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SIGNAL

### THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

**IEEE** 

THE

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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  $1^s$  Sunday after the  $1^s$  Tuesday of the month preceding the issue month.

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## IEEE-USA Government Fellowships Allow U.S. IEEE Members to Help Shape our Nation's Laws & Public Policy

WASHINGTON -- Sen. Jay Rockefeller (D-W.Va.) has had a government fellow in his office for 19 straight years to advise him on technology issues that come before Congress. It's a program the retiring senator appreciates.

"We work on science and innovation and all kinds of things, but you have to have somebody who knows what they're talking about," Rockefeller said Thursday after receiving an IEEE-USA Award for Distinguished Public Service. "In this office, in health care, science, technology and innovation, we've had those people, and they make all the difference in the world."

If you're interested in helping to shape our nation's laws and public policy, you should consider an IEEE-USA Government Fellowship. One-year positions are available in Congress, the State Department and the U.S. Agency for International Development.

IEEE-USA fellows enhance the effective use of scientific and technical knowledge in government and help educate the scientific and engineering community on the public policy process.

"It was one of the best years of my life," said Dr. Sherry Gillespie, who worked in former Connecticut Senator Joe Lieberman's office in 2008. "Every scientist and engineer should consider doing a year of service in public policy."

To apply for an IEEE-USA Government Fellowship, U.S. IEEE members must possess a master's degree and five years of relevant professional experience or a Ph.D. The degree requirement can be waived if the applicant has compensating experience. A candidate must be a U.S. citizen prior to selection. A stipend and travel allowance is provided. Applicants are evaluated on:

- \* Technical competence
- \* Ability to serve in a public environment
- \* Basic comprehension & understanding of the public policy process
- \* Evidence of service to IEEE & the engineering profession

The deadline to apply for a 2015-16 fellowship is 16 January 2015. Appointments run from 1 September to 31 August. IEEE-USA participates under the auspices of the AAAS Science & Technology Policy Fellowships program.

For more information on a fellowship, including a video feature, see <a href="http://www.ieeeusa.org/policy/govfel/default.asp">http://www.ieeeusa.org/policy/govfel/default.asp</a>.



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## Renew by Nov. 15 Be Entered to Win

Thank you for your membership in IEEE. You are a valuable part of the IEEE community. We hope you are using all of the benefits that make IEEE so valuable to those advancing technology for humanity.

The 2015 membership year has begun, and you can renew your IEEE Membership online at any time.

### **Be Entered to Win**

If you renew by 15 November 2014 you will be entered to win one of five Apple® iPad® Air tablet computers\*.

**Be Recognized - Get Your 2015 Membership Certificate** All members who renew can access and download an electronic membership certificate through my IEEE. The certificate is personalized with your name and membership grade, and displays the year in which you renewed - perfect for framing. Each year that you renew you will receive a new commemorative edition of the IEEE membership certificate.

### Access Career and Job Resources You Need, When You Need Them

IEEE members receive discounts on professional certifications and degree programs, and free access to the IEEE Job Site and professional development webinars. Whether you are looking to change careers, or advance in your current career, IEEE members are consistently recognized as better-qualified candidates.

As a member of IEEE, you also have access to worldwide resources and contacts. IEEE offers you a network of more than 400,000 students and professionals - an association unparalleled in its scope and depth of technical expertise. As your professional association, IEEE is committed to providing the information, tools and opportunities to help you achieve your technical, professional, and humanitarian goals.

If you have already renewed for 2015, thank you for your continued dedication to IEEE. If you have any questions or comments about your membership you may send your inquiry to the IEEE Contact Center.

Thank you for being a loyal IEEE member, and for your commitment to the profession.

We look forward to serving you again in 2015. Thank you for being a loyal member, and for your commitment to the profession.







