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# THE SUNCOAST SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

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## 2019 IEEE ANNUAL ELECTION BALLOT DUE 10/01/19

Information about the candidates and access to your ballot is available electronically on the IEEE Annual Election Site at [www.ieee.org/elections](http://www.ieee.org/elections). You will need your IEEE Account (username and password) to authenticate access. If you requested a paper ballot, it has been mailed to you, should you prefer to return your ballot via postal mail. Completed ballots will be accepted until 12:00 pm Eastern Time (16:00 UTC) on 1 October 2019.

When accessing your ballot electronically, you may save your choices at any point by clicking "Logout" and return later to cast your vote. For your vote to count, be sure to click the "Submit Ballot" button on the ballot summary page. After your ballot is submitted, you will receive an email confirmation.

Once you have submitted your ballot, please take a minute to complete the online feedback form and let us know about your voting experience.

If you have any questions, contact [DirectVote support](mailto:DirectVote.support@ieee.org) or call +1 952 974 2339. <https://www.ieee.org/about/corporate/election/index.html>

### Upcoming Meetings

Tuesday, September 3, 2019 5:30PM  
EXCOM Meeting  
at TECO Plaza Register online at  
[http://time2meet.com/fwcs-excom/  
index.html](http://time2meet.com/fwcs-excom/index.html)  
Open to all FWCS Members

### SAVE THE DATE!!!

On Friday, November 15, 2019, Mr. Art Nordlinger will present the Laws and Rules, and Ethics seminar at FRCC. Two CEU's will awarded for those PE's that attend. Art will be reviewing any updates in these for the upcoming renewal.

Mark Your calendars NOW!!

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**VICE CHAIR:** Paul Belussi - [paul\\_belussi@selinc.com](mailto:paul_belussi@selinc.com)

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**TREASURER:** Jim Howard - [jhoward@ieee.org](mailto:jhoward@ieee.org), (863) 834-6585

**SIGNAL EDITORS:** Donna Howard - [amberdon3133@gmail.com](mailto:amberdon3133@gmail.com)

**AWARDS & BYLAWS:** Richard Beatie, PE - [r.beatie@ieee.org](mailto:r.beatie@ieee.org)

**MEMBERSHIP:** Jim Howard - [j.howard@ieee.org](mailto:j.howard@ieee.org), (863) 834-6585

**TEACHER IN-SERVICE:** Sean Denny - [venner20@ieee.org](mailto:venner20@ieee.org), (727) 678-0183

Computer / Aerospace & Electronic Systems (**COMP/AESS**) Joint Chapter:  
Jim Anderson—[jim.anderson@ieee.org](mailto:jim.anderson@ieee.org) (813) 425-2467

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Serge Beaulieu - [serge.beaulieu@ieee.org](mailto:serge.beaulieu@ieee.org), (863) 834-6511

Robotics & Automation (**RAS**) Chapter: Sean Denny - [venner20@ieee.org](mailto:venner20@ieee.org),  
(727) 678-0183

Signal Processing / Communications (**SP/COMM**) Joint Chapter: Paul Belussi -  
[paul.belussi.us@ieee.org](mailto:paul.belussi.us@ieee.org)

**WOMEN IN ENGINEERING** Affinity Group: Ammara Ghani—[ammamamehd@mail.usf.edu](mailto:ammamamehd@mail.usf.edu)

**LIFE MEMBER** Affinity Group: Richard Beatie, PE - [r.beatie@ieee.org](mailto:r.beatie@ieee.org)

**YOUNG PROFESSIONALS:** T.J. Ross - [a.j.ross@ieee.org](mailto:a.j.ross@ieee.org), (505) 620-7734

**PACE:** Jim Anderson - [jim.anderson@ieee.org](mailto:jim.anderson@ieee.org), (813) 425-2467

**CONSULTANTS NETWORK:** Herman Amaya - [hamaya@tampabay.rr.com](mailto:hamaya@tampabay.rr.com)

**STUDENT BRANCH MENTOR:** Jim Howard - [jhoward@ieee.org](mailto:jhoward@ieee.org), (863) 834-6585

### USF STUDENT BRANCH ADVISORS:

Dr. Chung Seop Jeong - Student Branch Co-Advisor - [jeong@usf.edu](mailto:jeong@usf.edu)

