



# THE SUNCOAST SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

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

Volume 44 - No. 3

March 2001

## IEEE Life Members Chapter Meeting

**Date/Time:** Wednesday, March 21, 2001, 11:00 AM

**Location:** L-3 Communications, Aviation Recorders, Sarasota, FL

**Topic:** Tour of Aviation Recorder Facility

L-3 Aviation Recorders is the world's leading supplier of the so-called "black boxes" used by commercial and military aviation organizations. Recently, the 50,000<sup>th</sup> recorder was sent to the Smithsonian Institute for exhibit in the Air and Space Museum. The recorders are unique in their ability to withstand the extreme environment of a crash on land or sea. This is an opportunity to view the manufacture of these recorders and to see the ways in which the storage elements are protected from the crash.

**Lunch:** L-3 has kindly agreed to provide lunch after the tour.

**Reservations Required:** Reservations are required and the tour is limited to IEEE members. Please make your reservations with Bob Ashley ([j.ashley@ieee.org](mailto:j.ashley@ieee.org) or phone 813-961-7617) no later than Friday, March 16<sup>th</sup>.

**Direction:** From I-75 use exit 39 (Fruitville Road, State Road 780), take Fruitville Road west, turn left at 1<sup>st</sup> traffic light. The L-3 plant is visible on southwest side of the I-75 interchange (see map on bottom of page 8) Visitor parking is available in front of plant. If visitor parking is full, use parking area on the south side of the plant. Meet in the front lobby.

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## Chair's Comment

by Quang Tang

We did it again. IEEE Florida West Coast Section member has taken another Region 3 award home. Dr. Robert Ashley of FWCS has been notified as Region 3 Outstanding Service Award Winner. He will receive this outstanding award in Clemson, South Carolina next month.

At the Celebrate Engineering 2001 Banquet last month, we announced the following awards:

- FWCS 2000 Engineer of the Year – Dr. Alexander Nauda
- FWCS 2000 Student of the Year – Mr. Daniel Faria
- FWCS Lignell Awards:
  - Hillsborough County – Ms. Alina D. Mills
  - Pasco County – Ms. Darlene Cooper
  - Pinellas County – Ms. Mary Kindinger

The Florida West Coast Section of IEEE is proud to honor these individuals with the awards. Please check out page 6 of this issue for awards presentation photos. Congratulations!

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## Students' Corner

By Jason Sanon

Last month we had our first meeting with Constellation Technology Corporation. The meeting went very well. The speaker, Lane Manoosingh, a University of South Florida Alumni, gave a very insightful view on the design and development aspects that Constellation Technology is involved with now and in the up coming future.

The IEEE/Eta Kappa Nu (HKN) Senior Banquet will be held on Friday, April 27, 2001 at 7:30pm. All companies interested in coming to the banquet to represent their company will be given up to 10 minutes to talk about their company. In addition, each senior will be asked to bring their resume to share with the industries represented at the banquet.

For all companies interested in attending this banquet, please contact Jason Sanon at (813) 974-4776 or Email [ieee@eng.usf.edu](mailto:ieee@eng.usf.edu).

Last year we had the following companies in attendance at the banquet:

- USF Electrical Department
- Xetron Corp.
- IEEE Florida West Coast Section
- Motorola
- Micro-Automation
- Intersil Corp.
- Anritsu Company
- Tampa Electric Company
- Raytheon
- Constellation Technology

Thank you for all your support.

## Region 3 Outstanding Service Award - Dr. Robert Ashley

Dr. Robert Ashley will be receiving the Region 3 Outstanding Service Award at next month's SoutheastCon Conference to be held in Clemson, South Carolina. FWCS sponsored Dr. Ashley's nomination because of his service to our Section, and to IEEE. Dr. Ashley has been a strong force behind our new Life Member activity. Please extend your congratulations at the next Section meeting!

## FWCS 2000 Engineer of the Year Award - Dr. Alexander Nauda, P.E.

Dr. Al Nauda P. E. was recognized as the FWCS 2000 Engineer of the Year at the Celebrate Engineering Banquet held on February 17th. Dr. Nauda has significant technical accomplishments at Raytheon, earned tenure at two universities, and has been active in IEEE affairs both at our local level and at the Institute level. He was also instrumental in establishing For Inspiration and Recognition of Science and Technology (FIRST), a robotics competition, in the Pinellas County school system. FWCS is proud to honor Dr. Nauda as our Outstanding Engineer of the Year.

## FWCS Student of the Year – Daniel Faria

Daniel Faria, an EE graduate student from USF, has been honored as our Student of the Year at the Celebrate Engineering Banquet. Mr. Faria has served as both Chair and Vice Chair of the Student Branch of IEEE, and is active in BRASA, the Brazilian Student Association. Congratulations to Daniel Faria.

