

Components, Packaging, and Manufacturing Technology Society



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Newsletter



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President's Column.....



Dr. William T. Chen
IEEE Fellow
President, IEEE CPMT Society
Santa Clara, CA, USA
wt-chen@ieee.org

A Good and Fair Question

On the morning of October 6th, I heard on the radio the announcement of the 2009 Nobel Prize for Physics. Under the title, "The master of light", the Royal Swedish Academy of Science press release said "This year's Nobel Prize in Physics is awarded for two scientific achievements that have helped to shape the foundations of today's networked societies. They have created many practical innovations for everyday life and provided new tools for scientific exploration." One half of the Nobel Physics Award is given to Charles K. Kao for his "ground-breaking achievements concerning the transmission of light in fibers for optical transmission". The other half of the Nobel Physics award is shared by Willard S. Boyles and George E. Smith "for the invention of an imaging semiconductor circuit and the CCD Sensor".

What the Nobel Prize press release neglects to mention, and I am proud to report in our Society Newsletter, is that all three of the Nobel Laureates are fellow IEEE members. In fact, they are IEEE Life Fellows.

Mobile phones, PCs, digital TVs, and many other electronic gadgets are designed and manufactured to provide text, music, graphics, images, videos and other data transmission over long distances, all in a split second. A large share of digital data transmission is in the form of digital images captured by digital image sensor devices. With the growth of internet and digital imaging, electronics applications have progressed to become the fabric of everyday human life, encompassing work to play, home to office, and entertainment to health. Much of what the electronic packaging community is engaged in today, from research, design, materials, manufacturing, and equipment, is associated with these ends. Our profession contributes critically to this global supply chain of knowledge and data.

(Continued on Page 3)



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IEEE CPMT Society Newsletter September 2009 Index

• President's Message	1
• CPMT Society News:	3
• Conference News	4
• Chapter News	6
• Student Branch News	8
• Future Conferences and Workshops	11

IEEE CPMT Society Newsletter
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by email to nsltr-input@cpmt.org

..... Editor

CPMT Officers

President:	William T. Chen	+1-408-986-6505
VP (Technical):	N.Rao Bonda	+1-480-413-6121
VP (Conferences):	Rolf Aschenbrenner	+49-30-46403-164
VP (Publications):	R. Wayne Johnson	+1-334-844-1880
VP (Education):	Albert F. Puttlitz	+1-802-899-4692
VP (Finance):	Thomas G. Reynolds III	+1-850-897-7323
Sr. Past Pres.:	Rao Tummala	+1-404-894-9097
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CPMT Society Newsletter

Editor-in-Chief:	Vasudeva P. Atluri, email: vpatluri@ieee.org Tel: +1-480-227-8411, FAX: +1-480-563-0049
Associate Editor:	Li Li, li.li@ieee.org, +1-480-413-6653
Associate Editor:	Debendra Mallik, dmallik@ieee.org, +1-480-554-5328

CPMT Archival Publications

Publications VP:

R. Wayne Johnson, +1-334-844-1880; johnsr7@auburn.edu

Editor-in-Chief, CPMT Transactions:

Avram Bar-Cohen, Univ. of Maryland, +1-301-405-3173, abc@eng.umd.edu

Transactions on Components & Pkg. Technologies, Editors in Chief:

Ricky S.W. Lee, Hong Kong Univ of Science & Technology, +852-2358-7203; rickylee@ust.hk

Koneru Ramakrishna, Freescale, Inc., +1-512-933-2555; rama@ieee.org

Transactions on Advanced Packaging, Editor in Chief:

G. Subbarayan, Purdue University, Mechanical Engineering Dept.,

+1-765-494-9770; ganeshs@purdue.edu

José E. Schutt-Ainé, University of Illinois at Urbana-Champaign,

+1-217-244-7279, jose@emlab.uiuc.edu

Transactions on Electronics Pkg. Manufacturing, Editor in Chief:

R. Wayne Johnson, +1-334-844-1880, johnsr7@auburn.edu

Technical Committee Chairs

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TC-ASTR - Environmental Stress & Reliability Test:

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TC-ECCC - Electrical Contacts, Connectors and Cables:

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TC-Ed - Education:

Rao R. Tummala, Georgia Tech., +1-404-894-9097,

rao.tummala@ee.gatech.edu

TC-EDMS - Electrical Design, Modeling and Simulation:

Madhavan Swaminathan, Georgia Tech, +1-404-894-3340,

madhavan.swaminathan@ee.gatech.edu

TC-EM - Manufacturing - Design & Process:

Walter J. Trybula, SEMATECH, +1-512-356-3306, w.trybula@ieee.org

TC-GEMP - Green Electronics Manufacturing and Packaging:

Nils F. Nissen, IZM, Berlin, +49-30-46403-139, nils.nissen@izm.fraunhofer.de

TC-HDSB - High Density PWB Packaging:

Yoshitaka Fukuoka, Weisti, +81-3-3475-0755, weisti.fukuoka@rose.zero.ad.jp

TC-M - Materials:

Rajen Chanchani, Sandia Labs, +1-505-844-3482, r.chanchani@ieee.org

TC-MEMS - MEMS and Sensor Packaging:

Eric Jung, IZM, Berlin, +49-30-46403-161, erju@izm.fhg.de

TC-NANO - Nano Packaging:

Rao Tummala, Georgia Tech., +1-404-894-9097, rao.tummala@ee.gatech.edu

TC-OPTO - Fiber Optics & Photonics:

Susan Law, Australian Photonics/OFTC, +612-9351-1960,

s.law@ofc.usyd.edu.au

TC-PEP - Power Electronics Packaging:

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TC-RF+W - RF and Wireless:

