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THE

SUNCOAST

SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.



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This Month's Meetings

Tuesday, November 5: 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

SP/COMM and WIE Present:

Wireless Technologies for Monitoring and Control

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Engineers under 30 & College Students**

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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.

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SP/COMM and WIE Present:

Wireless Technologies for Monitoring and Control

Date: Tuesday, November 19th

Time: 6:00 – 7:30 PM

Cost: \$2 for Members, \$4 for Non-Members

Speaker: Mike Sutton

Location: Star Center, Planning Center Conference Center

7887 Bryan Dairy Rd Largo, FL 33777

Topics

1. Overview of Wireless Spectrum
2. Unlicensed 900-928 MHz
3. WiFi
4. Cellular
5. Wireless HART
6. Bluetooth

The presentation will cover the most commonly used wireless technologies for monitoring and control systems. The discussion will begin with an overview of the wireless spectrum, including the difference between proprietary and public standards networks and the general guidelines for selecting a wireless technology. We will then drill into more detail on each technology noting the benefits and disadvantages of each, and how the technologies are applied in industries.

Speaker: Michael Sutton

Michael has over 20 years of experience in the automation and control systems industry and is a licensed Professional Engineer in six states. He has a BS in Chemical Engineering from Columbia University and a MS in Chemical Engineering from Polytechnic University. He spent the early part of his career on the end user side working for the New York City DEP as a licensed WWTP operator and then spent over 13 years doing design, startup and commissioning of control and wireless telemetry systems for water and wastewater treatments plants for a large environmental consulting firm. He joined Phoenix Contact over a year ago as the Project Sales Engineer for the Southeast Region and is thoroughly enjoying his new role residing in Tampa FL.

For more information, please contact: Valerie Tur, 813-334-2317

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IEEE-USA's Free E-Books to Members Prove Engineers Can Write & Highlight Innovation

WASHINGTON (2 October 2013) -- IEEE-USA E-Books is offering "Engineers Can Write! Thoughts on Writing from Contemporary Literary Engineers" this month free to IEEE members.

Award-winning author Tom Moran explores the similarities and differences found in writing and engineering; offers thoughts on how engineers can conceptualize their writing to improve their reports, articles, proposals and other documents; and shows why many engineers are able to write very well.

Each of the engineer authors Moran features has been successful in the world of literature -- poems, shorts stories, novels -- and their competence with language undermines any claims that engineers can't write.

"Many engineers are excellent writers, adroit at taking on technology's toughest challenges, and using language to clearly and cogently describe what they have learned," Moran writes. "Indeed, engineering's history has been marked by important works written clearly and competently by engineers."

"Engineers Can Write! Thoughts on Writing from Contemporary Literary Engineers" can be downloaded at www.ieeeusa.org/communications/ebooks/files/z382n9i/Engineers-Can-Write.pdf for free to IEEE members. The nonmember price is \$9.99.



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

"The Best of Today's Engineer: On Innovation – Vol. 1" is a compilation of some of IEEE-USA's top stories on innovation - what it means, what it is, how to do it, what to think about, how to achieve it, and how it might affect some aspect of engineering.

Topics include: Top 10 Innovation Tools for New Millennium Engineers; Is Innovation the Answer?; How the Government Refocused on Innovation and Competitiveness; and Engineer, Promote Thyself.

This e-book will be available free to members in November.

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

2014 Washington Internships for Students of Engineering (WISE)

SUMMER 2013 PROGRAM

MONDAY, JUNE 1st - FRIDAY AUGUST 3rd

Applications **Due 31 December 2013**

IEEE seeks applications from exceptional engineering students who display evidence of leadership skills and have a keen interest in public policy. Each year, outstanding engineering students are selected to spend nine weeks in Washington, D.C., learning about the public policy process, including how government officials make decisions on complex technological issues and how engineers can contribute to legislative and regulatory public policy decisions. All application forms are online at: <http://www.wise-intern.org/index.html>

"...one of the best summers of my life; one which truly transformed my dreams and goals. When I left D.C., I really wanted to instill in my fellow engineers the appreciation of the interaction between public policy and engineering." -- Marc Canellas, WISE 2011



Tour of Matheson TriGas

Date: Wednesday, December 12, 2013
Time: 2:00pm to 4:00pm
Speakers: Matt Wendel
Location: Matheson TriGas, 2500 Combee Road Lakeland Florida
Cost: Free for Members, \$10 Non-Members.
RSVP: Online at: <http://time2meet.com/fwcs-pes2/index.html>
Make checks payable to: IEEE FWCS

Space limited to the first 15 registrants!!!

