

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Volume 55— No.6

http://www.ieee.org/fwcs

June 2012

IEEE

Inside This Signal...

Page 2 *Are you an Experienced Electrical Engineer?

Page 3 *Another Great PE/IA Seminar IEEE Industrial Application (IA) White Book Seminar * Your SP/COMM Chapter Needs your Help!!! * Please Help us Keep WIE Active

Page 4 FWCS PES Utility Users Group Meeting ARC Flash Remediation

Page 5 *Tour Of Pinellas Waste to Energy Facility

Page 6 *News From IEEE-USA *Call for Authors

Page 7 *Negotiating Secrets for Engineers-Get What you Want When You Want It *Advertising Section

Page 8

*Calendar

This Month's Meetings

Tuesday, June 5: EXCOM Meeting Meeting starts at 5:30PM At Teco Plaza Register online at <u>http://time2meet.com/fwcs-excom/index.html</u> Open to all FWCS Members

> Are you An Experience Electrical Engineer? <u>Details on page 2</u>

FWCS PES Utility Users Group Meeting ARC Flash Remediation <u>Details on page 4</u>

Tour Of Pinellas Waste to Energy Facility <u>Details on page 5</u>

> News From IEEE-USA Details on page 6

Negotiating Secrets for Engineers - Get What you Want When you Want it

Details on page 7

2012 IEEE EXECUTIVE COMMITTEE

FLORIDA WEST COAST SECTION

CHAIR: Serge Beauzile (863) 834-6511 <u>serge.beauzile@ieee.org</u> VICE CHAIR: Claude Pitts, <u>cpitts7@tampabay.rr.com</u>

SECRETARY: Sean Denny, <u>venner20@ieee.org</u>, 727-678-0183 TREASURER: Dr. Paul Schnitzler (813) 974-5584

pauls@eng.usf.edu SIGNAL EDITOR: Donna Howard, Serge Beauzile Phone (813) 207-7966 <u>dhoward@frcc.com</u>

Serge.beauzile@ieee.org

AWARDS & BYLAWS : Richard Beatie, PE, <u>r.beatie@ieee.org</u>

MEMBERSHIP: Jim Howard, Lakeland Electric (863)834-6585 ihoward@ieee.org

TEACHER IN-SERVICE: Sean Denny: <u>Venner20@ieee.org</u> (727) 678-0183

PES/IAS CHAPTER: Serge Beauzile, Lakeland Electric, (863) 834-6511 <u>serge.beauzile@ieee.org</u>

MTT/AP/ED CHAPTER: Jing Wang jingw@usf.edu

COMP/AESS CHAPTER: James S. Lumia (813) 832-3501, jlumia@ieee.org

EMBS: Engineering in Medicine & Biology: John West: 727-743-2267, john.west@ieee.org

ROBOTICS and AUTOMATION SOCIETY, George Schott, george.schott@ieee.org

SP/COMM CHAPTER: Hector Martinez, <u>abelhect@hotmail.com</u> WIE: Women in Engineering: Valerie Tur, (813) 313-7608,

Valerie.tur@rexelusa.com

LIFE MEMBER AFFINITY GROUP: Bob Franklin boatseven@aol.com

GOLD: Bashar Salahia, <u>bsalahia@mail.usf.com</u> PACE: Jim Anderson , (813) 425-2467

jim.anderson@ieee.org

STUDENT BRANCH CO-ADVISORS: Dr. Paul Schnitzler, USF PS&A (813) 974-5584 <u>pauls@eng.usf.edu</u> Dr. Andrew Hoff, <u>hoff@usf.edu</u>

STUDENT BRANCH MENTOR: Jim Howard, Lakeland Electric (863) 834-6585 j.howard@ieee.org (H) (813) 876-1748 STUDENT BRANCHES:

