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IEEE

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Upcoming Meetings

Tuesday, August 6, 2019 5:30PM EXCOM
Meeting
at TECO Plaza Register online at [http://
time2meet.com/fwcs-excom/index.html](http://time2meet.com/fwcs-excom/index.html)
Open to all FWCS Members



Ralph E. Fehr, III, Ph.D.

August 15, 1961—July 19, 2019

It is with great sadness that we report the passing of our dear friend and volunteer, Dr. Ralph Fehr. He passed on July 19, 2019.

Dr. Fehr has always been an active member of IEEE. Ralph became a Student Member in 1983 and elevated to Senior Member in 1999. He was a member of the Power and Energy Society and Industry Applications Society.

Dr. Fehr won the IEEE Florida Council's *Outstanding Engineering Educator Award* in 2009. In 2011, Dr. Fehr won the IEEE Region 3 Joseph M. Biedembach *Outstanding Engineering Educator Award*. Continuing in his career, Dr. Fehr was awarded the IEEE Florida West Coast Section *PES Chapter Outstanding Engineer* in 2014. In 2015, he was awarded IEEE Florida West Coast Section *Engineer of the Year*.

Ralph was Deputy Associate Director for Energy Matters for the United States Air Force from 1998—1992.

He was an Instructor II, Instructor I and Assistant Professor at the University of South Florida, College of Engineering, Electrical Engineering, in Tampa from 2006-2010 and 2013 to the present. He was looked up to and beloved by many of his students, and as a mentor to the IEEE USF robotics team he was always a positive motivational force.

Ralph was an instrumental part of the IEEE Florida West Coast Section. He authored books and presented details of the books in various seminars and conferences that were brought to the area. He was also a major contributor to USF's involvement in the 2018 IEEE SoutheastCon conference held here in the Tampa Bay Area.

Ralph will be dearly missed by all the FWCS volunteers. Our thoughts and prayers go out to his family.

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<http://www.ieee.org/benefits> Global Benefits Finder

<http://www.ieee.org/discounts> Discounts Page

PE Corner

Art Nordlinger, PE, Senior Member

2019 Florida Statute Changes That Affect Engineering Practice

I'm interrupting my series on obtaining a PE license with the article on the statute changes that the governor recently signed into law that affect engineering practice. Many of the changes affect obtaining a license, so the content of those upcoming columns are significantly affected by these changes.

Currently, only graduates with engineering science degrees from Board-approved programs are eligible for licensure in Florida. The new law allows graduates with bachelor's degrees in engineering technology from Board-approved programs to apply for a PE license.

With the addition of engineering technology degrees comes an update to the experience required for licensure. Applicants with bachelor's degrees in engineering science will still need four years of engineering experience to apply, where those with bachelor's in engineering technology will be required to have six years of engineering experience.

Next, Florida will join a growing number of states that have decoupled experience requirements from eligibility to take the PE exam. Those who have passed the Fundamentals of Engineering exam will be able to take the Principles & Practice of Engineering exam before completing the years of experience needed to apply for licensure.

In Section 471.023, F.S., the new law replaces the existing Certificate of Authorization for engineering firms with a free registry. Engineering firms will no longer be required to apply for a CA. Instead, firms must register their business with the Board and be qualified by a Professional Engineer (the "Qualifying Engineer") licensed in Florida. There are several requirements relating to both the Qualifying Engineer and the engineering firm, including informing the Board when the Qualifying Engineer changes and who is replacing that person, within certain timeframes. Plans call for current and active Certificates of Authorization to be rolled over into the new registry, with CA numbers becoming registration numbers. Companies seeking to offer engineering services in Florida who don't currently have a CA will be issued numbers once they have successfully registered with the Board.

A change to Section 471.025, F.S., redefines the responsibilities of original engineers of record and successor engineers. The new law requires successor engineers to assume full professional and legal responsibility of engineering documents when assuming an existing project from another engineer. The successor engineer must treat the original engineer's documents as if they were the successor engineer's original product, which includes signing and sealing those documents. The revision also releases the original engineer from professional responsibility and civil liability for prior work assumed by a successor engineer.

Last, a PE with a license that has gone null and void will be able to go through a process to have their license and number reinstated. This allows for retention of the history of the license and for the licensee to retain the same license number. A revision to Section 471.019, F.S., requires the Board to establish rules for a licensure reinstatement process.

These laws go into effect October 1, 2019 so the FBPE is diligently working to update the rules associated with these changes. There are a few additional changes not discussed here as well.

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.

Leader's Center **Customers and Leaders—Part 2**

Paul Schnitzler, Ph.D—Life Senior Member

How is leadership involved in the process of selling? I introduced some ideas last month. This note will provide some thoughts and examples of actually improving your sales skills. Remember, when we want something from someone, we are selling.

Think about the following three situations and their alternative approaches. In the first paragraph of each pair you will see how things are often done; the indented paragraph shows an alternative using leadership skills.