Dr. Andrew Hoff - Student Branch Co-Advisor - [hoff@usf.edu](mailto:hoff@usf.edu)

Dr. Srinivas Katkoori—CS Chapter Advisor— [katkoori@mail.usf.edu](mailto:katkoori@mail.usf.edu)

Dr. Jing Wang—MTT Chapter Advisor—[jingw@mail.usf.edu](mailto:jingw@mail.usf.edu)

### STUDENT BRANCH / CHAPTERS:

USF Student Branch, Chair - Thomas DeCanio - [tjdecanio@mail.usf.edu](mailto:tjdecanio@mail.usf.edu)

USF Computer Society Chapter - Vishalini Laguduva Ramnath - [vishalini@mail.usf.edu](mailto:vishalini@mail.usf.edu)

USF Microwave Theory & Techniques Chapter - Enrique Gonzalez -  
[enriquegonza@mail.usf.edu](mailto:enriquegonza@mail.usf.edu)

USF Power & Energy / Industry Applications Chapter - Joe Ghisu - [jghisu@mail.usf.edu](mailto:jghisu@mail.usf.edu)

**CONFERENCES:** Richard Beatie, PE - [r.beatie@ieee.org](mailto:r.beatie@ieee.org)

**WEB PAGE:** <http://sites.ieee.org/fwcs/>

**WEB MASTER:** T.J. Ross - [a.j.ross@ieee.org](mailto:a.j.ross@ieee.org), (505) 620-7734

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Address all correspondence to:

Donna Howard

3133 W Paris Street Tampa, FL 33614-5964

Home Phone: (813) 876-1748 E-mail: [amberdon3133@gmail.com](mailto:amberdon3133@gmail.com)

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## PE Corner

Art Nordlinger, PE, Senior Member

### The Steps to Professional Licensure, Part 2

In a recent column I discussed the beginning of the route to get your Professional Engineer license; taking the FE exam. This month I will focus on the next step, experience required and being an Engineering Intern (EI).

If an EI graduated with 4-year engineering degree, they must obtain 48 months of experience to qualify to apply to be a PE. The Florida Legislature recently changed the law such that an EI graduating with an approved Engineering Technology degree will need to complete 72 months of experience before being qualified to apply to be a PE.

What qualifies as experience? The type of employment considered acceptable must principally involve activities in the field of engineering as defined in *Section 471.005(7), F.S.* What qualifies as “experience” is found in *61G15-20.002, F.A.C. - Experience*. Some criteria considered for meeting the 48-month requirement includes:

- Experience that logically follows and incorporates an application of the engineering education previously obtained.
- Full-time experience obtained within 2 years of completing the engineering degree, that involves tasks and responsibilities consistent with the disciplines of engineering. Experience credit may be awarded at 50% of actual time, with total allowable credit for pre-graduation experience to not exceed 12 months.
- Experience on engineering projects that is progressive in nature, indicating an increase in quality and involving greater responsibility.
- Experience gained under the supervision of a licensed professional engineer.
- Experience gained in engineering research and design projects by members of an engineering faculty where the program is approved by the Board.
- Experience that includes demonstration of a knowledge of engineering, mathematics, physical and applied science, properties of materials, and the fundamental principles of engineering design.
- Experience that includes demonstration of the application of engineering principles in the practical solution of engineering problems.

Additionally, an applicant must list three (3) personal references who are professional engineers. These references cannot be the same individuals used to verify employment and experience.

To learn more about the examination and application process for the FE and PE exams go to the *Application Process* page under the *Licensure* section of FBPE's website at [www.fbpe.org](http://www.fbpe.org). If you have questions related to qualifying experience contact the Board office at (850) 521-0500 and ask to speak to someone in the *Licensure* department.

Next month I'll discuss the final step to licensure, the PE exam.

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.

## *Leader's Center* **Total Quality Management (TQM)**

**Paul Schnitzler, Ph.D—Life Senior Member**

TQM is too broad for a full coverage in this space. However it is an important area for a leader to understand. One key aspect of TQM is that of the customer. This article shows how TQM can connect with good leadership.

While your business must serve its customers, you, personally, also have customers. Who are *your* customers? Engineering serves production, perhaps marketing, perhaps purchasing, etc. That is, these groups are engineering's customers. You are most effective when you deliver what the customer wants—not what you think they need.

