

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Volume 64—No. 10 October 2018

#### **IN THIS SIGNAL:**

Page 2

♦ PE Corner— Ethics

Page 3

- ♦ <u>Leader's Center—Leading with no Authority</u>
- ♦ <u>September 1—October 15—Free E-Book</u>

Page 4

♦ Generator Protection & NERC Maintenance Requirements—PE/IA October 19

Page 5

• Rules & Laws and Ethics for Professional Engineers—PE/IA November 9

Page 6

- ♦ IEEE USF & YP Picnic—October 6
- Consultants Network Workshop—October 27

Page 7

♦ Advertising

Page 8

♦ <u>Calendar</u>

PE Renewals Due February 2019
18 CEHs required for renewal
Check the FWCS Signal
for opportunities to earn CEHs

### **Upcoming Meetings**

**EXCOM Meeting** 

Tuesday, October 2, 2018 5:30PM at TECO Plaza Register online at <a href="http://time2meet.com/fwcs-excom/index.html">http://time2meet.com/fwcs-excom/index.html</a>

Open to all FWCS Members

### LIFE MEMBER AFFINITY GROUP

# YUENGLING BREWERY BEHIND THE SCENES TOUR

October 18, 2018 1:00 PM

All members are invited to join us on this interesting tour. The tour will last around 75 minutes and includes a close up look at the size and scale of Tampa's largest brewery. Did you know that train tracks run into the brewery to accommodate the huge shipments of ingredients needed for brewing? Maybe we will get to see a train dump its load! The automated bottling line is a very impressive sight when running, and will whet your thirst buds for complimentary beer tasting at the conclusion of the tour. One highlight of the tour is a visit to the laboratory, where the beer chemist in charge of quality control (the person who sips beer all day long to ensure it tastes right) will answer your questions about the process.

Sign up on the FWCS website Time-To-Meet for reservations. There is no charge for the tour (or beer!)

Meet in the Gift Shop prior to starting our tour at 1:00 PM sharp.

Location: 11111 N 30<sup>th</sup> St Tampa FL South of Fowler Ave (USF) and North of Busch Blvd (Busch Gardens) West of I-75, East of I-275

#### **IEEE FWCS is now on Meetup.com**

The IEEE Florida West Coast Section (FWCS) is excited to announce that it is now on <a href="Meetup.com">Meetup.com</a>! Events are advertised on meetup in conjunction with our normal IEEE vtools website. On meetup.com you can view upcoming IEEE meetings as well as interact and connect with other people in our section. All you have to do is create a login on meetup.com, then find and join our group "IEEE Professionals of the Florida West Coast." Section events are then posted as planned.



http://www.ieee.org/fwcs

#### THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

#### 2018 IEEE EXECUTIVE COMMITTEE - FLORIDA WEST COAST SECTION

CHAIR: Claude Pitts - claude.pitts@ieee.org

VICE CHAIR: Paul Belussi - paul\_belussi@selinc.com

SECRETARY: Sean Denny - venner20@ieee.org, (727) 678-0183

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

SIGNAL EDITORS: Ralph Fehr - r.fehr@ieee.org, Donna Howard - amberdon3133@gmail.com, (813) 924-2024

Donna Howard - amberdon3133@gmail.com, (813) 924-2024

AWARDS & BYLAWS: Richard Beatie, PE - r.beatie@ieee.org

MEMBERSHIP: Jim Howard - jhoward@ieee.org, (863) 834-6585

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

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

Engineering in Medicine & Biology (EMBS) Chapter: John West - john.west@ieee.org, (727)-743-2267

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

Power & Energy / Industry Applications (**PES/IAS**) Joint Chapter: Serge Beauzile - serge.beauzile@ieee.org, (863) 834-6511