## Lignell Awards Announced

The Lignell Award, recognizing an outstanding math or science teacher from Hillsborough, Pinellas, and Pasco counties, was jointly sponsored this year by IEEE, ASME, SOLE, and AFI at the Celebrate Engineering Banquet. Honeywell graciously provided financial support for our awards, which were presented at the Celebrate Engineering Banquet.

Ms. Alina D. Mills, a chemistry, biology, and physical science teacher from Jefferson High School is the Hillsborough County winner. Ms. Mary Kindinger, a biology, oceanography, and environmental science teacher at Seminole High is from Pinellas County. Ms. Darlene Cooper teaches calculus, applied probability and statistics, and algebra at River Ridge Middle/High School in Pasco County.

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## IEEE Volunteers Needed for 2001 National Scout Jamboree

Volunteers are needed for the Electricity and Electronics Merit Badge Booths at the 15<sup>th</sup> National Scout Jamboree. IEEE is the title sponsor of the Electronics Merit Badge Booths and co-sponsor of the Electricity Merit Badge Booths. Volunteers are primarily needed for the position of merit badge instructor. While volunteers can volunteer for just one day, it is preferred that they volunteer for at least two days.

The National Scout Jamboree will be held from Monday, 23 July 2001 through Wednesday, 1 August 2001 at Fort A. P. Hill, Virginia. The Jamboree site is near Bowling Green, Virginia, which is between Richmond and Fredericksburg.

To volunteer, contact John P. Castelvechi at [john\\_castelvechi@dom.com](mailto:john_castelvechi@dom.com) Provide John with your name, address, phone number, email address, requested volunteer position and available dates.



# Wireless and Microwave Technology 2001

## An Industry/Government/Education Forum

**DATE:** Saturday, March 24, 2001

**TIME:** Registration begins at 8:00 am  
Presentations and Panel Sessions from 8:30 am to 4:00 pm  
Social Hour from 5:00 pm on

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

**ABSTRACT** - The Wireless and Microwave (WAMI) Program at the University of South Florida invites you to attend this third annual event. The interactive forum will provide an opportunity for the exchange of information on the status and directions of wireless/microwave technology, and the educational and research challenges now being addressed. Activities will include 6-8 technical presentations by invited speakers and two panel sessions. Please check for an updated speaker and topic list at <http://ee.eng.usf.edu/WAMI>, where you will also find information on the 1999 and 2000 events. Lunch and refreshments will be provided during the day, along with a social hour and tour of USF's laboratories in the late afternoon.

The Wireless and Microwave Group in the Electrical Engineering Department at the University of South Florida is organizing this event. Sponsors include the USF College of Engineering and the IEEE Florida West Coast MTT/AP/ED Chapter.

**RESERVATIONS** - Please make reservations before March 16, 2001. We welcome late registration but appreciate a timely response in order to accommodate our planning.

**REGISTRATION FEES:** IEEE Student Member: \$0  
IEEE Member: \$20  
Non-IEEE Member: \$30  
(Students who are not IEEE members may register for \$20 and apply this toward the IEEE Student Member Application fee.)

**RSVP & send payment to:** **Becky Brenner**  
USF Dept. of Electrical Engineering  
4202 E. Fowler Ave., ENB118  
Tampa, FL 33620  
Voice: (813) 974-2369 Fax: (813) 974-5250  
Email: [brenner@eng.usf.edu](mailto:brenner@eng.usf.edu)  
Please make checks payable to IEEE-FWCS or pay on-site.

### 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.  
The Embassy Suites is on the north side of Fowler Avenue, immediately in front of the University of South Florida.

## Inaugural Teacher In-Service Program A Success!

The first teacher in-service program, sponsored by the IEEE Florida West Coast Section, was held on 19 February 2001 in conjunction with the College of Engineering at the University of South Florida. The five-hour program was entitled "What is Engineering". Florida West Coast Section member John Luce, PE, presented a one hour session focused on applying engineering principles to analyze, design and build a working model of a nail clipper.

Thirty-two science, technology and math teachers from middle schools and high schools throughout Hillsborough County participated in the highly interactive training program. They were divided into groups of 4-5 and asked to simulate the process engineers use to analyze a problem, design a solution and create a working model. Section volunteers Quang Tang, Bob Ashley, Jules Joslow, and Bob Harwell acted as "coaches" to 1-2 groups of teachers. The response to the presentation was overwhelmingly positive as 100% of the teachers indicated they would use the concepts presented in their classroom instruction and 93% of the teachers attending indicated that the presentation increased their level of technological literacy.

