

Calendar Of Events

This Month

December 11, 7:00pm
Executive Committee
DeVry - Addison
Chicago Section

December 11
[Dave and Busters](#) -
EMC

December 12,
11:30am
[Energy Storage](#) –
Power Engineering

Upcoming in 2008

February 17-23
[Engineers Week](#)

April 21-24
[Powering Toward the
Future](#) - Power
Engineering

This Month's Articles

Chair's Column

A holiday reflection expressing gratitude for those who support the IEEE-Chicago Section. [\[more\]](#)

Calls for Papers

The [2008 Electro/Information Technology Conference](#) is seeking papers on basic and applied research in electrical and computer engineering as related to Information Technology and its applications. The conference, which will be held May 18-21, 2008 at **Iowa State University**, is sponsored by **IEEE Region 4 (R4)** to which the Chicago Section belongs. Papers are due February 11, 2008.

[NetSecure08: The 6th Annual Systems and Network Security and Digital Forensics Conference and Expo](#) is currently accepting proposals for technical presentations, panels and tutorials on security, digital forensics and steganography, policy and compliance, and privacy. The conference, which will be held on Wednesday, March 28, 2008, is co-sponsored by the **Chicago Chapter of the IEEE Communications Society**.

Five Non-technical Tips for Technical Success

UIC IEEE Student Branch members learned about the soft skills that lead to job promotions from one of their former members. [\[more\]](#)

Chicago Members Plan Financial Futures

The IEEE members who attended the **IEEE Chicago Section's Financial Planning Seminar** are changing how they manage their money. [\[more\]](#)

VoIP: You Ain't Seen Nothing Yet

The 200-plus attendees of the **IIT 3rd Annual Voice Over Internet Protocol Conference** caught a view of the future of VoIP. [\[more\]](#)

Insulation Solution for Motors with Inverter Drive Problems

At the November 13th meeting of the newly reconstituted **Chicago Chapter of the Dielectrics and Electrical Insulation Society**, **IEEE Fellow Edward A. Cherney** explained how 10kv inverter drives can outlive their insulation. [\[more\]](#)

National Election Results In

John Vig, a consultant at the **System Planning Corporation** in Colts Neck, New Jersey is **2008 IEEE president-elect**. For information, visit the [IEEE election web page](#).

Chair's Column



It is that holiday time of year when our thoughts turn to the events of the past year. We review goals set at the beginning of the year and compile a list of our accomplishments. We become aware of how we have changed and how we have grown through the experiences of our life journeys.

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For me, it is a time when I am made aware of how connected we are to others and how much we truly depend on the support of others. That support includes the emotional support of friends and family, but it also includes the structure provided by organizations such as the IEEE.

In keeping with these feelings of gratitude, **my thoughts this year include those who have supported the IEEE with advertising and other support**, such as providing meeting facilities. Many thanks to them. We could not do all the things we do without their help.

To enable us to continue to offer our current rich list of programs and benefits and to expand the services we offer, I encourage all members to consider advertising or recommending companies that might benefit from advertising in this newsletter. I also ask you to support our current advertisers. A good way to start is to click through the ads to the advertisers' websites to gain familiarity with the companies and the services they provide. If you are interested in learning more, please contact the e-Scanfax managing editor, [Michele Beaulieux](#), or [me](#).

Holiday Best Wishes,

Bernie Sander

Chair, IEEE-Chicago Section

P.S. If you're searching for holiday gift ideas, consider the **hats and license plate holders** available in the IEEE-Chicago store as a way to help us advertise the IEEE as a vibrant professional organization. Contact [Katie Williams](#) and she'll arrange shipping.

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Five Non-technical Tips for Technical Success

In her presentation to the **University of Illinois Chicago IEEE Student Chapter** on October 24th, **former UIC IEEE Student Chapter Membership Chair Tracey Harris** highlighted the



Tracey Harris returned to her alma mater to encourage current students to develop their soft skills as well as their technical skills.

interpersonal skills to which she attributes her success in the job world. Titled "**The Road Less Traveled**," Tracey's talk outlined her career trajectory which began in 1992 as a UIC graduate with no references or internships through stints at **Underwriters Laboratory** and **Motorola** to her current position as Critical Account Manager at **Symantec**. Tracey gave the 35 student engineers in attendance five tips that all of us would do well to heed.

1. Don't be afraid to ask questions. Tracey explained how, early in her career, her questioning the uses for the mountains of data being generated led her to get another, better job. "It's a complicated process," they said. "That's o.k.," she said. "I'm an engineer: Explain it to me."

2. Listen. "There's a difference between not speaking while someone is talking and listening. If you're thinking about what

you're going to say," Tracey warned, "you're not listening." She encouraged the students to take notes in business meetings so that they can recall in subsequent encounters that, for example, "we discussed these four action items." Tracey told the group, "All you need to do is write down enough information so you can recall it later. People love it when you remember what they say."

3. Keep it simple. "Don't assume that everyone in a room is an engineer. The people who get promoted are the ones who can explain to the customer in plain English what is going on. Better to have them walk away understanding what you said," urged Tracey, "than thinking you're brilliant but not understanding." Tracey also explained that we all have customers – internal customers or users of our work – even if we don't have contact with the ultimate consumer.

4. Share information. "If you share your ideas with others, they will steal them, but share anyway," Tracey advised. "Don't be one of those people who steals. No one likes those people. But, be the kind of person who helps other people out, and you'll be the kind of person who gets promoted."

5. Play nice. "Don't say bad things. The world is small. It will get back," Tracey warned. "If you say bad things about your current company or customers, you could say bad things about a future company or customers. Instead, be an advocate. People want positive people around."

