



Florida West Coast Section

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The Suncoast Signal

The Institute of Electrical and Electronic Engineers, Inc

Volume 66, No. 6, June 2020

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UPCOMING MEETINGS

EXCOM

Tuesday, June 2, 2020 5:30 pm

WebEx

Register with vTools

<https://events.vtools.ieee.org/m/230298>

PE Corner

Art Nordlinger, PE, Senior Member

Chapter 471 of the Florida Statutes defines the practice of engineering and the titles associated with it. Chapter 471.003(1) states, “No person other than a duly licensed engineer shall practice engineering or use the name or title of “licensed engineer,” “professional engineer,” or any other title, designation, words, letters, abbreviations, or device tending to indicate that such person holds an active license as an engineer in this state.” The next paragraph goes on to define what engineering activities don’t require a PE license.

I have been fortunate to have the opportunity to speak with college juniors and seniors about professional licensure. The reaction I get often depends on the student’s major and future goals. Most civil and structural engineering students, and some others as well, understand that they won’t be able to practice their trade without a PE license. Many, if not most, electrical engineering students plan to practice in areas, like manufacturing or circuit design for example, where a PE license isn’t required. And many have not been exposed to the concept that certain areas of electrical engineering require a license, where others don’t.

As a result, it can be a bit of an uphill battle to convince an electrical engineering student that sometime close to their graduation, while the material is still somewhat fresh, they should take what might be the longest and hardest exam that they have taken to date. And that they should pay more than one-hundred dollars in order to be allowed to do so.

Though nearly every junior and senior engineering student is certain what their future career path will be, few prove to be correct as their careers progress. For those that find that they need to have a PE at some later time, it is a difficult, and often impossible, task to re-learn the varied material necessary to pass the Fundamentals of Engineering and Professional Engineer exams while working full time. This may at some point restrict the engineer’s career path.

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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 1st Friday after the 1st Tuesday of the month preceding the issue month.

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(484) 524-3264

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Experience has shown that there are many advantages to having a PE license. Even those that don't need to have a PE to advance in their career can find it useful.

When applying for a job or a promotion, having passed the FE or having a PE can help set that person apart from the pack. It can help to show an employer that this person is willing to "take it to the next level". Interestingly, in some businesses where a PE is not strictly required for practice, licensure is listed as a "desirable" or even required to attain higher level engineering positions.

Regardless of a student's engineering major or future plans, they should be encouraged to take the first step and take FE exam around the time of graduation. This can help to set them apart from their peers. They never know when they might need it.

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. With renewal only 8 months away seminar demand is high. Sign up now!



Limitations of Renewables and Baseload Energy Sources

Date: Friday, June 19

Time: 10:30 am-1:30 pm Seminar

Location: Online, A link will be emailed to each attendee 2 days before seminar begins

Cost: Free members, \$40 Non-Members, Free for Students

Payment Online (Credit Card or PayPal) at the vTools registration website below.

Registration and Payment (vTools): <https://events.vtools.ieee.org/m/231223>

Speakers: Dr. Charles (Chuck) Hawkins

Questions: Steve Antman at 813 460-5434 or email at steve.antman@gmail.com

ABSTRACT

Abundant energy is the base for advanced societies. America succeeded only because of a coal base that drove our manufacturing machines, and now we add the increased national power needed to drive our computers. We are being squeezed by two forces. The first is that our coal and oil burning does inflict lethal (yes, lethal) damage. The second is that coal and oil have finite resource lifetimes. They are a fixed resource that we burn huge amounts of by the minute.

This talk is about energy options. Is it renewables or baseloads or both? We will evaluate twelve ways that we generate electricity and their suitability. What are the pluses and minuses? There is a logical path, and that is the focus of this talk and the book. We are hindered by a lack of national energy policy that China has. My fifth book "Limitations of Renewables and Baseload Energy Sources" is offered free to the public.

BIOGRAPHY

Dr. Charles Hawkins is a Professor Emeritus in the Department of Electrical and Computer Engineering at the University of New Mexico and an Affiliate Professor at ECE Florida. His research and graduate teaching was in IC test engineering, reliability, and failure analysis. He has also worked with the CMOS IC Development Group at Sandia National Lab in New Mexico for 20 years **and did on-site** research at Intel, AMD, Philips Research Labs, Signetics, and Qualcomm.



