



IEEE *PIEEE*Edmont Potential

A publication of the IEEE Piedmont Section - February 2005

Section Web page: <http://ewh.ieee.org/r3/piedmont/>

Council Web page: http://www.ieee.org/sc_council

Today's Engineer: <http://www.todaysengineer.org>

A MESSAGE FROM THE CHAIRMAN

Rob Scruggs

First of all, I would like to thank all of you who gave me your vote of confidence last fall to become your 2005 IEEE Piedmont Section Chairman. It is my intent to provide you with interesting and informative, as well as fun meetings this year. If you have any topics that you would like to know more about, or if you would like to make a presentation at a future meeting, please don't hesitate to contact

me, or one of the other officers.

Congratulations to all of the participants in the January student paper competition. We had a great turn out for this meeting of both members and students. There were five Clemson University students presenting and the results were as follows:

- First Place (\$200 Prize) - Vijay Ullal
- Second Place (\$150 Prize) - Adam Schreiber
- Third Place (\$100 Prize) - Peter James

Additional participants included: Jeff Young & Crystal Jackson.

The students did an excellent job and all of the presentations were very impressive. Vijay will go on to compete in the state competition in Columbia.

NEXT MEETING

Automotive Telematics

Lee Stogner

Thursday, February, 24

In October, 2004, we began a series of automotive technology related meetings. We have heard about the new ICAR, International Center for Automotive Research that is being built in Greenville, SC. And we also heard about the exciting electronics / systems research that is being done by Michelin to build better and safer tires.

At the February 24 Piedmont Section Meeting, we will learn about the new science of Telematics. Telematics will integrate the computer in new ways into our personal cars, trucks and transport systems. Telematics will allow us to communicate, control, navigate and access information systems all from our home away from home, the automobile.

Remember to Renew your IEEE Membership Today!

Here's what's new in 2005:

- New Society
 - o IEEE Intelligent Transportation Systems Society
- Society Name Change
 - o IEEE Computational Intelligence Society (Formerly IEEE Neural Networks Society)
- New Publications
 - o IEEE/OSA Journal of Display Technology
 - o IEEE Transactions on Industrial Informatics
 - o New Society Package IEEE Robotics And Automation Transactions Package
- New Digital Libraries
 - o IEEE Control Systems Conference Digital Library
 - o IEEE Power Electronics Society Digital Library
 - o IEEE Reliability Society Conference Digital Library

Other Options to Consider

- o IEEE Standards Association (Ieee-Sa)
- o IEEE Women In Engineering

<http://www.ieee.org/renew>

Remember, IEEE has reduced rates for members who are retired, unemployed, students, or have a low income.

Our speaker is a local technology startup that has designed a family of computers and interfaces that will provide these advanced computing functions to new and existing vehicles. Please join us at the February meeting to learn about this exciting new automotive technology.

Where: Greenville Tech, University Center Auditorium

When: Thursday, February, 24

Agenda:

6:30 Social/gathering ½ hr

7:00 Introduction and speaker

Dinner will be served and will cost \$5. Please RSVP to Wayne Cockrell: (864)223-2888x1452 or j.w.cockrell@ieee.org.

Driving directions to Greenville Tech are at the end of this newsletter.

National Engineers Week

Lee Stogner

IEEE-USA National Eweek Chair

National Engineers Week is almost here and the Piedmont Section would like to remind its Members to participate in local and company events that encourage students to consider a career in Engineering. For more information on Eweek in general, please go to the Eweek web site located at, <http://www.eweeek.org/> A Press Release that details how the IEEE has supported Eweek in recent years from IEEE-USA can be found online here: http://www.apegnb.com/media/01_04_05.html

Thanks for your help this year during National Engineers Week.

IEEE Employment & Career Services

The IEEE has a wealth of resources available to members to assist in employment, career planning, and professional development. We have compiled a short list of places that you, as an IEEE member, can go for these services.