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

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

WOMEN IN ENGINEERING Affinity Group: Valerie Tur, (813) 334-2317,

LIFE MEMBER Affinity Group: Richard Beatie, PE - r.beatie@ieee.org

YOUNG PROFESSIONALS: T.J. Ross - anthonyross@mail.usf.edu, (505) 620-7734

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

CONSULTANTS NETWORK: Herman Amaya - hamaya@tampabay.rr.com

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

#### **USF STUDENT BRANCH ADVISORS:**

VLT4@cornell.edu

Dr. Paul Schnitzler - Student Branch Co-Advisor - pauls@usf.edu, (813) 974-5584

 $\hbox{Dr. Andrew Hoff - Student Branch Co-Advisor - hoff@usf.edu}\\$ 

Dr. Ralph Fehr - PES/IAS Chapter Advisor - r.fehr@ieee.org

#### STUDENT BRANCH / CHAPTERS:

USF Student Branch, Chair - Ilia Bautista - illabautista@mail.usf.edu

 $USF\ Computer\ Society\ Chapter\ -\ Felipe\ Souza\ -\ fillipe@mail.usf.edu$ 

USF Microwave Theory & Techniques Chapter - Eduardo Rojas- eduardor@mail.usf.edu

USF Power & Energy/Industry Applications Chapter - Roger Vassell -

vassellr@mail.usf.edu

CONFERENCES: Richard Beatie, PE - r.beatie@ieee.org

WEB PAGE: http://sites.ieee.org/fwc/

WEB MASTER: Herman Amaya hamaya@tampabay.rr.com

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. 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 1st Sunday after the 1st Tuesday of the month preceding the issue month.

Address all correspondence to:

Donna Howard

3133 W Paris Street Tampa, FL 33614-5964

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

The Signal, Copyright © 2018

#### **Useful links:**

http://www.ieee.org/benefits Global Benefits Finder

http://www.ieee.org/discounts Discounts Page

PE Corner

Art Nordlinger, PE, Senior Member License Renewal

#### **Ethics**

(From an article in the FPBE Connections Newsletter by Ken Todd, P.E., Chair, FBPE; with permission)

From time to time, it is good to be reminded of the engineer's responsibility to act in an ethical manner. As the next PE renewal cycle approaches, licensed engineers need to have taken one hour of ethics as part of the continuing education requirement for license renewal in Florida.

Why do Professional Engineers need to take a course in ethics every renewal cycle? For one, the legislature made this a statutory requirement, much like it is in many states. I think we can all agree that practicing good ethics can be complicated in a business and legal world that is in constant change. Therefore, it is worthwhile to spend a little time reminding ourselves of the importance of practicing good ethics in our profession.

What is ethics? The American Heritage Dictionary defines ethics as a set of rules or standards governing the conduct of the members of a profession. This is especially important in the engineering profession because the practice of engineering will have a direct impact on the public's quality of life. Additionally, the ethical standards practiced by an engineer will affect the engineer's clients and employer. Therefore, it is imperative that as members of the engineering profession, we need to exhibit the highest standards of honesty and integrity, and not be guilty of misconduct.

Misconduct can be defined as including, but not limited to: being untruthful, deceptive, or misleading in any professional report, statement, or testimony, whether or not under oath. In addition, it includes omitting relevant and pertinent information from a report when the result of that omission could reasonably lead to a fallacious conclusion on the part of the client, employer, or the general public.

One of the most common types of misconduct is being untruthful. This type of an ethical violation can come via being untruthful on an application or a report, failing to disclose a conflict of interest, or advertising qualifications that are dubious. Other types of misconduct could include expressing an engineering opinion without having all the facts, the failure to use due care in the practice of engineering, or the signing and sealing of a report or set of construction drawings not done under an engineer's supervision (responsible charge) as a PE.

One way we can reduce the opportunity for misconduct is by periodically reviewing the laws dealing with practice of engineering in Chapter 471, Florida Statutes, and the engineering rules in Chapter 61G15, Florida Administrative

Additionally, an engineer can read the Code of Ethics produced by an engineering organization, such as IEEE, the Florida Engineering Society, or the National Society of Professional Engineers. When faced with an ethical question, it is often helpful to "bounce" ethical situations off a trusted colleague who can assist you in making the proper decision. When this is done it will help each PE develop a solution to the "ethical problem" that is above reproach, and potentially prevent an ethical violation turning into a complaint alleging misconduct being filed against the PE.