Craig A. Gaw, Freescale, +1-480-413-5920, c.a.gaw@ieee.org

TC-SP - Systems Packaging:

Cian O Mathuna, +353-21-4904350, cian.omathuna@tyndall.ie

TC-Test - Electrical Test:

Bruce Kim, Univ of Alabama, +1-205-348-4972, bruce.kim@ieee.org

TC-Therm - Thermal Management & Thermomech. Design:

Tony Mak, Dallas Semiconductor, +1-972-371-4364, t.mak@ieee.org

TC-WLP - Wafer Level Packaging:

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Strategic Program Directors

Awards and Recognition: Kitty Pearsall, kittyp@us.ibm.com

Conferences: Rolf Aschenbrenner, wdb@engr.uark.edu

ECTC Integration: C.P. Wong, cp.wong@ieee.org

Educational Programs: Albert F. Puttlitz, a.f.puttlitz@ieee.org

Global Chapters and Membership: Steve Bezuk, sbezuk@qualcomm.com

Publications: R. Wayne Johnson, johnsr7@auburn.edu

Student Programs: Vacant

Technical Programs: N.Rao Bonda, r.bonda@ieee.org

Region 8 Programs: Eric Beyne Beyne@imec.be

Region 10 Programs: Charles Lee, charles.lee@ieee.org

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Constitution and Bylaws: Tony Mak, t.mak@ieee.org

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Fellows Search: David W. Palmer, d.palmer@ieee.org

Rao Tummala, rao.tummala@ee.gatech.edu

Finance: Philip E. Garrou, pgarrou@rti.com

Long Range / Strategic Planning: Rao Tummala, rao.tummala@ee.gatech.edu

Membership: Steve Bezuk, sbezuk@qualcomm.com

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

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this NEWSLETTER to co-workers.

President's Column (cont.):

An IEEE Spectrum Tech Alert, delivered recently via email, informed me that it is providing free access to the seminal papers by the Nobelists, for a limited time only. I took advantage, clicked on the link, and was able to learn more about the authors and their pioneering work. One significant fact I learned was that the papers were published in IEE or IEEE Transactions after having first been presented at society technical conferences. That was thirty to forty years ago.

CPMT Transactions have a global reach of authors, reviewers, and editors. CPMT conferences, symposiums and workshops are held in America, Europe and Asia. The conferences and Transactions draw participants from industry, universities, and research institutes. They are the critical links in this global knowledge supply chain. In CPMT-sponsored conferences and CPMT Transactions, one regularly finds ideas for new innovations and interesting research results. I wonder, if, thirty to forty years from now, some of our CPMT Society members will be similarly honored for the work that has been published in CPMT Transactions and presented at CPMT Society sponsored conferences. Is this a good and fair question? I would be glad to hear from you.

William Chen

CPMT Society News:

**Call for Nominations for the 2010 CPMT Society Awards
(Nominations Due by January 31, 2010)**

Submitted by Dr. Kitty Pearsall, CPMT Strategic Awards
Director

This is a Call for Action!!!! Don't wait to the last minute and MISS OUT on a great opportunity to recognize a peer or a co-worker for their contribution to the CPMT Society and/or their technical community. Once again it is that time of the year for you to put your thinking caps on and consider those individuals that should be recognized! I am sure that you know those individuals that have gone above and beyond in their contribution to their technical community and to the CPMT Society. Don't hesitate to put their names forth. The Awards committee is currently accepting nominations for the 2010 CPMT Awards. All nomination packages are due by January 31, 2010. Winners will be notified by 30 March 2010 and the awards will be presented at the 60th Electronic Components and Technology Conference, June 1st – June 4th, 2010, in Las Vegas, Nevada, USA. A current nomination form can be found on the CPMT web site at the Awards link by accessing the following url www.cpmt.org/awards/index.html I look forward to receiving many nominations in all the categories listed below:

CPMT Society offers the following 5 awards for the purpose of recognizing outstanding service and contributions to furthering the professional purposes of the CPMT Society.

1) David Feldman Outstanding Contribution Award: This award recognizes outstanding contributions to the fields

encompassed by the CPMT Society through executive or managerial directions.

Prize: \$2,500 and Certificate

Basis for Judging: Contributions to the organization or enterprises connected with the field, to CPMT Chapter, Section or Board of Governors activities, and to the fields encompassed by the CPMT Society.

Eligibility: Recipient must have been a member of IEEE and CPMT for the past five (5) years, including 2008.

2) Outstanding Sustained Technical Contributions Award: To recognize outstanding sustained and continuing contributions to the technology in fields encompassed by the CPMT Society.

Prize: \$2,500 and Certificate

Basis for Judging: Technical contributions must be sustained and continuing over a period of at least five (5) and preferably 10 years. One major contribution will not qualify. Contributions must be documented by open literature publications such as papers, patents, books and reports (available to the public).

Eligibility: Must have been a member of the IEEE and CPMT Society for the past three (3) years, including 2008.

3) Electronics Manufacturing Technology Award: To recognize major contributions to Electronic Manufacturing Technology in fields encompassed by the CPMT Society.

Prize: \$2,500 and Certificate

Basis for Judging: Contributions may include technical development of, or management (directing) of major new electronic manufacturing processes; significantly increasing yield and/or reliability of established manufacturing processes, etc. Work in the management of CPMT conferences or its BoG may be contributory but not sufficient to receive the award.

Eligibility: No need to be a member of IEEE and CPMT Society.

4) Exceptional Technical Achievement Award: To recognize an individual, or group of individuals (no more than three), for exceptional technical achievement in the fields encompassed by the CPMT Society.

Prize: \$2,500 and a Certificate.