Victor Basantes, vbasante@mail.usf.edu

CONFERENCES: Jim Beall, j.beall@ieee.org

WEB PAGE: http://www.ieee.org/fwcs

WEB MASTER: Claude Pitts, III, cpitts7@tampabay.rr.com

THE SUNCOAST SIGNAL is published monthly by the Florida West Coast Section (FWCS) of the Institute of Electrical and Electronics Engineers, Inc. (IEEE). THE SUNCOAST SIGNAL is sent each month to members of the IEEE on Florida's West Coast. Annual subscription is included in the IEEE membership dues. The opinions expressed, as well as the technical accuracy of authors, advertisers or speakers published in this newsletter are those of the individual authors, advertisers, and speakers. Therefore, no endorsement by the IEEE, its officers, or its members is made or implied. All material for THE SUNCOAST SIGNAL is due in electronic form by 1st Sunday after the 1st Tuesday of the month preceding the issue month. Address all correspondence to: Donna Howard 3133 W Paris Street Tampa, FL 33614-5964 Home Phone 813-876-1748 E-MAIL: dhoward@frcc.com The Signal, Copyright 2012



Are you an Experienced Electrical Engineer?

If you have more than 10 years experience as an engineer, scientist, educator, technical executive or originator in the various IEEE-designated fields then IEEE would like you to consider upgrading your membership to Senior level, the highest grade of membership that members can apply for. There is no additional cost to you other than keeping up your IEEE membership dues. Benefits of IEEE Senior Membership include

- The professional recognition of your peers for technical and professional excellence.
- An attractive fine wood and bronze engraved Senior Member plaque to proudly display.
- Up to \$25.00 gift certificate toward one new Society membership.
- A \$25.00 referral coupon if you refer a fellow engineer, scientist or educator for IEEE membership.
- A letter of commendation to your employer on the achievement of senior member grade (upon the request of the newly elected Senior Member.)
- Announcement of elevation in Section/Society and/or local newsletters, newspapers and notices.
- Eligibility to hold executive IEEE volunteer positions.
- Can serve as Reference for Senior Member applicants.
- Invited to be on the panel to review Senior Member applications.

The requirements to apply for Senior Membership are simply to have 10 years experience with 5 years or significant performance and three references from other IEEE members holding Senior, Fellow or Honorary Member grade

Your educational experience is credited toward the experience requirement. A Baccalaureate Degree accounts for 3 years, a Masters Degree accounts for 4 years experience, and a Doctorate Degree accounts for 5 years experience. The requirement of significant performance can be any substantial engineering, responsibility or achievement, publication of engineering or scientific papers, books or inventions, technical direction or management of important scientific or engineering work, recognized contributions to the welfare of the scientific or engineering profession, and/or development or furtherance of important scientific or engineering courses. Your local Membership Development Committee will work with you to identity local volunteers for your three required references from other Senior, Fellow or Honorary Members.

If you are interested in applying for Senior Membership Status, email tom_blair@ieee.org and title the email "Request for Senior Membership". We will provide guidance where you can apply online and connect you with other senior members in the local area to assist you with references.

For current Senior, Fellow & Honorary members: If you are interested in providing references for Senior membership applications, please send an email to tom blair@ieee.org and include your name and IEEE number

Advertisment



IEEE

Another Great PE/IA Seminar IEEE Industrial Application(IA) White Book Seminar

On Friday, May 18, 2012 your PE/IA Chapter held another in our series of Industry Applications (IA) Color Book Seminars. The "White Book" on design of Medical Facilities had a very good attendance with presentations by Curtis Latzo and George Johnson. A special thanks to them for sharing their knowledge and experience with us. Those in attendance were able to ask questions and discuss issues with the instructors and their peers.

Our next Color Book Seminar is currently being discussed by the PE/IA Planning Team, so if you have a particular book you are interested in, let us know by contacting Serge Beauzile, the FWCS PE/IA Chair at 863-834-6511 or serge.beauzile@ieee.org.

IEEE Your SP/COMM Chapter Need Your Help!

We are always on the look-out for topics of interest for meetings and tours, so we are requesting your help. We need your thoughts and suggestions for planning our upcoming meetings. If you know of a good topic, speaker, or location for a meeting, let us know. And, if you willing to help plan one of these meeting through contacts you might have, that would be extremely helpful.

Please contact Hector Martinez, your SP/COMM Chapter Chair with any and all suggestions, comments, or questions – <u>abelhect@hotmail.com</u>.

Please Help us Keep Your WIE Chapter Active

Do you want to keep the Society of Women in Engineering Active in the Florida West Coast? Then we urgently need your help. We need your thoughts and suggestions for planning our upcoming meetings to reach out for Women in Engineering. If you know of a good topic, speaker, or location for a meeting, let us know.