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Chicago Members Plan Financial Futures

"I did not realize that, on the average, my wife will be outliving me by 17 years and will have to manage money without me. I have to do a better job of keeping her informed." That comment came from one of the forty IEEE members who attended the November 3rd **Chicago Section Financial Planning Seminar**, featuring *Chicago Tribune* Personal Finance Columnist [Gail MarksJarvis](#) author of *Saving for Retirement without Living Like a Pauper or Winning the Lottery*, and **Steven Weydert and Gary Bowyer of Bowyer of Weydert Wealth Planning Partners**.



Steven Weydert led the break-out session for younger and mid-career professionals.

In an unsolicited email to event organizer, **John Zulaski** afterward, **Paul Powers** wrote: "This was a fantastic seminar and well worth the small fee and time. The hospitality was excellent! My first impression of Gary Bowyer was WOW! Gail's presentation was awesome."

Later, Paul elaborated, "I read Gail's book in a few nights. Everybody who cares about financials should read this book. The key is timing and asset allocation. Gary was personable and talked common sense. He outlined how to get your financial house in order, taking a thorough look from top to bottom, left to right."

Gil Adams said Gail's "passionate about the subject" and her presentation "had enough details to make it meaningful without getting bogged down in them." The seminar reinforced a lot of information Gil already knew and served as a prod to revisit the allocation of his assets, which he hasn't reviewed in over a decade.

Now, with the clock ticking toward retirement, he wants to update his portfolio toward more stable investments. For Gil, the seminar reminded him, "Financial planning is something you need to do over a long period of time."

If you missed the seminar, pick up [Gail's book](#) or visit the websites, [americasaves.org](#) and [choosetosave.org](#), which provide financial calculators to check if you are on target.

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VoIP: You Ain't Seen Nothing Yet

More than 200 professionals, executives, and students attended the **Illinois Institute of Technology's Third Annual Voice Over Internet Protocol (VoIP) Conference and Expo**, co-hosted by the **Chicago Chapter of the IEEE Communications Society**, on October 25 and 26. IEEE member and Conference Chair, IIT Professor **Carol Davids**, observed that the conference brought together people who normally stay within separate "silos." Those silos exist in the large telephone companies that are in a position to launch large-scale deployment of VoIP, in the research and development departments of companies that are developing products to be used on VoIP networks, and those companies that install and others that are considering adopting VoIP and need to understand the economic, safety, security, administrative, and technological issues involved. The networking and cross-fertilization between the silo groups created a buzz throughout the conference, with ramifications far beyond it.

IEEE member **Bob Thornberry**, Director of the Network Security Office at **Alcatel-Lucent Bell Labs**, summed up **IEEE Fellow Henning Schulzrinne's** key note address, "**VoIP - Beyond Replicating the Limitations of the Past**," by explaining the key point etched in his mind: "We have a lot of opportunity to move forward with IP-based services. The basic internet protocols are now in place, so the challenges that remain are system challenges – performance and reliability and security."



IIT VoIP lab manager Don Monte spoke with fellow IEEE member Robert Thornberry whose employer, Alcatel-Lucent Bell Labs supports IIT's VoIP lab and student projects.

The other conference highlight for Bob was seeing and touring IIT's VoIP lab, where students are building and characterizing the behaviors of four ecosystems or test beds that represent distinct VoIP architectures – Peer-to-Peer Network, IP Multimedia Subsystem (IMS), Peering Domains, and IP PBX, which is a local switchboard that allows internal and external calling. Impressed by the research that the IIT students are doing in the VoIP lab, Bob said, "It's a nice mix of research and pragmatic issues that they are dealing with." According to Carol, "The four architectures will be the basis for many future research projects. We are laying the foundation for long term research."

For more information, visit the [conference website](#).

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Insulation Solution for Motors with Inverter Drive Problems

At the November 13th meeting of the newly reconstituted **Chicago**

Chapter of the Dielectrics and Electrical Insulation Society (DEIS), 19 people heard **IEEE Fellow Edward A. Cherney** explain how, because of the heat they generate, 10kv inverter drives can outlive their insulation. In his talk, "**Impact of Inverter Drives on Form-Wound AC Motor Stator Coil Insulation**," Ed noted the general lack of recognition that there's a fundamental problem that needs to be addressed: that because inverter drives apply voltage



Before his presentation, Ed Cherney (center), Adjunct Professor at the University of Waterloo, visits with IEEE members over sub sandwiches.

very quickly, they can cause insulation damage. DEIS co-chair **Jeff Moore** said Ed made two points: "First, you need to recognize that you have the problem. Second, there are ways to fix this, and here's one." Ed's solution involved being more careful with the layers of insulation used so that the electrical stress is applied more evenly. The three layers of insulation he proposed were an initial extremely high conductivity layer, then a lower conductivity layer, and finally a layer with fillers such as silicon carbide.

Jeff has worked at **S&C Electric**, a major supplier to utilities, for 17 years, but until he started co-chairing the chapter had never met anyone from ComEd, a major S&C customer. Now, his co-chair, **Carl Schuetz**, is from **ComEd** and he met five other ComEd people at the meeting. "I got to hear the problems they're working on. Chapter meetings are a great way to meet the folks in your industry. And, I learned something, too. Rotating motors are not our field, but we could potentially use these stress-grading materials. Anyone in high voltage engineering might have need for them."

The chapter is planning another meeting in the spring. All who were in attendance are hoping Carl's wife will again provide her delectable raspberry coconut chewies . . .

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