

RockIEEE Overlook

Newsletter of



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

November 1992

Joint Meeting

IEEE Denver Section and University of Colorado Student Chapter

Monday, November 9, 1992

University of Colorado Engineering Center, ECCR 2-06
6:00 p.m. (Pizza and pop provided)

Speaker

Dr. Kristina Johnson, Professor
Dept. of Electrical Engineering, University of Colorado, Boulder

"Optical Neural Networks"

The presentation will focus on optical computing which processes information by analogy of suggested organizational properties of the brain.

Please call Marilyn Peterson, 329-1615, for reservations.

Directions: From Boulder Denver Turnpike (U.S. 36) go to Colorado Ave. in Boulder. Head west on Colorado and turn left on Regent Drive. Park in Lot 436 on the left side of Regent Drive. Cross Regent to the Engineering Center. ECCR 2-06 is in the southwest corner.

Society Chapter Meetings and Information

EMC

Electromagnetic Compatibility Society

Tuesday, November 17, 1992

6:00 - 7:00 p.m. - Site visit
7:00 p.m. - Meeting begins

Amador Corporation, Boulder Test Lab
5541 Central Ave., Boulder, CO 80301

Speaker

Dan Hoolihan

NARTE certified EMC Engineer, member ANSI Technical Committee, CEO of Amador, Director of Member Services for IEEE EMC Society, member of the U.S. Technical Advisory Group on Subcommittee G for CISPR.

"Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 30 GHz."

A discussion on FCC rule changes of the recently amended FCC Part 15 rules which permit the use of the national standard C63.4/1992 will also take place. Also the difference between C63.4 and MP-4, "FCC Procedure for Measuring RF Emissions from Computing Devices".

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

Joint PES/IAS Power Engineering/Industry Applications

Wednesday, November 18, 1992

Brooklyn's Saloon & Restaurant, 572-3999, 2644 W. Colfax, Denver (under the viaduct)
6:00 p.m. Social, 6:30 p.m. Dinner (optional @ \$10.00), 7:30 p.m. Meeting, Student members free.

Speaker

Scott Miller, Challenge Technology

"Harmonics and Corrective Measures"

Mr. Miller will define harmonics, identify their sources and problems that they cause. Measurement and test considerations will be discussed followed by corrective measures.

Please contact Barbara at Peterson Company, 388-6322, by Monday, November 16, 1992.

EMBS

Engineering in Medicine and Biology

Tuesday, November 17, 1992

7:30 p.m.

Ohmeda Monitoring Systems Training Room
Louisville, Colorado

Speaker

Mr. Dennis Gardner, Director of Systems Integration
Clinicom, Inc., Boulder, Colorado

"Wireless, Bedside Data Entry: A New Addition to the Hospital Information System"

A presentation of current technology for portable and paperless patient records. There will be a live demonstration of the Clinicom System via modem.

Directions: Highway 36 to Louisville/Superior exit. Exit north onto McCaslin Blvd. 1/3 mile to Centennial Parkway, Left on Centennial 1/2 mile to Century Drive. Follow road to the end. Park in visitor's spaces near front entrance.

Non-members are welcome to attend. Reservations are requested. Please call Jim Heller at 790-9010.

Chairman's Corner

The Information Explosion -- Keeping Pace

by Paul Meisel

More publications, more software, more technical briefs, and more educational courses are giving us information sources unparalleled in history. Concentration on a major project without additional inputs from outside sources may render the project technically obsolete before completion.

How can we hope to stay current? I watched a colleague's mail several years ago. Typically he subscribed to "free-bee" trade magazines and received 10-20 per day. He never had time to read much less peruse them but stacked them neatly in his office. They reached topple height and when he entered his office one morning, he found no place to walk. The magazines which were now out of order and torn were discarded unread.

Obviously, selectivity is the key for all of us. We do not have time to assimilate all this information in trade magazines. IEEE has about 2000 publications which could be received each year. We must select and specialize but continuously be alert to developments outside of this specialization in order to rapidly respond and adapt new knowledge to our own area of endeavor.

To assist employees in this quest of staying current,

employers have a responsibility to insure that their employees can tap this wealth of information. They should work with local educational facilities to insure that refresher courses are offered. They should be aware of televised instructional programs and should request programs and support engineers' participation in IEEE.