### **OSHA 29 CFR 1910.269 Electrical Safety Revisions**

Date: Friday November 14, 2014

Time: Registration: 8:30 A.M. Seminar: 9:00 A.M. - 2:30 P.M

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

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

Cost: Students with ID \$20, IEEE members \$100 Members, \$200 Non-Members

PDH Credits: 4 professional development hours will be awarded. Be sure to provide your name as it appears on your Florida

license and your license number to insure proper credit. Florida Provider #0003849

RSVP: Online at: <a href="http://time2meet.com/fwcs-pes3/index.html">http://time2meet.com/fwcs-pes3/index.html</a> (Select Reservations)

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

**IEEE PE/IA Chapter Treasurer:** 

PES/IAS Chapter 2593 Forest Run Court Clearwater, FL 33761-3716

Space limited to the first 40 registrants!!!

Questions: Tom Blair at 813-228-1111, ext. 48179 or tom blair@ieee.org

Your local IEEE PES/IAS Chapter is offering this seminar that will cover recent changes to the Code of Federal Regulations (CFR 29) 1910.269 – Electric Power Generation, Transmission, and Distribution.

The Occupational Safety and Health Administration (OSHA) published the final rule revising the Code of Federal Regulations (CFR) for power generation, transmission and distribution on April 11, 2014. The last revision was in 1994. The document is now available in the Federal Register at <a href="http://federalregister.gov/a/2013-29579">http://federalregister.gov/a/2013-29579</a>. The document is free for download.

The document becomes law July 10, 2014, although OSHA has adopted delayed compliance deadlines for certain requirements including Fall Protection, PPE, new determination of MAD distances and arc flash hazard assessment. Substantial changes were made to the following sections of 1910.269;

Section (a)(2) Training

Section (a)(4) Contractors (i) Host... (ii) Contract...

Section (c) Job Briefing

Section (e) Enclosed Spaces

Section (g)(2) Fall Protection

Section (1) Working on or near exposed energized parts

Section (m) De-energizing lines and equipment for employee protection

Section (n) Grounding for the protection of employees

Section (p) Mechanical Equipment

Section (t) Underground electrical installations

Section (x) Definitions

This seminar will review the law and will focus on sections that have been modified during this latest update to the Code of Federal Regulations.

Thomas H. Blair graduated from the University of South Florida, Tampa, Fl. in 1991 with a BSEE degree and in 2001 with a MSEE degree. He is a senior member of the IEEE. He has over 25 years of industrial and utility experience. He is currently a Fellow Engineer at Tampa Electric Company and he is a licensed Professional Engineer in the State of Florida.

Thomas has worked as an adjunct professor at the University of South Florida and instructed courses in Electric Machine and Design & Energy Production Systems. 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.







November 2014

## Smart Grid Symposium Back By Popular Demand

Date: Friday, December 12, 2014

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, Duke Energy –Lee Collins, TECO – John McAuliffe, Lakeland Electric

Pdhs: 4 Pdhs 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: <a href="http://time2meet.com/fwcs-pes4/index.html">http://time2meet.com/fwcs-pes4/index.html</a>

Space limited to the first 45 registrants!!!

Cancellation must be submitted online 24 Hrs prior to the seminar at:

http://time2meet.com/fwcs-pes1/index.html

No shows will be invoiced for the total cost of the seminar.

Questions: James Howard at 863-834-6585 or james.howard@lakelandelectric.com

Following up on our past two successful Smart Grid presentation, the IEEE FWCS PE/IA Chapter is pleased to present an update on the work done by local entities on Smart Grid. Where they are today, challenges they have experienced, and the future of their Smart Grid Systems. Our speakers, John McAuliffe, Jason Flynt, and Lee Collins, representing Lakeland Electric, Duke Energy Florida and Tampa Electric Company, respectively. The Symposium expert speakers will present the latest information on state-of-the-art innovations in smart grid technologies and their applications in their respective company. They will provide an update on their progress implementing that vision and share intimate details of their plans. It will be an interactive presentation affording you the opportunity to participate and ask questions.







## Symmetrical Components and Fault Calculations

Date: Friday, January 23, 2015

Time: Registration: 8:00 A.M. Seminar: 8:30 A.M. - 2:30 P.M.

