



THE SUNCOAST SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

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Volume 43 - No. 3

March 2000

Joint Section & PES/IAS Luncheon Meeting How Close are We to having a “Zero” Electric/Gas Bill? Distinguished Speaker – Dr. Erich Farber

Date/Time: Wednesday, March 8, 2000 at Noon

Location: Tampa Electric Company - TECO Hall
702 N. Franklin St. (Downtown Tampa)

Reservations: Reservations are required! Please contact
Paul Leal at 813-635-1411 or ST053@tecoenergy.com
James Reed at 813-654-8331 or micreed@earthlink.net
Art Simplina at 727-535-6857 or A.C.Simplina@ieee.org

Lunch Cost: \$12 Members, \$6 IEEE Students, \$20 Non-Members

Dr. Farber has been conducting research at the University of Florida since the 1950's in the field of energy efficiency. Many people consider Dr. Farber well ahead of his time. His work involves many achievements, including the first ever, 100% energy efficient house. He will lead you through the developments of this field, from the energy scare in the 1950's to the need to eliminate hazard pollutants and reduce the ever rising cost in energy that has shaped this field. Dr. Farber will also discuss significant late-breaking developments in the field that will impact your home and business. Further more, you will obtain his 5-step process to help ensure that your energy efficient decisions are correct and effective.

Dr. Farber has served on the Florida Energy Board Council and has provided council to numerous private and government endeavors in this field. We look forward to seeing you at this meeting. This is an opportunity to obtain some excellent information in this field for only the cost of a lunch.

Chair's Comment

by Al Rosenheck

Our annual Section Awards and Recognition Banquet held on the top deck of the Starlite Princess Riverboat was a rip-roaring success. The weather was milder than expected and we cruised the inland waterway under a beautiful sky filled by the stars and moon. Dinner and dancing to live music rounded out the evening as John Twitchell handed out the Millennium Medals and Lignell Awards.

Twelve IEEE Millennium medals were awarded to section members (see page 2 for names of these members) for outstanding contributions in their "areas of activity." John then made the annual Lignell Awards to Lisa Culberson from Hillsborough, Kim Adams from Pasco, and Rose Mack from Pinellas county, for outstanding teaching of math and science. It was most interesting to talk to these teachers and I must say that I was impressed with their enthusiasm and knowledge. We are fortunate to have such dedicated professionals in our schools. The banquet was a good chance to socialize and members and guests who attended thoroughly enjoyed themselves. Thanks again to John Twitchell and those who helped make it such a special event.

Here it is March and we already hold a two-month record for our number of meetings. Are they helping you meeting your goals? Do they interest you? Although most of our meetings are arranged by chapters, they are often of general interest and open to all members. If you have comments about our programs or suggestions for topics, send me an email (rosenheck@aol.com) or call (941-395-2117).

Inside this issue of the Suncoast Signal:

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All material for THE SUNCOAST SIGNAL is due by the Friday following the 1st Thursday of the month preceding the issue month. Address all correspondence to:

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IEEE Announces Third Millennium Medals

As part of its celebration of the Third Millennium, IEEE is awarding Millennium Medals to individuals for outstanding contributions in their area of activity in support of IEEE. Medal recipients from the Florida West Coast Section are:

Richard E. Beatie

Joey A. Duvall

Betty M. Fritz

James M. Howard

Jules Joslow

John W. Luce

Mark McKeage

Albert D. Rosenheck

Arthur D. Snider

Quang C. Tang

John R. Twitchell

Another Florida West Coast Section member, **James H. Beall**, will be receiving his Millennium Medal from his Society. Congratulations to these medal recipients, and thank you for your efforts on behalf of the Institute of Electrical & Electronics Engineers.

Were You There?

The ISA is pleased to announce that their annual ISA Table Top Show at the Lakeland Center was a GREAT success. They had their 2nd Annual Clinics in hourly increments as the day progressed and got really good reviews. John Quirk, the Education Chairman, did a wonderful job bringing in speakers from Refractometry, FieldBus, Intrensic Safety plus more. They want those who attended to know of their appreciation, and for those of you who missed it, be sure to watch for next year's show and plan to attend early!

