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SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.



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This Month's Meetings

Tuesday, May 6: EXCOM Meeting

Meeting starts at 5:30PM At TECO Plaza

Register online at <http://time2meet.com/fwcs-excom/index.html>

Open to all FWCS Members

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IEEE PES Scholarship Plus Initiative Application is now Open

The *IEEE PES Scholarship Plus Initiative* provides multi-year scholarships and career experience opportunities to qualifying U.S. & Canadian electrical engineering undergraduate students. As long as the scholar continues to meet renewal standards, he or she will receive up to three years of funding — **US\$2,000 the first year, \$2,000 the second year and \$3,000 the third year** — interspersed with up to two years of valuable, hands-on career experience.

We are now accepting applications from undergraduate students in the US & Canada for the PES Scholarship Plus Initiative. Over the last three years, we have distributed over US\$1.1M to 364 students from over 137 universities across the US & Canada. In 2013, PES Scholars were from 42 of the 50 US States (+ Washington, DC) and 5 Canadian Provinces. We would love to have a recipient from each US State and all Canadian Provinces in 2014. **The deadline to submit an application is June 30, 2014.**

IEEE PES Mentoring Program

Another important part of the PES Scholarship Plus Initiative is the mentoring program. The Mentor Program offers a person the chance to give back to the next generation of leaders in the power and energy industry. We are actively seeking successful leaders in the field—both men and women—to serve as mentors to one or more of the PES Scholars. Mentors can communicate directly with PES Scholars via email, telephone or in-person. Participation in the mentoring aspect of the program is voluntary for PES Scholars. To sign up to be a mentor, go to PES-Careers at: <https://www.myinterfase.com/ieee-pes/mentor/>

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IEEE-USA's Free E-Books to Members in May FREE E-BOOK

WASHINGTON (31 March 2014) -- IEEE-USA E-Books is offering "Communicating with Congress -- How to Build a Relationship with Your Elected Officials" free to IEEE members in April.

Author Russell Harrison offers insight into effective communication techniques to use when meeting with members of Congress. The IEEE-USA senior legislative representative encourages readers to be activists, and provides guidance on writing letters to Congress and having a successful congressional visit.

The ability to communicate well with your congressional representatives plays a key role in helping to ensure a strong science and engineering workforce, as well as sufficient funding for research and development.

"Engineers must become as adept in dealing with societal and political forces as they are with gravitational and electromagnetic forces," retired Lockheed Martin CEO Norm Augustine said. "We must equip engineers of the future to present their cases in almost every forum imaginable -- from town meeting to state legislature, from "The New York Times" to "60 Minutes," from Congress to the Oval Office."

"Communicating with Congress: How to Build a Relationship with your Elected Officials" can be downloaded at <http://www.ieeeusa.org/communications/ebooks/files/april14/29-0fnv/Communicating-with-Congress-2010-Update.pdf> for free to IEEE members. The non-member price is \$7.99.

To purchase IEEE members-only products, and to receive the member discount on eligible products, members must log in with their IEEE Web account.

May Free E-Book

In May, IEEE-USA E-Books will offer "Educating 21st Century Engineers" free to members.

IEEE Fellow Dr. James Gover and Dr. Paul Huray wrote this e-book to raise awareness of the declining interest many U.S. students have in a career in engineering. The authors advocate for the federal government to declare engineering a public good, and for corporations to fill a major role in engineering education -- as engineers invent, improve, design and manage the production of technology that drives much of our economy.



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Software Defined Networking (SDN): This Changes Everything!

The Florida West Coast Section's PACE Group is proud to present a cutting –edge seminar on what just might be the hottest topic in computer networking: Software Defined Networking (SDN).

SDN has got Cisco shaking in their boots because it just might completely transform what types of equipment are needed to build a network. Do I have your attention now?

Without getting too technical on you, the first impact of SDN is that for the first time the network's control plane and its data plane will be able to be separated. In today's networks, the control plane and the data plane are tied closely together (in fancy and expensive Cisco boxes). The network switches that compute the routing tables are the same devices that then implement the routing tables. A side effect of this is that this means that both the control plane and the data plane are currently being provided by the same vendors.

SDN completely changes this. The control plane and the data plane are pulled apart. The control program can run on one set of servers and the Network Operating System can run on a completely different set of servers. The Network Operating system will observe and control the data plane; however, it is not part of the data plane.

What this means for you is that how computer networks will be built (and what they will be built with) in the future will be completely different from how we do it today. Forget all of those Cisco certifications that you were thinking about getting, they may have just become worthless.

Attend this seminar and you'll learn three things: what SDN is, how Google leapfrogged everyone and is using SDN today, and what's next in the rapidly evolving world of SDN.

When: Wednesday, May 21 @ 6:00pm

Where: TECO Hall, 702 N Franklin St, Tampa, 33602-4429

Price: \$25 Non-Members, \$17 Members, \$2 Students, \$5 Life Members

Register online by going here:

<http://goo.gl/fYd1NS>



Tour of Tampa Electric Company's Energy Control Center

Date: Wednesday, May 28th, 2014

Time: 4:00 P.M. (NOTE: You must show your valid driver license to the guard at the 78th Street gate, and due to Security schedules, you will not be admitted past 4:00pm)

Cost: No Charge for IEEE Members, \$20 for Non-Members

Speakers: Art Nordlinger, Manager, Transmission Tariff & Contracts Dave Darden, Senior Consulting Engineer, System Planning & Operations Support

Location: 820 S. 78th Street Tampa, FL 33619

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

Space limited to the first 20 registrants!!! AND you must register in advance no later than Monday, May 26th, 2014 – anyone not registered by that date will not be admitted!

