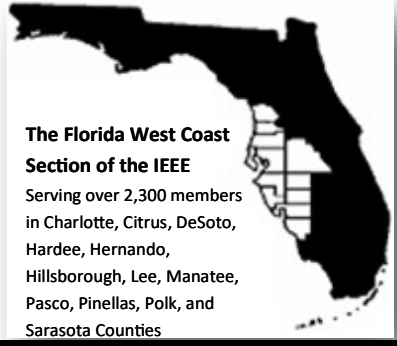
http://www.ieee.org/fwcs



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IEEE

# THE SUNCOAST SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

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***PE Renewals Due February 2019***
***18 CEHs required for renewal***
***Check the FWCS Signal***
***for opportunities to earn CEHs***

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## *Upcoming Meetings*

### *EXCOM Meeting*

Tuesday, January 8, 2019 5:30PM at TECO Plaza
Register online at http://time2meet.com/fwcs-excom/index.html
Open to all FWCS Members

### *Managing an Aging Infrastructure*

Friday, January 18, 2019 9:00AM—2:00PM
Register online at http://time2meet.com/fwcs-pes3/index.html

### *Beckwith Electric Tour*

Friday, January 25, 2019 11:00AM-4:00PM
Register online at http://time2meet.com/fwcs-pes1/index.html

# *FWCS Anniversary Celebration*

On Sunday, December 2, 2018 we saw approximately 40 individuals at the South Florida Museum in Bradenton Florida as we celebrated the Florida West Coast Section (FWCS) 62nd Anniversary. Thanks to a dedicated group of volunteers through the years, we have continued to be a successful section, with multiple Chapters. Members received the IEEE Service Anniversary certificates at this celebration.

Hermann Amaya and James Anderson received Florida Council Awards at this celebration.

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|---|---|
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| **http://www.ieee.org/discounts** | Discounts Page |

## *PE Corner*

Art Nordlinger, PE, Senior Member

### Inactive and Retired License Status Explained

It is my hope that all Professional Engineers licensed in Florida will renew their licenses by Feb. 28, 2019. However some licensees, particularly those who are retired or are no longer using their licenses, may be considering putting their licenses in "inactive" or "retired" status. Before taking that step it is important that the licensee understand the similarities and differences between these license statuses, and the process for status change.

The rules for inactive status are primarily found in Rule 61G15-22.002, Florida Administrative Code, *Licensure Change of Status*. Information and forms may be found on the Board's website at fbpe.org/licensure/other-forms/.

A licensee may place their license in inactive status by completing the *Application To change Status from Active to Inactive*, and remitting the fee specified by Rule 61G12-24.001, F.A.C. The Change of Status Fee (Active/Inactive) is currently $93.75 plus a $5 mandatory unlicensed activity fee. To maintain a license in inactive status, the licensee must continue to pay the renewal fee each biennium, but does not need to take the continuing education hours. Naturally, an engineer may not practice engineering while their license is inactive.

An inactive license may be reactivated by completing the *Application for Change of Status From Inactive to Active*, and submitting the appropriate fee, which is the same as the renewal fee: $93.75 plus a $5 unlicensed activity fee. The licensee must demonstrate that they have completed the required 18 hours of continuing education.

Rules for retired status are found in Section 61G15-22.0017, F.A.C., *Application for Retired Status*. Information and the form may be found on the Board's website at the same location noted above. There is no fee associated with this status change. As with inactive status, once in retired status the licensee may no longer practice engineering. They are allowed to use the designation "Professional Engineer, Retired" or "P.E., Retired." It is important to understand that once a license is placed in retired status it may never be reactivated. If that licensee wanted to again practice engineering they would have to reapply for licensure.

An application for retired status must be approved by the Board and must be submitted at least 30 days prior to the Board meeting at which it is to be considered. FBPE will approve the retired status provided that the licensee has no pending complaints against their Florida license or any PE license held in another state.

There seems to be a misconception that simply not renewing a license will allow it to be placed in inactive or retired status. This is incorrect and may result in some unexpected consequences. If a license is not renewed it automatically becomes "delinquent." A delinquent license becomes "null and void" at the next renewal if the situation is not rectified.