Students' Corner

USF IEEE Student Branch Chapter

By Brian Zilka

The University of South Florida Engineering Expo was another success and we would like to thank all those participated. This year we featured a humorous skit about the history of telecommunication. I am sure everyone enjoyed watching it as much as we did performing it.

We would like to congratulate **Ms. Kanix Bukkavesa** for being selected for the IEEE Florida West Coast Engineering Student of the Year Award. She was honored at the Engineers Week Banquet at the Belleview Biltmore Resort & Spa on February 18th.

This month on the 11th and 12th, we are hosting the WAMI Advisory Meeting. We are also putting the final touches together for the Graduating Seniors' banquet, which is planned for late April.

For the most up to date information on what we are doing visit our web site at <http://org.eng.usf.edu/IEEE-EE/>.

Thanks again for all your support.

Attention Life Members!

FWCS Life Member Chapter Organizational Meeting

Date/Time: Thursday, April 27, 2000 at noon

Location: The Gamble Inn - US 301 S Exit from I-75 at Ellenton 3911 Highway 301 - Go east (south on signs) on US 301 Ellenton, FL 34222 - about 1 mile. Restaurant is on the left (941) 722-1205 (south side of the road.)

Order home cooked food from the menu. The informal meeting will start about 1:00PM. Bob Ashley (Life Fellow) will lead discussion of where and when to meet. George McClure (Life Fellow) will lead the discussion about Platinum Member activities. Al Rosenheck, Jim Beall, Bob Ashley, George McClure and others will have information about participation in IEEE activities of the Florida West Coast Section, IEEE-USA, The Standards Association, etc.

Please E-mail j.ashley@ieee.org or phone (813) 961-7617 and leave a message for Bob if you would like to attend. DO IT NOW!

March Joint PES/IAS & ISA Chapter Meeting Chemicals in Your Food, Water & Air Why You Should Eat Chocolate and Not Carrots?

Date/Time: Monday, March 20, 2000
5:45 to 6:45 PM Social/Restaurant dining available
7:00 to 8:00 PM Program

Location: Sheraton Inn Four Points Hotel Tampa East, 7401 E. Hillsborough Ave., Tampa
(813) 626-0999 (Off I4 exit at Orient Road)

Speaker: Mr. Paul Clifford

Reservations: Reservations are required!
Paul Leal at 813-635-1411 or ST053@tecoenergy.com
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Art Simplina at 727-535-6857 or A.C.Simplina@ieee.org

Joint ASQ & IEEE Computer Society Dinner Meeting in April "The Software Quality Crisis" Present by Mr. Raymond Day

Date/Time: Monday April 10, 2000, 6:30pm Dinner, 7:30pm Presentation
Location: Tampa Airport Hilton
Cost: \$18 members; \$20 non-members and guests
Reservations: Required

The IEEE-FWCS is joining with the American Society for Quality to present an overview of what has been referred to as the "Software Quality Crisis" throughout government and industry. Mr. Day is a member of IEEE and a senior member of ASQ and has had over 20 years of experience in development and maintenance of software as a research and development engineer, software program manager and director of programs. He recently served as chairman of the IEEE Software Engineering Standards Integral Processes Working Group. Mr. Day is currently Director of Engineering and Quality for Research Analysis and Maintenance Inc.

Please call John Conrad at (813) 926-4004 or e-mail at john.conrad@ieee.org for more information or to make a reservation.

IEEE MTT/AP/ED & USF College of Engineering Present Wireless and Microwave Technology 2000 An Industry/Government/Education Forum

DATE/TIME: Saturday, March 11, 2000. Registration begins at 8:00 am, Presentations and Panel Sessions from 8:30 AM to 4:00 PM, Social Hour and Dinner from 5:00 PM on.

