
Reliability Society Newsletter

Editors: Gary Kushner and Mark Snyder

Vol. 37, No. 2, April 1991 (USPS 460-200)

Message from the President

Changing of the Guard — Normally, every two years a new President of the IEEE Reliability Society is installed. The election is held each year with a maximum term of two years. The president is voted on by the Advisory Committee. I will be your president for 1991 and the other elected or appointed officers are shown on the next page of this newsletter. Our purposes are to:

- formulate and carry out policy pertaining to society matters
- administer operations of the society including meetings, publications, etc.
- look for ways to advance the state of the art
- serve the needs of our membership and the profession at large

If you would be interested in learning more about our Adcom operations, please contact me directly or one of the Vice Presidents listed on the following page.

Switzerland Chapter — The newest chapter of the IEEE Reliability Society, has just been formed in Switzerland. This makes a total of 18 chapters now. Welcome Switzerland!

Anyone wanting to form a chapter, needs to notify the IEEE of their intention. A petition form will be sent from the IEEE headquarters. A dozen members from any IEEE Section can so petition and create a chapter. I did this eleven years ago in forming the Denver Chapter. The reliability professionals in our area have gained a lot from this chapter formation! Please contact myself or Mr. Henry Hartt, VP of membership for help in this matter.

Salutation — I wish each of you the best and would enjoy hearing of your perceptions, aspirations and desires of this professional society.

Dr. Samuel Keene

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Reliability Society Newsletter Inputs

All RS newsletter inputs should be sent to one of the Associate Editors, Gary Kushner or Mark Snyder, per the following schedule:

For January Newsletter:	by October 25
For April Newsletter:	by January 25
For July Newsletter:	by April 25
For October Newsletter:	by July 25

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Material may be FAX'd to Gary Kushner at (508) 467-6796 (please be sure to say Attn: Gary Kushner at x6765)

Annual Awards Dinner

Each year, a special dinner is held in conjunction with the January meeting of the Reliability Society AdCom and the RAM Symposium. The featured event is the award of the Annual IEEE Reliability Society Award. The 1990 recipient was Colonel Dominec F. Basile who was cited for his direction and leadership in the Army's Single Channel Ground and Airborne Radio System (SINCGARS). In addition to the installation of the new officers of the Reliability Society AdCom, Colonel Basile inspired the room with his remarks in acceptance of the award.

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Dallas

The Dallas Chapter is pleased to report the following meetings:
 November — "Developing a Reliability Growth Test Plan", presented by Mark Taylor, Texas Instruments/Defense Systems and Electronics Group, was well received by those in attendance.

January — "Super Conducting Super Collider (SSC) Magnet Reliability" was presented by Jim Franciscovich, a Systems Engineer with Lockheed assigned to the SSC. This meeting was well attended by a wide cross section of people including two Russian Engineers who were in the area.

February — "IC Packaging: Design, Development, and Reliability" was presented by Steven Groothuis, Texas Instruments/Semiconductor Group. This was a joint meeting with the Electron Devices Society.

March — "Overview of NSIA Concurrent Engineering Task Group Studies" was presented by a member of one of these national Task Groups.

The April and May meetings will close out the first half of 1991. The April meeting is entitled "Is your Software Ready for Release", and the May meeting will cover the "Assessments of Solder Joint Field Reliability via Military/Contractor Repair Survey". The IEEE Reliability Society membership continues to increase in the Dallas area. Dallas area Reliability and Maintainability Engineers, please get involved in your local society's activities, benefit from the Technical meetings, and make new business contacts.

Boston

In the Boston Chapter, Dr. Robert Swarz from Mitre drew a record crowd to his January dinner talk on Software Reliability Models. Dr. Swarz reviewed the strengths and weaknesses of the dozens of software models that have been proposed over the years and recommended an interactive shotgun approach of simultaneously evaluating several models in order to find the one best suited to individual needs and experiences.

