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# IEEE

## THE SUNCOAST SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

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### Upcoming Meetings

#### *EXCOM Meeting*

Tuesday, November 3, 2015 5:30PM at TECO Plaza

Register online at <http://time2meet.com/fwcs-excom/index.html>

Open to all FWCS Members

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#### *Life Members - Are you willing to make the Step to Senior Membership?*

Tuesday, November 03, 2015

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#### *Low & Medium Voltage Switchgear Upgrade Seminar and Demonstration*

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#### *Tour of Duke Energy Florida Distribution and Transmission Control Centers*

Wednesday, December 9, 2015

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#### *Protection and Coordination of Industrial and Commercial Power Systems - IEEE 242 (IEEE Buff Book)*

Friday January 22, 2016

**2015 IEEE EXECUTIVE COMMITTEE - FLORIDA WEST COAST SECTION**CHAIR: Claude Pitts [claudie.pitts@ieee.org](mailto:claudie.pitts@ieee.org)VICE CHAIR: Chris Lambrecht, [chris.lambrecht@ieee.org](mailto:chris.lambrecht@ieee.org)SECRETARY: Sean Denny, [venner20@ieee.org](mailto:venner20@ieee.org), 727-678-0183TREASURER: Jim Howard, Lakeland Electric (863)834-6585 [jhoward@ieee.org](mailto:jhoward@ieee.org)SIGNAL EDITOR: Donna Howard [dhoward@frcc.com](mailto:dhoward@frcc.com) (813) 207-7966, Serge Beauzile [Serge.beauzile@ieee.org](mailto:Serge.beauzile@ieee.org) 863-834-6511, Dan Sangines [Sangines@ieee.org](mailto:Sangines@ieee.org) 8132255154AWARDS & BYLAWS: Richard Beatie, PE, [r.beatie@ieee.org](mailto:r.beatie@ieee.org)MEMBERSHIP: Jim Howard, Lakeland Electric (863)834-6585 [jhoward@ieee.org](mailto:jhoward@ieee.org)TEACHER IN-SERVICE: Sean Denny: [Venner20@ieee.org](mailto:Venner20@ieee.org) (727) 678-0183PES/IAS CHAPTER: Serge Beauzile, Lakeland Electric, (863) 834-6511 [serge.beauzile@ieee.org](mailto:serge.beauzile@ieee.org)MTT/AP/ED CHAPTER: Jing Wang [jingw@usf.edu](mailto:jingw@usf.edu)COMP/AESS CHAPTER: Jim Cavanaugh [james.a.cavanaugh@ieee.org](mailto:james.a.cavanaugh@ieee.org)EMBS: Engineering in Medicine & Biology: John West: 727-743-2267, [john.west@ieee.org](mailto:john.west@ieee.org)ROBOTICS and AUTOMATION SOCIETY, Sean Denny, [Venner20@ieee.org](mailto:Venner20@ieee.org)SP/COMM CHAPTER: Chris Lambrecht [chris.lambrecht@ieee.org](mailto:chris.lambrecht@ieee.org)WIE: Women in Engineering: Valerie Tur, (813) 334-2317, [VLT4@cornell.edu](mailto:VLT4@cornell.edu)LIFE MEMBER AFFINITY GROUP: Glen Cock [gcock@tampabay.rr.com](mailto:gcock@tampabay.rr.com), 813-689-4765

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**PE Corner**

Art Nordlinger, PE, Senior Member

**Continuing Education Alphabet Soup**

As engineers we love our acronyms. The rules governing the practice of engineering in Florida, which are primarily written by engineers, naturally contain their share of acronyms as well. Since the original adoption of continuing education requirements in Florida our measure for compliance has been the Professional Development Hour, or PDH. Chapter 61G15-22.001 Continuing Education Requirements has used PDH as the measure for this requirement, until now. The proposed language for this rule, which may be found at <https://www.flrules.org/gateway/ruleNo.asp?id=61G15-22.0001>, deletes "professional development hour" and replaces it with "continuing education hour". The definition that follows in Chapter 61G15-22.002(2) deletes Professional Development Hour and, in turn, replace it with Continuing Education Hour. However, the proposed definition of Continuing Education Hour includes the phrase, "A continuing education hour is equivalent to a professional development hour (PDH). So the name is changed, but the measure is the same. Professional Development Hour and PDH are proposed to be thrown on the trash heap of obsolete engineering terms and acronyms, likely lying near floppy disk. The part of the definition of CEH (formerly PDH) that is unchanged defines a CEH as "A time measurement requiring a minimum of 50 minutes instruction or presentation per hour."

