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IEEE

THE SUNCOAST SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

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ARC FLASH—Update and Training on NFPA 70E-2018 Electrical Safety in the Workplace

Date: Friday, January 24, 2020

Time: Registration & a Light Breakfast: 8:00AM-8:30AM
(Space limited to the first 50 registrants!!!)

Seminar: 8:30AM – 3:00PM

Speaker: John Leedy, P.E., Owner, Engineered Electric
Services, LLC

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

Cost: \$150 Members, \$300 Non-Members, \$100 Students. Includes Breakfast, Lunch, & seminar text, “NFPA 70E – 2018 Standard for Electrical Safety in the Workplace” (a \$75 value) is included with this seminar.

CE Credits: Six Continuing Education hours will be awarded. Be sure to enter your name and PE number on the signup website as it appears on your license. Florida exempt provider #00015.

Reservations: Online at: <http://time2meet.com/fwcs-pes4/index.html> (Select Reservations)

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Upcoming Meetings

Tuesday, January, 2019 5:30PM EX-
COM Meeting
at TECO Plaza Register online at
[http://time2meet.com/fwcs-excom/
index.html](http://time2meet.com/fwcs-excom/index.html)

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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

Mentoring

(Parts of this article are excerpted from an article by Ken Todd, Chair of the FBPE, with permission)

The engineering education that students receive usually prepares them technically for the challenges to come as an engineering professional. However, many do not realize the full extent of what is involved in the practice of engineering. They often express concerns about being in a decision-making position for which they are not prepared due to a lack of practical experience. Those of us who have been around the block a time or two can help provide confidence to younger engineers through mentoring.

Many engineers would be happy to mentor a new engineer if asked, but don't actively seek out the opportunity. Understanding this, Ken Todd, Chair of the FBPE has put forth a challenge to all engineers who are more experienced: He is asking that we take time to mentor those young engineers in your company who are recent graduates. They will appreciate it, and it will be quite rewarding for both you as a mentor and your company through increased productivity.

An experienced engineer, when faced with the challenge of not having previously done the engineering task at hand, can often fall back on past experiences to extrapolate and arrive at the correct answer. However many young engineers do not have the same level of practical experience needed to make good engineering decisions. Many of us experienced situations as a young engineer right out of college, where we had learned the theory of various engineering principles, but weren't sure how to best apply what I had learned to solve the problem. Rather than let us struggle to figure it out on our own, many of us had the opportunity to consult with engineers we worked with who took the time to explain the best and most efficient solutions, both technically and administratively, to solve various aspects of engineering projects. This is the type of mentoring where a more experienced engineer can have a positive influence on the career of a younger engineer.

Supervisors of younger licensed engineers should also take care to not place them in a position of making engineering decisions they are not qualified to make. This could lead not only to a problem with the project, but could possibly lead to a disciplinary case against the licensed supervising engineer and the licensed younger engineer. Additionally, the mentoring you do today could help eliminate some bad habits the younger engineer might otherwise carry with them for the rest of their career.

If you aren't already doing so, I encourage those of you who are the more experienced engineers to seriously consider being a mentor to a younger engineer. In the end, I believe you will end up with better projects and you will have an employee who will be an engineer ready to lead our profession in the future

Whether you are a PE looking to attain required CEHs, or an engineer looking to learn something new or keep current with the latest trends in the profession, IEEE has seminars that will meet your needs.



Arc Flash - Updates and Training on NFPA 70E-2018 Electrical Safety in the Workplace.

Continued from Page 1

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

IEEE PE/IA Chapter Treasurer:

3133 W Paris Street

Tampa FL 33614-5964

Questions: Tom Blair at 813-228-1111, ext. 34407 or thblair@tecoenergy.com

Seminar Text A \$75 Value is included with this Seminar.

Your local IEEE PES/IAS Chapter is offering this six hour training on Electrical Safety in the Workplace by John Leedy, Owner of Engineered Electric Services, LLC, a local Engineering and Electrical Contractor in Central Florida.

This training session will be devoted to the subject of Electrical Safety in the Workplace as it relates to the latest edition of the NFPA 70E-2018 and the updates contained therein. Topics such as “how does electrical safety and the NFPA-70E apply to the workplace” and “what is required to be compliant with the standard” will be covered. Also, some real-life scenarios will be discussed to address everyday application of the NFPA 70E requirements.

