# RockIEEE Overlook

Newsletter of

March 1993



The Institute of Electrical and Electronics Engineers Denver Section

# IEEE Denver Section Meeting and Awards Presentation

IEEE Denver Section invites all members and guests, especially officers past and present, to attend the Section Meeting and Awards Presentation.

#### **WHEN**

Wednesday, March 10, 1993 6:00 Cash bar 6:30 Dinner 7:30 Awards and Program

#### WHERE

Radisson Denver South 7007 S. Clinton, Englewood I-25 and Arapahoe Rd., Exit 197 (South of H. Brinkers)

#### **WHAT**

RTD's Light Rail Project
The MAC Line
Presentation by RTD's light rail construction department.

### **DINNER COST**

\$ 15.00

Please call Marilyn Peterson, 329-1615 for reservations.

# **Society Chapter Meetings** and Information

# **EMC**

#### **Electromagnetic Compatibility Society**

Tuesday, March 9, 1993

7:00 p.m. National Institute of Standards and Technology 325 Broadway, Boulder, Colorado Room 1107 (East end of main building)

#### Speaker

Philip McDouall Executive Vice President of Rohde & Schwarz **EMC Engineer** 

"Modern EMI Data Analysis Techniques"

EMI departments are facing increased pressure to reduce costs and cut test times. One avenue open to the EMC engineer is partial or full automation of his test sys-

Two principals will be discussed, the acceptance line method and the frequency subrange method. With a typical test time of ten minutes for a complete FCC line conducted test to compliance requirements.

Reservations are not required. Free parking will be available in Visitor Parking. For more information please call Ev Evans (303) 761-9447.

NOTES: The 1993 EMC Symposium Committee will be formed. We need people to head the committee, volunteers to read their papers and companies to sponsor the activities.

Also if you would like to show off your facility or host a meeting for a regular monthly meeting, please bring that or any other idea to our attention.

# **EMBS**

### **Engineering in Medicine and Biology**

Thursday, March 11, 1993

7:00 p.m. University of Colorado Engineering Center Room ECCR 1-40 Boulder, Colorado

#### Speaker

Dr. Marvin Luttges Professor, Department of Aerospace Engineering Sciences and Center Director, Bioserve Space Technologies

> "Commercial Life Sciences Research on the Space Shuttle"

Dr. Luttges and his staff will discuss some of the life sciences experiments which have been flown on recent Shuttle missions. They will also discuss commercial access to this unique laboratory.

Directions: Take the Boulder Turnpike (U.S. 36) to Colorado Blvd. in Boulder. Turn West on Colorado, and then left on Regent Dr. Park in Lot 436 on the left (East) side of Regent Dr. The Engineering Center is the large complex on the West side of Regent Drive at Colorado Blvd. ECCR 1-40 is in the southwest corner, first floor.

Non-members are welcome to attend. Reservations are requested. Please call Dr. Darrell Jones at 270-6489.

# **Centennial Subsection**

Wednesday, March 10, 1993

7:00 p.m.

Colorado State University, Fort Collins, Colorado Lory Student Center in the Virginia Dale Room

For more information, please call Nancy Farrell at (303) 491-6600

# Joint VTS/COMSOC

#### Vehicular Technology/ **Communications Societies**

Tuesday, March 18, 1993

6:30 p.m. Dinner (\$10.00) 7:30 p.m. meeting Super 8 Motel and Conference Center 1-25 Exit 211B, Speer Blvd. North 2601 Zuni St, Denver, Colorado

#### Speaker

Dave Johnson David A. Johnson & Associates

"Experiments in Through-the-Air Optical Communications'

Mr. Johnson will present various techniques of optical through the air communications. There will be a discussion and demonstration of some optical communications techniques. New and future methods of optical communication without waveguide will be presented.

Non-members are invited. Please make reservations. For more information call Mark Shriver at 985-0252.

# Joint PES/IAS

## Power Engineering/Industry **Applications Societies**

Thursday, March 18, 1993

3:00 - 4:00 p.m. Meeting National Renewable Energy Laboratory Denver West Office Park, 1617 Cole Boulevard, Bldg. 17 Golden, Colorado

#### Speakers

NREL Researchers

"Current Renewable Energy Research & Development"

NREL personnel will present an overview of a variety of research efforts currently underway in the area of renewable energy. Wind energy, photovoltaics, electricity from biomass, fuel cell, and hydrogen are some of the research areas that will be discussed. If you wish to attend and are not a U.S. citizen, please register early and provide citizenship information to Barbara at Peterson Company.

