

December PES/IAS Meeting Raymond James Stadium - "Behind the Scenes"

DATE/TIME:	Thursday, December 10, 1998 4:00pm
LOCATION:	South End Zone of Stadium, Administrative Offices
COST:	Free to All Members
RESERVATIONS:	Mary Ellen Thacker, Tampa Electric Company, (813)228-4647 Quang Tang, Seminole Electric Cooperative, Inc. (813)963-0994 SPACE IS LIMITED, RESERVE YOUR PLACE NOW!

Have you been dying to see the inside of the new Raymond James Stadium but didn't get yourself any BUCS tickets before the season sold out? Well, now's your chance. The December PE/IA meeting will be held at the stadium followed by a tour of the facility.

We will meet promptly at 4:00 p.m. in the south end zone (the one without the pirate ship), directly under the south scoreboard in front of the administrative offices. Be sure to wear comfortable shoes! This is a *walking* tour...with lots of walking! Make your plans now so you won't be left out. The list of attendees has already been started and is growing daily. Reservations are required and space is limited. See you there!

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Students' Corner

We would like to take this opportunity to thank Mr. Butch Shadwell for outlining keys to a successful engineering career.

IEEE has completed SECon's car competition's plain surface. One of the group's car is also near completion. It will be ready for this coming year's EXPO and Kentucky's competition.

We will be hosting our Senior Banquet on December 3, 1998, at the Phyllis P. Marshall Center at University of South Florida. We are seeking sponsors to assist us financially for our senior banquet. We are planning to have the Sponsors's Company logos or names printed on the program. If you desire, we will give a representative from your company a few minutes to talk about your company. We can also distribute corporate promotional information. This is a great opportunity for recruiting also. We appreciate your support and look forward to hearing from you soon.

At the Student Branch meeting on Thursday, November 5, 1998, the students elected new officers for the Spring 1999. The officers elected were:

Clyde Jensen	President
cjensen@suntan.eng.usf.edu	
Adesunloye Obatoyinbo	Vice President
obatoyin@eng.usf.edu	
Vikram Pasham	Secretary
pasham@eng.usf.edu	
John Tatum	Expo Head (President in training)
johnboy808@aol.com	
Peter Kirby	Treasurer
pkirby@suntan.eng.usf.edu	
Kevin Thompson	Program Chair
kthompso@suntan.eng.usf.ed	lu

The Student Branch is always looking for help with speakers and tours. If you, or your company, are willing to speaker at a Student Branch meeting or provide the students with a tour of your facility, please contact us at 974-4776 or at their email address as note above.

New FWCS Senior Member

Congratulations to Lawrence O. Hall, who recently became the new IEEE Senior Member for the Florida West Coast Section.

IEEE EXECUTIVE *COMMITTEE* FLORIDA WEST COAST **SECTION**

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VICE CHAIRMAN: Albert D. Rosenheck Consultant (941) 395-2117

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PES/IAS CHAPTER: Diane Hanecki, PE REPS, Inc. (813) 926-0804

MTT/AP/ED CHAPTER: Tom Weller University of South Florida (813) 974-2440

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SIGNAL PROC. CHAPTER: Paul Flikkema University of South Florida (813)974-3940

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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: Quang Tang Seminole Electric Cooperative, Inc. P.O. Box 272000 Tampa, Florida 33688-2000 Voice: (813) 963-0994 Fax: (813) 264-7906



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December MTT/AP/ED Society Meeting WACKY PATENTS!

DATE:	Tuesday, December 10, 1998
TIME:	6:00 p.m.
LOCATION:	To Be Determined
SPEAKER:	Mr. Michael Colitz

In keeping with our young tradition of a less formal, less technical December meeting, we have invited Michael Colitz to present developments in the emerging field of "wacky patents." Mr. Colitz is a St. Petersburg-area attorney, and a very entertaining speaker.

The details regarding the location for this talk are as yet undetermined, although we anticipate a 6:00p.m. meeting on December 8. This will be a nice evening for spouses, and non-members - hope to see you there!

If you are interested, please contact either Tom Weller (813-974-2440, weller@eng.usf.edu) or Steve Eason (727-302-2124, sdeb@eci-esyst.com).

January PE/IA Meetings Start Another Active Year for the Chapter

Make your plans now to attend two special meetings in January.

The first one will be on MicroTurbines, which is entitled, "Current Progress in MicroTurbine Applications". This meeting will be held in conjunction with the American Society of Mechanical Engineers (ASME). We have worked for several months to bring in a special speaker who will be able to give us a full update on the current status of this industry. Date is January 13, 1999, at 6pm at TECO Data Center.

