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THE

SUNCOAST

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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

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*Tell us why you value the
IEEE*

Florida Teslathon 2005



Saturday, November 5, 2005

Location: 1314 Stoeber Ave. Sarasota, FL

Cost: Free to all (families welcome)

RSVP: <http://www.ewh.ieee.org/r3/floridawc/>

Parking: Street parking is available (no charge).

Schedule:

Coil setup, social & swap meet
– 10:00 AM - ~8:00 PM

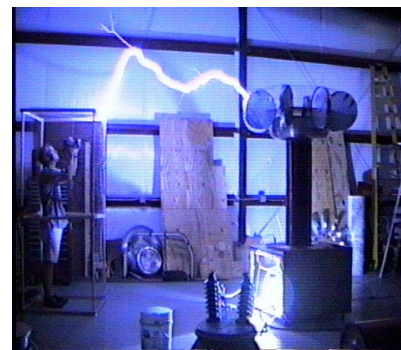
Coil demonstrations - ~8:00 PM
(once it gets dark enough)

Speaker: David L. McKinnon and other tesla coil / high voltage enthusiasts

Questions: Tom Blair at 813-228-1111, ext 34407 or thblair@tecoenergy.com or
David L. McKinnon at 813-784-8165 or 813-621-6463 Ext. 125;
email: Sales@DMsHV.com

Details: Please go to <http://home.netcom.com/~davmckin/FloridaTeslathons.htm> for
directions, map, and further details

We are cordially inviting members and their families of the IEEE to our annual Florida Teslathon 2005 to be held in Sarasota, FL. Our annual Teslathon brings together enthusiasts working with high voltage primarily based on the Tesla Coil invented by Nikola Tesla. There will be demonstrations of various types of discharges including spark gap (standard tesla coil technology) and tube coils (CW output). The Tesla Coils to be demonstrated at the Teslathon will range in spark outputs from a few inches to approximately 20 feet. Discussions of their operation will be held on an individual basis prior to the coil demonstrations, and a brief overview of their operation and safety considerations will be held immediately prior to the demonstrations



IEEE Membership Development

Congratulations on their advancement to senior membership to the following IEEE members nominated by the Florida West Coast Section.

Holger Findling Soumitra Ghosh Angel Herrera Wing-Ying Kwong

If you have 10 years or more experience in engineering and would be interested in Senior membership, please contact Tom Blair at tom_blair@ieee.org. —TB

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Editor's Column—Special Event

I just spent a day at the 2005 Sections Congress here in Tampa. It is a remarkable event with many hundreds of delegates from around the world and hundreds more as partners or in other interested roles. We will have a more complete article next month but for now here is a thought or two.

I had the pleasure of being the FWCS' host at the Region 9 dinner and met many from all over Latin America. They were warm and as welcoming to me, at their dinner, as I hope I was to them.

This was a very small sampling; still it made me feel good about the future of our world. I hope others attending had as positive an experience. —PS





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IEEE Annual Election Underway

The 2005 IEEE Annual Election is underway. As explained in the election ballot materials mailed to all eligible voting members, ballots may be cast electronically or by mail. Don't forget to vote; every vote counts! All ballots must be received by 1 Nov., at noon CT, USA



Upcoming PES/IAS Meetings/Seminars

Look for upcoming Signals for more Information related to the following meeting and more:

Update on the Gulf Stream Gas Pipelines, Luncheon meeting at TECO Hall. This is likely to be particularly timely.

Your PES/IAS Chapter is continuously looking for suggestions for events and meetings that would be beneficial to our local members. If you have any suggestions or if your company would like to sponsor a meeting or tour, please contact Ghaff Khazami at gkhazami@megaway.com or Tom Blair at tom_blair@ieee.org.

IEEE – ASME tour of Flanders Electric Motor Shop in Lakeland

Flanders Electric hosted a tour of their motor repair and reconditioning facility in Lakeland for the local IEEE/ASME sections on Monday, October 10. They provided a great BBQ dinner during which they made a presentation on the capabilities of their facilities around the country. They discussed various issues regarding motor repair and reconditioning including a thorough explanation of how to decide if repair of a motor or replacement of a motor is best option. There was a very good exchange of information between presenters and participants.



