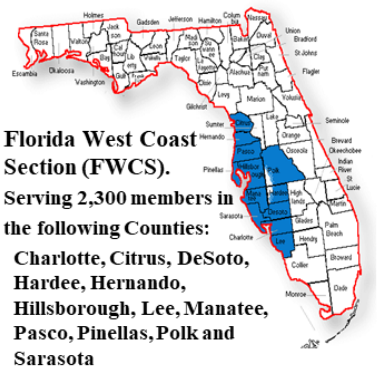

Florida West Coast Section (FWCS). Serving 2,300 members in the following Counties:
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Florida West Coast Section (FWCS)
Please Check the Website Often for UPCOMING EVENTS (Front Page Right Column)
https://r3.ieee.org/fwc/

The SunCoast Signal

The Institute of Electrical and Electronics Engineers, Inc.

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Next ExCom Meeting
Tuesday, October 5, 2021
Google Meet
Register with vTools
https://events.vtools.ieee.org/m/281575

PE Corner

Art Nordlinger, PE, Senior Member

IEEE Needs You!

Our local IEEE section and its affinity groups is unique in terms of the number of seminars, tours and other educational opportunities that are offered. Some of these allow professional engineers to earn continuing education hours that are required by most states for license renewal. With the wide variety of companies and industries in our area comes a vast pool of expertise in so many areas of engineering. Many of you are experts in your particular field, and IEEE has opportunities for you to share your expertise.

You may be aware of the continuing education requirements for PEs, but you may not be aware that, in general, a course with sufficient technical content to qualify for granting continuing education hours to participants need not be taught by a PE. Section 61G15-22.002 of the Florida Administrative Code defines what educational activity can qualify for credit: "*Any qualifying course or activity with a clear purpose and objective which will maintain, improve, or expand the skills and knowledge relevant to the licensee's area of practice.*"

However, a licensee need only take four hours of continuing education in their area of practice. The remaining twelve hours "…*may relate to any topic pertinent to the practice of engineering*…" (61G15-22.001(1)).

IEEE puts on many educational opportunities that easily meet these requirements.

Continued on Page 2

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.

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

You may be thinking that your area of expertise is very specific and that it won't qualify for continuing education since it's not many people's "area of practice". For one, area of practice is generally widely defined. For example, though your area of expertise may be LEDs used in zero gravity environments, your area of practice can be broadly defined as electrical engineering. Lots of engineers may be able to count a course that you are teaching as applicable to their area of practice. And second, even if they can't, they can count it toward the twelve hours they must take in a pertinent engineering topic.

There is an added bonus, in addition to the satisfaction of sharing your expertise with your colleagues, if you are a PE teaching a qualifying seminar. The first time you teach the seminar, you get double the number of continuing education hours that are awarded to the students!

As I previously noted, IEEE does a lot in terms of continuing education and with your help, we could do a lot more. Please contact your IEEE officers for more information on how you can share your expertise with your colleagues by teaching an IEEE seminar.

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.

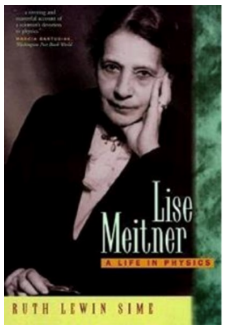
Southeastern Michigan Section - Chapter C16

Sponsored by the FWCS CS/AESS Joint Chapter

Physics, Race, and Gender: Lise Meitner & the Discovery of Nuclear Fission

Date: Friday October 1, 2021
Time: 3:00 PM – 4:30 PM (login at 2:45 PM)
Place: Virtual, a Link will be provided to Registrants the day before the meeting
Speaker: Prof Ruth Sime
Cost: Free
CEU: There will be no Continuing Education Units offered ed for this meeting
Registration https://meetings.vtools.ieee.org/m/276501
Questions: Chuck Hawkins at: chuck.hawkins1@gmail.com

Abstract: The discovery of nuclear fission took place in Berlin at the end of 1938, and the Nobel Prize for the discovery was awarded to the chemist Otto Hahn in 1945. Because the award excluded the physicist Lise Meitner, it has always been controversial, raising questions about the fairness and competency of the Nobel decisions.



Our speaker, Professor Ruth Lewin Sime, will outline the interdisciplinary collaboration of Meitner, Hahn, and Fritz Strassmann in Berlin that culminated in the fission discovery, how Meitner's forced emigration from Germany distorted the scientific attribution for the discovery and led Hahn to deny that Meitner and physics had contributed to it. In discussing the Nobel decisions to award a prize only to Hahn, and not to Meitner, Strassmann, or Otto Robert Frisch, with whom Meitner devised the first theoretical interpretation of the fission process, Professor Sime will examine Meitner's situation as a famous Jewish woman physicist surviving in the 1930s Nazi Germany and later a foreigner in Swedish exile and her difficult experience with the Swedish physicist Manne Siegbahn.

