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THE SUNCOAST SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Volume 52 — No. 1

<http://www.ieee.org/fwcs>

January 2009



Inside this Signal...

Page 2

- * Editors Column
- * LightningMaster
- * Nolan Power Group
- * Upcoming AESS Events

Page 3

- * Siliconexion
- * Life Member Meeting
- * GOLD/WIE Update
- * Tampa Bay Engineering Banquet
- * IEEE-USA Annual Banquet

Page 4

- * Haraden Pratt Winner
- * PL-UG Fest 2008

Page 5

- * Nolan Power Group Seminar

Page 6

- * October BTC Solution
- * November BTC

Page 7

- * PES/IAS Transformer Seminar

Page 8

- * Calendar of Events

Page 9

AESS Dinner Meeting
for Intro to Consulting

Page 10

AESS Consulting
Seminar



This Month's Meetings

January 6th: EXCOM Meeting At TECO Plaza

702 N. Franklin Street, Tampa

Meeting starts at 5:30PM and ends at 7:30.

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

Meeting is open to all FWCS members and guests

PES/IAS

Core (Dry) Type Transformer Seminar

Friday, January 16, 2009

Registration: 8:30AM – 9:00AM, Seminar 9:00AM – 2:00PM

Seminole Electric, 16313 North Dale Mabry Hwy, Tampa, FL 33618

See Page 7

Life Member Meeting

Thursday, January 29, 2009 – 7am

Village Inn, 215 N. Dale Mabry Hwy., Tampa

See Page 3

Upcoming Events!

Tampa Bay Engineering Banquet 2009

Friday, February 20, 2009 at the Tampa Bay Grand Hyatt

See Page 3

AESS Consulting Introduction and Seminar

February 19 and 21, 2009

See Pages 9 and 10 for Details



This Month... (Editor's Column)

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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.

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All material for THE SUNCOAST SIGNAL is due in electronic form by 1st

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

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Did anyone notice that there was a page from November in the December Signal? Let me explain! After sending the files to the printer, they accidentally included one page from the previous month. By the time the error was noticed, Jim Howard already had the printed copies mailed out. I think this is a classic example of Murphy's Law at work!

The New Year is full of events and announcements for the FWCS. There is the announcement that Jim Beall received the Haraden Pratt Award for 2009, a Life Member meeting, a Chapter Seminar for PE/IA. In addition there are announcements for a number of events in February by the AESS, a battery seminar by Nolan Power and the Tampa Bay Engineering Banquet Thanks to all the contributors!

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Teacher In-Service Program

17 October 2008

A Teacher In-Service Program presentation was held for Hillsborough County Teachers at Jefferson High School in the Tampa, FL area to demonstrate the application of engineering concepts to support the teaching and learning of science, mathematics and technology disciplines. The hands-on activity presented at the session was "Get Connected with Ohms Law". A special thanks to Sean Denny and Ralph Painter for facilitating this workshop



USF Engineering Senior Banquet

On Friday December the 5th, the IEEE Student Chapter at USF, hosted their Graduating Seniors Banquet to honor the graduating classes of Fall 08 and Spring 09. The event, attended by students, faculty, industry and IEEE FWCS representatives, was a huge success; everyone had a lot of fun and enjoyed a memorable evening. Dr. Jim Anderson's keynote speech was the highlight of the evening as he shared with the graduating class some of his wisdom on the real world that awaits them. Dr. Schnitzler the Chapters co-advisor was also recognized for his recent IEEE award as Educator of the Year. Dr. Ralph Fehr announced the top three senior design projects posters presented earlier in the day, and the students had a chance to take the podium and talk about their senior design experience. Among the industry representatives were several former EE graduates. The student section recognized all attending graduating seniors and presented them with a small gift while wishing them the best of success in their future endeavors. The event was sponsored by: the USF Electrical Engineering Department, the IEEE FWCS, TRAK Microwave, PdMA, TECO, Swagelok, Rev1, Raytheon, Harris, ESS.



GOLD/WIE Update

"The December 4th GOLD/WIE meeting was a great success! Attendance at the meeting increased by 50% from the November meeting and some newer IEEE members got to pick the brains of some of our distinguished IEEE veterans. That about wraps up 2008 for GOLD, where we had double the number of meetings than 2007. Look for more social and career advice events in 2009, including financial planning for young professionals and networking how-tos. Thanks to those who supported us in 2008, and for those who wanted to but couldn't, we hope to see you in 2009. Happy New Year!