The in-service program is being piloted by the Florida West Coast Section and is an important step in promoting technological literacy. It is a program that may be customized for use by any IEEE Section and it has the potential to impact pre-college educators and their students for years. If you have questions, thoughts, or are willing to help with the in-service program, please email Doug Gorham at [d.g.gorham@ieee.org](mailto:d.g.gorham@ieee.org).

## Your PE/IA Joint Chapter Needs Your Help!

We are looking for good meeting topics and tours for the Chapter. We are also looking for members willing to serve as Officers for the Chapter.

If you have a meeting topic that you feel your fellow members would be interested in, or a tour of a facility (maybe your own) that they would enjoy, or if you are willing to serve as an Officer of the Chapter, please contact Paul Leal at 813-630-6334 or by email [PGLEAL@TECOENERGY.COM](mailto:PGLEAL@TECOENERGY.COM)

## PACE News: IEEE-USA Workshop Comes to Tampa Bay April 27-29, 2001

By Mark McKeage

IEEE-USA committees and PACE (Professional Activities Committee for Engineers) will meet 27-29 April 2001 to discuss Professional Activities skills, services, government relations programs and upcoming projects. This workshop is in place of the annual Professional Development Conference usually held over the Labor Day weekend. I will represent the Florida West Coast Section at the workshop, and will provide the Section with the results. The URL for the workshop is <http://www.ieeeusa.org/conferences/2001workshop/index.html>

Look for this column next month for additional information!

Introduce a Girl to Engineering Day Contest IEEE-USA and the IEEE Women in Engineering Committee are challenging U.S. IEEE Sections to introduce as many girls to the engineering profession as they can before 1 April 2001. For more on this worthwhile effort, please check out the web site below: <http://www.ieeeusa.org/eweek/form.html>

### **ATTENTION Retired Engineers!**

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**Sarasota, Florida**  
**(941) 379-8988**  
**Ask for Brian Stumm**

## Celebrate Engineering 2001 Banquet

If you missed the Celebrate Engineering 2001 Banquet, you missed one of the best banquets. IEEE Florida West Coast Section along with Association for Facility Engineers (AFE), American Society of Mechanical Engineers (ASME), and Society of Logistic Engineers (SOLE) put together an unforgettable event. Dr. Win Phillips from University of Florida was an excellent motivation speaker. He spoke about “Future Demands on Engineers” with humorous cartoon slides. Mr. Michael Labonge with Walt Disney World presented “Engineering the Magic”. From testing rides to major structure designs, he showed us the kind of work engineers involve there to entertain people from all over the world. Entertainment included Magician/Master of Ceremonies - Mark Byrne “Mark the Balloon Guy”, Caricaturist - Art Maynor, Flutist - Patricia McGiverin, and Pianist - Cheri Roland. Our main event of the evening was the awards ceremony. Lignell Awards, Student of the Year Awards, and Engineer of the Year Awards were presented to outstanding individuals. Below are photos taken from the evening.



- Gavel being passed on to new IEEE Florida West Coast Section Chair Quang Tang from Past Chair Al Rosenheck

- Dr. Win Phillips from University of Florida and Mr. Michael Labonge, P.E. from Walt Disney World (Left to right).

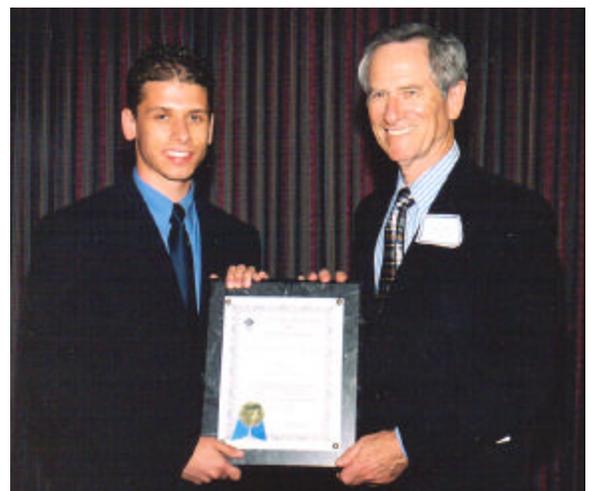
- Dr. Alexander Nauda, P.E. – IEEE FWCS Engineer of the Year presented by IEEE FWCS Past Chair Al Rosenheck.



Lignell Awards<sup>®</sup>  
Winners presented by  
Mr. Don Smith of  
Honeywell.  
Ms. Alina D. Mills from  
Hillsborough County and  
Ms. Mary Kindinger from  
Pinellas County (l to r).



