

**Florida West Coast
Section (FWCS)**
Please Check the Website
Often for **UPCOMING EVENTS**
(Front Page Right Column)
<https://r3.ieee.org/fwc/>

The SunCoast Signal

The Institute of Electrical and Electronics Engineers, Inc.

Inside the SunCoast Signal

Page 1

◆ PE Corner

Page 2

◆ FWCS ExCom Members

◆ FWCS ExCom New Officers

Page 3

◆ Time Domain Studies for DER Interconnections

→Wed. Dec. 8, 2021, 12:00pm - 1:15pm

Page 4

◆ So You Are Not A Senior Member Yet?

◆ New Senior Members List

Page 5

◆ New Senior Members List (Cont'd)

◆ PE Corner (Cont'd from Page 1)

Page 6

◆ The Center for Initiatives in STEM University of Central Florida

◆ Signal Advertising Price List

Page 7

◆ Seminole Electric Cooperative, Inc.

◆ Electrical Engineering Design Services

Page 8

◆ IEEE FWCS Contact & Addressee Space

◆ IEEE FWCS Calendar of Events

Next ExCom Meeting
Tuesday, December 7, 2021

Google Meet

Register with vTools

<https://events.vtools.ieee.org/m/288854>

PE Corner

Art Nordlinger, PE, Senior Member

The Steps to Professional Licensure, Part 1

So you want to become a PE? Great! In the next couple of months I'll review the process to get your PE license. Though there have been several significant changes to the process in recent years, there are still essentially four steps required to get your PE.

First, get an ABET-accredited four-year engineering degree (or equivalent—see below). Second, take the Fundamentals of Engineering (FE) exam, formerly known as the Engineer Intern or Engineer in Training (EIT) Exam. Once you pass, you are an Engineer Intern (EI). Third, an EI must obtain appropriate experience, typically four years, as defined in the rules. And last, the EI may take the Professional Engineers exam. Passing the exam and having the required experience qualifies the applicant as a Professional Engineer.

Recently, the Florida legislature passed changes to the “equivalent” requirements to take the FE exam related to Engineering Technology Degrees. They also made changes to the experience and timing requirements to take the PE. These will be the subject of a future column.

In Florida, an applicant may apply to take the FE directly with the National Council of Examiners for Engineering and Surveying (NCEES). The process is described on the FBPE website.

<https://fbpe.org/licensure/licensure-process/>

If the applicant obtained their engineering degree from a foreign institution not subject to ABET accreditation, the Board will typically require that additional information be provided to determinate whether the courses taken are substantially equivalent to a program meeting ABET accreditation standards.

Continued on Page 5

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(813) 425-2467**WEB MASTER:** TJ Ross, a.j.ross@ieee.org, (505) 620-7734**WEB PAGE:** <https://r3.ieee.org/fwc/>**ExCom****November 2nd, 2021****New Officers Elected for 2022****Richard Beatie motioned to have a unanimous
election; Seconded by Andrew Seely
FWCS Section Officers 2022****Chair – Michael Mayor-- January 2022****Vice Chair – Andrew Seely****Secretary- Chung Seop Jeong-- January 2022****Treasurer- Serge Beazule****Webmaster – TJ Ross****Awards & Bylaws – Richard Beatie****Membership – Andrew Lilly****Student Mentor – Jacob Chacko****Michael Mayor, Chair Elect, January 2022**

It is a great honor to have been elected the IEEE Florida West Section Chair for 2022. In this position I will strive to achieve the goals set by the IEEE and the Florida West Coast Section. We also want to thank Paul Belussi, the outgoing Chair, for his service and dedication during 2021.

Chung Seop Jeong, PhD, Secretary Elect, January 2022

Dr. Jeong is the Section Secretary Elect for 2022. He is a University of South Florida Student Branch Co-Advisor and has been part of the ExCom in that capacity.

