

Manatee, Pasco, Pinellas, Polk and

Sarasota



Florida West Coast Section http://www.ieee.org/fwcs

Advancing Technology for Humanity

The SunCoast Signal

The Institute of Electrical and Electronics Engineers, Inc.

Vol. 67, No. 4, April 2021

Inside the SunCoast Signal

Page 1

♦ PE Corner -- Florida Board of Professional Engineers Vacancies

Page 2

- **♦IEEE FWCS ExCom Members**
- **♦ PE Corner (Continued)**

Page 3

♦ Robofest® -- Festival of competitions and events with autonomous robots

Page 4

- **♦ Robofest® -- Continuation**
- **♦ PE / IAS Chapter in a Minute**

Page 5

- ◆ Propane -- A Low Carbon Solution for the future
 - --Friday, Apr. 16, 2021, 4:00pm-6:00pm Page 6
- ♦ Symmetrical Components and Fault Location
 - --Friday, May 21, 2021, 9:30am-2:00pm Page 7
- ◆ Suncoast Signal Advertising Rates
- ♦ Electrical Engineering Design Services
 Page 8
- **♦IEEE FWCS Contact & Addressee Space**
- **♦ IEEE FWCS Calendar of Events**

UPCOMING MEETINGS
EXCOM
Tuesday, April 6, 2021
Google Meet
Register with vTools

https://events.vtools.ieee.org/m/265229

PE Corner Art Nordlinger, PE, Senior Member

Florida Board of Professional Engineers Vacancies

When Governor Ron DeSantis took office two years ago, one of his early actions was to hold a "Deregathon". The Governor's website describes this as, "The one-day event held in conjunction with Florida's Professional Licensing Boards aims to find solutions to harmful regulations facing Floridians to strengthen the state's economy." The Boards were asked to look at all of their rules and identify any that could be eliminated or changed to be less prescriptive. On its face, this sounds like a laudable goal. However, what has become apparent over the last two years is that our Governor's bent to reduce regulatory hurdles in the state has extended to crippling the State's regulatory and licensing boards by not filling vacancies. Additionally, another of Governor DeSantis' early actions was to rescind the appointment of all regulatory board members appointed by his predecessor that had not been ratified by the legislature.

A few instances of the Governor not filling board vacancies, including the Florida Communities Trust and on the South Florida Water Management board last year created a significant enough problem that the press brought it into the daylight. However, there are many other Boards, including the Florida Board of Professional Engineers, that are suffering from the Governor's intentional neglect of the duties of his office.

In the FBPE's case, there are currently no board members serving during their appointed terms; NONE. Thankfully, the rules allow for Board members to continue to serve, if they desire to do so, until they are replaced and allows a majority of the serving members to constitute a quorum, so the Board continues to function.

Continued on Page 2

IEEE FLORIDA WEST COAST SECTION **EXECUTIVE COMMITTEE (ExCom)**

CHAIR: Paul Belussi – paul.belussi.us@ieee.org (813) 230-8723 VICE CHAIR: Andrew Seely – <u>andrew.seely@ieee.org</u> (813) 368-6002 SECRETARY: Sean Denny, venner20@ieee.org, (727) 678-0183 PAST CHAIR: Claude Pitts – <u>claude.pitts@ieee.org</u> (727) 418-5272 TREASURER: Serge Beauzile, trea.fwcs.ieee@gmail.org, (516) 567-4888 SIGNAL EDITOR: Michael Mayor, michael.mayor@ieee.org, (484) 524-3264

AWARDS & BYLAWS: Richard Beatie, PE, r.beatie@ieee.org MEMBERSHIP: Andrew Lilly, andrew.lilly@ieee.org, (813) 853-4049 TEACHER IN-SERVICE: Sean Denny, Venner20@ieee.org, (727) 678-0183

CS/AESS Computer/Aerospace & Electronic Systems, Joint Chapter Jim Anderson, jim.anderson@ieee.org, (813) 425-2467

EMBS Engineering in Medicine & Biology Chapter:

Sylvia Thomas, sylvia@usf.edu

MTT/AP/ED Microwave Theory & Techniques/Antennas & Propagation/ Electron Devices Joint Chapter: Jing Wang, jingw@usf.edu

PES/IAS Power & Energy/Industry Applications Joint Chapter: Claude Pitts – <u>claude.pitts@ieee.org</u> (727) 418-5272

RAS Robotics & Automation Chapter: Sean Denny, venner20@aol.com, (727) 678-0183

SP/COMM Signal Processing / Communications Joint Chapter:
Paul Belussi, paul.belussi.us@ieee.org, (813) 230-8723

WIE WOMEN IN ENGINEERING Affinity Group: Diana Aristizabal, dianaaristizabal08@gmail.com