You may recall a related term and acronym very close to Continuing Education Hour; that is, Continuing Education Unit or CEU. Chapter 61G15-22.002(3) defines Continuing Education Unit as "Unit of credit customarily used for continuing education courses" and goes on to say that "One continuing education unit equals 10 hours of class in an approved continuing education course." The proposed rule change deletes this definition totally and the term and acronym are, like PDH, history. However, Chapter 61G15-22.004 Conversion of Education Units to Continuing Education Hours, while removing the CEU conversion, includes several other useful conversions of college credit-type educational hours to CEHs.

Old habits die hard. So it will like-as-not take a bit of doing and education to rid all of our IEEE documentation and publications of PDH and replace it with CEH. So please bear with us as we transition, along with the rest of the Florida's engineers.

**Upcoming opportunities to earn CEHs**

- Low & medium Switchgear – Dec 4 – Lakeland Training Ctr – 4 PDH's (CEH's)
- Smart Grid – Nov 20<sup>th</sup> – Seminole Electric – 4 PDH's (CEH's)
- IEEE IAS Buff Book Seminar – Jan 22<sup>nd</sup> – Seminole Electric – 4 PDH's (CEH's)
- Grounding and Bonding Seminar – Feb 19<sup>th</sup> – FRCC – 4 PDH's (CEH's)

Remember, under the new rules you need 18 PDH's (CEH's) every two years.

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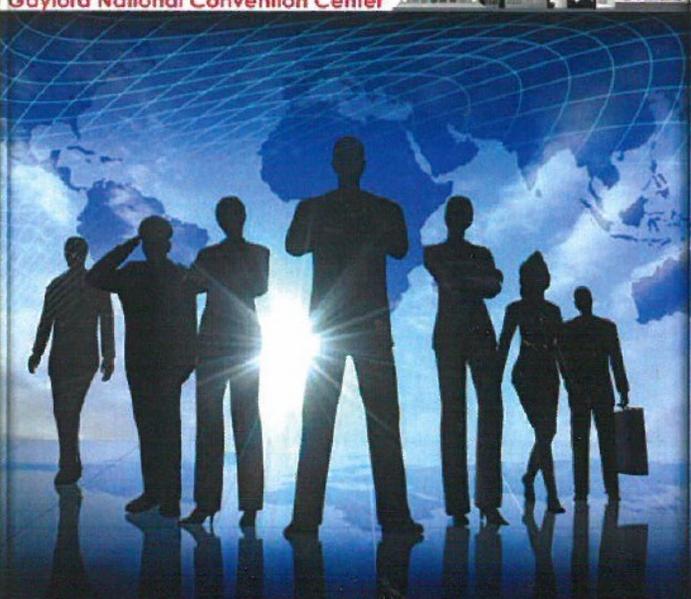
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## It's that Time of Year Again!

You should have already received your **IEEE Renewal** notice and now is the time to make sure you renew so you can be entered into the drawing. Remember, you must have your renewal in by November 15, 2015 in order to be eligible.

We are working to have everyone renew before the end of the year, so when you get a chance, please send yours in now!

**IEEE-USA E-BOOKS is offering: "Would Have Liked to Know That! - Book 2: Managing Your Manager" free to IEEE members.**

Author Maura Schreier-Fleming writes that managers give clues to how you should work with them. You will learn what those clues are and how they will help you develop effective persuasion strategies for working with your manager. When you use these strategies, you will be more productive, have less stress, and be more likely to get what you want, as you work with your manager.

Schreier-Fleming is the author of "Real-World Selling for Out-of-this-World Results" (2002) and "Monday Morning Sales Tips" (2009). She is a former lubrication engineer for Mobil Oil and is chair of the IEEE Dallas Consultants Network.

### HOW TO GET YOUR FREE E-BOOK

From 1 October to 15 November, you can get your free e-book to download by going to <http://shop.ieeeusa.org/usashop/product/careers/76750>. Log in with your IEEE Web account, add the book to your cart and use promo code OCTFREE at checkout.

### NOVEMBER FREE E-BOOK

In November, IEEE-USA E-books will offer "The Best of Today's Engineer: On Licensure - Volume 1," compiled by Georgia C. Stelluto.

This compilation of articles will help you understand the licensure process, why you should pursue it, exam development and how to effectively study for and pass licensure exams.

### Senior Banquet



November 21st 6:30-9 — MSC 3709

The IEEE Student Branch at the University of South Florida invites you to the fall 2015 senior banquet. Every semester we host a Senior Banquet to honor the EE Department's graduating class. It is a formal event with dinner and a guest speaker. Our guest speaker this fall is the dean of the College of Engineering at USF, **Dean Robert Bishop**.