Questions: Serge Beauzile at 863-834-6511 or serge.beauzile@lakelandelectric.com

Special Invitation for IEEE members to Learn about Air Separation System

Air separation is the most common process used to extract one or all of the main constituents of atmospheric air. The three main components are Nitrogen (78.1%), Oxygen (20.9%) and Argon (.9%). The remaining gases in the air are in trace amounts and normally not recovered. In very large air separation units (ASU) Neon, Xenon and Krypton are recovered in small amounts.

Cryogenic air separation utilizes the differing condensing/boiling points of the components of air to enable separation by distillation at cryogenic temperatures. At atmospheric pressure the main components of air have the following condensing/boiling points:

- Nitrogen -320F
- Oxygen -297F
- Argon -308F

Since air is a simple mixture, liquefying and distilling air provides a process to successfully separate the Nitrogen, Oxygen, and Argon.



IEEE Florida West Coast Section Foundation Student Scholarships

The IEEE Florida West Coast Section (FWCS) has received a donation from an anonymous donor to provide Student Scholarships. The Section will be offering 10 to 20 Scholarships from these funds. These scholarships will be between \$250 and \$500 each and will be based on the following. The student:

- Must be a current FWCS IEEE Student Member (i.e., attend college in the FWCS geographic area, have an IEEE Membership Number, be current on all dues payments, etc.)
- Eligibility: FWCS region ABET school, junior or greater, member in good standing.

The selections will be based in part on:

- Volunteer and community work (i.e., IEEE Volunteer, community volunteer, etc.)
- An essay of the reasons of why you are pursuing a professional degree, why you believe that you deserve this scholarship, etc. (250 words maximum).

Watch future editions of the IEEE Signal newsletter for more details and where to submit your application.



Refer a Friend to Join IEEE

Complete the information on the IEEE-USA website to refer a friend or colleague to join IEEE. They get a discount off their IEEE membership; you earn an IEEE-USA merchandise gift! Here's how it works and here's the link to the site to get the form:

- Go to the IEEE-USA website <http://ieeefluidsurveys.com/s/ieee-usa/>.
- After you submit the referenced form, your referral receives an automated e-mail inviting them to join, including a \$25 discount off their first-year membership dues.
- When they join, they must indicate your member number as the referral source (this is how we track your eligibility for MGM awards as well as this special IEEE-USA merchandise offer).
- After they join, within 3-4 weeks, you will receive an e-mail confirming your recruiting success.
- Follow the link in that e-mail to pick out your IEEE-USA merchandise item! You will receive a separate e-mail for each successful new recruit.
- There is no limit to the number of merchandise items you can earn, as long as your referrals join as professional members (student referrals aren't eligible).
- Your referrals must join and complete payment prior to 31 December 2013.
- You remain eligible for the standard MGM incentive awards given out once per year in September.
- Society Affiliates are not eligible for this promotion.

The items you can choose from include:

- Cooler backpack
- Computer backpack
- Portable solar battery charger
- Tablet case
- Portable speaker
- Parker pen and mechanical pencil set
- Parker ballpoint pen
- Travel coffee mug and tumbler set
- Golf balls
- Baseball hat
- Golf umbrella
- Travel umbrella



New Faces of Engineering Nominations Sought for IEEE Member Engineers under 30 & College Students

WASHINGTON (17 October 2013) -- Nominations are now open for IEEE members to be recognized as the 2014 IEEE/IEEE-USA New Face of Engineering. One program features engineers under 30 and one highlights college students.

The Engineers Week (EWeek) New Faces of Engineering Professional Edition recognizes engineers new to the profession with outstanding educational and career accomplishments. It is open to IEEE members worldwide.

To be eligible, engineers must be 30 or younger as of 31 December 2013 and have a degree in engineering or computer engineering from a recognized U.S. college or equivalent international educational institution.

