

# RockIEEE Overlook

Newsletter of



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

October 1992

## IEEE Denver Section Meeting and Election of Officers

**Wednesday, October 14, 1992**

Holiday Inn, Northglenn, I-25 & 120th

6:00 Dinner, (\$15, Student members 1/2 price)

7:00 Program

### **Speaker**

Ed Lochrie

Telecommunications Engineer

System Protection and Telecommunications Department

Tri State Generation and Transmission Assoc.

### ***"Using Cellular Telephones for Utilities Data Acquisition"***

A unique application of data gathering from remote sites will be discussed. The talk will focus on unusual problems, cost analysis, advantages, and a number of other features of this new approach to data acquisition.

Please call Anita Wanberg, 220-8042, for reservations.

***THANK-YOU to John Tierney at Public Service Company of Colorado for his effort in working with the Denver Section membership database.***



# Society Chapter Meetings and Information

## Joint PES/IAS Power Engineering/Industry Applications

Thursday, October 15, 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)  
Student members free.  
7:30 p.m. Meeting

### Speaker

Jeanne-Pierre Wolff  
Vice President, Electro-Test, Inc.

### "Lightening Protection Grounding"

Mr. Wolff will review the principles of lightning and lightning protection systems for building structures and substations. The ANSI/NFPA 78 standard will be reviewed and various types of lightning protection hardware will be discussed. A typical high-rise roof structure lightning protection system design example will be presented, along with inspection and testing methods.

Please contact Barbara at Peterson Company, 388-6322, by Monday, September 14, 1992.

## Local Chapter Wins Award

Barry C. Brusso, Chairman of the Chapters Department of the Industry Applications Society, recently announced that the Denver, Colorado Chapter - Region 5 had been selected as the "Outstanding Large Joint Chapter" for the 1991-1992 year. A Certificate of Award will be presented at the IAS annual meeting in Houston, Texas.

## Magnetics Society

Wednesday, October 21, 1992

5:30 - 6:30 p.m.  
Synergy Conference Room, Building 6  
Storage Technology  
2270 S. 88th St., Louisville, CO

### Speaker

Dr. Archie Smith, Advanced Technology  
Storage Technology Corporation

### "Optical Recording Technology"

Attendees must collect their access badges  
at the visitor's center.

For more information, contact Subrata Dey, (303) 673-6494.

## Joint MTT/AP/GRS and Joint VTS/COMSOC

Thursday, October 29, 1992

4:00 p.m.  
University of Colorado, Boulder  
Engineering Building, Room CR 1-40

### Speaker

Ferdo Ivanek  
IEEE MTT Distinguished Speaker

### "Progress and Change in Microwave Radio Communications"

Terrestrial and satellite based radio communications continue to represent the major commercial microwave market segment worldwide. Vehicular and personal mobile radio services and their derivatives represent the next major microwave application area. The impact of "consumerism" on the microwave industry is examined, and its implications for the MTT-S are discussed.

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

# Chairman's Corner

by Paul Meisel

Membership is an important requirement for the continued existence of any organization. The IEEE has much to offer its members and does. What we need to do is to invite engineers who are not members of the Institute to join. They may ask what some of the benefits of this organization are. It is a natural question for anyone who is not a member of an organization but has an interest. Are you ready to explain the benefits?

The IEEE is an organization of approximately 320,000 members worldwide. We can potentially learn from anyone of the members. Typically however, we listen to a few who present papers at meetings or write books. The interesting part is that as a member, you can directly converse and question the authorities to obtain information which is pertinent to your own work.

The IEEE has thousands of publications, videos, and other technical offerings such as televideo conferences in addition to the technical meetings and seminars held throughout the world. There are also technical books available as well as technical standards which are used throughout the world daily. The IEEE in the U.S. also offers its members insurance packages for health, life, disability and hospitalization.

