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Florida West Coast Section (FWCS)
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<https://r3.ieee.org/fwc/>

The SunCoast Signal

The Institute of Electrical and Electronics Engineers, Inc.

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PE Corner

Art Nordlinger, PE, Life Senior Member

Engineering By Any Other Name Is Still Engineering

William Shakespeare penned in the tragedy *Romeo and Juliet*: *What's in a name? That which we call a rose. By any other name would smell as sweet.*

So, how does this apply to engineering? Engineering is our "rose." Engineering work is engineering work, period. You can try to call it something different, but the smell test will reveal that it is engineering.

There is a common misconception among professionals who hold multiple licenses that an individual can choose which license or certification will be used for a particular project. In fact, any work performed in Florida that falls under the definition of engineering as defined in Section 471.005(7), Florida Statutes, is considered to be engineering, and all of the rules, including signing and sealing of plans, are applicable to the project.

A disciplinary case recently heard by the Board addressed this issue directly. An individual who was both a licensed contractor and a PE in Florida submitted plans to a local jurisdiction for a permit. The size of the job was small enough that a PE's services were not required by statute. The plans submitted by the individual were not signed and sealed, even though the work constituted Engineering as defined by statute. The individual explained that for that job, he was working under his contractor's license and not under his PE license since a PE was not required based on the size of the job. Unfortunately for him, that's not how the rules work.

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Next ExCom Meeting
Tuesday, February 6, 2024
Google Meet
Register with vTools

<https://events.vtools.ieee.org/m/399737>

IEEE FWCS ExCom

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Although the contractor is not required to submit signed, dated, and sealed documents for permitting in this case, if the work is done by a PE, the PE is required to sign and seal the plans. The exemption in this case is that the work was not required to be performed by an engineer. But since the work was performed by an engineer, all of the rules that apply to Engineering are in force, including signing and sealing the plans.

So, what does this all mean? A licensed engineer is always a licensed engineer, at least while they hold a valid license in Florida. As a licensed engineer, you cannot choose to be an engineer on one day and a contractor (if you have a contractor's license) another day. If you hold a valid engineering license and perform any work with the other license or certification that overlaps with the definition of engineering, the work is considered engineering. And it thus requires the seal of a Professional Engineer, as well as compliance with the responsibility rules and minimum standards of due care for the practice of engineering.

If you have any questions or concerns about the laws and rules regarding engineering, please contact FBPE's legal department at **(850) 521-0500**, or email board@fbpe.org.

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.

THE SUNCOAST SIGNAL, published monthly by the Florida West Coast Section (FWCS) of the Institute of Electrical and Electronics Engineers, Inc. (IEEE). **Please Note that the SUNCOAST SIGNAL is sent each month to ACTIVE members of the IEEE Florida West Coast Section. So to continue receiving the SIGNAL please keep your membership Active, meaning, renew your membership when it becomes due.** 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 the end of day of the 1st Monday after the 1st Tuesday of the month, i.e. the ExCom meeting, preceding the issue month.

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Dynamic Line Ratings - Webinar

Date: Friday, March 15, 2024

Time: Webinar: 12:00PM – 1:00PM (EST/EDT)

Speaker: Wayne Hartmann – GE Grid Solutions

Location: Online – meeting invitation will be emailed to attendees prior to the webinar

Cost: Free

CEH Credits: No CEH's provided for this event.

RSVP: Online at: <https://events.vtools.ieee.org/m/392393>

Questions: Kayla Allemang - kallemang@ieee.org

Abstract: FERC Order 881 states Utilities should do a better job of determining line thermal ratings. These have typically been determined using static or seasonally adjusted ambient ratings. If improved rating methods are used that include actual ambient temperature, wind and solar irradiance, one can typically obtain more capacity from a line the majority of the time. The improved rating methods are called dynamic line ratings (DLR).

During this webinar, we'll explore improved ratings as a grid enhancing technology (GETs), review angular and voltage stability fundamentals, impacts of grid forming versus grid following inverters on stability, and methods to redirect or redispatch power flows. This seminar would be of interest to engineers involved with Transmission Planning, Transmission Operation, System Protection, and Renewable Power Developers.

Wayne Hartmann is Advanced Applications Advisor (NAM) for GE Grid Automation, part of GE VERNOVA. In this role, he explores the application of new technologies in protection and control with Electric Utilities, Industrials and the Consultants the support them, provides market research, provides input for new product development, and actively works with Sales and Application Teams. Prior to GE VERNOVA, his previous Industry involvement

includes Standards Development at Duke Energy, Application, Sales, and Marketing Management capacities at Beckwith Electric, PowerSecure, General Electric, Siemens Power T&D, and Alstom T&D

Wayne is a Senior Member of IEEE, Serves as a Main Committee Member of the Power System Relaying and Control Committee (PSRC) for over 30 years, Chair Emeritus of the IEEE PSRC Rotating Machinery Subcommittee ('07-'10), Contributed to numerous IEEE Standards, Guides, Reports, Tutorials and Transactions, delivered Tutorials at IEEE Conferences, and was awarded FWCS IEEE PES/IAS Chapter Engineer of the Year in 2018

Wayne also Authored/Presented numerous Technical Papers at key Industry Conferences, Contributed to McGraw-Hill's "Standard Handbook of Power Plant Engineering", and Created Materials/ Taught at Industry Leading Schools such as WEI Relay, Beckwith Electric, HPC Technical, TMEIC MV, and GE Multilin.



