THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Volume 63—No. 11 November 2017

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FWCS Anniversary Celebration

Yes the Florida West Coast Section (FWCS) has been around for 61 years! Thanks to a dedicated group of volunteer through the years, we have continued to be a successful section, with multiple chapters. Please join us to as we



celebrate our members by presenting IEEE Service Anniversary pins or certificates to recognize the members years of IEEE membership.

Date: Saturday December 2, 2017

Time: Noon—3:00pm

Please sign up at http://time2meet.com/fwcs-section/index.html so we have an accurate count for food planning, etc.

Note: All registered attendees will receive an email with updated information on location, etc., so please make your reservations soon.

Consultants Network Event

The FWCS Consultants Network Affinity Group (CNAG) of the IEEE announces its upcoming November 2017 meeting to take place on 11/28/2017 at 6:00pm at a location to be announced at a later time. We invite you to come an learn about the tax options you will have for the upcoming tax filing session in 2018 of your 2017 taxes from one of the most efficient professionals in this matter:

MR. JOHN WALTERS - DEWALT GROUP, Keynote Speaker

Tax strategy topics to be covered:

- * Reduce your audit risk Two easy yet proven strategies
- * Determine your true business tax bracket You will be surprised at the results.
- * Easily separate your business and personal expenses This will make your record keeping a breeze.
- * Keep audit-proof records Why receipts, invoices and hand written notes are better than canceled checks and credit card receipts
- * Increase your Entertainment Deductions Deducting meals and entertainment when you pay only for yourself.
- * Double Entertainment Deductions How to double your golf, tennis, and other sporting event deductions without spending an extra penny.
- * Qualify for the New Home Office Rules These new home office rules will turn your home into your principal office and transform personal commuting into deductible business miles
- * *Double or triple your Automobile Deductions* Simple strategies that create deductions without you spending more money
- * Hire your spouse without paying wages You get a business deduction and your spouse receives tax-free income
- * Stimulus Package Deductions from the recently passed bill (September) that applies to 2017/2018 taxes

Please make it a point to attend and become informed on how your business can be best represented in you taxes by following the tips that Mr. Walters will provide you to save money on your taxes.

Upcoming Meetings

EXCOM Meeting

Tuesday, November 7, 2017 5:30PM at TECO Plaza Register online at http://time2meet.com/fwcs-excom/index.html Open to all FWCS Members

Tampa Armature Works factory tour
Friday November 10, 2017 Noon—3:00PM
Details—Page 5

Consultant's Network Affinity Group Meeting

Tuesday November 28, 2017 6:00pm Details—Page 1



http://www/ieee.org/fwcs

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PE Corner

Art Nordlinger, PE, Senior Member

What is FEMC?

I'd guess that it's pretty-much universally understood, at least among the engineering community, that the Florida Board of Professional Engineers licenses engineers in Florida and regulates the practice of engineering. And it's probably a little less well known that the FBPE operates under the auspices of the Department of Professional and Business Regulation, which is a state agency. So who or what is FEMC?

Until July 1998, administrative and investigative functions for the FBPE were performed by DPBR employees. In 1997, the Florida Legislature determined "that the privatization of certain functions that are performed by the department for the board will encourage greater operational and economic efficiency and, therefore, will benefit regulated persons and the public."

Section 471.038, F.S. (97-312, Laws of Florida [L.O.F]), created the Florida Engineers Management Corporation (FEMC), a public-private partnership, for the purpose of performing staff duties for the Florida Board of Professional Engineers (Board). FEMC provides administrative, investigative, and prosecutorial services according to a contract with the Department of Business and Professional Regulation (DPBR).

FEMC is established as a nonprofit corporation with a sevenmember board. The FEMC board is composed of five registered engineers appointed by the FBPE, and two laypersons appointed by the Secretary of DBPR. FEMC took over the administrative duties for the FBPE on July 1, 1998. As an integral part of the FBPR, FBPR and FEMC share resources including the Board's website.

It may surprise many of you that for nearly 20 years the FBPE support staff has been employed by FEMC and not by the State (DPBR) or the Board itself. I would say, though, that this transparency is indicative of the success of the arrangement. As required by statute, the Legislature must review the FEMC's performance and reenact the enabling legislation. To date, this arrangement has received favorable review and the Legislature has continued FEMC's mandate.

Additional information about FEMC and FEMC Board Members is available on the FBPE's website:

https://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. Better start earning those CEHs now!