In February, Dr. Lee Pollock of the Air Force presented a Bayesian approach to Accelerated Reliability Testing in which he validated his methods with several examples of field reliability data. March's dinner meeting featured Donald Wright of Bull HN presenting his experiences with Quality Functional Deployment (QFD) as a total quality discipline to integrate customer requirements into product development.

The chapter also sponsored a Spring Lecture Series on Environmental Stress Screening which featured Gene Bridgers of Codex Corporation squeezing a lifetime of ESS knowhow into three short evenings. ESS is also the theme of the ongoing Technology Development Workshop, which is developing a guidebook to ESS issues and implementation. The week prior to the lecture series, a lively roundtable discussion on ESS issues took place to raise consciousness and tailor lecture series material appropriately to the needs of participants.

April features the chapter's premier event (take a deep breath!): the 29th Annual All Day Seminar "Staying Competitive in the 90's: Reliability, Maintainability and Quality for a Chang-

ing World". The chapter is fortunate to host Willis J. Willoughby Jr., Director of Product Integrity for the U.S. Navy as the keynote speaker. An overwhelming number of papers have been submitted putting us in the unusual position of having to actually turn down several presentors. The quality of this year's submittals promises to make the seminar one of the best we've ever sponsored.

Coming up in May, the chapter continues its recent tradition of sponsoring a social event for members and guests with an evening performance of "Steel Magnolias" on stage at the Nickerson Theater.

Denver

In November of 1990 Bob Jaquess of Martin Marietta conducted a meeting entitled "Future Space Missions" which included a tour of Martin's facility near Denver. This meeting was very well attended. December saw the chapter meet for a holiday dinner at the Country Dinner Playhouse in Denver. As a kickoff meeting for January, the chapter heard about research efforts on cold-fusion going on at the Colorado School of Mines in Golden, Colorado. In February, the chapter toured OEA, Inc., a manufacturer of high reliability aerospace products which include explosive-activated devices used in aircraft personnel escape systems, pilot ejection canopies and other devices including electrical devices for activating automobile air bags. The March meeting featured Dr. Wayne Nelson speaking on "Graphical Analysis of Failure Data from Repairable Systems." The meeting with Dr. Nelson was followed by a reception and dinner.

Washington/Northern Virginia

The Washington/Northern Virginia Chapter is pleased to announce that the enthusiastic and extensive participation of chapter members in Society activities resulted in the Chapter receiving the first place award in the 1989-1990 Chapter Awards Program.

The award was presented to the 1989-1990 Chairman, Antonino Ingegneri at the awards banquet in Leesburg, Va. on 11 October 1990 by IEEE Reliability Society AdCom President, Bernhard Bang.

In November 1990, Mike Howachyn of Eastman Kodak provided the chapter members with a talk on the history and applications of High Speed Motion Analysis accompanied by a demonstration of the EKTAPRO 1000 System. Other chapters interested in a real nice show on this topic can contact Mike at:

Eastman Kodak Co.
 9515 Deereco Rd. Suite 500
 Timonium, Md 21093-2119
 Phone (301) 560-0386
 FAX (301) 561-8944

If you aren't within Mike's range, he has promised that he will find someone at Kodak who can give the show to your chapter.

At the December 1990 meeting, Mr. Morey J. Chick of the General Accounting Office discussed the subject of Human Safety Risks of Automation, covering: Impacts of system failure, uses involving human safety, degrees of risk, failure causes and suggested actions.