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

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Time Domain Studies for DER Interconnections

Date: Wednesday – December 8th, 2021

Time: Seminar: 12:00PM – 1:15PM

Speakers: **Brayan Macancela, MSEE:** Senior Consultant – Distribution Planning & Grid Modernization in 1898 & Co (division of Burns & McDonnell)
Chenxi Lin, PE, PhD: Senior Consultant – Transmission Planning & Power System Analysis at 1898 & Co (division of Burns & McDonnell)

Location: Webinar/Lunch & Learn (lunch is not provided)

Cost: Free

CEH: No CEH credits provided for this webinar. Florida exempt provider #00015.

RSVP: Online at <https://events.vtools.ieee.org/m/283820>

Questions: Robert DeMelo at robert.demelo@ieee.org

Abstract: Utilities across the United States are experiencing an increase in distributed energy resource (DER) interconnection applications on their distribution systems. As DER deployment grows, there is a strong need for utilities and regulators to determine the feasibility and potential impacts that the DER may have on the local electric power system. A time domain simulation with detailed DER modeling methodology is widely used in industry to perform a screening or larger evaluation for DER interconnection. The typical time domain studies for DER interconnection may include, but are not limited to, risk of islanding (ROI), transient overvoltage (TrOV), load rejection overvoltage (LROV), ground fault overvoltage (GFOV), low voltage ride through (LVRT), high voltage ride through (HVRT) and underfrequency ride through (UFRT). All analysis will comply with applicable state and utility DG interconnection guidelines, state regulations, utility operating procedures, and relevant IEEE standards (including IEEE 1547 and IEEE 519).

Brayan Macancela, MSEE: Senior Consultant – Distribution Planning & Grid Modernization in 1898 & Co (division of Burns & McDonnell). M.S.E.E & B.S.E.E (University of Massachusetts Lowell) - 10 years of power industry experience with a focus on Distribution and Sub-Transmission system planning. Currently leading and performing distribution planning, DER interconnection and Grid modernization system studies. Specializing in developing models in a variety of engineering analysis software programs for distribution and sub-transmission system. Previous experience prior to joining 1898 & Co., distribution planning consultant and distribution system planning engineer for National Grid in Waltham, MA.

Chenxi Lin, PE, PhD: Senior Consultant – Transmission Planning & Power System Analysis at 1898 & Co (division of Burns & McDonnell). M.S.E.E (University of Oklahoma), Ph.D.E.E (University of Oklahoma)- 10 years of power industry experience with a focus on transmission planning and power system analysis including steady state, transient stability, and electromagnetic transient analyses. Previous positions include Lead Research and Development Engineer at Elon Energy Inc, Austin, TX.

SO YOU ARE NOT A SENIOR MEMBER YET??

Ok, we have come to the end of the Senior Member Promotions for 2021 and I wish to congratulate those who took the step of claiming their Senior Member Elevation and are now enjoying the privileges of Senior Membership because if you didn't know it, only Senior Members can perform certain tasks and occupy certain offices in IEEE so I am going to list these benefits:

Recognition: The recognition of your peers for technical and professional excellence.

Senior Member Plaque: An engraved Senior Member plaque to be proudly displayed for colleagues, clients and employers to see.

Letter of Commendation: This formal letter will be sent to your employer about the distinction of achieving Senior Membership (at the member's discretion).

US\$25 Coupon: IEEE will recognize all newly elevated Senior Members with a coupon that can be used to join one new IEEE Society.

Announcements: Announcements of your elevation to Senior Member can be published in Section/Society and/or local newsletters, newspapers and other notices.

Leadership Eligibility: Senior Members are eligible to hold executive IEEE volunteer positions.

Ability to Refer Other Candidates: Senior Members are qualified to serve as a reference for other applicants to Senior Membership.

Review Panel: Senior Members are invited to be on the panel to review Senior Member applications

So if you did not become a Senior Member despite all the opportunities and ease of advancement that we have provided you in 2021, there is always 2022.

The Admissions and Advancement Committee Review Panel meets only six times a year and the last opportunity for you to advance was on November 20th, 2021 after which, the Review Panel enters in a short but deserved hiatus until the February 2022 start of the new Season. There will be no Review Panel Meetings from this date until February 2022 and the Florida West Coast Section Senior Member Elevation Committee will be observing this well-deserved break. I am sorry if you missed out in a whole year and six opportunities to advance to Senior Member because they were announced.