The Pinellas Regional Science and Engineering Fair will be held at the Countryside High School and we need your help. You are invited to serve as a judge at our fair on Saturday, February 3, 2024 from 8:00 a.m. until approximately 2:00 p.m.

The Pinellas Regional Science & Engineering Fair will be held at Countryside High School located at the corner of McMullen Booth Road and 580 in Clearwater, FL.

We will evaluate projects from public and private, middle and high school students. Twenty-four projects may be chosen to represent the Pinellas Region at the Florida State Science and Engineering Fair in Lakeland. Of course, many projects will be selected to receive "special awards" and category awards ranging from 4th Place to Best of Fair! Won't you please consider sharing your expertise by helping us make these very important decisions? The added dimension of the interaction the students will have with a professional of your prominence will prove to be a valuable experience for their individual growth in academic studies as well as assisting them in future career decisions. It is our hope that you will share our enthusiasm regarding the quality of research being accomplished by our students.

Please complete the Registration form:

<https://forms.gle/k72p6vdApWnuUmg36>

Respectfully,

Pam

Ms. Pamela Himmel

PRSEF Fair Director

8th Grade Honors & 8th Grade Advanced Science

NJHS Advisor

Carwise Middle School

himmelp@pcsb.org

"Somewhere, something incredible is waiting to be known." Carl Sagan



Exploring the Career Journey of Dr. Susan M. Goodwin: Insights from a Senior Engineer

An Interview with Dr. Susan M. Goodwin: An accomplished Engineer and Technology Expert, conducted by Ahmed Muthanna, an IEEE student member and a Freshman Electrical Engineering student at the University of South Florida.

The IEEE Region 3 FWCS (Florida West Coast Section) is a thriving club dedicated to assisting engineering students in interviewing senior engineers. Through this interaction, students aim to write about the accomplishments and experiences of these seniors, offering the students a chance to gain insights from the senior's wealth of knowledge. In pursuit of this objective, I (Ahmed Muthanna, a freshman at USF) had the opportunity to interview Dr. Susan M. Goodwin, whose expertise and contributions have significantly impacted the field.

During the interview, our conversation commenced with Dr. Susan explaining her immense interest in technology from a young age. She shared how her introduction to computers in the 1980s solidified her determination to pursue a bachelor's degree in computer science.

After obtaining her degree, she went on to work at renowned companies including Raytheon and Hewlett-Packard, where she received multiple awards for her significant contributions in her field, which involved providing leadership and support for major software releases, performing build triage, and resolving software build issues.

However, a couple of decades later, Dr. Susan wanted to stay active in her career, so she went back to school to study Master in Information Technology (2014).

One of the driving factors for her to go back was because it was very hands-on where she was able through the coursework to explore cloud computing, computer security, and virtual technology. A lot of different areas that her career did not offer at that time because the system was older.

Continuing her pursuit of knowledge, Dr. Susan then completed a Master of Science in Security Studies with a concentration in Cybersecurity from

the University of Massachusetts Lowell in 2018. Motivated by her desire to stay ahead and explore emerging technologies, she then pursued a Master's in Information Technology in 2014, focusing on cloud computing, computer security, and virtual technology. Later, she obtained a Ph.D. in Technology from Capitol Technology University in 2020, followed by a Ph.D. in Space Cybersecurity in 2023.

After learning about her educational and professional career, this led me to the next question where I asked her if she ever felt overqualified for the market. Dr. Susan explained that the job market is highly dependent on various factors, leading to fluctuations and changing demands in different areas. She recalled the early 2000s as a challenging time for her and many engineers to find jobs due to the difficulties in the technology sector.

During that time, she worked at Andover Organ Company in Methuen, MA as an Assistant to a Repair Technician, where she immersed herself in the art of tuning and repairing pipe organs, harnessing her deep passion for music.

The six-month work at the company was particularly captivating for Dr. Susan, as it allowed her to combine her passion for music with her expertise in mechanical and electrical principles.

Looking back at her career, I inquired about any instances where Dr. Susan faced rejection from companies due to her frequent transitions between different organizations.

Dr. Susan mentioned that the early 2000s, was a challenging time for many individuals, and she emphasized that layoffs were occurring across various industries, affecting people from all walks of life.

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One of the noteworthy accomplishments in Dr. Susan's career was her role as a release engineering project leader for the Digital Tru64 UNIX Operating System.

Dr. Susan actively engaged in a project with a company in Japan, where she manually created software packages and collaborated with the team, despite the challenges posed by the significant time difference. Recognizing the need for improved efficiency, she was subsequently tasked with automating the process.

Drawing upon her expertise in Linux and Java, Dr. Susan developed a build harness that automated the creation of software packages automatically, enabling a more streamlined workflow.