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RELIABILITY SOCIETY 29TH ANNUAL ALL DAY SEMINAR

BOSTON IEEE RELIABILITY CHAPTER
 THURSDAY, APRIL 25, 1991
 SHERATON TARA, ROUTE 9, FRAMINGHAM, MA

"Staying Competitive in the 90's: Reliability, Maintainability & Quality for a Changing World"

KEYNOTE SPEAKER: Willis J. Willoughby, Jr., Director of Product Integrity, Office of the Assistant Secretary of the Navy (Research, Development and Acquisition)

PAPERS TO BE PRESENTED ARE:

- **Reliability Challenges and Strategies for the Nineties**
 Pal P. Raju, Digital Equipment Corporation
- **PC Computation of MTTF: Fail-Safe Vs. Fail-Danger**
 William M. Goble, Moore Products Co.
 Julia V. Bukowski, Villanova University
- **Reliability of Plastic Encapsulated Microcircuits**
 J. Thomas May, Steve B. Bray, Avery Hevesh, Raytheon Company
- **The Search for a Faster Reliability Verification Approach**
 Ugo Garganese, The MITRE Corporation
- **Software Reliability Measurement**
 Michael Elbert, Richard C. Howe, Tom Weyant, Digital Equipment Corporation
- **Reliability in Process Control**
 John Peter Rooney, The Foxboro Company
- **STRIFE Testing, A Method of Enhancing Reliability Growth**
 Henry A. Goodman, Bull HN Information Systems
- **Surface Mount Technology (SMT) Reliability Concerns**
 David Comstock, Lockheed Sanders

REGISTRATION FEES: (fees include seminar, lunch, and dinner).

Prior to March 31, 1991: \$150 IEEE members, \$175 non-members

After March 31, 1991: \$175 IEEE members, \$200 non-members

NOTE: A \$25 rebate provided to non-members who join the IEEE within a reasonable time.

Make checks payable to: Reliability Chapter of Boston IEEE Section

Mail checks and registration form to: Anita Cederholm, 54 Linda Circle, Marlboro, MA 01752

29th ANNUAL ALL DAY RELIABILITY SEMINAR REGISTRATION FORM

Name _____ Company/ Affiliation _____

Address _____ Town/City _____

State/Zip _____ Phone # _____

Amount Paid _____ Date _____ IEEE Number _____

Seminar Proceedings available after April 25th for \$15 each. Call (617) 455-3394 for further information.

Conference Calendar

DATE	CONFERENCE	PLACE	CONTACT
1991 Apr. 8-11	1991 International Reliability Physics Symposium	Las Vegas, NV	General Information: R. Blish General Chair, 1991 IRPS Info (408) 765-2321 Registr. (315) 456-2556
Apr. 18-20	11th Advances in Reliability Technology Symposium	Liverpool, England	Mrs. Ruth Cambell 11th Advances in Reliability Technology Symposium National Centre of Systems Reliability Ukaea, Wigshaw Lane Culteth, Warrington WA3 4NE UK Tel (0925) 31 244 X4243 Fax (0925) 766 681
Apr. 25	29th Annual Spring Reliability Seminar	Framingham, MA	General Information: Anita Cederholm Codex Corporation 20 Cabor Blvd. Mansfield, MA 02048-1193 M/S M4-230 (617) 821-7521
Apr. 24-25	Tri-Service Ramcad Group 6th Technical Interchange Meeting	Arlington, VA	Contact: 6th Ramcad Tim Committee c/o Washington, DC Chapter of Sole PO Box 2645 Arlington, VA 22202 (703) 664-5771
May 17-18	1991 International Symposium on Software Reliability Engineering	Austin, TX	IEEE Computer Society Conference Dept. 1739 Massachusetts Ave. N.W. Washington, DC 20036-1903 Tel: (202) 371-1013 Fax: (202) 728-0884
Jun. 5-8	International Symposium on Reliability and Maintainability	Tokyo, Japan	ISR&M 1990 Tokyo Union of Japanese Scientists and Engineers 5-10-11 Sendagaya, Shibuya-Ku, Tokyo 151 Japan 03-352-2231 Fax 03-225-1813
Jun. 18-22	7th International Conference on Reliability and Maintainability	Brest, France	Secretariat for the 7th Conference CNET Division LAB/IFE BP40 22301 Lannion Cedex France 96 052430 Fax 96 052372
Aug. 26-30	8th Reliability in Electronics Symposium (Relectronic '91)	Budapest, Hungary	Dr. Albert Balogh Scientific Society for Telecommunication H-1372 Budapest P.O. Box 451 Hungary
Sep. 24-26	1991 IEEE Autotestcon	Anaheim, CA	Robert C. Rassa Mantech Advance Systems International 150 S. Los Robles Ave. Suite 350 Pasadena, CA 91101

