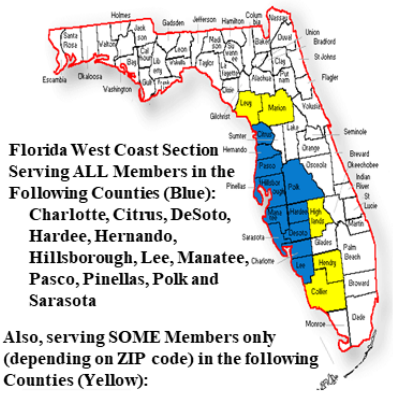

Florida West Coast Section Serving ALL Members in the Following Counties (Blue):
Charlotte, Citrus, DeSoto, Hardee, Hernando, Hillsborough, Lee, Manatee, Pasco, Pinellas, Polk and Sarasota

Also, serving SOME Members only (depending on ZIP code) in the following Counties (Yellow):
Collier, Hendry, Highlands, Levy and Marion

IEEE
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Florida West Coast Section (FWCS)

The SunCoast SIGNAL Newsletter

The Institute of Electrical and Electronics Engineers, Inc.

This Newsletter is Now DISTRIBUTED ELECTRONICALLY
There is NO Print Edition
Also, it can be downloaded from the FWCS website:
https://r3.ieee.org/fwc/newsletter-archive/

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Next ExCom Meeting
Tuesday, August 5, 2025
Google Meet
Register with vTools
https://events.vtools.ieee.org/m/492263

PE Corner

Art Nordlinger, PE, Life Senior Member

Why Become A Professional Engineer?

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 the FE exam.

Continued on Page 2

PE Corner - Cont'd from Page 1

This 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 absolutely 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.

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. For example, 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, or new graduate'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. Those of you in contact with newly-graduated engineers, some of who may be working for you or around you, encourage them to take the FE exam as soon as possible.

IEEE Florida West Coast Section | Consultants Network | IEEE PES Power & Energy Society | IEEE Aerospace and Electronics Systems Society | IEEE Women in Engineering WIE Women in Engineering | IEEE Life members

ORGANIZER: AMHERCORP -- Hermann Amaya – hamaya@amhercorp.com

GENERATIVE ARTIFICIAL INTELLIGENCE (GenAI)

Date: Friday, July 18, 2025
Time: 5:00 PM – 8:00 PM (EDT)
Speaker: Guy Perry SMIEEE, PE, CEO BluOcean AI
Location: Saint Petersburg Yacht Club, 11 Central Ave, St. Petersburg, FL 33701
Cost: Admission $60 - Students $25, Includes Pizza Dinner and Parking at the Yacht Club.
CEH: 3 CEHs included in the Admission, Certificate available by selecting Yes at registration.
RSVP: Online at: https://events.vtools.ieee.org/m/488293
Questions: Hermann Amaya, Chair CNAG hermann.amaya.us@ieee.org
Guy Perry, Vice Chair CNAG guy.perry@bluocean.ai

Abstract: Generative AI (GenAI) is a type of artificial intelligence that focuses on creating new data, like text, images, videos, or audio, based on existing data. It works by learning patterns from large datasets and then generating novel content that resembles the learned patterns. Think of it as an AI "artist" that can create something new based on examples it has seen.

Foundations & Overview

1. The AI Landscape & Introduction to Generative AI Agents
2. Anatomy of a GenAI Agent: Components & Architecture
3. Core Technologies: LLMs, Embeddings & Retrieval
4. Agent Workflows: Prompting, Chaining & Memory
5. Business Use-Case Survey: Operations
6. Live Demo: AI Agents in Action

Guy Perry SMIEEE, PE, CEO BluOcean AI, split my time between building BluOcean.ai—a Generative AI Agent Platform for business excellence—and advising Fortune 500 clients as a Principal Consultant.

Over 30 years, I've optimized operations and led supply-chain transformations across Manufacturing, Financial Services, Healthcare and beyond. Today, I unite my product-company insights with hands-on consulting to deliver measurable ROI.

I split my time between building BluOcean.ai Generative AI Agent Platform for business excellence—and advising Fortune 500 clients as a Principal Consultant.