Please contact Barbara at Peterson Company, 388-6322, by Thursday, March 4, 1993.

# **Magnetics Society**

Wednesday, March 24, 1993

5:30 p.m.

Excellence Conference Room, Building 6, Storage Technology Corporation, 2270 S. 88th St., Louisville, CO

#### Speaker

Prof. Frank Barnes Dept. of Electrical Engineering, University of Colorado

"Mr. Disk and Tape Heads"

Please collect access badges at StorageTek Visitor Center, then proceed to Building 6 where there is ample parking.

For further information, call Dr. Richard Dee at (303) 673-3976, or Dr. Subrata Dey at (303) 673-6494

Future Meetings: May, Professor Fritz Friedlaender, "Vertical Bloch Lines". Please note on your calendar the "normal" meeting date of the third Wednesday of the Month, September through May.

Robert Mashlan

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# **Bonnie Dunbar March 12**

Astronaut Bonnie Dunbar will be speaking on Friday, March 12, 1993, at the Scanticon Denver East of I-25 on County Line Rd.

6:00 p.m. - Cash bar 7:00 p.m. - Dinner 8:00 p.m. - Bonnie Dunbar's speech with questions and answers.

"How to Become an Astronaut Without an Aerospace Background"

"What a Career in Federal Science Agencies is All About"

"What to Pack for Space Travel"

For information, contact Carolyn Lang, Schloss Engineered Equipment, Inc., Aurora, Colorado, 442-3582, Fax 695-4507.

# UNIVERSITY OF COLORADO AT DENVER

College of Engineering and Applied Science

is offering the following upcoming continuing engineering education programs:

Basic 3-D Computer Aided Design	March 24-26 (3 days/20 hrs)	\$495
Neural Networks	March 25-26 (2 days/16 hrs)	\$345
Maintenance Management	March 30-31 (2 days/16 hrs)	\$345
Mgmt. of Engineering Technology	April 2 (1 day/8 hrs)	\$245
Optical Fiber Communications	April 23 (1 day/8hrs)	\$245
Statistical Quality Control	April 30 (1day/8 hrs)	\$245

Call Arne Arnesen, CU-Denver Continuing Engineering Education, (303) 556-4907, for detailed program brochures and registration information on any of the above short courses.

# **Overlook Advertising**

Ad Size	<u>Rate</u>		
	One Time	Multiple	
Business Card	\$ 25.00/mo.	\$ 20.00/mo.	
1/8 page	\$ 60.00/mo.	\$ 50.00/mo.	
1/4 page	\$ 150.00/mo.	\$ 130.00/mo.	
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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 1992-1993

April 1993 Newsletter - March 1, 1993

May 1993 Newsletter - April 2, 1993

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.

# Chairman's Corner

by Tom R. Gibbs

For many new members of IEEE, and for some who are not new, the most basic framework of the INSTITUTE is something of a mystery. About once a year this publication offers some basic introduction to the subject. Most of the addressees of the *RockIEEE Overlook* are members of one of the Chapters of the Denver Section. These Chapters, and their Chairmen, are listed in each issue of the Overlook.

The individual MEMBER is the basic unit, and the CHAPTER is the basic organization within IEEE. A CHAPTER has two significantly different types of 'parents', one is administrative and the other technical. The CHAPTER may have one technical parent, e.g., Magnetics; or it may have two or more, joint technical parents, e.g., Joint Antenna & Propagation/Microwave Theory & Techniques/ Geoscience & Remote Sensing. These technical parents are the SOCIETIES and COUNCILS. The administrative parent is the SECTION.

Worldwide the INSTITUTE consists of about 300,000 individual MEMBERS, about 900 CHAPTERS, 276 SECTIONS, and 37 technical SOCIETIES and COUNCILS. In

the Denver Section there are ten CHAPTERS (plus the student chapters) representing 15 technical SOCIETIES.

To assist in understanding the functioning of the administrative parent an excerpt from an IEEE publication is quoted: "The Chairman and members of the Executive Committee of the SECTION must understand and assist the mission of the CHAPTER:

- 1. By providing adequate funding.
- 2. By disseminating notices of meetings.
- 3. By integrating CHAPTER plans with those of the SECTION.
- 4. By assisting the CHAPTER in relations with the SOCIETY.
- 5. By treating the CHAPTER as an important and integral SECTION unit."

