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

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## Elevator Technologies and Applications

### PES/IAS June Meeting



Date: Monday, June 24, 2002

Time: Noon

Place: TECO Hall, TECO Plaza, 702 N. Franklin Street, Tampa, FL

Price: IEEE/ASME Members \$10, Non-members \$15, Students \$5 includes lunch

Register on line at <http://www.ewh.ieee.org/r3/floridawc/>

Or call John Stankowich at 727-796-8012



**Speaker:** Mr. Richard Dolson, Jr. of Otis Elevator will present an overview of elevator products, technologies and their applications. Mr. Dolson is a Senior Account Manager for Otis Elevator where he has worked for twelve years in sales and project management.

**Note on parking:** Reasonably priced parking (\$2-\$3) is available at the Ashley Street Municipal Garage which is on Ashley Street just south of the Tampa Public Library and about one block from TECO Plaza. Meter parking on the street is also available as well. Other parking lots nearby are the most expensive (typically \$5.00).

### Upcoming PES/IAS Meeting

July 10<sup>th</sup> Tour of Ohio Transformer Facility. Check out next issue of Signal for more details.



### Free Admission to Exhibit Exhibit Hours

Wednesday, March 19

10 am – 4 pm

Thursday, March 20

10 am – 4 pm

For more information, visit

[www.southcon.org](http://www.southcon.org) or call 800-877-2668

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## Chair's Comment

By Quang Tang



Congratulations to Jim Howard for winning the 2002 Power Engineering Society (PES) Outstanding Engineer of the Year Award for Region 3. Please check out the article on page 4 for award details.

In recent months, other Sections within the Florida Council are considering to stop the hardcopy mail out of their monthly newsletter to members. We have been distributed both electronics version and hardcopy to all members for about one year. We like to know what you think. Should we continue with both versions or drop the hardcopy distribution? This issue of the Signal or any previous Signals can be downloaded from our website at <http://ewh.ieee.org/r3/floridawc>. Please send me or any Executive Committee members an email and let us know.

If you want to know what other Sections in Florida are doing or want to know what meetings or seminars are being offered this month in Florida, check out the Florida Council website at <http://www.ewh.ieee.org/r3/fc/>.

## Students' Corner

By Jeremy Baksh

It would seem that congratulations have been the main focus of the student's corner over the past few months, and in keeping with this theme, IEEE Student Branch would like to congratulate all recent graduates. The student branch would also like to recognize the achievements of one of our members, Anand Mehta, who was recently named the, 'Outstanding Electrical Engineering Graduate' for the spring 2002 semester. We wish him all the best in his future endeavors.

Summer is upon us, and while the student chapter has no events or activities scheduled for the summer months, the suggestions of our members are always welcome. Most recently, students participated in an event to benefit Habit for Humanity, which proved very rewarding to all in attendance. Looking to the fall semester, IEEE student branch comes under new leadership as Angela Alexander and Ananth Sundaram have been elected to the positions of Vice President and Treasurer, while Amy Yen fills the position of student chapter secretary.

As always, we encourage everyone to visit our website (<http://org.eng.usf.edu/IEEE-EE/>) for all current information. New pictures and video have been added to our website over the past few weeks and thanks to our webmaster our site is constantly evolving, so please pay us a visit.

# Digital Hardware Design

## "An Overview of Reconfigurable Computing"

### Computer Society Chapter June Meeting

**Date:** Tuesday 6/18/02

**Time:** 6:00 PM to 7:30 PM

**Location:** Honeywell International, Space Systems  
Plant 5, North Entrance, Intrepid Conference Room  
13350 U.S. Highway 19 North  
Clearwater, FL 33764

**RSVP:** Cliff Kimmerly [clifford.kimmerly@honeywell.com](mailto:clifford.kimmerly@honeywell.com)  
or 727-539-4234

Reconfigurable computing is the application of programmable hardware (primarily FPGA technology) to allow switching between different system behavior sets.

Jeremy Ramos from Honeywell will present an overview of reconfigurable computing. After introducing the basic concepts of reconfigurable computing, Jeremy will discuss the hardware and software aspects of reconfigurable computing implementations. The tools needed for reconfigurable computing development will also be covered. Jeremy will review the state of the reconfigurable computing industry and current research and also project the future outlook for reconfigurable computing technology.

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

#### **Jeremy Ramos:**

Senior Systems Engineer, Honeywell Defense and Space Systems, Advanced Systems, Clearwater, Florida.

Jeremy's responsibilities at Honeywell include architecture definition, system modeling and performance analysis for satellite payload processing applications. Jeremy has a BS in Computer Science and Engineering from the University of South Florida and has been at Honeywell for more than three years.

#### **Directions:**

The Honeywell campus is on Ulmerton Road (SR 688) just west of the US 19 overpass. The campus is bounded by 66<sup>th</sup> Street on the west, 62<sup>nd</sup> Street on the east, and 126<sup>th</sup> Avenue on the south. The main entrance is on 62<sup>nd</sup> Street. Plant 5 is on the south end of the campus. Use the Plant 5 north door and check in with security there.

No cameras or cell phones are allowed in the building.

This is a Joint Meeting with the Programmable Logic Users Group ([www.pl-ug.org](http://www.pl-ug.org))

# Jim Howard Wins Regional Award

By Art Nordlinger

Jim Howard has been awarded the 2002 Power Engineering Society Outstanding Engineer of the Year Award for Region 3 (Southeastern US).