Basis for Judging: Technical contributions of the nominee(s) must be such that they are considered to be exceptional, not achieved by most members. A single major contribution will qualify for this award. The contribution could be a significant invention, introduction of a significantly new and important technology or product (in which case, the nominee may be a team leader), or significant work that advances the state-of-the-art in CPMT's field of interest. The technical contributions must be documented by open literature publications such as papers, patents, books, and reports (available to the public). Technical recognition and awards from the organization employing the individual as well as awards from other IEEE and non-IEEE technical societies may also be contributory.

Eligibility: Recipient(s) must have been a member of IEEE and CPMT for the past three (3) years, including 2008. There are no requirements for service to the IEEE or CPMT Society.

5) Outstanding Young Engineer Award: To recognize outstanding contributions to the fields encompassed by the CPMT Society

through invention, technical development, publications, or new product implementation.

Prize: \$1,500 and Certificate plus one year free membership in CPMT with all CPMT Transactions.

Basis for Judging: Technical contributions through patent invention, contributions to technology or product development within the CPMT Field of Interest. May encompass management (directing) of significant new product introduction or implementation of major new electronic manufacturing processes; significantly increasing yield and/or reliability of established manufacturing processes. Contributions to the Society, through the BoG, Conferences, Chapters, etc., will also be considered. Proof of contributions may consist of open literature publications (preferred) such as papers, patents, books, and reports (available to the public). At least three (3) letters from peers and management at the nominee's place of employment attesting to the accomplishment(s) can be accepted in lieu of publications.

Eligibility: Must have been a member of the IEEE and CPMT (member grade or above) for the past three (3) years, including 2008, and must be 35 years of age, or younger, on December 31st, 2008. Please provide Date of Birth (Month/Year) to ensure eligibility.

Guidelines for Nominators:

- Minimum **three** reference letters must be submitted in support of all nominations. Reference letters can be provided by IEEE/CPMT members and non-members.
- Past recipients of an award are not eligible to receive that same award. For list of past awardees, see the CPMT Society Home page (<http://www.cpmt.org/awards>).
- An individual may submit only one nomination per award but may submit nominations for more than one award.
- It is the responsibility of the nominator to provide quality documentation to assist the Awards Committee in evaluating the candidate.
- Please send nominations to CPMT Society Awards Committee Chair by e-mail, fax or mail:

Kitty Pearsall, Ph.D.
IBM, Bldg 045/2C-40
11400 Burnet Road
Austin, Texas 78758
Phone: +1-512-286-7957
Fax: +1-512-973-4111
Email address: kittyp@us.ibm.com

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Submitted by Eric Perfecto, Member-at-Large, CPMT Society Board of Governors

Graduates of the Last Decade (GOLD) was developed by IEEE to help young professionals transition from being a student to entering the professional world.

If you are an IEEE Member who has received your first professional degree within the last ten years, you are automatically part of IEEE GOLD!

Your CPMT society is interested in fomenting Gold member related activities – if you would like to like to be part of the CPMT Gold group please contact CPMT Board of Governors member Eric Perfecto (perfecto@us.ibm.com).

Conference News:

CONFERENCES IN 2009:

2009 11th Electronics Packaging Technology Conference (EPTC 2009)

9-11 December 2009, Singapore
<http://www.eptc-ieee.net/>

2009 IEEE Electrical Design of Advanced Packaging & Systems Symposium (EDAPS 2009)

December 2-4, 2009 Hong Kong, China
<http://www.edaps2009.org/>
Contact: edaps2009@ee.cuhk.edu.hk

CONFERENCES IN 2010:

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

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

3rd Electronics Systemintegration Technology Conference (ESTC 2010)

September 13-16, 2010 Berlin, Germany
http://www.estc.biz/outlook_estc_2010/ Contact: Rolf Aschenbrenner, rolf.aschenbrenner@izm.fraunhofer.de

See the CPMT Society website for updates:

www.cpmt.org/conf

3rd Electronic System-Integration Technology Conference (ESTC) to take place in Berlin from September 13-16, 2010

Submitted by Rolf Aschebrener, VP Conferences, CPMT Society

There are three IEEE CPMT flagship conferences worldwide: the annual conference ECTC located in the USA, the EPTC which takes place once a year in Singapore and the biennial European

conference Electronics System-Integration Technology Conference (ESTC).

After its two very successful predecessor events in Dresden (2006) with the General Chair Klaus-Jürgen Wolter from the Technical University Dresden and in Greenwich (2008), where Prof. Chris Bailey from the University of Greenwich was the General Chair of the conference, the 3rd ESTC in September 2010 in Berlin will again feature a powerful technical program, as well as professional short courses on modern technologies. The ESTC 2010's General Chair will be Rolf Aschenbrenner from the Fraunhofer IZM in Berlin.

The ESTC 2010 is a global event brings together key researchers, innovators, decision-makers, technologists, businesses, and standards bodies working in microelectronic packaging. Organized by IEEE-CPMT since 2006, the conference series is the premier venue for academics and industry to present, demonstrate, and discuss the latest developments in assembly and interconnection technology and new innovative applications.

The concurrent exhibition will facilitate the presentation of state-of-the-art technological services and equipment to an interested audience of international decision-makers from science and industry.