Dr. Susan had some insightful advice for undergraduate students embarking on their career journeys.

She emphasized the importance of being prepared with backup plans, like having a Plan B or even a Plan C. She stressed the value of developing multiple skills, as this provides the flexibility to explore different opportunities if any hurdles arise in their current workplace.

Dr. Susan encouraged students to stay up-to-date with the latest technology trends, suggesting that periodically taking online courses can help prevent them from getting left behind.

By embracing these principles, individuals can navigate their careers with adaptability and a proactive mindset, enabling success in a dynamic professional world.



DISCOVER ENGINEERS WEEK

Tampa Bay E-Week Banquet

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.

DATE: Thursday, February 22, 2024

TIME: 4:30 - 6:30 PM Networking & Exhibition
6:30 - 9:00 PM Dinner Program & Awards

LOCATION:  **BRYAN GLAZER FAMILY** 522 N. Howard Ave
Tampa, Florida 33606

KEYNOTE SPEAKER: SALISA L. BERRIEN



Salisa L. Berrien, Founder and CEO of COI Energy, has over twenty-five years of experience in the electric power and smart grid space. From working in vertically integrated utilities (PP&L and PECO Energy) prior to deregulation to ConEdison Solutions a deregulated energy services company, and then on to Smart Grid, Clean Tech, Big Data Analytics, and SaaS Solutions, Salisa has had a diverse career in the energy space. In her early career, she sold the first electric vehicle (G-Van) in the NE region. She later went on to help EnerNOC move to #1 Demand Response company in the industry.

COI Energy developed a hardware-enabled software solution that pulls data in real-time from buildings. By using Artificial Intelligence and Machine Learning, customers gain insights from predictive analytics before they waste energy thereby helping to balance the electric grid.

Salisa holds a degree in Mechanical Engineering from the University of Pittsburgh and an Executive MBA from Saint Joseph's University. One of Salisa's core values is philanthropy. She believes that to whom much is given, much is required. Her mission in life is to positively impact the space she occupies by leaving it better off than it was when she found it.



Registration and Information

<http://www.tbewb.com/>



Speaker Level Sponsorship (1 only) \$2000 Donation

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- ◆ Display Table in Reception Area

Platinum Level Sponsorship \$1500 Donation

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- ◆ 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 \$1200

- ◆ 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 \$900

- ◆ 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.

Bronze Level Sponsorship \$750

- ◆ Receives display table to present company products during the Pre-Dinner Social.
- ◆ Receives recognition at Bronze level in program and on the TBEWB website
- ◆ Receives up to 1 ticket to the awards banquet

Vendor Level Sponsorship \$500

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

Society or Company Sponsor Table \$900 Early Bird (\$1000 after 1/19/24)

- ◆ Receives up to 10 tickets to the awards banquet

Note that all donations may be tax deductible. FIN # 13-1656633

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For more information please contact

Bob Andrew, Chair, AIChE Central Florida
bobandrew@bobandrew.com

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Company/Society Sponsorship

[Chttps://events.vtools.ieee.org/m/382840](https://events.vtools.ieee.org/m/382840)

Engineers Week

It is the time to celebrate the amazing accomplishments of engineers, technicians, and technologists and to introduce K-12 students to engineering and technology.

Five and a half million students are engaged in engineering every year by individual volunteers and educators, engineering and tech companies, universities, museums, libraries, and community organizations at events and activities throughout the US and around the world.

2024 Theme *Welcome to the Future*

Every September, DiscoverE (the organization that supports and sustains Engineers Week) releases the annual theme, logo, artwork, planning guides, social media graphics, and new engineering activities for use by the education and engineering community to engage students and celebrate engineers.

The 2024 theme, Welcome to the Future, is about celebrating today's achievements and paving the way for a brighter and more diverse future in engineering.

History

The celebration of National Engineers Week was started in 1951 by the National Society of Professional Engineers in conjunction with President George Washington's birthday. President Washington is considered as the nation's first engineer, notably for his survey work. Prior to the start of National Engineers Week, the University of Missouri College of Engineering began celebrating the world's first Engineers' Week in 1903, 48 years before the National Society of Professional Engineers, with St. Patrick as the patron saint of engineers.

The results of the Federal Engineer of the Year Award are announced during the week.

IEEE FWCS PES/IAS Chapter Officer Training in Coordination with WIE

Thursday, January 29, 8:00 pm – 9:00 pm

Virtual

<https://events.vtools.ieee.org/m/365336>

Contact/Questions: Robert DeMelo, robert.demelo@ieee.org

SunCoast Signal Advertising Rates

Size	1 Month		6 Months		12 Months	
	Member	Non-Member	Member	Non-Member	Member	Non-Member
Business Cards	\$25	\$35	\$120	\$150	\$210	\$252
1/4 Page	\$40	\$52	\$190	\$380	\$335	\$402
1/2 Page	\$75	\$98	\$360	\$450	\$630	\$756
3/4 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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February 2024 - Calendar of Events (For more information see "Inside the SunCoast Signal" → Page 1)

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