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. And for the PEs, don't forget that the next renewal deadline is only 4 months away. Better start earning those CEHs now!



http://www.ieee.org/fwcs

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

# **Leader's Center**Leading with No Authority\*

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

This month I will provide some leadership hints to engineers who are in the early stages of their careers—and also anywhere in your career. You will see a way to get your colleagues to work together better. It was prompted by my recent presentation for IEEE Young Professionals.

Imagine that you have been working as an engineer for only a few years and have been assigned to a project with several other relatively young people. The group has been discussing the key problem in the project and it has been difficult to agree on what to do. Your supervisor has a relatively hands-off style and the team in largely on its own.

You feel excited about trying to help solve the problem but you have no authority. You think that you know the best way to solve it but what can you do? How can you help bring the team together to find a good solution?

What if you take a participative approach? You may remember hearing somewhere that the best leaders listen to others and respect their ideas. You may wonder how to do that when you aren't the person in charge.

Your strong intellect and solid engineering training are encouraging you to try to direct the project. You are likely to explain how you see the situation, describe what you see to be the key difficulties and tell the group what they must do. As you read this, you may think:

"I know what to do and if I explain it clearly enough, everyone will agree. I just have to keep explaining what I know to be true."

Or you may think:

"No one will listen to me; I just hope that we can find some approach that we can agree on."

In both cases, you may think that it will be very difficult. But remember: listen to others and respect their ideas.

You can start by explaining your ideas but don't try to convince them you are correct. Instead, answer their questions and *listen* to

their ideas.

"I've told you what I think. How can you improve it? What have I missed? Is there a question or problem which my ideas do not answer?"

Here is the key to listening. Don't point out the difficulties in their ideas. Don't argue with the person who has presented the alternative. Instead, try this:

"That's an interesting idea. I like part of it very much (and describe that part to show that you get it)." Then suggest something which will make their idea even stronger. "How about if we also did (and add what you believe will strengthen it)?"

Now you have an idea which is part yours and part your colleague's. Don't argue about the part which you don't like; build on what you

see as the strengths.

Here is what you gain:

You get more issues solved.

You get buy-in from your teammates.

Your teammates realize that you respect them.

All feel better about working together.

How about that? Try it soon!

Watch for next month's ideas.

Don't want to wait? Then go to <a href="http://leadchangewithoutfear.com/">http://leadchangewithoutfear.com/</a> and check the tab "Successful Real Change."

\* Based on ideas in *Lead Change without Fear* by Paul Schnitzler

#### IEEE-USA'S FREE E-BOOK—SEPTEMBER 1—OCTOBER 15

In IEEE-USA's September free e-book for members, <u>IEEE-USA Women in Engineering</u>, <u>Book 3: Passions Can Sustain You–A</u>
<u>Personal Career History</u>, author Gillespie shares her personal story about her life's work in science and technology.

Gillespie is a technology management consultant in Washington, D.C. A past IEEE-USA Congressional Fellow, she provides readers with a look at her career journey: stints as a high school physics teacher; extraordinary opportunities to lead crossorganizational, as well as international, technology programs; and five years serving on a major industry consortium's Board of Directors. An active IEEE-USA volunteer, in this e-book, Gillespie also shares her career challenges, and the lessons she learned along the way.