ESTC 2010 seeks original papers describing research in all areas of electronic packaging. Papers may be submitted to the following tracks:

- Advanced packaging
- Microsystem packaging
- New materials and processes
- Optoelectronics
- Assembly and manufacturing technology
- Modelling and simulation
- Applied Reliability
- Power electronics
- Electrical design and modelling
- Emerging technologies

Abstract submission deadline is February 1, 2010. For more detailed information please go to www.estc-2010.de

Contact: Rolf Aschenbrenner, Fraunhofer IZM - rolf.aschenbrenner@izm.fraunhofer.de

15th International Symposium for Design and Technology of Electronics Packages – SIITME 2009

Submitted by Réka Bátorfi, IEEE CPMT Hu&Ro Joint Chapter

Between the 17th and 20th of September, 2009, the 15th International Symposium for Design and Technology of Electronics Packages (SIITME) was arranged for the first time outside Romania, in the beautiful spa town, Gyula, Hungary. This conference is an annual event in Central and Eastern Europe since 1995, having a special interest to improve and to implement new electronics technologies. The topics cover design, simulation and quality aspects of electronics packages,

devices and circuit modules. There were also a biomedical and an educational topic, the latter is a perspective field, as e-learning and life-long learning are becoming more and more important in these new member states of the European Union.

The Symposium is traditionally a forum of scientists and researchers both from academia and the industry. This year the professors, young scientists and students were from Germany, Poland, Slovenia, Czech Republic, Slovakia, Romania and Hungary. The Romanian participants came from all over the country, representing the technical universities from Bucharest, Cluj-Napoca, Pitesti, Suceava, Timisoara, Galati, Alba Iulia, Iasi, and Brasov. The SIITME is especially popular among Ph.D. students and young researchers, more than 60 % of the participants being from this group. Every year it is a very good opportunity for them to share their scientific ideas, and present their research work at an international forum.

SIITME has always been strongly supported by CETTI of Politehnica University of Bucharest, the IEEE-CPMT Hu&Ro Joint Chapter and ARIES (Romanian Association for Electronic and Software Industry). This year, the activities of the Joint Chapter were the organization of the whole conference, both in scientific and in technical way, which has lead to a high level conference and a friendly and enjoyable atmosphere. Not just the local organizers, but also the members from Romania contributed with a lot of work to have a successful event.

The SIITME 2009 also was an IEEE Conference, registered in the conference database. After the final evaluation, the papers of the highest scientific value are included in the IEEE Xplore webpage. The members of the steering and the scientific committees have done a hard work helping the authors and evaluating their abstracts, papers and presentations.



The opening ceremony of the 15th SIITME in the Town Hall of Gyula (from left to right: Árpád Szabó, Ioan Fodoreanu, Paul Svasta, Zsolt Illyefalvi-Vitéz, Dan Pitica)

The Town council was represented by Dr. Klára Perjési, the Mayoress of Gyula and Mr. Árpád Szabó, the Deputy Mayor of Gyula. It was also our honour that Mr. Ioan Fodoreanu, the General Consul of Romania in Hungary also participated in the Opening session and had the opportunity to meet Prof. Paul Svasta General Chair of SIITME, Prof. Zsolt Illyefalvi-Vitéz Conference Chair of SIITME2009 and Prof. Dan Pitica Chair of the IEEE-CPMT Hu&Ro Joint Chapter.

Demonstrating the traditionally good and fruitful relationship among the member countries, a workshop about a common EU project, Elect2eat (www.elect2eat.eu) was organized during the Symposium. This project initiates life-long e-learning in electronics design and technology, improving the knowledge of students in vocational education schools and of skilled workers in electronics assembling companies. There is also a scientific bilateral cooperation between Romania and Hungary, with the topic of low-energy consuming joining technologies. Several papers were written in the frame of this cooperation at this and other previous international conferences (ISSE, IMAPS Cz&Sk). At SIITME 2009, Radu Bunea presented a paper about laser soldering topic, which is the result of his 6-week stay in Hungary, where he did experiments with the help of the local experts.

were given to Ms. Marina Santo Zarnik (HIPOT Slovenia) and to Mr. Radu Arsinte (TU Cluj-Napoca). Acknowledgements were expressed to Ms. Georgiana Buta (Stefan cel Mare University, Suceava), Mr. Iulian Busu (UPB-CETTI, Bucharest) and to Mr. Mihai Machedon (TU Brasov).

During the whole conference, the organizers made efforts to present Hungary and to have an overview of the local specialties. One of them was a *pálinka* tasting and the secrets of the production were also shown. The participants had the opportunity to visit the castle and the spa. These occasions enhanced the contacts and networking which forecast future scientific and social relationships.

Chapter News:

Report by IEEE Singapore REL/CPMT/ED Chapter for July-Sep 2009

Submitted by Kin-Leong PEY, Chair - Singapore REL/CPMT/ED Chapter

Together with Institute of Microelectronics, the Chapter jointly organized a talk on 20 July 2009 on "Recent Advances in Anisotropic Conductive Adhesives (ACAs) Interconnection Technology – Low Temperature and Fast Assembly Methods" by Prof Kyung-Wook Paik, Korea Advanced Institute of Science and Technology (KAIST). He response was overwhelmed with about 80 participants attended this talk.

Jointly organized with the Microelectronic Center, School of Electrical and Electronic Engineering, Nanyang Technological University, the Chapter organized a Workshop and IEEE EDS Mini-colloquium on NANometer CMOS Technology (called 20th WIMNACT) on 11 August 2009. Three EDS Distinguished Lecturers (Prof. Juzer Vasi, IIT Bombay, India, Prof. Ramgopal Rao, IIT Bombay, India and Dr. Samar Saha (IEEE EDS VP Publications), Silterra USA Inc., USA) presented three talks. The workshop was officially opened by Prof. Kam Chan Hin, Chair of the School of Electrical and Electronic Engineer, NTU. These were Modeling and Simulation of Flash Memory Devices by Prof. Vasi, Polymer Based Sensor Systems for Healthcare & Homeland Security by Prof. Rao and Device Considerations for Ultra-Low Voltage Analog Integrated Circuits by Dr. Saha. About 30 participants attended the talk.