Speaker: Dr. Ralph E. Fehr III, P.E., Instructor, University of South Florida

Location: Seminole Electric Cooperative

16313 North Dale Mabry Hwy. - Tampa, Florida

Cost: \$100 Members, \$200 Non-Members, \$20 IEEE Student Members

PDH Credits: 4 professional development hours will be awarded. Be sure to provide your name as it appears on

your Florida license and your license number to insure proper credit. Florida Provider #0003849 I

Reservations: Online at: http://time2meet.com/fwcs-pes2/ (Select Reservations)

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Space limited to the first 40 registrants!!!

Contact: Serge Beauzile at 863-834-6511 or serge.beauzile@ieee.org

#### The seminar will include:

- Review of Basics
  - o Phasors, Per-Unit
- Symmetrical Components
  - o Physical Example of Vector Components
  - o Application of Symmetrical Components to Three-Phase Power Systems
  - o Electrical Characteristics of the Sequence Currents
  - o The Delta-Wye Transformer
- Sequence Networks
  - o Thevenin Reduction of the Sequence Networks
- Fault Calculations
  - o Momentary versus Interrupting
  - o Short-Circuit Faults
  - o Open-Circuit Faults

Ralph Fehr earned a B.S. degree in Electrical Engineering from Penn State, an M.E. degree in Electrical Engineering, concentrated in Power, from the University of Colorado at Boulder, and a Doctor of Philosophy degree in Electrical Engineering from the University of South Florida at Tampa. He has over 20 years of experience in the electric power industry and over 25 years experience in post-secondary teaching. In addition to serving on the USF Electrical Engineering faculty, he conducts power engineering training throughout the United States and worldwide.

Dr. Fehr was selected by the Institute of Electrical and Electronics Engineers (IEEE) from the 12 sections in the Florida Council, representing over 9,500 members, and named *Outstanding Engineering Educator* for 2009. Then in 2010, he was awarded the Joseph M. Biedenbach award for excellence in engineering education by IEEE Region 3. He also received the 2014 IEEE Power and Energy Society Florida West Coast Chapter Outstanding Engineer award. Dr. Fehr authored *Industrial Power Distribution* in 2002 (Prentice Hall). The second edition will be published later this year by Wiley/IEEE Press. He is a registered professional engineer in Florida and New Mexico.

## SAVE THE DATE

# Tampa Bay Engineers Week Banquet February 27, 2015

# **Keynote Speaker: Story Musgrave**

Story was an NASA astronaut for over 30 years and flew on six spaceflights. He performed the first shuttle spacewalk on Challenger's first flight, was a pilot on an astronomy mission, conducted two classified DOD missions, was the lead spacewalker on the Hubble Telescope repair mission and on his last flight, he operated an electronic chip manufacturing satellite on Columbia.



Join us to what will surely be an entertaining and inspirational presentation from one of NASA's greatest astronauts.

This Engineers Week, the engineering societies of the Tampa Bay area have put together the fifth annual Tampa Bay Engineers Week Banquet on Friday, February 27, 2015, at the:

A La Carte Event Pavillion (4050 Dana Shores drive, Tampa, Florida, 33634)

Register on-line at <a href="http://www.tbewb.org/">http://www.tbewb.org/</a> to attend this exciting evening.

This premier event brings together local leaders and engineering professionals to recognize the outstanding achievements of Engineers, Science Teachers, Math Teachers, and Students in our community.

Additionally, awards will be presented to outstanding engineers in each discipline, as well as local engineering students excelling in their engineering related studies and Young Professionals. The banquet also features the Lignell Awards. These awards, named after a former Chairman for the Institute of Electrical and Electronics Engineers (IEEE), are given to local High School educators who are performing outstanding work in the instruction of the STEM topics (science, technology, engineering and math). The organizers of the event recognize the important role these individuals play in encouraging students to pursue technological degrees in college.

The banquet is a combination of efforts by all the Engineering Societies of West Central Florida This event brings together professionals in all fields from all around Tampa and Florida's west coast.

