



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

RockIEEE Overlook

Denver Section

April, 1989

Combined Denver Section and Society Chapters Meeting

Wednesday, April 12, 1989
Radisson Hotel, 1550 Court Place, Denver

(Dinner Optional at a cost of \$16.00)

Reservations required for dinner, call Anita (303) 220-8042 by Monday, April 10

Free Parking (with validation) under hotel off 15th St.

Social Hour 5:30 - 6:30 p.m.	Dinner 6:30 - 7:30 p.m.
Section Program 7:30 - 8:00 p.m.	Chapters Program 8:00 - 9:00 p.m.

Chapters will hold technical meetings following the Section Program.

The Section Program

"How to be Successful in Management in Industry Today"

Norman Vlass
Hewlett Packard
Account Manager for Digital Audiotape

Society Chapter Meetings Following Section Meeting

PES/IAS

Power Engineering/Industry Application
Jackson Fuller, Professor, University of Colorado - Boulder
"Motor Starting"

CS/ITS

Computer/Information Theory
Brian Doyle, Selbourne Computer
"Multiprocessing"

Joint AP/MTT/GRS

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

Tuesday, April 18, 1989

National Bureau of Standards
325 Broadway, Boulder, Room 1103
4:00 - 5:00 p.m.

Dr. Kenneth Watson
U.S. Geological Survey, Denver, CO

"Geophysics Environmental and Minerals (GEM)
Demonstration Test Area (Cripple Creek, CO) for Airborne
Geophysics"

The Cripple Creek-Cannon City region in south central Colorado has been selected for developing and testing geophysical techniques and data synthesis. Data sets including aeromagnetism, gravity, NURE (Nuclear Uranium Resource Evaluation) gamma-ray spectrometry, 80-m resolution Thematic Mapper (TM), 1-km resolution NOAA-AVHRR (Advanced Very High Resolution Radiometer), and 500-m resolution HCMM (Heat Capacity Mapping Mission). As part of a cooperative experimental airborne imaging spectrometer (AVIRIS and GERIS) and spectral thermal emission (TIMS) data have also been collected within the GEM area. Dr. Watson will discuss the integration and synthesis of data obtained from these methods and his research in solar flux and albedo heat budgets.

Reservations not required

For further information contact Bob Seeley, 986-6790.

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Chairman's Message

by Keith Henderson

We are extremely fortunate to have top quality speakers and programs for the Section/All Chapters meeting April 12th. Additionally all past and present Chapter officers will be recognized. The Chapters remain the heart of the IEEE. Let's have a big turnout to show our appreciation to these women and men who contribute their energy and time. Gordon Lee and Paul Meisel have planned a special surprise. Which chapter will have the most members and officers there? Mark your calendar, and ATTEND!

An important Section activity is the sponsorship of the Student Paper contests. The results of the March 17th contest in Rapid City, and the April 22nd contest in Dallas will be highlighted in future Overlooks. Don Cottrell, Vice Chairman of Student Activities, has an article in this Overlook issue. Be sure to read it.

Jim Gale, Gary Petersen, and Anita Wanberg continually try to improve the Overlook. Getting the news and notices out is a major effort. Gary has plans for expanded advertising beginning with the May issue. Let's support his team's effort by advertising, and soliciting future corporate sponsorship. Read Gary's article in this issue for more details.

Looking forward to visiting with you, and hearing Norm Vlass at the Wednesday, April 12th Section/Chapters meeting!

Don't Overlook the Overlook!!!

Members**Employers**Suppliers**Recruiters

The RockIEEE Overlook urgently needs your support to help defray the cost of this publication. We have set as a goal for 1989, a substantial increase in our monthly advertising and are also soliciting corporate sponsorship.

The RockIEEE Overlook is mailed the first of each month to more than 3500 IEEE members in the Denver/Boulder/Ft. Collins metropolitan areas, plus parts of Wyoming and South Dakota. The Overlook is also mailed each month to each of the colleges and universities represented by the Denver Section.

Our very reasonable advertising rates allow you to reach more than 4000 electrical engineers, college professors, and businesses when you place a monthly or annual (9 issues) ad in the Overlook. Business cards, technical recruiting, seminar notices and corporate advertising are all welcome.

Corporate sponsorship of the Overlook is also being solicited. If your Company is interested in supporting the Denver Section of IEEE with printing services, mailing assistance, or financial support, please contact Gary Petersen at 329-1506. All corporate sponsors will be gratefully acknowledged in the Overlook.

For more information, or to place an ad, please call Anita Wanberg, Publications Coordinator at 220-8042, or Gary Petersen at 329-1506.

Jim Gale is New Editor

Please welcome Jim Gale as the RockIEEE Overlook Editor. Jim is an EE in the Engineering Department at KRMA-TV Channel 6. Welcome aboard Jim!

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1/2 page	\$ 250/mo.	\$ 225/mo.
Full page	\$ 400/mo.	\$ 360/mo.

