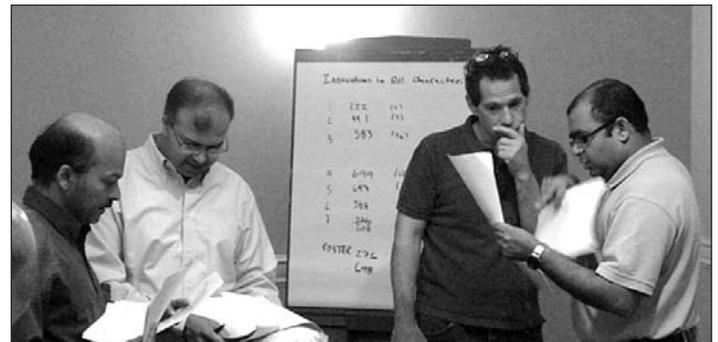
The 60th ECTC is on Track to Become a Memorable Event

The annual Electronic Components and Technology Conference is highly valued as the premier conference by the semiconductor component professionals. Some 300 papers were presented in 38 oral sessions and 3 poster sessions at the 59th ECTC in 2009. The ECTC would not be possible without the sponsorship of the IEEE Components, Packaging, and Manufacturing Technology Society (CPMT) and the Electronic Components Association (ECA), numerous corporate participants and sponsors, and the time and energies of the more than 200 engineers and scientists on the ECTC Executive and Program Subcommittees. Organization of the conference is a year-round process, which starts with the Dallas November Planning Meeting. The meeting starts with the Executive Committee determining the macro level details such as which subcommittee gets how many sessions based on the number of abstracts submitted, venue availability, etc. This meeting covers all readiness details from web site to technology corner exhibits.

Once high level details are determined, the program chair kicks off the abstract selection process together with the subcommittee members. This is not an easy process. Members rate the submitted abstracts through the secured log-in at the web site before arriving at the Planning Meeting and highly-rated abstracts need to be placed in relevant sessions. It is simply a peer selection process. Since ECTC strives to have the highest technical content, poster sessions are arranged for highly-rated abstracts which don't fit in any session.



Executive Committee is going through the planning activities to identify how best to serve the conference attendees in May 2010. A variety of topics are discussed by the subject owners. Shown in the photo are Vice General Chair Rajen Dias of Intel, Web Site Administrator Senol Pekin of Intel, Publicity Chair Eric Perfecto of IBM, Assistant Program Chair Wolfgang Sauter of IBM, Program Chair Dave McCann of Amkor, General Chair Jean Trehwella of IBM, Tom Reynolds, Professional Development Course Chair Kitty Pearsall of IBM, Technology Corner Chair Bill Moody and Arrangements Chair Lisa Renzi (not shown in photo). Finance Chair Patrick Thompson of TI is presenting.



Applied reliability Subcommittee is working on identifying their sessions. Lakshmi N. Ramanathan of Freescale, Tim Chaudhry of Broadcom, Keith Newman of Sun Microsystems and Sridhar Canumalla of Microsoft are shown.



Program Chair Dave McCann of Amkor is addressing the subcommittee members to explain how many sessions are planned for each committee based on the number of abstracts received.



Advanced Packaging subcommittee which traditionally attracts the highest number of abstracts, is working on identifying their sessions.



Shown in the picture Assistant General Chair Rajen Dias of Intel, Web Site Administrator Senol Pekin of Intel, Assistant Program Chair Wolfgang Sauter of IBM, and Program Chair Dave McCann of Amkor discussing what-if scenarios for the 60th ECTC which covers technical sessions, poster sessions, luncheons, receptions, and vendor exhibits. Past General Chair Rao Bonda is offering his much appreciated experience.

As the subcommittees form their sessions, The Executive Committee works on forming the program which involves details such as not assigning multiple responsibilities to the same person at the same time.

All these efforts result in probably the most important technical gathering in the semiconductor components industry. The 60th ECTC is going to take place at Hotel Paris in Las Vegas



General Chair Jean Trehwella of IBM and Program Chair Dave McCann are reviewing the program details. many sessions are planned for each committee based on the number of abstracts received.

Nevada in June 2010. May 3, 2010 is the last day for Hotel Conference Rate, and May 11, 2010 is the last day for Advanced Registration.

You can access ECTC social networking through LinkedIn and Twitter. Keep checking the www.ectc.net for updates on the conference, registration, professional development courses, sponsorship, and technology corner exhibits.



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(ECTC, ESTC, EPTC etc):**

Visit ieeexplore.ieee.org and download them



2010 CPMT CONFERENCES AND WORKSHOPS

2010 11th Thermal, Mechanical and Multiphysics Simulation and Experiments in Micro-Electronics and Micro-Systems Conference (EuroSimE 2010)

April 26-28 2010 Bordeaux, France
<http://www.eurosime.org/>
Contact: eurosime@astefo.com

2010 Design, Test, Integration and Packaging of MEMS/MOEMS (DTIP 2010)

May 5-7 .2010 Seville, Spain
<http://cmp.imag.fr/conferences/dtip/dtip2010/>
Contact: Chantal Bénis-Morel, chantal.benis@imag.fr

2010 14th IEEE Workshop on Signal Propagation on Interconnects (SPI 2010)

May 9-12, 2010 Hildesheim, Germany
<http://www.spi.uni-hannover.de/>
Contact: Uwe Arz, Physikalisch-Technische Bundesanstalt, uwe.arz@ptb.de

2010 60th Electronic Components and Technology Conference (ECTC 2010)

June 1 - 4, 2010 Las Vegas, NV, USA
<http://www.ectc.net>
Contact: Jean Trehwella, jeanmh@us.ibm.com

2010 20th IEEE Semiconductor Wafer Test Workshop (SWTW 2010)

June 6-10, 2010, San Diego, CA USA
<http://www.swtest.org/index.html>
Contact: Maddie Harwood, maddie@cemamerica.com