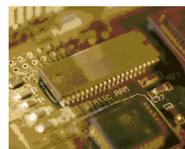
Tim Doolittle, GOLD Chair"



Tampa Bay Engineering Banquet 2009

Friday, February 20th at the Tampa Bay Grand Hyatt, 2900 Bayport Drive, Tampa.

Check our Web Page for up-to-date banquet information. Either Pay by check (Send with the form available online): Or pay with a credit card online by following the "Online Registration" link at: <http://www.tbewb.org>



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Life Member Meeting

Thursday, January 29, 2009 – 7am

Village Inn, 215 N. Dale Mabry (just north of Kennedy Blvd)

Start the New Year off with a bang, and come join us for a Life Member planning meeting and breakfast. We need your input to start scheduling our tours and meeting for the new year so we can get the plans set and everyone can get it on their calendars early. Need more information or directions, just send an email to John Stankowich at johns060@hotmail.com. See you there!



IEEE-USA Annual Meeting

"Engineering the Alternative Energy Debate" in Salt Lake City, UT February 26-March 1, 2009

www.ieeeusa.org/calendar/conferences/2009annualmeeting

Jim Beall Earns 2009 IEEE Haraden Pratt Award



14 November 2008
Dear Mr. Beall:

Recognizing exceptional achievements in our profession, by both individuals and organizations, is an important part of the mission of the IEEE. Each year the IEEE Awards Board recommends a select group of recipients to receive the IEEE's most prestigious honors. It is my pleasure to inform you that the IEEE Board of Directors has named you the recipient of the **2009 IEEE Haraden Pratt Award** with the following citation:

"For a lifetime of continued leadership and service to the IEEE at all levels"

Specific details regarding the award and plans for its presentation will be emailed separately within a short time by the IEEE Awards Staff.

On behalf of the IEEE Board of Directors, I extend our heartfelt congratulations on your achievements and our appreciation that you have made the IEEE a home for your technical and professional activities.

Sincerely, Lewis M. Terman
2008 IEEE President & CEO



The IEEE Haraden Pratt Award was established in 1971 in honor of Haraden Pratt, who was Director Emeritus of the IEEE and who had given dedicated and distinguished service to the Institute. As President, Treasurer, and then Secretary for 23 consecutive years, his service on the Board of Directors, including that of Director Emeritus, totaled 31 years. The purpose of this award is to recognize individuals who have rendered outstanding service to the Institute.

The award is presented to an IEEE senior member or fellow and consists of a bronze medal, illuminated certificate, honorarium and travel expenses to award ceremony

Congratulations Jim, from the FWCS on this prestigious honor!



Another Successful PL-UG Fest for 2008



Coordinated by the FWCS AESS & Computer Society and Jim Lumia, AESS Chair

The November 2008 Programmable Logic Users Group annual PL-UG Fest was organized a little differently from the past events. Instead of hosting multiple vendors for the whole day event, one vendor was chosen to sponsor the event. For the November 11, 2008 event, that vendor was Xilinx. However, all other Field Programmable Gate Array (FPGA) vendors will have opportunities to participate in their own "mini-PL-UG Fests" during 2009.

The day was filled with technical sessions and was well attended at the Holiday Inn Express on Ulmerton Drive in Clearwater. As usual, there was a nice buffet lunch for the 45 attendees and the volunteers. And there were great door prizes too!

Some of the Plug Organizers pictured: (Left to right) Jim Lumia, Mark Graham, Jack Killingsworth, Joe Keith





Nolan Power Group
Invites you to attend the 2009
Winter Battery Maintenance Seminar

Seminar Course
Topics Include:

Battery
Overview
Installations
Maintenance
Visual
Inspections
Corrective
Actions Battery
Problems
Discharge
Testing And
More

Registration
Fee: \$675.00
Per Person —

— \$600 Each
For 4 or More

Lunch is
provided by
Nolan Power
Group

Registration
Due By:
January 10,
2009

Conducted by Marco Migliaro, PE, a recognized expert in the field of Emergency Power Systems and Stationary Technology. The two-day course focuses on applications, battery types, preventative maintenance and more. The course also provides an opportunity for gaining a greater depth of knowledge of stationary battery visual inspections, problem identification and corrective actions.