Please contact Christopher Allemang ([callemang@mail.usf.edu](mailto:callemang@mail.usf.edu)) for tickets. We could also use industry sponsors, if interested please contact TJ Ross ([anthonyross@mail.usf.edu](mailto:anthonyross@mail.usf.edu))



## *Updates on the Status of Smart Grids*

- Date:** Friday, November 20, 2015
- Time:** 8:30am-9am Registration, 9am-3pm Seminar
- Cost:** \$100 members, \$200 Non-Members, \$20 Students (Includes Breakfast & Lunch)  
Make checks payable to IEEE FWCS and mail a check in advance to:  
*John Stankowich*  
*IEEE PE/IA Chapter Treasurer*  
*2593 Forest Run Court*  
*Clearwater, FL 33761-3716*
- Speakers:** Jason Flynt & Lisa Loss, Duke Energy – Lee Collins, Tampa Electric Company  
– Sean McCarty, Lakeland Electric – Scot Schmukler CE Power
- Pdh's:** 4 Pdh's will be awarded for this seminar. Be sure to enter your name and PE number on the signup website as it appears on your license. IEEE Florida Provider Number is 3849
- Location:** Seminole Electric Cooperative, 16313 North Dale Mabry,  
Tampa, Florida 33618  
**Parking:** Use parking lot in front of building.
- RSVP:** Online at: <http://time2meet.com/fwcs-pes2/index.html>  
Space limited to the first 45 registrants!!!  
Cancellation must be submitted online 24 Hrs prior to the seminar at: <http://time2meet.com/fwcs-pes2/index.html>  
No shows will be invoiced for the total cost of the seminar.
- Questions:** Serge Beuzile at 863-834-6511 or [Serge.beuzile@lakelandelectric.com](mailto:Serge.beuzile@lakelandelectric.com), or Jim Howard 863-834-6585  
or [Jim.Howard@lakelandelectric.com](mailto:Jim.Howard@lakelandelectric.com)

Following up on our past two successful Smart Grid presentations, the IEEE FWCS PE/IA Chapter is pleased to present an update on the work done by local entities on Smart Grid. Tampa Electric Company, Duke Energy, Lakeland Electric, and CE Power will provide updates on their Smart Grid projects and the overall industry status. There will also be a panel session which will allow the attendees to ask these experts questions about Smart Grid and what the future holds.

These presentations will include:

- Where they are today
- Challenges they have experienced
- Future of their Smart Grid Systems

For full details on our speakers, please visit : <http://time2meet.com/fwcs-pes2/index.html>



## *Low & Medium Voltage Switchgear Upgrade Seminar and Demonstration*

**Date:** Friday, December 4, 2015  
**Time:** 10:00am-10:30 am Registration, 10:30am-1:30pm Seminar and 1:30PM-2:30PM Demonstration  
**Cost:** \$30 members, \$50 Non-Members, \$10 Students (Includes Lunch)

**Make checks payable to IEEE FWCS and mail a check in advance to:**

*John Stankowich*

*IEEE PE/IA Chapter Treasurer*

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**Speakers:** **Steve Antman, CE Power Engineer**

**Pdh's:** **2Pdh's will be awarded for this seminar. Be sure to enter your name and PE number on the signup website as it appears on your license. IEEE Florida Provider Number is 3849**

**Location:** **City of Lakeland Training Center**

**989 East Memorial Blvd**

**Lakeland, Florida 33801**

In the Sav-a-lot strip mall way in the back.

**RSVP:** **Online at:** <http://time2meet.com/fwcs-pes4/index.html>

**Space limited to the first 45 registrants!!!**

**Questions:** **Steve Antman at 863-701-4170 or [steve.antman@cepower.net](mailto:steve.antman@cepower.net)**

The seminar will look at ways you can upgrade low and medium voltage switchgear on a budget while reviewing tradeoffs to reduce arc flash category levels. We will examine how to replace old equipment with a retrofill design. Retrofill incorporates new breakers, digital microprocessor relays right into the existing equipment's shell. Learn the difference between iso-phase, segmented and non-segmented busways. Evaluate cost tradeoffs. Learn about metering and data logging, communication and wave capture. See how to use test equipment needed to maintain operation. And after the presentation view a van that has been fitted with a retrofill design, digital relays and busways presented.