Also on tap for January is a meeting & tour of the MacDill Air Force Base and several of the critical communications and response areas it supports. This meeting/tour will include a walk through of a KC135 Tanker, and lunch at the Officers Club, with presentation by the CENTCOM Engineering Section, a briefing by the Communications Support Element (JCSE), and an overview of the engineering functions at MacDill. Space will be limited for this meeting - be sure to watch for the January Signal and register early.

Did you miss the Busch Gardens "Behind the Scenes"?

If you did, you missed the best tour. Mr. Mark Rose from Busch Gardens did an outstanding job. He started out with a brief note about Busch Gardens and talked about what and how long it takes to build one of those rides in the park. He then let the group check out the latest model which is being built right now. We had the opportunity to see the actual construction of this ride. You will find out what you really missed around June 1999 when this new ride will be open to the public. Since there was a limited number of attendees for this popular tour, we will try again next year.

IEEE Power Engineering Society Award Endowment Funds

The Power Engineering Society is seeking sponsors for its Awards Endowment. These funds are intended to provide permanent funding for these awards. The IEEE staff will manage the endowment with the assistance of professional investment managers. Only a portion of the endowment revenues will be used to fund the awards each year; the remaining revenues will be reinvested thus ensuring the perenity of the endowment. No operational costs within the Power Engineering Society will be charged against the endowment or its revenues.

Funding Levels

Two types of donations are hereby solicited:

Founding Benefactor - a one-time donation of \$15,000, to be matched by a \$10,000 allocation from the Power Engineering Society operating budget to the Award Endowment Fund.

Only 20 Founding Benefactors will be solicited. Once this number has been reached, this category will be closed.

Benefactor - a one-time donation of \$10,000.

Each award funded by way of the Award Endowment Fund will be listed in the Winter and Summer Power Engineering Society meetings, Awards Luncheon Program as having been thus funded. In addition, all Founding Benefactors and Benefactors will be permanently listed in each Awards Luncheon Program. A similar mention will also be included in the relevant editions of the Power Engineering Review.

Funding of the Power Engineering Society Award Endowment Fund will be by way of donations to the IEEE Foundation, Incorporated qualified under the Internal Revenue code as a 501(c)(3) organization and is eligible to receive tax exempt contributions under the U.S. tax laws and regulation.

Telecommunications: Yesterday, Today and Tomorrow

On October 21 Karl Lohman came to town. I had not met Karl before and I had only heard a few sketchy phrases about him - "He's a good guy." "He knows his stuff." - that sort of thing. Well, I won't forget about him for quite a while. "Hello, I'm Karl Lohman." I heard him say a dozen times as he warmly greeted the each member that had chosen to have dinner with him at the Spaghetti Warehouse in Ybor City. He was very comfortable in the social setting telling and listening to stories over dinner. At 7:30pm we moved over to the TECO Data Center and, although I didn't time him, I think that Karl talked for over two hours without pausing for breath once during his presentation. He fired out facts and figures like a stream of bullets from a machine-gun. He covered the history of telecommunications from the invention of the telephone to the latest developments in distribution networks, and every milestone in between. One of the things that I found fascinating about Karl's talk was his knowledge, and ability to recall the historical and political aspects of all the decisions that have been taken over the years. Technological developments have obviously been the engine of the telecommunications industry but politics has equally obviously provided the, very erratic, steering. During the course of the evening we learned about the 1934 Communications Act, twisted pair cables, fiber optics, T1 lines, LAN's, WAN's, ISDN, TDM, switches, routers, PSCs, RBOC's, the 1996 communications Act, wireless, analog, digital I think you get the picture! We also learned about the very latest battles going on for revenues from consumers. How the popularity of the various distribution techniques has changed over the years: twisted pair was overtaken by coax which was overtaken by fiber optics and now this may be overtaken by twisted pair again as new techniques are developed to increase the effective bandwidth to accommodate voice and high speed data over traditional twisted pairs. Karl conveyed his enthusiasm for his work to his audience and at the end of an excellent evening, his final message seemed to be "Stay on-board, everyone, the ride is exciting."

by John Conrad

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1998 PACE Conference

by Mary Ellen Thacker

I just wanted to take this opportunity to formally thank Mark McKeage and the FWCS for helping to make it possible for me to attend the 1998 PACE conference September 4-7. I've tried in vain to think of a good way to describe the experience and my mind keeps going back to the analogy used Debi Prince - that trying to absorb all the information available at the conference is like taking a drink of water from a fire hydrant. I have now taken that "drink" and boy was she right! The conference had so much to offer that I found myself pouring over the schedule time and again trying to be convinced that I'd made the right choices of sessions to attend. Take a moment and go back with me to Labor Day weekend and perhaps you can catch just a few drops of the water leaving that hydrant.

