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The Suncoast Signal

The Institute of Electrical and Electronic Engineers, Inc

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UPCOMING MEETINGS EXCOM

Tuesday, June 7, 2020 5:30 pm
WebEx

Register with vTools

<https://events.vtools.ieee.org/m/233009>

USF Student Branch

Noah Hamilton

Hello! My name is Noah Hamilton and I am the new USF Student Branch Chair taking over for Thomas Decanio as he has graduated and gone on to start his career. (We miss you Tom!) I am starting my 3rd year at USF in Electrical Engineering and have been involved with IEEE since my freshman year on campus. I am excited for this new opportunity and look forward to meeting and working with other fellow IEEE members.

After successfully transitioning our new executive board into their new roles, we have hit the ground running with plans for fall and ways to expand our organization both as campus student organization and IEEE FWCS Student Chapter. Many of our members are currently engaging in full-time internship opportunities, personal projects, and enrolling in summer classes to gain experience and further their careers. Others are pursuing new opportunities and even taking time to travel and relax during this hectic year.

As we are planning for the upcoming semester, we are open to ideas for events, presentations, and workshops with professionals especially IEEE members. We are also looking for ways to promote IEEE Student Membership on campus and the grow the organization.

If you have any suggestions or would like to help out in any way, feel free to send me an email at ieeusfchair@gmail.com. I'd love to hear from you.

All the best!

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The Membership Development Minute

by Andy Lilly

FWCS Membership Development Chair

“What do you get most out of IEEE membership?” is a question I get asked often as an MD chair.

That answer has changed for me over time starting as an IEEE student member back in 1998. Back then, membership was an opportunity to be involved in an on-campus leadership organization at the collegiate level as I was looking to distinguish myself for grad school and my first Engineering job. Also, membership gave me access to IEEE standards and technical papers but just as importantly also gave me access to local professionals to build my fledgling professional network. As I recall, My first boss was both a PE and an IEEE member. That was no accident.

If you ask me today, over 20 years later, my answer is similar, but slightly different. Long gone is my need to fill a resume as a new professional, and I presently and fortunately am not a job seeker or candidate for a graduate assistantship. But, as a PE diligently counting to 18 CEU/PDHs every two years in the state of Florida, I always have my eyes out for opportunities to learn new things and my IEEE membership and FWCS seminars serve me well with new and relevant continuing education opportunities.

What has not changed from then until now are the excellent individuals that call the Florida West Coast Section their local chapter. I have benefited greatly from their expertise. Whether I have questions about the nuanced issues of Florida solar and IEEE 1547 or I'm looking for someone who has some experience mitigating negative sequence currents in electric cogeneration, my digital Rolodex is filled with IEEE affiliated persons that I know can and will help me develop into a more proficient Engineering Professional even with my many years of experience. We are all in need of socialization and some form of continuous improvement.

From Newton, to Volta and Galvani, to Maxwell and Marconi, through Edison and Tesla, and from Turing now to Musk - The profession of Electricity and its applications is constantly in flux. IEEE membership and my associating with its members is one way I have sought to continuously develop as an Electrical practitioner, and I encourage all of us in the Florida West Coast Section to do the same.



Signal Processing / Communications Societies

Paul Belussi, Chair Joint Chapter SP/Comm

Your local IEEE Florida West Coast, SP/Comm is pleased to announce that Dr. Michael A. Ramalho has accepted the position of SP / Comm Joint Chapters Vice Chair.

Dr. Ramalho is a prolific inventor with over 50 issued patents spanning signal processing, communications theory and data networking. He has worked in a variety of engineering, applied research and management roles for Bell Labs, Telcordia, Cisco Systems and as Chief Telephony Technologist for an early VoIP startup.

He has participated in many IEEE activities including serving as ICC 1992 Technical Program Committee Vice-Chair and as Globecom 1988 Technical Program Committee Member. His volunteer work includes board participation in educational settings (Rutgers CAIP Industrial Advisory Board) and startups (Red Shift Company) in addition to serving as the outside advisor for Ph.D. candidates.