IEEE offers local technical programs, individual learning packages, video instructional cassettes, televised video conferences, international seminars and conferences in specific specialty areas, technical publications, standards, and textbooks to name just a few. More means of conveying information are being worked on by the Institute as I write this.

With the technology explosion, we cannot turn our backs to the offerings of the Institute or any other source. Maintaining membership and utilizing the available resources are up to each one of us.

Since this is the last newsletter of 1992, I would like to express my gratitude to all of those who gave me guidance, their wisdom and their volunteerism which helped make my job as Section Chairman gratifying.

Joint Meeting IEEE Lasers and Electro-Optics Society, and the Rocky Mountain Optical Society of America

Thursday, November 19, 1992

7:30 p.m.

National Institute of Standards and Technology
325 Broadway, Room 1103
Boulder, Colorado

Speaker

Dr. Norman Sanford
National Institute of Standards and Technology
Boulder, Colorado

"Rare Earth Doped Waveguide Lasers"

Dr. Sanford will first review the arguments for making rare earth doped lasers. He then will discuss the work done at NIST in this area over the last several years, including recent results.

Joint MTT/AP/GRS

Thursday, November 19, 1992

4:00 p.m.

National Institute of Standards and Technology
325 Broadway, Room 1103
Boulder, Colorado

Speaker

David Rutledge
Dept. of Electrical Engineering, Caltech
IEEE APS Distinguished Speaker

"Active Grids for Quasi-Optical Power Combining"

Periodic structures loaded with active devices are new quasi-optical components. These active grids offer the potential for high power operation, and are suitable for fabrication as monolithic integrated circuits. Results for three recent grids will be discussed.

Contact Zoya B. Popovic, (303) 429-0374, if you have any questions.

1992-93 Denver Section Student Branch Counselors and Chairmen

School	Chairman	Counselor
Colorado School of Mines Department of Electrical Engineering Golden, CO 80401	Robert Morris	Chidambar Ganesh (303) 273-3761 CGANESH@SLATE.MINES.COLORADO.EDU
Colorado State University Department of Electrical Engineering Fort Collins, CO 80525	Duane Spence	Pericles A. Mitkas (303) 491-7481 MITKAS@LONGS.LANCE.COLOSTATE.EDU
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Metropolitan State College of Denver Department of Electronics Engineering Campus Box 29 P.O. Box 183362 Denver, CO 80217-3362	Vic Oberle (303) 556-2501	Doyle A. Ellerbruch (303) 556-4007 ELLERBRUCH@ZENO.MSCD.EDU
South Dakota School of Mines and Technology Department of Electrical Engineering Rapid City, SD 57701	Bradley K. Johnson (605) 394-1220	Abul R. Hasan (605) 394-1220 AHASAN@SILVER.SDMT.EDU
University of Wyoming Department of Electrical Engineering University Station Box 3295 Laramie, WY 82070	Kirstie M. Bay	John McInroy (307) 766-6137 MCINROY@CORRAL.UWYO.EDU

Professional Activities IEEE Leads 1993 National Engineers Week

by Darrell Sabatka

The IEEE will be the leading sponsoring society, among 68 other sponsors, for next year's National Engineers Week, set for February 14-20, 1993, to increase public awareness of engineering as a profession. "As the world becomes increasingly technologically sophisticated, the nation's fate will lie even more in the minds and hands of engineers," said IEEE President-Elect Martha Sloan. "That is why we need to highlight our contributions to society.

The big theme for next year will be Energy. Companies and individuals wanting to exploit that theme can take advantage of ideas for local activities such as setting up facility tours, talking to high school classes, and educating local officials.

The Denver Section suggests you participate in the Colorado Engineer's Dinner held in February and contact your PACE Chairman on how you can help. If you have

the opportunity to speak to high school science and math classes, contact your Professional Activities Chairman and he can provide you with bookmarks, posters and "Engineering and You" brochures.