The Chapter co-hosted the 16th IEEE International Symposium on the Physical and Failure Analysis of Integrated Circuits (IPFA 2009). It was held from 6-10th July 2009 in Suzhou, China. Eight tutorials were conducted on 6 and 7 July 2009, with two parallel sessions. 15 invited papers were presented over the 3-day symposium from 8 to 10 July 2009. This is the first time that IPFA is being held in China and despite the global financial crisis, almost 200 abstracts were received. For the 3-day symposium, there were two parallel sessions with 81 oral presentations. A record 94 papers were accepted for the poster presentations. There were more than 200 participants for the tutorials and symposium and 27 exhibitors participated. The "Art of Failure Analysis" Photo Contest attracted some high quality photographs. The first-prize photo was featured on the cover page of the IEEE Spectrum online and the top 10 entrants were included as a slideshow in the IEEE Spectrum



The awarding ceremony of SIITME 2009, for Best and Excellent Poster Awards

At the closing ceremony, the best scientists were awarded: the Best Poster Award was given to Mr. Ciprian Ionescu (UPB-CETTI, Bucharest) for the paper entitled Electrochemical Sensor with Polymer Thick Film Printed Electrodes; the Best Poster Award for Young Scientist was given to Mr. Rajmond Jánó (TU Cluj-Napoca), for the paper entitled Intelligent Human Interface Device. Excellent Poster Awards for Young Scientist were given to Mr. Cosmin Tamas (UPB-CETTI, Bucharest), Mr. Olivér Krammer (BME-ETT, Budapest), Mr. Constantin Barabasa (Gh. Asachi TU, Iasi) and Mr. Radu Bunea (UPB-CETTI, Bucharest). Excellent Poster Awards

Magazine website. More information can be found at www.sipac.gov.cn/ywdd/200907/t20090709_49025.htm and www.sipac.gov.cn/sipnews/gd/200907/t20090709_49000.htm.



20th WIMNACT. First row from left – Prof. Zhou Xing (IEEE Singapore Rel/CPMT/ED Chapter ExCo member), Prof. Kin-Leong Pey (Chair, IEEE Singapore Rel/CPMT/ED Chapter), Prof. Kam Chan Hin (Chair, School of Electrical and Electronic Engineering, NTU), Dr. Samar Saha, Prof. Juzer Vasi and Prof. Ramgopal Rao.



The opening ceremony of IPFA2009 in Suzhou, China.

News from Saratov/Penza joint Chapter

Submitted by N. M. Ryskin, Chapter Chair

Fourth conference for young scientists “Nanoelectronics, Nanophotonics and Nonlinear Physics”:

On September 7–9, 2009 Fourth conference for young scientists “Nanoelectronics, Nanophotonics and Nonlinear Physics” was held in Saratov (NNNPh’09). The conference was hosted by Saratov Branch of the Institute of Radio Engineering and Electronics, Russian Academy of Science (IRE RAS). Conference program included 10 Plenary Lectures presented by invited speakers, 49 talks and 26 posters presented by young scientists and students. The presentations were divided in 5 sessions: “Micro and nanoelectronics, nanomaterials and nanostructures”, “Optics and nanophotonics”, “Acousto and magnetoelectronics”, “Nonlinear physics”. Over 100 participants attended the conference including guests from

Moscow, Ulyanovsk, Ufa, Ekaterinburg. The book of abstracts was published and distributed at the conference. Conference web page is located at <http://nnnph06.fatal.ru>

Saratov/Penza IEEE Chapter supported the conference financially and technically. The Conference Chair was Prof. S.A. Nikitov (IRE RAS, Moscow) who is a Vice-Chair of the IEEE Russian Section. Dr. Irene E. Kuznetsova chaired the Local Technical Committee. Many IEEE members served as members of Program Committee, Session Chairs and Plenary Lecturers.

2009 Chapter Workshop “Electromagnetics of Microwaves, Submillimeter and Optical Waves”:

On September 24, 2009 Saratov/Penza IEEE Chapter hold its annual Workshop “Electromagnetics of Microwaves, Submillimeter and Optical Waves”. At the beginning of the Workshop, Chapter Chair Prof. N.M. Ryskin presented the 2008/09 Activity report which was approved by the IEEE members. The Workshop technical program included 7 talks, one poster and 2 Internet reports. 13 IEEE Members and 8 guests attended the workshop.



Chapter Chair Prof. N.M. Ryskin presenting 2008/09 Annual Report

Finland Chapter Update

Toni Mattila, Chair - IEEE Finland

Over the recent two years the Finnish CPMT Chapter has actively developed its local activities. In the beginning of 2009 the chapter board was reinforced by two new members to facilitate the arrangement of events.

Together we have arranged a series of seminars with alternating topics. In the autumn of 2008, we had a seminar focusing on high-density packaging and integration technologies. The seminar was kindly hosted by Imbera Electronics, which is a leading provider of embedded packaging solutions. In the spring of 2009, we had a full day seminar with the emphasis on electronic packaging and mechanical shock reliability. We were fortunate to have two CPMT distinguished lecturers and well-known professionals in their field as speakers in this event, Prof. Ephraim Suhir and Prof. James E. Morris. The board of the CPMT Finland wishes to thank both speakers for the success of the seminar.

In November 2009 we will continue with a seminar whose topic this time will be MEMS, MEMS based sensors and their applications. The seminar we cover topics ranging from the development of

individual MEMS/sensor to systems and products where they are employed. In the seminar we will hear presentations by speakers from Helsinki University of Technology, Nokia, Suunto, Vaisala, VTI-Technologies, and VTT Technical Research Centre of Finland. The latest updates and information can be found on our web page at ewh.ieee.org/r8/finland/cpmt.