2010 IEEE/SEMI Advanced Semiconductor Manufacturing Conference (ASMC 2010)

July 11-13, 2010 San Francisco CA, USA
<http://www.semi.org/asmc2010>
Contact: Margaret Kindling, SEMI, mkindling@semi.org

2010 6th Annual Organic Microelectronics and Optoelectronics Workshop

July 6-9, 2010, San Francisco CA, USA
<http://acswebcontent.acs.org/organicmicroelectronic/index.html>
Contact: organic_microelectronics@acs.org

2010 International Conference on Electronic Packaging Technology & High Density Packaging (ICEPT-HDP 2010)

August 16-19, 2010 Xi'an, China
<http://www.icept.org>
Contact: icept2010@xidian.edu.cn

2010 Electronics System-Integration Technology Conference (ESTC 2010)

September 13-16, 2010 Berlin, Germany
<http://www.estc-2010.de/>
Contact: estc2010@izm.fraunhofer.de

2010 55th IEEE Holm Conference on Electrical Contacts (HOLM 2010)

October 4-7, 2010 Charleston, SC, USA
<http://www.ewh.ieee.org/soc/cpmt/tc1>
Contact: Alicia Zupeck a.zupeck@ieee.org

2010 16th Int'l Workshop on Thermal Investigations of ICs and Systems (THERMINIC 2010)

October 6-8, 2010 Leuven, Belgium
<http://cmp.imag.fr/conferences/therminic/therminic2010>
Contact: Chantal Bénis-Morel, chantal.benis@imag.fr

2010 IEEE/CPMT Workshop on Accelerated Stress Test and Reliability (ASTR 2010)

October 6-8, 2010 Denver, CO, USA
<http://www.ewh.ieee.org/soc/cpmt/tc7/ast2010/>
Contact: Michael P. O'Keefe, michael.okeefe@nrel.gov

2010 5th Int'l Microsystems, Packaging, Assembly and Circuits Technology (IMPACT 2010)

October 20-22, 2010 Taipei, Taiwan
<http://www.impact.org.tw/2010/General/>
Contact: service@impact.org.tw

2010 19th IEEE Electrical Performance of Electronic Packaging (EPEP 2010)

October 25-27, 2010 Austin, TX, USA
<http://www.epep.org>
Contact: Kelly Sutton epd@enr.arizona.edu

2010 12th Electronics Packaging Technology Conference (EPTC 2010)

December 8-10, 2010 Singapore
<http://www.eptc-ieee.net/>



Highlighting Solutions That Improve the Semiconductor Manufacturing Process

For over 20 years, the Advanced Semiconductor Manufacturing Conference (ASMC) has filled a critical need in our industry by providing a venue for industry professionals to network, learn and share knowledge on new and best-method semiconductor manufacturing practices and concepts.

The conference synergy leads to understandings and relationships which can benefit participating companies in a variety of ways, including accelerating innovation, promoting successes, and getting a more thorough understanding of standards and benchmarks.

In 2010, ASMC moves to San Francisco, opening up greater opportunities. For industry professionals to meet and discuss critical issues in semiconductor manufacturing. By co-locating with SEMICON West, ASMC will continue a long tradition of unveiling breakthroughs in semiconductor manufacturing—from fab productivity to advanced process controls and device yield.

July 11-13, 2010 – San Francisco Marriott Marquis

Keynotes

ASMC is pleased to announce our keynote line-up for 2010:

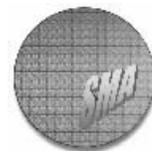
Matt Nowak, Director of Engineering in the VLSI Technology Group, Qualcomm
Bill McClean, president, IC Insights
Kelin Kuhn, Intel Fellow; director, Advanced Device Technology, Intel Corporation

Who Should Attend

Technical managers, engineers, plant managers and other semiconductor professionals involved:

- Production Control
- Process Development
- Fab Operations
- Device Characterization
- Cycle Time Improvement
- Cost Reduction
- Fab Productivity
- Preventative Maintenance
- Line Supervision
- Product Management
- Yield Enhancement

Co-sponsors





CALL FOR PAPERS

The International Conference on Electronic Packaging Technology & High Density Packaging (ICEPT-HDP 2010) is to be held in Xi'an, China, from August 16 to 19, 2010. Until 2009, ICEPT-HDP, which is organized by Electronic Manufacturing and Packaging Technology Society (EMPT) of Chinese Institute of Electronics, has been successfully held for ten times by some leading universities such as Tsinghua University, Fudan University, Harbin Institute of Technology, Huazhong University of Science & Technology and Shanghai Jiaotong University. This conference has provided a great technical platform for international and domestic experts, scholars, and researchers from academia and industries to exchange their ideas on the development of electronic packaging. As one of the most famous international conferences on electronic packaging technology, it was greatly supported by IEEE-CPMT, IMAPS, ASME and iNEMI, and highly appreciated by China Institute of Electronics and China Association of Science.

ICEPT-HDP 2010, co-organized by Xidian University, is a 4-day event. The conference will feature short courses, conference keynotes, special forums, technical sessions and posters to cover the technological developments in all the areas of electronic packaging. You are welcomed to submit an abstract and attend the conference. More information can be found at www.icept.org.