To ask a friend and colleague to join IEEE is to do him/her a favor. To continue a membership in IEEE is to recognize the importance of remaining technically current in your profession. It is essential for continued employment and enjoyment. For those who are temporarily unemployed, IEEE has special reduced membership fees.

Ask a friend to day if he/she would like to become a member. We have membership forms available and can make them accessible by mail, or you can pick one up at the next local meeting -- chapter or section. Remember to do your friend a favor by asking him/her to join.

### POWER TRANSMISSION & DISTRIBUTION SERVICES

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Arun Arora  
President

Tom Gibbs  
General Manager

# Section Officers Nominated

The nominating Committee wishes to nominate the following slate of officers for the 1993 Denver Section Board.

Chairman  
Sr. Vice Chair  
Vice Chair, Members Services  
Vice Chair, Student Activities  
Secretary  
Treasurer

Tom Gibbs, Fichtner USA  
Darrell Sabatka, Public Service  
Michael Meister, NTIA  
Doyle Ellerbruch, Metro State College  
Subrata Dey, Storage Technology  
Diana Lindstrom, Self-Employed

Election of the section officers will take place at the Section Meeting on Wednesday, October 14, (See page 1). If you are interested in being nominated for a board position, or if you would like to volunteer for an Executive Committee position (see list on back of Overlook), please call Gary Petersen, Nominations Chairman, at 571-3626.

<p><b>T3 Systems</b></p> <p>Thad Smith      Robert Mashlan</p> <p>We develop software and firmware for realtime measurement and control applications, targeting embedded microprocessors and PCs.</p> <ul style="list-style-type: none"> <li>* Data Collection &amp; Communication</li> <li>* Motion Control, Custom Interfaces</li> <li>* User Presentation in DOS &amp; MS Windows</li> </ul> <p>Free estimates.      (303) 449-3322</p>	<p>(303) 758-8400      FAX: (303) 758-8762</p> <p><b>BRUCE E. HAYDEN, P.C.</b> ATTORNEY AT LAW</p> <p>FIELDS, LEWIS, PITTENGER &amp; ROST 1100 WRITER COMMONS BUILDING 1720 SOUTH BELLAIRE STREET DENVER, COLORADO 80222</p> <p>PATENTS COPYRIGHTS COMPUTER LAW TRADE SECRETS</p>	<p><b>Serving Colorado and The World</b> — Since 1885 —</p> <ul style="list-style-type: none"> <li>• Power</li> <li>• Mining &amp; Metals</li> <li>• Petroleum &amp; Petrochemicals</li> <li>• Electronics</li> <li>• Aerospace &amp; Defense</li> <li>• Biotechnology</li> <li>• Pharmaceuticals</li> <li>• Hazardous Waste Management</li> </ul> <p><b>United Engineers &amp; Constructors</b> A Raytheon Company Western Operations</p> <p>P.O. Box 5888 Denver, CO 80217 (303) 843-2000</p>
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## Career Goal Setting and Job Hunt Strategies Workshop

Provided by the IEEE Denver/Pikes Peak Section  
and Professional Engineers of Colorado

This workshop will help you to take increasing responsibility and control of your career. Facilitated by a well established career management expert, the knowledge and skills you gain from this workshop will enable you to "navigate" your career, rather than allowing it to drift. You will find out about the five elements of your career self and how to increase work satisfaction through a step-by-step career development process. Whether you are seeking to improve your career within your present organization, or desire to seek a position in the open market, the techniques you will learn are applicable short term and long term, including retirement planning. In addition, you will have a unique opportunity to ask questions and take advantage of the many years of experience our facilitator has gained in the career assessment and job search field. Pick his brain and get tips on "guerilla tactics" that will help you identify and land the job you want in a highly competitive market, whether you are conducting an internal or external job hunt. Discover the many ways to determine and develop your career path.