February 25th & 26th, 2009 8:00am to 5:00pm

**Courtyard by Marriott Aventura Mall 2825 NE 191st Street
Aventura, FL 33180 (305) 937-0805**

Please Register Me For The Battery Seminar

Name: _____

Email: _____

Company: _____

Address: _____ Phone: _____

For Payment, you may attach a Purchase Order or a completed Nolan Power Credit Card

Authorization form or mail a check to: Accounts Receivable, 21448 Marion Lane,
Mandeville, LA 70471

Fax completed form(s) to: 954-333-3041

For More Information, please call or email Mary Ellen Insley at
(954) 333-3040 or maryellen.insley@nolanpower.com

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Brain Teaser Challenge Solution - October 2008

Butch Shadwell

Last month we discussed a thermo-dynamics problem. A rural village was trying to heat their homes a little better. “If a villager was able to heat 10000 liters of water during the day using his solar panels to a temperature of 60 degrees C, how many BTUs would be released as heat as the water cooled to 20 degrees C?”

The amount of energy released is proportional to the change in temperature. You probably remember that a calorie is the amount of heat it takes to raise the temperature of one ml of water one degree centigrade. We are using 1E7 ml of water in this problem, times 40 degrees C equals 4E8 calories of heat energy, added and then deleted from the water mass. 252 calories equals 1 BTU. So, when we divide we get 1.587E6 BTU. That’s enough heat to heat at least two homes through a freezing night. But I bet you already knew that.

Brain Teaser Challenge – November 2008

I was just watching one of those reality shows on TV. This one had a dozen American city girls trying to win the heart of an Australian fellow from the outback. It was very amusing. These girls came from all sorts of backgrounds and educational experience.

Some of the young debs were upset that they could not plug in there hair dryers while living in the bush. One even had to redo her own nails ... a first for her. As luck would have it, one girl had been in the Girl Scouts and one of her merit badges was in electricity. The producers of the TV show found a car battery and a power inverter to aid with the hair blowing emergency. This inverter produced a 60 Hz sine wave at 120 vrms, 15A max. The instructions said that it will not handle loads with a PF less than 0.9. If the hair dryer says that it draws 1000W or 1200 VA, will the inverter carry the load? For extra credit what is the angle between the current and voltage waveforms on this appliance? Our Girl Scout got it right.

Reply to Butch Shadwell at b.shadwell@ieee.org (email), 904-223-4510 (fax), 904-223-4465 (v), 3308 Queen Palm Dr., Jacksonville, FL 32250-2328. (<http://www.shadtechserv.com>) The names of correct respondents may be mentioned in the solution column.



PE/IA Chapter Planning Next Color Book Seminar

The Gray Book

Plan now to attend the next Color Book Seminar – The Gray Book, currently being planned for Friday, March 27, 2009.

The Seminar will be held from 9am-4pm and include lunch. The cost will be \$125 for members and \$155 for non-members, so be sure your membership is up-to-date or, if you are not a member, join now to take advantage of the member cost.

Watch your upcoming Signal newsletter for more information and for when registration will open for this outstanding seminar.

Note: This is the third seminar in the Color Book series the PE/IA is presenting. There are a total of 13 Color Books and the PE/IA Chapter hopes to present them all over the course of the next year or two, so it is very important you maintain your IEEE membership in order to take advantage of the savings the PE/IA Chapter is offering its members as a benefit for membership

Did You Miss It?

On Thursday, December 4th, 2008 your PE/IA Chapter offered an outstanding tour of Polaris Electrical Connectors.

If you were one of those that attended, you had a great opportunity to see Polaris’s new facility. If you missed it, you missed great food, a great tour, and a chance to network with your peer professionals.

The PE/IA Chapter wants to thank Polaris for their hospitality and in particular Mr. Nick Moraitis and Mr. Luke Hill for taking the time to provide us an update on their products and for a great tour of their facilities.

Jim Howard



Core (Dry) Type Transformer Seminar

Last Chance for IEEE PDH's, Renewals are Due in February!