He looks forward to working with Paul Belussi, the SP/Comm Chair, to facilitate networking with students and professors in the greater Tampa Bay area.

The SP/Comm Joint Chapter is in the process of rebuilding our technical activities and membership. Due to the COVID-19 epidemic we have been holding ongoing monthly virtual planning meetings via WebEx. Once we can resume group meetings, we have speakers lined up for talks at USF and we will hold a networking social event.

We would love to hear from our members! Please join us on our next monthly virtual planning meeting to discuss future activities and topics of interest see:

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

under “Region 3” and “Florida West Coast”.

We are updating our web page and are looking for SP/Comm members that have website experience. If you are willing to help, please contact:

Paul Belussi at:

paul.belussi.us@ieee.org
Phone: 813-230-8723

Michael Ramalho at:

mar42@cornell.edu

PE Corner

Art Nordlinger, PE, Senior Member

Digitally Signed Documents Emergency Rule

The Florida Board of Professional Engineers staff continues to work remotely from their Tallahassee offices due to the coronavirus pandemic. If you need to contact the Board staff, it is strongly recommended that you do so via email. The staff does not have direct access to their telephones and only periodically retrieve their voice messages. Other than this, however, the Board's operations are generally fully functional.

At a special meeting of The Florida Board of Professional Engineers on April 14, the Board approved an emergency rule temporarily expanding the use of electronically or digitally signed and sealed engineering plans and documents to include *printed copies*. The emergency rule will remain in effect for 90 days.

In order to effectuate the Governor and State Health Officer's orders regarding self-quarantine to prevent the spread of the coronavirus disease (COVID-19), the emergency rule temporarily waives the restriction in Chapter 61G15-23, Florida Administrative Code, that *printed copies* of digitally or electronically signed and sealed plans or documents are *not* considered signed and sealed. During the 90-day period that the emergency rule is in effect, printed copies of digitally or electronically signed and sealed plans/documents would be deemed as properly signed and sealed for any purpose, as if physically signed and sealed.

Professional Engineers must continue to abide by all of the rules regarding signing and sealing, and should apply the emergency rule only when and where appropriate. While FBPE's rules apply only to Professional Engineers, it encourages building officials to temporarily accept the printed copies of digitally or electronically signed engineering documents as part of their efforts to combat the spread of COVID-19.

At the June FPBE Board meeting several questions arose regarding the implementation of the Emergency Rule. One was, if a printed copy of a digitally or electronically signed and sealed plan or document was submitted and accepted during the 90-day period when the emergency rule was in effect, is it still valid after the 90-day period expires, or does it need to be replaced? The answer is, yes, it is still valid. A parallel was made between this question and the situation where a building code changes. Any plan submitted and accepted prior to the effective date of the code change follows the code prior to the change. Just the same, any document accepted under the emergency rule is still valid once the emergency rule expires. If you have questions, please 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. With renewal only 7 months away seminar demand is high. Sign up now!

THE SENIOR MEMBER ELEVATION PROGRAM AT FWCS

Hermann Amaya
Senior Member Elevation Committee Chair
hamaya@tampbay.rr.com

Since the inception of the FWCS Senior Member Elevations Committee (SMEC) at the 09/04/2018 EXCOM Meeting this committee has been very active and we owe these results to the cooperation and dynamic efforts of the 16 Members of the Senior Member Reference Provider Team whose dedication and support have made this effort a success.

The Senior Member Elevation Program has contributed to the promotion of over 50 new Senior Members and we continue to receive requests from eligible members to attain this rank. Two years ago in 2018, I noticed that the number of Senior Members in our section could be larger, so I initiated a study to determine the potential of this effort and I asked Claude Pitts, FWCS Chair to provide me with a list of Eligible IEEE Members who could be advanced to the highest rank that an IEEE Member could apply for. Thanks to Jim Howard's enthusiastic support, I received a list of over 475 eligible members and he provided this list until his recent passing making it possible for me to notify those eligible members of their attained privilege.