What I Do

Co-Founder @ BluOcean.ai

- Defined & launched GenAI Agents powering real-time decision-making in Maintenance, Operations, Supply Chain, and Finance

Principal Consultant

- Conducted deep "people-process-tech" assessments at a $1B CPG manufacturing company —drove a roadmap for OEE uplift
- Deployed AI-driven maintenance agents that significantly cut reactive work by 30% and MTTR by 25%

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ORGANIZER: AMHERCORP -- Hermann Amaya – hamaya@amhercorp.com

MACHINE LEARNING IN RELATION TO ARTIFICIAL INTELLIGENCE

Date: Friday, August 22, 2025
Time: 5:00 PM – 8:00 PM (EDT)
Speaker: Stephen Skrzypkowiak, PhD, PE Consultant SMIEEE
Location: Saint Petersburg Yacht Club, 11 Central Ave, St. Petersburg, FL 33701
Cost: Admission $60 - Students $25, Includes Pizza Dinner and Parking at the Yacht Club.
CEH: 3 CEHs included in the Admission, Certificate available by selecting Yes at registration.
RSVP: Online at: https://events.vtools.ieee.org/m/488294
Questions: Hermann Amaya, Chair CNAG hermann.amaya.us@ieee.org
Guy Perry, Vice Chair CNAG guy.perry@bluocean.ai

Abstract: Machine learning (ML) is a branch of artificial intelligence (AI) that focuses on developing algorithms and models that allow computers to learn from data without being explicitly programmed. It's about equipping systems with the ability to learn, identify patterns, and make decisions based on data, rather than solely relying on pre-defined instructions.

Stephen Skrzypkowiak, SMI EEE, PhD, PE Consultant: Technical Lead and SME supporting the Science and Technology (S&T) Directorate of the Department of Homeland Security (DHS), the Transportation Security Administration (TSA), the Transportation Security Laboratory (TSL) and the Federal Aviation Administration (FAA) over the past 15 years as a Subject Matter Expert (SME) in x-ray physics, image processing, computer vision, and detection algorithm development over the full product life cycle of security screening systems.

Prior to 2003, served as System Architect in private industry/commercial environment for the development of x-ray-based explosives detection systems, including the development of detection, segmentation and reconstruction algorithms. Project Lead in collaborative efforts with geographically dispersed teams of software, electrical and mechanical engineers and university researchers. Adept at creating and driving solution for complex technical challenges with limited deadlines and budgets. Extensive work in government and commercial contracting, work plan development, and project management.

Directed research and development in reconstruction methods, computer vision, pattern recognition, signal processing, imaging processing, medical image analysis, video compression, and x-ray scanning systems. Software coded with VC++, Visual Studio and MATLAB. Extensive experience in file format standard establishment and definition in the DICOM and DICOS standards under the oversight of NEMA and the EDS N42.45 Image Standard under the oversight of the IEEE.

Project Engineer in the design and testing of the L3 Technology eXaminer 3DX 6000 system, the eXaminer 3DX 3000 and the eXaminer 3DX 1000 ARGUS EDS, including hardware and software architecture, the implementation of the real-time detection algorithm, the baggage viewing station and the image archiving system for the second generation certified systems.

IEEE PES Power & Energy Society

IEEE Florida West Coast Section

IAS IEEE INDUSTRY APPLICATIONS SOCIETY Linking Research to Practice

Symmetrical Components and Fault Calculations

Date: **Friday, July 25, 2025**
Time: **10:00AM – 3:00 PM (EDT)**
Speaker: **Thomas H. Blair, Senior Engineering Fellow, Tampa Electric**
Location: **Seminole Electric Cooperative, Inc. – 16313 N Dale Mabry Hwy Tampa, FL 33618**
Cost: **$100 Members, $200 Non-Members, $20 Students**
CEH Credits: **Four (4) 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.
RSVP: **Online at: https://events.vtools.ieee.org/m/483524**
Questions: **Tom Blair - tom_blair@ieee.org, Kayla Allemang – kallemang@ieee.org**

The seminar will include:

♦Review of Basics
o Phasors, Per-Unit
♦Symmetrical Components
o Physical Example of Vector Components
o Application of Symmetrical Components to Three-Phase Power Systems
o Electrical Characteristics of the Sequence Currents
o The Delta-Wye Transformer
♦Sequence Networks
o Thevenin Reduction of the Sequence Networks
♦Fault Calculations
o Momentary versus Interrupting
o Short-Circuit Faults

The level of difficulty of this course is Intermediate.