- Date:** Friday, January 16, 2009
Time: Registration: 8:30AM – 9:00AM, Seminar 9:00AM – 2:00PM
Location: Seminole Electric, 16313 N. Dale Mabry Highway, Tampa, 33618
Space is limited to 50 attendees.
Cost: \$100 Members, \$150 Non-Members, \$30 Students
Includes Breakfast, 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://time2meet.com/fwcs-pes3/index.html>
Make checks payable to: IEEE FWCS
Send checks to: Paul Schnitzler, IEEE FWCS Treasurer
30612 Nickerson Loop, Wesley Chapel, FL 33543
Questions: Jim Howard at 863-834-6585 or jim.howard@lakelandelectric.com

A New Technology

The very first transformer was a dry-type transformer developed more than a century ago. For years this transformer type fulfilled the energy needs for a developing electric industry. As electric needs grew, the early dry-type transformer was unable to keep up with the demand even as it was improved, and was left behind as the industry moved to higher voltages and larger liquid-filled transformers that used the liquid as insulation. In recent years, the dry-type transformer has re-emerged due to a new generation of improvements. New materials and designs that were previously neither feasible nor cost-effective are now used in dry-type transformers to meet requirements that were once the domain of liquid-filled transformers. The use of new technologies in insulation and air-cooling systems now allow dry-type transformers to be designed in sizes up to 10,000 KVA or larger and with voltages up to 34,000 volts. Applications for new dry-type transformers can be found indoors as well as outdoors and provide an alternative to non-flammable liquid transformers

About our Instructor

Anthony J. Jonnatti has been a Design Engineer in the transformer industry for over fifty years. He has designed large power transformers, instrument transformers, dry-type transformers and specialty transformers for companies such as Allis Chalmers, the Square D Company, McGraw Edison, and Instrument Transformers Technology. Mr. Jonnatti is past Chief Engineer for the Square D Company in Clearwater where he was responsible for the design of Encapsulated Core Dry-Type Transformers. He has also been an Engineering Consultant to the New York Port Authority. He is responsible for two patents relating to transformer design, manufacture and testing. Mr. Jonnatti has a BSc and MSc in Electrical Engineering from the University of Pittsburgh and is a registered Professional Engineer in the State of Florida and the State of Pennsylvania. He holds the rank of Commander in the US Naval Reserve (retired). He is a longtime member of the IEEE and IEC, most recently serving as Secretary of the IEEE Dry-Type Transformer Committee.



Dinner Meeting - AESS, Computer Society, and PACE Members

Thursday, February 19, 2009. Social time starts at 6:00 pm

Topic: Introduction on How to Start and Expand a Consulting Practice

Gary Blank has taught and helped hundreds of professionals start and expand their consulting practices. At the Feb 19, 2009 Thursday evening dinner meeting, the purpose is to enlighten the IEEE section, members and guests about how a consultant network is started and structured and built, and how the members and the Network are integrated with other Networks and members in the world of IEEE. The talk emphasizes the role and responsibilities of the Section and the role and responsibilities of the Consultants Network.

This is an open meeting. Also take advantage of a chance to become a consultant or improve your consulting career and network with fellow engineers have an excellent dinner at CDB's Southside Italian Restaurant in South Tampa. You may order salad, soup, entree, sides, and desert from the special menu for only:

\$15 for IEEE members.

\$25 for guests of members.

This is a great opportunity to network, have a good time and improve your engineering career.

The Meeting will be held at:

CDB's Southside Italian Restaurant

3671 S. Westshore Blvd.

Tampa, FL 33629

Phone: 813-805-2327

Please RSVP online at <http://www.time2meet.com/fwcs-meetings/>

Select "Make a Reservation", then "View Attendees List" to check your reservation.

Contact Jim Lumia to join IEEE or add AESS to your IEEE membership and get your dinner free. JLumia@ieee.org (813)832-3501. <http://ewh.ieee.org/r3/floridawc/membership.html>

If you have problems registering on this web site, please email your registration information to JLumia@ieee.org.

About the Speaker: DR. GARY L. BLANK

Gary Blank has taught and helped hundreds of professionals internationally to start and to expand their consulting practices. He received his BS from Illinois Institute of Technology, MS from the University of Idaho, and Ph.D. at the age of 24 from the University of Wisconsin in Madison. All degrees are in electrical engineering. Since then his career has advanced along parallel paths in industry and in academia. Less than two years after graduation he started his consulting practice. He rapidly expanded his client base, and during the next thirty years he was never without a client for more than one week. He made a smooth transition from a full-time salaried employee to a full-time independent consultant in 30 days. For 15 years he was a full-time consultant while concurrently teaching part-time at the University of Florida and UCLA. For 13 years he held full-time faculty positions at Marquette University, Northern Illinois University, and the Illinois Institute of Technology, while concurrently consulting part-time in industry.

