RockIEEE Overlook Volume 5, Number 1 September 1999

Visit the IEEE Denver Section Home Page at www.engr.du.edu/ieee/densec.html Note: This <u>may</u> be the last issue of the Overlook that will be published in printed format. Please see the Denver website for meeting notices and information.

Society Chapters Meetings

PES/IAS

Thursday, September 16, 1999, 6:00 p.m.
Brooklyn's 644 West Colfax

Speaker

Lee Fingresh, NREL
"Wind Power & Wind Turbines"

For reservations, please call Barbara Linton at the Peterson Company: (303) 388-6322

For directions to Brooklyn's, call (303) 572-3999.

For more information, call Robert Randall at (303) 462-1100

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Computer Society

Thursday, September 23rd. 6:30 p.m. Vino, Vino, 708 E. 17th (just east of downtown Denver, 303-894-8466)

A cash bar will be open starting at 6:00PM and dinner (optional) will be served at 7:30PM. The meeting w/dinner will cost \$22.00 per person and the meeting w/o dinner will cost \$5.00 (for the cost of the meeting room).

Speaker

Dr. T. W. Williams, Synopsys, Inc..

"Hardware Testing What is it and How Does it Relate to Software Testing???"

Dr. Williams is the chair of the IEEE Technical Subcommittee on Design for Testability, an IEEE fellow, and was an IEEE Distinguished Visiting Speaker from 1982 to 1985. Dr. Williams will challenge the commonplace notions of Unit

Code test metrics and the use of support tools for testing.

This meeting is open to IEEE members and their guests. Please RSVP to Mitch Smith (smith@genomica.com) so that we know whether you will be attending and whether you plan to attend dinner.

EMC Society

September 28th 1999.
Time & Place: To Be Determined
Please see our Web-Site
(listed below)

Speaker

Kimmel/Gerke

"How to Design to Fail (in 20 easy steps)"

If you intend to come: Please e-mail Charles Grasso at chas grasso@ieee.org. Web site: http://www.ewh.ieee.org/r5/ denver/rockymountainemc/

IEEE Denver 99-00 Plan

Hello members, as your Denver section chair for Y2K, I would like to share with you my plans for the upcoming year. These plans include professional training, job fairs, Engineers week and work with our Student sections.

To paraphrase a common slogan, "Uncle Jim needs you" The Denver Section has been unable to accomplish critical activities due to lack of volunteers to run them

GOALS and NEEDS:

- Eliminate the paper Overlook in favor of electronic distribution
- 2) Professional skills conference using local technical societies. (need topics/speakers)
- 3) Organize the Communications Society in the Denver Area. (need 5 leaders)
- 4) Place an engineer in every high school in our Section for Engineers Week. (need 100 volunteers)

5) Make sure 100% of graduating college Seniors become IEEE members. (need 20 volunteers)

Contact j.west@computer.org for more information.

We base our plans on results of our web-based online survey which 140 section members completed this summer. I would like additional members who are not on our electronic mailing list to complete the survey. Please direct your web browser to: http://reality.sgi.com/csp/den_IEE E/IEEE_form.html

Survey Results:

Email Questions:

The survey found that an overwhelming majority (139 to 1) favored a monthly electronic distribution of the newsletter. Special emailings should be sent for important meetings.

The survey found that we want the following events planned::

 Dinners with technical Speakers

- 2) Field trips
- 3) One day technical training
- 4) Joint programs with student branches
- 5) Outreach for Pre-College
- 6) Technical training with PE credits

The survey found that a Weekday Night is the overwhelming favorite but it doesn't matter whether it is in North Denver, Downtown or Boulder.

Volunteering Questions::

The survey found the following top reasons why people don't volunteer to help IEEE::

- 1) Family
- 2) Volunteer for other organizations
 - 3) Work too much
- I don't know how much time it will take.

The most important finding was that most people (99 to 9) consider local activities important.