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Region 3 Elects New Director

Jill Gostin was elected by the Region 3 members as the 2018 -2019 Region 3 Director-elect, and thus the 2020-2021 Region

3 Director/Delegate. Jill received her MS in Applied Mathematics from the Georgia Institute of Technology and has worked at GTRI since 1985. Her work has focused on algorithm assessment, software test and evaluation, and radar systems and software. Her numerous publications, multiple service and technical awards, and management of large programs all contributed to her achieving the positions of



Principal Research Scientist and Deputy Director of ICL. Ms. Gostin's extensive volunteer activities include STEM outreach and frequently serving as a panelist for discussions on women's roles in technology fields. In 2016 she was named the Georgia Women in Technology Woman of the Year for midsize businesses, an award recognizing women technology executives for their accomplishments as leaders in business, as visionaries of technology, and who make a difference in their community. She currently serves as the IEEE Computer Society lead for the IBM Watson Artificial Intelligence XPRIZE

SoutheastCon 2018 is Comin'!

The annual Region 3 conference, being held at the Hilton Bayfront in St. Petersburg from April 19 through April 22, 2018 and hosted by the Florida West Coast Section, will be here before you know it. There is still plenty of time to get involved — as a volunteer, presenter, or attendee.

To volunteer, contact one of the General Co-Chairs, Claude Pitts and Jim Howard, or the vice-chair Serge Beauzile. Their contact info is on Page 2 of this Signal.

To submit a paper, visit the conference website for details.

http://ewh.ieee.org/reg/3/southeastcon2018/
index.html

Important dates:

Abstract/Paper Submission: January 20, 2018
Tutorial Submission: January 20, 2018
January 20, 2018
February 15, 2018
February 28, 2018

Come join us this April at our beautiful venue on the St. Petersburg waterfront:

http://www3.hilton.com/en/hotels/florida/ hilton-st-petersburg-bayfront-SPTSHHF/ index.html

Florida Council Meets

On October 14, the IEEE Florida Council (FC) held its quarterly meeting in Orlando.

The Council is comprised of the 12 Sections in Florida and typically meets each quarter to discuss Section Activity, Florida Council Awards, Membership, the Florida Board of Professional Engineers, and other items of interest to the FC, as well as IEEE Region 3 and IEEE.

At this meeting, we were honored to have both the current Region 3 Director, Dr. Jim Conrad, as well as the incoming (January 2018) Region 3 Director-Elect, Dr. Greg Vaughn join us for our meeting. The Region 3 Directors serve on the IEEE Board of Directors representing all the member of Region 3, and they were sharing information about IEEE and its future plans, as well as discussing with the FC the upcoming proposed changes to the Region 3 ByLaws and Operations Manual.

Each of the Sections attending reported on the activity of their Section, and Claude Pitts, the FWCS Section Chair, gave a report of the activity we have had over the last several months. Many of the Sections reported they are experiencing similar issues with volunteer time, as everyone seems to be extremely busy with work and other activities. All Sections are current on all their required reporting to IEEE and are working to engage their respective memberships.

For your FWCS, in attendance were Claude Pitts (Section Chair & FC representative and voting member), Richard Beatie (FWCS Awards Chair & FC Awards Chair), and Jim Howard (FWCS Treasurer & FC Membership Chair).

The next meeting of the Florida Council is scheduled for December 9 in Orlando.





http://www/ieee.org/fwcs

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Reactor Seminar

Date: Friday, January 19, 2018 Time: Registration & Breakfast: 8:30AM-9:00AM Seminar: 9:00AM – 2:00PM

Speaker: David Caverly, VP Business Development – Coil Products Location: FRCC 3000 Bayport Dr. #600, Tampa, FL 33607

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

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

PDH 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. Florida exempt provider #00015.

RSVP: Online at: http://www.ewh.ieee.org/r3/floridawc/ (Select Reservations)

Make checks payable to: IEEE FWCS Send checks to: Jim Howard, IEEE FWCS Treasurer, 3133 W. Paris Street, Tampa, FL 33614-5964

Space limited to the first 50 registrants!!!