LIFE MEMBER Affinity Group: Richard Beatie, PE, r.beatie@ieee.org YOUNG PROFESSIONALS: TJ Ross, a.j.ross@ieee.org, (505) 620-7734

PACE: Jim Anderson, jim.anderson@ieee.org, (813) 425-2467 CONSULTANTS NETWORK: Hermann Amaya, (727) 543-1308 hamaya@tampabay.rr.com

SENIOR MEMBER COMMITTEE: Hermann Amaya, (727) 543-1308 hamaya@tampabay.rr.com

STUDENT BRANCH MENTOR: Jacob Chacko,

jacobchacko@eaton.com USF STUDENT BRANCH ADVISORS:

Dr. Andrew Hoff, Student Branch Co-Advisor, hoff@usf.edu, (813) 974-4958

Dr. Chung Seop Jeong, Student Branch Co-Advisor, jeong@usf.edu, (813) 974-6415

Dr. Srinivas Katkoori, CS Chapter Advisor,

katkoori@mail.usf.edu

Dr. Jing Wang, MTT Chapter Advisor, jingw@usf.edu STUDENT BRANCH / CHAPTERS:

USF Student Branch, Chair: Noah Hamilton,

ieeeusfchair@gmail.com

USF Computer Society Chapter: Vishalini Laguduva Ramnath, vishalini@mail.usf.edu

USF Microwave Theory & Techniques Chapter: Enrique Gonzalez, enriquegonza@mail.usf.edu USF Power & Energy / Industry Applications Chapter:

Joe Ghisu, jghisu@mail.usf.edu
CONFERENCES: Dr. Jim Anderson, jim.anderson@ieee.org, (813) 425-2467

WEB MASTER: TJ Ross, a.j.ross@ieee.org, (505) 620-7734

WEB PAGE: https://r3.ieee.org/fwc/

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 Section. 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 Sunday after the 1st Tuesday of the month, i.e. the ExCom meeting, preceding the issue month.

Address all correspondence to: Michael Mayor, 10006 Cross Creek Blvd., PMB 140, Tampa, FL 33647, michael.mayor@ieee.org, (484) 524-3264

The SunCoast Signal, Copyright © 2021

And thankfully again, five individuals continue to serve. Three of these reached the end of their first term and though they were not reappointed for a second term, they continue to serve since a replacement has not been named. The two others were appointed by Governor Scott prior to the end of his term, but were never ratified by the legislature. Though Governor DeSantis rescinded their appointments, they also continue to serve as well. There are additionally six vacancies that are unfilled; more than half the Board positions. There are plenty of applicants for these seats, but the Governor has made no appointments.

We owe these individuals a huge debt of gratitude, not just for their service, but for the fact that these five are carrying the load for a board that is typically eleven members. Even more impressive is that all of the Board's functions continue without interruption. And as I'm sure you are aware, all of these individuals are otherwise employed and serve as FBPE Board members without compensation.

You may be thinking, how can this be? Why haven't individuals, the engineering societies, and groups from other professions spoken up? Believe me they have, communicating these concerns to Governor DeSantis' and all levels of administration. However, at least to this point, very few vacancies have been filled. Clearly the current situation is unsustainable but a solution seems, so far, to be out of reach. If you feel so inclined, bring this to the attention of your state legislators, the press, or anyone else who could help our profession with this dire situation.

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.



ROBOFEST

ROBOFEST was founded by IEEE Michigan Member, Dr. CJ Chung, Professor, Founder & Director and Lawrence Technological University in Southfield Michigan in 1999. Robofest® is a festival of competitions and events with autonomous robots that encourages students' juniors (5-8 grade), seniors (9-12 grade) and college divisions to have fun while learning principles of Science, Technology, Engineering, and Math (STEM) and Computer Science. Students are allowed to use any robotics kits in the construction of robots and any programming language to program the robots.

Robofest offers a wide variety of competition categories: Game, the main event is where math skills are put to the test; a new mission each year where students must solve unknown tasks without adult help within a specific time frame. In addition to the main game, others participate in various Robotic Exhibits: Exhibition, Each team has complete freedom to show off any creative computer programmed robotics R&D project; RoboArts, robotic Music, Fashion & Dance, Robotic Painting, and Interactive Kinetic Sculptures; RoboMed, high School and College teams create intelligent and interactive medical robotics/device projects; RoboParade, a parade of autonomous robotic floats: BottleSumo, the first robot to push intentionally a bottle off the table OR be the last robot remaining on the table; and etc.

Since 2012 past and current chairs and officers of RAS have helped the local ROBOFEST flourish. Locally in Tampa Bay, ROBOFEST is led by Emma Alaba who for over a decade has encouraged students all over Pinellas County and beyond to participate. She joined IEEE Florida West Coast Section's Robotics and Automation Society (RAS) Chapter as it was starting in 2010 and living our motto Do, Learn, and Teach robotics. We are proud to call Emma a partner in Robotics. She helps to bring schools and STEM Academies together to compete in challenging robotics events, new interesting activities to teach.

