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This Month's Meetings

Tuesday, February 7th: EXCOM Meeting
Meeting starts at 5:30PM At TECO Plaza
Register online at http://time2meet.com/fwcs-excom/index.html
Open to all FWCS Members

Robotics and Automation Society Meeting

The Next Meeting is Tuesday, February 21, 2012

Go to the RAS Page of FWCS Website for Latest Info!

PES/IAS Innovations in Solid State Lighting

Speaker: Allen Weiss, P.E, L.C. Thursday, February 23, 2012 Time: 6:00PM Details on page 5

EMBS Designing "Intelligent" Neuroprosthetics

Speaker: Justin Sanchez, Ph. D. Thursday, February 23, 2012
Time: 7PM, Location TBD

Details on page 3

Using LinkedIn to Boost your Career in 2012

Wednesday February 29, 2012 Time: 8PM

Details on Page 6

2012 EEE EXECUTIVE COMMITTEE

FLORIDA WEST COAST SECTION

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THE SUNCOAST SIGNAL is published monthly by the Florida West Coast Section (FWCS) of the Institute of Electrical and Electronics Engineers, Inc. (IEEE). THE SUNCOAST SIGNAL is sent each month to members of the IEEE on Florida's West Coast. Annual subscription is included in the IEEE membership dues. The opinions expressed, as well as the technical accuracy of authors, advertisers or speakers published in this newsletter are those of the individual authors, advertisers, and speakers. Therefore, no endorsement by the IEEE, its officers, or its members is made or implied.

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Lignell Award Winners for 2012

Karina Bletsch.

AP Chemistry Teacher, Alonso High School in Hillsborough County, FL;

Having lived most of her teenage life in another country, Karina Bletsch is no stranger to the struggles and challenges which migrant students face. Amidst language barriers and culture shock, she excelled at every academic level through her educational career. Now, she works with those very similar struggling students at Alonso High School teaching AP& Honors Chemistry. She has held this title for 9 years now. Karina Bletsch grew up in the city of Sao Paulo, Brazil. She moved the US at the age of fifteen and attended The University of South Florida for her Bachelor of Science degree in Biology and Grand Canyon University for her Master of Arts Degree in Teaching. She lives in Tampa, Florida with her two children, Steven and Jacquelyn.

Edwin Braddy,

AP Biology & Chemistry Teacher, Department Head, J W Mitchell High School in Pasco County, FL

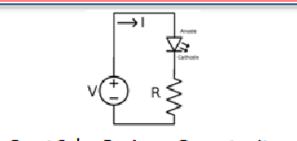
Mr. Edwin Braddy received his B. A. in Science Education and M. Ed. in Administration and Supervision from the University of South Florida. He teaches chemistry and Advanced Placement Biology and Chemistry at J W. Mitchell High School in New Port Richey, Florida. He is the Science Department Chair at the school, and he was named Teacher of the Year there in2010. Mr. Braddy enjoys the challenge of teaching the Advanced Placement courses and involving students in scientific inquiry. His efforts have provided opportunities for students to present their scientific research at the school, district, state and international levels. He has attended recent annual International Science and Engineering Fairs with several of his students who were selected from the Pasco Regional Science Fair for exemplary scientific work. He takes pride in the fact that many of his students have continued post-secondary studies that have earned them degrees in various scientific disciplines.

Terry Stanley,

IB&AP Biology Teacher, Land O' Lakes High in Pasco County, FL;

Terry Stanley began her teaching career in Pasco County after graduating from the University of South Florida with a Masters of Science in Science Education in 1990. Terry originally thought she would become a medical doctor and was accepted into medical school and completed 18+hours of Human Anatomy and Physiology. She realized that her true passion was teaching and, instead, pursued that dream. Terry has taught in the International Baccalaureate Program at Land O' Lakes High School since it's beginning in 2005, where she remains a pillar and leader of the program. In addition to her teaching responsibilities, she is an examiner and trainer of biology in the International Baccalaureate Organization. Her knowledge and insight into biology curriculum and IB philosophy is invaluable to the students and administration at Land O' Lakes High School