Schedule of Conferences and Meetings

April 30 - May 2, 1989	Colorado Spgs	Rural Electric Power Conf.	Leo Barrios	(303) 452-6111
May 15 - 18, 1989	Denver	Cement Industry Conference	Randy Wiley	(303) 534-4206
May 16 - 17, 1989	Colorado Spgs	Regional UTC	George Stoll	(303) 571-2677
May 23 - 25, 1989	Denver	EMC Conference (EMC '89)	John Adams	(303) 497-3328
May 31 - June 2, 1989	Denver	43rd Annual Frequency Control Symposium	David Allan	(303) 497-5637
June 17 - 21, 1990	Colorado Spgs	Utilities Communications	George Stoll	(303) 571-2677
March - April, 1991	Fort Collins	Region 5 Conference	Gordon Lee	(303) 491-5767
April 28 - May 2, 1991	Boulder	PES Substation Com. Mtg.	George Flaig	(303) 452-6111
June 23 - 27, 1991	Denver	International Communications Conf.	Russ Johnson	(303) 796-9100
Spring, 1992	Denver	Vehicular Technology Conf. (VTC '92)	Don Cottrell	(303) 871-3752

Proposed: IAS 1994
MTT 1994

MILCOM 1990
ACM/IEEE Design Automation 1994

Colorado Science Olympiad

By Bruce Sparks

Colorado has been asked to host a National Science Olympiad, on May 19th and 20th, with students from 46 states participating. Both the National, and State Olympiads will be held at the University of Colorado, Boulder campus.

"U.S. Kids Worst in Math Test - Poor
Performance in Six-Nation Exam of 'Grave
Concern'."

This headline was on the front page of the Denver Post, Colorado Living Section, February 1, 1989.

Aren't you troubled by the overwhelming evidence of America's future adults declining knowledge of math & science? What can you do as a responsible citizen to reverse that trend?

There are a great many people working hard to change that trend. How about you? A non-profit organization you may have read about is the "Colorado Science Olympiad" (CSO). The IEEE Denver Section and a group of math and science educators formed the CSO with the goal of improving the quality of math and science education by increasing student interest and provide recognition for outstanding achievement in science education by both students and teachers. We are proud to announce the fourth annual State Olympiad competition to be held on Saturday, April 8th, with over 80 schools registered.

Please consider donating funds to help finance this worthwhile program. No sum is considered too small. Send your tax deductible contribution to:

Colorado Science Olympiad,
P.O. Box 12338, Boulder CO 80301

ITC 1997 - 2000

Database Coordinator Needed

Do you love playing with databases?? Want to help the Overlook too? We need a volunteer with access to a PC and DBase III or equal to develop our mailing labels for the Overlook each month. The Denver Section will pay for labels -- you supply two to three hours per month plus printing time and disk storage. Call Gary Petersen at 329-1506 for more information.

Transformer and Induction Motor Notes Available

Thanks to Dr. Sen, Public Service for the classroom, and everybody else who made the recent PES/IAS tutorials a success. There were over 60 participants in one or both of the classes. Additional copies of the notes are available for \$5 each. If you are interested, please send \$5 for each set to John Barnick, Westinghouse Electric, 3900 S. Wadsworth Blvd., Lakewood CO 80235. Please specify which set of notes you want.

1989 IEEE Region 5 Student Paper Contest

by Don Cottrell

An important annual event for electrical engineering students in Region 5 is the student paper contest. This year the contest is being held as usual in conjunction with the Region 5 Annual Meeting on Saturday morning, April 22nd, near Southern Methodist University in Dallas Texas. There are usually 8 participants, which are selected from the top two winners from each of the four area contests. The Area A contest, which includes Colorado, S. Wyoming, S.W. South Dakota, W. Texas and S.E. New Mexico, was held last March 17th at the South Dakota School of Mines. The papers presented by the students can cover technical, engineering, management, or societal aspects of subjects related to areas with which IEEE is concerned. Usually the subject matter is technical and reflects the kinds of things taught in engineering schools. The first place winner will be awarded \$300; second place \$150; and third place \$75 (the region has an option of increasing the amounts awarded, so these could be higher). We should be very proud of our own Area A students as they are typically first and/or second place winners in the Region 5 contest.

Computer Society Videoconference

May 3, 1989

"Concurrent Engineering of Both Product and Process: A New Challenge"

This videoconference will present some radically different ideas: What generates costs and who is responsible for it? What can be done to reduce it? When in a product development cycle should these ideas be implemented? And finally, a prediction of what the future holds.

Call Rory Laiho, 924-7534, or Sandy Bish, 538-4717, for more information.

1989 IEEE Region 5 Student Design Contest

by Don Cottrell

A new feature of this year's Region 5 Meeting will be a Student Design Contest, which will be on Saturday and Sunday April 22nd and 23rd at the Southern Methodist University, in Dallas, Texas. Forty teams of two E.E. students each are expected to compete in this unique contest. At the time the contest is to begin, each team will be given a design problem statement. The teams will have 10 hours to develop, optimize and test their design solution. Each team will be given the same design kit with all the necessary parts for successful completion. Student teams will complete a report describing their design; each project will be reviewed and evaluated by three judges. There may be more than one winner, and prizes (calculators) are being donated by Hewlett Packard. Signetics Corporation has donated the IC chips and Hewlett Packard has donated the seven segment displays. Good luck to all the students!

IEEE Student Branch

The IEEE Student Branch at CSU is hosting a Student Professional Awareness Conference on April 20. This conference will give students from Northern Colorado and Southern Wyoming the opportunity to listen to speakers discuss important issues such as career opportunities, engineering ethics, and proper management. Plan to attend!

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Joint Computer Information Theory - **Sandy Bish**, AT&T Bell Laboratories, 538-4717
Joint electromagnetic Compatibility/Instrumentation Measurement - **Richard Groves**, Colorado School of Mines, 273-3677
Joint Power Engineering/Industry Applications - **Bob Saint**, Union REA, 659-0651
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The Institute of Electrical and Electronics Engineers



Denver Section
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The Month at a Glance

April 12

Combined Section/Chapters Meeting

PES/IAS Meeting

CS/ITS Meeting

April 18

AP/MTT/GRS Meeting

April 20

Student Professional Awareness Conference

April 22

Region 5 Student Paper Contest

Region 5 Student Design Contest

April 30 - May 2

Rural Electric Power Conference

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Official Publication of the
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