In summary, those considering not renewing their license should carefully review the rules regarding inactive and retired status so that they can make an informed decision about which route to take. They should also understand the consequences of not taking action at renewal time. If you have questions, please contact the Board office.

Whether you are a PE looking to attain required CEHs, or an engineer looking to learn something new or keep current with the latest trend in the profession, IEEE has seminars that will meet your needs. And for the PEs, don't forget that the next renewal is only 1 month away. Better start earning those CEHs now!

# *Leader's Center*

## Concurrent Engineering—But First Sequential

**Paul Schnitzler, Ph.D—Life Senior Member**

Last time I promised to introduce Concurrent Engineering—a powerful way to significantly shorten projects. If you haven't tried it, you might find it a pleasant surprise. Concurrent Engineering is sometimes called Concurrent Product Development. "Simultaneous" is sometime substituted for "Concurrent" and that better suggests what this means. Perhaps you may wonder, how can you possibly run the elements of design simultaneously?

This month I describe conventional, sequential engineering, the typical approach to development. Next month article describes concurrent engineering. After that, some examples of how it works.

Conventional engineering development often begins with a suggestion for a new product. Marketing has studied the company's customers and created a detailed customers' specification. It presents a physical description of the product, its capabilities and how it is to be used. Again, this is from the customer's viewpoint.

Top management agrees to launch the new product.

The Engineering group then creates the technical specification from the customer spec. The technical spec describes in detail the construction of the product and expands the description of how it works. For example, this spec defines physical properties such as the case materials and its operating temperature.

The engineers now design the actual product. In this example, they design the circuit, case, power supply, and everything else needed for the customer's satisfaction. The engineers develop a working prototype and a production model. They also create detailed charts, drawings, bills of materials and more which are needed by manufacturing to actually produce the product. Manufacturing, Purchasing, Shipping, Sales and other functions sequentially take over the development process.

Notice: everything occurs in an orderly manner with "handoffs" from one function to the next. And there lies the difficulty.

Take one handoff as an example: Engineering to Manufacturing. Manufacturing receives and examines the product package consisting of the production model, a bill of materials, a set of drawings, and more. But there are problems: the product is too long for the production facility to handle. It simply cannot be manufactured! There is no help for it: the product must be returned to Engineering for redesign—or possibly to Marketing to revisit the customer spec.

Another issue can occur when Purchasing discovers that a required semiconductor memory chip is no longer in production. Again, a return to Engineering for redesign.

The redesigns can take as long as the time for the first design. This can occur in various ways with the many handoffs between functions. Such returns can add substantially to the time-to-market.

You can identify problems with product size, parts availability, manufacturing incompatibilities, and more, much earlier, before subsequent work is even begun, so that the overall development time can be reduced. This is what Concurrent Engineering does!

Next month, how that works.

For more on leadership go to http://leadchangewithoutfear.com/ and check the tab "Successful Real Change" for more ideas.

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## Consultants Network Affinity Group (CNAG) Meeting

**How consultants will save on their taxes and keep more of their profits from the new Tax Cuts and Jobs Act (TCJA) of 2017**

**Date:** Tuesday, January 29, 2019

**Time:** 6:00 PM to 8:00 PM

**Speaker:** John E. Walters, MBA, EA

**Location:** Brio Tuscan Grille, International Plaza, 2223 N. West Shore Blvd., Tampa

**Cost:** Free. This is a dinner style meeting. Attendees order and pay themselves for items from the Brio menu.

**RSVP:** Herman Amaya email: hamaya@amhercorp.com. Attendance is limited to 10.

**Questions:** Herman Amaya email: hamaya@amhercorp.com

Taxes are important to all Consulting Engineers when wearing your small-business-owner hat. This meeting is a discussion of all the major new tax laws that affect Consultants created by the Tax Cuts and Jobs Act of 2017 (TCJA) and the ones that were eliminated. These new tax laws not only simplified some filing requirements for most working wage earners but it added layers of complexity for businesses. The discussion includes information on how Consultants can take full advantage of the new Qualified Business Income QBI provisions to eliminate taxes on up to 20% of their qualified business income. Special provisions were created just for Engineers & Architects.