CONFERENCE THEMES

- **Advanced Packaging & System Integration:** BGA, CSP, flip chip; WLP, SoP, SiP; 3D packaging, PoP, TSV; micro- & nano-system packaging; and other advanced packaging and system integration technologies.
- **Packaging Materials & Processes:** New developments in bonding wires, solders, underfills, encapsulations, adhesives, thin films, dielectrics, substrate materials, conductive adhesives and thermal conductive materials; green electronics materials, nanomaterials and other novel materials for packaging performance enhancement and cost reduction; and various packaging/assembly processes.
- **Packaging Design and Modeling:** Various new packaging/assembly designs; methods/technologies/software for modeling, simulation and validation of electrical, thermal, optical and mechanical performance of various electronics packages; chip-packaging-PCB co-design; and multi-function & scale modeling, simulation, validation methods/software.
- **High Density Substrate & SMT:** Substrate with embedded passives and active components; micro-via, micro-joint, HDI substrate, PCB, high performance multi-layer substrate; stencil print, reflow; and other novel assembly technologies that improve substrate density and performance.
- **Packaging Equipment & Advanced Manufacturing Technologies:** New packaging/assembly equipment; packaging equipment/measurement techniques for emerging technologies; photolithography, laser processing; novel packaging/assembly technologies for manufacturability and yield improvement, cost reduction and service performance improvement; and methods/software for modeling and monitoring of process effectiveness & cost analysis.
- **Quality & Reliability:** Quality monitoring and evaluation for packaging/assembly; advanced methods/technologies/tools for rapid reliability data collection/analysis, reliability modeling & life prediction; reliability issues in advanced electronics packages; failure analysis, non-destructive diagnose, and yield analysis.
- **Emerging Technologies:** Packaging technologies for Sensors, actuators, MEMS, NEMS & MOEMS; optoelectronics & LED packaging; LCD, passive & RF devices, power & HV devices; nano-devices based on nano-wires, nano-tubes and polymers, etc.

SUBMISSION OF ABSTRACT/PAPER

Abstracts are solicited to describe original and unpublished work. The abstract should be approx. 500 words and contains a clear statement of the background, methodology, results, conclusions, and important references of the work. All abstracts must be in English and should be submitted using the format provided in the attached word file to icept2010@xidian.edu.cn.

The abstracts must be received by **April 6, 2010**. Authors must include their affiliations, mailing addresses, telephone and fax numbers, and email addresses. Authors will be notified of paper acceptance by **April 30, 2010**. The final manuscripts for publication in the conference proceedings are due by **July 16, 2010**. Selected papers will be recommended for publication in IEEE/CPMT journals.

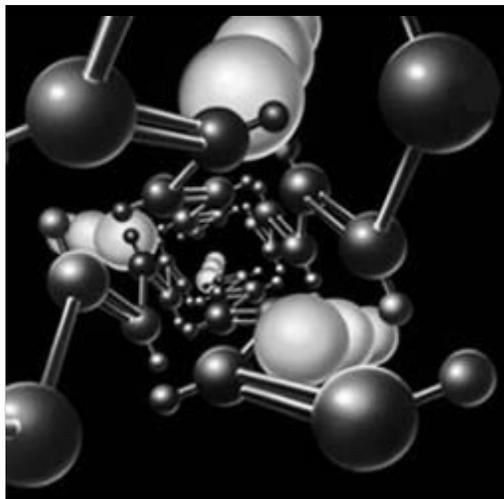
CALL FOR EXHIBITION/SPONSORSHIP

A tabletop exhibition featuring suppliers of materials, equipment, components and software, manufacturers, and service providers of the electronics packaging and related industries will be held during the conference. Potential exhibitors and sponsors may email icept2010@xidian.edu.cn; for details.

IMPORTANT DATES

- **April 6, 2010** – Deadline for Submission of Abstract
- **April 30, 2010** – Notification of Acceptance
- **July 16, 2010** – Deadline for Submission of Manuscript

CALL FOR PAPERS



Organic Microelectronics & Optoelectronics Workshop VI

www.organicmicroelectronics.org

July 6 – 9, 2010

Marriott San Francisco Marquis
San Francisco, CA, USA

The workshop will bring together a broad spectrum of chemists, materials scientists, physicists, and engineers from both industry and academia in a stimulating forum to share information and ideas in the emerging field of Organic Microelectronics. The goal is to build an interdisciplinary community working on applications such as RFIDs, displays, sensors and photovoltaics while addressing some of the common scientific and manufacturing challenges to help these technologies advance in a more rapid, effective, and economical manner.

The technical program will focus on the areas of synthesis, theory, novel processing/ patterning/fabrication and device physics through a series of presentations by renowned invited speakers and poster sessions.

INVITED SPEAKERS

Magnus Berggren, Linkoping University (Sweden)
Paul Blom, Holst Centre (Netherlands)
Jochen Brill, BASF (Germany)
Dago DeLeeuw, Philips/Univ. Groningen (Netherlands)
Antonio Facchetti, Polyera (USA)
Gitti Frey, Technion (Israel)
David Ginger, U. Washington (USA)
David Gundlach, NIST (USA)

CONTRIBUTED PAPERS

The Organic Microelectronics Workshop will feature additional 20 minute contributed talks along with a poster session in addition to the invited speakers. This will give you the opportunity to share your recent findings, peruse others' work and exchange opinions with your fellow participants. Join the lively and informal discussions, discover new avenues for research, and get acquainted with other scientists in your industry.

If you are interested in presenting an oral or poster paper at the workshop, please see submission instructions at: <http://acswebcontent.acs.org/organicmicroelectronic/posters.html>. The abstract should not exceed 250 words, and it should be e-mailed no later than April 15, 2010 to organic_microelectronics@acs.org. Earlier submissions are appreciated. Please specify whether you are interested in making a poster or oral presentation.

You will receive an e-mail from the organizers acknowledging receipt of your abstract. We will let you know if your abstract has been accepted no later than May 1.

Deadline for all submissions is April 15, 2010.