IEEE-USA Launches E-mail Update Service

WASHINGTON, D.C. June 7, 1999 -- On June 3, IEEE-USA initiated its e-mail update pilot project designed to provide all U.S. IEEE members beginning this summer with timely, regular notices plus special offers on the organization's products and services. Over the next few weeks, some 134,000 U.S. IEEE members who have their e-mail addresses recorded in the Institute's database will receive information about subscribing to the new

"push" electronic service. "We're looking forward to forging a new standard of member communications for IEEE-USA and the Institute," said IEEE-USA Member Activities Vice President Jean M. Eason. Members will have a choice of two update services including: IEEE-USA TODAY, featuring the latest on career building products and services; and/or IEEE-USA EYE ON WASHING-TON, providing briefings on career and technology policy activities. Members who do not wish to wait for the official e-mail update announcement (or who suspect that they might not be already included in the e-mail address database) can register now through the Web at http://www.ieeeusa.org/emailupdates. Members will be able to subscribe or unsubscribe from the service at any time.

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IEEE Invites Members to Review Pre-College Engineers Training Program

PISCATAWAY, NJ, 3 August 1999 - IEEE seeks volunteers to review its new Pre-college Engineers Training (PET) resource web site. This site, once completed, will be a main component of IEEE PET, a program that will train engineers to work with K-12 teachers in an effort to increase the technological literacy of students worldwide.

The PET resource web site is designed to sensitize engineers to educational issues such as curriculum development, classroom dynamics, available learning materials, and local implementation of educational standards. After completing the web-delivered training program, participating engineers will be accessible to the pre-college education community. "By nature of their professions, engineers and teachers really know very little about each other," explains Arthur Winston, vice president of IEEE Educational Activities. "In order to be effective resources to pre-college teachers, engineers must first be trained on various educational issues and skills."

Members who volunteer to review the site will be given the secured web address and asked to share their comments/suggestions for improvement of the PET project. The IEEE will then revise the site as necessary. Following the revision, PET will be pilot tested by members in the Worcester, MA & North Jersey sections. A presentation about PET and a report on the test progress will be delivered at IEEE Sections Congress 1999. In early 2000, PET will be deployed throughout all IEEE Sections, and members will be encouraged to use it as a resource to help them serve the education community.

Those interested in testing the PET training site should contact Christy Bouziotis at c.bouziotis @ieee.org, or call 1.732.562.6526.

Series Goes Electronic

PISCATAWAY, NJ, 24 March, 1999 - Now available on CD-ROM from the IEEE is the best-selling Engineers Guides to Business Series. Originally produced and still available in book format, this series seeks to develop within the business-minded engineer an awareness of non-technical skills. Titles in this series include: **Presentations That Work** Writing for Career Growth **High-Tech Creativity** Winning the New Product Development Battle Building Internal Team-**Partnerships** Teaching on TV and Video Starting a High-Tech Company Working in a Global Environment Starting to Manage: The **Essential Skills** Marketing for Engineers **Practicing Engineering Ethics**

Order from IEEE Customer Service Department, customer service@ieee.org.

Denver Electronic Mailing List

from Jim West, IEEE Denver Chair Elect

The IEEE Denver Section maintains an electronic mailing list. This list is managed by the Denver Executive board. The IEEE executive board uses this service to send email about IEEE events, training opportunities, or any other events of interest to IEEE members.

IEEE members can send announcements to be included to j.west@computer.org.

This mailing list is controlled using email messages. One of the following commands should be sent in the BODY of an email message to "majordomo@majordomo.ieee.org".

If you would like to subscribe, please send the following command:

subscribe denver-section [your email address]

If you are already a subscriber and you do not wish to receive these messages, please send the following command:

unsubscribe denver-section [your email address]

IEEE Email Alias

The Denver Section encourages you to get an IEEE email alias. This alias can be a permanent way to maintain an email address while switching providers. For more information: http://eleccomm.ieee.org/

New IEEE Video Prepares Engineers for P.E. Exam

from Christy Bouziotis, IEEE Educational Activities

PISCATAWAY, NJ, 27 July 1999
- The IEEE has released P.E.
Review: Electronics, a video tutorial that will prepare engineers to take the Electronics portion of the Professional Engineering (PE)
Licensing Examination in October, 1999 or April, 2000.

