

IEEE IThERM CONFERENCE



## **ITherm 2014: Fourteenth Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems**

**May 27 – 30, 2014**

**Walt Disney World Swan & Dolphin Hotel, Lake Buena Vista (Orlando), FL USA**

ITherm 2014 is the leading international conference for scientific and engineering exploration of thermal, thermo-mechanical and emerging technology issues associated with electronic devices, packages, and systems. ITherm 2014 will be held along with the 64<sup>th</sup> **Electronic Components and Technology Conference (ECTC 2014, [www.ectc.net](http://www.ectc.net))**, a premier electronic packaging conference, at the Disney World Resort. Joint registrations are available. Based on the success of ITherm 2012 in San Diego, CA USA, all papers will be presented in oral sessions. Students with ITherm travel grants will make an oral presentation and also present a poster paper. All papers will be peer reviewed by two or more reviewers, and will be published in the ITherm proceedings. In addition to paper presentations and vendor exhibits, ITherm 2014 will include panel discussions, keynote lectures by prominent speakers, and professional short courses. Original papers are solicited in the general areas of (but not limited to):

### **Thermal Management:**

- Novel Materials: Thermal Vias, Heat Spreaders and Thermal Interface Materials
- Natural and Forced Convection Air Cooling
- Advances in Compact Air Movers
- Single-Phase Liquid Cooling
- Novel Phase Change Cooling Techniques: Boiling, Heat Pipes, Thermosyphon, Spray and Jet Impingement
- Microfabricated Thermal Management Devices and Systems
- Sub-Ambient Cooling: Solid State, Vapor Compression, Absorption, Adsorption, Thermo-acoustic, Magnetocaloric
- Thermal Management in Wireless, Networking, Computing, Lighting, Harsh Environments, and Peripheral Hardware.
- Thermal and Energy Management in Data Centers
- Three-Dimensional Electronics
- Advances in Experimental Characterization
- Advances in Computational Characterization: Multi-Scale Modeling, Compact Modeling, Multi-Physics Modeling, Multi-Objective Design and Optimization

### **Mechanics:**

- Modeling and Simulation for Reliability at Package, Board, and System Levels
- Failure Mechanics and Damage Modeling
- Experimental Techniques
- Constitutive Models
- Impact, Drop and Vibrational Analysis of Packages, Sub-Systems, and Systems
- Solder Profile Modeling, Fatigue Mechanics of Packages, Interconnects
- Materials Characterization, Simulation, Design

### **Emerging Technologies:**

- Sensors (Medical, Military, Consumer, Structures, Diagnostic, etc.)
- Nanotechnology: Thermal, Mechanics, Material and Process Related Issues in Nanostructures
- Micro-Fluidics
- Fiber-Optics Interconnect Systems & Free Space Optical Interconnects
- MEMS: Device and Package Level Reliability Issues
- Integrated Biochips and Bioelectronics
- Medical, Telecommunication, and Automotive Systems
- Space Systems: Earth Orbiting and Deep-Space Missions

Abstract and subsequent paper submissions are entirely web-based, with the following deadlines. Please submit a 400 word text-only (no figures and tables) abstract on the ITherm website: [www.ieee-itherm.org](http://www.ieee-itherm.org). Authors will be informed regarding the session format (poster or oral) at the time of abstract acceptance. More information: [www.ieee-itherm.org/author-center](http://www.ieee-itherm.org/author-center)

### **Some important dates:**

- |                              |                         |
|------------------------------|-------------------------|
| • Deadline for Abstracts     | <b>October 15, 2013</b> |
| • Notification of Acceptance | <b>October 30, 2013</b> |
| • Draft Paper Submission     | <b>January 13, 2014</b> |
| • Final Paper Submission     | <b>March 15, 2014</b>   |

### **Direct general inquiries to:**

**Prof. Mehdi Asheghi**, Gen Chair, ITherm 2014  
Consulting Associate Professor, ME Department  
Stanford University  
Stanford, CA. 94305 USA  
Phone: +1-650-724-5539  
Email: [masheghi@ieee-itherm.org](mailto:masheghi@ieee-itherm.org)

**Visit the IThERM Website : [www.ieee-itherm.org](http://www.ieee-itherm.org)**