## VENDOR/SPONSOR INFORMATION FOR TAMPA BAY ENGINEERS WEEK BANQUET

#### Platinum Level Sponsorship - \$1250 Donation

- Company logo displayed on signage at the event.
- Receives up to 10 tickets to the awards banquet
- Presents the Lignell Award.
- Receives recognition at Platinum Sponsor level on event slideshow & program.
- Receives recognition and link to website on the TBEWB website. Information about company and special acknowledgement will be made on the website.
- Display Table in Reception Area

### Gold Level Sponsorship - \$900

- Company logo displayed on signage at the event.
- Receives up to 5 tickets to the awards banquet.
- Has company logo displayed at Gold Sponsor level on event slideshow & program.
- Receives recognition and link to website on the TBEWB website.
- Display Table in Reception Area, (if space available)

### Silver Level Sponsorship - \$600

- Company logo displayed on signage at the event.
- Receives up to 2 tickets to the awards banquet.
- Has company logo displayed at Silver Sponsor level on event slideshow & program
- Receives recognition and link to website on the TBEWB website

#### Vendor Level Sponsorship - \$400

- Receives display table to present company products during the Pre-Dinner Social.
- Receives recognition at Vendor level in program and on the TBEWB website
- Receives up to 2 tickets to the awards banquet

### Donor Level Sponsorship - \$200 or More

- Donor Level Individual names will receive recognition at Donor Level on event slideshow, TBEWB website and signage at the event
- · All Donations are greatly appreciated
- All individual donors will be listed in the program unless requested

### Friends Level Sponsorship - \$50 or More

 Friends Level - Individual names will receive recognition at Friends Level on event slideshow and will be listed in the program unless otherwise requested.

### Speaker Sponsor - \$1,500

- Speaker will join you at your Company Table for the event!
- Company logo displayed on signage at the event.
- Receives up to 10 tickets to the banquet.
- Company representative may participate in Lignell Award presentations.
- Recognized as Speaker Sponsor level in program and event slideshow (5 slides).
- Company Logo and link to website on the TBEWB website.
   Display Table in reception area.





### WISE

### Washington Internship for Student in Engineering

## Connecting Engineers & Scientists with Public Policy Since 1980

Founded in 1980 through the collaborative efforts of several professional engineering societies, the Washington Internships for Students of Engineering (WISE) has become one of the premier Washington internship programs. The WISE goal is to prepare future leaders of the engineering profession in the United States who are aware of, and who can contribute to, the increasingly important issues at the intersection of science, technology, and public policy.

Each year, the WISE societies select outstanding 3rd or 4th year engineering / computer science students, or students in engineering / computer science graduate programs, from a nation-wide pool of applicants. The students spend nine (9) weeks in the summer in Washington, D.C. during which they learn how government officials make decisions on complex technological issues, and how engineers can contribute to legislative and regulatory public policy decisions.

Questions regarding the WISE program and how to apply should be directed to your appropriate WISE sponsor. (<a href="http://www.wise-intern.org/application/index.html">http://www.wise-intern.org/application/index.html</a>). However, please first review these webpages since most questions can be answered here.

## **Application** Deadline for the 2015 program - 31 December 2014

## **Advertising Section**







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¾ Page	\$110	\$143	\$530	\$663	\$925	\$1,110
Full Page	\$140	\$182	\$670	\$838	\$1,175	\$1,410
Insert / Sheet	\$200	\$260	\$800	\$1,000	\$2,000	\$2,400



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

### November 2014 Calendar of Events (For more information see P. 1) inside this Signal...

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
26	27	28	29	30	31	1
2	3	4 EXCOM Meeting, 5:30 TECO Plaza	5	6	7	8
9	10	11	12	13	14 OSHA Seminar Seminole Electric	15
16	17	18	19	20	21	22
23	24	25	26	27 PES/IAS EXCOM Village Inn - 6am	28	29
30	1	2	3	4	5	6