Career Navigator IEEE-USA has created the Career Navigator website which has employment assistance information, entrepreneurs' resources, information on conferences and workshops, as well as links to material that can be used for local section meetings and workshops on career development. It also provides links to the IEEE Job Site, and to the Employment & Career Strategies online discussion forum, where a variety of topics related to careers and employment issues can be freely exchanged with other members. <http://ieeusa.org/careers>

IEEE Job Site

The IEEE Job Site is the official IEEE members site to search for employment opportunities throughout the country. You can create a profile of your ideal job and update it anytime. Jobs matching the profile can be viewed immediately, or automatically sent via email. <http://careers.ieee.org>

Employment & Career Strategies Forum

For discussion, information, and a place to bounce ideas off other members, the Employment and Career Strategies Forum is always available 24/7. Join in a discussion topic, or start your own.

A Letter from SCSPE on National Engineers Week

Kim Fail

Dear IEEE Members:

The Piedmont Chapter of the South Carolina Society of Professional Engineers (SCSPE) would like to cordially invite the Piedmont Section of IEEE (and their guests) to the 2005 Engineers Week Banquet, which will be held Friday, February 25 at the Holly Tree Country Club. This banquet is held annually by our chapter during Engineers Week in February to recognize the contributions of the engineering profession to society, as well as to recognize math and science teachers who have fostered our profession. The Piedmont Chapter-SCSPE will be honoring our 2005 Engineer of the Year and Young Engineer of the Year, as well as exceptional math and science teachers in Greenville County and Anderson County. In addition, other engineering societies have been invited to participate in the program to present their own awards.

Our guest speaker for the evening will be professional speaker Jane Jenkins Herlong. Table sponsorships are available for companies; the cost of a table sponsorship is \$500 for ½ table or \$1,000 for a whole table. Individual meals may also be reserved for \$45 per person. Proceeds from this event benefit our chapter's annual engineering scholarships, as well as our local MATHCOUNTS competition. If you are interested in attending the 2005 Engineers Week Banquet or would like more information on the event, please contact Ritch O'Kelly at rokelly@onealinc.com or Brian Tiffany at (864) 288-3009. We hope to see you there!

Best regards,

Kim Fail, P.E.

President, Piedmont Chapter - SCSPE

<https://www.ieeecommunities.org/ecs>

PACE Network

The Professional Activities Committees for Engineers (PACE) is a grassroots network of IEEE volunteers and committees organized at the section and chapter level in the United States with support from their respective regions and the IEEE-USA. The PACE Network promotes the professional interests of IEEE's U.S. members and provides a mechanism for communication of members' views on their professional needs. <http://ieeusa.org/pace>

Region 3 Employment Web Page

Your region has established a local employment page to help members within Region 3. This page has been developed to bring together into one location the best sources of career planning, current job openings and information about companies that may be hiring in Region 3. <http://www.ieee.org/r3jobs>

Employment Help from Your Local Section

Often the most important but overlooked employment resource is you own local Section. At your Section, you will meet engineers from other companies in your own back yard. Become a part of the local IEEE Network and be in touch and be prepared. <http://ewh.ieee.org/ecc/r3/>

The Piedmont Section has an Employment Referral Service. If your company has internal openings for Electrical Engineers, let us know and we will make that information available to other Piedmont Section members. Please send

your company employment information to Lee Stogner: l.stogner@ieee.org

Improving Exports Could Help EE Employment

IEEE-USA Webzine

WASHINGTON (12 November 2004) The U.S. Department of Commerce (DOC) is working to help technology companies increase their exports, which could in turn open more employment doors for engineers and other workers, according to a recent article in the IEEE-USA Today's Engineer monthly Webzine.

"There's really a huge untapped market," said Neal Burnham, deputy assistant secretary of U.S. Commercial Services. "We estimate that 95 percent of the market for small companies is outside the United States."

The DOC's Commercial Services program includes exhibits by 39 government agencies that attend nearly three dozen major trade shows around the country. The agencies are putting a significant focus on China, where significant growth is expected. "It's a very dynamic place where they need a lot of things," Burnham said.

DOC officials note that companies increasing their exports usually increase their employee counts. That's a big positive in electronics, which continues to see shrinkage in employment despite signs of an economic up tick. A key benefit of the government efforts is that many services are free, while others have lower costs than similar services provided by companies in foreign countries, according to IEEE-USA Today's Engineer.

The entire article is available at <http://www.todayseengineer.org/July04/exports.asp>

Influence Future Engineers

IEEE Scoop

The IEEE Educational Activities Board has several resources available to members that focus on pre-college students, teachers and guidance counselors.