Agenda Part I

1. Introduction

2. Overview: Reactor Applications & Trench

Capabilities

3. General Update – What's New

4. Quick Summary: Design and Construction

5. Innovations

§ Improvements in Sound Performance

§ New Coil Construction Technologies

§ High Voltage Shunt Reactors

Agenda Part II

(a partial selection from the following menu as time permits)

6. Reactor Applications*

§ Shunt Reactors (Tertiary and High Voltage)

§ Current Limiting Reactors

§ Power Flow Control Reactors

§ Capacitor Switching (Damping) Reactors

§ Harmonic Filter Reactors

§ SVC Reactors and HVDC Reactors

7. Design, Construction, Installation, Testing,

Standards and Specifications

Free E-Book

Developing Your People—Commonsense Leadership in the Workplace –Vol.3: Career Asset Management, Teamwork, Empowerment

by Harry T. Roman

Volume 3 of Harry Roman's trilogy explores how managers and leaders can put the right people in the right places within an organization, achieve a team-based approach to problem-solving, and empower employees to meet the future challenges of their jobs.

Roman's book offers readers excerpts from the IEEE's Career Asset Management (CAM) tool he helped to develop. CAM is a seven-step process for disciplining users to ask the right questions, to develop plans for where they want their careers to go, and how to map out a strategy for getting there.

He also discusses how managers can put together successful teams—by balancing team members' professional development. He advises letting them take time for formal professional courses and activities—both in the skills they will need on the team, and in the areas that keep them current in the field they came from.

Exploring employee teams, Roman warns that they "sometimes tend to average down high-achievers, restraining their immense energy and tremendous momentum." He notes that the can-do spirit of high-performers often reenergizes evolving companies. Roman recommends putting these "race horses" in charge of the teams, and letting them set a fast pace.



The author also discusses the team's composition and assignment within companies. He points out that teams can involve dedicated assignments of individuals for set periods. Or be part of a matrix assignment, along with an individual's other regular functions. From his own experience, Roman prefers the matrix style of assignment. He says it tends to give workers some variety, often allowing them to intellectually shift gears between subject matter. Teams that have tedious assignments—with the same old faces, day in and day out, can quickly become stale—if their team leaders do not maintain proper working environments. Burnout can occur, and both the teams and individuals suffer greatly, even to the extent of damaging future working relationships between team members.

"Professionals want to be involved in a learning environment, Roman writes. "They expect mentoring, with the opportunity to grow in new directions." Further, he denotes that working on a team can give employees the uneasy sense they are confined to only one backyard, when they have an irresistible urge to roam around and cross-pollinate–something you really want in a dynamic and challenging market. Roman explains that when putting together a team, "the hybrid ideas are generally the strongest and the best."

Finally, on the topic of teams, Roman advises if you cannot plan for the time your team needs to prepare for the solution, then don't assemble a team at all. He says it won't succeed. "Team members must have the freedom to tell their managers and leaders what is not possible," says Roman. "Moreover, you, as their leader, must have the maturity and wisdom to listen to them; and if necessary, tell your boss when something cannot be done."

Roman concludes the astute leader knows the real risk of assembling teams: it means having the courage to give up some authority, and listen to what your experts are telling you.

Download free before November 15 at https://ieeeusa.org/shop/careers/developing-your-people-commonsense-leadership-in-the-workplace-vol-3/



http://www/ieee.org/fwcs

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Tampa Armature Works (TAW) Factory Tour

Date: Friday, November 10, 2017 Time: Noon – 3PM Location: 440 South 78th Street, Tampa, FL 33619

Cost: \$10 Members, \$20 Non-Members, \$5 IEEE Student Members

RSVP: Online at: http://time2meet.com/fwcs-meetings/ Send checks to:

Make checks payable to: IEEE FWCS

Jim Howard, IEEE FWCS Treasurer

Send checks to: 3133 W. Paris Street Tampa, FL 33614-5964

Questions: Tom Blair at 813-228-1111, ext 34407 or thblair@tecoenergy.com

IEEE invites you to a Tour of the TAW Motor Repair Facility in Riverview, Florida.

Tampa Armature Works Inc. is a family of integrated power solution providers. TAW has been providing design and repair services for electric motors, generators, transformers, pumps, drives, metal clad switchgear, metal enclosed

switchgear, and all rotating apparatus since 1921. If it spins, turns, or rotates, chances are TAW

has seen it and repaired it.

TAW provides portable generator servicing, custom engineered switchgear, generator packaging, power controls and automation to power distribution equipment, motor repair, and service of all kinds of equipment — including wind and nuclear power.

This will be a great opportunity to discuss with the experts any motor control problems you may have had in the past with large motors or drives, as well as see the up-to-date equipment located at this TAW facility.