2010 Chairs

- **Edwin Chandross**
(General Chair)

Affiliation

Materials Chemistry LLC

- **Ana Claudia Arias**

Palo Alto Research Center (PARC)

- **Michael Chabinyc**

University of California

- **Tom Jackson**

The Pennsylvania State University

Paul Heremans, IMEC (Belgium)
Russell Holmes, U. Minnesota (USA)
Oana Jurchescu, Wake Forest Univ. (USA)
Alberto Salleo, Stanford U. (USA)
Charles Sodini, MIT (USA)
Takao Someya, U. Tokyo (Japan)
Shawn Williams, Plextronics (USA)





Thermal investigations of ICs and Systems

Barcelona, Spain

6-8 October 2010

Sponsored by:



IEEE Components, Packaging and Manufacturing Technology Society

Preliminary Call for Papers

THERMINIC Workshops are a series of events to discuss the essential thermal questions of microelectronic microstructures and electronic parts in general. These questions are becoming more and more crucial with the increasing element density of circuits packaged together and with the move to nanotechnology. These trends are calling for thermal simulation, monitoring and cooling. Thermal management is expected to become an increasingly dominating factor of a system's cost. The growing power dissipated in a package, the mobile parts of microsystems raise new thermal problems to be solved in the near future necessitating the regular discussion of the experts in these fields. Finally, there is an increasing need for accurate assessment of the boundary conditions used in the analysis of electronic parts, which requires a concurrent solution of the thermal behaviour of the whole system.

This year THERMINIC will address in addition to the "traditional" thermal management problems, also stress and thermal-stress-related-reliability issues, both in micro- and optoelectronics fields. These issues, including various nanotechnology applications, are of significant importance and of high interest to the engineering community engaged in the field of thermal phenomena in "high-tech" systems.

The Workshop is sponsored by the IEEE Components, Packaging, and Manufacturing Technology Society and by CMP.

AREAS OF INTEREST include, but are not limited to, the following topics:

- Thermal and Temperature Sensors
- Thermal Simulation
- Electro-thermal Simulation
- Thermal Modelling & Investigation of Packages
- Reliability Issues
- High Temperature Electronics
- Heat Transfer Education
- Flow Visualisation Techniques
- Turbulence Modelling in Complex Geometrics
- Defect and failure modelling
- Reliability evolution and prediction
- Multiphysics simulation
- Nanoengineering issues
- Education
- Measurement of Thermal Properties
- Acquisition and analysis of Thermal data
- Temperature Mapping
- Novel and Advanced Cooling Techniques
- Thermal Performance of Interconnects
- Heat Transfer Enhancement
- Validation of Thermal Software
- Coupled (Thermo-mechanical, Thermo-optical, etc.) Effects
- Thermal Stress: Theory and Experiment
- Thermal Stress Failures: Prediction and Prevention
- Nanotechnology Applications
- Noise control.

TECHNICAL PROGRAMME will include oral talks, poster presentations, a panel discussion, and invited talks given by prominent speakers.

AUTHORS ARE INVITED to submit electronic papers describing recent work. Panel proposals are also invited. Papers may be extended summaries or full papers although preference will be given to full paper submissions. In either case, clearly describe the nature of the work, explain its significance, highlight novel features, and describe its current status. Submission will be electronically only. Only papers of PDF (.pdf) format can be submitted. Detailed information about the submission process will be made available on the THERMINIC Web site:

<http://cmp.imag.fr/conferences/therminic/therminic2010>

In case you experience any problems with the submission procedure, please contact the General Chair, Bernard Courtois, CMP, Grenoble, France. E-mail: THERMINIC@imag.fr
Accepted contributions will be included in Workshop Proceedings.

Submission deadline:	30 April 2010
Notification of acceptance:	15 June 2010
Submission of manuscripts for distribution at the Workshop:	08 September 2010

VENDORS AND BOOK EXHIBITIONS are invited to offer products in the scope of the Workshop to exhibit. Editors are invited to exhibit books.

SPECIAL ISSUES AND SPECIAL SECTIONS of leading periodicals have been organised regarding the previous Workshops (Journal of Sensors and Actuators, Microelectronics Journal, IEEE Transactions on VLSI Systems, IEEE Transactions on Components and Packaging Technologies, Journal of Electronic Packaging). It is again expected to have special issues and special sections of leading periodicals as follow up of the Workshop 2010.

VENUE:

The workshop is hosted at the Novotel Barcelona City. Barcelona is the cultural, administrative, economic and historic capital of Catalonia province of Spain. Due to its huge importance in finance, publication, arts, entertainment and Medias, Barcelona is considered as a world culture town. The city is served by air, train, bus or boat and its flavours, sounds and smells, emphasized by awesome landscapes, will make your THERMINIC attendance unforgettable. More information: <http://www.bcn.es/turisme/english/turisme/welcome.htm> or <http://www.barcelonaturisme.com>

Check the web site for more information:
<http://cmp.imag.fr/conferences/therminic/therminic2010>

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Vice General Chair

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A. Rubio, UPC, Barcelona, Spain

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O. Chapuis, CIN2-

CSIC, Barcelona, Spain

Y. Gianchandani, U. of Michigan, USA

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V. Eveloy, The Petroleum Inst., UAE

M. Shin, Myong Ji U., Korea

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Y.k Christian Gerstenmaier, Siemens, Germany

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A. Tay, NUS, Singapore

T. Baba, Nat. Metrology Institute Tsukuba, Japan

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A. Shakouri, U. of California, USA

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M-N. Sabry, U. Française d'Egypte, Egypt

J. Janssen, NXP Semiconductors, Nijmegen, The Netherlands

W. Luiten, Philips Applied Technologies, Eindhoven, The Netherlands

THERMINIC Workshop

Abstract Deadline : May 31st, 2010

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

About IEMT

The 34th Electronics Manufacturing Technology Conference (IEMT 2010) will be held in Melaka, Malaysia. It is an international event organized by the IEEE CPMT Malaysia Chapter with co-sponsorship from CPMT society of IEEE, Santa Clara Valley Chapter. IEMT 2010 will feature short courses, 4 parallel technical sessions, and table top exhibition. It aims to provide good coverage of technological developments in all areas of electronics packaging, from design to manufacturing and operation. IEMT 2010 is a major forum, providing opportunities to network and meet leading experts, in addition to exchange of up to date knowledge in the field. Since 1990's, IEMT has gained a reputation as a premier electronics materials and manufacturing technology conference and is well attended by experts in all aspects related to packaging technology from all over the world.