Another great personality is former Pinellas County Schools Secondary Supervisor and Math Chair, Rose Mack who has been the go-to person to be the Master of Ceremonies.

IEEE RAS Chair Sean Denny met Rose while attending the University of Central Florida's Florida Engineering Education Conference in 2006.

She invited us to Lakewood High School to judge the FIRST Robotics Challenge in 2007. This was the event which directly inspired growing the FWCS RAS Chapter three years later.

Core volunteers and sponsors since 2009 in the Alaba's family: Rebecca (passed '20), Victoria Alaba-Jean – Nielsen Media (passed '21) and Margaret.

Others in the core of volunteers include Roxan & John Reznor, Laura Spence (Pinellas STEM Coordinator for Pinellas County Schools), Juanita Andrews (recently deceased Pinellas County Teacher), David Steele (R2D2 builder), Dr. Russell Grieshop (IEEE Member and Teacher at Middleton High School in Tampa), William Collins (IEEE Engineer), John Luce (recently deceased IEEE Engineer), former RAS Chair Kenneth Fiallos, current RAS Chair Sean Denny, RAS member Jim Cavanaugh and RAS Vice Chair Michael Okneski.

Local Mayors namely Clearwater and St. Pete Beach would come to open the events or close it with the distribution of trophies. Nielsen Media in Oldsmar hosting the event up to 2020. Regional competitions usually take place in March with the Main Game, Exhibition types of events and Art Contests for students under the legal age of game participation. The RO-BOFEST Parade was given its own location at the St Pete Beach Community Center – held just before the Holidays in early November for several years. In 2015-2016, we hosted the World Robot Olympiad (WRO) at the Clearwater Library.

The Biggest event was when we hosted the 2017 World Championship in our backyard. Usually hosted at Lawrence Technological University in Michigan, several hundred international and U.S. students came to compete. IEEE FWCS was on call to handle the judging, videography, photography, promotion and St Pete Beach host the event in collaboration with Nielsen Media. We have promoted the events on the RAS Website and the Signal Newsletter.

Although the world has changed with the Pandemic, the 2021 Robofest will be a Virtual Online Zoom event over the course of three weekends April 17-May 1.



Emma Alaba has posted the following information as a call for volunteers:

We will be having the **2021 Robofest Qualifying Competition ONLINE virtually.**

The goals are to provide opportunity and motivation for students to continue to learn STEM, arts, and coding through robotics and to enhance online communication & remote teamwork skills. The dates are:

April 17th – Exhibition, RoboArts, and Robot Drawings

April 24th - Game

May 1st - Awards Ceremony

The Site Host Application has been Processed.



Robofest should have the site up for registration soon. Please read the 2021 Main Page, OFFICIAL SEASON RULES AND RELATED DOCUMENTS: This info is located at:

www.Robofest.net Get Involved

Robofest 2021 Warmup Competition and Judge Training for Game Online Saturday, March 13, 2021 1:00pm ~ 4:00pm Online through the Zoom Platform.

The main purpose for this event is to train judges for the upcoming season. We encourage Site Hosts and Volunteer Game Judges to attend.

The students are looking forward to this Online Robofest Competition. Lets make it happen - they need us and we are here to HELP!



PES/IAS Joint Chapter in a Minute

Your PE/IAS Chapter would like to announce the new Officers for 2021:

Chair: Claude Pitts claude.pitts@ieee.org
Vice-Chair: Robert DeMelo
Treasurer: Serge Beauzile
Secretary: Ryan Copley

Claude.pitts@ieee.org
Robert.demelo@ieee.org
serge.beauzile@ieee.org
r.copley@ieee.org

We express our gratitude and thank you for a job well done by Steve Antman, Past-Chair 2020. Steve has been and continues to be a valuable active member of the PE/IAS Chapter.

Your PE/IAS Chapter has been co-hosting, with the PE Chapter, SE Wisconsin Section providing various Seminars ranging from Renewables, Small Modular Reactors, Laws and Rules (Florida, Nuclear Power in India, Thorium Based Energy and Battery Energy Storage System to name a few. All of these Seminars have been well attended by both IEEE members and non-IEEE members literally worldwide! Looking forward Tom Blair will presenting a Symmetrical Components class, 21- April. Keep an eye out on the Section Calendar as we are planning a Seminar on recent power event in Texas. If you have not taken the opportunity to join a Seminar, please do. I am sure that you will find the presentations and discussions very informative and enjoyable. Please contact one of your officers with any comments and or suggestions on activities or should you wish to take an active part in a presentation.