P.E. Review: Electronics focuses on the essential concepts required to analyze and design complex circuits and provides valuable hints on maximizing test scores. State licensing boards use examinations prepared by the National Council of Examiners for Engineering and Surveying (NCEES). Expanding on the sample problems put forth in the NCEES's Principles and Practice of Engineering (PE), this video tutorial covers the following topics:

. Bipolar junction transistors (BJTs)

. Field effect transistors (FETs)

. Switching power supplies

. Operational amplifiers (Op-Amps)

. Frequency Response, and much more

Presenters Dr. Martin S. Roden and Dr. Sidney Soclof have utilized their combined 65 years of experience, including courses presented through instructional television networks, to anticipate the types of questions viewers will have. Both Roden and Soclof are professional engineers and university professors.

Run Time: 2 Hrs./15 Mins.; IEEE Order #: HV7044-QVE; List Price: \$199.00; IEEE Member Price: \$125.00

Order from IEEE Customer Service, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331, USA; e-mail: customerservice @ieee.org; phone: 1.800.678.4333; Web: http://www.ieee.org/eab>.

For more information on this video tutorial, contact Patty Mickus, IEEE Media Producer, at <p.mickus@ieee.org>. To learn more about P.E. licensure, visit the NCEES Web site at <www.ncees.org>.

Graduates of the Last Decade to Hold Organizational Meeting

Graduates of the Last Decade, or GOLD, will be holding an organizational "meeting" on September 15 from 6:00-8:00 or so at "Bumpers" bar in Broomfield. GOLD is a program sponsored by the IEEE to address the needs of the more recently graduated members. Some possible concerns the Denver / Boulder area GOLD program may address are professional development, non-professional development (i.e. mortgages, investing, etc.), continuing education assistance, and fun (sport teams, get-togethers, etc.).

As the name implies, a GOLD is an IEEE member with less than 10 years of professional experience, but it is by no means limited to these people. If you don't fit the description of a GOLD, but are interested in taking part in GOLD activities, please feel welcome to participate.

If you would like to attend the first get-together, here is how to get to "Bumpers": Get to the intersection of US 36 (Boulder Turnpike) and US 287 (Wadsworth). Go North on 287 until you reach Midway Blvd. Take a right on Midway; go to Nickel St. Take a right on Nickel. "Bumpers" will be on the right hand side and its address is 135 Nickel.

Hope to see you there. If you have any questions, or if you have some input, but won't be able to make it, please e-mail Michael Zinanti at m.zinanti@ieee.org or call him at 303-533-7081 during the day.

RAWCON 2000 Steering Committee Seeks Volunteers

The Steering Committee for the 2000 IEEE Radio and Wireless Conference (RAWCON2000) seeks volunteers. RAWCON (and its predecessor, the Wireless Communications Conference) have been held in Colorado for four years now, focused on interdisciplinary topics in RF technoloay and communication system design. RAWCON'99 took place August 1-4, 1999 in Denver and was extremely successful. RAW-CON2000 is scheduled for September 10-13, 2000 and will again be in Denver. For more information on the conference, see the rawcon.org web page or contact the RAWCON2000 General Chair: Mike Heutmaker, Lucent Technologies, Princeton, NJ, 609-639-3116, heutmaker@lucent.com.

The Steering Committee is looking for assistance in the areas of publicity, registration, and local arrangements. The area of registration is a particular need, and the following list shows the duties of this committee (note that some of these activities will be slight modifications of what already worked in RAWCON'99).

Registration Committee Activities

* Define registration categories and processes

Responsible for definition of the registration process for all registrants, including on-line, advance, and on-site. Define registration categories, fees, discounts (e.g. on-line, advance, onsite, student, IEEE member, nonmember, speaker/presenter, retired, full conference, workshop(s) only, exhibitors, panel session(s) only, meals for companions/spouses, etc.) and policies. Coordinate with Exhibits Chair on Exhibitor registration category details. Create registration forms

(pdf format) for printed programs and deliver to Advance Program and Final Program Editor by deadlines, and proofread.

* Work with registration service provider before conference Coordinate as appropriate with General Chair regarding selection of registration service provider and fees for their services. Define, specify, debug on-line registration form and process. Direct the activity of the registration service provider during implementation of the defined registration process. Verify means for accurate input of registration information into a database, on-line access to registration data before and during the conference, and a portable format for post-conference final registration data. Specify layout of badge stock and information to be printed on badges. Coordinate with General Chair to specify attendees bag, its artwork, and its contents. Responsible for timely ordering, proofreading, and procurement of bags.