This workshop is open to all professionals, members or non-members, employed or unemployed. The tools and techniques presented in this workshop are applicable whether you are looking for a job due to external forces (mergers, takeovers, downsizing, restructuring, places going out of business...) or internal forces (tired of your present job, want to do something new and challenging...). They are designed to be valuable now during a job search, and longer term as you work to achieve your ultimate career goals.

## OBJECTIVES:

1. Assess yourself through a thorough examination of your background and natural talents.
2. Define and prioritize the basic elements of your career self including your work values, interests, personality strengths, skills and job objectives.
3. Integrate the top priorities of your career self into a written, focused career goal statement, that includes a job objective, qualifications statement and preferred work environment.
4. Learn how to research, identify and evaluate job opportunities that satisfy the criteria described in your career goal.
5. Select the career development options that best enable you to achieve your goal.
6. Learn how to develop and execute marketing strategies that get you the job you want, including demand analysis, phone calling, tailored resume, cover letter, follow up, interviewing, as well as job and salary negotiation.

**SCHEDULE:** Saturday, October 17, 1992  
8:00 a.m. - 4:00 p.m.

**LOCATION:** Denver Univ. Boettcher Auditorium, 2050 E. Iliff Ave.  
Box Lunch & Refreshments Provided

**FACILITATOR:** Paul Unks, M. Ed., is a senior career development consultant at Hutchens Resnik with over fifteen years of experience specializing in individual career counseling, and organizational consulting and training. He teaches at the University of Colorado and Denver University. His areas of expertise include career management, managing stress and wellness, and communications. He has helped thousands of clients and conducted innumerable seminars across the country. Whether Paul is working with individuals of large groups, his objective is the same: to help others achieve greater satisfaction and success in their work and personal lives. Paul served as director of the Center for Career Development in St. Louis, Missouri for five years prior to moving to California in 1980 when he began his consulting practice. He has studied and worked with Sam Kirk, who along with Richard N. Bolles, spear headed the National Career Development Project and helped write the popular book *What Color Is Your Parachute?* Paul has a Masters Degree in Counseling Psychology from the University of Missouri and is a recipient of the top training and development award in the nation, given by the President of the United States.

**REGISTRATION:** \$20 IEEE Member, \$50 PEC member, \*\$80 Non-members, \$10 Students,  
Pre-registration is required. Deadline: October 7, 1992 \*\$10 may be applied towards new membership  
Workbook provided. Attendance limited to 100. at time of Registration

For additional information, contact Darrell Sabatka (303) 329-1547 or Jim Higerd (303) 679-4291

The Denver Section appreciates the support of the Professional Engineers of Colorado, the Pikes Peak Section, and IEEE US Activities in providing this workshop.



NAME _____		REGISTRATION	PHONE _____
ADDRESS: _____		Return to: Marilyn Peterson Public Service Co. of Colorado 5525 E. 38th Ave. Denver, CO 80207	
AMOUNT ENCLOSED:		Make checks payable to: "IEEE" Denver Section	
_____ \$20 IEEE Member	Member No. _____		
_____ \$50 PEC Member	and Affiliation or School _____		
_____ \$80 Non Member			
_____ \$10 Student			
Please pre-register to guarantee your space. Deadline: October 7, 1992. Denver Section provides this seminar at cost, a service to the professional community.			

## IEEE Sponsored Upcoming Symposia and Workshops

September 30 - October 2, 1992  
International Workshop on  
Hardware-Software Codesign  
Estes Park, Colorado  
Contact: Rich Karcich, (303) 673-6223

October 7-9, 1992  
Symposium on  
Software Reliability Engineering  
Research Triangle Park, North Carolina

October 30, 1992  
WARC-92: Impact on Microwave and  
Millimeter Wave Developments  
Denver, Colorado  
Contact: Zoya B. Popovic, (303) 429-0374

	STEPHEN C. SPENCER, P.E.
Director, Electric Systems Engineering	
Direct (303) 299-5327 Main (303) 299-5200 Fax (303) 297-2811	
Denver National Bank Building, Suite 1900 1125 Seventeenth Street Denver, Colorado 80202-2615 USA	
	

## 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.

## Overlook Advertising

Ad Size	Rate	
	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.
1/2 page	\$ 250.00/mo.	\$ 225.00/mo.
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

November 1992 Newsletter - October 2, 1992

January 1993 Newsletter - December 1, 1992

April 1993 Newsletter - March 1, 1993

February 1993 Newsletter - January 1, 1993

May 1993 Newsletter - April 2, 1993

March 1993 Newsletter - February 1, 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.