Battery Energy Storage System (BESS) Seminar

- Date:** Friday, June 26, 2020
Time: Seminar: 10:30 AM - 1:30 PM Seminar
Speaker: Chris Ruckman, Energy Storage Director at Burns & McDonnell, Kansas City, Missouri
Course Level: Intermediate
Location: Online. A link will be emailed to each attendee 2 days before seminar begins
Cost: \$100 Members, \$200 Non-Members,
\$10 IEEE Students, \$20 Non-IEEE Students.
CEH Credits: 4 Professional Development Hours will be awarded.
Payment Online (Credit Card or PayPal) at the vTools registration website below.
An email address is required for registration
Please enter the following under the Special Requests item
Be sure to enter your name and PE number as it appears
on your license. IEEE Florida Provider Number is 0003849.
Certificates will be emailed to attendees in PDF format.
If you would like a paper certificate, please provide your mailing address.
Registration and Payment (vTools): <https://events.vtools.ieee.org/m/231268>
Questions: Tom Blair at 813-849-8368, or tom_blair@ieee.org

ABSTRACT

The IEEE Power & Energy Society (PES) along with Tampa Electric is honored to have Mr. Chris Ruckman with the engineering firm of Burns & McDonnell as our guest speaker presenting on the topic of Battery Energy Storage Systems (BESS) on Friday, June 26, 2020. The seminar will cover current battery technology and describe the differences between technology platforms (both battery chemistry & packaging). He will describe methods for proper sizing for the design of battery systems and describe how both the method of operation and the condition of the surrounding environment can affect battery health. Mr. Ruckman will also cover various safety strategies concerning BESS and present an overview of the recent installation completed at the Big Bend Solar facility

BIOGRAPHY

Mr. Ruckman is Energy Storage Director with the engineering firm of Burns & McDonnell and has 19 years' experience in the Energy Division of Burns & McDonnell. During his tenure, he has gained experience in the areas of electrical design, protective relay setting/coordination, power flow and fault studies, arc flash studies/mitigation, generator protection, and solar power including BESS. He holds a degrees in both Physics (from William Jewell College) and Electrical Engineering (from The University of Kansas).

computerMentors

May 2020



This Month at Computer Mentors:

COVID-19 Message, Program Recruitment Flyer

COVID-19 “Digital Divide” Effort for Hillsborough County Students

Computer Mentors Group (CMG) has teamed up with eSmart Recycling, Quicksilver Recycling, and Wells Fargo to bridge the digital divide for 100 families in Hillsborough County. Due to COVID-19, public and private education has moved to virtual online platforms. The assumptions are that all children have access to technology including a computer and Internet at home. But that assumption may not be true, especially when there are multiple children in a household. “The (Hillsborough County) School District has done a wonderful job of lending 38,000 computers to families that need them” said Ralph Smith, Director and founder of Computer Mentors. “But there is still a gap of families that have multiple school aged children because the school district was only able to provide one computer per family”.

Since social distancing has taken hold, it is essential that every school aged child have access to a computer and the Internet to be able to participate in the education system. That’s where the initiative led by Computer Mentors, eSmart Recycling and Quick Recycling come in. The group, helped by a \$7,500 Wells Fargo grant, will donate 100 computers to Hillsborough County Public Schools to make available to families that have multiple school aged children within selected schools.

The 100 computer units include a desktop computer with monitor, keyboard, and mouse. They can be requested the through the Computer Mentors website by [clicking here](#). The selected schools are: Edison Elementary, Foster Elementary, James Elementary, Potter Elementary, and Tampa Bay Blvd. Elementary. In addition, children of several other organizations will benefit from this initiative including Enterprising Latinas, RCS Pinellas, Tampa YMCA, and Women Redeemed By God.

Wells Fargo is targeting its philanthropic efforts to support COVID-19 initiatives in local communities and has supported Computer Mentors Group for almost 10 consecutive years. Check out additional stories about Wells Fargo's COVID-19 response.

Computer Mentors Group is a "Digital Divide" non-profit organization with a mission of providing opportunities for educational and employment success through bridging the technology divide for populations without sufficient economic resources, especially as it relates to children and youth. The organization hosts two primary programs. They include TEENtech, a program for high school aged students. TEENtech assists students to pursue industry standard certifications that also lead to college credits. The goal of this program is to prepare the next generation of Information Technology/Computer Science professionals. The 2nd program is called KidsCode. KidsCode introduces computer coding to 4th through 8th grade students in a fun and engaging gamified platform. Both programs are actively recruiting and are instructor-led virtual training courses. For more information or to enroll, please visit the website at:

<https://www.computermentors.org>.

Along with its recycling partners, Computer Mentors is happy to collect your no longer needed electronic equipment. This includes flat panel monitors, computers, laptops, cell phones and the like. For corporate partners, pickup can be arranged. Please come join our other great partners including City of Tampa and Supervisor of Elections who allow us to find 2nd homes for computer supplies to benefit the community. Contact us via email at RSmith@computermentors.org or via phone at (813) 236-1191.

eSmart Recycling is a social enterprise founded by Tony Selvaggio in 2014. The company's main goal is to recycle old technology from companies and individuals and use the proceeds to fund tech labs for kids without access to computers worldwide. For more information visit www.esmartrecycling.com or follow the company in social media:

@esmartrecycling #techforthekids

Quicksilver Recycling was founded by John and Jack Flaacke in 1998. Quicksilver offers an excellent record of 20 years of experience & proven ability, secure data destruction, and regulatory and industry compliance standards. Quicksilver is also a long-term partner with Computer Mentors Groups and continues to host equipment donation events on CMG's behalf.