Oct. 1-2	Reliability and Safety of Processes and Manufacturing Systems	Tampere, Finland	Yngve Malmen Technical Research Centre of Finland (VTT) Safety Engineering Lab. PO Box 656, SF-33101 Tampere, Finland	+358 31 163 276 (Phone) 22313 ttkt sf (Telex) +358 31 163 495 (Fax)
Oct. 1-3	SRE Symposium 1991	Tampere, Finland	Yngve Malmen Technical Research Centre of Finland (VTT) Safety Engineering Lab. PO Box 656, SF-33101 Tampere, Finland	+358 31 163 276 (Phone) 22313 ttkt sf (Telex) +358 31 163 495 (Fax)
Nov. 11-15	Third International Symposium on the Physical and Failure Analysis of Integrated Circuits	Singapore	IPFA 91 Technical Program IEEE Singapore Section 16A Science Park Drive #03-03 The Pascal Singapore Science Park Singapore 0511	Tele: 773-0056 Fax: 773-0054
Dec. 20	International Conference on Safety	Tokyo, Japan	Dr. Y. Suzuki Tokyo Metropolitan Institute of Technology 6-6 Asahigaoka, Hino-City Tokyo 191 Japan	
1992 Jan. 28-30	1992 Annual Reliability and Maintainability Symposium	Las Vegas, NV	Program Chairman Dr. R.J. Lumas Lockheed Space Operations MS LSO 291 1100 Lockheed Way Titusville, Florida 32780	(407) 867-5921 Fax (407) 867-2131
			PUBLICITY L.M. Rabon Jr.	(703) 664-1003 (703) 664-2502
Jun. 10-12	European Safety and Reliability 92	Copenhagen, Denmark	Kurt E. Petersen Systems Analysis Dept. RISO National Laboratory PO Box 49 DK-4000 Roskilde Denmark	Tel: +45-42 37 12 12 X3082 Fax: +45-46 75 71 01

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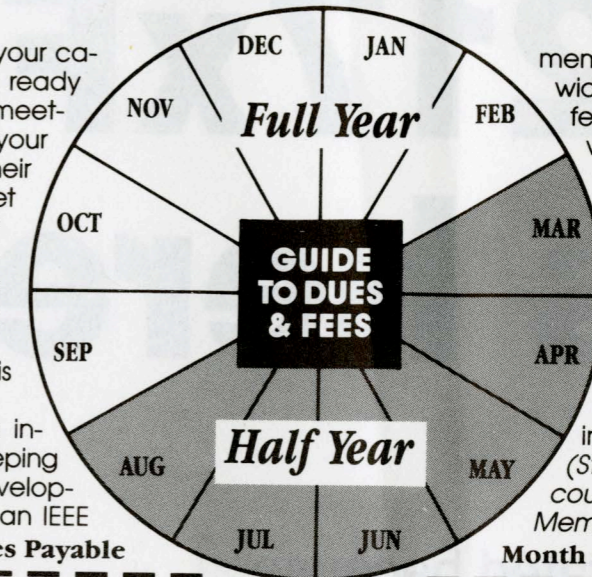
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APPLICATION



Reliability Society

Please check appropriate box(es) below:

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100% 50%

Society fee: \$8.00 \$ _____
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Trans. on Reliability

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Grade _____ Membership No. _____
Years in professional practice _____ Date of Birth _____ Male Female

Education (Highest level completed) _____

Name of educational institution _____ City/State _____

Course _____ Degree received _____ Date _____

ENDORSEMENT (Signature of one IEEE member who knows you professionally) _____ IEEE Member Number _____

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