2003 BiTS Workshop Overview

- Welcome to the 4th Annual BiTS Workshop
  - The Only IEEE Sponsored Workshop Dedicated To Socketing And Related Fields
  - Comprehensive Program
    - Technical Program
      - Panel, Papers & Keynote Speaker
    - Supplier Displays
    - Networking Opportunities
      - Social Program
      - Meet and Chat With Someone You Don’t Know
2003 BiTS Workshop Overview

• Welcome to the 4th Annual BiTS Workshop
  ➢ Informal and Casual Throughout All Sessions and Activities
  ➢ Feedback & Suggestions are Encouraged

(Please Turn-off Cell Phones & Beepers)
2003 BiTS Workshop Overview

• Attendee Registration Includes
  ➢ Technical Program
  ➢ Meals & Social Program
  ➢ Supplier Displays
  ➢ Registration Package
    ✓ Badge
    ✓ Hardcopy Proceedings
      – Overall Workshop Evaluation Form
    ✓ Souvenir

• Information Table
2003 BiTS Workshop Overview

• Technical Program
  - Presentation & Panel Discussion - Sunday
    ✓ Key Focus Topic
  - Over 20 Practical and Useful Presentations From Users and Suppliers
    ✓ 8 Sessions Across 2 1/2 Days
    ✓ Q&A After Each Presenter
    ✓ Many Other Excellent Abstracts Submitted
  - Keynote Speaker - Tuesday
2003 BiTS Workshop Overview

Meet and Chat With Someone You Don't Know

• Many Opportunities to Network, Share & Discuss
  ➢ 3 Breakfasts, 2 Lunches, 3 Receptions and 2 Dinners
    ✓ Plus: Hors d’ouvres with Reception Monday Evening
  ➢ Long Morning and Afternoon Breaks
  ➢ Tuesday Afternoon Social Event of Your Choice
    ✓ Scramble Golf Tournament At Kokopelli
    ✓ Cactus League Baseball Game (Cubs vs. Brewers)
  ➢ Supplier Display Area
    ✓ Open During Many Breaks & Receptions
2003 BiTS Workshop Overview

- Evaluation / Comments Forms
  - After Each Session
  - Overall Workshop

- Plaques / Awards
  - Best Data Presented
  - Most Inspirational Paper
  - Best Presentation, Tutorial in Nature
  - Best Presentation / Paper
  - AND…………a Special Award……..
Special Award

for the

Least Concealed Sales Pitch

The Almost) Brilliant Disguise Award
Special Award

The (Almost) Brilliant Disguise Award

Hall Of Fame

BiTS 2000 - Mehdi Attaran - Oztek
BiTS 2001 - Jim Ostendorf - Dynavision
BiTS 2002 - Mike Niederhofer & Bruce Simikowski - Incal
2003 BiTS Workshop Overview

- Plaques / Awards
  - New: See the BiTS Award Archive in the Proceedings
2003 BiTS COMMITTEE

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IBM Microelectronics

PROGRAM
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Advanced Micro Devices

Clayton Carpenter
Intel

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About the IEEE Computer Society

With over 100,000 members, the IEEE Computer Society is the world’s leading organization of computer professionals. Founded in 1946, it is the largest of the 36 societies of the Institute of Electrical and Electronics Engineers (IEEE).

The Computer Society’s vision is to be the leading provider of technical information and services to the world’s computing professionals.

The Society is dedicated to advancing the theory, practice, and application of computer and information processing technology. Through its conferences, applications-related and research-oriented journals, local and student chapters, distance learning campus, technical committees, and standards working groups, the Society promotes an active exchange of information, ideas, and technological innovation among its members. In addition, the Society maintains close ties with the US Computing Sciences Accreditation Board and Accreditation Board for Engineering and Technology, monitoring and evaluating curriculum accreditation guidelines.