However, since I took the time to prompt you and urge you to become a Senior Member, you can still send me your perfectly formatted resume according to the sample I sent you in my Eligibility letter and I will register you for the next session of the Interview Meeting in February and hold your documentation in your file until then.

The closing of this Senior Member Elevation year 2021 when we elevated so many Candidates has brought us an impressive number of 269 new Senior Members. We would like to honor the last promotion of 2021 and their names are listed below. Please join me in congratulating our new Senior Members, and wish them success in their endeavors under their Senior Member Title.

The new Senior Members List follows:

| First NAME | Last NAME |
|------------------|----------------|
| Paul | Ahrens |
| Salma | Alarefi |
| William | Bates |
| Melvin | Belcher |
| John | Bentley |
| Anne | Blais |
| Sam | Burgiss |
| Richard | Burgujian |
| Balasubramaniyan | Chandrasekaran |

| First NAME | Last NAME |
|------------|-----------|
| Daniel | Chavez |
| Corinne | Coleman |
| John | DeAngelis |
| George | Deichert |
| Trent | DePersia |
| Kana | Eguchi |
| Rose | Faghieh |
| Robert | Fowler |
| Amara | Ghani |

| First NAME | Last NAME |
|----------------------|-------------|
| Mario | Guerrero |
| Salam | Hajjar |
| Douglas | Himberger |
| Gary | Howell |
| Anne | Kayem |
| Christina | Kazantzidou |
| M Fahim Ferdous | Khan |
| Kurt | King |
| Zsolt | Kira |
| Almudena | Lindoso |
| Robert | Madson |
| Chandrima | Mondal |
| Sanjida | Moury |
| Taylor | Murdock |
| Aditya Kameswara Rao | Nandula |
| Sadia | Nawaz |
| Edward | Page |
| Luisa | Petti |
| Cristina | Piazza |

| First NAME | Last NAME |
|-------------|------------|
| Jirawadee | Polprasert |
| Sajjadur | Rahim |
| Lori | Rebenitsch |
| Kelly | Rhoades |
| Zahra | Ronaghi |
| Sarah | Rovito |
| Meriem | Salhi |
| Leda | Sari |
| Gary | Schwartz |
| Heba | Shaban |
| Allen | Shapiro |
| Abhilasha | Sharma |
| Zygmunt | Skrobanski |
| Bill | Stevenson |
| Alade | Tokuta |
| Sara | Vinco |
| William | Wilson |
| Leon | Wittmer |
| Elena Maria | Zannoni |

PE Corner *(Continued from Page 1)*

The FE exam has changed in several regards over the years. One thing that has remained consistent, however, is that the exam is administered by NCEES in all fifty states and most US territories. No matter what state you pass the exam in, that passing grade is accepted by every state. In terms of the exam itself however, much has changed. For example, up until about twenty years ago, applicants could bring any books they desired into the exam room to use as a reference.

This has changed to where the applicant can only use a formula reference book provided by NCEES. An applicant is given a new book for use during the exam; you can't bring one with you. In fact, nothing may be brought into the exam room except for pencils and an approved calculator. The exam is multiple choice, but now it is computer-based and taken at a testing center online.

The exam may be taken during eight months of the year where previously it was only given on two specific dates each year. The exam is one hundred ten questions in length, half in the morning and half in the afternoon with an optional twenty-five minute break.

Next, the exam used to cover eleven subject areas in the morning, followed by specific areas of the applicant's choosing in the afternoon. This has also changed to where the whole exam is specific to each engineering discipline. This is in line with changes in engineering curricula in that, for example, many electrical engineers no longer are required to take statics and dynamics, and structural engineers may not be required to take circuits. Next month I'll discuss the experience required for an Engineer Intern.

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



The Center for Initiatives in STEM

UNIVERSITY OF CENTRAL FLORIDA

Initiatives in STEM
College of Engineering and Computer Science
College of Sciences
www.stem.ucf.edu

The Center for Initiatives in STEM (iSTEM), in conjunction with our industry partners, will host the 17th Annual FEEC at the UCF Student Union on Friday, February 25, 2022.

