

## CHAPTER NEWS

### **BOSTON CHAPTER:**

IEEE/CPMT News and Pictures by Dan Bauks Boston Chair

The Boston CPMT chapter ([www.ieeeboston.org](http://www.ieeeboston.org)) continues to have a busy local chapter season with all meetings held at Sun Computer in Burlington, MA. (pic #1) This May (2006) we celebrate our 3<sup>rd</sup> ELECTRO Technical Conference with the Nepron-East Symposium and our 1<sup>st</sup> Medical Electronics Conference with IMAPSNE.

Meetings:

**11/30/04** Ion Beam Milling Inc., Robert Quagan – President (pic #2) “Laser Diode Heat Spreaders for Photonics and Electronic Packaging”

**12/21/04** Konarka Inc., Dan McGahn – Ex VP & Chief Mkt Officer, “Building photo voltaic cells on low cost flexible light weight plastics”

**2/15/05** SI2 Technologies, Erik Handy Ph.D, « Direct write technology using laser transfer placement for drone military aircraft antennas”

**3/29/05** V.J. Electronix, Don Naugler – GM, “Advanced imaging techniques for lead free & other x-ray inspection challenges”

**4/26/05** CST of America, Roy Arsenault –Tech Sales Mgr, “Broadband signal integrity optimization with CST microwave studio” (pic #3)

**5/4/05 IEEE Electro Technical Conference** (pic #4), MRSI/Newport Corp, Peter Cronin – Product Specialist, “Die placement equipment in the micro electronic industry” – V.J. Electronics Inc., Don Naugler – GM “Advanced x-ray imaging inspection challenges with multi-laser assemblies”

– Photomachining Inc., Ron Schaeffer, Ph.D – CEO, “Laser micromachining applications in the microelectronics industry”

– Polymer Assembly Technology, Jim Clayton – President “Flip chip assembly using conductive polymer adhesives” – CST of America, Roy Arsenault Tech Sales Mgr, “Simulation software for high frequency problems for electronic components” – Quantum Leap Packaging, Mike Zimmerman – Founder, “Next Generation high power RF & microwave packaging based on liquid crystal polymer technology” (pic #5) – Sky Works, Joe Adams, - VP Strategic Mktg, “The ITRS and NEMI packaging roadmap overview”

**10/29/05** Bleck Design Group, Inc., Jim Bleck – President, “Industrial Design in Electrical Engineering”

**2/24/06** CheapTubes, Inc. Mike Foley, “Nanotubes 101: what are they, how are they made, what are the properties?”

**3/21/06** Polymer Assembly Technology, Jim Clayton – Founder, “Conductive polymer adhesive assembly applications in space & on the earth”

**4/18/06** DS&A, Dave Saums – Principal, “Thermal testing of interface materials”

**5/10/06 IEEE Electro Technical Conference**, Dan Bauks– ElectroChair, Six to eight sessions planned this year

**5/16/06 IMAPSNE Tech Symposium**, Dan Bauks – Session Chair, Medical electronics session - three to four speakers planned



(1) Boston IEEE/CPMT meetings at Sun (2) Dan Bauks & Bob Quagan (3) Dan Bauks & Roy Arsenault (4) IEEE "Electro" CPMT Conference (Jim Clayton & Ron Schaeffer) (5) Mike Zimmerman and Dan Bauks

### **SANTA CLARA VALLEY Chapter:**

News from Paul Wesling, Chapter Advisor

Our Chapter has so many good speaker candidates now that we have expanded our program to feature one dinner meeting plus one lunch meeting in most months. For the final months of 2005, we had the following speakers:

"Kirkendall Voids in Lead-Free Solder Joints: A Reliability Issue" Zequn Mei, Cisco -- September Dinner.

"Robert Noyce: The Man Behind the Microchip" Dr. Leslie Berlin, Stanford Univ -- September Lunch.

"Imprint Patterning: An Alternative Circuit Fabrication Process" Craig Davidson, Dimensional Imprint Technology, Inc. -- October Dinner.

"Drop-Testing of Components in Portable Applications" Dr. Luu Nguyen, National Semiconductor -- October Lunch.

"Carbon Nanotubes: Enhancing Conductivity of Conductive Plastics" Dana Hammer-Fritzing, NanoDynamics -- November Dinner.

"The Future of Printed Circuit Boards" Robert Tarzwell, Director of Technology, Sierra Proto Express -- December Dinner.

In most cases, the slides from these talks (in PDF format) are available on the meeting web page. See

[www.cpmt.org/scv/past.html](http://www.cpmt.org/scv/past.html)

or the CPMT Members-Only website.



The Santa Clara Valley Chapter's AdCom planning meeting in December. **Upper photo:** Ed Aoki (Agilent), Paul Wesling (IEEE), Bill Chen (ASE), Dan Donahoe (Exponent), John Jackson (Analog Devices). **Lower photo:** Allen Earman (Finisar – with chop sticks), Bernie Siegal (TEA), Liz Logan (LV Sensors), John Jackson (Analog Devices), Annette Cheung (Corwil), Tom Tarter (Neophotonics). The photographer (not shown) was Janis Karklins, our Membership Development chair.

