

President's Column (Continued from Page 1)

There is belief that the traditional Moore's Law Scaling will become more difficult in the outer technology nodes, and Packaging Technologies will play a strong role to take up the slack. The ITRS More than Moore initiative shows the importance of broadening innovations and inventions in Packaging and other Technologies to keep the industry moving ahead in the long run.

Market

Sixty years ago the standard electronic component was the vacuum tube. In application it was bulky, expensive, power hungry, very hot and had limited wear-out life. The market challenge that the Bell Lab research team set out to solve was for the growing interstate long distance telephone communication market requiring reliable solid state components for telephone switch systems. We have come a long way in product applications, markets and technology. Consumer applications dominate the market. From telephone communication alone, over a billion cell phones were sold in 2006. And those cell phones have many more functions than the landline phone of 60 years ago. At a tap of the key, we play music, shoot video and connect to the internet.

Profession

In my last message I mentioned that the traditional roles for an electronic packaging engineer have been: signal integrity, power delivery, heat removal and mechanical reliability. Today our profession is broadening beyond the traditional roles. We are covering all those roles and much more. From technological perspective, the traditional Moore's Law Scaling is becoming more difficult, and packaging professionals are stepping up to take up the slack. The consumer market imperatives - cost, time to market, function, weight, size and look - add new dimensions to the electronic packaging profession. The packaging community is experiencing a rich outpouring of "out of box thinking" from industry, academia, and research institutes. At conferences, trade shows, and other industry gatherings in US, Europe and Asia, new ideas and fresh concepts - coined in phrases such as System in Package (SiP), Wafer Level Packaging, and 3D Packaging - are being hotly debated and tested.

The ways that engineering is being done - from research, development, quality, manufacturing, marketing and sales - are very much collaborative in a competitive environment. Internet enables working across geographical lines. Business models require collaborative engineering across traditional business boundaries.

A Global Community

In the early 1950's Western Electric (the manufacturing arm of AT&T) set up the first factory to build transistors in Allentown, Pennsylvania. Fifty plus years later the semiconductor and electronic industries are spread worldwide.

With the global industry, IEEE CPMT professionals are everywhere around the globe: some are IEEE CPMT members, some are IEEE members, some belong to other professional societies or belong to none at all. Recently I was greatly encouraged to learn of the formation of the CPMT Chapter in Poland, and of the initiative to form a chapter in Austin, Texas. I attended the ICEPT conference in Shanghai last

month meeting many fellow electronic packaging professionals from industry, academia, and research institutes.

We are a truly global community.

A Vital and Dynamic Global Professional Society

At the 60th anniversary of the discovery of the transistor, it is time to reflect on the science and technology created from this remarkable discovery; the globally based profession that has risen from it. Today we stand at the cusp of more changes in technology, market and the profession itself. How do we shape and grow the IEEE CPMT Society and the value propositions to be a vital and dynamic force for our membership and for our professionals at this time of change?

We are scheduling some workshops prior to the November CPMT Board of Governor's meeting to examine, debate and address some of these questions. We are at the planning stage. Your input will be welcome.

CPMT Society News:

IEEE-CPMT Society Awards for Year 2008

(Nomination Due Date: January 31, 2008)

Submitted by Dr. Kitty Pearsall, Strategic Director,
IEEE CPMT Society

The CPMT Strategic Awards Director announces the call for nominations for their five, 2008 Society awards. The CPMT Society offers these awards for the purpose of recognizing outstanding service and contributions to furthering the professional purposes of IEEE and CPMT Society. While a nominee may have a specific award in mind when applying, the Awards Recognition Committee reserves the right to consider any nomination for awards other than the award suggested when, in its opinion, the support and justification may more appropriately apply to a different CPMT Society award. Winners will be notified by 28 February 2008 and the awards will be presented at the 58th Electronic Components and Technology Conference, May 27- 30th, 2008, in Lake Buena Vista, Florida, USA.

After reviewing the high level summaries presented below, you will find a list of nomination submission requirements. The awards nomination form can be found on the CPMT Society Home page (www.cpmt.org/awards).

- **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 2007.
- **Outstanding Sustained Technical Contributions Award:** This award recognizes 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

ten (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 2007.

- **Electronics Manufacturing Technology Award:** This award recognizes 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.

- **Exceptional Technical Achievement Award:** This award recognizes 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 2007. There are no requirements for service to the IEEE or CPMT Society.

- **Outstanding Young Engineer Award:** This award recognizes 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 2007, and must be 35 years of age, or younger, on December 31st, 2007. Please provide Date of Birth (Month/Year) to ensure eligibility.

Guidelines for Nominators:

- Minimum three (3) 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 a second time. For a list of past awardees, see the CPMT Society Home page (www.cpmnt.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 Awards Committee Chair by e-mail, fax or mail. If you fax a nomination, please follow-up with an email.

Kitty Pearsall, Ph.D.
IBM, Bldg 045/2C-40
11400 Burnet Road
Austin, Texas 78758
Phone: +1-512-838-7215
Fax: +1-512-838-7134
Email address: kittyp@us.ibm.com

IEEE Fellow Nomination Process

Dr. David Palmer
IEEE CPMT Fellow Search Committee

March 1st was the deadline for submitting nominations for the next group of IEEE Fellows of the Institute which will be announce at the end of 2007. Thus, it is a good time to remember what the quest for Fellow is about and to get ready to start the process for the next year. To quote from the IEEE web site:

“The grade of Fellow recognizes unusual distinction in the profession and shall be conferred only by invitation of the Board of Directors upon a person of outstanding and extraordinary qualifications and experience in IEEE-designated fields, and who has made important individual contributions to one or more of these fields.”

The total number selected in any one year does not exceed one-tenth percent of the total voting Institute membership. For the last few years about 250 new Fellows have been appointed out of about 600 nominations. CPMT averages about 5 new Fellows a year. We have more than 100 Fellows in our current Society membership of 3000.

In addition to professional distinction, the qualifications an IEEE member needs before being nominated are:

- Must be a senior member at time of nomination