



## “Electronic Devices and Systems in Harsh Environments”

**The Theme:** Many harsh environments exist where electronic devices and systems must reliably operate, often for many years. Examples of these kinds of environments include industrial, energy production, automotive, agricultural, biomedical, aerospace and military. These types of environments can possess characteristics such as temperature extremes, thermal cycling, mechanical vibration and shock, corrosive chemical exposure, particulates and radiation. Each of these degraders can adversely affect the operation and lifetime of electronic devices and systems. Additionally, new technologies such as lead-free solders, deep submicron microelectronics and MEMS are exacerbating the problems encountered when integrating electronics into these environments.

Papers submitted for publication should explain how the presented electronic device or system will help in solving one particular problem, and must present a novel device or system, experimental results, a fabrication or assembly process, or design methodology. Topics that can be accepted include but are not limited to:

- Design of electronic devices for use in harsh environments
- Design of electronic systems for use in harsh environments
- Evaluation of new electronic materials and devices in harsh conditions
- Lead-free solder issues in harsh environments
- MEMS and NEMS in harsh environments
- Evaluation techniques for electronics in harsh environments
- Reliability of electronics in harsh environments
- Advanced packaging for use in harsh environments
- Failure mechanisms related to harsh environments
- Characterization and modeling of harsh environments

### Manuscript Preparation and Submission

Follow the guidelines in “Information for Authors” in the IEEE Transaction on Industrial Electronics <http://tie.ieee-ies.org/tie/>  
Please submit your manuscript in electronic form through Manuscript Central web site: <http://mc.manuscriptcentral.com/tie-ieee>. On the submitting page #1 in popup menu of manuscript type, select: SS on Electronics Devices and Systems in Harsh Environments.

### Timetable

<b>Deadline for manuscript submissions</b>	<b>Oct 31, 2009</b>
<b>Information about manuscript acceptance</b>	<b>Feb 28, 2010</b>
<b>Estimated publication date</b>	<b>July, 2010</b>

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