Link to this article:

<https://computermentors.org/covid-19-digital-divide-effort>

WE ARE RECRUITING!!!

computer **mentors**

Open Registration for all 4th - 12th graders who live in Hillsborough County

In response to COVID-19 and support of Hillsborough County Public Schools, Computer Mentors will be offering innovative, and essential online virtual training courses that are aligned with the academics, workforce, and fun events. **Free** for all 4th - 12th graders in **Hillsborough County!** Please enroll in KidsCode and TeenTech programs below.



Kids Code Program

Create the world you want to live in by learning to code! KidsCode teaches 4th - 8th graders computational thinking skills (e.g. problem solving, and technology literacy), as they learn to code in Python computer language for robots and much more. Join instructors/mentors online in virtual training sessions daily to learn S.T.E.M skills and have a great time.

To apply, click on this [link](#) and complete the registration form and press submit. Once completed, you will be contacted by David Washington, KidsCode Program Manager:
dWASHINGTON@computermentors.org.

Teen Tech Program

We offer TeenTech online programming and projects for high school (9th-12th) students to earn employability skills in Computer Science/Information Technology, Microsoft Technician Associates fundamental technology systems: Python, C#, HTML 5, Javascript, CSS, and industry certifications. For students to earn industry certifications, Computer Mentors will proctor and pay for all exams.

To enroll, please complete the registration form [here](#), and press submit. Once registration is completed, you will be contacted by Nyjel Dukes, TeenTech Program Manager:
ndUKES@computermentors.org.

Students that earn Microsoft certifications also earn community college credits and promote workforce readiness. Meet you online!

For additional information, please visit the Computer Mentors website at www.computermentors.org or contact the office at 813-236-1191.

Computer Mentors website: www.computermentors.org

David Washington, KidsCode Program Manager:

dWASHINGTON@computermentors.org

<https://computermentors.org/teen-tech/>

Nyjel Dukes, TeenTech Program Manager:

ndUKES@computermentors.org

<https://computermentors.org/teen-tech/>

vTools

The Florida West Coast Section (FWCS) will start using the IEEE vTools to set-up meetings and, subsequently, file the required L31 forms. This is in place of the current Time2Meet system.

The IEEE vTools system is being used throughout the IEEE to setup meetings and file the required reports.

If you do not feel comfortable, or do not have the time, to file the meeting notice and/or reporting the meeting afterwards, please contact me and I will either assist you or do it for you:

michael.mayor@ieee.org

(484) 524-3264.

The following link contains detailed tutorials (the actual URL is printed below the link):

[vTools Events ALL Tutorials](http://sites.ieee.org/vtools/vtools-events-tutorials/)

<http://sites.ieee.org/vtools/vtools-events-tutorials/>

The following links contain key tutorial presentations. They are a small subset of the presentations appearing in the previous link (again, the actual URLs are printed below the links)

[Search and View Events](https://site.ieee.org/vtools/?mdocs-file=4132)

<https://site.ieee.org/vtools/?mdocs-file=4132>

[Create an Event](https://site.ieee.org/vtools/?mdocs-file=4134)

<https://site.ieee.org/vtools/?mdocs-file=4134>

[Edit an Event](https://site.ieee.org/vtools/?mdocs-file=4152)

<https://site.ieee.org/vtools/?mdocs-file=4152>

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½ Page	\$75	\$98	\$360	\$450	\$630	\$756
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

Opportunity

for a

Forensic Electrical Engineer Expert Witness

The right person for this opportunity has a P.E. license and experience as an electrical engineer with an electric utility or related industry. This can be an ideal part time or contract position for someone that has recently retired.

J. B. Shepherd & Company, Inc.

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email your CV to cefalany@jbsco.com

www.jbsco.com



863-425-2698

www.eesllcfl.com

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Formerly Leedy Electric East, LLC



Speech Research Development Engineer

Digital Voice Systems, Inc. (DVS) is seeking a qualified Speech Research & Development Engineer at our new office in Clearwater, Florida. This is a great opportunity to join our team of world class engineers in designing high quality voice compression technology that is implemented in hundreds of millions of telecommunication systems world-wide.

The ideal candidate will play a key role in the research and development of DVS's next generation of digital speech compression technology including speech analysis; speech modeling; model parameter estimation; quantization; speech synthesis; error correction and mitigation methods; as well as, echo cancellation and noise reduction.

Desired Qualifications

- Research and development experience in speech or audio
- Knowledge of programming languages, i.e. C/C++, Matlab etc.
- PhD (or equivalent) in Electrical Engineering or Software Engineering with an emphasis in Signal Processing
- U.S. Citizenship or Permanent Residency required

Compensation

- Competitive salary
- Benefits package
- Excellent working environment

For more information visit www.dvsinc.com or send resume to jobs@dvsinc.com

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

June 2020 Calendar of Events <i>(For more information see Page 1 in this Signal)</i>						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
		*EXCOM WebX			*Signal Inputs Due	
7	8	9	10	11	12	13
14	15	16	17	18	19	20
					*Limitations of Renewables	
21	22	23	24	25	26	27
					*BESS Seminar	
28	29	30				