Student Chapter News:

CPMT San Jose State University Student Chapter

Submitted by Reuben Thibodeau, Chair - IEEE-CPMT SJSU

CPMT SJSU is now an officially recognized student organization!

We are a multidisciplinary group of students focused on exploring technology, creating success, and having fun. Our members promote professional and technical growth by integrating industry experience with academic ingenuity, supporting dynamic collaboration on student projects and fostering an atmosphere for innovation and excellence. Components, packaging, & manufacturing technology presents many interesting opportunities for SJSU students and we invite guest speakers to come share experiences working in these areas.



In the picture from left to right: Ruth Herrera-Reed, Melinda Mendolla, Reuben Thibodeau, Dr. Jinny Rhee (Faculty Advisor), Paramjeet Nagpal

Come check us out! www.engr.sjsu.edu/cpmt

Visit CPMT on the Web at: www.cpmt.org



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IEEE Presidents' Change the World Competition

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Flexible Electronics Symposium

The second annual **Flexible Electronics Symposium**, hosted by Binghamton University's Center for Advanced Microelectronics Manufacturing, (CAMM), in conjunction with the IEEE Components, Packaging and Manufacturing Technology Society, Sandia National Laboratories and Cornell University, was held on August 19, 2009 in Binghamton, New York.

This workshop brought together over 120 leading researchers from academia, national labs, government and industry with the goal of developing collaborative partnerships on emerging flexible electronic technologies that will impact energy, environment, military and homeland security applications. Presentations were given in the fields of flexible electronics, functional printing, and emerging electronic materials. The workshop provided the opportunity for participants to review and share new research findings in critical technology areas and identify issues for the rapidly growing flexible electronics field. As part of the workshop, attendees toured the Center for Advanced Microelectronics Manufacturing (CAMM), a national research lab focusing on roll-to-roll flexible electronics, and a networking dinner.

Speakers included: Bahgat Sammakia and James Turner, Binghamton University; David Gundlach, National Institutes for Standards and Technology; Changsoo Jang, University of Maryland, College Park; Dahwey Chu, Sandia National Laboratory; Kelly Lee and RJ Greco, Infotonics Technology Center; Christopher Ober, Cornell University; Charles Becker and Jeff Ash, General Electric; Minqian He, Corning Incorporated; and Fazila Seker, Xerox Research Center of Canada.

The workshop was held in conjunction with the Flex Tech Alliance's quarterly working group on Flexible, Printed and Organic Electronics.

The next symposium is scheduled for June, 2010.

Access Papers from Recent CPMT Conferences

You read, in the President's message (page 3), that he finds that conference papers are the critical links in our global knowledge supply chain. In CPMT-sponsored conferences, one regularly finds ideas for new innovations and interesting research results. Are you taking advantage of this "knowledge supply chain" to replenish your technical knowledge and discover where the technology is going? Here's your chance.

Here are the links to Proceedings and papers from the summer and fall CPMT Society conferences. Most researchers belong to companies or institutions that subscribe to the full IEEE collection. If your work/university domain isn't automatically recognized by your browser, please contact your librarian.

Electronic Components and Technology Conf, ECTC 2009.
59th - ieeexplore.ieee.org/servlet/opac?punumber=5066986

European Microelectronics and Packaging Conference, EMPC 2009. - ieeexplore.ieee.org/servlet/opac?punumber=5238690

Int'l Conf on Electronic Packaging Technology & High Density Packaging, 2009. ICEPT-HDP -
ieeexplore.ieee.org/servlet/opac?punumber=5234372

Signal Propagation on Interconnects, 2009. SPI. IEEE Workshop on - ieeexplore.ieee.org/servlet/opac?punumber=5073942

31st Int'l Spring Seminar on Electronics Technology, 2008. ISSE - ieeexplore.ieee.org/servlet/opac?punumber=5254892

55th IEEE Holm Conf on Electrical Contacts, 2009
- ieeexplore.ieee.org/servlet/opac?punumber=5284378

IEEE Int'l Conf on 3D System Integration, 2009. 3DIC
- ieeexplore.ieee.org/servlet/opac?punumber=5290624

Second Int'l Conf on Thermal Issues in Emerging Technologies, 2008. ThETA ieeexplore.ieee.org/servlet/opac?punumber=5159257

Scan through these Tables of Contents, and access the papers that are most meaningful to *your* career!



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EPTC 2009

11th Electronics Packaging Technology Conference
9th - 11th December 2009 @ Shangri-La Hotel, Singapore

EPTC 2009 is a 3-day event and features technical sessions, short courses/forums, an exhibition, social and networking activities. It aims to provide 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.

We are privileged to have 4 Professional Development Courses, presented on Wednesday December 9th:

- **"Advanced Techniques for Microsystem Mechanical and Reliability Characterization,"** R. Gopal KRISHNAN / Sanjay Kumar THAKUR
- **"Advanced Cu Wirebonding Technology,"** Mohandass SIVAKUMAR / Hong Meng HO
- **"Advanced Thermal Management Techniques for Electronic Components,"** Avram BAR-COHEN, U-Maryland, USA
- **"Enabling Technologies for 3D IC Integration and WLP,"** John LAU, Hong Kong University of Science and Technology

The morning-session Workshop is **"Challenges and Opportunities of 3D Packaging"**

Workshop Chair is Dr. Charles BAUER. Topics:

"3D Packaging: Market Trends and Technology Drivers" - Dr. Vern SOLBERG

"Wafer Level Interconnection Technologies" - Prof. Rao TUMMALA

"Interposer and Substrate Technologies" - Dr. Bernd APPELT

"Thermal Management Solutions" - Prof. Avram BAR-COHEN

A panel discussion follows.

