

# Components, Packaging, and Manufacturing Technology Society



# IEEE

## Newsletter



The Global Society for Microelectronics Systems Packaging



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[www.cpmt.org](http://www.cpmt.org)

[www.enh.ieee.org/soc/cpmt/newsletter](http://www.enh.ieee.org/soc/cpmt/newsletter)

### President's Column



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#### Greetings

This is my first message to you as President of CPMT. I am excited to assume this office. CPMT is the foremost technical society of my profession, and I believe that there is no better place to serve our profession than to serve in CPMT. At the same time, there is a strong sense of humility in following in the footsteps of my predecessors, who have done so much for CPMT and for our profession. I wish to acknowledge Phil Garrou for his leadership and dedicated service as President of CPMT for the term 2004-2005. Under his leadership, the Society has continued to make great progress in the goal of a truly global technical professional society serving the global membership of our profession.

On behalf of CPMT, I wish to acknowledge the retiring Board of Governors (BoG) officers and members at large for many years of dedicated and enthusiastic service to the CPMT Society.

- H. Anthony Chan: VP of Administration
- John Segelken: VP of Finance
- Connie Swager: Strategic Program Director, Marketing
- Timothy Adams: Chair Web Development
- Merrill Palmer: Member at Large
- David Whalley: Member at Large
- Walter Trybula: Member at Large
- Jan Vardaman: Member at Large

We extend our very sincere thanks to you. This is not a goodbye. We are looking forward to seeing you at the society activities. And we would welcome you to visit at the BoG meetings. *(Continued on Page 3)*

### IEEE Fellow Nomination Process

Dr. David Palmer  
IEEE CPMT Fellow Search Committee

March 1<sup>st</sup> was the deadline for submitting nominations for the next group of IEEE Fellows of the Institute which will be announce at the end of 2006. 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: *(Continued on Page 7)*

#### IEEE CPMT Society Newsletter March, 2006 Index

• Presidents Message:	1
• Fellows Nomination Process:	1
• Interviews:	4
• Fellow Grade:	7
• Senior Member Grade:	8
• Workshop / Conference Reports:	9
• Chapter Reports:	9
• IEEE 2007 Pres. Elect Candidate Interviews	10
• Announcements:	13
• Conferences: ECTC, EPTC, IOTHERM, etc	14

Cartoonists at risk...



One minute I'm drawing a funny cartoon of Nicolai Tesla, and the next minute there's a bolt of lightning out of the clear blue sky....

or project, and for authors wanting to add the correct references to their papers. This is the internet equivalent of the “compendium” books of compiled papers that we used to publish occasionally.

I know that it’s hard these days to find extra time to help develop the profession. But we all take advantage of what we develop in common, and I think it’s part of each engineer’s professional responsibility to help in some way – maybe at the local Chapter level, or with a conference, and perhaps by helping me with our Society’s web presence and services, or with our journals.

**Editor:** What would be your advice for career growth to engineers who are in or entering this field?

**Paul Wesling:** Ours is a particularly challenging field, since it is so interdisciplinary. An electrical engineer new to our fields needs quick updates in materials, failure modes, thermal modeling, and processing. A mechanical engineer must develop background in signal integrity and interconnects, time-of-flight issues, and assembly. The materials engineer has similar “blank spots” that need to be filled. And we all need to understand the chemistry and properties of nano-level materials, the impact of MEMS/NEMS, and the integration of photonics, biotechnology and bio-compatible devices. These will be markers for careers in the future.

So the secret to being successful in the CPMT fields is good teamwork. The engineer must develop relationships with those in complementary specialties – this peer networking is critical. Some of this can happen within a university or company, but much can be done through local CPMT Chapters and by participating on Conference program committees. Companies have a hard time understanding that their engineers need to spend a little of their time working with others across the profession in order to stay fresh and keep contributing at a high level.

