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THE
SUNCOAST
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THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

<http://ewh.ieee.org/r3/floridawc>

Volume 45 - No. 2

February 2002

National Engineer's Week Luncheon

Final Report of The Florida Energy 2020 Study Commission

Sponsored by PES/IAS Florida West Coast Chapter

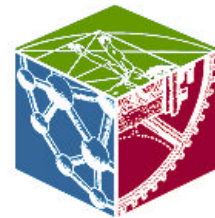
Speaker: Stephen J. Mitchell, Esq.

Location: TECO Hall
702 N. Franklin Street, Tampa

Date/Time: Thursday, February 21, 2002, Noon

Price: Members - \$10
Non-members - \$20
Students - \$5

RSVP: Online at <http://www.weiquality.com/pes/>
Art Nordlinger nordlinger@hotmail.com or 727-596-9319
Space is limited – reserve early!



NATIONAL ENGINEERS WEEK® 2002
FEBRUARY 17-23

Established by order of the Governor in May, 2000, the Florida Energy 2020 Study Commission was charged to "...determine what Florida's electric energy needs will be over the next 20 years and how best to supply those needs in an efficient, affordable, and reliable manner that will ensure adequate electric reserves." The Commission released its final report in the 4th quarter of 2001. Commission member Stephen J. Mitchell, a Tampa attorney with the firm of Annis, Mitchell, Cockey, Edwards & Roehn, P.A. will present the findings of this important commission at our luncheon. Don't miss this opportunity to learn about the direction of Florida's energy future.

Inside this issue of the Suncoast Signal:

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Chair's Comment

By Quang Tang



Congratulations to our new Fellow, Dr. Ranganathan at University of South Florida. I would also like to congratulate our member Mr. Al Darlington for receiving two Outstanding Awards recently from Power

Engineering Society. One award is for "Considerations in Setting Instantaneous Overcurrent Relays on Transmission Lines" and the other is for "IEEE Guide for Protective Relay Applications to Transmission Lines". Back in 1999, Mr. Darlington has received an award from IEEE PES Power System Relaying Committee for Outstanding Leadership and Career Service to the Power System Relaying Committee. Congratulations Al.

Our Section is 50 years old this month. Find out where we started, check out the article from our Section Historian, James Beall, on page 4 of this issue.

If you have not made your reservations for the Engineers Week Banquet, start now. The FWCS Executive Committee at the last executive committee meeting decided to subsidize half of the costs to the first 100 members and their guests attending the banquet. The decision made is to encourage our members to attend this Celebrating Engineering 2002 banquet. Please see page 3 of this issue for more details.

Graduates of the Last Decade are



The Florida West Coast Section is pleased to announce the beginning of its GOLD Chapter.

GOLD is an initiative created to address the needs and concerns of engineers from 0 to 10 years out of college. We promote professionalism, communication skills, teamwork, and other skills needed to maintain a life-long career in Engineering. We are also here to have fun and to provide networking opportunities for engineers who are relatively new to the profession.

Mark your calendars for our first meeting on Thursday, March 21, in the evening (time and place to be announced). This will be your chance to shape the future of this very important group of IEEE members.

For more information about the FWCS GOLD Chapter or the IEEE GOLD Program, please contact the FWCS GOLD Chairperson, Dennis Trask, at d.trask@ieee.org. You may also visit the IEEE GOLD website at <http://www.ieee.org/gold>.



**NATIONAL ENGINEERS
WEEK* 2002
FEBRUARY 17-23**



CELEBRATE ENGINEERING 2002 BANQUET

- Date/Time: Saturday, February 23, 2002
5:30PM Social, 7:00PM Dinner, 8:15PM Program
- Location: Holiday Inn City Centre (813) 223-1351
111 West Fortune Street, Tampa, FL 33602
- Speakers: Distinguished Lecturer, William L. Dean
Topic: "How to Enjoy and Profit from an Engineering Career in the Twenty First Century"
- Emcee: Mr. Dick Fletcher, Chief Meteorologist of Channel 10
- Entertainment: A local Caricaturist & Windy, The Strolling Magic Music through out the evening
- Door Prize: Given through out the evening

Each February, National Engineers Week unites engineers and the public in a celebration of innovation and technology, National Engineers Week increases public awareness of engineering's contributions to our quality of life.