Please contact Valerie Tur, your WIE Chapter Chair with any and all suggestions, comments, or questions – <u>Valerie.tur@rexelusa.com</u> or (813) 313-7608

PACE / TISP Update

The IEEE was invited to participate in the 57th Florida Science and Engineering Fair on April 4th at the Lakeland Center. Nancy Besley asked judges to report to the George Jenkins Arena by 8am. ASME member Karen Malesky and IEEE member David Figueroa, were present to judge. After debriefing, I was asked to interview Junior Physics Students. All the students who participated were the best finalists from Regional Science Fairs all over Florida . During the morning session, the judges put the students into categories of Focus or Orbital. After lunch, I interviewed the Focus Group which would be rank the exceptional students to progress to the International Science Fair. The Orbital Judges would interview the other students. It was truly an exceptional experience!

PROFESSIONAL STUDY DAY REQUESTS:

Please forward requests from your school to my email: <u>venner20@ieee.org</u> to schedule a presentation. Most School Districts have their Professional Study Days before school resumes in the fall.







FWCS PES UTILTY USERS GROUP MEETING

ARC FLASH REMEDIATION

	Date:	Wednesday, July 18, 2012				
	Time:	9:00AM – 1:00PM				
	Speaker:	Thomas Blair, P.E., Senior Consulting Engineer, TECO				
		George Bolos, P.E., Consulting Engineer, TECO				
	Location:	13031 Wyandotte Road, Apollo Beach, FL 33572				
	Cost:	FREE (a snack will be provided)				
	RSVP:	Online at: http://www.ewh.ieee.org/r3/floridawc/				
		(Select Reservations)				
A Manufacture Matteria	Questions:	Tom Blair at 813-228-1111, ext 48179 or tom_blair@ieee.org				

Your IEEE PES West Coast Chapter is starting a <u>local utility users group</u> where we plan to meet once every few months and discuss current topics of interest to local utilities. We hope to share our lessons learned with other fellow utility engineers and provide an additional benefit of IEEE membership for utility engineers.

Currently, the following topics will be scheduled for discussion in future meetings.

- Arc Flash Labeling and Remediation
- NERC/CIP Compliance Efforts
- Substation / Generation Station Upgrade Efforts
- Substation / Distribution System Automation
- Generation Station Relay Upgrades
- Distribution Monitoring Equipment Upgrades.

If there are other topics of interest, please email us and let us know what topics would be beneficial for the group.

Our first meeting will be Wednesday, July 18 at the Tampa Electric Big Bend Power Station where TECO will present their work on Arc Flash Remediation. Tampa Electric Engineers will present a case study of an arc flash remediation project at a utility electrical generation facility. We review the engineering technologies and safe work practices utilized to reduce the arc flash incident energy values at an existing electric utility generation facility. An initial engineering study was performed of a 40 year old facility to determine the arc flash incident energy values at various pieces of equipment at the station. After the initial engineering study was completed, a second phase of the project was undertaken to reduce these values. Several technical challenges unique to the electric utility industry had to be overcome to substantially reduce incident energy levels. Examples of such challenges were how to address incident energy values on electrical equipment directly connected to large generators such as station service breakers and how to address the substantially large values of arcing current due to the size of onsite generation (about 1500 MW of generation capacity) all of which lead to large values of incident energy levels at some locations at generation facilities. This meeting will present the engineering design solutions and the safe work practices that were implemented to address these and other challenges at the electric utility generation facility to reduce incident energy levels and improve electrical safety at the station. The result of the arc flash remediation project was that final arc flash values were substantially reduced. At one location, after the initial engineering study performed in phase 1 of the project, the electrical distribution system for one unit was found to have 69% of the electrical equipment with incident energy levels greater than 8 cal/cm². After the completion of phase 2 of the arc flash remediation project, all of this equipment had the incident energy levels reduced to values below 8 cal/cm^2 .