From 1 September through 15 October, IEEE members can get their free download by going to: <a href="https://ieeeusa.org/shop/careers/ebook-women-in-engineering-book-3-passions-can-sustain-you-a-personal-career-history/">https://ieeeusa.org/shop/careers/ebook-women-in-engineering-book-3-passions-can-sustain-you-a-personal-career-history/</a>. Log in with your IEEE account, add the book to your cart, and use promo code **SEPTFREE17** (case sensitive), at checkout.



http://www/ieee.org/fwcs

#### THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.







# Generator Protection and NERC Maintenance & Testing Requirements

**Date**: Friday, October 19, 2018

**Time:** Registration: 8:30AM – 9:00AM Time: 9:00AM – 3:00PM

Speaker: Dr. Murty V. V. S. Yalla, President, Beckwith Electric Co. Ltd., IEEE Fellow

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

CEH Credits: 5 Continuing Education Hours (CEH) 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. Level Intermediate.

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

**RSVP**: Online at: http://time2meet.com/fwcs-pes1/index.html

Make checks payable to: IEEE FWCS & Send checks to: Jim Howard, IEEE FWCS Treasurer 3133 W. Paris

Street, Tampa FL 33614-5964

Questions: Tom Blair at 813-228-1111, ext 48179 or tom blair@ieee.org

Your IEEE PES West Coast Chapter Utility Users Group is meeting in October and we are honored to have Dr. Murty V.V.S. Yalla, President of Beckwith Electric Company as our guest speaker. Dr. Yalla will cover generator protection systems as described in IEEE C37.102, IEEE Guide for AC Generator Protection. Additionally, Dr. Yalla will cover the mandatory requirements of the North American Electric Reliability Corporation (NERC), specifically addressing the maintenance & testing requirements of:

NERC Standard PRC-005-6— Protection System Maintenance

NERC Standard PRC-024-2 — Generator Frequency and Voltage Protective Relay Settings

NERC Standard PRC-019-2 — Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection

Who Should attend this course? Power plant and substation protection engineers and protection generalists who desire a deeper background about generator protection and NERC required maintenance and testing.

#### **SPEAKER BIO**

Dr. Murty V.V.S. Yalla has been with Beckwith Electric since 1989 and presently holds the position of President & is an IEEE Fellow. He was a member (subject matter expert) of the North American Electric Reliability Corporation (NERC) System Protection and Control Subcommittee (SPCS). Dr. Yalla was also the chairman of the working group which developed IEEE Standard C37.102-2006 "Guide for AC Generator Protection." Dr. Yalla's is uniquely qualified to instruct this course on IEEE C37.102 and NERC maintenance & testing requirements and your local IEEE PES/IAS chapter is honored to have him as speaker.



http://www/ieee.org/fwcs

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.







# Rules and Laws that Govern the Practice of Engineering in Florida Ethics and the Practice of Engineering in Florida

**Date**: Friday, November 9, 2018

**Time**: Registration and light breakfast at 8:30AM

Presentation: 9:30AM—11:30AM

**Speaker**: Mr. Art Nordlinger, PE, IEEE Representative to the Florida Board of Professional Engineers Presentations:

Location: FRCC Headquarters, 3000 Bayport Dr #600, Tampa, FL 33607 Parking: Use parking lot for Hyatt (North

side only).

Cost: \$30 for Members, \$50 for Non-Members, \$20 for Students. Make checks payable to: IEEE FWCS Send

checks to: Treasurer—IEEE PE/IA Chapter 3133 W. Paris Street Tampa, FL 33614-5964

**CEH Credits**: One Rules & Laws CEH will be awarded, One Ethics CEH will be awarded, which will meet the current requirements for PE Renewals.

**RSVP**: Online at: http://time2meet.com/fwcs-pes4/index.html

Questions: Art Nordlinger at a.nordlinger@ieee.org or (813) 630-6203

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. Cancellation must be submitted online 24 Hrs prior to the seminar at: http://time2meet.com/fwcs-pesx/index.html No shows will be invoiced for the total cost of the seminar.