The Florida West Coast Engineering Societies are pleased to announce the annual Engineers Week Banquet. This year, the banquet will be held on Saturday, February 23, 2002, at the Holiday Inn City Centre in Tampa. This event brings engineers of various disciplines together to share an evening of fellowship, fine dining, entertainment, and recognition of individual achievement. Local engineering societies will bestow student Engineer of the Year Awards in their respective disciplines. Each society's Engineer of the Year Award will be presented. Teacher of the Year from Pinellas, Hillsborough, and Pasco Counties will also be presented. This event will be moderated by Mr. Dick Fletcher, Chief Meteorologist of TV Channel 10 and entertained by a local magician. Participating Societies are Association for Facility Engineers (AFE), American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE), American Society of Mechanical Engineers (ASME), Institute of Electrical and Electronics Engineers (IEEE), and Society of Logistic Engineers (SOLE).

Tickets are \$20.00 per person, and must be purchased in advance. Eight seat tables are available for corporate reservations. Please use the mail-in reservation form below, or call Quang Tang at (813) 739-1222 or email q.tang@ieee.org for more information.

Return this Reservation Form to Quang Tang, P.O. Box 270756, Tampa, FL 33688-0756 CELEBRATE ENGINEERING 2002 BANQUET – Saturday, February 23, 2002			
<i>Name</i>		<i>Email</i>	
<i>Address</i>			
<i>City</i>		<i>State</i>	<i>Zip Code</i>
<i>Work Phone () </i>		<i>Home Phone () </i>	
<i>No. Tickets @ \$20 each</i>		<i>Amount Enclosed \$ (Check payable to IEEE-FWCS)</i>	
<i>Dinner Choice</i>	<i>Vegetarian</i>	<i>Prime Rib</i>	<i>Grouper Chardonnay</i>

Section Celebrates Golden Anniversary

The Florida West Coast Section will be fifty years old on February 1, 2002. In 1952, when it was chartered it was known as the Tampa Section of AIEE. Its Chairman was Benjamin N. Darlington, who worked for Peninsular Telephone Company, in Tampa. The Secretary was C. J. Ellis. AIEE was one of the two predecessor societies of IEEE.

At the time of organization the section territory included the following cities: Arcadia, Bartow, Bradenton, Clearwater, Clermont, Cocoa, Cocoa Beach, Eustis, Fort Myers, Haines City, Kissimmee, Lakeland, Lake Wales, Largo, Melbourne Beach, Mulberry, Orlando, Plant City, St. Petersburg, Sanford, Sarasota, Tampa, Winter Haven and Winter Park across the center of Florida to the East coast and down to Fort Myers. Today it runs from Ocala down to Fort Myers and east to Lakeland.

The Florida West Coast Section of the IRE was Chartered on November 14, 1956. Its first Chair was Edwin Lee White. He was a Fellow of both AIEE and IRE with separate citations.

In the merger of AIEE and IRE into IEEE in 1963 the two sections became one, using the Florida West Coast name.

At least four of the sections past chairs went on to be the Region 3 Director and member of the IEEE Board of Directors. Five served as Chair of the Florida Council One of the chairs was a Congressional Fellow. Five past chairs served on the Southcon Board of Directors.

James Beall, Section Historian

New Online Reservation System

All IEEE members are welcome to attend PES/IAS chapter functions. You can now make reservations to attend these functions on-line. This is in addition to the more traditional ways of phoning or sending email to make a meeting reservation. Access to the on-line reservation system is through the FWCS web site at <http://www.ewh.ieee.org/r3/floridawc/>. Just click the PES/IAS Meeting Reservation link that is near the bottom of the page. Try out the new system and let us know what you think. Additionally, the PES/IAS officers would like to extend a special note of thanks to John Conrad, our webmaster, for setting up and maintaining this new system.