# The Institute of Electrical and Electronics Engineers - Denver Section

## Executive Board

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Hydrologics, Inc.  
3101 S. Platte River Dr.  
Englewood CO 80110  
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(303) 924-3879

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Metro. State College  
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Denver CO 80217  
(303) 556-4007

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Golden CO 80401  
(303) 238-7548

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Arvada CO 80005  
422-9374

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Professional Activities - **Darrell Sabatka**, Public Service of CO, 329-1547  
Long Range Planning - **Michael J. Foley**, Forensic Engineering Inc., 730-7707

## Executive Committee (Includes Executive Board)

### Standing Committee Chairmen

Society Chapters - **Ray Jukkola**, Waste-Tech Services, Inc., 273-7106  
Conferences - **John Tary**, Tri-State Generation and Transmission Association, 452-6111  
Awards - **John R. Reesy**, 755-1720  
Student Fund - **Dennis Edwardson**, Black & Veatch Engineers, 671-4245  
Professional/Industrial Liaison - **Tony Thomas**, General Electric, 753-2289

Nominations - **Gary A. Petersen**, Public Service of CO, 571-3626  
Membership - **Don E. Lindahl**, Siemens Energy & Automation, 770-7907  
Pre-College Student Activities - **Michael Meister**, NTIA/ITS.NI, 497-6571  
Student Branch Activities - **Daniel Greco**,

## Executive Committee (Ex-Officio Members)

### Subsection Chairmen

Black Hills - **R.D. McNeil**, Electrical Engineering Dept., South Dakota School of Mines & Technology, Rapid City, SD, 57701, (605) 394-2452  
Centennial - **Sadrul Ula**, Electrical Engineering Dept., University of Wyoming, Laramie WY 82071, (307) 766-6268

## Society Chapter Chairmen

Electromagnetic Compatibility - **R.E. (Ev) Evans**, R.A. Mayes Co., 761-9447  
Engineering in Medicine and Biology - **Jim Heller**, 790-9010  
Joint Antenna and Propagation/Microwave Theory & Techniques/Geoscience and Remote Sensing - **Zoya B. Popovic**, University of Colorado, 429-0374  
Joint Vehicular Technology/Communications - **Ken Shugg**, Martin Marietta Information and Communications Systems, 971-7051

Joint Computer/Information Theory - **Bryce Chapman**, Storage Tek, 673-4762  
Laser and Electro Optics - **Alan Mickelson**, University of Colorado, 492-7539  
Joint Power Engineering/Industry Applications - **Kevin Wright**, NEI, 431-7895  
Magnetics - **Dr. Subrata Dey**, Storage Tek, 673-6494  
Power Engineering - **Kenneth McBryde**, CO Ute Electric Assoc., 249-4501  
Reliability - **John Adams**, ValleyLab, 530-2300

Senior Past Chairman - **John R. Reesy**, 755-1720

RockIEEE Overlook Editor - **David B. Richmond**, United Engineers, 843-2465  
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## The Institute of Electrical and Electronics Engineers



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## The Month at a Glance

**October 2, 1992**  
Overlook Deadline

**October 14, 1992**  
Denver Section Meeting/  
Election of officers

**October 15, 1992**  
PES/IAS Meeting

**October 17, 1992**  
Winning the Employment Game

**October 21, 1992**  
Magnetics Society Meeting

RockIEEE Overlook  
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