The Educational Activities Board Teacher In-Service Program features IEEE Section volunteers developing and presenting technologically oriented subject matter to local pre-college educators in an in-service or professional development setting. The focus on local school districts is a key feature to this program as local engineers and educators can develop long lasting collaborations.

Educational Activities has converted fifteen activities from the Teacher In-Service Program into complete lesson plans in English and Spanish that teachers and volunteers can use in classrooms. Each lesson is aligned with education standards, and includes teacher summaries, student worksheets, and activities. For more information, go to <http://www.ieee.org/organization/s/eab/precollege/tispt> and contact Adib Chebli at: a.chebli@ieee.org.

IEEE Technical Experts Guide

IEEE Scoop

If you need to find an authority for a particular subject area, a good place to start is with the IEEE Technical Experts guide. This guide is a resource covering more than 500 technical topics and includes contact information for IEEE experts qualified to answer questions or make referrals. For the alphabetized

list, or search function, go to <http://www.ieee.org/TEG>.

Fundamentals of Intellectual Property

Many employers and business managers today expect their engineers, designers and scientists to be sources of innovation that can be protected as a valuable asset. As an engineer, how can you obtain and maintain intellectual property rights?

<http://www.todaysengineer.org/2004/Nov/IPfundamentals.asp>

Self-Assessment:

A Required Skill for Lifelong Learners. When you were in school, you had teachers to guide your learning. Even after graduation, we must consider pursuing learning for the rest of our professional lives. Now, though, we must be both teacher and student. Here's how.

<http://www.todaysengineer.org/2004/Nov/self-assessment.asp>

IEEE-USA Leads Efforts For Senate Approval Of L-1 Visa Reform Bill

On 30 September, the Senate unanimously approved the "L-1 Visa (Intra-company Transferee) Reform Act of 2003," S. 1635, which prohibits the placement of L-1 (intra-company transfer) visas at work sites owned, operated and controlled by unaffiliated employers. IEEE-USA opposed the exemption and hundreds of U.S. IEEE members sent letters to their Senators to help achieve Senate approval for this bill.

To learn more about this immigration issue, go to:

<http://www.ieeeusa.org/policy/issues>

EWEEK Future City Competition Recruiting Engineering Mentors

EWEEK's Future City Competition is recruiting engineer volunteers interested in working as technical advisers to middle-school teams entering the competition. Engineer mentors act as part of the team, and students learn firsthand how to turn ideas into realities.

To sign up, or learn more, visit: <http://www.futurecity.org>

Volunteers Needed For IEEE E-Merit Badge Booth at 2005 National Scout Jamboree

The IEEE's [emeritbadges.org](http://www.ieee.org/emeritbadges.org) program needs more than 100 volunteers for the IEEE Electronics Merit Badge Booth at the 2005 U.S. National Scout Jamboree, to be held next year in Caroline County, Va., from 25 July to 3.

For more information, visit: <http://www.ieeeusa.org/communi>

[cations/notable/emeritbadges.asp](http://www.ieee.org/emeritbadges.asp)

"Getting Back" Rather Than "Giving Back"

For many members, doing volunteer work for the IEEE is a way of giving back to a profession that has provided a satisfying career. IEEE Senior Member Daniel R. Benigni says volunteering has given him more than he could ever give back in return. Read more about Benigni at

<http://www.theinstitute.ieee.org/portal/pages/tionline/legacy/inst2004/oct04/10w.profile.html>

IEEE Online Communities

An IEEE Web account is needed to access online communities. As of 15 November, members who participate in the IEEE Online Communities will have to use their IEEE Web account login to access the service. Users are urged to update their community profile with their member number and Web account login name and password. For more information, visit: <http://ieeecommunities.org>

**** IMPORTANT Newsletter Notice ****

Is this the only newsletter you've seen this year? If so, then the IEEE database likely has your email address incorrect. The Piedmont section mails out newsletters almost every month. Those with valid email addresses will receive an E-Notice containing the content in the newsletter. Sadly there is not a way to capture the list of failed email attempts to try to send those people a USPS copy, so those with invalid email addresses don't get any newsletter pushed to them.