Tour of Pinellas County Waste to Energy Facility

Date: Thursday, June 14, 2012

Time:3:00PM - 5:00PM. (meet at 2:45PM Administration Building)

Location: 3095 114th Ave N, St. Petersburg, Fl., 33716

Cost: Free for IEEE Members, \$20 Non-Members,

RSVP: Online at: <u>http://time2meet.com/fwcs-pes2/index.html</u>

NOTE: THIS TOUR IS LIMITED <u>TO 10 PEOPLE</u>

Special Requirements: must wear long pants, long sleeves and closed toe shoes. You will be provided with safety gear such as eye protection and hardhats prior to your tour of the WTE facility.

Questions: Claude Pitts at 727.418.5272 or claude.pitts@ieee.org

Come join your PE/IA Chapter for an educational Tour of the Pinellas County Waste to Energy Facility, St. Petersburg Florida. This is a walking tour of an active facility and participants **MUST** wear long pants, long sleeves and closed toe shoes. You will be provided with safety gear such as eye protection and hardhats prior to your tour of the WTE facility. Be advised that you will get dusty/dirty during this tour and you will need to dress accordingly.

This site tour will take approximately two (2) hours and will include the landfill, recycling operations and the WTE power generation facility.

Some general information from the Waste to Energy website- . The Waste-to-Energy (WTE) facility has the capacity to burn 3,150 tons of garbage every day. The WTE facility processes about one million tons of garbage every year. The process can produce up to 75 megawatts (MW) per hour of electricity. It sells about 60 MW to Progress Energy for distribution within the community, and the remainder powers the plant itself. This electricity powers approximately 45,000 homes and businesses every day. The WTE facility uses state-of-the-art air pollution control technology, which continuously monitors WTE emissions, ensuring the plant's emissions fall within the United States Environmental Protection Agency's (EPA) standards.

Ash generated from the combustion of solid waste is transferred to the adjacent Residue Storage and Processing Building. Here, the ash is size-separated using screens, and both ferrous (steel) and non-ferrous (aluminum) metals are recovered from the ash using mechanical equipment such as magnets and eddy currents. The recovered metals are sold to steel mills and smelters for recycling, and the remaining ash is used for landfill cover and interior site berms and roadways.

Map & Directions The group will meet at the Administration Building at 2:45 PM for the tour.



IEEE-USA's Free E-Books to Members in May & June Feature Innovation & Finding the Perfect Job

WASHINGTON (15 May 2012) -- As a special benefit to IEEE members in May, IEEE-USA is offering a free ebook, "Innovation Conversations, Book 1: The Innovation Process." In June, the free e-book will be "Launching Your Career, Book 1: How to Find Your Perfect Job."

Innovation means much more than just coming up with creative ideas; those ideas have to be put to work to create a benefit. Innovation can be seen as a journey that starts with setting a purpose or goal and blossoms into innovative achievement and new learning. Along the way, innovative thinking is required. So is knowledge and values.

In "Innovation Conversations," renowned innovation author, William C. Miller, provides a way for readers to understand the process of innovation. And he demonstrates how people of any technical job can apply it to the challenges and opportunities they find in their day-to-day work.

"Innovation Conversations, Book 1: The Innovation Process" can be downloaded at <u>http://www.ieeeusa.org/communications/ebooks/files/viijs28l2/Innovation-Styles-Book1.pdf</u> for **free to IEEE members**. The nonmember price is \$7.99.

IEEE-USA's free e-book in June, "Launching Your Career Book 1: How to Find Your Perfect Job," will help you define your personal, long-term career goals and provide a practical roadmap to assist in finding your ideal job.

Author Abby Vogel Robinson provides tools and assessments to enable you to evaluate your personality and aspirations, find a great company to work for, choose the best position for you and build your network. Your career decisions will play a major role in determining your income, community status, circle of friends, choice of a spouse -- and even your identity and sense of self-worth. It will also help you choose wisely and carefully and get you started toward personal and professional fulfillment.

This e-book will be available for members to download for free in June.

To purchase IEEE member-only products and to receive the member discount on eligible products, members must log in with their IEEE Web Account.

Call for Authors

IEEE-USA E-books seek authors to write an e-book or a series on career guidance and development topics. If you have an idea for an e-book that will benefit members on a particular topic of expertise, email your proposal to IEEE-USA Publishing Manager Georgia C. Stelluto at <u>g.stelluto@ieee.org</u>

IEEE-USA advances the public good and promotes the careers and public policy interests of 210,000 engineering, computing and technology professionals who are U.S. members of IEEE.

