



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

RockIEEE Overlook

Denver Section

October, 1989

Society Chapter Meetings and Information

Joint AP/MTT/GRS

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

Wednesday, October 18, 1989

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

Speaker

Professor B.D. Steinberg
Moore School of Engineering
University of Pennsylvania

"High Resolution Microwave Imaging"

There are several intrinsic problems in high resolution microwave imaging, all stemming from long wavelengths, as compared to optics, used in microwave systems. Because of the long wavelengths, the scattering properties of targets are different, the apertures must be huge and are therefore mechanically unstable, the dynamic range of target echoes is so large as to hide the weak scattering from the edges and boundaries that define target shape, the information content in the image is very low while the data rate requirement of the image processor can exceed the RF, and there is often so strong an angular dependence as to cause different images of a target to look like different targets.

These and other problems are discussed and solutions offered. The radio camera is described. X-band experimental high resolution imagery illustrates the problems and the solutions.

Reservations are not required

For further information call John Dunn at 492-5487.

Joint PES/IAS

Power Engineering/Industry Applications

Thursday, October 19, 1989

Sheraton Hotel and Conference Center
360 Union Blvd., Lakewood
6:00 p.m. Social, Main Lobby Bar
7:00 p.m. Dinner (optional @\$10.00)
Green Mountain Room, 2nd Floor
8:00 Meeting

Speaker

Phil Atwater
U.S. Bureau of Reclamation

"On-Site Fault Testing of Power Apparatus"

Phil Atwater from the U.S. Bureau of Reclamation will present a talk on high-power short-circuit acceptance testing. Highlights will include slides of 40-kA arcing fault tests in the 550-kV switchyard at the Grand Coulee Power Complex in Washington State. Special considerations involving relaying, backup protection, special instrumentation, grounding safety, system reconfigurations, and fault current and voltage profile studies will be reviewed.

Also, please join us in presenting the IEEE PES 1988 Prize paper Award to Jackson Fuller.

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

cancel your reservations if you are unable to attend a meeting (including the Section meetings). No-shows will be responsible for the cost (if any) of dinner.

EMC

Electromagnetic Compatibility

Wednesday, October 11, 1989

Martin Marietta, Waterton Facility

Presentation & Demo by the Measurements Laboratory Staff
7:00 p.m.

"The Measurement of Conducted Emissions"

Reservations are required!! You cannot enter the Martin Marietta Facility without a badge.

Please contact Andy Anderson, 971-6422, or Bill Bryant, 977-6578, for further information and reservations.

Denver office of national consulting firm seeks experienced transmission and/or distribution planner. Position requires P.E. with 6+ yrs. experience in feasibility studies, economic evaluation and forecasting of T & D systems. Salary \$40K - \$65K plus bonus. Contact Mike Jacobs (303) 832-8100.

Educational Activities

by Pankaj K. Sen

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The IEEE Denver Section expresses its sincere appreciation to John Tierney at Public Service Company of Colorado for his effort in working with the Denver Section membership database.

Joint VTS/COMSOC

Communications Society/Vehicular Technology Society

Wednesday, October 11, 1989

KTVD Channel 20

11203 E. Peakview Ave.

(1-1-2 miles East of I-25 on Arapahoe Rd.)

6:00 p.m. Arrive at Bennett's Barbecue

11300 E. Arapahoe Rd.

6:30 p.m. Order from the menu

7:45 p.m. Meeting at Channel 20 station

Speaker

Bob Crawford
Chief Engineer

A short business meeting to install new officers will be followed by a tour of the station with the latest technology in the television industry.

Reservations requested. Please call John Hardzinski, 977-2224 (w), 693-2198 (h), or Ken Shugg, 977-2226.

You need not attend dinner to attend the meeting.

ALL IEEE MEMBERS AND THEIR GUESTS ARE WELCOME

EMBS

Engineering in Medicine and Biology

Symposium

A half-day minisymposium on bioelectromagnetics will be held in mid-november (a firm date will be announced in the November RockIEEE Overlook) sponsored by the Denver EMBS chapter of the IEEE, the University of Colorado at Denver, and the Denver Section of the IEEE.

The program is due almost entirely to the efforts of Dr. Jochen Edrich who is well known in Denver bioengineering circles because of the many colleagues and former students who continue to work in the Denver area. The program will be held on the campus of the University of Colorado at Denver. Some of the proposed topics include bioeffects and diagnostic and therapeutic applications of microwaves, MRI, EEG processing, and bioeffects of power lines.

Please call Dr. Darrell Jones (303) 270-6489, with any questions. One or two additional papers may also be accepted.

A Personal Challenge

Can we as individual engineers play a role in helping improve precollege mathematics and science education in the public schools? Have you taken a personal interest in how well math and science are taught in your local school system? Do you know of innovative programs that have measurably improved the skills of students?

IEEE Spectrum would like to hear about them, so that we may report on those that appear most promising. We are interested both in kindergarten-grade 7 and in grades 8-12 programs. Please send as many nominations as you wish.

As a further incentive, we plan to submit the best ideas to a jury of educators for their evaluation and additional commentary. We will ask the jury to select the "best of the best", and we will award a Hewlett-Packard Co. 28S calculator* to whoever submitted the winning nomination. A second HP 28S will go to the teacher or professional educator whose idea the winning program was.

