

Hyoung Joon Kim, Il Kim and Kyung Wook Paik. Kiwon Lee and all are from Korea Advanced Institute of Science and Technology (KAIST). Dr. Lih-Tyng Hwang from Motorola, Inc. presented the award. The winning student author receives a three-year fellowship grant of \$21,000 at his university. For information regarding the Fellowship, please contact Dr. Andrew Skipor, Motorola Chair, at aas002@email.mot.com.



Intel Best Student Paper Award

Submitted by Dr. Rao Bonda, Prog. Chair, 57th ECTC 2007

Intel Corporation sponsored an award for the best paper submitted and presented by a student at the 57th ECTC 2007. To enter the Intel Best Student Paper Award competition, students have checked the "Intel Best Student Paper Award" box in the "Fellowship" section of the on-line abstract submission form. Students considered for the award, are all full time students for at least one semester after the conference conclusion. Only students that were lead authors, and presented the paper at 57th ECTC 2007 were considered. Finalists were determined by review of the completed manuscripts by the judging committee. Manuscripts were reviewed for relevance to the competition topics, technical content, and originality. Finalists were notified by email, and

each finalist submitted an affidavit from their faculty advisor certifying that the student meets the eligibility requirements.

This year's winning paper at 57th ECTC 2007 was presented by Jiongxin Lu of Georgia Institute of Technology and was titled "Tailored Dielectric Properties of High-k Polymer



Composites Via Nanoparticle Surface Modification for Embedded Passives Applications". Her advisor Dr. C.P. Wong is a co-author on the paper. Mr. Debendra Mallik from Intel Corp. presented the award. The student receives a check for \$2500 and a certificate.

Prof. José Schutt-Ainé Appointed Transactions on Advanced Packaging Editor-in-Chief

Submitted by Paul Wesling, CPMT Society VP - Publications



IEEE CPMT Society Board of Governors at June 2nd, 2007 Board Meeting, have nominated Dr. José Schutt-Ainé, Professor of Electrical and Computer Engineering, University of Illinois, Urbana-Champaign, as a second Editor-in-Chief for the Transactions on Advanced Packaging, to work alongside Prof. Ganesh Subbarayan, Profes-

sor of Mechanical Engineering, Purdue University, who continues as Editor-in-Chief. He is nominated for a four-year term commencing in March, 2007, which is renewable. This nomination adopts the model implemented in 2006 for the Transactions on Components and Packaging Technologies, in which the Transactions is divided topically, so that roughly half of the submissions can be handled by each of two Editors-in-Chief.

José's research focus is on signal integrity, electronic packaging, microwave theory and measurements, digital circuit modeling, integration of modeling and simulation tools, high-speed circuit design, and high-performance computation for simulation of packages. He has been active in the Technical Committee on Electrical Design, Modeling and Simulation, and in both the conference on Electrical Performance of Electronics Packaging (EPEP) and the Workshop on Signal Propagation on Interconnects (SPI).

José served as an Associate Editor for the IEEE Transactions on Circuits and Systems from 1997 to 1999, served as Guest Editor for a special section in IEEE Transactions on Advanced Packaging in 2004, and has been an Associate Editor for Transactions on Advanced Packaging since that time.

José E. Schutt-Ainé (M'82-SM'98) received the B.S. degree from MIT in 1981 and the M.S. and Ph.D. degrees from the University of Illinois at Urbana-Champaign (UIUC), in 1984 and 1988, respectively. From 1981 to 1983, he worked at the Microwave Technology Center, Hewlett-Packard, Santa Rosa, CA, as an Application Engineer for microwave amplifiers. During his graduate studies at UIUC, he held summer positions at GTE Network Systems, Northlake, IL, as a Signal Integrity Engineer. In 1996, he worked at Digital Equipment Corporation, Hudson, MA, as a Computer-Aided Design Consultant. He is currently a Professor of electrical and computer engineering at UIUC.