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This Month...(Editor's Column)

We are all very familiar with Google as a search engine and also for mapping applications, but did you know that they are also very much involved in robotics? They have been developing an autonomous automobile that can negotiate the highways of the US without input from the driver. In the February issue of Wired Magazine, there is an article about Google's and Mercedes efforts to automate driving. In the article there were some interesting statistics. First, only about 5% of the highways are occupied by vehicles at a given time, indicating there is room for a lot more vehicles if they were managed better. Second, 93% of auto related fatalities are due to "human error" demonstrating a need for automation. Google's cars have coved more than 140,000 miles of public roadways in California. They use a combination of miniature radar, LIDAR, Infrared and stereo cameras, GPS and wheel encoders. These sensors feed into computers that run algorithms derived from studies of how humans really drive automobiles. The estimate is that autonomous vehicles will be more common on the roads of the US by the end of the decade

Designing "Intelligent" Neuroprosthetics:

Harnessing Multiscale Activity from Systems of
Neurons

Speaker: Justin C. Sanchez, Ph.D.

Time: 7 pm (reception starts at 6.30 pm)

Date: Thursday 23 Feb 2012 Place: To Be Determined.

Once the location has been confirmed, it will be posted on our registration page. If you register, you will automatically receive an email with the updated details. Registration is FREE.

Register online: http://time2meet.com/fwcs-emb/index.html

Abstract

Closed-loop neural interfaces have the great potential for treating neurological disorders and restoring communication/control in disabled individuals. The transformative aspect of closed-loop neural interfaces is that they can be designed as "intelligent tools" that have the capability to assist and evolve with the user. Unlike many other devices, neural interfaces exist in a shared space that seamlessly spans the user's internal, adaptive neural representation of the world and the physical environment enabling a much deeper human-device symbiosis. Recent advancements in the neuroscience and engineering of neural interfaces are providing a blueprint for determining representation in multiscale signals for deriving therapeutic strategies from systems of cortical and subcortical neurons. This talk covers recent advances in science and technology supporting the development of intelligent neural interfaces from the bench to bedside.

Biographical Sketch

Dr. Sanchez is the Director of the Neuroprosthetics Research Group (NRG) (http://www.bme.miami.edu/nrg). As an Associate Professor of Biomedical Engineering, Neuroscience, and a faculty member of the Miami Project to Cure Paralysis, his mission is to develop state-of-the-art neural interface medical treatments. His laboratory is innovating neurotechnology for treating paralysis, stroke, DBS for movement disorders, Tourettes, and OCD. He has developed new methods for signal analysis and processing techniques for studying the unknown aspects of neural coding and functional

He has published over 75 peer review papers and 7 patents in neuroprosthetic design. He has authored a book on Brain-Machine Interface design.. He is an elected member of the Administrative Committee of the IEEE Engineering in Medicine and Biology Society. He has mentored over 20 PhD students, Masters Students, and Postdoctoral Associates. Funding from the NIH, NSF, and DARPA have supported this work

James M. Howard – IEEE-USA President for 2012

Manager, Electric System Compliance, Lakeland Electric Lakeland, Florida USA



On January 1, 2012 Jim Howard took the reigns of the IEEE USA. Jim has been serving on the Board of IEEE USA for many years and was elected by the US membership as President-Elect of IEEE USA in 2010.

As the President of IEEE USA Jim will also be a sitting IEEE Board of Directors voting member and, as such, will represent all IEEE Members on that Board

Jim will be available at many of the local FWCS Meeting over the next year, so be sure to take the opportunity to share with him your concerns for the IEEE and IEEE USA, and to let him

know how much we appreciate his volunteering to serve in the prestigious position.