Conference Topics

The topics of interests are specific to manufacturing and test technology, micro systems/MEMS, their packaging, electronics materials, board level assembly and reliability issues. Extended abstracts are being sought from, but not limited to, the following areas:

- Manufacturing Technologies
- Surface Mount Technology
- Advanced/3D Packaging
- Interconnection Technologies
- Emerging Packaging Technologies
- IC Testing Technology
- Materials & Processes
- MEMS & Sensor Packaging
- Electrical Modeling & Signal Integrity
- Thermal Characterization & Cooling Solutions
- Mechanical Modeling & Structural Integrity
- Quality and Reliability
- Chip-Scale Packaging/Flip Chip
- LED Packaging
- Green Package

Important Dates:

Submission of Abstract	31st May 2010
Notification of Acceptance	30th Jun 2010
Submission of Manuscript	15th Aug 2010

Conference Information and Contacts

IEMT2010 Secretariat
Infineon Technologies (Malaysia) Sdn. Bhd.
FTZ , Batu Berendam, 75350 Melaka, Malaysia
Tel : +6-06-230 3480
Fax : +6-06-231 4233
Email : Tracy.Ow@infineon.com
Conference website: <http://ewh.ieee.org/r10/malaysia/cpmt/iemt.htm>
Melaka Tourism : <http://www.melaka.net/>

Extended Abstract and Paper Submission

Extended abstracts are invited to describe original and unpublished works. They should be about 500 words stating clearly the purpose, methodology, results, and conclusions of the work. Key references to prior publications and how the work enhances the existing knowledge should be included in the extended abstract. Authors are requested to designate appropriate areas for the purpose of abstract review. All submissions must be in English and should be made via electronic mail to conference secretariat. Author may send their abstract either in MS Word or Adobe Acrobat© PDF format with only one single file for each submission. The abstracts must be sent to secretariat via email by 31st May, 2010. Authors are requested to include their affiliation, mailing address, telephone and fax numbers, and e-mail address. Authors will be notified of paper acceptance and instruction for preparing final papers by 30th June, 2010. The final manuscript for publication in the conference proceedings is due by 15th August 2010.

Call For Exhibition

A tabletop exhibition from suppliers of materials, equipment, components, software, and service providers of electronics industries will also be held at the venue of the conference. Potential exhibitors and sponsors may email our secretariat for more details.

Conference Best Paper Awards

The conference will present the “**Best paper Award**” to papers in various categories. The overall best paper will receive **RM3000** in cash. Second runner-up will receive **RM2000**. Best poster paper will receive **RM1000**. The conference will also present a cash award of **RM1000** to student best paper.

Free Tour Around The City of Malacca/Cultural Show

We will take the participants for a tour around the historical city of Melaka. They will also be entertained by the local cultural groups while having dinner on various local delicacies. We will make further announcement when more information is available.

Keynotes / Short Courses

The conference will have attractive keynotes and short courses on the latest manufacturing technology and advanced packaging conducted by experts in the field. We will announce further details when more information becomes available.



During the last thirteen years, the IEEE Workshop on Signal Propagation on Interconnects has been developed into a forum of exchange on the latest research and developments in the field of interconnect modeling, simulation and measurement at chip, board, and package level. The event is also meant to bring together developers and researchers from industry and academia in order to encourage cooperation. In view of the last years success the committee is looking forward to the 14th IEEE Workshop on Signal Propagation on Interconnects where world class developers and researchers will share and discuss leading edge results in Hildesheim, Germany. The workshop will be held in English. Detailed information about the workshop and its location are available on our website <http://www.spi.uni-hannover.de/>. The committee is looking forward to your participation.

This year's keynote speech will be given by Prof. Ernest S. Kuh

Main topics of the workshop will include, but are not limited to

- Frequency Domain Measurement Techniques
- Time Domain Measurement Techniques
- Modeling of Package & On-Chip Interconnects
- Macro-Modeling
- Simulation of Interconnect Structures
- Electromagnetic Field Theory
- Analysis and Modeling of Power Distribution Networks
- Propagation Characteristics on Transmission Lines
- RF and Microwave Interconnects
- Coupling Effects on Interconnects
- Substrate Effects
- Guided Waves on Interconnects
- Radiation & Interference
- Electromagnetic Compatibility
- Power/Ground-Noise
- Testing & Interconnects
- Optical Interconnects
- Wireless *Interconnects*

Chair: Hartmut Grabinski, Leibniz Univ. Hannover, Laboratorium für Informationstechnologie, Schneiderberg 32, 30167 Hannover (GER)

Tel: +49 511 762 5044, Fax: +49 511 762 5051, e-mail: grabinski@lfi.uni-hannover.de

Program Chair: Uwe Arz, Physikalisch-Technische Bundesanstalt, Arbeitsgruppe 2.23, On-Wafer-Mikrowellenmesstechnik, Bundesallee 100, Braunschweig (GER)

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**Joint 25th ICEC & 56th IEEE Holm Conference on Electrical Contacts
4-7 October, 2010, Charleston, South Carolina USA
Intensive Course on Electrical Contacts**

**Joint Meeting of 25th International Conference & 56th IEEE Holm Conference
on Electrical Contacts**

Purpose

To provide a forum for the presentation and discussion of the latest developments in the field of electric contacts and the application of recent advances in materials and processes in electric, electronic and telecommunication equipment. The International Conference is a bi-annual event that is hosted by countries in Europe, Asia and North America in rotation. 2010 will be an exciting joint conference with the North America IEEE Holm Conference event. Typically, up to 60+ technical papers will be presented over four days in the conference with extra opportunities for international networking.