Similarly, regarding your suppliers, you are their customer. Be clear about what you want, not what they think you need. Listen to what they say and help them understand what you actually want.

Engineers often want to make the best possible product but that may exceed the customer's wants. By matching what they want will save time, control costs, and satisfy the customer.

Here is an example.

You complete a design and send the drawings and BOM to manufacturing. Who decides whether you are done? You do, of course, right? Wait, who is your customer? Is your customer satisfied? Remember the article on Concurrent Engineering? Do you see the importance of working with your customer to be certain you are meeting his/her needs?

Whether or not your organization uses concurrent engineering, you, as a leader, can use it locally. For example, when you begin a design, contact the production engi-

neer who will be responsible for producing your product. Review your design and ask for ideas to make it more easily produced. Listen to suggestions and work out how to match Marketing's product requirements with the production issues. This will help you satisfy your customer.

You may want to go back to the originator of the new product—perhaps the marketing group?—to review their requirements. After all, *you* are that group's *customer* and they aren't done until *you* are satisfied.

Another example from a previous article: Your product design may be too large for the production equipment. Engineering might be able to make a smaller version of the design...but will that satisfy the *company's* customer? Remember concurrent engineering?

And this article, itself, is an example. My customer is you the reader, but also, my customer is our editor/publisher. I must provide the size article to fit the available space. I may be able to provide more information in a longer article but if it doesn't fit, it is not acceptable.

Thus an effective leader uses TQM to see that work output matches the customer's wants.

Have you any ideas for possible topics for this column? I would be happy to discuss them with you. Contact info below.

Want to see more about change and leadership? Need a speaker? Have questions? Ideas? Contact me at [pauls@usf.edu](mailto:pauls@usf.edu) or go to <http://leadchangewithoutfear.com/> and click the tab "Successful Real Change."



## Designing a Combined Cycle Unit

Date: Friday, October 25, 2019

Time: Registration & Light Breakfast: 8:30AM - 9:00AM

Seminar: 9:00AM - 2:00PM

Speakers: Joseph P. Simpson, PE, Fossil Hydro Operations Florida Regional Engineering Manager, Duke Energy  
Chuck Walters, PE, Project Engineering Manager, Tampa Electric  
Nodale Exceus, Project Engineer, Tampa Electric  
James Cooksey, Field Engineer, Tampa Electric  
Thomas Blair, PE, Engineering Services, Tampa Electric

Course Level: Intermediate.

Location: FRCC 3000 Bayport Drive., #600, Tampa, FL 33607

Parking: Use parking lot for Hyatt (North side only).

Cost: \$100 Members, \$200 Non-Members, \$20 Students. Includes Light Breakfast, Lunch.

CEH Credits: 4 Professional Development Hours will be awarded. 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.

RSVP: Online at <http://time2meet.com/fwcs-meetings/> (Select Meeting)

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Questions: Tom Blair at 813-849-8368, or [tom\\_blair@ieee.org](mailto:tom_blair@ieee.org)

The IEEE Power & Energy Society (PES) along with Duke Energy & Tampa Electric will present a seminar discussing design considerations for a Natural Gas combined cycle (NGCC) powerplant. We will review the current Big Bend Combined Cycle project and Lessons Learned from the other recent Combined Cycle projects for “real world” examples. Some of the topics that will be discussed are:

Milestones & Planning

Understanding LGIA and POI Responsibilities

NERC compliance & coordinating startup activities with MOD-025/-027/-032

Applicable Standards

Lessons Learned

Generator & distribution system design

Fast bus transfer design

Design of standby diesel generator - starting and operating philosophy.

Mitigation of harmonics from non-linear loads

Arc rated switchgear vs. standard switchgear

Goals of an EPC vs Utility O&M

Maintaining effective technical conscience during large projects

System Impact Study Validations

Greenfield vs. retrofit of existing facility.



## SUCCESSFUL MEETING—Your Résumé—Your Strengths

On the evening of August 13th, Dr. Paul Schnitzler presented the presentation on Your Résumé—Your Strengths. The presentation was well received by those attending. Your résumé is your marketing material: you are selling your services and you must let the reader/buyer/hiring manager, see how valuable you have been and will be in your next position. Therefore your focus must be on the benefits that your previous employer(s) received—created a faster widget, increased sales by 30 percent, built a prototype which demonstrated a new product's reality.