James M. Howard received the B.S.E.E. degree from the University of South Florida in 1985. He is currently Manager of Electric System Compliance with Lakeland Electric, a municipal electric company in Lakeland, Florida, where he has worked for almost nine years. Currently he is responsible for assuring that Lakeland Electric adheres to, and meets compliance with all North American Electric Reliability Corporation (NERC) and Federal Energy Regulatory Commission (FERC) approved Reliability Standards. He joined Lakeland Electric after spending almost 24 years with Tampa Electric Company where he started as a Cooperative Education Student in 1979 and, through the next 23 plus years, held positions in Energy Delivery: Distribution Engineering, South Hillsborough Operations Center, and as Supervisor of Reliability for Transmission and Distribution. Mr. Howard is a member of the Power Engineering, Aerospace Electronic Systems, and the Industry Applications Societies.

IEEE Accomplishments – A few of my key accomplishments within IEEE include:

- Serving on the IEEE-USA Board 8 years (2 years as a Director, 2 years as Member-at-Large, 3 years as Secretary/Treasurer, and 1 year as President-Elect)
- Chairing Sections Congress 2005
- Chairing the IEEE Audit Committee
- Serving as Vice-President of Membership and Chapters for IEEE Power Engineering Society
- Serving as Vice-President of Member Services for AESS
- Chairing the IEEE Membership Development Committee helping increase Senior Membership and begin the Senior Member Plaque program
- Serving as Vice-Chair Member Activities for the Regional Activities Board (RAB)
- Receiving numerous Awards from various levels of the IEEE (see below awards listing)
- Chaired the Florida West Coast Section (FWCS), the FWCS Power Engineering Chapter, and the Florida Council

Some of Jim's IEEE Activities –OFFICES: IEEE Board of Directors, 2002-03. Region 3 Director, 2002-03. COMMITTEES/BOARDS: IEEE-USA Board of Directors: President-Elect 2011; Secretary/Treasurer, 2007-10; Member-at-Large, 2005-06. Region 3 Director, 2002-03. Region 3 Coordinator, 2006-09. IEEE Audit Committee: Chair, 2003; Member, 2002-04. IEEE Nominations and Appointments Committee (N&A), 2004-05. RAB N&A Committee, 2004-05.. REGION: Region 3: Director, 2002-03; SPAC Chair, 2005-10; Strategic Planning Committee, 2005-10; Sections Congress Coordinator, 2010, 2008; Branch Mentor, 1997-2011.. SOCIETIES: Aerospace and Electronic Systems Society (AESS), Vice-President Member Affairs, 2005-11. CONFERENCES: PES General Meeting Chair, 2007. IAS Annual Meeting Vice-Chair, 2006. Sections Congress (SC): SC'05, Steering Committee, Chair, 2003-05; AWARDS: Florida West Coast Section Engineer of the Year Award, 2006. Florida Council Outstanding Engineer Award, 2006. Region 3 Director's Award – Sections Congress, 2005. Florida West Coast Section PES Chapter Outstanding Engineer, 2000.









Innovations in Solid State Lighting

Date: Thursday, February 23,2012

Cost: \$5 IEEE Member / \$ 10 IEEE Non member. Pay at the door

Time: 12:00-1:30PM Includes lunch. Speaker: Allen Weiss, P.E., LC

RSVP: http://time2meet.com/fwcs-pes2/index.html
Location: Stantec Consulting Building,

2205 North 20th Street, Ybor City.

Cash or checks should be payable to: IEEE FWCS Treasurer, John Stankowich

Space is limited to 30

One (1) PDH will be awarded for the successful participation of attendees. Green Building Certification Institute Continuing Education Credit awarded for the successful participation of attendees.

Questions: Jeff Basiaga at 813-541-5758 jbasiaga@stantec.com

Course Description: An introduction to light emitting diodes (LED's) including an overview on how solid state lighting creates light. A discussion on the various benefits and challenges pertaining to LED's. Examples of new LED technology, design strategies, and applications using LED lighting fixtures in Architectural Lighting.

Speaker Bio: Mr. Weiss is a graduate of Drexel University with a B.S. in Electrical Engineering. Allen is both an LC and PE by examination and is presently registered in six states (Florida, Pennsylvania, Maryland, Delaware, New Jersey and North Carolina).