The EPTC also features a tabletop **exhibition** featuring suppliers of materials, equipment, components, software and service providers for the microelectronics and electronic assembly industries will be held during EPTC.

Register online at www.eptc-ieee.net

We are looking forward to seeing you at EPTC in Singapore!



IEEE COMPONENTS, PACKAGING AND
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Call for Papers
IEEE CPMT Symposium Japan
August 24 - 26, 2010
The University of Tokyo, Japan

The VLSI Packaging Workshop in Japan (vlsi-pkg-ws.org/vlsi-pkg.html) has been held biannually since 1992 in Kyoto, and it has become a well-known international workshop for advanced packaging technologies. Due to ever increasing activities and changing demands, the committee has reviewed its mission, cooperated with the members of IEEE CPMT Japan Chapter, refurbished the workshop, and started the new symposium—**IEEE CPMT Symposium Japan**. It will provide component, packaging, and manufacturing researchers who are extending their activities beyond borders with opportunities to exchange technical knowledge and perspective. The committee strongly encourages you to attend this symposium and participate in the discussion, to understand the technology trends and find the best targets for your technology/business development. Bring your latest research results and share with the participants who are experts from the industry and the grove of Academe, and discuss with them. Anybody contributing to the achievement of a sustainable society through electronics is very welcome at this symposium.

Important information

- Submission of abstract: **Feb. 15, 2010**
- Notification of acceptance: Mar. 31, 2010
- Submission of manuscript: May 15, 2010

Abstracts are requested in the following technical areas

- System in a Package (SiP)
- MEMS Packaging Technologies
- Advanced Fine Pitch Packaging
- Nano-Technology
- 3D Packaging & COC (Chip on Chip)
- Micro Bumping Technology
- Wafer Level CSP
- Electrical Performance & Thermal Management
- Packaging for Optoelectronics
- Failure Mechanisms & Reliability Improvement
- Packaging for Automobile
- Materials for High Speed Application & Wafer Process
- RF Components & Modules / RF Tags
- Green Material
- Integrated Passives / Embedded Components
- Assembly and Packaging Challenges for Cu/Low-k Chips
- Laminated Materials & Processing
- Emerging Technologies
- Board level reliability

Contact person

General Chair: Hirofumi Nakajima, NEC Electronics Co. (hirofumi.nakajima@necel.com)

Vice Chair: Hiroshi Yamada, Toshiba Co. (hiroshi.yamada@toshiba.co.jp)

Program Chair: Shigenori Aoki, Fujitsu Laboratories Ltd. (aoki.shigenori@jp.fujitsu.com)



Advanced Packaging Materials Conference (APM) *(Incorporating Polytronic)* & **MicroTech-2010**

28th February – 2nd March 2010

Cambridge, England

First Call for Abstracts - Submission Deadline: 30th November 2009

EVENT

The IEEE-CPMT Advanced Packaging Materials (AMP) and IMAPS-UK MicroTech-2010 will be the major Spring 2010 event on Electronics packaging, interconnection and integration conference in Europe.

AMP featuring advanced polymer, organic and inorganic materials & MicroTech-2010 featuring Disruptive Technologies will be held at the well known University of Cambridge Møller Centre. The location is ideally placed near many of the forward thrusting new and established companies as well as at a great historic city.

The conference will feature Keynote talks, technical presentations, and exhibits, that provide leading-edge coverage of developments in all areas of packaging materials and processes. Attendees in the past have included academic researchers, developers, producers, and users of packaging materials from all over the world. APM, Polytronic and MicroTech are also major packaging materials forums, providing opportunities to network and meet leading experts and exchange up-to-date packaging knowledge in the field.

Abstract and Paper Requirements

Authors from industry and academia with innovative research or developments are invited to submit Abstracts for this forthcoming major international Conference. Abstracts must be between 250 and 500 words and must include results and graphics. Papers from industry are especially important. Such papers will necessarily have product content. However, commercially orientated material and descriptions are not permitted either in the paper or in the presentation or poster. Authors will also benefit from the opportunity for papers to be selected from the Conference Proceedings for publication in IMAPS iKnow and IEEE Xplore.

Technical Topics:

Disruptive Technologies • Advanced Packaging • Polymeric Materials • Inorganic Materials • Emerging Technologies • Manufacturing and Test Technology • Modelling, Simulation and Design • New Materials and Processes • Materials for Thermal Management • Reliability • LED'S, OLED's and optical packaging materials • Nano & Bio Materials • Adhesives • RoHS Compliant Materials

Poster papers will be on display throughout the days and each poster will have a scheduled slot for presentation by the author.

Short Courses:

Half day short courses will take place on the Sunday 28th February. Proposals for short-course Master Classes are also invited.

Technical Contacts: Nihal Sinnadurai (sinnadurai@aol.com) or Chris Bailey (C.Bailey@gre.ac.uk)

Submit Abstracts at the website apm-microtech.gre.ac.uk/

Exhibition

A tabletop exhibition featuring suppliers of materials, equipment, components, software, and services to the electronics industry will be held at the event

Accommodation

The Møller Centre (www.mollercentre.co.uk/location/index.html)

Conference Secretariat: Vicky Holland (IMAPSUK@aol.com)

Conference Co-Chairs:

Nihal Sinnadurai

Chair IEEE-CPMT (UK&RI)

APM-2010

sinnadurai@aol.com

Chris Bailey

University of Greenwich

APM-2010

c.bailey@gre.ac.uk

Andrew Holland

CSR plc

MicroTech-2010

andrew.holland@csr.com

CALL FOR PAPERS -- Abstracts due February 1, 2010



JOIN US IN BERLIN FOR THE THIRD ELECTRONICS SYSTEM INTEGRATION TECHNOLOGY CONFERENCE!