* Work with registration service provider during conference Direct and coordinate with hotel to arrange on-site services for registration (e.g. phone line(s), credit card machine, etc.). Coordinate with Local Arrangements Chair regarding services provided by hotel and charges for these services. Coordinate with Local Arrangements Chair to stuff contents into bags the day or two before the conference. Attend conference and coordinate/assist as needed during on-site registration.

Please contact RAWCON2000 General Chair Mike Heutmaker if you would like to be Registration Chair, would like to help with any area, or want more information about Steering Committee activities.

IEEE Info

from "The Scoop", July 1999

HIGHLIGHTS: JUNE BOD & EXCOM MEETING

The IEEE Board of Directors and ExCom meetings were held in London in June. Here are some of the highlights of interest to members:

- Member dues will remain unchanged for 2000.
- The reference requirement for applications for elevation from Associate to Member grade has been eliminated. References are now mandatory only for admission or elevation to Senior Member grade.
- The bylaws for the new IEEE Industry Standards and Technology Organization (IEEE ISTO) were approved. The IEEE ISTO provides industry groups with a flexible operational forum and support services for development and post-development standards activities. (Visit http://www.ieeeisto.org/)
- A new IEEE Financial
 Advantage Program member benefit will provide discounts of 5 to 8 percent on computer hardware and software products
- A new Technical Field Award, the IEEE Internet Award, has been established. For details, see article below.
- Volta's invention of the battery will be an IEEE Milestone and the Merrill Wheel-Balancing and Alignment System was reendorsed as an IEEE Electrical Engineering Milestone.

MEMBER GET A MEMBER

The IEEE Membership
Development Department will
soon be kicking off its "Member-

continued on page 6

IEEE Info

continued from page 5

Get-a-Member" program and recruiter incentives are being offered. Flyers and photo-ready copies of the flyers are available. To obtain copies or for more information, please contact Membership Development, IEEE Regional Activities.

NEW IEEE AWARD

The IEEE has established a
Technical Field Award for exceptional contributions to the
advancement of Internet technology in network architecture,
mobility and end-use applications.

The IEEE Internet Award will include a bronze medal, a certificate and a US \$10,000 honorarium. Funded for a 10-year period by Nokia, the award will be presented for the first time in 2000.

The IEEE Awards Board will accept nominations for both the 2000 and 2001 awards until 1 December 1999. To obtain a nomination form, send an email to awards@ieee.org or call 732.562.3840. A complete list of IEEE Awards can be found at www.ieee.org/about/awards.

Today's Engineer

The new quarterly magazine designed to spark collaborative business skills among all professionals, TODAY'S ENGINEER, received second prize from the Society of National Association Publications (SNAP) in the Excel Awards competition, SNAP announced June 1. Judged by publishing professionals in the General Excellence category among magazines with revenues of less than \$500,000, TODAY'S ENGINEER was recognized for its four 1998 inaugural issues, under the leadership of volunteer editor Gerard H. (Gus) Gaynor.

Newsletter Deadlines and Advertising Information

Deadlines for the RockIEEE Overlook are as follows.

| Newsletter | Deadline | | |
|----------------|-------------------|--|--|
| September 1999 | August 1, 1999 | | |
| October 1999 | September 1, 1999 | | |
| November 1999 | October 1, 1999 | | |
| January 2000 | December 1, 1999 | | |
| February 2000 | January 1, 2000 | | |
| March 2000 | February 1, 2000 | | |
| April 2000 | March 1, 2000 | | |
| May 2000 | April 1, 2000 | | |

Send ads to Anita Wanberg, P.O. Box 4626, Englewood, CO 80155-4626 or call (303) 220-8042. Make checks payable to IEEE Denver Section.

Artwork should be submitted in camera-ready form (PMT). Please accompany all artwork with a check and a letter stating the number of times and dates the ad should be run. Ads should fit within the dimensions listed below.