For Whom

Practicing designers, engineers, physicists and research scientists - those new to the field and those experienced. The 2010 Joint Conference will include excellent papers authored by some of the outstanding technical people in this field. The international contributors come from universities and industries in USA, Austria, Canada, Japan, China, France, Switzerland, Russia, Germany, United Kingdom and other countries. These papers will provide the attendees with up-to-date information on a wide range of subjects that makes this conference so attractive to the practicing engineer. Additionally, the joint conference will make it possible for any attendee to discuss with other international authors, on work presented by the author at the conference or any subject related to the author's field of expertise.

Background

The Holm Conference began in 1953 as a forum for the discussion of electrical contact phenomena and related fields. In 1968, the conference was named the Holm Conference in honor of Dr. Ragnar Holm. Dr. Holm, whose contributions to the field of electrical contacts spanned 50 years and form the foundation of the electrical contacts field, was the inspiration and guide of the Conference from its inception until his death in 1970. In 1985, IEEE society started sponsoring the conference as a recognition of its importance in the field of electrical engineering. In addition to the Annual Conference, the Conference Organization regularly conducts an intensive one-week course on contacts and participates in the biannual International Conference on Electrical Contacts.

The International Conference on Electrical Contact started in 1961 with an International Advisory Group from the industrial nations. This was in recognition of the international scientific activities in the field of electrical contacts. The last 3 International Conference were held in Seattle USA (2004), Sendai Japan (2006) and St. Malo France (2008)

Four days of presentations normally includes over 60 Technical Papers, the Ragnar Holm Scientific Achievement Award, the Dr. Morton Antler Lecture and hot topic panel workshops. They highlight the most recent electrical contact work all over the world.

Contacts Properties and Performance, Connector Contacts, Sliding Contacts, Aluminum Contacts, Arcing Contacts, Silver Metal Oxide Contacts, MEM Systems, Automotive Switches and Relays, Superconductor Contacts, and Real world Design and Applications Problems are familiar themes in the presentation. Recent activities on Arc Fault Detection, AFCl, Smart Grid, ROHS and renewable power generation are adding new themes to the technical program.

ITherm 2010

Bally's, Las Vegas, Nevada, USA

June 2-5, 2010

www.ithermconference.org/home.html

Co-located with ECTC

ITherm 2010 is an international conference for scientific and engineering exploration of thermal, thermomechanical and emerging technology issues associated with electronic devices, packages and systems. ITherm 2010 will be held along with the 60th Electronic Components and Technology Conference (ECTC 2010 - <http://www.ectc.net>), a premier electronic packaging conference. In addition to paper and poster presentations and vendor exhibits, ITherm 2010 will include panel discussions, keynote lectures by prominent speakers, and professional short courses.

ITherm 2010 will feature original Oral and Poster presentations addressing latest developments in research and technology.

Tutorials (first day of Conference) are included in the registration fee. No additional fee is required. Registrants will receive a copy of the course notes for all courses and may attend as many as can fit in to the schedule. Topics include:

- Energy Efficient Thermal Management of Data Centers
- Employing Innovative Cooling Technologies in Present and Future Electronic Products
- High Resolution Thermal Metrology for Electronic Systems
- An Introduction to the Analysis of Delamination in IC Packages Using Fracture Mechanics
- Carbon Nanotube and Graphene Nanoribbon Interconnects
- Mechanics of Interfaces in Microelectronic Packaging
- Design of Experiments for Thermal Engineering
- Thermoelectric Modules: Principles and Research
- Thermal Engineering of Phase Change Random Access Memory (PCRAM) Devices
- On-Chip Thermal Management and Hot Spot Remediation
- Advanced Cooling Technologies for Next-Generation Microelectronics Systems
- Measurement Techniques in the Thermal Management of Electronics

Prof. Yogendra Joshi
General Chair, ITherm 2010
Email: yogendra.joshi@me.gatech.edu

Sandeep Tonapi
Program Chair, ITherm 2010
sandeep.tonapi@anveshak.com

**IEEE Components, Packaging and Manufacturing
Technology Society**

Marsha Tickman, Executive Director
445 Hoes Lane
Piscataway, NJ 08854 USA



1-4 June 2010, Las Vegas, Nevada, USA

www.ectc.net

The premier international packaging, components, and microelectronics systems technology conference, the Electronic Components and Technology Conference (ECTC) strives to offer attendees an outstanding array of packaging technology information. This year's conference will have 39 technical sessions, 16 professional development courses, a panel discussion, a plenary session, a CPMT Seminar, and a technology corner for exhibitors. The 60th ECTC will be held at the Paris Las Vegas Hotel, Las Vegas, Nevada, USA from June 1 to June 4, 2010.

The technical program (oral and poster presentations) contains papers covering leading edge developments and technical innovations across the packaging spectrum. Topics include advanced packaging, modeling and simulation, optoelectronics, interconnections, materials and processing, applied reliability, assembly and manufacturing technology, components and RF, and emerging technologies. The Professional Development Courses offer state-of-the-art technology reviews and updates in a condensed half-day format. Topics cover a wide range of technologies.

The Panel Discussion, Plenary Session, and CPMT seminar in the evenings offer a format that allows for ample exchange and dialogue between the presenters and audience. They provide the conference participants the opportunity to gain the insight and perspective of technical and business leaders.

The Technology Corner complements the Technical Program by allowing companies to exhibit their products and services in an environment that enables discussion and interaction with the managers and engineers attending ECTC.

Last Day for Hotel Reservations: 3 May 2010

Last Day for Advanced Registration: 11 May 2010

A dark blue silhouette of the Berlin skyline is positioned at the top of the page. It includes the TV Tower (Fernsehturm) on the left, the Brandenburg Gate (Brandenburger Tor) in the center, and several modern skyscrapers on the right. The background behind the skyline is a light blue gradient.