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1/8 page	\$ 60.00/mo.	\$ 50.00/mo.
1/4 page	\$ 150.00/mo.	\$ 130.00/mo.
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Full Page	\$ 400.00/mo.	\$ 360.00/mo.
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

January 1993 Newsletter - December 1, 1992

February 1993 Newsletter - January 1, 1993

March 1993 Newsletter - February 1, 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.**

Fuzzy Logic Seminar

Industrial Applications

Tuesday, November 17, 1992
8:30 a.m. - 4:00 p.m.

Regency Hotel
I-25 & 38th Ave.

Contact
Ray Polster
Omron Electronics
987-8909

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Arun Arora
President

Tom Gibbs
General Manager

IEEE Reliability Society, Denver Chapter

Notice: to all IEEE Reliability Society Members

The Chapter needs your input on activities that you want. Please call or write to one of the following people:

Dr. Sam Keene, (303) 429-7711
IBM, Dept. TR4, B-002
P.O. Box 9023 Boulder, CO 80301

John Adams, (303) 530-6503
821 Fourmile Canyon Boulder, CO 80302

Gene Bagenstos, (719) 574-0688
3105 While-A-Way, Circle E Colorado Springs, CO 80917

FREE

Tutorial and Industrial Panel

November 5, 1992

Discussion on Multichip Modules

University of Colorado at Boulder

Contact: Ann Geesaman, (303) 492-2767

Schedule of Conferences and Meetings

October 30, 1992	Denver	WARC'92 Workshop	Zoya Popovic	(303) 492-0374
Sept./Oct., 1994	Denver	IAS Annual Meeting	Paul Meisel	(303) 761-6960
September 10-14, 1995	Denver	Petroleum & Chemical (PCIC)	John Nelson	(303) 431-7895
July 27-August 2, 1996	Denver	PES Summer Meeting	Fred Jones	(303) 431-7895
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
			Mark Lapchak	(303) 773-4626
August 17-19, 1999	Denver	EMC		

Proposed Conferences and Meetings

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

Working Together -- Working With Others

by Paul Meisel

Exciting opportunities present themselves everyday. In late September, John Tary and I met with Loren Behr, Deputy Director of the Denver Children's Museum.

We discussed opportunities for the museum and for our members which would be mutually beneficial. We recognize that our mission is educational and the promotion of science, engineering, and technology so that we can advance IEEE for the future.

There are many ways for us to promote IEEE and help the Children's Museum. The museum recently opened its science exhibit, a hands-on interactive setting of chemistry, electricity, sound, physical science, light, and insects. The most popular exhibits appeared to be "can I do it and make it work?". A group of volunteers staff the area to guide and answer questions. "I'm a scientist" was the comment of a little boy looking into a microscope while we were there.

The museum is working on a new weather center which will show live doppler radar or have it recorded on video discs. This would also be an interactive project.

I believe it is appropriate for our members to volunteer to present the opportunities to these young people to peak their interests. Suggestions for interactive exhibits are welcome. During my quick tour, I saw batteries and light bulbs. Wouldn't it be fun to present additional "make it work" experiments.

If you would like to become a volunteer, please contact Tony Thomas, at 753-2289. The museum is open daily including Saturday and Sunday and each Friday evening. Responsible, knowledgeable help is needed. A few hours each month working with young children could result in another Albert Einstein, Alexander Bell, Ivan Getting type engineer/scientist.

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UNIVERSITY OF COLORADO AT DENVER

The Department of Electrical Engineering
College of Engineering and Applied Science
presents

Fundamentals of Power Systems Design

Friday, December 4, 1992
CU-Denver (Auraria) Campus
Instructor: Dr. Pankaj (PK) Sen
Fee: \$195

Don't miss this one-day intensive short course for electrical engineers/designers, facilities maintenance engineers, electrical contractors, inspectors, architects and mechanical engineers. Call Arne Arnesen, Continuing Engineering Education, (303) 556-4907, for a detailed program brochure with registration information.

The Institute of Electrical and Electronics Engineers - Denver Section

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Reliability - **John Adams**, ValleyLab, 530-2300

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The Month at a Glance

November 9, 1992

Denver Section/CU Student Meeting

November 17, 1992

EMC Meeting

EMBS Meeting

November 18, 1992

PES/IAS Meeting

November 19, 1992

LEO Meeting

MTT/AP/GRS Meeting

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