**Speaker:** John E. Walters, MBA, EA - John is a specialist in Pro-Active Tax and Financial Strategies that custom fit your needs. He is the Managing Member at LeWalt Consulting Groupe, LLC serving the Tampa Bay area. John is also an Electrical Engineer. Being an EE provides John with an understanding of the engineering mindset and of matters uniquely affecting consulting engineers.

# Managing an Aging Infrastructure

**Date**: Friday, January 18, 2019

**Time**: Registration & Light Breakfast: 8:30AM - 9:00AM
Seminar: 9:00AM - 2:00PM

**Speaker**: Ralph Fehr, Ph.D.

**Location**: FRCC 3000 Bayport Drive., #600, Tampa, FL 33607
Parking: Use parking lot for Hyatt (North side only).

**Cost**: $100 Members, $200 Non-Members, $20 Students. Includes Light Breakfast, Lunch.

**CEH Credits**: 4 Professional Development Hours will be awarded. Be sure to enter your name and PE number on the signup website as it appears on your license.

**RSVP**: Online at http://time2meet.com/fwcs-pes3/index.html (Select Reservations)
Make checks payable to: IEEE FWCS
Send checks to: Jim Howard, IEEE FWCS Treasurer
3133 W. Paris Street
Tampa, FL 33614-5964

**Questions**: Jim Howard at 863-834-6585, or j.howard@ieee.org

The United States was the first country to widely distribute electricity to its citizens. Early distribution systems date back well over 125 years. Since then, much has been done to improve the means by which we distribute electricity, but nonetheless, we as a nation are faced with an aging infrastructure which poses reliability and economic challenges. And other countries are not far behind.

This seminar addresses topics essential for managing an aging infrastructure, such as customer expectations and reliability of service; cost and economic evaluation; equipment inspection, testing, and diagnostics; impact of aging equipment; limitation of traditional planning methods; O&M prioritization; planning methods for an aging infrastructure; and recommendations.

Any engineer dealing with an aging energy delivery infrastructure (all of us!) should find the seminar interesting and useful.

## Speaker Bio

Dr. Fehr earned his B.S.E.E. degree from the Pennsylvania State University, his M.E.E.E. concentrated in power from the University of Colorado at Boulder, and his Ph.D. from the University of South Florida (USF). He has been employed in the electric power industry for over 20 years, and has taught engineering courses at both the undergraduate and graduate levels since 1997. He currently serves on the Electrical Engineering faculty at USF. He also provides consulting and training services to the power industry, teaching short courses and seminars throughout the United States and worldwide. He is a senior member of IEEE, and a registered professional engineer in Florida and New Mexico.

# Tour of Beckwith Electric Company

**Date**: Friday, January 25, 2019

**Tentative Schedule**

**Time**: Registration & Light Lunch: 11:00AM

Lunch: 12PM—12:45PM

Technical Presentation on BECO solutions for P&C (ex., VVO, CVR, Hosting, DER & DA Impact, MBT, Recloser Control)

Factory Tour: 2:00PM to 4:00PM (limit of 35)

**Location**: Beckwith Electric—see below for directions

**RSVP**: Online at http://time2meet.com/fwcs-pes1/index.html (Select Reservations)

**Questions**: Claude Pitts at 727-418-5272 , or claude.pitts@ieee.org

Beckwith Electric is a worldwide provider of power system protective relays and transmission/distribution Volt-VAR controllers (LTC transformer, voltage regulator and line capacitor controls). In this tour, we will take a "peek behind the curtain" to see how these mission critical P&C devices are engineered, prototyped, built and tested.

From drawing board to "burn in" room, we'll see the engineering and manufacturing equipment, processes and systems used on a daily basis. Encompassing subassembly level to integrated systems with enclosures, batteries, communications equipment, and special cabling, see the manufacturing flow from the incoming shipping/QA to final QA and outbound shipping. We'll also tour the Smart Grid lab where several pieces of distribution equipment (voltage regulators and reclosers) are controlled by Beckwith P&C systems.