Using cold calls? They are a poor use of your time. Unless you have absolutely no other possible activities, don't bother. Perhaps you can look for network connections that might give you an entrée.

Suppose that you are at a conference and you are talking with possible customers. Describe the key values of your products but don't *sell* them. Rather, ask what problems/difficulties they are having. Do you then show them how your product will help? NO! Instead ask "What help would you like?" "Is there anything I could do?" See if they want your ideas. If they say no thanks, then thank them and swap business cards. You might say, "By the way, can you suggest anyone I might like to speak with?" And also suggest someone for them to contact.

Pitching your idea for a new product? You go to the product manager and launch your pitch. Wait a minute, that's like a cold call! It may not be the most productive approach. Perhaps using the leader's methods might be better.

When you go to the product manager start this way: "I've been thinking about the customer issues our marketing group has reported. I'd like to be involved. How do *you* see our company's opportunity?" Build your suggestions on the PM's comments and let the PM contribute to the ideas. Whatever comes of this will have the PM's buy-in.

Looking for a promotion? You get some time with your supervisor and say "I think I am ready for the next job level. How about that promotion?" Hmm, maybe not. Again leader methods might be better.

Meet with your supervisor and begin the same way: "I think I am ready for the next job level." But continue with a different question: "What do you need so that you will consider me for that promotion?" See how you are engaging the supervisor and listening for his/her needs.

These ideas can be applied to improving team effectiveness and have been discussed in previous articles in the Leader's Center. The important area of career changes will be covered in the future.

Have you any ideas for possible topics for this column? I would be happy to discuss them with you. Contact info below.

Want to see more about change and leadership? Need a speaker? Have questions? Ideas? Contact me at pauls@usf.edu or go to <http://leadchangewithoutfear.com/> and click the tab "Successful Real Change."

PES Upcoming Seminar

Your FWCS PEIA Chapter is in the planning phases for an outstanding Seminar on Arc Flash.

The details are still being worked out, but we are looking to present this in September and it will be from 9am—2 pm, with four CEH's available, and will include information on IEEE Standard 1584, which was revised last year. It will also include information from the IEEE Guide for Performing Arc-Flash Hazard Calculations.

We hope you will plan to attend this Seminar and learn all the up-to-date information being presented.



Summer of Safety Seminar Series

IEEE PES/IAS Electrical Safety Seminar

- Date:** August 23, 2019
- Time:** Registration & Light Breakfast: 8:30AM - 9:00AM
Seminar: 9:00AM - 2:00PM
- Speaker:** Thomas Blair, P.E., Senior Engineering Fellow, Tampa Electric Company
- Course Level:** **Intermediate.**
- 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.
IEEE Florida Provider Number is 0003849.
- RSVP:** Online at <http://time2meet.com/fwcs-meetings/> (Select Meeting)
Make checks payable to: IEEE FWCS
Send checks to: Jim Howard, IEEE FWCS Treasurer
3133 W. Paris Street
Tampa, FL 33614-5964
- Questions:** Tom Blair at 813-849-8368, or tom_blair@ieee.org

The IEEE Industry Applications Society (IAS) Electrical Safety Workshop (ESW) is dedicated to changing the electrical safety culture. The workshop is held each year in the spring to present and discuss current topics of electrical safety with the community. Lessons learned and new technology are shared with attendees. The 2019 ESW was held in Jacksonville, Florida this year. This year your local IEEE PES/IAS Chapter will share some of the highlights from this annual international safety workshop with the local engineering community during our summer seminar of safety series. Some of the topics that will be presented are listed below;

ESW2019-04 - Advancing Workplace Safety Through Vintage Equipment Upgrades.

ESW2019-05 - Drawing The Line - Where Does Troubleshooting End and Working On Begin?

ESW2019-07 - Neutral Conductors, the Un-Identified Hazard.

ESW2019-08 -What Could I Have Done Differently?

ESW2019-25 - Implementing Improvements in Hazard Identification and Barrier Implementation as a Corrective Action for a Serious Electrical Contact Incident

ESW2019-29 - Painful Memories of an Electrical Accident

ESW2019-32 - Electrical Injuries and Fatalities: Facts, Myths and Unknowns

(Continued on Page 5)

		
<h2 style="color: red;">Summer of Safety Seminar Series</h2>		

Continued from Page 4

Also, we will discuss the various methods to determine arc flash hazards in the workplace and we perform the example arc flash calculations detailed in the appendix of the newly released IEEE-1584-2018 standard

Being a workshop, we encourage attendees to bring their own electrical safety experiences with them and share them with the group during this seminar.

The 2020 ESW will be held in Reno, Nevada, USA, March 2 to March 6, 2020, at The Peppermill Resort. It is a must attend event for anyone that is involved in electrical safety. The website for the IEEE ESW is <http://www.ewh.ieee.org/cmtel/ias-esw/>.