There was a consensus among the key researchers in this field that José would be their choice as Editor-in-Chief, and he has their confidence as he assumes this role. Please assist José as he assumes this new position, and continue to offer support to Ganesh as they work to further improve Transactions on Advanced Packaging.

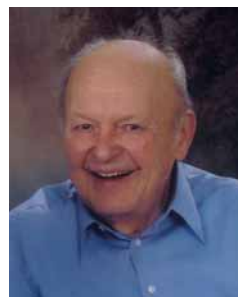
CPMT Society Officer Interviews:

Interview with Dr. Albert F. Puttlitz, Vice President (Education), IEEE CPMT Society

By Dr. Vasudeva P. Atluri, CPMT Newsletter Editor-in-Chief

Editor: Tell us a little about yourself, and your family

Al: I was born and lived in Kingston, New York until I left for college. I have an Associate Degree in Mechanical Technology from the State University of New York at Canton, New York (1956), a Bachelor of Science Degree in Mechanical Engineering from Rochester Institute of Technology, Rochester, New York (1959), and a Master of Science Degree in Engineering Mechanics from Michigan Technological University, Houghton, Michigan (1961).



I began my career with the IBM Federal Systems Division in Kingston, New York in 1956. I took three leaves of absence from IBM to pursue my Bachelors, Masters and Doctoral degrees. I received my Ph.D. degree in Engineering Mechanics from Michi-

gan Technological University in 1968. After graduation, I returned to IBM in Essex Junction, Vermont and joined their Microelectronics Division. During 36 years with IBM, I have held group leader/engineering assignments in semiconductor process development, manufacturing engineering, reliability, product assurance, testing, contamination analysis, failure analysis, tooling, mechanical analysis/design and education. Additionally, I set up a mechanical testing laboratory (thermal, shock, vibration, etc.), specified liquid and gaseous filtration processing requirements for semiconductor manufacturing lines, and developed various semiconductor ion implant doping processes and “back-end-of-line” processes for insulators and metallization. I received IBM’s first level invention Achievement Award and served as Invention-Disclosure-Review-Board member. I have taught college-level engineering courses at Michigan Technological University and IBM. I retired from IBM in 1992; I now consult, is active as a licensed Realtor in the State of Vermont, USA and is more involved with ECTC and CPMT.

I hold the IEEE/CPMT membership grade of Senior Member, is a member of ASME and the US Power Squadron, and is active in community and church affairs. I has been married to my wife, Marie, for almost 45 years. They have two children and two grandsons.

Editor: Tell us how you got involved in the field of packaging and something about your career

Al: I have numerous external and internal IBM publications. I became acquainted with the CPMT Society after I presented his first paper at ECTC. I was presenter and/or co-author of papers at four ECTC Components sessions (1985, 1986, 1989, and 1992). I received the best CPMT Transactions Paper Award in 1985 (with Sang Kim). I am a 20-year member of the IEEE-CPMT Society, served on ECTC Components and RF Paper Review Committee for the past seventeen years, was the ECTC Components and RF Subcommittee Program Chair during 1991-1993, and served as the ECTC Components and RF session Chairman or Co-chairman for nine years. I served as the Professional Development Course (Short Course) Chairman for eight years, with rotations as its chair every three years with other members of the Professional Development Course Committee, and was the chair of the ECTC 2007 Professional Development Course Committee. I introduced “Continuing Education Units” credits for attendees of ECTC-Professional Development Courses (sponsored by the IEEE Education Department) and was responsible for institution of the “CPMT Professional Development Certificate of Achievement”. During my tenure as the ECTC-Professional Development Course chair/committee member, attendance at the Professional Development Courses has grown from about 50 attendees to now 300+ attendees.

I was elected to five terms as a Member-at-Large on the CPMT Board of Governors. He has been the CPMT VP of Education for the past 10 years and currently holds that position.

Editor: What do you see as the needs of our members around the world - what are the most important issues the CPMT Society can address?

