



# 2009 IEEE International Symposium on Sustainable Systems and Technology (formerly Electronics and the Environment)



Co-located with the IEEE International Symposium on Technology and Society

May 18-20, 2009 Mission Palms Hotel, Tempe, Arizona, USA

The IEEE Computer Society's Technical Committee on Sustainable Systems and Technology (formerly TC on Electronics and the Environment) is pleased to announce the 2009 IEEE International Symposium on Sustainable Systems and Technology. This conference was known between 1993 and 2008 as the IEEE International Symposium on Electronics and the Environment. In 2008, the scope of the conference was broadened to all industries and products while still maintaining a focus on the sustainability of information and communication technology (ICT) services. The new scope will further strengthen a premier event on sustainable technology issues.

For synergies, the 2009 conference will be co-located with the IEEE International Symposium on Technology and Society (ISTAS), sponsored by the IEEE Society on Social Implications of Technology. There will be joint sessions.

The program will include sessions covering the spectrum of issues for assessing and managing the life cycle of electronics and technology: design for environment, materials selection, manufacturing processes and systems, energy management, end-of-life policy and reuse/recycling. Participants in the symposium are diverse, with representatives from industry, government and academia. All presented papers will be published in the *Proceedings of the 2009 IEEE International Symposium on Sustainable Systems and Technology*, published by IEEE. In addition, select papers will be recommended for publication in a special issue of the *IEEE Transactions on Electronics Packaging and Manufacturing* as well as *The Journal of Industrial Ecology*.

## CALL FOR PAPERS AND POSTERS

The conference will feature keynote speakers, tutorials, paper presentations, panel discussions, and poster presentations. Authors from industry, academia, research laboratories, and consultants are invited to submit papers describing research, applications, tools, and case studies addressing the categories listed below. Approximately 30 minutes will be provided for each paper presentation, including questions and responses. A poster session will be open to all participants including students.

### SOLICITED TOPICS (with suggested subtopics):

#### ICT and Urban Infrastructure Systems

- Smart buildings
- Intelligent transport systems

#### ICT in Business Systems and Efficiency

- Logistics, e-commerce and supply chain management
- Monitoring and control systems in manufacturing

#### Emerging Technologies

- Impact of emerging technologies (e.g., nanotechnology)
- Impacts of technological convergence (including nanotech, biotech, ICT systems, and cognitive science)

#### Materials and Product Design for Electronics

- Design for Environment (DFE)/Sustainability
- Energy management/efficiency
- Data centers

#### Green Electronics Manufacturing

- Innovative processes
- Supply chain management

#### Sustainability Analysis Tools

- Industrial Ecology (IE), Life Cycle Assessment (LCA)
- Thermodynamics and energy/material analysis

#### Sustainable Engineering Education

- Education modules and case studies
- Innovations and restructuring of curricula for sustainability

#### End-of-life Technologies and Systems

- New disassembly and recycling technologies
- Asset management and logistic systems for electronics
- RFID and other identification systems

#### Electronics Policy and Regulation

- Developments and evaluation of existing policies and regulations
- International management of reused goods and e-waste

#### Ethics/Societal Implications

- Impacts of informal recycling in developing countries
- Ethics and Emerging technologies
- Professional responsibilities for sustainability

#### Sustainable Power Generation

- Optimization of generation portfolios / Demand and efficiency
- Renewable energy
- Environmental impacts

#### Proposed Joint ISSST / ISTAS Sessions

- Geoengineering, capture of carbon for climate change mitigation
- ICT for transformation of the energy system
- Sustainable design / management of urban systems
- Earth systems engineering

**ABSTRACTS ARE DUE NOVEMBER 14, 2008**

**SUBMISSION OF ABSTRACTS:** Prospective authors should submit an extended abstract of 800-1000 words clearly explaining the subject, originality, and relevance to the symposium on or before **November 14, 2008**. Extended abstracts will be peer reviewed. Abstracts must specifically address each of the following categories to be considered:

 Problem addressed    Knowledge of prior work    Project undertaken    Research methods    Conclusions

Abstracts are to be submitted through the START Conference Manager System:

**<https://www.softconf.com/s08/issst09/>**

Please consider forwarding copies of this announcement to colleagues, suppliers, academic partners or others who may be contributors to the program!

**For all symposium information, see the conference website:**

**<http://www.ieee-issst.org/>**

#### Regular Sessions:

Authors whose papers are selected for oral presentation will be notified in mid-December. All authors whose work is accepted for the regular sessions are required to submit a written paper for publication as well as present orally at the Symposium. Authors will be entitled to register for the symposium at a reduced rate. One author per paper must register to attend the symposium before or at the time the final paper is submitted. Papers without a registered author will not be printed or scheduled for presentation. In order to be published, authors must follow the style template provided at <http://www.ieee-issst.org/> and limit the paper to six pages in length, including illustrations. Final papers are due by **February 28, 2009**.

#### Poster Sessions

Authors who choose to present a poster are required to submit an abstract for publication in the proceedings. The abstract may be up to one page in length and must follow the style template provided at <http://www.ieee-issst.org/>. One author per poster must register to attend the symposium by the time the final abstract is submitted. Final abstracts are due by **February 28, 2009**.

#### Special Sessions

Authors invited to participate in special sessions should submit a full paper up to 6 pages in length. The conference committee will give approval in some cases to accept a one-page abstract in lieu of a full paper. Authors must follow the style template provided at <http://www.ieee-issst.org/>. Final papers and abstracts are due by **February 28, 2009**.

The venue for the symposium is the Mission Palms Hotel. Information on registration and hotel reservations will be available by **February 2009** at <http://www.ieee-issst.org/>.

**ATTENTION STUDENTS:** ISSST offers both a paper and poster competition to recognize student contributions to the advancement of environmental practices in sustainable systems and technology. To be eligible, the primary author must be a student on or after January 1, 2009 and present original work either in an accepted 2009 ISSST conference paper or poster. Contest eligibility forms and instructions for submission are available at <http://www.ieee-issst.org/>.

### **2009 ISSST CONFERENCE COMMITTEE:**

#### **Conference Co-Chairs:**

Brad Allenby (Arizona State University)

#### **Program Committee Co-Chairs:**

Arpad Horvath (UC Berkeley), Amy Landis (U. Pittsburgh), Eric Masanet (LBNL)

#### **IEEE Technical Committee on Sustainable Systems and Technology**

H. Scott Matthews (Carnegie Mellon University), Chair