Regards, Claude Pitts, Chair PES/IAS Chapter, Florida West Coast Section



The SunCoast Signal

http://www.ieee.org/fwcs







Propane - A low carbon solution for the future

Date: Friday, April 16, 2021
Time: 4:00 PM – 6:00 PM EST

Speaker: Gokul Vishwanathan of the Propane Education & Research Council

Location: Google Meet

Link will be provided to Registrants the day before the meeting.

Cost: There is NO cost for this meeting.

CEH: There are No Continuing Education Hours (CEHs) offered for this meeting.

Registration: https://events.vtools.ieee.org/m/263414

Questions: Chuck Hawkins < chuck.hawkins 1@gmail.com>

Abstract: The Propane Education & Research Council (PERC) is a nonprofit that provides leading propane safety and training programs and invests in research and development of new propane-powered technologies. PERC is operated and funded by the propane industry. PERC programs benefit a variety of markets including transportation, agriculture, commercial landscaping, residential, and commercial building. PERC was authorized by the U.S. Congress with the passage of the Propane Education and Research Act (PERA), signed into law on Oct. 11, 1996. PERC is governed by a 21-member board appointed by the National Propane Gas Association and the GPA Midstream Association.

Biography: Gokul Vishwanathan serves as the Director of Research and Sustainability at PERC, where he



leads initiatives to grow propane demand through research, technology development, and sustainability programs. Before joining PERC, Gokul was a Senior Lead Engineer at Booz Allen Hamilton and served as a technical advisor for the U.S. Department of Energy's Advanced Research Projects Agency–Energy (ARPA-E) and Energy Efficiency and Renewable Energy (EERE) Advanced Manufacturing Office (AMO) for various technologies including combined heat and power, internal combustion engines and hybrid electric vehicles, pumped thermal energy storage, carbon capture, and connected and automated vehicles. Before Booz Allen Hamilton, he spent 3-1/2 years at Cummins Inc. as Technical Specialist and Senior Systems Integration Engineer, leading diesel engine and after-treatment performance, controls, and advanced calibration development activities. Gokul has a Ph.D. from the

University of Wisconsin-Madison, a Master of Science degree from the University of Alabama and Bachelor of Engineering degree from the University of Pune (India), all in Mechanical Engineering



The SunCoast Signal

http://www.ieee.org/fwcs







Symmetrical Components and Fault Locations

Date: Friday, May 21, 2021

Time: Seminar: 9:30AM – 2:00PM

Speaker: Thomas H. Blair, Senior Engineering Fellow, Tampa Electric

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

Please ensure your email is correct on signup page.

Cost: \$100 Members, \$150 Non-Members, \$10 Students CEH Credits: The level of difficulty of this course is Intermediate.

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. Florida provider #0003849.

RSVP: Online at: https://events.vtools.ieee.org/m/264558

Questions: Tom Blair at tom blair@ieee.org

Your local IEEE PES/IAS Chapter is offering this 4-hour seminar on Symmetrical Components and Fault Calculations

The level of difficulty of this course is Intermediate. 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

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.

Suncoast Signal Advertising Rates

	1 Month		6 Months		12 Months	
Size	Member	Non- Member	Member	Non- Member	Member	Non- Member
Business Cards	\$25	\$35	\$120	\$150	\$210	\$252
1/4 Page	\$40	\$52	\$190	\$38	\$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



ELECTRICAL ENGINEERING SERVICE

DESIGN/BUILD

INDUSTRIAL & COMMERCIAL

MAINTENANCE & CONSTRUCTION

INSTRUMENTATION & CONTROLS

ARC FLASH ASSESSMENTS & TRAINING

INFRARED TESTING

ELECTRICAL TESTING SERVICES

863-425-2698

www.eesllcfl.com



Formerly Leedy Electric East, LLC





The SunCoast Signal

http://www.ieee.org/fwcs

IEEE FWCS P. O. Box 2610 Valrico, FL 33595-2610



NON-PROFIT ORG U.S. POSTAGE PAID TAMPA, FL. PERMIT No. 1197

Florida West Coast Section Tampa

DATE SENSITIVE MATERIAL DO NOT DELAY

Change of address? IEEE Web Contact Update: http://www.ieee.org/membership/coa.html Or send address changes including your name, IEEE Member number and all pertinent information to: IEEE, 445 Hoes Lane, P. O. Box 1331, Piscataway, NJ 08855-1331 or call (800) 678-4333 Or Fax your address changes to (732) 562-5445

April 2021 - Calendar of Events (For more information see Page 1 in this Signal)									
Sun	Mon	Tue	Wed	Thu	Fri	Sat			
				1	2	3			
4	5	6	7	8	9	10			
		*EXCOM Google Meet							
11	12	13	14	15	16	17			
*Signal Inputs Due					*Propane - A low carbon				
18	19	20	21	22	23	24			
25	26	27	28	29	30				