Al: One of the critical short term and long-term issues facing CPMT (and all IEEE societies) is to determine what needs to be done so that our members repeat their membership year to year. CPMT membership has been declining for a number of years; the number of non-repeating members exceeds new members. While various “perks” have been offered to retain membership, they haven’t done much good. *We need to “crack this nut”!* One of CPMT’s previous draws for retaining membership was receipt of a hard copy of the their publications...but now, publications can be viewed on-line.

Related to the above is the unclear distinction between various grades of CPMT membership. IEEE’s membership statistics show that members who hold “Senior Member” and “Fellow” grades repeat their memberships more often than just society members. While the prestige of being a CPMT Fellow is clear, the advantage of being a CPMT Senior Member versus just a Member is not defined. Being a Senior Member so that you may become a Fellow is true but not enough! I will propose several initiatives of being a Senior Member to the Board of Governors at the November 2007 Board of Governors meeting for their consideration.

Editor: What are your visions for the Society in short and long term?

Al: I envision a greater and more active student population in CPMT in the future, which will be obtained by fulfilling the needs of the students now. Today’s CPMT students are tomorrow’s CPMT leaders. Increased number of student scholarships and fellowships, and increased student participation at our workshops and conferences are key. Furthermore, in addition to increasing the number of CPMT chapters worldwide, we need to focus on establishing active student chapters worldwide. This means we need active and dedicated CPMT people to guide the students.

In year 2008, CPMT will be offering a new \$5,000 Ph.D. fellowship in addition to the Motorola-CPMT Fellowship of \$21,000+ in Electronic Packaging. CPMT’s new Ph.D. fellowship is open to candidates obtaining their Ph.D. in any field of interest to CPMT, not just Electronics Packaging.

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

Al: My advice to engineers in this field (or any other occupation) is to compete, get involved, stay involved and keep current. Give papers at workshops and conferences, teach and help the students. With especially students, you’ll get back much more than you give, as your help will be repeated many times during the student’s future. Keep abreast of changes in your field...if you don’t you will rapidly become obsolete.

Editor: Where (on what tasks) could you use help from members?

Al: The most important need for CPMT members is to be our ambassadors at conferences, workshops, colleges and universities. I encourage the use of CPMT Distinguished Lecturers at any CPMT (co)sponsored venue and chapters. We have 30 Distinguished Lecturers in many fields of interest to CPMT; an updated list of Distinguished Lecturers with their topics of expertise will soon be available on-line at www.cpmnt.org. Additionally, Distinguished Lecturers, organizers of their venues and CPMT chapters can contact me at a.f.puttlitz@ieee.org for details.

Editor: What are you’re accomplishments as CPMT VP of Education for the past seven years?

Al: My accomplishments during past seven years included:

- As an initiative to promote the CPMT Society worldwide, I have led a delegation to Hong Kong in year 2000 and was a member of the year 2000 Singapore delegation.
- I have been a member of the ECTC Electronic Packaging Paper Review Committee and was the Chairman of several of the ECTC Electronic Packaging Sessions for four years.
- I was a member of the Electronic-Packaging-Education-Faculty-Grant Committee (with Prof. Leyla Conrad, Mr. Paul Wesling, and Prof. Andrew Tay). Over 12 Grants, sponsored by CPMT and Prof. Rao Tummala of the Packaging Research Center at Georgia Institute of Technology, have been awarded to professors at various colleges and universities for developing multimedia/web-based Electronic Packaging Courses for the 21st Century. The last grants were awarded at the 2003-ECTC.
- I served as the Director of the CPMT Distinguished Lecturer Program. To-date, the program has 30 Distinguished Lecturers. The program is in worldwide use with new members added yearly.
- I am a member of the CPMT-Motorola Ph.D. Fellowship Committee responsible for awarding a yearly fellowship in excess of \$21,000 in Electronic Packaging to a Ph.D. student, who presents his/her work at ECTCs.
- I also assisted in the development of the Short Course program at the first *Electronic System-Integration Technology Conference* held during 2006 in Dresden, Germany.

