

# RockIEEE Overlook

Newsletter of



**The Institute of  
Electrical and Electronics Engineers  
Denver Section**

**November 1991**

## Report Society Chapters Committee

by Ray Jukkola

The Denver Section Executive Committee is considering the consolidation of several chapters into one large joint chapter and elimination of several inactive chapters. This measure is necessary for several reasons. One major reason is that IEEE Headquarters requires a chapter have a minimum of two meetings per year to stay on the Headquarters active roster for the section to receive funding. Another reason is that the Denver Section would like to have active chapters serving the local IEEE members (you). It is the feeling at the present time that it is necessary to have a few large active joint chapters with similar interests rather than many small inactive chapters. In the future as the chapters become more active and the individual chapter memberships expand, these chapters can become individual chapters again.

The proposed new chapter consolidation will be of the following individual chapters:

Aerospace and Electronics  
Instrumentation and Measurements  
Vehicular Technology/Communications

The Power Engineering Chapter on the Western Slope is trying to become active again. Ken McBryde, Colorado Ute Electric Association is trying to rejuvenate this chapter. One idea that has been presented on the future of this chapter is to make it a joint chapter to serve all the interests of the various type of electrical engineers on the Western Slope (electronics, communications, etc.).

Please call him to offer your assistance and ideas on the future of this chapter.

As IEEE members you have a voice in the activities of the Denver Section and your local chapter. If you don't agree with this consolidation, let one of the board members know your feelings.

The chapters success depends on the involvement of its members. Become active in your chapter. There are approximately 3500 Denver Section IEEE members. Currently about 105 members (3%) take an active part in any IEEE activities such as regularly attending meetings, or becoming active at the chapter level or section level.

Again, the success of the chapter depends on your involvement! A chapter meeting is a good location to discuss technical items of interest, learn about new companies, products or technology, develop new friends, and find out about possible employment opportunities. Please support your chapter.

Two IEEE members have volunteered to help me with the Society Chapters activities. they are John Richards, Public Service Company, and Fred Jones, Nelson Engineering. The three of us will be assisting the chapter chair persons in numerous activities related to the development of a successful chapter.



# Society Chapter Meetings and Information

## FRSWQC

### Front Range Software Quality Committee of the Reliability Society

Friday, November 8, 1991

2:00 - 4:00 p.m.  
Storage Technology, Building 4  
Louisville, Colorado

**Speaker**  
Hashwant Malaiya

*"Using Neural Networks to Predict Software Reliability"*

For more information, call Rick Karcich at 673-6223.

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## Joint VTS/COMSOC

### Joint Vehicular Technology and Communications and Aerospace and Electronics Societies

Tuesday, November 12, 1991

Dinner 6:30 p.m., Gringo's  
Program 7:45 p.m.  
University of Denver  
Department of Engineering

Tour of the new engineering labs and a guest speaker.

Meet for dinner before the meeting at Gringo's in the University Hills Shopping Center, South Colorado Blvd. and Yale between 6:00 and 6:30 p.m. The meeting and program will begin at 7:45 p.m. at Clarence M. Knutesen Hall, 2390 S. York, Room K200 (Engineering conference room). Our host will be Jim Schroeder, Assistant Professor of the Department of Engineering.

Contact John Hardzinski, 977-2224 for further information, and if you plan to attend dinner at the restaurant.

## CS/ITS

### Joint Computer/Information Theory Societies

Friday, November 15, 1991

2:30 p.m.  
Storage Technology  
Louisville, Colorado

*"Automated Cartridge Systems:  
Robots and Data Storage"*

Managing computer data on tape can be time consuming. StorageTek uses robots to automate the storage and retrieval of computer data on tape media. A single robot has access to thousands of tape cartridges for simultaneous data transfers. The system will be demonstrated and questions fielded.

Reservations are required. Please call Bryce Chapman at (303) 673-4762.