With over 40 percent of its members living and working outside the United States, the Computer Society fosters international communication, cooperation, and information exchange. To meet the needs of its members conveniently and efficiently, the Society maintains service center offices in Brussels and Tokyo, in addition to a publications office in Los Alamitos, California, and the headquarters in Washington, DC.

Visit the IEEE Computer Society at http://computer.org
TTTC: Test Technology Technical Council

TTTC IN GENERAL

PURPOSE: The Test Technology Technical Council is a volunteer professional organization sponsored by the IEEE Computer Society. The goals of TTTC are to contribute to member’s professional development and advancement and to help them solve engineering problems in electronic test, and help advance the state-of-the-art. In particular, TTTC aims at facilitating the knowledge flow in an integrated manner, to ensure overall quality in terms of technical excellence, fairness, openness, and equal opportunities.

MEMBERSHIP: TTTC membership is open to all individuals interested in test engineering at a professional level.

DUES: There are NO dues for TTTC membership and no parent-organization membership requirements.

BENEFITS: The TTTC members benefit from personal association with other test professionals. They may have the opportunity to be involved on a wide range of committees. They receive appropriate and updated information and announcements. There are substantial reductions in fees for TTTC-sponsored meetings and tutorials for members of IEEE and/or IEEE Computer Society.

TTTC ACTIVITIES

TECHNICAL MEETINGS: To spread technical knowledge and advance the state-of-the-art, TTTC sponsors many well-known conferences and symposia and holds numerous regional and topical workshops worldwide.

STANDARDS: TTTC initiates nurtures and encourages new test standards. TTTC-initiated Working Groups have produced numerous IEEE standards, including the 1149 series used throughout the industry.

TECHNICAL ACTIVITIES: TTTC sponsors a number of Technical Activity Committees (TACs) that address emerging test technology topics and guide a wide range of activities.

TUTORIALS and EDUCATION: TTTC sponsors a comprehensive Test Technology Educational Program (TTEP). This program provides opportunities for design and test professionals to update and expand their knowledge base in test technology, and to earn official accreditation from IEEE TTTC, upon the completion of four full day tutorials proposed by TTEP.

TTTC CONTACT

TTTC On-Line: The TTTC Web Site at http://computer.org/tttc offers samples of the TTTC Newsletter, information about technical activities, conferences, workshops and standards, and link to the Web pages of a number of TTTC-sponsored technical meetings.

Becoming a MEMBER: Becoming a TTTC Member is extremely simple. You may either contact by phone or e-mail the TTTC office, or fill and submit a TTTC application form, or visit the membership section of the TTTC web site.

TTTC OFFICE: 1474 Freeman Drive, Amassville, VA 20106, USA  Phone: +1-540-937-8280  Fax:+1-540-937-7848  E-mail:tttc@computer.org

TTTC MEMBERSHIP IS FREE
TTTC Officers for 2002 (2003 Update Coming Soon)

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Politecnico di Torino - Italy

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TTTC 2nd Vice Chair
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d.graham@intest.com
TTTC: Test Technology Technical Council

tttc™

2002 Data (2003 Update Coming Soon):

Technical Activity Committees - 24

Standards Working Groups - 9

TTTC Sponsored Technical Meetings in 2002 - 29

(Details can be found in the BiTS 2003 Proceedings)
IEEE Computer Society Membership Benefit

IEEE Computer Society “COMPUTER” Magazine
IEEE Computer Society Membership Benefit - Access to Special Publications

IEEE Computer Society “Design & Test of Computers” Magazine
BiTS Workshop On The Web
Your Complete Source For Information About BiTS

http://www.BiTSworkshop.org

- Papers, Authors, Attendees
- Call For Papers
- Advance/Final Program
- Registration Information & Forms; Register On-line
- Hotel Information
- Committee Members
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- Special Access Sections (Author Info, etc.)
- Supplier Display Info
- ‘Press’ About BiTS
- Search BiTS Feature
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http://www.BiTSSworkshop.org