Editor: What are your future goals or plans for the Society within as VP of Education?

Al: My future goals are as follows:

- Continue to promote CPMT worldwide as the premier packaging society by continuing to offer educational courses, programs and opportunities for its members.
- Enhance the CPMT Distinguished Lecturer Program by obtaining members from non-US countries as well as the US. Eight non-US members have been elected as CPMT-Distinguished Lecturers in the past year. Additionally, encourage the use of Distinguished Lecturers in CPMT (co) sponsored venues by expanding the current CPMT Distinguished Lecturer Travel Assistance program.
- Initiate/support students/student programs financially at CPMT (co)-sponsored venues including conferences, workshops, chapters as well as high schools, colleges, universities, etc.
- Expand the visibility and desirability of the CPMT-Motorola Ph.D. Fellowship and introduce new CPMT (co)-sponsored Educational Scholarships and Fellowships.

Editor: What do you like to do in your spare time? What's a good book you have read recently?

Al: I enjoy traveling, entertaining family and friends, spending time with grandsons and boating on Lake Champlain. Volunteering for the Ronald McDonald House Charities for the past 15 years has enriched my life. Reading is also one of

my priorities when I have the time; I am currently reading "The DaVinci Code".

Editor: Thank you, Al!!!

Interview with Dr. Thomas G. Reynolds III, Vice President (Finance), IEEE CPMT Society

By Dr. Vasudeva P. Atluri, CPMT Newsletter Editor-in-Chief

Editor: Tell us a little about yourself, and your family

Tom: With a background in mechanical engineering (BS Univ. of VA) and materials science (MS Univ. of VA, PhD Brown Univ.), I have come to IEEE CPMT with an emphasis on materials, synthesis, properties and manufacturability. Early career activities



were in the development and fabrication of barium titanate semiconductors for Texas Instruments, development and fabrication of isostatic hot pressed MnZn ferrites and fabrication of magnetic recording heads, activities

included analytical chem. lab and electronics lab for a division of Philips Electronics. Later work in Philips (Holland) focused on development and implementation of manufacturing process for wet chemical synthesis of ceramic capacitor materials and technology transfer of capacitor technologies between European operations and Japanese joint venture. My last position as Director of Technology for Murata Manufacturing Co. Ltd (USA) involved implementation of new and novel capacitor technologies (i.e. low inductance SMD caps, and thin film caps), RF components, and filters. I was also involved evaluation of merger and acquisition candidates. I am currently retired and consult on a part time or project basis.

Editor: What do you see as the needs of our members around the world - what are the most important issues the CPMT Society can address?

Tom: Currently VP Finance for the CPMT Society, I would like to see the CPMT and its premier conference, ECTC, continue on a firm financial footing.. and in my view that means growth for our membership through continued linkage to developing and future technologies. Over the last 10-20 years the discrete components area has matured. Although the components have continually shrunk from 1206 (0.0120 x 0.060) to as small as 1.0 x 0.5 mm, it is clear that thin film and embedded technologies will result in shorter interconnects, lower parasitics and higher component densities. In addition the package is no longer a "discrete" component. The package itself is circuit, contains either embedded or attached passive and active components. The result is a much more integrated view of packaging as a complete "system". This approach carries with it demand for much more sophisticated circuit design and much much higher manufacturing yields and product reliability. These areas as well as the areas of the high speed interconnection of signals (eg optical interconnects) and power management (thermal dissipation) will continue to be limiting steps in the future advancement of components and packaging. A final area that should be aggressively addressed is the evolution of sensors and actuators of all types...

Editor: What are your visions for the society in short and long term?

Tom: Our members should view CPMT as their worldwide community for a whole range of activities: data and information exchange... the place where they turn first to find out what is going on in their field and in new areas of interest. Through personal interactions- via email, conferences, chapter meetings and individual contact - the membership of CPMT should be able to communicate easily with each other and come to rely on each other for ideas, solutions and opportunities. Continual development of a "worldwide community of CPMT" will serve their interests and assure our continued growth.