Speaker Bio

Tom Blair is a Senior Engineering Fellow with Tampa Electric. He performs electrical system analysis and uses the results to specify electrical equipment ratings, protective relay settings, and electrical system arrangement. Tom has also been adjunct professor in the past at the University of South Florida and has presented courses at the university on topics such as Electrical Machines and Drives, Energy Production Systems Engineering, and the FE and PE (power) exam preparation course at USF. Mr. Blair is a Senior Member of IEEE.

TEACHERS IN-SERVICE PROGRAM—HILLSBOROUGH PROFESSIONAL STUDY DAY

On August 5, 2019 Hillsborough County Public Schools will have our high school science professional study day at **Spoto High School, 8538 Eagle Palm Drive, Riverview, FL 33569 from 8:30 a.m. to 3:30 p.m.** Please consider this an invitation to have a table display in the cafeteria from 10:30 a.m. to 1:30 p.m. We can accommodate a limited number of sessions for teachers to experience your products. The district is not charging a registration fee for this conference. However, if vendors wish to collaborate to provide food for the teachers, that donation would be welcome.

The Hillsborough Regional STEM Fair is January 27-29, 2020. The State Science and Engineering Fair is March 24—26, 2020.

Thank you for your partnership in preparing students for life.

Dan McFarland
Supervisor of Secondary Science
Hillsborough County Schools



Your Résumé—Your Strengths

Date: Aug 13, 2019

Time: 6:00 pm to 7:30 pm

Speaker: Dr. Paul Schnitzler

Location: TECO Conference Room TECO Plaza 702 N. Franklin St., Tampa

Sign up: <https://events.vtools.ieee.org/m/201111> (For Non-IEEE members, please email **amma-ra.ghani@gmail.com** or **a.j.ross@ieee.org** to reserve your spot for the event or any questions/concerns)

What we

offer: **An outstanding Resume and free food**

Synopsis: *Bring a copy of your résumé!* Whether you are now seeking new job or not, it is important to keep your résumé up to date. Besides helping land that new special job, it can also help with a possible promotion

Your résumé is your marketing material: you are selling your services and you must let the reader/buyer/hiring manager see how valuable you have been and will be in your next position. Therefore your focus must be on the benefits that your previous employer(s) received—created a faster widget, increased sales by 30 percent, built a prototype which demonstrated a new product's reality.

These are rarely seen in actual résumés. This presentation will show you how to get benefits into yours!

About the Speaker: Paul Schnitzler, PhD (E.E.), was in industry for the majority of his career before joining the faculty of the College of Engineering at the University of South Florida (USF). He has successfully held all levels of management and so has read many résumés—very few were effective—and he knows what they needed. Dr. Schnitzler is also a speaker, author, and consultant on leadership and engineering. He has presented many seminars in China and Saudi Arabia on change and entrepreneurship, and has presented at TEDx Tampa Bay. Dr. Schnitzler is the author of *Lead Change without Fear—Using the YES I AM Solution* and has received many awards for his work.

Can You Print That? Successful 3D Printing Seminar

On Wednesday, July 17, the IEEE's Florida West Coast's AESS Chapter and Life member's Chapter held a presentation on 3D printing. The presenter, Douglas A. Coggeshall, President of Coggeshall Engineering Associates Inc. shared his experiences with setting up and running 3D printing organizations. During his career Doug has worked for Raytheon, Harris Corporation, Honeywell, Aerosonic, Ocean Optics, and DRS Navel Electronics. Doug is responsible for setting up the UTB 3D-Printing center of excellence at the U.S. SOCOM.

During his presentation Doug shared stories about arriving at SOCOM and discovering that they had a 3D printer that they were not using. Under Doug's direction, the printer room was set up and the printer was put to work supporting a number of the different departments within SOCOM. Printing was done using plastic, rubber, and even metal.

During his presentation Doug shared examples of 3D objects that had been printed. These included a drone that had been made out of plastic. He also showed rubber covers for military hand-held devices that had been created to show different strengths. A detailed discussion was held regarding how printed circuit boards can now be created using 3D printers.

During his presentation Doug also raffled off several text books. A survey of the participants at the end of the presentation revealed that they had gotten what they had come for and everyone now felt that they had a better understanding of what can be accomplished using 3D printing.



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You have sound background in utility distribution P&C and fluency in P&C scheme documentation: 1-lines, 3-lines, logic and elementary diagrams. Qualifications include ability to calculate protection and control settings, use Industry standard secondary injection test equipment and knowledge of digital communications as applied in utility P&C applications (DNP, IEC-61850, MODBUS). BSEE with 10+ years of relevant experience or AAS and 20+ years of relevant experience is required. A PE is highly desirable.

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August Calendar of Events (For more information see P. 1) in this Signal...

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
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4	5 High School Science Profession- al Day—pg 5	6 EXCOM Meeting, TECO Plaza 5:30 p.m.	7	8	9	10
11	12	13 Your resume— Your strengths 6pm PG6	14	15	16	17
18	19	20	21	22	23 Electrical Safe- ty Seminar @FRCC—pg 4	24
25	26	27	28	29 PES/IAS ExCom 6AM Village Inn	30	31