Beckwith Electric subject matter experts will be there to discuss applications and how the engineering and manufacturing teams design and build-in reliability for these key power system P&C assets.

Here is a link with directions and a map to Beckwith Electric (the map is viewable by clicking on the Google Map & Directions link on that page.

http://www.beckwithelectric.com/contact/directions.html

# Electric Power Substations Engineering

## Last Chance to Earn Your CEHs for this Renewing Period

**Date**: Friday, February 15, 2019

**Time**: Registration & Light Breakfast: 8:30AM - 9:00AM

Seminar: 9:00AM - 2:00PM

**Speaker**: John McDonald, - Smart Grid Business Development Leader,

**Location**: FRCC 3000 Bayport Drive., #600, Tampa, FL 33607

Parking: Use parking lot for Hyatt (North side only).

**Cost**: $150 Members, $250 Non-Members, $80 Students. Includes Light Breakfast, Lunch and a

**Hard Copy of "Electric Power Substation Engineering" worth $129 is also included**

**CEH Credits**: 4 Professional Development Hours will be awarded. Be sure to enter your name and PE number on the signup website as it appears on your license.

**RSVP**: Online at http://time2meet.com/fwcs-pes2/index.html (Select Reservations)

Make checks payable to: IEEE FWCS
Send checks to: Jim Howard, IEEE FWCS Treasurer
3133 W. Paris Street
Tampa, FL 33614-5964

**Questions**: Serge Beauzile at serge.beauzile@ieee.org

How a Substation Happens. Gas-Insulated Substations. Air-Insulated Substations— Bus/Switching Configurations. High-Voltage Switching Equipment. High-Voltage Power Electronic Substations. Interface between Automation and the Substation. Substation Integration and Automation. Oil Containment. Community Considerations. Animal Deterrents/Security. Substation Grounding. Direct Lightning Stroke Shielding of Substations. Seismic Considerations. Substation Fire Protection. Substation Communications. Physical Security of Substations. Cyber Security of Substation Control and Diagnostic Systems. Gas- Insulated Transmission Line. Substation Asset Management. Station Commissioning and Project Closeout. Energy Storage. Role of Substations in Smart Grid.

## Last Chance to Earn Your CEH's for this Renewing Period

# *Speaker Bio*

**John D. McDonald, P.E.**, is Smart Grid Business Development Leader for GE Power's Grid Solutions business. John has 44 years of experience in the electric utility industry. John joined GE on December 3, 2007 as General Manager, Marketing for GE Energy's Transmission and Distribution business. In 2010 John accepted the new role of Director, Technical Strategy and Policy Development for GE Digital Energy. In January 2016 John assumed his present role with the integration of Alstom Grid and GE Digital Energy to form GE Grid Solutions.

He is a sought-after industry leader, technical expert, educator, and speaker. John was elected to the Board of Governors of the IEEE-SA (Standards Association), focusing on long term IEEE Smart Grid standards strategy. John was the Chair of the Smart Grid Interoperability Panel (SGIP) Governing Board for 2010-2015 (end of 1Q) coordinating Smart Grid standards development in the US and global harmonization of the standards. John is a member of the NIST Smart Grid Advisory Committee.

John is Past President of the IEEE Power & Energy Society (PES), Past Chair of the Smart Energy Consumer Collaborative (SECC) Board, the VP for Technical Activities for the US National Committee (USNC) of CIGRE, and the Past Chair of the IEEE PES Substations Committee. He was on the IEEE Board of Directors as the IEEE Division VII Director. John is a member of the Advisory Committee for the annual DistribuTECH Conference, on the Board of Directors of the GridWise Alliance and Chair of its Technical Committee, Vice Chair of the Texas A&M University Smart Grid Center Advisory Board, and member of the Purdue University Strategic Research Advisory Council. John received the 2009 Outstanding Electrical and Computer Engineer Award from Purdue University.

John teaches a Smart Grid course at the Georgia Institute of Technology, a Smart Grid course for GE, and substation automation, distribution SCADA and communications courses for various IEEE PES local chapters as an IEEE PES Distinguished Lecturer. John has published 80 papers and articles in the areas of SCADA, SCADA/EMS, SCADA/DMS and communications, and is a registered Professional Engineer (Electrical) in California, Pennsylvania and Georgia.