Nominations, along with a description of the program and the name and address of the teacher/educator, should be sent to IEEE Spectrum Precollege Math/Science Competition, 345 E 47th St., New York, NY 10017.

*donated expressly for this project by Hewlett-Packard's Corvallis Division, Corvallis, OR.



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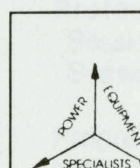
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GARRETT COMPUTER ASSOCIATES
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RockIEEE Overlook Editor

Our Newsletter Editor, Jim Gale, has recently accepted a position in Houston and will no longer be able to fill this position. Anyone interested in participating in the RockIEEE Overlook production, please call Gary Petersen, 329-1506.



Thomas W. Bassett, P.E.

Power Equipment Specialists Inc.
10200 W. 44th Ave., Suite 120
Wheat Ridge, CO 80033-2838
(303) 423-2741

Fax (303) 467-0714

Don't Overlook the Overlook!!!

The IEEE Denver Section 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. Business cards, technical recruiting, seminar notices and corporate advertising are all welcome.

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

Schedule of Conferences and Meetings

June 17 - 21, 1990	Colorado Spgs	Utilities Communications	George Stoll	(303) 571-2677
March - April, 1991	Fort Collins	Region 5 Conference	Tom Mills	(303) 229-3737
April 28 - May 2, 1991	Boulder	PES Substation Com. Mtg.	George Flaig	(303) 452-6111
June 23 - 27, 1991	Denver	International Communi- cations Conference	Russ Johnson	(303) 796-9100
May 11 - 13, 1992	Denver	Vehicular Technology Conf. (VTC '92)	Don Cottrell	(303) 871-3752

Proposed Conferences and Meetings

IAS 1994
ACM/IEEE Design Automation 1994
PES Joint Power Generation 1994
PES Summer Meeting 1995
Petroleum & Chemical 1995
MTT 1997
Transmission & Distribution 1997
ITC 1997-2000

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Ad Size	Rate	
	One Time	Multiple
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Full Page	\$ 400.00/mo.	\$ 360.00/mo.

Business card ads must be actual business cards. All other ads must be provided in camera-ready format or additional set-up charges may apply.

Deadlines

November 1989 newsletter	October 6, 1989
December 1989 newsletter	November 3, 1989
January 1990 newsletter	December 1, 1989
February 1990 newsletter	January 5, 1990
March 1990 newsletter	February 2, 1990
April 1990 newsletter	March 2, 1990
May 1990 newsletter	April 4, 1990

Enclosed is my check in the amount of \$_____ made payable to Denver Section IEEE. Send business card or ad copy and check to: Anita Wanberg, dba Trade Services, P.O. Box 4056, Englewood CO 80155-4056. Call Anita at (303) 220-8042 for more information.

EMC '89 Conference

May 23-26, 1989

by Herb Bass

"Who's Who in EMC" should have been the title of the Exhibits at the 1989 EMC Conference in May. There were over 90 exhibitors in 130 booths at the Denver Radisson Hotel. Papers covered the gamut of EMC techniques, theoretical and applied. Close to a thousand attendees came from all over the world.

Denver is fortunate to have a cadre of experienced conference committee chairmen with a wide range of experience, the they're crazy enough to keep volunteering for the next one!

The Denver section provides seed money which is returned as a percentage of the profits from the conference; the money going into an awards fund used to promote activities such as the student paper contests.

Note

Anyone interested in sponsoring a Denver Section IEEE Boy Scout Troop or Explorer Post with an interest in Electronics/Communications should contact Keith Henderson at 428-1655.

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Don Lindahl is New Membership Chairman

Don Lindahl of Siemens Energy & Automation has replaced Herb Bass as the Denver Section Membership Chairman. Call Don at 770-7907 for New Member/Grade Change/Society Application forms and other membership information.

Our thanks to Herb Bass for his past service in this position.

University of Colorado at Denver

The Division of Extended Studies and the Department of Electrical Engineering
present
Power Systems & Machines Short Courses
Dr. Pankaj K. Sen, P.E.
Associate Professor

We are offering a series of one day, eight-hour short courses on topics in power systems and machines. The first two courses are as follows:

Fundamentals of Power Systems Design

Session One	Friday, Nov. 3 - Denver
Session Two	Friday, Nov. 10 - Fort Collins

Protection Coordination Design in Power Distribution Systems

Session One	Friday, Dec. 15 - Denver
Session Two	Friday, Jan. 5 - Fort Collins

Program cost: \$225 per participant per program. For two or more employees from same job site: \$200 per participant. The cost includes registration, refreshments, lunch, and the course manual.

To receive a the program brochure and registration form, contact **Arne Arnesen, CU-Denver Director of Corporate Programs at 893-8521.**

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The Month at a Glance

October 6, 1989

RockIEEE Overlook deadline

October 11, 1989

EMC Meeting

Joint VTS/COMSOC Meeting

October 18, 1989

AP/MTT/GRS Meeting

October 19, 1989

Joint PES/IAS Meeting

October 25, 1989

Section Executive Board Meeting

November 1, 1989

Section Executive Committee Meeting

RockIEEE Overlook
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