



# IEEE

# PIEEEEdmont Potential

A publication of the IEEE Piedmont Section - April 2006

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

Council Web page: [http://www.ieee.org/sc\\_council](http://www.ieee.org/sc_council)

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

## NEXT MEETING

### Introduction to Variable Speed Drives

Jerry Clark

Thursday, April, 27

Art Davis is the SC Territory Manager for Techni-Reps, Inc., a manufacturers' representative for ABB, Inc. variable speed drives and other related companies. Art plans to present a basic introduction to variable speed drives. It is a generic presentation that applies to all brands of variable speed drives with explanation of how AC power is rectified into DC power which is switched out to the induction motor in square wave pulses that imitate alternating current allowing us to change the frequency and control motor speed.

#### Meeting Details:

6:30pm Dinner/Social 1/2 Hour

7:00pm Meeting begins

Dinner will be served from Fatz Cafe. Dinner cost is \$10 for members and guests, \$5 for unemployed members, and free for students (no charge to attend). The meeting location is ECPI College of Technology, 1001 Keys Drive #100, Greenville, SC 29615. Please email Jerry Clark ([jclark89@hotmail.com](mailto:jclark89@hotmail.com)) if you plan to attend and especially if you plan to eat.

### Career Accelerator Forum

The Institute

Sign up for IEEE Spectrum's Career Accelerator Forum: The event, which is free, offers advice on topics such as earning an advanced degree, staying ahead in your field, landing your dream job, and switching careers. You'll also be able to e-mail questions to an expert panel from the convenience of your computer. For more information as well as a list of panelists, visit <http://boldfish.ieee.org:80/u/2602/00945600>

To sign up for the forum, go to <http://boldfish.ieee.org:80/u/2603/00945600>

### Marketplace of Ideas: Jail Time for Hackers

The Institute

In an effort to combat criminal and terrorist activities online, the United Kingdom's parliament is debating a bill that would put anyone caught merely hacking into a computer in jail for 10 years. Is such a sentence necessary, or is it too harsh? Weigh in with an email to: [institute@ieee.org](mailto:institute@ieee.org)

### Searching with IEEE

#### Xplore

The Institute

Online Seminars Offer Tips for Searching the IEEE Digital Library Users of the IEEE digital library who want to improve their research skills can attend a free online training seminar, "Searching with IEEE Xplore," which is being offered on 19

April, 10 May, and 16 May. Advance registration is required, and space is limited. To sign up, visit

<http://boldfish.ieee.org:80/u/2606/00945600>

### Senate Staffer Discusses Innovation Legislation with IEEE-USA Research & Development Policy

#### Committee

Chris McManes, IEEE-USA

WASHINGTON (31 March 2006) -- Jason Mulvihill, staff director for the Senate's Subcommittee on Technology, Innovation, and Competitiveness, discussed innovation legislation with the IEEE-USA Research & Development Policy Committee on 30 March 2006.

Mulvihill works closely with Subcommittee Chair Sen. John Ensign (R-Nev.), who co-sponsored the National Innovation Act of 2005 with Sen. Joseph Lieberman (D-Conn.) that IEEE-USA supports (<http://www.ieeeusa.org/policy/POLICY/2005/121905.asp>).

Mulvihill also briefed the committee on the three Protecting America's Competitive Edge (PACE) bills (PACE-Energy, PACE-Finance, and PACE-Education), which IEEE-USA also supports (<http://www.ieeeusa.org/policy/policy/2006/022106.asp>).

Mulvihill said that current fiscal realities make it unlikely that all the innovation legislative initiatives will be fully funded in 2006. He did say, however, that he expects bills to be passed this year in three areas: basic research; science, and math education from kindergarten through graduate school; and innovation infrastructure.

The Subcommittee on Technology, Innovation, and Competitiveness is under the Senate Committee on Commerce, Science & Transportation. Go to <http://commerce.senate.gov/> for more information.

### **Other Local-Regional IEEE meetings:**

**IEEE Computer Society Meeting: Thursday, May 18, 2006**

**SPECIAL EVENT!!  
Distinguished Visitor Lecture!  
Speaker: Carol Woody (Carol**

Woody is a senior member of the technical staff at the Software Engineering Institute (SEI) at Carnegie Mellon University. Her research is focused on ways to address software design and development that improve the security of the implemented results. Title: Improve Software Operational Security - Plan for Security Risk in Development This presentation describes an approach to incorporating security into the software development life cycle. The focus is on appropriately identifying and evaluating security quality requirements based on anticipated operational risk.

Time: 6:00 - 6:30 PM (Snacks),  
6:30 - 8:00 PM (Presentation)

Location: UNC Charlotte  
Campus - Cameron 101 Parking:  
[http://www.ewh.ieee.org/r3/charlotte/CARC\\_Map.pdf](http://www.ewh.ieee.org/r3/charlotte/CARC_Map.pdf) RSVP to  
[ieee-rsvp@uncc.edu](mailto:ieee-rsvp@uncc.edu)

### **Partial Officer List (full list is online):**

CHAIR:  
Rob Scruggs  
(864)886 1348  
[r.scruggs@ieee.org](mailto:r.scruggs@ieee.org)

VICE-CHAIR:  
Jerry Clark  
(864) 918-2535  
[jclark89@hotmail.com](mailto:jclark89@hotmail.com)

### **IEEE Power Engineering Society Meeting: Friday, April 28, 2006**

Speaker: Keisha Thomas, Duke Power  
Title: "New Technical Challenges for Distribution Planning Engineers" Distribution Planning Engineers are continually faced with changing challenges as the demand for reliable electricity increases. This presentation will review many of these new challenges and will discuss the new processes being put into place to address these challenging issues.

Time: 12 noon - 1pm, lunch will be available

Location: UNC Charlotte  
UPTOWN Campus - 220 N Tryon Rd. Parking:  
<http://www.continuinged.uncc.edu/maps/UptownMap.pdf> RSVP to  
[ieee-rsvp@uncc.edu](mailto:ieee-rsvp@uncc.edu)

Secretary/Treasurer:  
Louis Hapeshis  
(864)886-1383  
[louis.hapeshis@us.schneider-electric.com](mailto:louis.hapeshis@us.schneider-electric.com)

Mark Stokes  
422 Frontage Road  
Clemson, SC 29633