John received his B.S.E.E. and M.S.E.E. (Power Engineering) degrees from Purdue University, and an M.B.A. (Finance) degree from the University of California-Berkeley. John is a member of Eta Kappa Nu (Electrical Engineering Honorary) and Tau Beta Pi (Engineering Honorary), a Life Fellow of IEEE (member for 47 years), and was awarded the IEEE Millennium Medal in 2000, the IEEE PES Excellence in Power Distribution Engineering Award in 2002, the IEEE PES Substations Committee Distinguished Service Award in 2003, the IEEE PES Meritorious Service Award in 2015, the 2015 CIGRE Distinguished Member Award and the 2015 CIGRE USNC Attwood Associate Award.

John has co-authored five books: Automating a Distribution Cooperative from A to Z: A Primer on Employing Technology (National Rural Electric Cooperative Association – 1999); Electric Power Substations Engineering (Third Edition) (CRC Press – 2012); Power System SCADA and Smart Grids (CRC Press – 2015); Big Data Application in Power Systems (Elsevier - 2017); and Smart Grids: Advanced Technologies and Solutions (Second Edition) (CRC Press – 2018).

John has one US Patent (9,853,448) on Systems and Methods for Coordinating Electrical Network Optimization (December 26, 2017).

# *FREE IEEE-USA E-BOOK*

## IEEE-USA'S FREE DECEMBER EBOOK ADVISES READERS ON BUILDING CAREERS IN ELECTRICAL, COMPUTER ENGINEERING


In the fourth installment of IEEE-USA's *Shaping an Engineering Career* series, author Dr. Joseph R. Bumblis advises readers to do whatever possible to grow their careers-before time and change radically alter their perspectives of what a career is, or could be. "The progression of time and your career have two very tightly coupled attributes: they are both continuous, and ever changing," writes Bumblis.

Identifying nine suggested IEEE-USA career principles in this book, Bumblis annotates each principal with some anecdotal data, and his own personal experiences, and helps readers steer the development of their own careers. He guides readers to begin where they are right now; consider career growth assignments; identify skills; identify fields of interest; identify important work values; keep current technically; keep current professionally; keep personal history up-to-date; and network.

To get your free download of this eBook, go to http://shop.ieeeusa.org/usashop/product/careers/76041. Log in with your IEEE Web account, add the book to your cart, and use promo code **DECFREE16** at checkout. (Good thru January 15)

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**Election results for the 2019 Officers of the Florida West Coast Section** have taken place and the following will serve for the 2019 term. We thank each and every one of these dedicated individuals for their time and energy.

**2019 OFFICERS FOR FLORIDA WEST COAST SECTION**

| | |
|---|---|
| CHAIR | CLAUDE PITTS |
| VICE-CHAIR | PAUL BELUSSIE |
| SECRETARY | SEAN DENNY |
| TREASURER | JAMES HOWARD |

**Election Results for the 2019 Power and Energy Society** of the Florida West Coast Section have also taken plan. The following will serve for the 2019 term. Thanks are expressed to these individuals for their time and energy given to the PES.

**2019 OFFICERS FOR POWER & ENERGY SOCIETY OF THE FLORIDA WEST COAST SECTION**

| | |
|---|---|
| CHAIR | SERGE BEAUZILE |
| VICE-CHAIR | JAMES HOWARD |
| SECRETARY | DONNA HOWARD |
| TREASURER | DONNA HOWARD |

In addition to the officers of the PES Chapter, we also have a core team of volunteers who support the PES activities. These individuals include Steve Antman, Tom Blair, Kedwin Dominguez, Ralph Fehr, and Art Nordlinger.

## *Advertising Section*



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

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8<br>EXCOM Meeting<br>TECO Plaza<br>5:30pm | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18<br>Managing an Aging Infrastrusture<br>See P. 4 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25<br>Beckwith Electric tour<br>See P. 5 | 26 |
| 27 | 28 | 29<br>Consultants Net-work Affinity Group - See P. 3 | 30 | 31 | | |