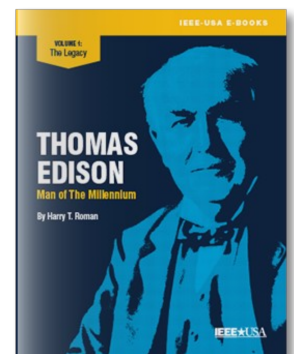
These are rarely seen in actual résumés. The presentation showed you how to get benefits into yours!

Paul Schnitzler, PhD (E.E.), was in industry for the majority of his career before joining the faculty of the College of Engineering at the University of South Florida (USF). He has successfully held all levels of management and so has read many résumés—very few were effective—and he knows what they needed. Dr. Schnitzler is also a speaker, author, and consultant on leadership and engineering. He has presented many seminars in China and Saudi Arabia on change and entrepreneurship, and has presented at TEDx Tampa Bay. Dr. Schnitzler is the author of Lead Change without Fear—Using the YES I AM Solution and has received many awards for his work.

### FREE E-BOOK: Thomas Edison – Man of the Millennium – Volume 1: The Legacy

**From 1 August to 15 September, this e-book is available for free to IEEE members. Use code AUGFREE19 at checkout to download.**

Thomas Edison was unquestionably the world's greatest inventor. In this series of three e-books, the author wants readers to really take a look at the man, and what he did. The great inventor has been the author's personal hero for 60 years — since childhood. He also has ongoing projects lecturing and writing about the man. In Volume 1, the chapters reflect what strikes the author as interesting; and what folks have asked him about, or commented upon, when they hear his weekend lectures.







## How Secure Is Your Modern Network?

Your local IEEE Florida West Coast section is pleased to announce that we will be visited by a world class network security expert in October. Dr Ashutosh Dutta is currently Senior Wireless Communication Systems Research Scientist at Johns Hopkins University Applied Physics Labs (JHU/APL). Most recently he served as Principal Member of Technical Staff at AT&T Labs in Middletown, New Jersey.

His career, spanning more than 30 years, includes Director of Technology Security and Lead Member of Technical Staff at AT&T, CTO of Wireless at a Cybersecurity company NIKSUN, Inc., Senior Scientist in Telcordia Research, Director of Central Research Facility at Columbia University, adjunct faculty at NJIT, and Computer Engineer with TATA Motors.

He has more than 90 conference and journal publications, three book chapters, and 30 issued patents. Ashutosh is co-author of the book, titled, "Mobility Protocols and Handover Optimization: Design, Evaluation and Application," published by IEEE and John & Wiley that has recently been translated into Chinese Language.

Ashutosh served as the chair for IEEE Princeton / Central Jersey Section, Industry Relation Chair for Region 1 and MGA, Pre-University Coordinator for IEEE MGA and vice chair of Education Society Chapter of PCJS. He co-founded the IEEE STEM conference (ISEC) and helped to implement EPICS (Engineering Projects in Community Service) projects in several high schools.

Ashutosh currently serves as the Director of Industry Outreach for IEEE Communications Society and is the founding co-chair for IEEE 5G initiative. He also serves as IEEE Communications Society's Distinguished Lecturer for 2017-2018.

Ashutosh serves as the general co-chair for the premier IEEE 5G World Forum. He was recipient of the prestigious 2009 IEEE MGA Leadership award and 2010 IEEE-USA professional leadership award.

Ashutosh obtained his BS in Electrical Engineering from NIT Rourkela, India, MS in Computer Science from NJIT, and Ph.D. in Electrical Engineering from Columbia University under the supervision of Prof. Henning Schulzrinne. Ashutosh is a Senior member of IEEE and ACM.

Dr Dutta will be presenting on how to secure new SD-WANs, Virtualized Network Functions and virtualized networks. You are not going to want to miss this event! This presentation will be held on Monday October 14<sup>th</sup>, 2019 at 6:00pm. So, save the date!

## Advertising Section



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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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**September Calendar of Events (For more information see P. 1) in this Signal...**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4	5	6	7
8	9	10 EXCOM Meeting, TECO Plaza	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26 PES/IAS ExCom 6AM Village Inn	27	28
29	30					