Understandable in an organization of this size, there is substantial hierarchy beyond the individual SECTION and even the SOCIETY, but that subject 'is beyond the scope of this introduction'.

# **Schedule of Conferences and Meetings**

March 17-19, 199	3 Denver	NETA Tech. Conf. Int. Elect. Testing	Mary Jordan	(303) 467-0526
April 14-16, 199	3 Denver	Intl. Conf. Management Cost Memory	Rich Breck	(800) 535-4746
April 28-30, 199	3 Denver	EMC/ESD International	Renae Fierros	(303) 220-0600
June 6-9, 199	3 Denver	EOS/ESD Assoc. Stds. Development	Renae Fierros	(303) 220-0600
November 3-6, 199	3 Denver	ISSRE (Int. Symp. Software Rel. Eng.	Rick Karcich	(303) 673-6223
Sept./Oct., 199	4 Denver	IAS Annual Meeting	Paul Meisel	(303) 761-6960
September 10-14, 199	5 Denver	Petroleum & Chemical (PCIC)	John Nelson	(303) 431-7895
July27-August 2, 199	6 Denver	PES Summer Meeting	Fred Jones	(303) 431-7895
199	7 Denver	PES Joint Power Generation	Gary Petersen	(303) 329-1506
May, 199	7 Denver	MTT	Hussain Haddad	(303) 460-2114
			John Dunn	(303) 449-1055
			Claude Weil	(303) 497-5305
August 17-19, 199	9 Denver	EMC	Mark Lapchak	(303) 773-4626

# **Proposed Conferences and Meetings**

International Conference on Harmonics in Power Systems (ICHPS) 1996 ESMO 1996 Sections Congress 1996 ITC 2000 ICC 1995-2000

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# Fourth International Symposium on Software Reliability

The Experimental Paradigm in Software Reliability Engineering

Denver, Colorado November 3-6, 1993

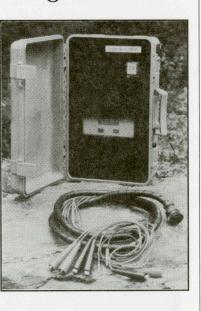
Sponsored by the IEEE CS Technical Committee on Software Engineering Subcommittee on S/W Reliability Engineering and by the IEEE Reliability Society Denver Chapter

A call for papers and participation has been sent out, but here's a reminder: submission deadline for papers less than 6000 words is March 15, 1993 and should be submitted to: Yashwant Malaiya, Computer Science Department, Colorado State University, Fort Collins, CO 80523. (303) 491-7031, Fax (303) 491-6639, malaiya@cs.colostate.edu.

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# John J. Tary to Receive Innovation Award from the IEEE Regional Activities Board

John J. Tary, long time Conferences Chairman for the Denver Section, was selected by the Regional Activities Board to receive its 1992 INNOVATION AWARD when the Board met last December in Phoenix, Arizona. John was cited "For innovative development of exhibits to increase the visibility of electrical engineering to students and the public".

Specifically, John had conceived the idea, solicited funds, and arranged for the preparation of two exhibits illustrating electrical engineering technology which could be displayed at shows for the general public, at IEEE conferences, and at grade, middle, and high schools. The AWARD will be presented to John during the May meeting of the Denver Section.

# PES/IAS 92/93 Tutorial

The joint PES/IAS Chapter in Denver has offered tutorials for several years. The tentative schedule for this year is to offer the following four hour tutorial in mid-april. Look for details on registration in the April issue of the Overlook.

#### Topic

"Short Cut Methods for Power System Analysis"

This tutorial will present several short cut methods for determining quantities such as voltage drop and short circuit current, as well as short cut methods for analyzing the effect of various motor starting methods such as switched capacitors, reactors and autotransformers.

#### Instructor

Jack Fuller

Retired Professor of Electrical Engineering University of Colorado.

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# Thank You

IEEE Denver Section would like to sincerely thank the advertisers whose ads have been published in the RockIEEE Overlook.

We appreciate your participation!

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#### **Society Chapter Chairmen**

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### The Month at a Glance

March 9, 1993 EMC Meeting

March 10, 1993
Denver Section Meeting
Centennial Subsection Meeting

March 11, 1993 EMBS Meeting

March 12, 1993 Bonnie Dunbar

March 18, 1993 VTS/COMSOC Meeting PES/IAS Meeting

March 24, 1993 Magnetics Society Meeting RockIEEE Overlook Official Publication of the IEEE Denver Section