Those with no email address registered with IEEE will have the newsletter mailed to them via USPS. This is a considerable cost to the section, so we like this list to be as short as possible. Of course, the section web page always has the latest newsletter online before the E-Notice or the mailing.

We are sending this newsletter out to everyone in the section regardless of email status so that we can be sure to reach as many members as possible and to invite those that haven't been receiving a newsletter to check their email address with IEEE. Either call 1-800-678-4333 or visit <http://www.ieee.org/memberservices> to check your email and address information.

Power Systems Conference, 2005

Distributed Generation, Advanced Metering and Communication

March 9-11, 2005,

Clemson University, Clemson, SC



Adly Girgis

Duke Power Distinguished Professor of Power Engineering and Director of CUEPRA

Conference chairman

864-656-5936(phone) 864-656-1347 (fax) 864-356-4138(Mobil)

adly.girgis@ces.clemson.edu

<http://www.ces.clemson.edu/powsys2005>

Final plans are well underway for the CUEPRA 4th annual power systems conference, PSC05; Distributed Generation, Advanced Metering and Communication. The conference this year includes 3 tutorials at no additional cost to the attendee. But advanced registration is required to attend the tutorials. All attendees will receive certificates of professional development hours PDHs. These PDHs include the technical paper sessions, panel discussions, tutorials and tours of exhibits. Registration forms and hotel reservation are available in the conference web site: <http://www.ces.clemson.edu/powsys2005>.

The conference will be held at the Madren Conference Center on March 9-11, 2005. Blocks of rooms have been reserved at the Martin Inn. Also, other hotels in the area are listed in the web site. There only seven days left for the advanced registration.

Important dates:

Last day of advanced registration 02/15/05

After 02/15/05, registration fee increases by \$100.00

Authors and Panelists: Thanks for sending the final manuscripts and the PP presentations. Those who are still working on last minute revisions, please send them ASAP before 2/15.

Tutorials Available:

Tutorial A Preconference Protection, Automation and Metering Innovations by Schweitzer Engineering Laboratories - March 8, 2005 (9:00am - 4:00pm)

Tutorial B Introduction to Communication in Power Industry by Erich Gunther, ENERNEX, and Mark Adamiak, GE ;March 9, 2005 (9:00am - 12:00 noon)

Tutorial C Security in Power Systems Communication by Jason Stamp, Sandia National Laboratory, March 11, 2005 (9:00am - 12:00 noon)

Panel discussions and technical paper sessions address the state-of-the art in many topics including:

- Distributed generation interconnection, protection and control;
- New applications and state-of-the art on advanced metering;
- Communication in power systems;
- Security in Power System communication.
- Wide area monitoring, protection and control; Demo of successful systems.
- New technology in distribution automation.
- Distributed Generation: Interconnection, protection, and control

For updated information and registration, visit the conference website listed above or contact the conference chairman, Dr. Adly Girgis at the above contact information, or psc@ces.clemson.edu or call: 864-656-1053.

**Driving directions to the
Greenville Tech University
Center:**

Coming from Columbia:

From I-26 exit to I-385. Take 385 toward downtown Greenville. Take the South Pleasantburg exit (Hwy 291). Proceed until you reach Antrim Drive (about for traffic lights). Turn left and then right into McAlister Square Mall parking after the bank. The University Center is the first building. Please enter the building at the Phillips Staffing entrance (facing Pleasantburg Drive). The University Center is on your left.

Coming from Spartanburg:

Go South on I-85 approaching Greenville and take exit 51 for I-385 toward downtown Greenville. Take the South Pleasantburg exit 40 (Hwy 291). Proceed until you reach Antrim Drive (about four traffic lights). Turn left and then right into McAlister Square Mall parking after the bank. The University Center is the first building.

**Coming from South of
Greenville**

Go North on I-85 approaching Greenville to exit 51C (385 North connection) toward downtown Greenville. Take the

South Pleasantburg exit (Hwy 291). Proceed until you reach Antrim Drive (about four traffic lights). Turn left and then right into McAlister Square Mall parking after the bank. The University Center is the first building.

Follow the signs to the Auditorium on the ground floor.

A map and other information about the University Center can be found at,

<http://www.greenville.org/location.htm>

Partial Officer List (full list is online):

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