Speaker:

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.

IEEE PES Power & Energy Society

IEEE Florida West Coast Section

IAS IEEE Industry Applications Society Linking Research to Practice

NFPA 70E Compliance Series, Session 1: From Exposure to Qualified Workers

Session 1: Date: Friday, August 15, 2025 **Time: 12:00 pm – 1:00 pm (EST/EDT)**
Session 2: Date: Friday, September 26, 2025 **Time: 12:00 pm – 1:00 pm (EST/EDT)**
Session 3: Date: Friday, October, 24, 2025 **Time: 12:00 pm – 1:00 PM (EST/EDT)**
Speaker: **AJ Khazami & Steve Antman, Sigma C Power Services GM & Application Engineer**
Location: **Virtual: Google Meet – Link to be sent to registrants prior to event**
Cost: **Free**
CEH Credits: **One (1) CEH Each**
RSVP: **Online at: https://events.vtools.ieee.org/m/488903**
Questions: **Steve Antman - steveantman@ieee.org**

Abstract This training is geared towards anyone who is occasionally exposed to electrical hazards as well as employees that are working with electrical daily. This will be a three part series that builds from exposure to qualified workers. This class includes Lookout / Tagout (LOTO) Protocols, work permits, and one-line diagrams.

Session 1 (Exposure, All) – Friday August 15, 2025

- OSHA & NFPA 70E – Requirements for compliance and awareness of electrical workers
- Accident statistics and safety programs
- The "Qualified" person and their role in electrical work
- Hazard identification, and understanding of countermeasures
- Shock protection boundaries and the hazards of electrical shock
- Arc flash hazards to personnel and equipment

Session 2 - Friday, September 26, 2025
Basic understanding of hazard warning labels (Moderate Hazard Exposure & Qualified Workers)

- NFPA 70E's hierarchy of controls and the effectiveness of deployed countermeasures
- Case studies in electrical hazards and their impact on personnel
- Understanding PPE systems and their correct usage

Session 3 - Date Friday, October 24, 2025
Simple lockout/tagout procedures and system diagram reading (Qualified Workers)

- In depth PPE usage and equipment handling
- Complex lockout/tagout procedures and establishing lockout points
- Verifying as de-energized and creating equipotential zones
- Energized electrical work and energized work permitting
- Task based qualification and safety countermeasures
- Establishing electrically safe work conditions, Special conditions & additional potential safety concerns

.

Continued on Page 7

NFPA 70E Compliance - Cont'd from page 5

BIOGRAPHIES:

Steve Antman is an experienced Account Manager at Sigma C Power Services, bringing in over three decades of expertise in commercial and industrial power applications. His career began in the U.S. Army as a Signal soldier, supporting 82nd Airborne communications

After earning a Bachelor of Science in Computer Engineering from the University of South Florida, he transitioned into application engineering. Throughout his career, Steve has specialized in low and medium voltage upgrades, maintenance strategies, Arc Flash assessments, and breaker repair & replacement services.

He works closely with clients to address switchgear needs, develop upgrade paths, and explore life extension alternatives. His knowledge spans NFPA 70E/70B, NEC, OSHA compliance, and predictive maintenance, helping organizations optimize their maintenance plans and integrate advanced test equipment strategies for improved reliability and safety.

AJ Khazami is the General Manager of Sigma C Power Services' Florida Regional Operations, bringing over 25 years of experience in sales, service, and project management within the power industry.

A seasoned organizational leader, AJ has a strong background in client management, utility sales, and the execution of complex, multimillion-dollar projects. Prior to joining Sigma C, he held leadership roles including Proposal Manager, Account Executive, and Executive Director at several field service and engineering firms.

AJ studied Management Information Systems at Hillsborough Community College and the University of South Florida. He has been married for 21 years and is a father of two.