Mr. Daniel Faria<sup>®</sup>  
IEEE FWCS  
Student of the Year  
presented by  
IEEE FWCS Past  
Chair Al Rosenheck.



# IEEE EDS Graduate Student Fellowship for 2001 Program

The IEEE Electron Devices Society established the Graduate Fellowship Program to promote, recognize, and support graduate level study and research within the Electron Devices Society's field of interest:

- ❑ Compound Semiconductor Devices and Circuits
- ❑ Device Reliability Physics
- ❑ Displays
- ❑ Electronic Materials
- ❑ Microelectromechanical Systems
- ❑ Optoelectronic Devices
- ❑ Photovoltaic Devices
- ❑ Power Devices and ICs
- ❑ Semiconductor Manufacturing
- ❑ Vacuum Devices
- ❑ VLSI Technology and Circuits



The society is concerned with:

- ❑ Research, development, design and manufacture related to the materials, processing, technology, and applications of such devices
- ❑ Scientific, technical and other activities that contribute to the advancement of this field

At least one fellowship will be awarded to students in each of the following geographical regions every year:

- ❑ Americas
- ❑ Europe/Mid-East/Africa
- ❑ Asia-Pacific

## **Prize**

US\$5000 to the student, US\$1000 grant to the student's department, US\$1000 grant to the student's faculty advisor in support of the student's project, travel subsidy of up to US\$3000 to each recipient to attend the International Electron Devices Meeting (IEDM) for presentation of an award plaque. The EDS Newsletter will feature articles about the EDS Graduate Fellows and their work over the course of the next year.

## **Eligibility**

Candidate must: be an IEEE EDS student member at the time of nomination; be pursuing graduate education within the EDS field of interest on a full-time basis; and continue his/her studies at the current institution with the same faculty advisor for twelve months after receipt of award. Sponsor must be an IEEE EDS member. Previous award winners are ineligible.

## **Timetable**

- ❑ Nomination packages will be due at the EDS Executive Office no later than **May 15, 2001**
- ❑ Recipients will be notified by July 15, 2001
- ❑ Monetary awards will be given by August 15, 2001
- ❑ Formal presentation of the awards will take place at the IEDM Awards Ceremony in Dec. 2001.

## **Basis for Judging**

Demonstration of significant ability to perform independent research in the fields of electron devices, proven history of academic excellence in engineering or physics curriculum through awards and prizes.

For more information, check out <http://www.ieee.org/eds/fellowship> or contact [edsfellowship@ieee.org](mailto:edsfellowship@ieee.org).

## **Obituary - Ted Balaska (Died Monday Jan 15<sup>th</sup> 2001, aged 75 years)**

Sheena and I have known Barbara and Ted for some 30 years, and their lovely children Mark and Terry.

This is a very sad day for his family and friends.

During these many years that we have been associated with Ted, we have never seen him depressed or disturbed. He was very calm, professional and always ready to help the younger members of our technical committees, particularly those in our PES/ICC (Insulated Conductors Committee).

Ted was dedicated to education & Electrical Engineering all his life. I followed Ted in many assignments: we each chaired a T&D Conference and then our Insulated Conductors Committee. He was always prepared to support you if you gave it your all.

You will never know how good a man he was. He will be sorely missed both professionally and as a friend. I knew Ted as the most willing of my colleagues. Nothing was too much trouble for him! His last assignment in his technical life, which he shared with me, was to select and give awards to our committee members for their contribution to ICC. He knew everyone so well technically and personally. There was no one could do this job better than he was.

With his experience and integrity he will be rewarded in his after life for his honesty, drive, perseverance and love of people. The last business award Ted received after a recent visit he made to Panama, and given to him by his customer, was a gold plaque known as Panama Golden Huacas. The Huacas are an ancient "INCA" tribal people from Peru and Columbia, who landed in Panama 100s of years ago and worshiped, rocks, mountains, trees, rivers and gold! Hence the significance of the gold plaque.

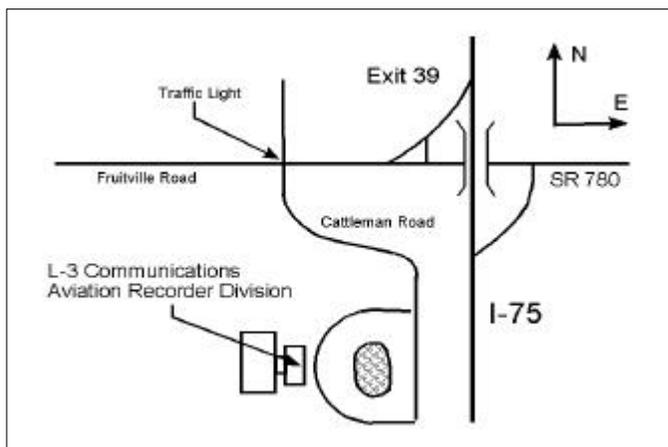
We should consider ourselves lucky that we knew Ted and could call him our friend. Sheena and I will certainly look back on our IEEE/PES/ICC experiences in England and in North America together with Ted & Barbara. We thank God for this good man and our great memories.