Ads to be placed on the **IEEE Denver Section Website version** of the Overlook also, should be sent as a PDF or HTML file to awanberg@aol.com, or on 3.5 inch floppy to Anita at the above address.

| | | Hardcopy Inser | Newsletter tions | Hardcopy and Website Combo Insertions | | |
|--------------------|-------------------|-------------------|---------------------|------------------------------------------|-------------|--|
| <u>Description</u> | <u>Dimensions</u> | Single | Multiple | Single | Multiple | |
| Business Card | 2.5" w x 1.5" h | \$ 25.00/mo. | \$ 20.00/mo. | \$40.00/mo | \$ 32.00/mo | |
| 1/8 page | 3.5" w x 2" h | 60.00/mo. | 50.00/mo. | 90.00/mo. | 75.00/mo. | |
| 1/4 page | 3.5" w x 4.5" h | 150.00/mo. | 130.00/mo. | 225.00/mo. | 195.00/mo. | |
| 1/2 page | 7.5" w x 4.5" h | 250.00/mo. | 225.00/mo. | 375.00/mo. | 320.00/mo. | |
| Full page | 7.5" w x 9.5" h | 400.00/mo. | 360.00/mo. | 580.00/mo. | 520.00/mo. | |
| Inserts | 8-1/2 " w x 11" h | 250.00/pg. | 200.00/pg. | N/A | N/A | |

Energy Info

NREL Visitors Center Taps into Wind Energy

The more than 12,000 customers who have signed up for the Windsource program will receive their wind energy this month. Public Service Co. of Colorado has completed construction of 29 wind turbines in northern Colorado generating 20 megawatts of electricity at Colorado's first commercial wind farm. The NREL Visitors Center's entire electric load of approximately 4,000 kilowatt hours per month comes from Windsource. Visit the Web page at http://www. psco.com/news/default.htm for more information on the program.

Microtechnology Brings Automotive Fuel Cells One Step Closer

DOE's goal of developing highly efficient, low or zero emission automobile fuel cells is closer to realization because of work at the Pacific Northwest National Laboratory. Researchers have demonstrated successfully the technical feasibility of an ultra compact fuel reformer that converts readily available fuel, such as gasoline, into hydrogen to power a fuel cell. In laboratory

tests, engineers have shown that one of the most critical components of the fuel reformer can now be made at least one-tenth the size of current units without sacrificing efficiency. Visit the Web page at http://home.doe.gov/news/releases99/julpr/pr99194.htm for more information.

STATE AND LOCAL NEWS

New Web Site Highlights Partnership Projects:

EnergyPartners-a new Web site highlighting state and community partnership projects by the Office of Building Technology, State and Community Programs went "live" July 30! Visit the Web site at http://www.eren.doe.gov/buildings/energypartners/ or call Patricia Plympton at 202-651-7540 for more information.

EVENTS

Tour of Solar Homes: On Oct. 16, 1999

The Colorado Renewable
Energy Society and the Land and
Water Fund of the Rockies will host
the Tour of Solar Homes for the
Denver and Boulder areas. We
are looking for volunteers to show
off their homes and explain their

solar system*passive, hot water, PV or other*to groups on the tour. Call Jim Jones at 303-275-3623 or Susan Bilo at 303-275-4842 for more information.

CONFERENCES

Sept. 10-12 Colorado Renewable Energy Society Annual Conference, Snow Mountain Ranch, north of Winter Park, Colo. Contact Doug Balcomb at dougbalcomb@nrel.gov for more information.

Oct. 4-6 1999 Utility
Photovoltaic Experience Conference (UPEx '99): Opening Doors in the Solar Marketplace, Tucson, Ariz. For more information, contact Tina Schneider at 202-857-0898 or upvg@ttcorp.com or visit the Web site at http://www.ttcorp.com/upvg/upex99.htm.

Nov. 17-19 1999 North American EV & Infrastructure Conference and Exposition. For more information, contact Pam Turner at 650-365-2667. or visit the Web site at http://www.evaa.org.

Visit http://www.nrel.gov/con ferences.html for information on other NREL-sponsored conferences.

EMC Chapter of the Year

from Bob Reinert, Secretary, Rocky Mountain EMC

The Rocky Mountain Chapter of the EMC Society received the IEEE EMC Society Chapter of the year award. This was presented at the 1999 IEEE International Symposium on EMC held in Seattle, August 2-6, 1999.

The society also recognized 5 Rocky Mountain Chapter members for their work with the society. (Barry Wallen, John Stadille, Tony O'Hara, Charles Grasso, and Bob Reinert)

The Institute of Electrical and Electronics Engineers - Denver Section Visit the Denver Section Home Page at www.engr.du.edu/ieee/densec.html

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