Biography: Professor Sime is a physical chemist who taught chemistry for over thirty years at Sacramento City College in California. She is the author of the award-winning biography, Lise Meitner: A Life in Physics, and has taken part in several documentary films about Meitner. Currently she is working on a biographical study of Otto Hahn during and after the Nazi period in Germany.

IEEE Computer Society | IEEE Aerospace and Electronics Systems Society | IEEE | IEEE Signal Processing Society | IEEE ComSoc IEEE Communications Society

Information Security, Cryptography and Cryptanalysis

Date: Thursday, October 7, 2021

Time: 6:00 PM – 7:30 PM

Location: Google Meet Online - Link will be provided to Registrants

Speaker: Michael A. Mayor, MSE, PE (State of VA)

Cost: There is NO Cost for this Presentation or the CEH Credits.

CEH Credits: 1 CEH Credit will be awarded to those who completely attend the presentation
At the end of the presentation send a request for certificate to: michael.mayor@ieee.org

RSVP Online at: https://events.vtools.ieee.org/m/279528

Questions: Michael Mayor at 484-524-3264 or michael.mayor@ieee.org

Abstract: The 21st Century has seen an explosion in the use of Digital Data where data containing personal identity, financial information, medical records, corporate business strategy and technical data as well as national defense data is stored and retrieved in digital form and transmitted over wireline and wireless communications links.

Data Collection activities that were once the province of States targeting other Countries are now conducted by States, Private and Criminal Organizations (and even Private Individuals) targeting all sources of private data.

Starting with key concept definitions, proceeding through a brief historical background the presentation gives a survey of overall Information and Communications Systems Security, historical encryption methods and algorithms, data sanitization methods, recovery of erased data, wireline and wireless communications security, low signature RF Systems and future encryption trends and solutions like Artificial Intelligence and Quantum Cryptography.

Biography: Michael A. Mayor is a Consulting Scientist (CS) providing services in Secure Information Systems and Secure Telecommunication Networks.

Formerly, he was Vice President / Chief Scientist, Advanced Technology Research, in the Aerospace/Communications Division of ITT Defense Electronics. In this capacity, he conducted Research & Development of Secure Mobile Wireless Communications and Emitter Geolocation Systems. The system components included: Radio Frequency Transceivers, Software Defined and Cognitive Radio Systems, Digital Receivers and Digital Signal Processing Algorithms. This extended to the application of Digital Instrumentation to System Test and Validation.

He authored six patents in Spread Spectrum Communications and Digital Instrumentation. He received the ITT Defense Electronics Engineered for Life Award, for his technical contributions in Secure Communications, Geolocation and Microelectronics.

He is a Senior Member of the IEEE and holds a Master of Science in Engineering (MSE) from the School of Engineering and Applied Science, University of Pennsylvania. He is a licensed Professional Engineer in the State of VA and a member of the National Society of Professional Engineers (NSPE).

Transmission Planning in the State of Florida

Date: **Friday, October 13th and 14th, 2021**
Time: **Webinar: 1:000PM – 3:00PM (EST/EDT) each day**
Speaker: **Various Speakers**
Location: **Online – meeting invitation will be emailed to attendees prior to seminar – Please ensure your email is correct on signup page.**
Cost: **$50 Members, $100 non-Members, $10 Students**
CEU Credits: **Two (2) CEU's provided for this event. Florida provider #0003849.**
RSVP: **Online at: https://events.vtools.ieee.org/m/279775**
Questions: **Robert DeMelo - Robert.demelo@ieee.org**

Your local IEEE PES/IAS Chapter has collaborated with IEEE Orlando, the Florida Reliability Coordinating Council, and subject matter experts from utilities throughout Florida to offer the following online event:

This online webinar will cover various topics in the field of electric transmission planning within the state of Florida. The sessions will be broken up into two - 2 hours session from 1pm to 3pm on both October 13th and 14th. Speakers covering the technical topics are considered subject matter experts in their field of transmission planning. Topics will include the following:

- NERC / FERC / Regulatory Backgrounds
- NERC Transmission Planning (TPL) Standards and how they relate to Capital projects in Planning and Operations
- TPL Standards and In-depth Challenges
- TPL 001-005 Challenges
- Other NERC Reliability Standards
  - System Operating Limits (SOLs)
  - Operations Planning Standards (e.g., What is required?)
  - PRC – 023 (e.g., What does it mean? Why is it important?)
  - PRC – 026 (Stable Power Swings)
  - CIP – 014 (Physical Security Protection)
  - MOD – 25, – 26, – 27: History / Why its Important / Basics of Testing
  - PRC – 002
  - NERC Remedial Actions Schemes (RAS)
  - Under Frequency
    - What is UFLS? What is 60 Hertz? What is a rotating outage?
    - Review of past events