Friday 9/4 7:30 am - I am just finishing breakfast and begin my journey through the convention center in search of the Breakthrough Project Management workshop. I find the room, meet the instructor (Barry Flicker of Enterprise Learning, CA), choose a seat and begin browsing through the materials at the table anxiously awaiting what I soon discovered to be an unforgettable presentation of the importance of team communication in managing a project. The workshop was very interactive and Barry used tons of entertaining exercises that illustrated everything from the effects of a lack of communication to the differences in the perceptions of information by each team member. WOW, I've learned so much already that I could go home now having gotten my money's worth!

Friday afternoon, I officially register and pick up my conference materials, including a copy of the conference proceedings, "The Balanced Engineer - Essential Ideas for Career Development". I had already spent much time studying the conference schedule on the WEB and thought I had made up my mind which sessions I was going to attend. After thumbing through the proceedings I was somewhat relieved to find that many of the sessions I wanted to attend had papers included and that I could just read those at my leisure and actually attend sessions that didn't have any published material. So, back to my room I went to once again pour over the schedule and try to decide what to do. The sessions were divided into 6 categories called "tracks" with each track having 2-4 different presentations throughout the day. There were 2 tracks designed specifically for GOLD participants and 4 others geared toward careers, career skills, professional activities and personal skills. All sounded like they would include something to benefit me. Decisions, decisions!

Saturday, Sunday and Monday flew by so fast and were so packed with information that trying to take you through each day's schedule seems quite impossible. The sessions I attended included presentations on team dynamics, mixed sex team communication, developing and maintaining a competitive career, personality types, office politics, benchmarking engineering skills against a rapidly changing future and business etiquette. The ones I *wanted* to attend but didn't make it to included topics like creative problem solving, networking, speaking successfully, career transitions, effective communicating for engineers, learning, behavior and motivation patterns, professional development in a technical environment, creative problem solving. I could go on but you get the idea.

OK! so now you are probably beginning to appreciate the intensity of the weekend and the volumes of information that is available at a PACE conference. There's so much to talk about that I could easily fill up this whole newsletter just describing the conference. But I have a better idea if you've been the least bit intrigued by what I've said, do what I did and take a look at the 1998 PACE conference site (www.ieee.org/usab/CONFERENCES/PACE/index.html) on the Internet. Browse through the schedule and notice the session titles. Check out the workshops that were held on Friday 9/4 and read bios of the presenters. Then when you're done with that, go over to www.ieee.org/usab/ and look at all the information that's out there for you as a member to take advantage of when you're considering your own professional development. And remember! There will be another PACE conference held next year which will offer more of the same and then some. Think about making arrangements to attend because it's definitely time well spent. You will come away a better engineer, more aware of how the things you say and do affect others. In these changing times when the job markets are anything but stable, we all will find that it's best to be prepared with our technical abilities and our professional skill sets as up-to-date as possible. Take advantage of your IEEE membership and use the resources it provides to become "A Balanced Engineer".

Merrill Buckley - New IEEE USA President

Merrill W. Buckley, Jr., has become the second IEEE-USA President directly elected by the IEEE's U.S. members. Results of the 1998 IEEE election reveal Buckley garnered the backing of 19,179 members for the post of IEEE-USA President-Elect for 1999, beating out candidates Michael R. Andrews and Charles S. Lessard, who received 14,069 and 8,563 votes, respectively. Voters also elected as 1999-2000 IEEE-USA Member-at-Large Michael C. Mulder (20,336 votes) who had a close victory over Robert P. Noberini (18,872 votes).

For the post of 1999 IEEE President-Elect, Bruce A. Einsenstein won with 21,262 ballots cast for him. The other candidates, Joel B. Snyder and Raymond D. Finlay, received 19,399 and 17,145 votes, respectively. In all, of the 237,556 ballots mailed to IEEE members, 51,483 were returned for a voter turnout of 21.67 percent, an increase over the 1997 participation rate of 17.36 percent.

The following results, which the IEEE Tellers Committee validated on November 5, are unofficial until the IEEE Board of Directors accepts the Tellers Committee's report at the November 15 board meeting.

IEEE PRESIDENT-ELECT, 1999: Bruce A. Eisenstein IEEE VICE PRESIDENT, TECHNICAL ACTIVITIES, 1999: Michael S. Adler IEEE VICE PRESIDENT-ELECT, TECHNICAL ACTIVITIES, 1999: Robert A. Dent

OFFICE OF DIVISION DELEGATE/DIRECTOR, 1999-2000

Division II:	Barry C. Brusso
Division VI:	Luis T. Gandia
Division X:	Janie M. Fouke

OFFICE OF DIVISION DELEGATE-ELECT/DIRECTOR-ELECT Division V, 1999: Doris L. Carver

OFFICE OF REGION DELEGATE-ELECT/DIRECTOR-ELECT

Region 2, 1999-2000:	Marc T. Apter
Region 4, 1999-2000:	Myron F. Wilson
Region 5, 1999:	Joseph V. Lillie
Region 6, 1999-2000:	Lawrence M. Hamerman

CONSTITUTIONAL AMENDMENT

A vote of at least two-thirds of all ballots cast, provided the total number of those voting is not less than 20 percent of the total number of members eligible to vote, in favor of an amendment is necessary for adoption.