Web: www.ieeeusa.org Facebook: www.facebook.com/ieeeusa Twitter: www.twitter.com/ieeeusa Join IEEE: www.ieee.org/join

Contact: Sharon C. Richardson, Coordinator IEEE-USA Communications & Publishing Phone: 1 202 530 8363 E-mail:s.richardson@ieee.org

Negotiating Secrets for Engineers -Get What you Want When you Want it

June 20, 2012 – 6:00 p.m. – 7:00 p.m. TECO Plaza

You know WHAT you want, but do you know HOW to get it? For the first time ever, the IEEE's Florida West Coast PACE group is proud to present exactly what you've been looking for: a seminar that will teach you how to prepare for and WIN your next negotiation! No matter if you are asking your boss for a raise, trying to get the best deal from a vendor, or even if you are just trying to get the best deal on your next car, then this is the seminar that you MUST attend!

Attend and learn the 10 most powerful negotiating tactics that you can use in your next negotiation -- and how to defend against them when they are used against you. We'll be showing you 15 tools that you can use to become a "super negotiator". Negotiating seminars with 1/2 the content of this seminar can cost +\$1,000 -- reserve your spot today before we fill up!

Register online here: http://goo.gl/UnZJb

Advertising Section

Ling Jacklin IP LAW, PLC. AN INTELLECTUAL PROPERTY LAW PRACTICE t 813.489.5450 f 813.527.9952 KIACKLIN@JACKLINPATENTS.COM 2405 CREEL LANE SUITE 102 WESLEY CHAPEL, FLORIDA 33544 WWW.JACKLINPATENTS.COM			Qualified Communication Services, Inc.			Lesley Peters President	SmartGrid Cap Controllers, Transformers, Power Transformer Coolers, Pumps, Valves, And Radiators, Switchgear, Insulators Powers & Company, Inc. (813) 282-3011 P.O. Box 10458 Fax (813) 282-3298 Tampa, Florida 33679 powerscomp@aol.com cell (813) 760-2556 BSEE Dick Powers Dick Powers IEEE/PES Member	
	On	One Month		6 Months		12 Months		
Size	Member	Non-Member	Merr	nber	Non-Member	Member	Non-Member	Blue Elephant Consulting
Business Card	\$25	\$33	\$120		\$150	\$210	\$252	Unforgettable communication skills that will set your ideas free
1/4 Page	\$40	\$52	\$1	90	\$238	\$335	\$402	
½ Page	\$75	\$98	\$360		\$450	\$630	\$756	Dr. Jim Anderson President Jim@BlueElephantConsulting.com Phone: 813.418.6970 www.BlueElephantConsulting.com
³ ⁄4 Page	\$110	\$143	\$5	30	\$663	\$925	\$1,110	P.O. Box 341734, Tampa, Florida 33694-1734
Full Page	\$140	\$182	\$670		\$838	\$1,175	\$1,410	Your advertisement here
Insert / Sheet	\$200	\$260	\$8	00	\$1,000	\$2,000	\$2,400	reaches over 2300 members in the local area!



Florida West Coast Section, Tampa

NON PROFIT ORG U.S. POSTAGE PAID TAMPA, FL. PERMIT No. 1197

DATE SENSITIVE MATERIAL. DO NOT DELAY

Change of address? IEEE Web Contact Update <u>http://www.ieee.org/membership/coa.html</u> Or send address changes including your name, IEEE Member number and all pertinent information to: IEEE, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331 or call (800) 678-4333 Or fax your address changes to (732) 562-5445

June 2012 Calendar of Events (For more information see P. 1) inside this Signal...

Sunday	unday Monday		Wednesday	Thursday	 Friday	Saturday
27	28	Tuesday 29	30	31	1	2
3	4	5 EXCOM Meeting at FRCC, see page 1	6	7	8	9
10	11	12	13	14 Tour of Pinellas Waste to Energy Facility 3PM	15	16
17	18	19	20 Page 7 Negotiating Secrets for Engineers	21	22	23
24	25	26	27	28 PES EXCOM Meeting at 6AM	29	30