IEEE SENIOR MEMBERSHIP

IEEE Senior membership is the highest grade for which application may be made and requires experience reflecting professional maturity. Candidates need to be an engineer, scientist, educator, technical executive, or originator in IEEE-designated fields in professional practice for at least ten years and shall have shown significant performance over a period of at least five of those years.

An [application for Senior membership](#) requires three references unless nominated by a Senior member, and in that case requires two references. Information can be found at <https://connect.ieee.org/Xa30kEP0U000Hy3H603dGn0>.

For more information on how to become a Senior Member, or to have volunteer Section members assist you with the process and references, please contact Herman Amaya at hamaya@tampabay.rr.com.



Wave Functions

Field Experience and Event Analysis 101

- Date:** Friday, February 7, 2020
- Time:** Registration & Light Breakfast: 8:30AM - 9:00AM
Seminar: 9:00AM - 2:00PM
- Speaker:** Richard D. Kirby, PE
- 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, \$10 IEEE Students, \$20 Non-IEEE 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-pes1/index.html> (Meeting)
Make checks payable to: IEEE FWCS
Send checks to: Jim Howard, IEEE FWCS Treasurer
3133 W. Paris Street
Tampa, FL 33614-5964

Questions: Anthony Springsteel at 727-494-3992, or anthony_springsteel@selinc.com

Key Areas to be Covered:

During this session, participants will:

- Gain insights about performance from recent field events.
- Learn how to analyze traveling-wave events and the operation of time-domain protection.
- Learn how to perform traveling-wave-based fault locating offline for simple and complex line configurations.
- Learn about the continuous line-monitoring feature for detecting incipient events.
- Hear about the new relay features coming in 2020
- Demonstration of software to view traveling-waves and create Bewley lattice diagrams.

The History of IEEE

It is quite interesting reading about the ‘parent organizations’, the American Institute of Electrical Engineers (AIEE) and the Institute of Radio Engineers (IRE) and the remarkable consolidation resulting in the Institute of Electrical and Electronic Engineers (IEEE).

AIEE was founded in 1884 to support professionals in the budding fields of telephony and power and influenced by innovators such as Norvin Green, President of Western Union, Thomas Edison and Alexander Graham Bell. The rapid increase and commercialization of electric power by companies such as AEG, General Electric and Westinghouse influenced AIEE to become increasingly focused on electric power with a secondary focus on wired communications. AIEE positioned itself to be a leader in the growth of electrical engineering through technical meetings, publications and promotion of standards.

IRE was founded in 1912. While modeled after AIEE, IRE was focused on the new ‘wireless’ industry and would grow to broadly include electronics. IRE was very similar as it also furthered its professionals through publications, standards, conferences and organizing local sections and meetings. A great example of this - The Florida West Coast Section was chartered under the auspice of the Institute of Radio Engineers November 14, 1956 and approved by then President of IRE, Arthur V. Loughren, December 12, 1956.

IEEE was formed by the consolidation of the American Institute of Electrical Engineers (AIEE) and the Institute of Radio Engineers (IRE). A joint committee from IRE and AIEE met and agreed on ‘Principals of Consolidation’ in 1962 which was approved by the respective boards and subsequently the membership of both societies creating the Institute of Electrical and Electronic Engineers on January 1, 1963.

From a legal perspective AIEE is the surviving, albeit smaller of the two entities, but heavily influenced by the practices and policies of the IRE. The Societies of IEEE, as we know them today, evolved from the technical Societies of the AIEE and were officially renamed as IEEE Societies in 1970. The largest IRE professional group became the IEEE Computer Society and the biggest from AIEE became the IEEE Power Energy Society. The Proceedings of the IEEE continue the numbering and editorial policies of the IRE Proceedings. The IEEE Spectrum owes its lineage to the AIEE magazine, Electrical Engineering and the IRE Student Quarterly and AIEE Student Digest.

The IEEE logo brought together the 1987 AIEE logo – two linked circles that represented the relation the electric and magnetic fields and the 1912 IRE logo – triangle and arrows representing the electric and magnetic forces in the conventional ‘right-hand rule’ relationship.

Today IEEE has a significant role in publishing technical works, sponsoring conferences, seminars and standards development. It is interesting that the basic core values that drove the creation of AIEE and IRE are just as germane today and alive in IEEE as they were then, provide a venue and tools for its members to network, share information and ‘foster technical innovation and excellence for the benefit of humanity’.