Calling all Power Industry & Computer Science Professionals
USF Interview Skills Workshop

Date: Friday September 12, 2025

Time:9:00 am – 3:00 pm

Location: USF Marshal Student Center (MSC) – Room TBD

IEEE Florida West Coast Section (FWCS) Power & Energy Society/Industry Applications Society (PES/IAS) is partnering with the USF PES Student Chapter to host an Interview Skills Workshop. This event is designed to help engineering students develop strong interview skills through expert insights, interactive presentations, and mock interviews.

We are seeking industry volunteers to support this event in the following roles:

Presenters: Deliver a brief session (30 minutes) on interview strategies, such as behavioral questions, resume tips, STAR Method, technical question preparation, real-life experience, nonverbal communication, virtual interview best practices, or post-interview follow-ups – looking for multiple presenters on different topics

Mock Interviewers (45 minutes, per interview): Conduct one-on-one mock interviews, providing students with valuable feedback – preferably hiring managers

This is a great opportunity to mentor the next generation of engineers, network with peers, and contribute to workforce development. If you are interested in participating, please contact one of the following IEEE FWCS PES/IAS Members by **Tuesday July 1, 2025**:

Kayla Allemang, kallemang@ieee.org

Ron Ambrosio, ron.ambrosio@ieee.org

Regan Sink, rjsink@ieee.org

Sohila Teama, sohila_teama@selinc.com

Thanh Le, TNLe@tecoenergy.com

Thank you for supporting future engineering professionals,

we appreciate your involvement!

SAVE THE DATE FWCS End of Year Gala Banquet

When: Saturday, October 25, 2025
@ 5:00 PM – 10:00 PM
Where: St. Petersburg Yacht Club
11 Central Ave.,
St. Petersburg, FL 33701
Contact: Hermann Amaya,
hermann.amaya.us@ieee.org
Register Here:
https://events.vtools.ieee.org/m/488122

Celebration of FWCS

Speakers, Recognitions & Awards
Opportunity to Network with IEEE Members
Connect with Student Branch and Young Professionals
Amazing Yacht Club Dinner
https://r3.ieee.org/fwc/banquet/

Year 2025	Florida West Coast Section - Upcoming Events Summary		A*
Date / Time	Organization Contact	Description email Registration / Website	V or P
Thursday, July 3	FWCS - CS	Monthly Meeting	V
6:30 pm - 7:30 pm	Antra Melhotra	antra.malhotra@ieee.org	
		https://events.vtools.ieee.org/m/485339	
Thursday, July 10	FWCS - PES/IAS	Interview Skills Workshop Planning Meeting	V
12:00 pm - 1:00 pm	Kayla Allemang	kallemang@ieee.org	
		https://events.vtools.ieee.org/m/483651	
Thursday, July 18	FWCS - CNAG	Generative Artificial Intelligence	P
6:00 pm - 7:30 pm	Hermann Amaya	hermann.amaya.us@ieee.org	
		https://events.vtools.ieee.org/m/488293	
Friday, July 25	FWCS - PES/IAS	Symmetrical Components and Fault Calculations	P
6:00 pm - 7:00 pm	Kayla Allemang	kallemang@ieee.org	
		https://events.vtools.ieee.org/m/484595	
Thursday, July 31	FWCS - PES/IAS	ExCom	V
7:30 am - 8:30 am	Kayla Allemang	kallemang@ieee.org	
		https://events.vtools.ieee.org/m/450345	
*Attendance: V: Virtual --- P: In Person --- V & P: Virtual and In Person			

SunCoast Signal Advertising Rates

	1 Month		6 Months		12 Months	
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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

IEEE Florida West Coast Section (FWCS) Tampa, Florida

IEEE FWCS
P. O. Box 176
Land O' Lakes,
FL 34639-9998

July 2025 - Calendar of Events *(For more information see "Inside the SunCoast Signal" → Page 1)*

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3	4	5	6	7	8	9
		*FWCS ExCom →Page 1		*FWCS PES/IAS Interview Skills ->Page 8		
10	11	12	13	14	15	16
				*Signal Inputs Due End of Day	*NFPA 70E Compliance Series 1 ->Page 6	
17	18	19	20	21	22	23
					*Machine Learning ->Page 4	
24	25	26	27	28	29	30
				*FWCS PES/IAS ExCom ->Page 10		
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Contact: michael.mayor@ieee.org