# RockIEEE Overlook

Newsletter of



The Institute of Electrical and Electronics Engineers Denver Section February 1993

## **Engineers Week**

# The Qualities of an Engineer

by Darrell Sabatka

National Engineers week, February 14-20, showcases "Engineers: Turning Ideas into Reality". The 43rd celebration focuses on the engineer's contribution to developing and conserving our energy resources, and to making energy work to improve our lives.

I recently read an article which was an excerpt from the address by a University Regent Chairperson to the College of Engineering commencement. The following excerpt is the research by a recognized lay person to identify "the qualities of an engineer".

"Engineering is a challenging field that offers many opportunities to young men and women. Engineers build, discover and create. They contribute to the health and welfare of many people. Many personal traits also qualify a person for an engineering career. A person who enters engineering should be:

- 1. Curious, searching for the "how" and "why" of natural mechanical things.
- 2. **Intelligent**, thinking clearly and using sound judgement.
- 3. **Imaginative**, picturing difficult situations and suggesting new ideas or new ways of doing things.
- 4. **Creative**, bringing new facts and methods together to solve new problems.
- 5. **Industrious**, working hard to complete exacting tasks as quickly as possible.
- 6. Studious, reading widely and extensively to increase knowledge.
- 7. Responsible, completing assignments in a dependable way with a minimum of supervision.
- 8. Communicative, sharing ideas with others and getting along with people."

Engineer's Week is a time to recognize our contributions to the health and welfare of many people.

HAPPY NEW YEAR!!

# **Society Chapter Meetings** and Information

## CS/ITS

### Joint Computer/Information Theory Society

Monday, February 15, 1992

4:00 - 7:00 p.m. Storage Tek 2270 S. 88th St. Louisville, CO 80028

### **IEEE Computer Society** Video Seminar

"Engineering Software System Development, Acquisition and Use with Software Reliability Measurement"

by John Musa

This continuing education seminar presents concepts and discusses applications to show how software reliability measurements can guide engineers and managers in achieving a desired level of software quality. Video notes will be provided to supplement the seminar.

There is no charge for attendance, but reservations are required. Refreshments will also be provided. Attendees must sign-in for access badges at the visitor center.

Please call Bryce Chapman, JC/IT Chair at 673-4762 or Shah Bhatti, JC/IT Vice Chair, at 682-6664 for reservations.

## Joint PES/IAS

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

Wednesday, February 17, 1993

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

Roy B. Carpenter, Jr., Consultant & CEO Lightning Eliminators & Consultants, inc.

"Preventing Lightning Damage to Critical Facilities"

Mr. Carpenter will discuss the phenomenon of lightning, why conventional systems create problems, the theory of the Dissipation Array<sup>R</sup> System, and examples of such systems installed during the past twenty years. A total system approach, including grounding and transient voltage surge suppression, will be described.

Please contact Barbara at Peterson Company, 388-6322, by Monday, February 15, 1993.

## **Centennial Subsection**

Wednesday, February 10, 1993

7:00 p.m.

University of Wyoming, Room 1062 Engineering Building, 12th and Lewis, Laramie, WY

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

## **Magnetics Society**

Wednesday, February 17, 1993

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

#### Speaker

Dr. Frank Shelledy **Rocky Mountain Magnetics** 

"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. Subrata Dey at (303) 673-6494 or Dr. Richard Dee at (303) 673-3976.

# Engineers Week Dinner

Friday, February 18, 1993

Radisson Denver South 7007 South Clinton St. Englewood, Colorado

Please call Marilyn Peterson at 329-1615 for time and cost.

### UNIVERSITY OF COLORADO AT DENVER

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

### **Transmission Line Protection**

Friday, March 12, 1993 CU-Denver (Auraria) Campus Instructor: Dr. William R. (Bill) Roemish Fee: \$245

Join us for this one-day intensive short course which will focus on the fundamentals of distance relaying, directional comparison and phase comparison pilot relaying systems, and special modern systems features. Call Arne Arnesen, Continuing Engineering Education, (303) 556-4907, for a detailed program brochure with registration information.

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## Metropolitan State College of Denver

## **IEEE News**

### Electronics & Mechanical Engineering Technology

# **Engineers** Week

February 14-20, 1993

Offering Four Year Bachelor of Science Degrees. Electronics areas of emphasis: Computers, Communications, Control Systems, and Power Mechanical areas of emphasis: Manufacturing and Mechanical Design.