I ask you all to help Barbara and her family in their loss.

Finally, Ted has many files of old transaction papers, standards, and meeting minutes from IEEE and other professional institution, which could be made available to anyone who cares to call me. I can expand on the documents and samples available.

Thank you for giving me space in your publication for Ted Balaska's obituary.

Roland Watkins



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# Brain Teaser Challenge Column

by Butch Shadwell

## February BTC Solution

In response to last month's BTC, of course one should explain to Beevis that these small power supplies are protected from reaching excessive temperatures by virtue of core saturation. That is, the tiny transformer that is used to drop the line voltage has a very small iron core with limited magnetic flux capacity. The rate that energy can be transferred from the primary to the secondary at 60 Hz is limited by this fact.

I hope you enjoyed the blast from the past.

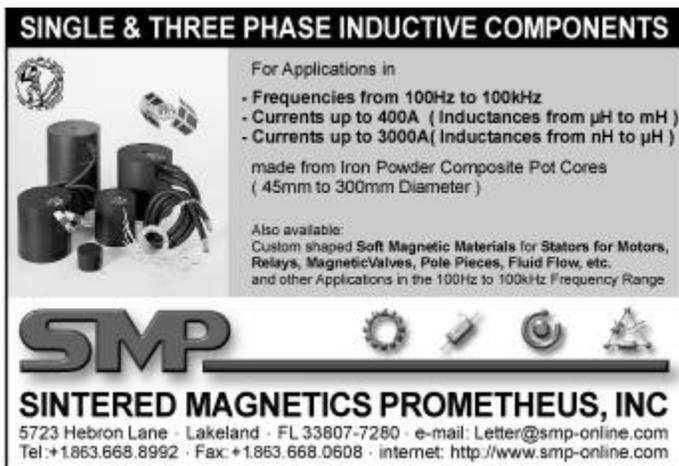
## March BTC

The new century and a new millennium are well underway now. We are challenged to decide for ourselves and humanity what we will do to promote the advancement of mankind. Beyond the obvious technical issues, loom overwhelming philosophical and moral questions. For all of the creative potential of our species, I suspect the greatest technical advances should be driven by our goals as a race (i.e.-human).

To this end I have recently returned from a month of meditation in a small drainage culvert (couldn't find a mountain cave in Florida) near Gainesville. Of course among the many daunting questions I was trying to figure out, was the true nature of the new "IT" invention. After the first week, already up to my armpits in Twinkie wrappers, I decided that IT was just all hipe, and that I could probably revolutionize humanity better than those guys anyway. So, in the next three weeks I set out to solve the age-old problem of cutting ones own hair.

I concluded that the best technique would involve electrifying the haircutee's head with a large static charge so that the hairs would all stand straight out making uniform trimming much easier. Most folks have probably seen someone with their hair standing on end in this fashion, but I wonder if my readers can explain exactly why. I'm looking forward to your answers.

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](mailto:b.shadwell@ieee.org) (email), 3308 Queen Palm Dr., Jacksonville, FL 32250-2328. <http://www.se.mediaone.net/~butchs/>



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## March 2001 Calendar of Events

| Sunday | Monday | Tuesday  | Wednesday   | Thursday | Friday   | Saturday  |
|--------|--------|--|---|----------|--|---|
|        |        |  |   | 1        | 2  | 3   |
| 4      | 5      | 6<br><i>EXCOM Meeting<br/>TECO Data<br/>Center 6:00 PM<br/>Guests Welcome!</i> | 7   | 8        | 9<br><i>Material Due<br/>For Next Month's<br/>SIGNAL</i> | 10  |
| 11     | 12     | 13   | 14  | 15       | 16   | 17  |
| 18     | 19     | 20   | 21<br><i>Life Members<br/>Chapter Meeting<br/>Tour of Aviation<br/>Recorder Facility<br/>11:00 AM</i> | 22       | 23   | 24<br><i>Wireless and<br/>Microwave<br/>Technology 2001<br/>Forum at 8am<br/>Embassy Suites</i> |
| 25     | 26     | 27   | 28  | 29       | 30   | 31  |

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