Full Day Six Hour Consulting Seminar

How to Start and Expand a Consulting Practice

Sponsored by the AESS, Computer Society and PACE

Saturday, Feb 21, 2009 9am to 4pm

To register for this seminar, go to. <http://www.time2meet.com/fwcs-meetings/> The Saturday six-hour seminar is for those who have been consulting and would like to expand their practices, and for those who are starting or considering starting and want to learn how to build a successful practice rapidly, how much to charge, how to find clients, etc. It is a how-to seminar. We start at 9 am and end at 4 pm with an hour for lunch from 12 to 1 PM.

(continued on Page 9)



(Continued from Page 8...)

The AESS will provide lunch included in the fee for the seminar. This seminar usually costs \$400 to attend. The AESS is sponsoring a special price for IEEE members which is \$195 including lunch and all handout materials. The price for unemployed IEEE members is \$125. The price for non-members is \$395. Please register early at <http://www.time2meet.com/fwcs-meetings/>. You will need to pay by check or cash. Make out your check to IEEE FWCS. Contact Jim Lumia to join IEEE and get the special member pricing. Email JLumia@ieee.org or call (813) 832-3501, or contact Jim Lumia to join IEEE to your IEEE membership and get the special member pricing. Email JLumia@ieee.org or call (813) 832-3501.

Space is limited so register or call early.

Learn "**How to Start and Expand a Successful Consulting Practice**"

This six-hour seminar/workshop for engineers, scientists, and other professionals has been held throughout the United States and Canada.

1. Do you want to know the secrets of what experienced and successful consultants are doing and how they are doing it?
2. Are you interested in consulting part-time while keeping your present job?
3. Are you considering making the transition from a full-time job to a full-time independent consultant, and are you concerned about the possible temporary loss of salaried income and company benefits?
4. Are you unemployed or under-employed, and are you considering becoming a consultant?
5. Do you want to expand your present consulting practice?
6. Are you looking for clients and assignments?

SEMINAR OUTLINE

- **Session 1** - How to Get Started Without Leaving Your Present Job, Keeping Records, & Taxes
- **Session 2** - HOW TO SET YOUR FEES . . . A FORMULA for fee setting; Experience Needed
- **Session 3** - HOW TO WIN THE CONTRACT, Step-By-Step, What To Say, What To Do
- **Session 4** - HOW TO FIND CLIENTS

ADDITIONAL BENEFITS OF SEMINAR

EARN CREDIT: Attendees may receive credit in the form of PDH's or CEU's for attending this seminar. **TAX**

DEDUCTION: It is likely that each attendee is eligible to receive a tax deduction for education expenses undertaken to maintain or improve skills required in one's business.

About the Instructor

Dr Gary Blank is a Senior Member of the IEEE and the founding chairman of the IEEE Consultants' Network of Chicago/Rockford. He is the past Chairman (1998-2001) of the Coordinating Committee of the AICN (Alliance of IEEE Consulting Networks). He is responsible for the start-up of over 20 IEEE Consultants Networks in both the USA and overseas. He is currently consulting full-time in industry in Electronics, Power, and Control Systems. In the seminar he illustrates how to keep your present job and launch a successful part-time consultancy. Then he explains how to allow your practice to grow as rapidly as you desire using the right strategies. Dr. Blank is a dynamic and effective workshop leader. His ideas are creative and exciting. His teaching style makes it easy and enjoyable for others to learn. His well-organized, informative workshops and classes earn him consistently high ratings from participants. His illustrations and tips are down-to-earth, practical proven methods.



January 2009 Calendar of Events (For more information see P. 1) *inside this Signal...*

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------|--------|---|-----------|--|--|----------|
| 28 | 29 | 30 | 31 | 1 <i>New Year!</i>  | 2 | 3 |
| 4 | 5 | 6 <i>EXCOM Meeting at TECO Plaza Page 1</i> | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 <i>PE/IA Transformer Seminar Page 7</i> | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 <i>Life Member Meeting, Page 3</i> | 30 | 31 |

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Or fax your address changes to (732) 562-5445