Then we were given a tour of their shop area. The group saw various large frame AC and DC motors that were in various stages of repair and testing in the facility and discussed the methods of construction. We then passed their rewind shop and VPI facility where we learned about various rotor and stator constructions and methods/materials of insulating windings. Lastly, we toured their machine shop where they displayed their capabilities to custom make various motor parts.



Many thanks to Roger Rainwater, Jonathan Woodham, and Keith Baker with Flanders Electric for their time and efforts in hosting this tour for our group. It was a very enjoyable and educational tour. —TB

Top 10 Ways To Screw-Up Your Engineering Career

So how long will your Engineering career last? It takes 20 years for us to become adults, we work for about 40 years, and then we spend about 20 years in retirement. Viewed in these terms, your career takes up about half of your life. You can get helpful career advice from just about anyone, so how about if we take just a moment and talk about something else—how to completely screw-up your Engineering career?

I've had the opportunity so far to work for six great companies including Boeing, Siemens, Alcatel, Verizon, and a handful of start-ups (remember the Internet bubble?). Along the way, I have observed bright, smart folks accidentally doing the dumbest things to their careers. It would be a shame if you caused your career come to a halt without realizing that you were doing it. Instead, let's assume that you wanted to stop your career in a spectacular fashion. What would be the best way to do this? Here are my suggestions for the best ways to sink your career all by yourself:

#10: Don't Go To College / Don't Finish If You Do Go

Many of you have already screwed this tip up by completing your degree. However, this does bring up a good point—do you know *why* you went to university? People get confused and think that they spent those 4, 5, 6 years learning a specific tool or methodology so they could get a job—wrong! Anyone can go to a bookstore and purchase a thick book and become reasonably good at any tool over a weekend. The reason that you spent all that time going to school is, amazingly enough, so that you could learn how to think. You learned how to learn—you were exposed to a whole range of ideas and topics that you previously knew nothing about. Yes, tools are good to know NOW; however, they won't support a 40-year career. Your ability to constantly learn and use new ideas will.

#9: Be The Best Problem Finder That You Can Be

Engineers have a fatal flaw—we can quickly identify problems. By itself, that skill is almost completely useless. A good way to kill your career is to become known as the person who always shows what is wrong with every new idea. Here's a news flash: you were hired to make problems go away! Your career can take off like a rocket if you can learn to anticipate and solve problems before they happen instead of just pointing them out when they show up. Too few Engineers realize this. Just finding the problem won't do anyone any good.

Assuming that you don't choose to finish your career using these two suggestions, stay tuned to next month's Signal—I've got more! —JA

Great Tour of General Electric Transformer Re-manufacture Plant in Palmetto.

On Tuesday, September 20, GE Energy hosted a tour of their Transformer Re-manufacture plant in Palmetto. Both transformer technologies as well as manufacturing processes were discussed. We saw samples of both shell and core formed transformers in the process of being manufactured. GE discussed their Six Sigma Quality Assurance program and explained various methods of maximizing production efficiency.

The tour was well attended and there was great interaction between the tour guides and the attendees.

We are very grateful for all the extra effort GE Energy went through to put on the tour for the local IEEE section. Many thanks to James Hudock, Sales Manager—Southern Region and Tom Anderson, Plant Manager for their time and expertise in hosting the tour.

If your company would be interested in hosting a tour for the local engineering community, please contact Tom Blair (tom_blair@ieee.org) or Ghaff Khazami (gkhazami@megaway.com) —TB



2006 IEEE-USA/AAAS Mass Media Fellowships—Apply Now

IEEE-USA is looking for two U.S. IEEE student members to help strengthen the connections between engineers and journalists by working for 10 weeks during the summer as reporters, researchers and production assistants in newsrooms across the country. The goal is to increase public understanding and awareness of science and engineering.

To apply, you must be at least a junior in college majoring in a technical field, mathematics or social sciences. A weekly stipend of \$450 is provided. Applications must be received by 15 January 2006.