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## Joint PES/IAS

### Power Engineering/Industry Applications

Thursday, November 21, 1991

Brooklyn's Saloon & Restaurant, 572-3999  
2644 W. Colfax, Denver (under the viaduct)

6:00 p.m. Social, 7:00 p.m. dinner (optional @ \$10)  
Student IEEE Members Dinner Free  
8:00 p.m. Meeting

#### Speaker

Brian Moreau, Section Leader, Control & Protection  
Section, T& D Division, Black & Veatch

*"A PLC Based Reclosing Relay"*

Mr. Moreau will discuss the use of a Programmable Logic Controller in a reclosing relay application. He will review other PLC applications in substation control.

Please contact Barbara at Peterson Company, 388-6322, by Monday, November 18, 1991.

## Joint MTT/AP/GRS

### Microwave Theory and Techniques, Antennas and Propagation, Geoscience and Remote Sensing

Thursday, November 21, 1991

National Institute of Standards and Technology  
325 Broadway, Boulder, Room 1107  
4:00 - 5:00 p.m.

#### Speaker

James A. Maslanik  
Research Associate Cooperative Institute  
for Research in Environmental Sciences (CIRES)  
University of Colorado, Boulder, Colorado

*"Extraction of Sea Ice and Snowcover Information from  
Passive Microwave Data: Methods and Applications for  
Climate Research"*

Passive microwave imagery acquired by polar-orbiting satellites offer a 13-year record of continuous, global observations at a scale well-suited to climate studies. These data are particularly valuable for polar and high-latitude studies of ice and snow due to the microwave properties of water ice, the temporal and spatial coverage of the sensors, and the relative insensitivity to cloud cover and darkness. A variety of methods have been and are developed to derive geophysical products from passive microwave data, and the range of applications of these data to climate research continues to expand. In this presentation, the physical basis for extracting sea ice and snowcover information from microwave data is reviewed and new processing schemes are presented. Examples of some typical applications are described, with particular emphasis on the assimilation of passive microwave data and ice and climate models. Finally, the role of these data as part of the planned Earth Observing Systems (EOS) is reviewed.

Please call Ron Vidano at Ball Aerospace, 460-2001 if you have any questions.

# Chairman's Message

by Gary A. Petersen

By the time you read this, new officers will have been elected to lead the Denver Section in 1992. Since this is the last issue of the Overlook for 1991, I'd like to take this opportunity to thank all of the Section and Chapter officers who worked hard serving the Denver Section IEEE membership during 1991. It has been my pleasure to work with all of these officers and to have the opportunity to serve the Section this past year.

If you attended a Section or Chapter meeting, technical conference, tutorial, Student Branch activity or if you read the RockIEEE Overlook, you benefitted from the efforts of these officers who volunteered their time to the Denver Section membership. The Denver Section leadership is working hard to see that the Section grows and improves in the ways that best address the needs of the membership. You can help by volunteering your ideas and/or your services so that the Denver Section can better serve all of its members.

Thank you again to all those who helped make 1991 a productive year for the Denver Section, and my best wishes to the new officer for 1992.



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**CALL FOR PAPERS**  
**10th Annual**  
**Software Reliability Symposium 1992**  
 June 25 - 26, 1992, Phipps Mansion, Denver, Colorado



Sponsored by the Denver Chapter of the IEEE Reliability Society  
 In cooperation with the IEEE Computer Society and its Technical Committee on Software Engineering  
 With support from Storage Technology Corp. and Hewlett-Packard Co.

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#### PROGRAM CHAIRS

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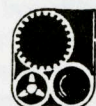
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**William Waite**,  
 University of Colorado

#### Important Dates

Submission Deadline:  
 January 31, 1992

Acceptance:  
 March 31, 1992

Final Version Due:  
 May 1, 1992



### Theme: The Development and Assessment of Reliable Software

The Symposium will focus on the interface between software reliability engineering research and the software development and management process. The symposium seeks papers that will promote the development of reliable software, advance the state of the art of software reliability measurement and modeling, and help foster increased interaction between academic and application communities. Papers are invited in the following and related areas:

#### Methods.

Software Reliability Engineering  
 Decision Making  
 Software Safety  
 Software Defect Detection, Testing and Testability  
 Software Quality and Reliability Metrics  
 Software Product Specification

#### Current Best Practice.

Software Quality and Reliability Assessment  
 Use of Tools for Developing Reliable Software  
 Practical Experiences with Software Reliability Models  
 New and Innovative Uses of Software Reliability Measurement & Modeling

#### Data Collection and Software Analysis.

Tools  
 Databases  
 Evaluation

#### Accreditation of Software.

Standards & Practices  
 Legal Issues  
 Procedures

#### Management Issues.

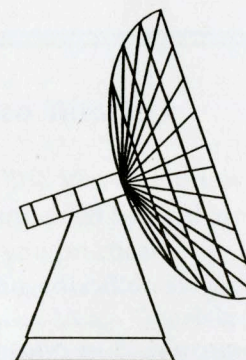
Test and Support Costs  
 Resource Scheduling  
 Clean-room Approach

You are encouraged to submit research papers or experience reports for inclusion in the symposium program. Research papers should describe new research results relevant to the symposium theme. Experience reports are intended to provide exposure for software reliability professionals of practical experiences in the application of techniques for (1) increasing the reliability of software and for (2) software reliability measurement and modeling. Papers should not have been previously published or be concurrently under review for publication elsewhere.

Five (5) copies of a full paper (not to exceed 6000 words) or an extended abstract should be submitted to one of the Program Co-Chairs. A cover page must include: title, all authors' names and complete mailing addresses, telephone numbers and email addresses together with a maximum 250 word abstract and keyword list. Identify the author who will present the paper if accepted. All submissions will be reviewed. Accepted papers will be published in the Symposium Proceedings. A special issue of the *Journal of Computer and Software Engineering* (E.K. Park, Editor) is planned. The special issue will consist of selected papers submitted to this conference. Indicate in your cover letter if you want your paper considered for publication in the special issue.

## Satellite Communications

by Timothy Pratt



An exploration of the complete system--from spacecraft to discussion of the atmosphere through which signals pass.

Program includes a study guide with solutions manual, final exam, and textbook, *Satellite Communications*, by Timothy Pratt and Charles Bostian, John Wiley and Sons, 1986.

Satellite Communications is IEEE member priced at \$199 (\$398 non-member). For a full description of the program and complete ordering information, call IEEE today at 1-201-562-5498....Telex: 833233....Fax: 1-201-981-1686.

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IEEE Educational Activities  
 445 Hoes Lane  
 PO Box 1331  
 Piscataway, NJ 08855-1331

## William D. Whipkey Receives Citation of Honor

William D. (Bill) Whipkey, Past Chairman of the Denver Section, was recognized by the United States Activities Board during its 1991 PACE Workshop on September 1, 1991, in Philadelphia, PA. Bill was presented the 1991 Citation of Honor for his "long-term efforts on the local, regional, and national level for the betterment of the profession through such activities as PACE and Sections Congress speaker, Careers-Phase II Workshop facilitator and trainer, and pioneer in the development of the Science Olympiad in Denver, Colorado".

## Schedule of Conferences and Meetings

October 7-11, 1991	Boulder	Ant. Meas. Techniques Assoc.	Mike Francis	(303) 497-5873
October 10-11, 1991	Denver	IEEE Careers Conference	Bill Whipkey	(303) 830-4713
May 11-13, 1992	Denver	Vehicular Technology Conf. (VTC '92)	Jim Schroeder	(303) 871-3519
May 11-14, 1992	Denver	Power System Relaying (PES)	John Appleyard	(608) 364-5622
Sept./Oct. 1994	Denver	IAS Annual Meeting	Paul Meisel	(303) 469-2161
September 10-14, 1995	Denver	Petroleum & Chemical (PCIC)	John Nelson	(303) 431-7895
July, 1996	Denver	PES Summer Meeting	John Barnick	(303) 969-0391
1997	Denver	PES Joint Power Generation	Gary Petersen	(303) 329-1506
May 1997	Denver	MTT	Hussain Haddad	(303) 460-2114
			John Dunn	(303) 449-1055
			Claude Weil	(303) 497-5305

## Proposed Conferences and Meetings

International Conference on Harmonics in Power Systems (ICHPS) 1994-1996

ESMO 1996

Sections Congress 1996

Transmission & Distribution 1997

ITC 2000



## Overlook Advertising

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Insert 8-1/2 x 11	\$200.00/mo.	