Interconnecting the Grid

- "How do you connect to the Grid?"
  - Open Access Transmission Tariffs
  - Interconnection Requirements and Agreements
  - Power Purchase Agreements
  - Regulatory Environments
- Basics of Interconnection Studies (e.g., Load Flow, Short Circuit, Stability, etc.)
- How are Interconnection Studies factored into Long-Term Studies?
- Challenges & Lessons Learned with Inverter Based Resources
  - Solar resources do not behave/dispatch like conventional (thermal) units
  - Lack of Inertia (e.g., Why is this important?)
  - Modeling Challenges / Testing
  - Voltage / VAR control
  - How does integrate into long range.
- Aren't Batteries the Solution?
  - Sizing / Runtime / Charging challenges
  - Regulatory issues with charging / discounts / Federal tax credits
  - Lifespan
  - Fire / Hazardous Materials

College/Early Career – Planning Florida's High Voltage Transmission System

Date: Friday, October 15, 2021

Time: Webinar: 1:000PM – 3:00PM (EST/EDT)

Speaker: Various Speakers

Location: Online – meeting invitation will be emailed to attendees prior to seminar – Please ensure your email is correct on signup page.

Cost: Free

CEU Credits: No CEU's provided for this event. Florida provider #0003849.

RSVP: Online at: https://events.vtools.ieee.org/m/279773

Questions: Robert DeMelo - Robert.demelo@ieee.org

Your local IEEE PES/IAS Chapter has collaborated with IEEE Orlando, the Florida Reliability Coordinating Council, and subject matter experts from utilities throughout Florida to offer the following online event:

Are you a college student or a graduate early in your engineering career? This webinar will be a great opportunity to get a peek into transmission planning in the state of Florida as well as a high-level overview of various power system engineering careers.

The way we think about and use electricity is changing daily with the implementation of various cutting-edge technologies such as large scale solar, energy storage, and highly efficient natural gas generation. The way utilities use these technologies and incorporate them into the grid continues to challenge those in the fields of engineering from the lab to the assembly line and from project engineering to construction, and incorporating these technologies into our large and vastly complicated electric distribution and transmission system.

The webinar will cover topics such as:

Power System Engineering Careers

- What to focus on in College
- Basics of different aspects of Power Industry:
- Manufacturing
- Operators (Control Centers and Generation Plants)
- Generating Plants
- Distribution Systems
- Transmission Systems
- Operations Planning
- Transmission Planning

Basics of Transmission Planning

- Planning the Power System as a Grid
- NERC Planning Standards (TPL-001)
- Capital Planning
- Mitigation Planning (Long-Term and Operations Planning)
- Types of system analysis and software tools:
- Load flow
- Short Circuit
- Stability
- Energy Management Systems (EMS)

FCDI
The Foundation of Innovation

ROBOTICON Tampa Bay Sponsorship package

When: October 1-24, 2021
Where: AMRoC Fab Lab
2149 University Square Mall
Tampa, FL 33612

FOR MORE INFORMATION GO HERE

ROBOTICON.net

Student Branch Fall Update!!!

The students of IEEE at the University of South Florida have returned to on-campus activities. We are all very excited to host awesome events in-person again. We have a plethora of exciting events planned for this semester.

At the time of the publication of this signal, we will have made history with a collaboration event with University of Cape Town IEEE Student Branch. With the help of Andrew Seely, the FWCS Vice-Chair, we hosted a virtual event with Dr. Ryan Abbott, a patent attorney focused on rights for AI inventors. This event marks the start of a productive partnership with the IEEE Student Branch in South Africa and the IEEE Student Branch at USF. We are excited to hold more events collaboratively and network around the globe.

During this semester, our student branch has planned several events with companies like Eaton and Raytheon to boost our student's professional development skills. We recently had our Fall kickoff event, where we had 80 students attend and receive free food and shirts. The IEEE USF Student Branch is happy to announce our two big networking events for the Fall 2021 Semester.

IEEE USF Fall Picnic at USF Riverfront Park - October 24th 2-5pm

Register:

https://events.vtools.ieee.org/m/281093

IEEE USF Fall Banquet at USF Marshall Student Center – November 20th 6-8pm

Register:

https://events.vtools.ieee.org/m/276808

I look forward to the rest of this semester. We hope to have fundraising nights at restaurants such as Blaze Pizza and Chipotle in the near future. I hope to see you all at our Picnic and Banquet!

Best Regards,
Noah Hamilton
IEEE USF Student Branch Chair

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

Florida West Coast Section Tampa

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

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

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					*Lisa Meitner... →Page 3	
3	4	5	6	7	8	9
		*ExCom Google Meet		*Information Security →Page 4		
10	11	12	13	14	15	16
	*Signal Inputs Due		*Transmision Planning... →Page 5	*Transmision Planning... →Page 5	*Florida's High Voltage System... →Page 6	
17	18	19	20	21	22	23
24 / 31	25	26	27	28	29	30