LOCATION: Embassy Suites, Busch Gardens at 3705 Spectrum Blvd., Tampa, FL 33612. (813) 977-7066

ABSTRACT: This interactive forum is sure to provide a stimulating environment for the exchange of information concerning:

- Status and directions of wireless technology,
- Educational and research challenges posed by changing technology, and
- Actions being taken by educators to address these challenges

Other topics include:

- RF micro electromechanical systems,
- Wireless channel modeling/sounding, and applications.

These presentations and 2-3 panel sessions will address government and supplier perspectives, emerging wireless activity, and curriculum advancements that will better prepare students for the wireless field.

SPEAKERS:

- Robert Trew (Director of Research, DoD),
- Mike Golio (IEEE MTT Distinguished Lecturer on Low Power Microelectronics),
- Peter Herczfeld (IEEE MTT Distinguished Lecturer on Mm-Wave Photonics),
- David Seeger (Snr. Manager, IBM Silicon Science and Process Technology), and
- Harvey Kaylie (President of Mini Circuits)

Lunch and refreshments will be provided during the day, along with a tour of USF laboratories in the late afternoon.

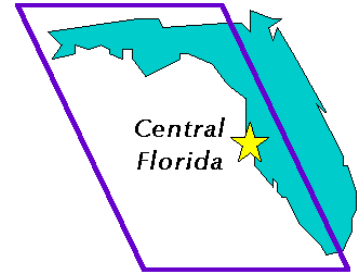
RESERVATIONS: Please **RSVP by March 3, 2000**. Send payment to **Becky Brenner**, USF Department of Electrical Engineering, 4202 E. Fowler Ave. ENB 118, Tampa, FL 33620. Voice: (813) 974-2369. Fax: (813) 974-5250. Email: brenner@eng.usf.edu. **Please make checks payable to IEEE-FWCS.** (You also have the option to pay on-site.)

REGISTRATION FEE: IEEE Student Member: \$0; IEEE Member: \$20; Non-IEEE Member: \$30. (Non-IEEE Students may apply \$20 registration fee toward IEEE Student Member Application fee.)

DIRECTIONS

- ◆ Take I-275 to the Fowler Avenue exit, approximately 8 miles north of the I-4 interchange. Take Fowler Avenue east approximately 2 miles to Spectrum Blvd. Embassy Suites is on the north side of Fowler Avenue, immediately in front of USF.

<p>IEEE MTT/AP/ED & USF College of Engineering Wireless and Microwave Technology 2000 An Industry/Government/Education Forum Saturday, March 11, 2000</p> <p>Please make check payable to IEEE-FWCS and return this reservation form to Becky Brenner USF Department of Electrical Engineering, 4202 E. Fowler Ave. ENB 118, Tampa, FL 33620</p>			
Name			
Address			
City		State	Zip Code
Work Phone		Home Phone	
Number of Students	Number of Members	Number of Non-Members	Total Enclosed \$



The International Council on Systems Engineering's Central Florida Chapter Presents

SYSTEM VALIDATION AND VERIFICATION

A One Day Tutorial

May 13, 2000

Instructor: Jeffrey O. Grady

The instructor has over 30 years related industry experience and is the Author of the book System Validation and Verification, CRC Press, 1998

This tutorial targets test engineers and systems engineers experienced in analyzing and defining requirements. It gives engineering college graduates an understanding of test and systems engineering. How to write verification requirements and link them with the integrated verification plan, actual verification work, and integrated verification report. The tutorial discusses verification tools such as trace-ability, task, and compliance matrices. It also shows how to organize the verification data for easy access and perform functional and physical audits, and what follow-up actions come afterward.