Visit <http://www.aaas.org/programs/education/MassMedia/> for more information, or contact Stacey Pasco at spasco@aaas.org, or +1 202 326 6441.

Plan Ahead: Mark Your Calendar For The Celebrate Engineering Banquet! —Friday, February 17th, 2006.

Another Date to Hold!

The FWCS Life Members Affinity Group will be presenting a tour at the new Bishop Planetarium at the South Florida Museum in Bradenton to be held in early December. Look for details in a future Signal.

October Chapter Event
Computer Society AESS and PL-UG
Florida Transmission Grid Update
PES/IAS FWCS

Date& Time Wednesday, November 9, 12 Noon – 1PM
Subject: Florida Transmission grid and reliability update
Speakers: John Odom, PE
Location: TECO Hall, 702 N. Franklin Street, Tampa
RSVP: Make reservations at:
<http://www.weiquality.com/fwcs-pes2/index.html>
Questions: Ghaff Khazami, PE (813) 960- 0990,
gkhazami@ieee.org, gkhazami@megaway.com
Cost: \$10.Members; \$5 Student members and \$20 Nonmembers
Lunch: Included and it will be served at the conference room

Come join the PES West Coast Chapter for an interesting subject related to the existing and the future of the Power Transmission System Grid in the State of Florida. This is the first of the series of four on the subject of Transmission System planning, reliability.

Every one is invited to attend; you will be able to understand the role of organizations such as FERC, NERC, FRCC with respect to the Grid Florida and future of the transmission system in general.

The speaker, Mr. John Odom PE will cover the latest information to answer your general and technical questions.

Speaker Biography:

John Odom is Manager of System Planning at the Florida Reliability Coordinating Council (FRCC). John joined FRCC in May, 2005 after 26 years at Progress Energy Corporation (PE). While at Progress Energy, John spent the majority of his time in Transmission Planning, where he was actively involved in the Federal Energy Regulatory Commission's Open Access transmission proceedings and in various North American Electric Reliability Council (NERC) activities. John is currently the FRCC representative on N E R C's Reliability Assessment Subcommittee (RAS).

John received a BSE from the University of Central Florida and has been a registered Professional Engineer in the State of Florida since 1984.

Directions:

Normally use the Downtown Exit, Ashley, from I-275, but that exit has been closed some of the time recently so check the map:

<http://maps.google.com/maps?oi=map&q=702+N+Franklin+Street,+Tampa,+FL>



CAREER OPPORTUNITIES

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November Chapter Event: Computer Society, AESS and PL-UG

Programmable Logic Users Group's Annual PL-UG Fest

Date/Time: Tuesday 11/15/05, 8:00 AM to 5:00 PM

Location: Holiday Inn Select, 3535 Ulmerton Road
Clearwater, FL 33762

RSVP at: <http://www.weiquality.com/fwcs-meetings/>

Semtronic Associates will sponsor the breakfast.

This is an open meeting and there is no charge for attendees.

Non-members and students are welcome and we are making a special invitation to engineering college students and faculty.

Lunch and snacks will provided by the sponsoring vendors.

Xilinx will be the lunch sponsor and the lunch speaker.

PL-UG Fest is a full day of vendor and user presentations focused on hardware design using CPLD and FPGA technology. This is the 4th annual event sponsored by the Florida West Coast Computer Society, the Aerospace & Electronic Systems Society (AESS) and the Programmable Logic Users Group (PL-UG).

Vendor Exhibits and Presentations to date include:

- Agilent – Exhibit & Presentation (Dramatically Accelerate In-Circuit Debug of Xilinx FPGA-Based Systems)
- Altera/Marathon Sales – Exhibit & Presentation
- Avnet – Exhibit & Presentations (FPGA Design for Firmware Engineers; Developing with Embedded Linux on the Virtex-4 FX)
- Lattice Semiconductor - Exhibit & Presentations
- Mentor Graphics Corporation – Exhibit & Presentations
- Satcon - Exhibit
- Semtronic Associates - Exhibit
- Siliconexion - Exhibit
- Xilinx – Exhibit & Presentation(s)