A few items of note about meetings:

- All IEEE members are welcome to attend PES/IAS Chapter functions at the member price.
- There is no "business" portion of the meetings that are advertised in the Signal.
- The meeting organizers very much appreciate your reservations as it helps us to plan for the right amount of food. Please continue to help us by reserving early and letting us know if you need to cancel. Note that food orders are usually placed 3 – 5 days prior to a meeting.
- If you have special dietary requirements, please let us know and we will try to accommodate you as best we can. (Inside info: The chapter chair is a vegetarian!)
- Making a reservation also avoids our having to turn anyone away at the door when space is limited.

Job Opportunity

Electrical - Marketing Engineer

Local growing company is seeking an Electrical – Marketing Engineer with BSEE degree. Account management or tech support experience desired with excellent verbal & written skills. Knowledge of electronics or electrical power systems helpful. Will support multiple sales forces and handle special projects. Salaried position, bonus program, 401k, plus benefits. Mid Pinellas, excellent opportunity in a growing company. Send resume to:

Advanced Protection Technologies

Louis Farquhar

Fax (727) 524-6178 or

Email lfarquhar@apttvss.com

February Computer Society Chapter Meeting

Software Design: Configuration Management

Date: Thursday, February 7, 2002

Time: 6:00 PM to 7:30 PM

Speaker: Mark Schadt
Sr. Software Engineering Specialist for Rational Software

Location: Paradyne Corp., Commons Area.
8550 Ulmerton Road, Building G., Largo, FL.

RSVP: Dennis Trask at d.trask@ieee.org

Mark Schadt, a Sr. Software Engineering Specialist for Rational Software will present software configuration management best practices and the Rational's approach to multiple developer and multiple site software design management.

Agenda:

- Rational Corporate overview
- Software Configuration Management Best Practices presentation
- Rational's Software Configuration Management tools introduction
- Presentation on Rational ClearCase and Rational ClearQuest
- ClearCase / ClearQuest product demonstration

This is an open meeting. Non members and students are welcome.

Complimentary cold drinks and snacks will be provided. Please RSVP to Dennis Trask or call him at (727) 773-4685

Mark Schadt:

Sr. Software Engineering Specialist for 4 years at Rational Software Orlando, Florida.

Mark has a Master degree in Computer Science and 22 years of direct Software Configuration Management experience at Rational, Apple Computer, Oracle, AT&T, Lockheed Martin, TRW, Time Warner, Texas Instruments.

Directions to Paradyne Corp. from Tampa I-275

Follow the signs to I-275 South - St. Petersburg.

Still on I-275 South, cross over Tampa Bay on the Howard Frankland Bridge. Exit off the interstate at Exit 18 - Largo/Indian Rock Beach (SR 688/686). Stay on SR 688 (also know as Ulmerton Road) for approximately 7.5 miles, passing through major intersections such as U.S. 19, 66th Street, and Belcher Road. Paradyne is located at the next traffic light in the Spectrum Technology Park (8550 Ulmerton Road). Turn left and follow the signs to Paradyne's visitor parking in the south end of the property. Main Phone: 727-530-2000 (or Jim Lumia 530-2588).

February Computer Society Chapter Meeting

Digital Hardware Design: High Speed Signal Integrity

Date: Thursday, February 28, 2002

Time: 6:00 PM to 7:30 PM

Speaker: Tony Cusanelli
Senior field application engineer for Mentor Graphics

Location: Paradyne Corp., Commons Area.
8550 Ulmerton Road, Building G., Largo, FL.

RSVP: Jim Lumia jlumia@ieee.org or (727) 530-2588

Tony Cusanelli from Mentor Graphics Corporation will present an overview of High Speed Signal Integrity for circuit boards and backplanes. He will discuss SI problem sources, design techniques, and analysis tools using IBIS models to allow engineers to have a clean design and avoid board turns. This will be the first introductory meeting on the topic of signal integrity. Other meetings will be scheduled this year to expand on the subject.

This is an open meeting. Non members and students are welcome.

Complimentary cold drinks and snacks will be provided. Please RSVP to jlumia@ieee.org or call (727) 530-2588

Tony is a senior field application engineer for Mentor Graphics and has been focused on helping customers with signal integrity since the 1996. His prior experience as a CAD manager responsible for circuit card design gave Tony insight to time to market pressures and a practical approach to signal integrity. Tony has been an electronic engineer since 1970 and has designed automated test equipment.