**Editor:** What’s a good book you have read recently?

**Paul Wesling:** Ah, that’s a good question! I’m reading Making Silicon Valley, by Christopher Lecuyer. It has an intriguing hypothesis – that the key development that led to Silicon Valley’s success was when a bunch of Hams (amateur radio operators) weren’t satisfied with available transmitting tubes (back in the ‘30’s) so they developed new manufacturing processes to get around RCA’s patents. This advanced vacuum equipment, processing techniques, and infrastructure allowed Shockley and others to establish the first semiconductor companies here, rather than on the East Coast of the USA, which is what should have happened. Of particular interest to CPMT’ers: our focus on manufacturing technology is more important than we might think. Look for a book review in the near future ...

**Editor:** Thank you, Paul.

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## ***IEEE Fellow Nomination Process (Continued from Page 1)***

“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 ex-

**March, 2006**

traordinary 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

Must be current in dues (yes, even distinguished engineers forget to renew)

Must be a member for 5 years (Affiliate member does not count)

Nominator must get all forms to IEEE web site by March 1<sup>st</sup>

Through this year one could download the forms, fill them out, and mail them to IEEE headquarters. For the coming year the system will be completely electronic, working from the IEEE web site. The new web site is not yet activated for new nominations but in a few months perform a search on “Fellow nomination” from the new [www.ieee.org](http://www.ieee.org) page and you will get the complete process instructions.

If you know someone who qualifies for the Fellow level you can be a nominator. You do not need anyone’s permission. If you need more guidance than is on the IEEE web site you can contact anyone on the CPMT board of Governors or talk to Rao Tummala or Dave Palmer on the Fellow Search committee (see contact information on page 2).

The best steps to success are:

1. Have the Fellow candidate write an extensive resume and list all publications and presentations they have made. With this information you complete the IEEE Fellow nomination form on the web (but make a copy that you can send to potential references). It is usually important to focus on the several technical and organizational contributions that distinguish the candidate in their field. This is typically better than to list only a thousand small contributions that total a lot but did not make an obvious big difference in any technology or organization.
2. Line up between 5 and 8 Fellows in related fields that know of the candidates work or can quickly appreciate it. For example, if the candidate contributed in thermal management, there are a number of Fellows in CPMT that would be ideal for reviewing the nomination.
3. Push everyone to submit everything in February at the latest. About half the nominations miss the deadline and must wait for the next cycle. As the nominator you will have access to the IEEE Fellows Application database and be able to see which references have yet to be submitted.
4. Let C. P. Wong on the CPMT Fellows Review Committee know that you are working on a nomination so he lines up enough society reviewers.

Once a nominator has done their job, the work load passes on to C. P. Wong’s committee. They review all the nominations submitted in the name of the CPMT Society. All nominations must go through a Society or Council. At this point it is important to

have a nomination form that clearly states the candidate's service to IEEE, the Society, and the profession. A member that has spent many years organizing CPMT conferences or producing our publications has a natural advantage in the process of winning a professional award compared to an equal technical contributor but a non-participating member.

In a typical year the Fellow review committee will score and rank about 10 nomination packages and forward them to the IEEE Fellow committee. Historically our submitted nominees have about a 50% success rate. Submitting someone for a series of years is common and should not be considered bad luck by either the nominator or the candidate.

The process takes typically about 20 hours by the candidate, 30 hours by the nominator, and 5 hours by each Fellow reference. CP's team spends many days in the process trying to strengthen every package and to get the right feedback to the nomination.

The Fellow Level recognition is among the highest in our engineering profession. Universities and Companies proudly state the number of Fellows in their staff. As CPMT Society members read the list of Fellows they nod knowingly as they see name after name of admired peers. If your time has come, start the nomination process.