Questions: Art Nordlinger at 813-630-6203 or alnordlinger@tecoenergy.com

The tour will include a presentation in the assembly room by Dave Darden and Art Nordlinger on the operations at the operations at the facility, after which we will split into two groups and visit both control rooms (Distribution and Transmission) and , the state-of-the-art graphical functionality.



Consultants Networks Affinity Group– Projected Meeting Talk and Courses for 2014

The Consultants' Network Affinity Group of the Florida West Coast Section of IEEE has a plan to present the following courses taught by Mr. Kurt Forster of the Pinellas Economic Development Center during the current year 2014. Your input is hereby requested to determine the interest you may have in these courses which when selected will be presented at the normal meetings of the FWCS/CNAG. Kindly send your interest & selection to Hermann Amaya, CNAG Chair at hamaya@tampabay.rr.com indicating what courses/talks you would definitely like to attend.

Starting a Business: Licenses, Permits & Legal Requirements (May 27)

Learn detailed information on choosing a legal structure, specific state requirements, federal regulations, and local permits that your business may need to [get started](#) in Pinellas. If you have not yet started your business, this is the place to start!

Business Plans for New and Existing Businesses (June 24)

There are lots of different ways to accomplish a business plan from easy to very complex. Whether you're seeking a loan, trying to increase profits, or just want a better way to plan and keep track of your business, we can show you a variety of plan formats to fit your purpose. We'll also share a variety of resources to guide your plan and research.

Marketing Your Business for New & Existing Business (July 29)

Customers are the key to every successful business. Effective, strategic, marketing is the way to attract the most and best customers to increase revenue. Learn a simple strategic marketing plan that will attract customers and increase revenues without increasing expenses. Discover your unique selling proposition and choose the right strategies to win over the best customers and crush the competition!



IEEE FWCS SP/Comm June Event Mark your Calendar

The IEEE FWCS SP/Comm chapter is pleased to let you know that we will be conducting a meeting in June. Todd Felege, the Linear Technology Field Application Engineer, will be our guest speaker going over some of their latest parts and software support tools.

He has a BSEE from the University of New Hampshire. His specialty during school was Analog electronics including VLSI and IC layout techniques. He began at sixteen working in video editing electronics as a technician and PCB layout specialist for about five years. He then worked in the space science group helping in the design and implementation of satellite instrumentation for the analysis of the solar wind and cosmic radiation. This included time of flight mass spectrometry and gamma telescope work. The next twelve years were spent in the aerospace industry where he was involved in the architecture, design, and implementation of all types of avionic equipment from integrated displays to inertial and radio navigation. The last four years has seen Todd as the FAE for Linear Technology Corp. in Florida.

We will try to hold this talk in the Largo STAR Center as we previously have. Look forward to the June Signal and emails for more specific information on the subject and day and time in the near future



PACE Group Presents: "Is Your Resume Working For You or Against You"

On Wednesday, February 19th, the Florida West Coast Section's PACE Group presented a seminar titled "Is Your Resume Working For You or Against You". This well-attended seminar was free and packed with very useful information.

We all have a resume. However, is yours any good? How would you know? If you are like most of us engineers you probably whipped up a resume when you got out of college in order to get that first job and you've been updating it just a bit every so often – perhaps when you were between jobs. However, have you ever had anyone take a look at it? Is it really any good?

Considering the fact that when you are looking for a job, your resume is often the piece of paper that determines if you have a chance of getting that all so important first phone interview, it sure seems like you would like to have some confidence that you've got the best resume possible.

This seminar was the one IEEE seminar that you HAD TO come to this year. Forget what type of paper to use or what fonts are the best, I'm had two top-notch engineering recruiters participating in this event: Karen Fehr and Rachel Cantor. These folks have spent their lives looking at 1,000's of engineering resumes and they know what works – and what doesn't. We're took a look at real-world resumes and those who attended learned what you need to do to make your resume start working for you.

Did you miss my seminar? Well good news, you can watch it on YouTube here: <http://goo.gl/anQZtZ>



SP/Comm & WIE Join Meeting

Topic: Raspberry Pi Module Introduction

Date: Wednesday May 21st, 6 PM

Location: Largo STAR Center Corner of Bryan Dairy and Belcher, 7887 Bryan Dairy Road Largo, FL

Cost: \$2 for IEEE Member and \$4 for Non Members.

Speaker: **Isabelle Laureyns** is VP of Manufacturing at Fill-Tech Solutions, Inc. in Largo, FL.

Abstract: The Raspberry Pi is a wonderful single board computer that fits in the palm of your hand with over 2 million units delivered. The Raspberry Pi foundation released the Raspberry Pi with the intention of promoting basic computer science education in schools. Due to the affordable price of the boards, from \$25, it has become a powerful tool for hobbyists that want to run a home media center, a VPN, do home automation and a lot more. The Raspberry Pi is slowly turning into a dessert of choice for engineers as they turn them into industrial PCs, Ethernet monitoring, and industrial control applications. In this talk we will cover basics of how to configure and install the operating system and how to run a simple program.

Organizer: For more specific information please contact:

Chris Lambrecht : E-mail: chris.lambrecht@ieee.org, Phone: 727-458-9061

Valerie Tur: Phone: 813-334-2317



Florida West Coast Section, Tampa

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May 2014 Calendar of Events (For more information see P. 1) *inside this Signal...*

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28	29	30	31	1	2	3
4	5	6 <i>IEEE EXCOM TECO Plaza 5:30pm</i>	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21 <i>SP/Comm –WIE Raspberry PI Module PACE Software Define Network</i>	22	23	24
25	26	27	28 <i>Tour of TECO Energy Control Center</i>	29 <i>PES/IAS EXCOM Village Inn - 6am</i>	30	31