National Engineers Week (NEW) has usually been scheduled by the NEW Secretariat and the NEW Steering

Engineering Technology programs accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Committee during the week of George Washington's actual birthday (on February 22), which often falls in the same week as the official Presidents' Day hol-

Electronics Engineering Technology Department Phone (303) 556-2503 Mechanical Engineering Technology Department Phone (303) 556-2977

Martha Sloan Please note that in 1993 Presidents' 1993 President The Institute of Electrical and Electronics Engineers, Inc. Chair, National Engineers Week Kenneth T. Derr

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United Engineers & Constructors

Day occurs on Monday, February 15, a week before Washington's birthday, and the 20-plus-society Steering Committee has approved February 14-20 (Sunday through Saturday) as the week of our celebrations.

## Thank You

Beginning in 1994, the volunteercomposed Steering Committee is requiring that Engineers Week coincide with Washington's actual birthday on February 22.

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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## **Overlook Advertising**

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Honorary Chairman

"Celebrate National Engineers Week,

February 14-20, 1993."

One week each year is set aside to honor American

engineers and encourage young men and women to join

us in the exciting tasks of finding solutions to today's technical challenges and helping create the world of

tomorrow. This year, on February 14-20, thousands of

professional engineers will visit the nation's classrooms as part of the successful and ongoing Discover "E" program.

Please join us in this important effort by volunteering to

give a presentation on engineering to a science or math

class at a local school. Contact your engineering society

chapter or headquarters to find out how you can help

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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

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.

## Schedule of Conferences and Meetings

March 17-19, 1993 Denver NETA Tech. Conf. Int. Elect. Testing April 28-30, 1993 Denver **EMC/ESD International** June 6-9, 1993 Denver EOS/ESD Assoc. Stds. Development ISSRE (Int. Symp. Software Rel. Eng. November 3-6, 1993 Denver IAS Annual Meeting Sept./Oct., 1994 Denver September 10-14, 1995 Denver Petroleum & Chemical (PCIC) July27-August 2, 1996 Denver **PES Summer Meeting** 1997 Denver **PES Joint Power Generation** May, 1997 Denver MTT

August 17-19, 1999 Denver **EMC**  Mary Jordan (303) 467-0526 Renae Fierros (303) 220-0600 Renae Fierros Rick Karcich Paul Meisel John Nelson Fred Jones Gary Petersen Hussain Haddad John Dunn Claude Weil Mark Lapchak

(303) 220-0600 (303) 673-6223 (303) 761-6960 (303) 431-7895 (303) 431-7895 (303) 329-1506 (303) 460-2114 (303) 449-1055 (303) 497-5305 (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

### The Institute of Electrical and Electronics Engineers - Denver Section

**Executive Board** 

Chairman Tom Gibbs 11143 W. 17th Ave. #101 Lakewood CO 80215 238-1574

Sr. Vice Chairman

Darrell Sabatka

Public Service of CO
5525 E. 38th Ave.

Denver CO 80207
329-1547

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Executive Committee (Includes Executive Board)
Standing Committee Chairmen

Society Chapters -Conferences -Awards -Student Fund -Professional/Industrial Liaison - Nominations -Membership -Pre-College Student Activities -Student Branch Activities -

### Executive Committee (Ex-Offico 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 - Gary Petersen, Public Service Company of Colorado, 571-3626

RockIEEE Overlook Editor - David B. Richmond, United Engineers, 843-2465 P.O. Box 5888, Denver, CO, 80217

Publication Coordinator - Anita Wanberg, AMW, Phone or Fax: 220-8042 P.O. Box 4056, Englewood, CO, 80155-4056

#### The Institute of Electrical and Electronics Engineers



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### The Month at a Glance

February 1, 1993 March newsletter deadline

February 10, 1993 Centennial Subsection Meeting

> February 14-20 Engineers Week

February 15, 1993 CS/ITS Video Seminar

February 17, 1993
Magnetics Society Meeting
PES/IAS Meeting

February 18, 1993 Engineers Week Dinner RockIEEE Overlook Official Publication of the IEEE Denver Section