Editor: Tell us how you got involved in the field of packaging and something about your career

Tom: In addition to my activities with IEEE, during 35 years that I was involved in the development and implementation of electronic ceramics, I was very active in the American Ceramic Society: Chairman Electronics Division, elected Fellow of the Society, elected VP of the Society and numerous Committee assignments. I have also been actively involved with the Electronic Components and Technologies Conference (ECTC) since 1992 as: Program Chairman, Chairman-elect, Chairman for the 50th ECTC anniversary meeting and I remain a member of the Executive Committee and the Finance Chair of ECTC.

Editor: What do you like to do in your spare time?

Tom: Gosh, my interests are pretty well-known by most people... SAILING. My wife Dr. Lynne and I own a Catalina 34 sailboat which we berth at the Ft Walton Yacht Club in Ft Walton Beach, Florida. We get a great deal of enjoyment from sailing. In fact, she and I sailed across the Gulf of Mexico together when we purchased the boat several years ago. Although I have raced and crewed in local club races for many years, we really use "Celebration" for short or long term cruises. Being involved with the Ft Walton Yacht Club for more than 7 years, I enjoyed serving as Commodore for the year 2006. In that activity we focused on physical improvements to the club, protection of the property from storms and increasing our membership. I am currently involved in an extensive refit of the mast, running rigging and sails to upgrade to SOTA condition.

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

Tom: I've lately been reading an eclectic collection of books... always a lot of sailing, cruising and racing tactics books. In addition to these I am interested in the technology and accomplishments of what we consider to be ancient civilizations... the Mayan calendar and how it was derived and also the construction of ancient monuments and sites.

Editor: Thank you, Tom!!!

Member Recognition:

Dr. C.P. Wong Honored by Sigma Xi

By Vasudeva P. Atluri, CPMT Society Newsletter Editor

Congratulations on being selected as the winner of the 2007 Sigma Xi (The Scientific Research Society) Monie A. Ferst Award! The Award is given annually to an educator in engineering or science who has made "notable contributions to



the motivation and encouragement of research through education." Its purpose is to "recognize significant contributions to scientific research by an educator in engineering or science." It consists of a medal and \$5,000 and is made annually to an educator who has inspired his or her colleagues to significant scientific achievements. A One-day Symposium will be held in honor of Prof. Wong during Fall of 2007.

Conference Reviews:

57th Electronic Components Technology Conference, Reno, Nevada May 29th – June 1st, 2007

Submitted by Dr. Patrick Thompson, Junior Past Chair, ECTC Executive Committee

John Ascuaga's Nugget Hotel in Reno, NV was home base for the more than 1,000 technical professional who attended this year's Electronic Component and Technology Conference (ECTC) from May 29 to June 1, 2007, the 57th time this premier international packaging conference has been held. From workshops and tutorials, to panel and plenary sessions and the technology corner, to oral and poster paper presentations, attendees had a wide array of technical forums from which to choose. In addition extended morning and afternoon coffee breaks and multiple receptions provided great networking opportunities.



Eric Perfecto, 2007 ECTC General Chair, addresses the audience at the ECTC Luncheon

Technical papers provide the backbone of the ECTC. This year, more than 250 oral and 50 poster papers were presented in 36 oral and 2 poster sessions covering nine technical areas: advanced packaging, modeling & simulation, optoelectronics, interconnections, materials and processing, quality and reliability, manufacturing technology, components and RF and emerging technologies. ECTC has a tradition of providing state of the art information on both established and emerging technologies. This year's emerging technology sessions included Nanotechnology and Bio and Flexible Electronics. Poster presentations provided the authors and attendees the opportunity for extended technical discussions on the subjects of interest. This year, the ECTC organizers again held a poster session just for students. The emphasis of this poster session is to provide a venue for students to hone their paper preparation and presentation skills.