INTERNATIONAL TEST CONFERENCE 1986

TESTING'S IMPACT ON DESIGN & TECHNOLOGY

INTERNATIONAL TEST CONFERENCE 1986

PROCEEDINGS

TESTING'S IMPACT ON DESIGN & TECHNOLOGY

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Program Chairman's Message

Welcome to the 1986 International Test Conference! This year's technical program continues the tradition which has made ITC the world's leading forum for communication between test professionals. The conference theme, "Testing's Impact on Design and Technology," is intended to stimulate a focus on the impact of testing on circuit and system design and on the interaction with the methods and techniques of other disciplines.

There is something of interest in the program for everyone involved in test. For the design-oriented person, we have included a number of sessions on built-in self test, design for testability, and computer-aided test. A new topic area has been added to the ITC program: the interaction of CAE/workstation technology and the test engineer. The panel discussion on hardware modeling versus prototyping for functional verification and test generation should be of considerable interest to those engaged in product design. Another new, and significant, area is covered in the panel on Integrated Services Data Networks (ISDN). These new communications devices will pose a challenge to the test community. The great interest shown in 1985 in the area of Artificial Intelligence/Expert Systems use in testing is reflected by an expansion of this part of the program.

For those interested in test hardware and methods, there is also a strong emphasis. Some of the highlights in this domain are:

- A panel on advanced burn in and life test techniques. This will be of special interest to engineers concerned with high field reliability especially for military and aerospace applications.
- Review of issues in test economics, including a featured panel discussion on the tradeoffs in selecting test equipment.
- Several presentations on the problems of testing of ultra high speed devices and ASICs.
- Late news on testing advanced microprocessors and digital-analog devices.
- A special session on inexpensive, but effective, test methods.

In addition, we have arranged an outstanding Plenary Session which provides a multinational view of the current challenges to the testing community.

I believe you will agree that 1986 ITC has an exceptionally strong and wide ranging technical program. I hope you enjoy it and that you will obtain new views and answers to your interests and problems in the dynamic world of test engineering.

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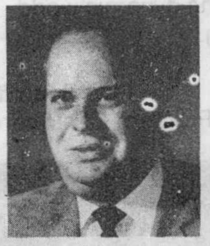

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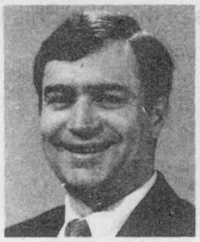

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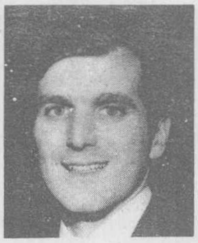

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Endicott, NY 13760
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CAE & Workstation Coordinator
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San Jose, CA 95134
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Member-at-Large
Jack Arabian
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INTEGRATION OF TEST WITH DESIGN AND MANUFACTURING

Topics of interest include, but are not limited to:

Testing Components and Assemblies
- Analog and Mixed Signal Devices
- Application-Specific Devices
- Exotic Devices
- Gate Arrays and Standard Cell Devices
- Memory Devices
- Microcontrollers and Microprocessors
- Microperipheral Devices
- Printed Circuit Boards
- Surface-Mount Components
- System Test

Test Systems
- Fixturing
- Hardware
- Maintenance
- Software

Management
- Education and Training
- Process and Test Data Management
- Quality and Reliability
- Test Economics
- Test Engineering Management
- Yield and Process Enhancement

Test Strategies and Tools
- Built-In Self-Test
- Computer-Aided Test Generation
- Design for Testability
- Diagnostic Strategies
- Simulation and Verification
- Software Testing and Reliability
- Test Program Debugging
- Testability Measurement and Fault Analysis

Emerging Technologies
- Artificial Intelligence Applications to Test
- Future Trends
- Machine Vision

Suggestions for additional topics are welcome. Please contact the Program Chairman by February 2, 1987.

The International Test Conference is the world's premier technical forum on the testing of semiconductor components, assemblies, and systems. Topics of particular interest for the 1987 Conference include the integration of test with computer-aided design and manufacturing, and the effect of increasingly complex components and assemblies and of new packaging technologies on test. The Conference encourages the open discussion of test problems and the role of test professionals in implementing solutions.

The three-day conference consists of technical sessions and workshops which run concurrently with an exhibition of test equipment and related products. Late-breaking developments will be presented in poster sessions. Tutorial sessions on the day before and the day after the conference provide in-depth treatment of specific topics.

The 1987 conference will include a major new feature — an automatic test pattern generation contest. The contest will provide an opportunity for students and engineers to measure and compare the performance of their implementations.

The program committee invites authors to submit original technical papers for presentation at the conference. Submissions in the form of full papers, or in the form of an abstract and summary will be considered. A summary should be of sufficient length, normally at least 500 words, to convey adequate information to the program committee. Late submission or prior publication will be cause for rejection. Ten copies of each submission are required. Each submission must be accompanied by the author's name, affiliation, mailing address, and telephone number.

The paper submission deadline is February 2, 1987, for Europe, India, and Asia; February 9, 1987, for the USA. Authors in Asia, India, and Europe should submit papers to the appropriate area subcommittee chairman. Submissions for the poster session should be received no later than March 19, 1987.

Authors of papers accepted for the technical and poster sessions will be notified before the end of April, 1987. Authors of technical session papers will be required to provide a full paper, suitable for publication in the Conference Proceedings, by June 5, 1987. All authors are required to obtain all necessary company and government clearance no later than June 5, 1987.

Those interested in organizing or serving on a panel or in a workshop, or in entering the test pattern generation contest should contact the Program Chairman no later than March 2, 1987.

Questions relating to all aspects of the Conference should be addressed to the Executive Secretary.

In U.S.A. and Canada
Gordon C. Padwick
Program Chairman
International Test Conference
Millbrook Plaza, Suite 104D
PO Box 264
Mount Freedom, NJ 07970
Telephone 818-888-4850 (Teradyne)
201-895-5260 (ITC Office)

In Asia
Osamu Karatsu
Atsugi Elec. Comm. Lab
NT&T
3-1 Morinosato Wakamiya
Atsiga Shi
Kanagawa 243-01
Japan
Telephone 0462-40-2131

In Europe
Birger Schneider
Electronikcentralen
Venlighedsvej 4
DK 2970 Horsholm
Denmark
Telephone 45 2 867722

In India
Bidyut Gupta
Indian Statistical Institute
203 Barrackpore Trunk Road
Calcutta 700 035
India
Telephone 52-6694, Ext. 269

Executive Secretary
Doris Thomas
International Test Conference
Millbrook Plaza, Suite 104D
PO Box 264
Mount Freedom, NJ 07970
Telephone 201-895-5260

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