IEEE RENEWALS—HAVE YOU RENEWED YOUR MEMBERSHIP YET????

We are quickly approaching 2020, with only one month left before you will be dropped out of the Florida West Coast Section database. This means you will no longer received any communications from the Section. Please take the time now to renew, so you don't miss opportunities coming your way.

Presentation on Endoscopes

On Wednesday, December 4th, Ivan Yeoh presented an overview of the research that he's been doing on scanning fiber endoscopes.

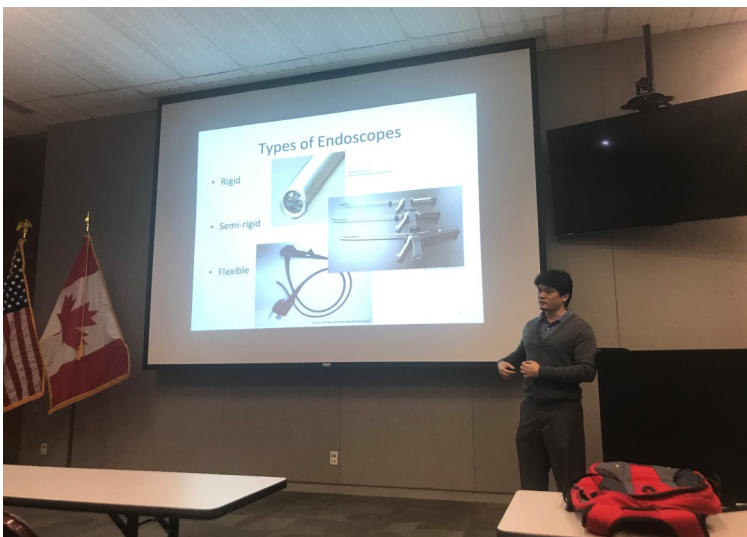
So if I was to ask you what is going on inside of you right now, what would you say? I suspect something along the lines of "I don't know". That's too bad — there can be many good things and, gulp, bad things going on inside of you right now. Wouldn't you like to have a look?

It turns out that if you were to go to a doctor and ask them to take a look inside of you, they'd use something called an Endoscope. Basically this is a pipe that they stick down your throat with some simple optics that allow them to see inside of you. This device has been around for quite a while and really has not changed that much.

This is where things start to get exciting. Big changes are coming. Ivan discussed a new type of device called a Scanning Fiber Endoscope that is in the process of being created. This is a new medical device and you can imagine all of the engineering challenges that are associated with trying to develop something like that. There are two things that will make this new breed of Endoscope revolutionary: it's small size and it's laser.

The small size is going to be created by the clever circuits that have been created to shrink the optics that this device houses. The laser will have two purposes. The first is to provide illumination of just exactly what is going on inside of you. The second is a bit more exciting: the laser will have the ability to provide spot treatment of anything that your doctor detects that he thinks should not be there. Doctors will benefit from this new device because it will allow them to have a forward view of their procedures (today's Endoscopes only allow a side view).

The audience thoroughly enjoyed Ivan's presentation.



A video of this presentation can be seen on YouTube at: <https://youtu.be/N8BK-Kk55bI>

DISCOVER Tampa Bay E-Week Banquet

ENGINEERS WEEK

DATE: Thursday, February 20, 2020

TIME: 4:30 – 6:30 PM Networking & Exhibition

6:30 - 9:00 PM Dinner Program & Awards



4121 N. 50th Street

Tampa, FL 33610

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, 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.

For More

Information visit:

www.tbewb.com

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Program Rules:

1. Only open to current IEEE members (IEEE Society affiliates are not eligible).
2. Completed application (either print or online), with full dues payment, must be submitted with the recruiter's name and membership number in the proper recruiter box that is provided on the application.
3. Applications received without a recruiter's membership number will be disqualified—there will be no retroactive qualifying of recruiters.
4. Applications must be received at IEEE before 15 August 2020.
5. Maximum individual earnings: US\$90 annually

Full rules are available online at www.ieee.org/mgm



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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 FWCS EXCOM TECO, 5:30 p.m. MTT Mtg https:// events.vtools.ieee. org/m/212923	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24 ARC Flash FRCC @8:30	25
26	27	28	29	30	31	