Judges will evaluate nominees based on their educational attainment, engineering achievements and participation and accomplishments in professional and technical society activities. Particular consideration is given to work (e.g. volunteering, publishing, conference presentations) in IEEE technical societies.

IEEE nominations should be directed to Sharon Richardson at s.richardson@ieee.org. Self-nominations are not permitted. The nomination form and more information are available at the following IEEE-USA website: <http://www.ieeeusa.org/communications/eweek/newfaces/default.asp>.

The nomination deadline is 4 November 2013.

The IEEE/IEEE-USA top choice will be featured during EWeek (16-22 February 2014) in a promotional ad. Up to four others will be recognized on the EWeek Website (www.eweek.org).

Maria Vlachopoulou was honored as the 2013 IEEE/IEEE-USA New Face of Engineering Professional Edition. She is developing new tools to more effectively incorporate renewable energy sources such as wind and solar into our nation's electric grid. Her research interests are in power systems, statistical and mathematical modeling and system optimization. <http://www.ieeeusa.org/communications/releases/2013/022213.asp>

College Edition Program

The New Faces of Engineering College Edition is for third-, fourth- and fifth-year IEEE student members enrolled in a bachelor of science engineering program at an ABET-accredited college or equivalent international institution, and have a minimum grade-point average of 3.0. The initiative is designed to recognize students whose academic success, contributions and experiences in engineering have them poised for future success.

The application is available on Facebook until 15 November at www.facebook.com/CollegeEdition. The IEEE/IEEE-USA winner will be featured on the page and receive a \$500 scholarship.

Curtis Ullerich, a computer engineering major at Iowa State University was the 2013 IEEE/IEEE-USA New Face of Engineering College Edition. He is vice president and photographer for his school's IEEE-Eta Kappa Nu student honor society chapter and an ISU Electrical and Computer Engineering Student Advisory Council member. http://www.iowastatedaily.com/news/article_682dbb4c-808f-11e2-8ac2-001a4bcf887a.html

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 206,000 engineering, computing and technology professionals who are U.S. members of IEEE.

Contact: Chris McManes

IEEE-USA Public Relations Manager

202-530-8356

c.mcmanes@ieee.org

Held Jointly with the FWCS Consultants Network

Lazzara Yacht Manufacturing Tour

Date: Tuesday, November 12th, 2013
Time: 2pm-5pm
Cost: Members – FREE, Non-Members - \$20

Make checks payable to IEEE FWCS and mail a check in advance to:

IEEE PE/IA Chapter Treasurer
2593 Forest Run Court
Clearwater, FL 33761-3716

Speakers: Brad Lazzara
Location: 5300 West Tyson Ave, Tampa, Florida 33611

RSVP: Online at: <http://time2meet.com/fwcs-pes3/index.html>

Space limited to the first 20 registrants!!!

Questions: Jim Howard at 863-834-6585 or Jim.Howard@Lakelandelectric.com

Did you know we have a manufacturing facility here in the FWCS area that produces Top-of-the-Line Mega Yachts? Well we do, and they have been producing them for many, many years. This is your chance to tour this facility and see what goes into the production of a Work Class Mega-Yacht.

Lazzara Yachts is headquartered in a 130,000 sq. ft. facility on a 24 acre peninsula in Tampa, Florida. They employ close to 500 craftspeople of various trades from over 78 different nations. Some of these skilled individuals trace their lineage back to working under Vince Lazzara at Gulfstar Yachts in the 1970's and now some of their children are building yachts with Lazzara

Being a family builder has its advantages and ingenuity. It has propelled Lazzara Yachts to the forefront of modern boat building.

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	One Month		6 Months		12 Months		
Size	Member	Non-Member	Member	Non-Member	Member	Non-Member	
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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

November 2013 Calendar of Events (For more information see P. 1) *inside this Signal...*

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27	28	29	30	31	1	2
3	4	5 <i>IEEE EXCOM TECO Plaza 5:30pm</i>	6	7	8	9
10	11	12 <i>Lazzara Yacht Tour 2:00pm</i>	13	14	15	16
17	18	19 <i>Wireless Technology for Monitoring & Control</i>	20	21	22	23
24	25	26	27	28 <i>Happy Thanksgiving</i> 	29	30