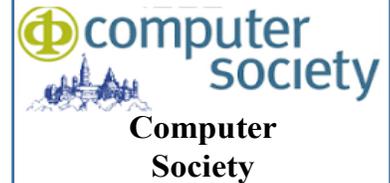
It is important that all IEEE Members become aware that elevation to the Senior Member rank is a privilege that they have earned through their professional service of ten years and they should be sure to claim it. This honor does not cost anything to the members and will in no way increase their yearly dues and there is no other charges associated with this process which consists of the following:

- ◆ Replying to my notification email indicating their desire to become a Senior Member.
- ◆ Providing us with a copy of their most recent resume with this reply.
- ◆ Filling out a nomination form online.
- ◆ Participating in a teleconference to get to know the applicant.

One of the requirements for Senior Membership is to obtain at least three reference letters from IEEE Senior Members and this may seem to be the most difficult requirement since most IEEE Members may not know that many Senior Members. However, there is no need to despair because we will help you to secure the references that you need to complete the process.

So when you, as an eligible candidate to the Senior Member rank receive my notification letter, please do not discard it or consider it as spam but rather reply to it letting me know that you want to become a Senior Member and we will make sure to guide you through this process. In order for you to attain your new rank, your documentation has to be submitted to the Admissions and Advancement Committee prior to July 20 for your application to be processed on time since the next meeting will be on August 8, 2020.

I pledge my complete support to your Senior Member elevation.



How do You Know Where You Are?

Date: Wednesday, July 29, 2020

Time: 6:00 pm - 7:30 pm

Cost: No Cost, however, we ask that you register to receive the link.

Speaker: Michael A. Mayor

Presentation: **How Do You Know Where You Are?**

Location: This seminar will be presented virtually. A link will be provided to registrants

Registration: <https://events.vtools.ieee.org/m/233123>

Questions: Michael Mayor, mail: michael.mayor@ieee.org; Phone: 484-524-3264

Abstract: Can you imagine going on a trip without your mobile phone and Google's Maps app? When you jump into your car, does it tell you how long it's going to take to get to where you are going? Do you even still own any paper maps? Let's face it – the world has changed and I think that we'd all agree for the better when it comes to how we navigate in our daily activities. However, how does this all work? How does your cell phone know where you are? How does it know how fast you are traveling? Are satellites involved? These questions and more are going to be answered as a part of a presentation that is being put on by the Florida West Coast Section's AESS chapter. This presentation will give an overview of the different types of Global Navigation Satellite Systems (GNSS). For those of you with long memories, this all started with the Long Range Navigation System (LORAN), which was not satellite based.

We'll be addressing the development of the Global Positioning System (GPS) and methods of Geolocation and Geolocation accuracy. It turns out that just how accurate things are can be dialed up and dialed down. Global Navigation Satellite System (GNSS) refers to a constellation of satellites providing signals from space that transmit positioning and timing data to GNSS receivers. The receivers then use this data to determine location. By definition, GNSS provides global coverage. Examples of GNSS include Europe's [Galileo](#), the USA's NAVSTAR Global Positioning System (GPS), Russia's Global'naya Navigatsionnaya Sputnikovaya Sistema (GLONASS) and China's BeiDou Navigation Satellite System. We'll touch on all of them during this presentation.

Biography: Michael A. Mayor, IEEE Life Senior Member and Vice Chair of the Joint Chapter AESS/CS, is a Consulting Scientist providing services in the areas of Secure Telecommunications, Precision Geolocation, Digital Instrumentation and RF Propagation Modeling and Analysis. 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 and Directed the Development and Deployment of a wide range of Mobile Secure Wireless Communications and Emitter Geolocation Systems and their components. These 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 Communications, Geolocation and Microelectronics. He is a Licensed Professional Engineer (State of Virginia) and holds a Master of Science in Engineering (MSE) in Systems Engineering (Communications and Signal Processing), from the School of Engineering and Applied Science, University of Pennsylvania.