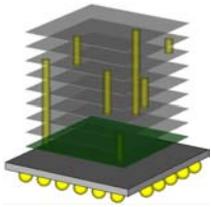
ESTC 2010

in Berlin, September 13–16, Maritim pro Arte

JOIN US IN BERLIN FOR THE 3RD ESTC CONFERENCE 2010!

Organized by IEEE's CPMT Society since 2006, the Electronic System Integration Technology Conference ESTC is the premier European event in assembly and interconnection technologies. The organizers are very pleased that 160 papers and 90 posters have been accepted for presentation at the conference. The concurrent exhibition will feature state-of-the-art technological services and equipment. Another highlight will be the half-day tutorials on various topics, ranging from non-destructive testing, polymers and nano-composites for electronic packaging to harsh environment packaging and 3D wafer level packaging.

Check out our website at www.estc-2010.de for more detailed information.



2010 IEEE Electrical Design of Advanced Packaging & Systems Symposium

December 7 – 9, 2010 in Singapore

The 2010 IEEE EDAPS Symposium

The IEEE Electrical Design of Advanced Packaging & Systems (EDAPS) has been the premier international symposium in Asia region since it was launched in 2002 in Singapore. Thereafter, it was held yearly in Korea (2003), Japan (2004), India (2005), Shanghai China (2006), Taiwan R. O. C (2007), Korea (2008) and Hong Kong China (2009). The EDAPS symposium consists of paper presentations, industry exhibitions, workshops and tutorials. The 2010 EDAPS will be held in Singapore again from December 7 to 9, 2010.

The purpose of EDAPS Symposium is to enhance the technical awareness and technology collaborations in the Asia region specifically in the electrical designs of chip, package and system levels from design concepts, technical challenges to the modeling and EDA tools. The papers of the symposium not only address the current technical issues but also bring out the challenges facing IC design, SiP/SoP packaging, EMI/EMC, and EDA tools and most importantly to address the challenge issues in 3D IC and packaging design. The symposium provides a major platform for researchers and practitioners from diverse fields to exchange knowledge and build up networks.

Important Deadlines and Dates

Proposal Submission for	
Special Session	July 15, 2010
Tutorial/Workshop	July 15, 2010
Proposal Acceptance Notice	July 30, 2010
Special Session Paper Submission	Sept. 30, 2010

Regular Paper (4-pages PDF) Submission	Sept. 30, 2010
Regular Paper Acceptance Notice	Oct. 15, 2010

<http://www.edaps2010.org>

Symposium Chair

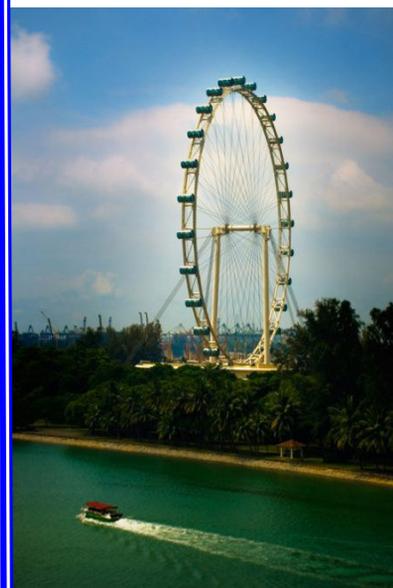
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For enquiry, please contact

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Call for Papers



Key Topics of the 2010 EDAPS

- Signal integrity topics including High-speed Digital Signal Integrity Modeling, Design, and Measurement;
- Power Distribution Network;
- System in Package (SiP) / System on Package (SoP) Design;
- High-performance Packaging for System on Chip (SoC);
- RF/Microwave Packaging for Wireless Communication and Mobile Phone;
- Interconnect Modeling, Simulation, and Measurement;
- Embedded Passives Modeling and Measurement;
- High-speed Channels Modeling and Measurement;
- 3D IC packaging including TSV, design, modeling and measurement;
- EMI/EMC and Electromagnetic Modeling and Measurement;
- EDA Techniques for Chip, Package, and Board Co-design and Simulation

Guidelines for Paper Submission

Authors are requested to submit a camera-ready 4-page paper, including title, author's affiliation, abstract, contents, figures and references. All submissions must be made through EDAPS website: www.edaps2010.org and must be in electronic format (PDF). A MS-Word template is available on the symposium website. Hardcopy submission will **NOT** be accepted.

Symposium Program

Tutorial / Workshop	Dec. 7, 2010
Plenary Speeches	Dec. 8, 2010
Oral Presentation	Dec 8 - 9, 2010
Poster Presentation	Dec 8 - 9, 2010
Exhibition	Dec 8 - 9, 2010
Banquet	Dec 8, 2010



EPTC 2010 Singapore

12th Electronics Packaging Technology Conference
8th - 10th December 2010

Mark Your Calendar for
EPTC 2010

CALL FOR PAPERS

Selected Publication in
IEEE Journals

ABOUT EPTC

The 12th Electronics Packaging Technology Conference (EPTC 2010) is an International event organized by the IEEE Reliability/CPMT/ED Singapore Chapter and sponsored by IEEE CPMT Society.

EPTC 2010 will feature technical sessions, short courses/forums, an exhibition, social and networking activities. It aims to provide a good coverage of technological developments in all areas of electronic packaging from design to manufacturing and operation. It is a major forum for the exchange of knowledge and provides opportunities to network and meet leading experts in the field.

Since its inauguration in 1997, EPTC has developed into a highly reputed electronics packaging conference in Asia and is well attended by experts in all aspects related to packaging technology from all over the world.

