

## *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.

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## *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 Microperipheral 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 -180°C to +485°C. 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](mailto: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/](http://www.cpmt.org/conf/)**