Design Engineer Presentations to date include:

- Jack Killingsworth, Siliconexion - "Board Level Simulation Using Free Model Foundry Models"
- Kent Ulrich, First Pass Design - "An Introduction to Vital Models"
- Basil Iqbal, Digital LightWave - "Issues on Mathematical Functions in FPGAs"
- Grant Smith, Honeywell - "Topic TBD"
- Paul Solorzano, Raytheon - "A Future Engineering Computer Environment / Linux update"

You can view the latest PL-UG Fest details at

<http://www.weiquality.com/fwcs-meetings/>

For more information or registration issues, contact

Jim Lumia, Computer Society and AESS Chairman, at 813-832-3501 or JLumia@ieee.org

This is a Joint Meeting with the Programmable Logic Users Group (www.pl-ug.org)



IEEE Fall Picnic

turned out to be another great success. The students had a total of approximately 55 people show up for it. The only small problem of the day was the threatening sky which seemed to scare off some people from attending. At the USF Riverfront Park where the picnic was held, we had less than 2 minutes of rain all day.



By the end of the day, the students had gone through 20 hot dogs, 60 hamburgers, 8 2-liter sodas, 6 bags of chips, and 2 big cans of baked beans. Watch for the next student branch sponsored picnic which will be during the spring semester.

—Jonathan Wells.

(Above Richard and friend Pix: Jim Howard)



Excom and your editor stuffing his face



Jon and some dogs



Students



Cooks and BBQ smoke.

(Advertisement)

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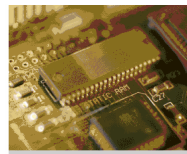
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The Suncoast Signal offers advertisers access to a focused target audience of electrical, electronics and computer engineers in central Florida at a very low price.

As with any publication, our postal circulation varies monthly, but always exceeds 2,000. The overall average for The Suncoast Signal is 2,300; this does not include the many distributed at meetings and elsewhere. There is an additional nationwide mailing of about 75.

Furthermore, since The Suncoast Signal is on the IEEE Florida West Coast Section website, you get even more coverage.

For rates and details contact the Editor at 813-994-2297 or paulschn@ieee.org.



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You Receive Online Access To IEEE Potentials Magazine

As of last month, all IEEE members are able to access IEEE POTENTIALS magazine online as part of their basic IEEE membership. IEEE POTENTIALS provides information on the latest research and innovation in a wide range of engineering and technology topics. It also features items on professional development and career issues, and includes tutorials on the implications of new technology.

View the latest issue at
<http://ieeexplore.ieee.org/xpl/RecentIssue.jsp?punumber=45>.



Brain Teaser Challenge Column —By Butch Shadwell

Regrettably, Butch's fine column will not appear this month.

Look for it as usual in the December Suncoast Signal.

New IEEE Staff Award Created

The IEEE Board of Directors has approved a new award named for Eric Herz, past IEEE general manager and executive director, and longtime IEEE volunteer.

The award will recognize IEEE employees who have demonstrated outstanding and sustained contributions to the goals, objectives and success of the IEEE. Present and past full-time IEEE staff members with at least ten years of service are eligible.

The prize includes a US\$5,000 honorarium, a certificate and travel expenses for the recipient to attend the presentation of the award. The award will be presented every other year, starting in 2006.

Any volunteer (other than members of the IEEE Board of Directors, members of the IEEE Awards Board, and members of the IEEE Selection Committee) may nominate or support a candidate.

The deadline for nominations for the 2006 award is 31 Jan.

For more information, visit <http://www.ieee.org/awards> or contact awards@ieee.org.

November 2005 Calendar of Events (For more information see P. 1 *Inside this Signal...*)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30	31	15:30PM: IEEE FWCS ExCom Meet'g, TECO Hall, Tampa	2	3	4	5 10:00AM Florida Teslathon Sarasota
6	7	8	9 Noon: Florida Transmission Grid Update TECO Hall, Tampa	10	11	12
13	14	15 8 AM-5PM Annual PL-UG Fest, Holiday Inn Select Clearwater	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3

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