**PRESENTER:** **Steve Antman** is an Engineer with CE Power Solution located in Lakeland Florida. Steve calls on utility companies, mining industry, petrochemical companies, nuclear power plants and many other industrial applications helping professionals with three phase power protection and maintenance. Steve's knowledge consist of feeder protection, resistance grounding, power quality monitors, ground-fault monitors, arc flash relays and motor protection. Steve has presented to many IEEE organizations, Independent Electrical Contractors and Industrial & Mining EHS Conference. Prior to sales he served as a hardware design engineer for a military design manufacture. After years of design experience he became an application engineer. Steve has BS in Computer Engineering from the University of South Florida.



## *Tour of Duke Energy Florida Distribution and Transmission Control Centers*

**Date:** Wednesday, December 9, 2015

**Time:** 2:00pm -4:00pm

**Cost:** FREE

**Location:** Duke Energy Distribution Control Center  
6571 38 Ave N. - St Petersburg, Florida 33801

**RSVP:** Online at: <http://time2meet.com/fwcs-pes4/index.html> Space limited to the first 25 registrants!!!  
*NOTE - You will not be allowed to attend if your reservation is not made by December 1, 2015.*  
*Participates must have a government issued photo ID to attend the tours.*

**Questions:** Claude Pitts at 727-418-5272 or [claud.pitts@ieee.org](mailto:claud.pitts@ieee.org)

This tour will provide you the opportunity to ‘look’ into the operations of Duke Energy’s Distribution and Transmission Control Centers and the activities it takes to ensure safe reliable power to customers at both the retail, Distribution, and wholesale, Transmission, levels.

**The Distribution Control Center** is responsible for delivering of power from the substation to the customers’ meter. A sample of the activities are: (in 2014 numbers)

- 1,150,000 orders dispatched ranging from cut for non-pay, reconnects and disconnects and general service work addressing customer inquiries requiring a field resource.
- 72,803 outages
- 23,652 non-outage events
- 70,650 switching orders

**The Transmission Control Center** is responsible for monitoring, operating, and maintaining reliability of the Duke Energy Florida (DEF) Bulk Electric System (BES) Power Grid. They are one of the eight Balancing Authorities in the Florida Reliability Coordinating Council (FRCC), which cover most of the state of Florida. They work to maintain power to the DEF substations and some wholesale customers, balancing available generation to current system load, ensuring an optimal configuration for system stability.

*Hold the Date – February 26, 2016 - Tampa Bay Engineers Week Banquet*

*Watch for more details in next month’s Signal newsletter!*



***Protection and Coordination of Industrial and Commercial Power Systems -  
IEEE 242 (IEEE Buff Book)***

**Date:** Friday January 22, 2016

**Time:** Seminar 9:00AM to 2:00PM

**Speaker:** Thomas Blair, P.E., Engineering Fellow, Tampa Electric Company Seminole Electric

**Location:** Seminole Electric, 16313 N Dale Mabry Hwy, Tampa, FL 33618

**Cost:** Students with ID \$100 member, \$200 non-member, \$20 IEEE Student Members

**PDH Credits:** Four (4) professional development hours will be awarded. (For students a certificate for course completion will be provided.) Be sure to enter you name and PE number on the signup website as it appears on your license. Florida exempt provider #00015.

**RSVP:** Online at: <http://time2meet.com/fwcs-meetings/>

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*IEEE PE/IA Chapter Treasurer:*

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Space limited to the first 50 registrants!!!

**Questions:** Tom Blair at 813-228-1111, ext 48179 or [tom\\_blair@ieee.org](mailto:tom_blair@ieee.org)

**Your local IEEE PES/IAS Chapter is offering the next in a series of IEEE color book seminars. This seminar will cover IEEE 242-2001 (IEEE Buff Book) - IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems. This is one of a series of seminars based on the IEEE Color Books.**

IEEE 242 covers the principles of system protection and the proper selection, application, and coordination of components that may be required to protect industrial and commercial power systems against abnormalities that could reasonably be expected to occur in the course of system operation. The topics are presented in a simple, yet comprehensive, format in the standard. The principles presented apply to both new electrical system design and to the changing, upgrading, or expansion of an existing electrical distribution system.

This seminar will cover the main topics from IEEE 242 of System Planning, Short Circuit Calculations, Instrument Transformer Selection, Protective Relay Selection and Application, Interrupting device Selection and Application, and Ground Fault Protection. The seminar will also address some of the equipment specific applications such as conductor protection, motor & generator protection, switchgear protection, and transformer protection.

**Thomas Blair** is an Engineering Fellow with Tampa Electric and works in the Generation Engineering department. He performs electrical system analysis and uses the results to specify electrical equipment ratings, protective relay settings, and electrical system arrangement. Mr. Blair is a Senior Member of IEEE.