CONFERENCE TOPICS

You are invited to submit an abstract, presenting new development in the following categories:

- ❑ **Advanced Packaging:** Wafer level packaging, 3D integration, TSV (through Silicon Via), embedded passives & actives on substrates, flip chip packaging, RF-ID, 3D SiP, Packaging solutions for MEMS and MOEMS
- ❑ **Interconnection Technologies:** wire bonding technology, flip chip technology, solder alternatives (ICP, ACP, ACF, NCP), and TSV
- ❑ **Materials & Processes:** Materials and processes for traditional and advanced microelectronic systems, 3D packages, MEMS, solar, green and biomedical packaging
- ❑ **Modeling & Simulation:** Electrical modeling & signal integrity, thermal characterization & cooling solutions, mechanical modeling & structural integrity
- ❑ **Quality & Reliability:** Component, board and system level reliability assessment, interfacial adhesion, accelerated testing and models, advances in reliability test methods and failure analysis
- ❑ **Emerging Technologies:** Packaging technologies in biomedical, bioengineering, biosensors and wearable electronics
- ❑ **Printed Electronics:** Printed devices: transistors, batteries and memory, large area printed functional films: lighting, sensors and photovoltaics, solution processing of organic and inorganic materials
- ❑ **Wafer/Package Testing and Characterization:** High-speed test architectures and systems, test methodologies, probe card design

IMPORTANT DATES

Submission of abstract	15th June 2010
Notification of Acceptance	1st August 2010
Submission of manuscript	1st October 2010

ABSTRACT AND PAPER SUBMISSION

Abstracts are solicited to describe original and unpublished work. The abstract should be at least 500 words and it must clearly state the purpose, results (including data, drawings, graphs and photographs) and conclusion of the work. Key references to prior publications and how the work enhances existing knowledge should be included in the abstract as well.

Authors must designate two appropriate categories (found under CONFERENCE TOPICS) for abstract review. All submissions must be in English and should be made via the online submission system found at <http://www.eptc-ieee.net>. The required file format is Adobe Acrobat® PDF or MS Word in one single file for each submission.

The abstracts must be received by 15th June, 2010. Authors must include their affiliation, mailing address, telephone and fax numbers, and email address. Authors will be notified of paper acceptance and publication instruction by 1st August 2010. The final manuscript for publication in the conference proceedings is due by 1st October 2010. Selected papers will be published in IEEE/CPMT journals.

OUTSTANDING TECHNICAL PAPERS

The conference proceeding is an official IEEE publication. Author(s) of Best Technical Paper and Best Student Paper will receive an award at the next conference.

CALL FOR SHORT COURSES

The conference program includes short courses which will be conducted by leading experts in the field. Details will be updated in the conference website and available in subsequent mailings. Proposals for short courses can be submitted to techchair@eptc-ieee.net

CALL FOR SPONSORSHIP / EXHIBITION PARTICIPATION

A tabletop exhibition featuring suppliers of materials, equipment, components, software and service providers of the microelectronics and electronic assembly industries will be held during the conference. Potential exhibitors and sponsors may email secretariat@eptc-ieee.net for details.

Organized by



General Chair:
Dr. Seung Wook YOON, STATS CHIPPAC LTD

Technical Chair:
Dr. Albert LU, SIMTech

Sponsored by





*Third International Conference on
Thermal Issues in Emerging Technologies
Theory and Applications*

ThETA 3 – Cairo – Egypt, December 19th – 22nd 2010

Objectives: Emerging Technologies in various domains, including Microelectronics, Nanotechnology, Smart Materials, Micro-Electro-Mechanical Systems, Biomedical engin., New Energies ..., all raise issues related to thermal effects and interactions. Their importance is continuously increasing, tending to be a dominant factor in new technologies.

The first two rounds have gathered participants from eminent academic and industrial institutions:

Papers presented by region	ThETA1	ThETA2
Asia (mainly Japan, S. Korea ...)	10	18
USA & Canada	7	17
Europe (mainly Italy, France ...)	14	17
Arab world	6	11

Papers appeared in IEEE/Xplore, a selection appeared in special issues of ASME/J Heat Transfer & J Elec. Pack.

Periodicity: Bi-annual

Language: English. French contributions are welcomed with extended English abstracts.

Topics:

- Micro and nano-scale heat transfer, microfluidics
- Modeling of multiple scale heat transfer problems
- Thermal modeling of electronic systems
- Temperature aware computer systems design
- Cooling of electronic systems and data centers
- Thermo-mechanical analysis in electronic systems
- MEMS – multi-physics problems
- New and renewable energies, energy conservation
- Fuel cells
- Solid state energy generation / cooling
- Energy – Buildings - environment
- Multiphase flow with heat transfer
- Thermal issues in biomedical engineering
- Thermal issues in micro-fabrication technology
- Thermal issues in new materials
- Computational methods in heat transfer
- New experimental methods in heat transfer

Executive committee:

Bernard **COURTOIS**, TIMA lab., Grenoble, France
Yogendra **JOSHI**, Georgia Inst. Technology, USA.
Waturu **NAKAYAMA**, Tokyo Inst. Technology, Japan
Mohamed-Nabil **SABRY**, U. Française d'Egypte, Egypt
Bahgat **SAMMAKIA**, Binghampton U., USA.
Ali **SHAKOURI**, U. California SC, USA.

Chairmen: Mohamed-Nabil **SABRY**
Bernard **COURTOIS**

Conference papers will appear in IEEE/Xplore A selection will appear in ASME/JHT & ASME/JEP

Submitting abstracts:

Send a ~1000 words abstract, in any of the following formats: .txt, .pdf, .doc, .sxw to: thetacnf@gmail.com

Deadlines:

Submitting abstracts	May 30 th 2010
Notification of abstract acceptance	Jun. 27 th 2010
Submitting full papers	Aug. 15 th 2010
Notification of paper acceptance	Oct. 3 rd 2010
Final camera-ready full paper	Nov. 3 rd 2010

Technical committee:

Samir **ABDEL-GHANY** Ain Shams U. Egypt
Mohab **ANIS** U. Waterloo Canada
Mehmet **ARIK** General Electric USA
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Kazuaki **YAZAWA** Sony Japan

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Yogendra **JOSHI**, Chair
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Heat Transfer
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