## CPMT Fellows

Current in Dues as of March, 2006

Submitted by Marsha S. Tickman, Executive Director

Cristina Amon	Yasuhiro Ando	Inder Bahl
Henry Baltes	Diana Bendz	Gary Bernstein
David Blackburn	William Brown	L. Burrage
C. Campbell	Andreas Cangellaris	Zoltan Cendes
Yan Chan	Rajen Chanchani	Harry Charles
William Chen	Kenneth Clarke	Evan Davidson
Alina Deutsch	Charles Eldon	Aicha Elshabini-Riad
Irving Engelson	Leonard Feinstein	Wolfgang Fichtner
Paul Franzon	Philip Garrou	Ronald Gedney
Randy Geiger	Stanley Gershwin	Barry Gilbert
Bernard Gordon	Dimitry Grabbe	Martin Graham
Aditya Gupta	Ronald Gutmann	George Harman
J. Harnden	Erik Heijne	Eric Herz
J. Hilibrand	Todd Hubing	K. Irani
Rolf Jansen	R. Wayne Johnson	Nan Jokerst
George Katopis	Ravindhar Kaw	Jorma Kivilahti
Harry Kroger	R. Lafferty	Kanneth Lakin
John Lau	Chin Lee	Johan Liu
Gary May	Michael McShane	James Meindl
Robert Mertens	James Morris	George Moschytz
Arthur Murphy	Khalil Najafi	Wataru Nakayama
Michel Nakhla	Luu Nguyen	Istvan Novak
Kanji Otsuka	David Palmer	S. Pookaiyaudom
W. Arthur Porter	John Powers	Karl Puttlitz
Herbert Reichl	Hugh Ross	A. Ruehli
Leonard Schaper	John Segelken	Gustave Shapiro
B. Siegel	Nihal Sinnadurai	Paul Slade
John Stafford	D. Strain	Toshio Sudo
Madhavan Swaminathan	Tasuku Takagi	Stuart Tewksbury
W. Trybula	Leung Tsang	Tseung Tseng
Rao Tummala	Yonhua Tzeng	Ifeanyi Ume
Jacobus Vanwyk	Kikuo Wakino	Mauro Walker
Andreas Weisshaar	Paul Wesling	O. Winn
Ingo Wolff	C. Wong	Ralph Wyndrum
Naoaki Yamanaka	Qi-Jun Zhang	

## IEEE Senior Membership

Dr. Vasudeva P. Atluri

IEEE CPMT Society Board of Governor and Newsletter Editor

Grade of Senior Member is the highest for which application may be made and shall require experience reflecting professional maturity. Candidate should be an engineer, scientist, educator, technical executive, or originator in IEEE designated fields. Candidate shall have shown significant practice for at least ten years and shall have shown significant performance over a period of at least five of those years.

Benefits of IEEE Senior Membership Include:

- The professional recognition of your peers for technical and professional excellence.
- An attractive fine wood and bronze engraved Senior Member plaque to proudly display.
- Up to \$25.00 gift certificate toward one new Society membership.
- A letter of commendation to your employer on the achievement of Senior member grade (upon the request of the newly elected Senior Member.)
- Announcement of elevation in Section/Society and/or local newsletters, newspapers and notices.
- Eligibility to hold executive IEEE volunteer positions.
- Can serve as Reference for Senior Member applicants.
- Invited to be on the panel to review Senior Member applications.

For additional information including requirements and application process refer to IEEE Senior Member Program website located at [www.ieee.org/organizations/rab/md/smprogram.html](http://www.ieee.org/organizations/rab/md/smprogram.html). Contact representatives of the section or society you belong to for any further assistance and suggestions.

## New CPMT Senior Members

Submitted by Marsha S. Tickman, Executive Director

Congratulations to the following CPMT Society members for achieving Senior Member status after December, 2005:

Buenaventura Section:	James Schlaffer
Dayton Section:	Ronald Coutu
Germany Section:	Hubert Harer
Milwaukee Section:	Jeffrey Kautzer
Northwestern Subsection:	Janice Danvir
Orange County Section:	Wei Koh
Phoenix Section:	Henning Braunisch
	Sankaranarayanan Ganesan
	Altaf Hasan
	Praveen Jain
	Xuejun Fan
Santa Clara Valley Section:	Kyung Oh
	Hao Shi
	Xingchao Yuan
	Ji Zheng
Singapore Section:	Zhenhai Shao
U.K. & Republic of Ireland Section:	Roy Ediss