## *Life Members - Are you willing to make the Step to Senior Membership?*

**Date:** Tuesday, November 03, 2015    **Time:** 5:30p-7:30p  
**Cost:** FREE  
**Location:** TECO Hall North, 702 N. Franklin Street Tampa, FL 33602

**Reservations:** <http://time2meet.com/fwcs-section/index.html>

**Questions:** Tom Blair at 813-228-1111, ext. 34407 or [thblair@tecoenergy.com](mailto:thblair@tecoenergy.com)

The Florida West Coast Section is looking to assist Life Members in applying for Senior Membership. We will be holding a Life Member - Senior Membership Roundup to assist individuals in completing the nomination forms and connecting them with Senior Members who can assist in the reference requirements.

If you know of someone who you feel is qualified then please encourage them to sign up for this event. If you have desired to become a Senior Member but not sure what to do or need references then please register for this event and your Section can help in making the next steps towards Senior Membership. Those that register will be contacted to ensure they know what is needed for the nomination process.

To be eligible for application or nomination, candidates must:

- be engineers, scientists, educators, or technical executives;
- have experience reflecting professional maturity;
- have been in professional practice for at least ten years;
- show significant performance for at least five years.

Senior member is the highest grade for which IEEE members can apply. IEEE members can self-nominate, or be nominated, for Senior member grade.

Have you been in engineering for over 10 years? If so, you may qualify for Senior Level membership in IEEE. There is no additional fee to apply for senior member grade.

### *PEIA Arch Flash Seminar Feedback*

Each time we do a PEIA Seminar, we ask for your feedback and the recent Art Flash Seminar was no exception. The results below are an indication of how well received the seminar was:

Friday, September 25, 2015, 31 of the 38 attendees filled out a form.

- |   |                          |
|---|--------------------------|
| • Was the content what you needed?            | 28-Yes, 0-No, 1-Not Sure |
| • Was the material presented well organized?  | 29-Yes, 0-No, 0-Not Sure |
| • Was the seminar worth your time?            | 29-Yes, 0-No, 0-Not Sure |
| • Would you recommend this seminar to others? | 28-Yes, 1-No, 0-Not Sure |

Other Select Responses:

- Very Good! I do not really need this for my job, but was very informative and I did learn so it was valuable.
- Best NFPA 70E presentation I've ever attended
- I developed a much greater appreciation on Arc Flash Danger.
- Working through a couple of very basic examples with class participation would be helpful.

A Special Thanks to John Leedy, P.E. (Leedy Electric) for leading this great seminar!

## *FWCS Officer Nominations for 2016*

The FWCS Nominations Committee bring forth the following slate of Officers for the 2016 calendar year:

**Chair – Claude Pitts**  
**Vice-Chair – Jim Cavanaugh**  
**Secretary – Sean Denny**  
**Treasurer – Jim Howard**

The final elections are planned to be held at our FWCS Executive Committee Meeting on **November 3, 2015**.

## *FWCS PEIA Officer Nominations for 2016*

The FWCS PE/IA Nominations Committee bring forth the following slate of Officers for the 2016 calendar year:

**Chair – Serge Beauzile**  
**Vice-Chair – Jim Howard**  
**Secretary/Treasurer – John Stankowich**

The final elections are planned to be held at our PEIA Executive Committee Meeting on **November 25th, 2015**.

## *Advertising Section*



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| <b>½ Page</b>         | \$75      | \$98       | \$360    | \$450      | \$630     | \$756      |
| <b>¾ Page</b>         | \$110     | \$143      | \$530    | \$663      | \$925     | \$1,110    |
| <b>Full Page</b>      | \$140     | \$182      | \$670    | \$838      | \$1,175   | \$1,410    |
| <b>Insert / Sheet</b> | \$200     | \$260      | \$800    | \$1,000    | \$2,000   | \$2,400    |

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Or fax your address changes to (732) 562-5445

**November 2015 Calendar of Events (For more information see P. 1) in this Signal...**

| Sunday | Monday | Tuesday  | Wednesday | Thursday | Friday   | Saturday |
|--------|--------|--|-----------|----------|--|----------|
| 1      | 2      | 3<br><i>EXCOM Meeting &amp;<br/>Senior Membership<br/>for life Members</i><br><i>5:30PM TECO Plaza</i> | 4         | 5        | 6  | 7        |
| 8      | 9      | 10   | 11        | 12       | 13   | 14       |
| 15     | 16     | 17   | 18        | 19       | 20<br>Updates on the<br>Status of Smart<br>Grids<br><br>See Page 4 | 21       |
| 22     | 23     | 24   | 25        | 26       | 27   | 28       |
| 29     | 30     |  |           |          |  |          |