## REGION 10 CHAPTER ACTIVITY ROUND-UP:

Dr. P.B. Parikh, Region 10, Mumbai, India

### HONG KONG Chapter:

Dr. Ming Li – Chairman - Hong Kong Chapter has arranged three one-day workshops as follows:-

- "Impacts of EU RoHS and Chiana RoHS on Design, Materials, Process, Manufacturing, and Reliability of Electronics Products" by Dr. John Lau on 6<sup>th</sup> May, 05.
- "Polymers for Electronic and Photonic Packaging:- Materials, Process and Reliability" by Prof. C. P. Wong on 21<sup>st</sup> June, 05.
- "Packaging and Board Assembly: Technology Trend Materials, Processes and reliability" by Dr. Dongkai Shanssuan being scheduled on 15<sup>th</sup> December, 2005.

The Chapter also organised a half day workshop on 25<sup>th</sup> August, 2005 on "Virtual Thermo-Mechanical Prototyping and Qualification of Microelectronics and Microsystems" by Dr. C. Q. Zhang. The Chapter has nominated Five IEEE members to be upgraded to senior membership this year.

Dr. Ming Li has informed all that Dr. Derek Or will be their new Vice-chair and Chair-elect and that there will be no election for Chapter Vice-chair and Chair-elect this year.

### SINGAPORE Chapter:

Dr. K. L. Pey has reported that the Singapore Chapter has successfully arranged four Technical talks, one Workshop, one Short Course and two major events during the second half of 2005 (June-Dec. 2005).

The Technical talks are as follows:

- "From TDDDB Reliability to Circuit Reliability" on 21<sup>st</sup> July, 2005 by Dr. Ernest Y. Wu, IBM System and Technology Group.
- "Nanotube and Nanowire Transistors" on 5<sup>th</sup> September 2005 by Prof. Gehan Amaratunga, Engineering Department, Cambridge University, UK.
- "Reliability of RoHS (e.g. Pb-Free) product with Emphasis on Solder Joints" on 12<sup>th</sup> October, 2005 by Dr. John Lau, Agilent Technologies, USA.
- "Compact Modeling of Thermal Noise in the MOS Transistor Using the EKV Model" on 30<sup>th</sup> November, 2005 by Prof. Christian Enz, Swiss Center for Electronics and Microtechnology.

The Chapter also organised a one-day Workshop on Nanometer CMOS Technology (WIMNACT-Singapore) on 2<sup>nd</sup> July, 2005. A one-day Short Course on "Negative Bias Temperature Instability in p-MOSFET Devices" by Prof. Souvik Mahapatra, IIT Bombay was arranged on 7<sup>th</sup> November, 2005. Dr. K. L. Pey has also reported to have arranged two major events as follows:-

- 12<sup>th</sup> International Symposium on the Physical and Failure Analysis of Integrated Circuits (IPFA 2005), 27<sup>th</sup> June to 1<sup>st</sup> July, 2005.
- 6<sup>th</sup> Electronics Packaging Technology Conference (EPTC 2005), 7<sup>th</sup> to 9<sup>th</sup> December, 2005. Since this is a major international event related to IEEE CPMT, a detailed Report on this conference has also been given elsewhere in this Newsletter.

Dr. Alastair Trigg represented the IPFA Board to attend the ESREF' 05 plans, in October, 2005 and Dr. Radhakrishnan represented the IPFA Board to attend the ISTFA'05 meeting in November, 2005 USA.

The Chapter has also planned 13<sup>th</sup> IPFA meeting to be held next year from 3<sup>rd</sup> to 7<sup>th</sup> July, 2006 in Singapore.

### BOMBAY Chapter:

India Council Chapter with SMTA India Chapter jointly organised a national level one day seminar on "Issues related to implementing LEADFREE Technology in electronic production" on 8<sup>th</sup> September, 2005 in New Delhi. The Seminar was well attended by about 45 delegates from all over India including eight IEEE CPMT members. State of the art technology papers were presented by Dr. Dieter Friedrich – Germany, Mr. Peter Lensch – ERSAs, Dr. Krishan Kumar, Dr. R. Sengupta and others. This was followed by a dinner hosted by ELCINA – India.

The Chapter has also actively Co-sponsored IMAPS India two days conference on "Microelectronics and VLSI" at IIT Bombay on 20<sup>th</sup> and 21<sup>st</sup> December, 2005. The conference would be preceded by four parallel sessions of tutorials on 19<sup>th</sup> December, 2005. Eight Technical Sessions including three Poster Presentation Sessions have been planned. More than 200 delegates have already registered for the conference. A full report of the conference will be presented at the next issue of the CPMT Quarterly Newsletter.