Coming Soon

BiTS 2003 Archive
BiTS 2004 Call For Papers
Megabytes Downloaded from bitsworkshop.org

Month

Feb-00 Apr-00 Jun-00 Aug-00 Oct-00 Dec-00 Feb-01 Apr-01 Jun-01 Aug-01 Oct-01 Dec-01 Feb-02 Apr-02 Jun-02 Aug-02 Oct-02 Dec-02

Megabytes Transferred

0 500 1,000 1,500 2,000 2,500

BiTS Workshop On The Web

Burn-in & Test Socket Workshop
Most Popular Download Topics 2002

- 2002s8 New Products: 19%
- 2000 Prismark Keynote Speaker: TEST ACCESS TO TODAY'S LEADING PACKAGES: 15%
- 2002s4 Burn-in Methodology: 13%
- 2002s2 Managing High Frequency Requirements: 12%
- Other: 24%
- 2001s8 Test and Burn-in at the Wafer Level: 9%
- 2002s1 Socket Design Investigations: 8%
Supplier Displays

• 34 Companies Exhibiting
• Kachina, Pueblo & Fiesta Ballrooms, Plus Atrium
• Pick-up A Supplier Display Directory
• Display Schedule:

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
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<tbody>
<tr>
<td>9:30AM - 10:30AM</td>
<td>9:30AM - 10:30AM</td>
<td>9:30AM - 10:30AM</td>
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<td>3:00PM - 4:00PM</td>
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<tr>
<td>6:00PM - 8:00PM</td>
<td>6:00PM - 7:00PM</td>
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Suppliers Display Area

KACHINA
- K1 - Loranger International
- K2 - NHK Spring Company
- K3 - Synergetix
- K4 - Honeywell Elect. Matl.
- K5 - RS Tech
- K6 - Micro Control Co.
- K7 - Kulicke & Soffa
- K8 - GigaTest Labs
- K9 - Wells-CTI
- K10 - Rika Denshi America

PUEBLO
- P1 - Plastronics
- P2 - Motion Dynamics
- P3 - Everett Charles Tech.
- P4 - ELES
- P5 - Enplas Tesco Inc.
- P6 - Paricon Technologies
- P7 - AEHR Test Systems
- P8 - Trio-Tech Int’l.
- P9 - Aries Electronics
- P10 - Micronics Japan
- P11 - Incal Technology
- P12 - Johnstech Int’l.
- P13 - Chip Scale Rev.

FIESTA
- F1 - Contech Solutions
- F2 - Abrel Products
- F3 - Yamaichi Electronics
- F4 - Qualmax
- F5 - Azimuth Electronics
- F6 - Teledyne Interconnect
- F7 - Texas Instruments
- F8 - QA Technology
- F9 - RD Chemical

ATRIUM
- A1 - EB Tech
- A2 - Idea Logic
Technical Program

- Presentation & Panel Discussion

“Reducing The Cost Of Test And Burn-in - What Are The Options”

- Presentation: “Cost Considerations In Burn-In Equipment Development” - Anne Sepic & Dan Weinstein (Intel)
- Panelists:
  - Ken Heiman Micro Control Company
  - Marc Knox IBM Microelectronics
  - M.S. Maung Advanced Micro Devices
  - Helge Puhlmann Yamaichi Electronics Deutschland
  - Steve Strauss Intel Corporation
  - Bob Zacharis Pycon
Technical Program

• Keynote Speaker - Bill McClean
  – President, IC Insights
  ➢ “IC Market Recovery Outlook”
BiTS
Burn-in & Test Socket Workshop

Technical Program

• Technical Sessions
  ➢ Test and Burn-in Operations
  ➢ Burn-in Tools and Test Equipment
  ➢ Socket and Board Development
  ➢ Modeling and Characterization
  ➢ Thermal Management Techniques
  ➢ Socketing Lead-Free Packages
  ➢ Contact Technology
  ➢ Properties of Socket Materials