Mr. Weiss has personally designed or supervised over 30 million square feet of facility lighting, many for Fortune 500 clients. Additionally, he has worked on the lighting design of several major roadway, tunnel and bridge projects including Orlando, Florida's East-West Expressway and major portions of Charleston, West Virginia's interstate highway system. Several of his lighting designs have merited design awards through the IESNA and Architectural Record. Allen has taught lighting design at Pittsburgh's La Roche College as well as lectured on several lighting design topics through his affiliation with the Illuminating Engineering Society of North America and served as Section Chairman of the IES in Philadelphia, PA



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24 January 2012 - IEEE, the world's largest technical professional association, has partnered with Tsinghua University Press and Beijing Institute of Aerospace Information (BIAI) to deliver worldwide access to two highly regarded technical journals, now available in English with brand new content available exclusively through the IEEE Xplore® digital library.

Tsinghua Science and Technology is the widely respected flagship journal of one of China's foremost collegiate institutions, Tsinghua University. Published bimonthly, the journal provides contributions from all over the world and presents up-to-date scientific achievements in computer science, electronic engineering, and other IT fields. Subscribers can access more than 1,800 articles, with a backfile to 1996.

For the complete article go to http://www.ieee.org/index.html and look in the "What's Happening at IEEE" under "Just Published"



"Use LinkedIn to Boost Your Career in 2012"

Are you ready to tap into the world's largest professional networking site with over 130 million professionals and more than 2 million company profiles in order to move your career forward? No matter if you are looking for your next job, just looking around, or trying to do some professional networking, LinkedIn is the online social networking place that you really need to be. But where should you start? What's the best way to set up a profile in order to get noticed? What should you do after you create an account?

The IEEE's Florida West Coast Section's PACE group is proud to present our very first online seminar: put on your fluffy bunny slippers, grab a cup of hot coffee and cozy up to your PC and join us. We're going to be covering a lot of material during this seminar including:

- 1. Optimize your profile to be found when people go looking for someone with your skills -- in both LinkedIn searches and on search engines.
- 2. Add hundreds of contacts to your network with one simple technique.
- 3. Become known as a world-wide expert in your field so that companies seek you out.
- 4. Learn how to follow companies you are interested in.
- 5. Join in conversations and establish yourself as an expert so that people will seek you out to connect with.

Did I mention that you can attend wearing your fluffy bunny slippers?

This is easily a \$200 value -- you can end up paying much more. However, for this one night only, we're going to give you a ton of value and free access to a recording of the entire session after it's done! How much would you pay now? Here's all it's going to cost you: \$17 for IEEE members, \$25 for non-members and \$10 for students. Meeting is on Wednesday, February 29th at 8PM.

You can find out more about this seminar and sign up online at: http://goo.gl/nNt3n *Jim Anderson*



ENGINEERING TODAY ... FOR A GREENER TOMORROW

TAMPA BAY'S ENGINEERS WEEK BANQUET

February 24, 2012

A La Carte Event Pavilion, 4050 Dana Shores Dr, Tampa



We are pleased to announce that the 2012 Tampa Bay Engineers Week Banquet will be Friday February 24 at the A La Carte Event Pavilion. Please join us at this elegant gathering to celebrate the 62nd National Engineers Week and recognize the many contributions made to society by those in the engineering profession.

The evening will feature fine dining, our guest speaker Ms. Kathy Caldwell (2011 ASCE National Chair), and an exhibition room for vendors and attendee networking. We are expecting four hundred or more attendees including 250-300 engineers of all disciplines, allowing plenty of opportunities to meet with friends and colleagues.

In keeping with the spirit of the event, awards will be given to accomplished engineers in each engineering discipline, to outstanding young engineers in each discipline, and to local university students who excel in engineering related studies. We'll also be honoring select local high school educators with the Lignell Award for their outstanding instruction in the areas of Science, Technology, Engineering, and Mathematics (STEM). We hope that you will help make this special event one of the most successful of the year.

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Florida West Coast Section, Tampa

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