ITI/GE Instrument Transformer Presentation and Plant Tour

Date: Friday, December 8th Time: Presentation begins at 2:30 PM followed by the Tour!

Cost: Free for Members, \$10 Non-Members and \$5 for Students

Make checks payable to IEEE FWCS and mail a check in advance to IEEE PE/IA Chapter Treasurer:

Jim Howard

3133 W Paris Street Tampa FL 33614-5964

Speaker: Claudio Morejon | Southeast Sales Manager for ITI/GE Instrument Transformers

Location: GE Plant; 1907 Calumet Street, Clearwater FL 33765

RSVP: Online at: http://time2meet.com/fwcs-pes2/index.html

Space limited to the first 45 registrants!!!

Questions: Steve Antman at 863 701-4170 or steveantman@gmail.com

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E-Week Banquet — Hold the Date! Thursday February 26, 2018

TPepin's Hospitality Centre 4121 N. 50th St. Tampa, FL 33610

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Keynote Speaker Details Forthcoming





















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Advertising Section







FOR MORE INFORMATION CALL

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SOLUTION PROFILE

Motor Starting MV Circuit Breaker Retrofill

Metal-Clad switchgear with air-magnetic medium voltage circuit breakers was typically used in the past for motor starting applications for station service equipment. Frequent operation of these circuit breakers led to excessive wear of the breaker contacts and operating mechanism, and premature failure of the air-magnetic circuit breakers. Over the years these breakers required extensive reconditioning and overhaul, using OEM and after-market parts and components. Increasing cost of maintenance and obsolescence by OEM's requires a new approach.

CE Power has developed a solution to extend the life of existing metal-clad switchgear. By performing a MV fused vacuum contactor retrofill, the most vulnerable components are replaced while the integrity of the switchgear is maintained. This significantly reduces maintenance costs and increases reliability of the system.

Overview

- Vacuum contactors designed and tested for switchgear applications, up to 2,500,000 operation cycles
- Primary contacts sealed inside a vacuum bottle
- Operating mechanism consists of few moving parts and components
- Primary fuses sized to protect the motor and cable from short circuit condition
- Non-load break isolation switch provides a visible disconnect of the primary circuit
- Proper interlocking and controls design
- New microprocessor motor control relay provides improved protection, remote monitoring and communication







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Advertising Section







DSP-ADM

The new DSP-ADM provides total system protection from ground faults and arc flash. As a base model it is designed to detect the event of a single ground fault, signal an alarm, and provide pulsing capability so that maintenance personnel can locate the faulted circuit without interrupting the process. Maintenance can be immediately alerted to the problem and an operator dispatched to located the fault to isolate it promptly.

The DSP SYSTEM can assist in locating the fault with a pulsing fault location circuit. In the event of a second ground fault, the DSP acts quickly to prevent loss of two feeders by selectively tripping the lower priority feeder only.





- Ground faults cause havoc on plant production processes, shutting down power and equipment and critical loads.
- Ground faults disrupt the flow of products through manufacturing processes and cause data loss in computer centers leading to hours or even days of lost productivity.
- Ground faults pose health and safety risks to personnel, creating hazards such as equipment malfunctions, fire and electric shock.

TECHNICAL SPECIFICATIONS

Power Requirements	100-240V, 50/60 Hz or DC, 25 VA					
Dielectric	Relay contacts to chassis 1500 V rms for 1 minute alarm level Control terminals to chassis 1500 V rms for 1 minute alarm level IEC-60255-5					
Trip Level Inhibit	25% of systems ground current					
Contact Ratings	DSP-DFM: Trip Contacts- Form "C" SPDT 10 Amp., 240 V AC resistive DSP-DPS: Alarm Contacts- Form "C" SPDT 8 Amp., 240 V AC resistive IEC-60950					
	DSP-DFM: Pickup Accuracy: ±10% of system let-through current					
Temperature Range	0 _o C to 50 _o C					



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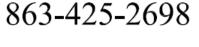
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November 2017 Calendar of Events (For more information see P. 1) in this Signal...

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7 EXCOM Meeting 5:30 TECO Plaza	8	9	10 Tampa Armature Works tour Details—P. 5	11 veterans
12	13	14	15	16	17	18
19	20	21	22	23 Happy Thanksgiving	24	25
26	27	28 Consultant's Network meeting Details—P. 1	29	30		