Business card ads must be actual business cards. All other ads should be provided in camera-ready format or additional set-up charges may apply. Inserts must be provided (quantity approx. 4225) and delivered to the printer.

### Deadlines for 1991-1992

(There will be no December 1991 issue)      March 1992 Newsletter - February 3, 1992  
**January 1992 Newsletter - December 2, 1991**      April 1992 Newsletter - March 2, 1992  
 February 1992 Newsletter - January 3, 1992      May 1992 Newsletter - April 1, 1992

Please make checks payable to Denver Section IEEE. Send business card or ad copy and check to: Anita Wanberg, AMW, P.O. Box 4056, Englewood CO 80155-4056, (303) 220-8042.

<b>Rapley Engineering Services, Inc</b> Engineering Design (303) 792-2211 Electrical Engineering and Design Process Control Design Instrumentation - Automation Plant Control System Upgrade/Retrofit Computer Applications/Software Develop. Commissioning/Calibration/Start-up CAD/Design/Drafting	Project Economic Analysis      Reliability/Availability Engineering Economics      Quality Assurance  <b>Ray M. Wainwright, P.E.</b> <i>Engineering Consultant</i>  3715 South Niagara Way Denver, Colorado 80237      (303) 758-2985	Advanced Scientific and Computational Software, Inc. 10902 W. Brittany Dr., Littleton, CO 80127  Super/Mini-super computer software conversion, formulation, algorithm development, numerical methods, I/O problems, general support
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For more information on video tutorials, call (908) 562-5499.

## Videoconferences

IEEE Videoconferences bring you the world's leading experts on critical topics in computing and engineering. Originally broadcast live via satellite, they provide state-of-the-art information, emphasizing practice, not theory.

## The Engineering Skills Assessment Program (ESAP)

The IEEE Educational Activities Board initiated ESAP to help members avoid technical obsolescence and take advantage of new career opportunities, particularly involving fast-moving technologies. Through this program, individual Societies, with support from IEEE Educational Activities, conduct workshops and seminars enabling leading engineers to develop an inventory of skills and knowledge of their specialty. The resulting Field Specific Knowledge Inventory (FSKI) provides the basis for self-administered tests that, in turn, enable engineers to determine whether they have mastered the skills needed for that specialty.

For information, contact B.J. Mirowsky at (908) 562-5487.

## Self-Study Courses

IEEE Self-Study Programs offer graduate-level courses in key areas of electro-technology. These multi-media courses are designed in a convenient, self-paced format to allow easy access to knowledge and -- through learning reinforcement -- ensure retention of the subject. Developed by recognized authorities, each program teaches the real-life processes and applications of current technology. Individual components of these courses are available upon request. For more information about these courses, call (908) 5625498.



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Centennial - **Sadrul Ula**, Electrical Engineering Dept., University of Wyoming, Laramie WY 82071, (307) 766-6268

## Society Chapter Chairmen

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Electromagnetic Compatibility - **Mark Lapchak**, Metrum Information Storage, 773-4626  
Engineering in Medicine and Biology - **Jim Heller**, 790-9010  
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Joint Computer/Information Theory - **Brice Chapman**, Storage Tek, 673-4762  
Joint Vehicular Technology/Communications - **Ken Shugg**, Martin Marietta Information and Communications Systems, 397-7417

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## The Month at a Glance

**November 8, 1991**

FRSWQC Meeting

**November 12, 1991**

VTS/COMSOC Meeting  
Aerospace & Electronics  
Meeting

**November 15, 1991**

CS/ITS Meeting

**November 21, 1991**

MTT/AP/GRS Meeting  
PES/IAS Meeting

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