K-12 STEM teachers, administrators, practicing engineers and other (informal) educators from across Florida involved in and/or interested in learning more about STEM education are welcome to attend the conference. Activities for the day include:

- Speakers representing the education sector and/or STEM professional organizations and industries
- An industry panel to include senior STEM administrators from corporate agencies to discuss the importance of STEM to the future workforce
- A series of concurrent interactive and hands-on workshops

Those interested in presenting an interactive workshop are encouraged to submit a proposal at the "Call for Presenters" link on our website. Proposals will be accepted through December 15, 2021. (Direct link: <http://stem.ucf.edu/feec/call-for-presenters/>) Registration for the conference will open in early December on the same site. The cost to attend the 2022 FEEC is \$15, however, presenters will be invited to attend free of charge. Please do not register for the conference prior to receiving notification regarding proposal acceptance. A separate registration form for presenters will be sent after proposals have been accepted.

About the Conference

The Florida Engineering Education Conference (FEEC) has been hosted by the College of Engineering and Computer Sciences at the University of Central Florida since it began in 2006. An event that has been described as unique in the state of Florida, the FEEC strives to bridge the engineering workforce and the academic sector through a series of workshops, hands-on activities, and networking sessions. In 2014, the topic was broadened beyond the typical engineering disciplines to address a more comprehensive STEM agenda.

Thank you and we look forward to seeing you at this year's FEEC!

Sincerely,
Renée Sackett Johnston
Academic Program Coordinator II, K-12

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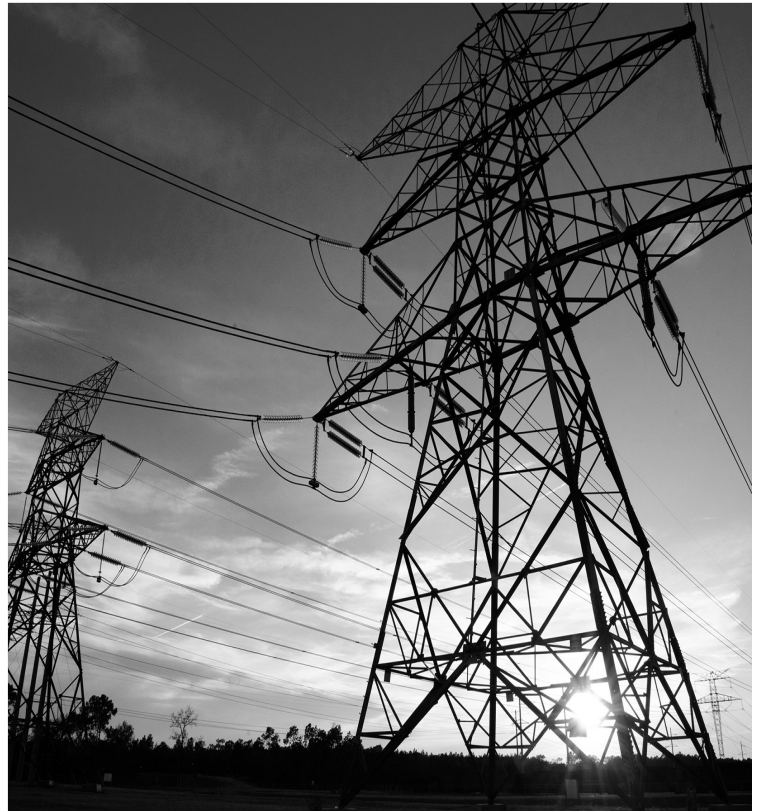
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December 2021 - Calendar of Events (For more information see "Inside the SunCoast Signal" → Page 1)

| Sun | Mon | Tue | Wed | Thu | Fri | Sat |
|-----|-------------------------------------|-------------------|----------------------------|-----|----------------|----------------|
| | | | 1 | 2 | 3 | 4 |
| | | | | | | |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| | | *ExCom →Page 1 | *Time Domain... →Page 3 | | | |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| | *Signal Inputs Due By End of Day | | | | | |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| | | | | | *Christmas Eve | *Christmas Day |
| 26 | 27 | 28 | 29 | 30 | 31 | |
| | | | | | *New Years Eve | |