ESTC 2010 will bring you up to date on the latest international developments in microsystem technology and electronic packaging. It will feature a powerful technical program, as well as professional short courses on state-of-the-art technologies. On more than 750 m² exhibition area companies and research institutions will present new products and services.

Technological Topics

- Advanced packaging
- Microsystem packaging
- New materials and processes
- Optoelectronics
- Assembly and manufacturing technology
- Modelling and simulation
- Applied reliability
- Power electronics
- Electrical design and modelling
- Emerging technologies

For further information please go to <http://www.estc-2010.de>



USTAR Faculty Position Openings Department of Electrical and Computer Engineering, University of Utah

The Department of Electrical and Computer Engineering, University of Utah, Salt Lake City, seeks applications to fill at least two tenure-track positions at the assistant, associate or full professor level for an interdisciplinary research cluster in ***Micro and Nanosystem Integration and Packaging***. We are particularly interested in candidates with background in electronic micro/nano-system integration and packaging, biocompatible materials and packaging, solid state devices, reliability, testing, and micro/nano system modeling and simulation. Information on department research activities and curricula may be found on the web at www.ece.utah.edu. The web site also has information on two more positions available in the department. Information on the College of Engineering can be found at www.coe.utah.edu. Successful candidates will conduct research with tenure track appointments in the Department of Electrical and Computer Engineering, but may also be appointed in other departments such as Materials Science, Bioengineering or Mechanical Engineering. Suitable candidates may be considered for joint appointments with the College of Science or the Medical School at the University of Utah.

These positions are part of the Utah Science, Technology and Research Initiative (USTAR), which was funded by the Utah State Legislature to attract focused teams of outstanding researchers who have the potential to help build major research programs and create new technology that can ultimately lead to commercial products and/or new industries for Utah. The USTAR initiative is also supporting a new interdisciplinary building which will house a new nanofabrication laboratory and characterization facilities that will cater to solid state devices, MEMS, sensor and packaging research and development, as well as the handling of biomedical samples. The building will facilitate communication for researchers such as the ones hired under this solicitation, from engineering, sciences and the medical school, as well as offering lab access for selected industrial stake holders. Information on the USTAR initiative can be found under www.ustar.utah.gov. Candidates for this initiative should have a demonstrated track record of successful, funded projects and an interest or track record in technology commercialization, entrepreneurial or industrial experience.

The positions are also associated with and partially supported by the Fraunhofer Institute for Reliability and Microintegration IZM, and leverage a strong collaborative and international research program with a Fraunhofer IZM branch laboratory in Utah. Fraunhofer support includes in-house access to Fraunhofer infrastructure, know-how, and resources. Selected positions may be associated with joint Fraunhofer appointments, possibly at a center director's or co-director's level.

Résumés with names, contact information for at least three references, and statements for research and teaching goals should be sent to Ms. Debbie Sparks, USTAR Faculty Search Committee, University of Utah, Electrical and Computer Engineering Department, 50 South Central Campus Drive, Room 3280, Salt Lake City, UT 84112-9206. Email applications are accepted at dsparks@ece.utah.edu. Applications will be reviewed starting September 1, 2009, and will be accepted until the positions are filled.

Faculty responsibilities include developing and maintaining an internationally recognized research program, effective classroom teaching at the undergraduate and graduate levels, and professional service. Applicants must hold a Ph.D. by the time of appointment. The University of Utah values candidates who have experience working in settings with students from diverse backgrounds and possess a strong commitment to improving access to higher education for historically underrepresented students. The University is an AA/EO employer, encourages applications from women and minorities, and provides reasonable accommodations for known disabilities of applicants and employees.

Visit www.ece.utah.edu/news/5/137/USTAR-Faculty-Position-Openings

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

Marsha Tickman, Executive Director
PO Box 1331 / 445 Hoes Lane
Piscataway, NJ 08855 USA

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2009/2010 Deadlines for Submitting Articles:

November 25th, 2009 February 25th, 2010

May 25th, 2010 August 25th, 2010

Only Articles sent to nsltr-input@cpmt.org

will be included in the newsletter

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14th IEEE Workshop On

CALL FOR PAPERS (SPI 2010)

SIGNAL PROPAGATION ON INTERCONNECTS

Sponsored by the IEEE Computer Society – Test Technology Technical Council (TTTC) and
by the IEEE Components, Packaging, and Manufacturing Technology (CPMT) Society

May 09-12, 2010 - “Van der Valk Hotel” - Hildesheim, Germany

SPI has developed into a forum for exchange of the latest research results in this area. The is to report on the most recent developments in the field of interconnect modeling, simulation and measurement on chips, boards, and packages. The event is also meant to bring together developers and researchers from industry and academia in order to encourage cooperation. The workshop will be held in English. Detailed information about the workshop and its location are available on the website.

Main topics of the workshop include, but not limited to:

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

SUBMISSION OF ABSTRACTS:

Those who wish to contribute to the workshop should send (by eMail only) a formatted two- to four-page paper to the Program Chair by **January 29, 2010**. If the paper is accepted, it will be reproduced, as is, in the workshop proceedings. Notification about acceptance will be given by March 31, 2010.

For submission instructions see “Author’s Kit” on our website:

www.spi.uni-hannover.de

PROGRAM-CHAIR: Uwe Arz, Physikalisch-Technische Bundesanstalt, Arbeitsgruppe 2.23, On-Wafer-Mikrowellenmesstechnik, Bundesallee 100, 38116 Braunschweig (Germany) – Phone: +49 531 592 2297; Fax: +49 531 592 2228; uwe.arz@ptb.de

**We are looking forward to
seeing you in Hildesheim!**