The seminar topics will include:

1. Introduction to Requirements and Specifications
2. Validation Before and During Synthesis
3. Verification Front End
4. Verification Planning and Documentation
5. Item Qualification Implementation
6. Item Qualification Management and Audit
7. System Verification
8. Acceptance Test Planning, Acceptance Management, and Audit
9. Process Validation and Verification

Date: Saturday, May 13, 2000
 Time: Registration begins at 8:00 a.m., workshop begins at 9:00 a.m.
 Place: University of South Florida, Tampa/St. Petersburg, Florida
 Cost: Space is limited. Be sure to enroll early. **Early registration deadline is April 17, 2000.**

	Early Registration	Late Registration
INCOSE Member:	\$50	\$60
Non-Member:	\$60	\$75
Student (full time)	\$25	\$40

(Attendees joining INCOSE and the Central Florida Chapter as new members will receive half off their first year's annual membership fee.)

For additional workshop information, phone Ben Berauer at 727-302-7693 or email bfbc@eci.esys.com, or visit our web site at www.depthunder.com/incose/cf.htm.

Brain Teaser Challenge Column

by Butch Shadwell

February BTC Solution

Someone tried to explain to me that the Flintstone films are actually dramatic reenactments. If that's true, how could Fred have avoided an Emmy nomination for all this time? What if you could take a gum eraser to your spouse when he/she got difficult? In any case, the transducer technology referred to in the last BTC was piezo-electric. Most of the answers so far have been good, but not all.

Of course this device is based on the fact that when a crystal structure is stressed, especially along certain directions with respect the crystal lattice cleavage planes, a static charge is generated. Electrodes can be attached so that this charge can be feed by wire to an amplifying device to drive a loudspeaker. The younger readers may be more familiar with this technology as a gas stove lighter, or a pain removing stimulator. Some early internal combustion engines actually used this phenomenon as the source for electric spark voltage for the spark plugs.

March BTC

Floyd Anemone lived in Denver, Colorado. Growing up in the mile high city was complicated by the fact that Floyd, from his earliest memories, was completely enamoured of the sea. His mother's job at the Post Office cafeteria barely kept corn flakes on the table, so the prospects of going to the seashore were remote. Then one morning, as Floyd was grasping the last corn flake from the table top, he noticed a strange ad on the cereal box. There was a contest that would award the lucky winner the birthday party of their dreams.

To make a long story short, Floyd won the prize and elected to have his thirtieth birthday off the Florida coast under 33 feet of water. To decorate the affair the cereal people bought 100 balloons filled with air at sea level. Each balloon had a volume of one cubic foot, making them an impressive array of colorful spheres. When the party began at the sub-surface local it was clear that something had happened to those impressive balloons. Though still spherical, they had shrunken quite a bit. The question for the readers this month is, assuming that the temperature of the air in the balloons was the same as it was at the surface, what is the volume of each balloon now? And for extra credit, what is the change in the balloon's diameter in inches? Also ignore any effects of the elasticity of the rubber envelopes of the balloons.

Questions or comments to the brain teaser challenge, please contact Butch Shadwell at 904-223-4465 (v), 904-223-4510 (fax), b.shadwell@ieee.org (email), 3308 Queen Palm Dr., Jacksonville, FL 32250-2328. (<http://www.ccse.net/~butchs/>).

Quote: "Of the two, imagination is more important than knowledge."

When Albert Einstein said this, he illustrated a simple truth. Without the application of imagination, knowledge does not necessarily bring progress or create value. But with informed imagination, such possibilities emerge. This is the principle by which visionaries develop technologies that help change the way things are done.



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Salary commensurate with experience. Inquiries will be held in strict confidence.

Email: curt@longandassociates.com

March 2000 Calendar of Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7 <i>EXCOM Meeting TECO Data Center 6:00 PM Guests Welcome</i>	8 <i>Joint Section/ PES/IAS Meeting TECO Hall Noon Electric/Gas Bill?</i>	9	10 <i>Material Due for SIGNAL'S April Issue</i>	11 <i>MTT/AP/ED Industry/Gov't/ Education Forum Embassy Suites 8:00 AM</i>
12	13	14	15	16	17	18
19	20 <i>Joint ISA & PES/IAS Meeting at Sheraton Inn 4pt Hotel 5:45 PM</i>	21	22	23	24	25
26	27	28	29	30	31	

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