Jim currently holds the position of Region 3 Director of IEEE and he is also the Student Branch Mentor for the student chapter at the University of South Florida. His contributions to the Institute, the Power Engineering Society and the local Section over many years are numerous. Jim has held many officer positions including Chair of the Florida West Coast PES Chapter and Chair of the Florida West Coast Section. Jim's leadership led to a very successful 1998 Winter Power Meeting when it was held in Florida West Coast Section.

Jim was nominated for this award by the Florida West Coast PES Chapter, having been awarded the chapter's Outstanding Engineer of the Year Award in 1998. A member must have won a chapter's award to be considered for the regional award. Congratulations to Jim and a big thank you for your leadership and hard work that has benefited us all.

# Power Quality Seminar – Big Success!

By Mike Kotch

The PES/IAS chapter of FWCS reached beyond its membership to provide continuing education for engineers recently. The section was contacted by the Florida Electric Cooperatives Association (FECA), whose leadership found IEEE listed as an exempt training provider by the Florida Board of Professional Engineers. FECA asked if FWCS would provide training that qualifies for professional engineer's Professional Development Hours (PDH) at the FECA Statewide Engineering Conference to be held in Clearwater.

The FWCS executive committee considered the request, and Mike Kotch, P.E., member, offered to conduct power quality training similar to the course presented in the fall of 2001. The parties reached an agreement and a four hour course was prepared for the May 7 FECA Conference. While the main conference was closed to non-members of the association, FECA agreed to open the Power Quality course to outsiders, and it was advertised in the Signal.

Nearly 50 engineers, about half of whom were IEEE members, attended the training. Feedback from attendees and FECA leadership was very positive. FECA reported that attendance nearly doubled over prior years, and is already talking about working with FWCS at next year's conference.

# What's New @ IEEE for GOLD

By John Platt [j.platt@ieee.org](mailto:j.platt@ieee.org) and Frank Pepe [f.pepe@ieee.org](mailto:f.pepe@ieee.org)

## Job Search Strategies? Planning For Results

Finding the ideal job takes considerable time, effort and concentration. But with careful planning, focus and diligence, job-seekers stand more than a good chance of landing their dream jobs. Amina Sonnie, Career Experience coordinator at The University of Arizona's College of Engineering in Tucson, offers a practical approach to searching for a new job, including a sample four-week timeline for conducting a search. In the latest edition of IEEE-USA Today's Engineer: <http://www.todaysengineer.org/Apr02/te1.htm>

## Don't Rush into Your Job Search

IEEE-USA Today's Engineer columnist Amina Sonnie recommends that job seekers consider many factors when making a career change or looking for that new job. She advises to look beyond the job description and identify what you really want to do, your "likes" and "dislikes", where you'd like to live and what makes you happy. The article goes on to offer advice on preparing your resume, assembling references, identifying companies of interest, developing eye-catching cover letters and even constructing an answering machine message. <http://www.todaysengineer.org/Apr02/te1.htm>

# Brain Teaser Challenge Column

By Butch Shadwell

## May BTC Solution

Bonjour mes amis. Whether or not you ever get to France, you should know that aliasing is a noise source in digitized analog signals caused when there is energy in the signal at frequencies greater than half the sample rate.

Here is a quick approximation method to achieve an aliasing free digital signal. First you must understand that the A to D converter is converting signal voltage not power. So it takes 6db of attenuation to cut the voltage by half. To get 8 bits worth of attenuation you multiply bits times 6db, which equals 48db. Next the question is how many poles does it take to get 48db of attenuation between the passband (4KHz) and  $F_s/2$  (16KHz). The Butterworth filter gets 6db per octave per pole.  $F_s/2$  is two octaves above the passband, giving us 12db per pole. In this case a four pole filter makes the aliasing noise equal to one bit voltage, so we add one more pole to push the noise below the LSB. The correct answer is, a 5 pole Butterworth filter will eliminate aliasing noise in this design.

Who said digital signal processing was hard?

## June BTC

I've lost track of popular musical groups these days. It seems that the variety of different types of "music" available on the radio and at the music store is greater than it ever has been. You can see this proliferation evident in the lack of good names for these newer musical groups. Where I have been accustomed to the usual collection of insects, fruits and vegetables, today's groups seem to be forced into using meaningless syllables and collections of consonants as a moniker.

If we think back to yesteryear, when more of the bands were named for insects, etc., there was a very popular kind of speaker called a Leslie. It would modulate the sound in an interesting way. This device had a rotating set of opposite facing horns which were the sound emitters. The arrangement would induce some amplitude modulation, but more importantly, it would also frequency modulate the sound due to Doppler shifting the output. If the horns on the Leslie unit were 24 inches from end to end (12 inches from output to pivot point), and the horn assembly was rotating at 2 Hertz, what would be the range of frequencies perceived by a listener when the speaker was driven with a 1 KHz signal?

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

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## June 2002 Calendar of Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4 <i>EXCOM at TECO Hall Guest are always Welcome!</i>	5	6	7 <i>Material Due For the Signal</i>	8
9	10	11	12	13	14	15
16	17	18 <i>Computer Society Meeting "Reconfigurable Computing" - 6:00PM</i>	19	20	21	22
23	24 <i>PES/IAS Meeting at TECO Hall - Elevator Technology - Noon</i>	25	26	27	28	29
30						

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