Directions to Paradyne Corp. from Tampa I-275.

Follow the signs to I-275 South - St. Petersburg.

Still on I-275 South, cross over Tampa Bay on the Howard Frankland Bridge. Exit off the interstate at Exit 18 - Largo/Indian Rock Beach (SR 688/686). Stay on SR 688 (also know as Ulmerton Road) for approximately 7.5 miles, passing through major intersections such as U.S. 19, 66th Street, and Belcher Road. Paradyne is located at the next traffic light in the Spectrum Technology Park (8550 Ulmerton Road). Turn left and follow the signs to Paradyne's visitor parking in the south end of the property. Main Phone: 727-530-2000.



Attend USF Engineering EXPO 2002

February 21, 2002 8:00am – 4:00pm

February 22, 2002 8:00am – 4:00pm

This is an opportunity to see new Engineering research and the latest in new technology and Innovation. The Expo features student and industry exhibits, contests, and popular shows. For more information, check out this website:

<http://www.eng.usf.edu/expo/>



Brain Teaser Challenge Column

By Butch Shadwell

January BTC Solution

By the time I started writing this I had only received one correct response to last months BTC, however no one described the high tech implementation. If you recall it was an intergalactic tale about a rotating radiometer. In high school, these radiometers had four vanes painted black one side and white on the other. These vanes were mounted on a low friction axle so they could rotate in a horizontal plane, the vanes being mounted vertically on each quadrant of the axle pivot (white side facing the next black side). When irradiated, the black sides absorb the energy and get warmer while the white sides reflect most of the energy and stay closer to room temperature. The excited air molecules near the black side exert a force to make the black sides retreat.

The modern application I spoke of is in the form a black body radiometer or power meter. I simple way to make a broadband power meter is to direct the energy to a substance that will absorb it and convert it to heat. Then you simply measure the change in temperature.

February BTC

Every once in a while, I catch myself reminiscing over old times. Remembering those carefree days in high school when we used sneak into the back of the potato packing plant, to get a bag full of the sorting rejects. Being enterprising kids, we had a nightcrawler business that was always in need of quality worm food. And when there was nothing good on the radio, we would gather with our friends and have nightcrawler races and nightcrawler circus acts. People have always underestimated the intelligence of the nightcrawler. With the proper inducement, you could get them to do some amazing things. One kid had his trained to fetch his father's slippers. It used to scare his mom half to death to suddenly see the shoes just slowing nudging towards the recliner with no apparent force to move them.

Of course the proper inducement for training worms is electric shock. As it turns out I took electric shop when I was in the 8th grade. One of the projects I built for that class was a voltage inverter that took 3 volts and produced a steady source of over 300 volts, perfect for worm training and surprising your friends and family. This device was completed with no electronics at all. The question this month is, can you envision how this device operated? A clue is that car radios used to use a similar technology years ago to produce the B voltage.

Questions or comments to the Brain Teaser Challenge, please contact Butch Shadwell at 904-223-4465 (voice), 904-223-4510 (fax), b.shadwell@ieee.org (email), 3308 Queen Palm Dr., Jacksonville, FL 32250-2328. <http://www.se.mediaone.net/~butchs/>

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February 2002 Calendar of Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	5 <i>EXCOM at TECO Center Guest are always Welcome!</i>	6	7 <i>Computer Society Meeting at Pyradyne Corp. 6:00-7:30PM</i>	8 <i>Material Due For the Signal</i>	9
10	11	12	13	14	15	16
17	18 <i>In-Service Programs at USF</i>	19	20	21 <i>Joint Section & PES/IAS TECO Hall At Noon; USF EXPO 2002</i>	22 <i>USF Engineering EXPO 2002</i>	23 <i>Engineers Week Banquet 5:30pm At Holiday Inn City Centre</i>
24	25	26	27	28 <i>Computer Society Meeting at Pyradyne Corp. 6:00-7:30PM</i>		

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