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

**SPEAKER**: 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.



http://www.ieee.org/fwcs

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

#### Join us for the



IEEE's USF & YP Divisions are hosting a PICNIC on **October 6, 2018** at USF's very own **Riverfront Park**. This picnic will last from **1:00pm to 5:00pm** and offer an opportunity for students, professionals, faculty and recruiters to engage in conversation and activities alike. *You can expect great experiences like...* 

Networking while enjoying a fun day at the park Team-building activities (sports, and boards games) Free Food

> Make sure to mark your calendars and RSVP at http://time2meet.com/fwcs-meetings/ October 6, 2018 1:00pm - 5:00pm USF Riverfront Park - 6550 E Fletcher Ave, Tampa, FL

The IEEE FWCS Consultants Network Affinity group is pleased to support and invite all Consultants and anyone interested in Consulting to the following event being presented by the Melbourne & Canaveral IEEE Sections in conjunction with IEEE-USA Alliance of IEEE Consultants Networks Coordinating Committee (AICNCC) to a Full-Day Consulting Workshop

VTOOLS LINK: <a href="https://events.vtools.ieee.org/m/175457">https://events.vtools.ieee.org/m/175457</a>

DATE: OCTOBER 27, 2018 TIME: 8:30 am - 5:30 pm

LOCATION: FLORIDA SOLAR ENERGY CENTER

1679 Clearlake Road, Cocoa, FL 32922

This Consultants Workshop event is designed for those who are considering consulting as a professional option, either now or in the future and practicing consultants who want to improve their networking and marketing skills.

The slate of expert speakers will include nationally recognized leaders from the IEEE who are successful consultants themselves as well as local professionals especially relevant to Brevard County. Among the speaker will be Dr. Gary Blank, 2014 President of IEEE-USA.

Topics will include; HOW TO DETERMINE IF CONSULTING IS RIGHT FOR YOU, SETTING UP YOUR CONSULTING BUSINESS, IMPROVING YOUR NETWORKING SKILLS, ACHIEVING PROFESSIONAL SUCCESS THROUGH PERSONAL GROWTH, and special information about consulting in BREVARD COUNTY.

We've worked to keep the registration fees low, after all the IEEE is non-profit. Included with your registration we'll be serving continental breakfast, Florida BBQ lunch buffet, and afternoon refreshments.

# Long-Term Electric Utility Sales Opportunity

Substation/Mobile Transformers and Switchgear Background Desired

**BSEE** or **BSME** Desired

Customers: TECO, DUKE, RUS, and Municipals

# Powers and Company, Inc.

Manufacturers' Representatives
Founded 1991

Contact Dick Powers: 813.760.2556

#### THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

### **Advertising Section**



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



# **Suncoast Signal Advertising Rates**

	One Month		6 Months		12 Months	
Size	M em ber	Non-Member	M em ber	Non-Member	M em ber	N on - M e m b er
Business Card	\$25	\$33	\$120	\$150	\$210	\$252
1/4 Page	\$40	\$52	\$190	\$238	\$335	\$402
½ Page	\$75	\$98	\$360	\$450	\$630	\$756
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

# Powers and Company, Inc.

Power Transformer and High Voltage Switchgear Experts

Delta Star Power Transformers

Powell Distribution Switchgear

**Unifin Transformer Coolers** 

Cardinal Transformer Oil Pumps

Dick Powers (813) 282-3011 (813) 760-2556 Mobile

(813) 760-2556 Mobile powerscomp@aol.com

Offices in Tampa and St. Petersburg



Florida West Coast Section, Tampa

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

### DATE SENSITIVE MATERIAL. DO NOT DELAY

Change of address? IEEE Web Contact Update <a href="http://www.ieee.org/membership/coa.html">http://www.ieee.org/membership/coa.html</a>
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

#### October 2018 Calendar of Events (For more information see P. 1) in this Signal...

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	2 EXCOM Meeting TECO Plaza 5:30pm	3	4	5	6 IEEE USF Students and YP Picnic (see page 6)
7	8	9	10	11	12	13
7	8	9	10	11	12	13
14	15	16	17	18 Yuengling Brewery Tour (see page 1)	19 Generator Protection Seminar (see page 4)	20
21	22	23	24	25	26	27 Consultants event (see page 6)
FWCS SunCoas	st Signal		8			October 2018