



IEEE COMPONENTS, PACKAGING, AND
MANUFACTURING TECHNOLOGY SOCIETY



**Call for Papers and
Tutorials**

ASTR 2004

Workshop on Accelerated Stress Testing & Reliability

Sponsored by the [IEEE/CPMT ASTR](#) Committee and Technically co-sponsored by
the [IEEE Reliability Society](#)

To be held in

Chicago, Illinois

October 6-8, 2004

Accelerated Stress Testing (AST) is embraced by a world-wide array of companies. AST leverages information to reconcile the need for high quality product with an early time-to-market.

Participants in the ASTR Workshop share ideas on accelerated testing methods, analysis and tools. AST is used to finding hidden defects, flaws, and weaknesses in electronic and electro-mechanical hardware.

These techniques are focused on:

- 1) Testing product in a wide range of stress conditions from service levels to destruction limits
- 2) Root cause investigation to determine the physics-of-failure
- 3) Producing mature products at market introduction
- 4) Screening for manufacturing defects with combined-elevated stresses for shorter lengths of time.

Paper/ Presentation Deadlines

Abstract April 30, 2004

Draft May 28, 2004

Final June 30, 2004

Absolute Drop Dead for All Materials July 30, 2004

Paper Topics:

Papers feature practitioners of AST methods, case studies, lessons learned, implementation experience and more.

- **Advanced Approaches to AST**
- **Reliability Improvement Techniques**
- **AST Data Collection**
- **Advanced Data Analysis**
- **Failure Analysis Techniques**
- **Reliability Simulation and Modeling**
- **Physics of Failure Techniques**
- **Stress Screening Techniques**
- **AST Case Studies**
- **Stress Selection Amplitudes and Profiles**
- **Functional Test During Stress Testing**
- **AST Results on New Technologies**
- **ESD**
- **AST on hardware/software interactions**
- **AST impact on Business and Engineering Decisions**
- **Equipment and Facility considerations**
- **Vibration Selection**

Please e-mail proposal to all chairs:

Alex Porter at aporter@entela.com

Dave Rahe at drahe@ptitest.com

Anthony Chan at h.a.chan@ieee.org

Please Visit the CPTM web page at :
www.ewh.ieee.org/soc/cpm/t/tc7/index.html

Tutorial Topics

Tutorials features well respected experts sharing their experiences and hard learned lessons. Both Basic AST and Advanced AST Subjects are welcome.

- **Failure analysis**
- **Design of Experiments**
- **AST Procedures**
- **AST Equipment**
- **Mechanical AST**
- **Thermal AST**
- **Overall AST planning and management**
- **Reliability of component packaging and/or assembly and/or systems**
- **AST for specific systems: optoelectronic packaging, rf devices**
- **Reliability of Specific systems**
- **Emerging technologies and future systems, such as MCM, System in Packaging, microsystems, nanotechnologies, and their reliability**
- **Other AST issues**