INTERNATIONAL MICROELECTRONICS AND PACKAGING SOCIETY (IMAPS)

Advanced Technology Workshop and Tabletop Exhibition on

Thermal Management 2009

Student Abstract and Stipend Competition

Dinah's Garden Hotel
Palo Alto, California - USA

October 5 – 8, 2009

General Chair:
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DS&A LLC, Electronics Cooling Solutions, Sun Microsystems, Inc., and The Microelectronics Foundation are offering a limited number of stipends for university students to the 2009 Advanced Technology Workshop on Thermal Management. The stipends will be in the form of a cash grant to be used towards the cost associated with attending the workshop. The amount of the grant will depend upon the number of winning submissions chosen by the ATW organizing committee, but will not be less than $600 per student. Applicants must be pursuing a college degree (B.S., M.S., or Ph.D.) in Science or Engineering. To compete for the stipend, candidate should submit an extended abstract with references of no more than five (5) pages on a topic of relevance to workshop attendees. Topics of relevance follow the paper solicitation topics for the workshop and are shown below. Winning submissions will be **required** to present their research at the workshop in October 2009.

A two-paragraph summary abstract must be submitted to:

- IMAPS abstract webpage at www.imaps.org/abstracts.htm.

A maximum of six pages of extended abstract must be submitted to the General and Program Chair; their e-mail addresses are above.

Student Stipend Funding provided by:

DEADLINE FOR EXTENDED ABSTRACT SUBMISSION TO COMPETITION:
JULY 24, 2009.

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TECHNICAL SESSION TOPICS:
Market Drivers
Thermal Analysis and Modeling
Thermal Interface Materials and Testing
High Conductivity Materials
Liquid, Phase-Change, and Refrigeration Cooling
System Cooling
Data Center Cooling
Military and Aerospace Apps
Telecommunications and Consumer Electronics

Topic Areas for Student Competition:

- ***Market Drivers:*** Market trends, technical drivers, cost drivers, performance and reliability requirements, developing markets.
- ***Thermal Analysis and Modeling:*** Tools for thermal analysis, practical techniques for thermal modeling and empirical work, and case studies of difficult thermal design problems with proposed and final solutions.
- ***Thermal Interface Materials and Testing:*** Developments in thermal materials for high-performance processors, memory, RF, and telcom components and systems. Standards for reliability and testing. Metallic, polymer matrix , CNT, thermal adhesives, and other materials.
- ***High Conductivity Materials:*** Metallic, ceramic and composite materials with high thermal conductivity and CTE matching.
- ***Liquid, Phase-Change, and Refrigeration Cooling:*** Advances in alternative solutions as well as reliability, serviceability, and availability.
- ***System Cooling:*** Component- and system-level thermal management solutions for high-performance computing systems.
- ***Data Center Cooling:*** Studies of cooling provisioning, airflow and temperature distribution, and migration from air to liquid cooling.
- ***Military and Aerospace Apps:*** Thermal management of legacy, emerging, and future military and airborne components and platforms.
- ***Telecommunications and Consumer Electronics:*** Component- and system-level thermal solutions for telcom, consumer, handheld, display, router, and similar systems.

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PREPARATION OF ABSTRACT:

Speakers should submit one copy of a two-paragraph abstract describing their proposed 25-minute presentation **no later than July 24, 2009**. No formal technical paper is required. A reproduction-ready two- to six-page concise summary with text (figures and graphs included if necessary) will be required for the abstract booklet on Friday, September 4, 2009. A post-conference CD containing the full presentation material as supplied by authors will be mailed 15 business days after the event to all attendees.

Contact Jackki Morris-Joyner with questions: jmorris@imaps.org or 305-382-8433. You may also contact the workshop chairs. Accepted papers may be considered for publication in the IMAPS *Journal of Microelectronics and Electronic Packaging*.