Laws & Rules and Ethics for Professional Engineers - 2020

- Date: Friday, July 31, 2020
- Time: 10:00 am-Noon
- Cost: \$30 members, \$50 Non-Members, \$20 Students
- Speakers: Mr. Art Nordlinger, PE, IEEE Representative to the Florida Board of Professional Engineers
- Presentations: The Rules and Laws That Govern the Practice of Engineering in Florida
Ethics and the Practice of Engineering in Florida
- CEHs: One Rules & Laws CEH will be awarded, One Ethics CEH will be awarded, which will meet the current requirements for PE Renewals. Be sure to enter your name and PE number on the signup website as it appears on your license. IEEE Florida Provider Number is 0003849.
- Location: This seminar will be presented virtually (online live)
- Registration: <https://events.vtools.ieee.org/m/232618>
- Questions: Art Nordlinger 813-630-6203 or a.nordlinger@ieee.org

The Rules and Laws That Govern the Practice of Engineering in Florida. This course is at a basic to intermediate level.

- ◆ Florida Statute 471 – Engineering
- ◆ FBPE and FEMC
- ◆ Florida Administrative Code
- ◆ Updates from NCEES and FBPE

Ethics and the Practice of Engineering in Florida. This course is at a basic to intermediate level

- ◆ Basic Engineering Ethics Precepts
- ◆ Florida Administrative Code 61G15
- ◆ Recent Cases and Examples

Art Nordlinger is the Manager, Transmission Tariff and Contracts at Tampa Electric Company. Art earned a Bachelor of Science degree in Electrical Engineering from Northwestern University in 1979 and his Master of Engineering degree in Electric Power Engineering in 1988 from Rensselaer Polytechnic Institute. Art is a senior member of IEEE and a registered PE in Florida

vTools

The Florida West Coast Section (FWCS) will start using the IEEE vTools to set-up meetings and, subsequently, file the required L31 forms. This is in place of the current Time2Meet system.

The IEEE vTools system is being used throughout the IEEE to setup meetings and file the required reports.

If you do not feel comfortable, or do not have the time, to file the meeting notice and/or reporting the meeting afterwards, please contact me and I will either assist you or do it for you:

michael.mayor@ieee.org

(484) 524-3264.

The following link contains detailed tutorials (the actual URL is printed below the link):

[vTools Events ALL Tutorials](http://sites.ieee.org/vtools/vtools-events-tutorials/)

<http://sites.ieee.org/vtools/vtools-events-tutorials/>

The following links contain key tutorial presentations. They are a small subset of the presentations appearing in the previous link (again, the actual URLs are printed below the links)

[Search and View Events](https://site.ieee.org/vtools/?mdocs-file=4132)

<https://site.ieee.org/vtools/?mdocs-file=4132>

[Create an Event](https://site.ieee.org/vtools/?mdocs-file=4134)

<https://site.ieee.org/vtools/?mdocs-file=4134>

[Edit an Event](https://site.ieee.org/vtools/?mdocs-file=4152)

<https://site.ieee.org/vtools/?mdocs-file=4152>

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¾ 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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Speech Research Development Engineer

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The ideal candidate will play a key role in the research and development of DVS's next generation of digital speech compression technology including speech analysis; speech modeling; model parameter estimation; quantization; speech synthesis; error correction and mitigation methods; as well as, echo cancellation and noise reduction.

Desired Qualifications

- Research and development experience in speech or audio
- Knowledge of programming languages, i.e. C/C++, Matlab etc.
- PhD (or equivalent) in Electrical Engineering or Software Engineering with an emphasis in Signal Processing
- U.S. Citizenship or Permanent Residency required

Compensation

- Competitive salary
- Benefits package
- Excellent working environment

For more information visit www.dvsinc.com or send resume to jobs@dvsinc.com

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

July 2020 Calendar of Events <i>(For more information see Page 1 in this Signal)</i>						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
		*EXCOM WebX			*Signal Inputs Due	
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	
			*How Do You Know...		*Laws & Rules and Ethics...	