Ballots mailed: 237,556	Ballots returned: 51,483	% ballots returned: 21.67 percent
A two-thirds majority of 20 perc Number of Votes FOR amendme Number of Votes AGAINST am	ent: 42,475	31,675

All requirements for the Constitutional amendment have been met.

For background information on the IEEE-USA elections and candidates, see the Web page at ">http://www.ieeeusa.org/usab/ELECTION/> which includes a link to the IEEE Elections site.

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December Brain Teaser Challenge

by Butch Shadwell

The following is a reprint from December 1995. I hope you find it amusing and challenging.

Olive Oyle, a young engineering student at a local university, was working on her senior project. She had decided to build a radio telescope for her project, and hoped to have discovered extraterrestrial intelligence in time for her formal presentation. Of course she did all the obligatory library research, looking up star systems that had been identified by "reputable psychics" as being well populated with the elusive little guys, and circuit configurations that might be useful. Finally the day came when she was ready to begin assembling her device, when her seafaring boyfriend and college drop-out, Popeye, popped into the lab for a visit. She was happy to see her sailor until be started showing off. As he was demonstrating how deftly he could eat a spinach Sloppy Joe through his corncob pipe, his dentures slipped and the green sludge covered the text on super-heterodyne receivers. Had Olive not unfortunately been "Dating Challenged", what might she have read about why some receivers employ a super-heterodyne configuration?

Reply with the Florida West Coast Section Suncoast Signal reference to Butch Shadwell by the 20th at (904)223-4465 (voice), 904-223-4510 (fax), b.shadwell@ieee.org. Only the names of correct respondents are mentioned in the solution column on the next Signal.

November Brain Teaser Challenge Solution

Through a series of snafus on my part, most newsletters did not reproduce the last BTC in it's entirety. I am including it here, and you can answer either one or both if you like.

"Rupert Jones was a simple man. I mean a really simple man. So much so he only wore overalls and only ate potatoes in order to avoid complexity. If it weren't for rubber flip-flops, he would have been bare foot all the time. Having found a challenging career in the panhandling industry, Rupert's life was good. As is apt to happen, one day Rupert met a love interest. Henrietta, when you could see through the matted hair, had a fire in her eye (note this is singular) that was irresistible to Rupert. It was truly a match made on 3rd Street. However, with two mouths to feed, Rupert was concerned.

In an effort to improve his new family's standard of living, Rupert decided to expand his operation to include being the neighborhood oracle. To his chagrin, the first paying customer for his oracle service was a high school chemistry student wanting to know what the maximum number of electrons in the outside energy level of any atom was. Rupert was pretty sure that there was a constant maximum for all atoms that are electrically neutral, but the exact number escaped him. Can someone help Rupert see through the "cloud" and tell him this number?"

Engineers Needed

The Youth Engineering Society (YES - We Care!) needs volunteers to assist junior and senior high school students learn various skills through team projects such as building a mouse-trap car, constructing an egg-drop container, essay writing, and quiz bowls.

What can you do?

- Be a role model
- Present a demonstration on an engineering principle
- Advise students on technical writing, technical drawing, or design
- Assist with Tampa Bay Regional competitions

If you are interested in volunteering for YES, please contact: Hillsborough County, Nancy Marsh, 813-272-4824; Pinellas County, Rose Mack, 727-864-1655.

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1999 Review Seminars For PE Electrical and EIT/FE April Examinations

Review seminars for the PE (Electrical) and Engineer In Training / Fundamentals of Engineering (EIT/FE) exams will begin:

Tuesday, January 12 for the EIT/FE Exam

& Thursday, January 14 for the EE Exam Seminars are conducted from 7-10 P.M. (Tues or Thurs) for ten weeks. The registration fee is \$200 and includes text. The seminars will be held at the St. Pete Campus of the University of South Florida

To register, contact: Alan M. Keith, P.E., P.O. Box 14042, (EC-51), St. Pete, FL 33733.

Alan.M.Keith@fpc.com Phone (813) 384-7937 FAX (813) 384-7994 Pinellas Chapter, Florida Engineering Society

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Please visit our web site at http://www.dwusa.com

December 1998 Calendar of Events

Sunday	Monday	Tuesday	Wednesda y	Thursday	Friday	Saturday
		1	2	3 IEEE Executive Committee Mtg & Students Senior Dinner	4	5
6	7	8 MTT/AP/E D Meeting at 6:00pm	9	10 PES/IAS Meeting at Raymond James Stadium at 4pm	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

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