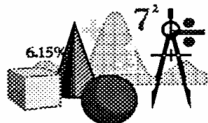




IEEE

# SPARKS

IEEE Daytona Section Newsletter  
February 2011



## FROM THE HIGH CHAIR

There are several events that I would like to encourage our members to participate. First, Our section is supporting Engineering Week 2011 at ERAU Daytona Beach Campus during the week of Feb. 21<sup>st</sup>. Key events include keynote speaker Anouhseh Ansari on Feb. 23<sup>rd</sup> 2:30pm at IC Auditorium, Panel on "Emerging Technologies and Their Impact on Engineering Careers" on Feb. 24<sup>th</sup> 7pm at IC 104, and Banquet with speaker Dr. Zoz Brooks of Discovery Channel's *Prototype This* on Feb. 25<sup>th</sup> 6pm at Student Center Dining Hall (Tickets sold for \$15 for non-students, \$10 for students.) In addition to participate in these events, our members are also encouraged to help connect ERAU to local companies and organizations and thus help EWeek grow in the future. For more information on EWeek, contact Jeanette Barott at [barottj@erau.edu](mailto:barottj@erau.edu).

IEEE Melbourne section is kicking off their 2011 program of Career Development and Employee Assistance meetings. The first meeting will be on February 16 from 6:30pm to 8:00pm at Melbourne Public Library, Large Meeting Room. The address is: 540 Fee Avenue, Melbourne, FL 32901. The specific topic of the meeting is interviewing. The presentation will discuss preparing for the interview, interview dos and don'ts, and effective follow-up. The meeting will also provide a great forum for meeting other local engineers and growing your personal network. Please register for the meeting at:

[http://meetings.vtools.ieee.org/meeting\\_view/list\\_meeting/4871](http://meetings.vtools.ieee.org/meeting_view/list_meeting/4871). There is no cost.

During our Jan. 20<sup>th</sup> meeting, Michael Brothers, the Director of the Marine Science Center at Ponce Inlet, gave an interesting overview on the Marine Science Center. Mr. Brothers has a long history of

the study of marine animals, birds and sea creatures. He described the work of the Marine Science Center and some of the unique characteristics of the species that the center supports.

On Jan. 12<sup>th</sup>, our section had a life members meeting. Mr. Howard Kan presented on the topic of "Latest in hearing aid technology". We learned that the basic hearing aids use basic class A analog amplifiers. Digital hearing aids are more expensive, but provide automatic signal processing circuitry and multiple circuit options, i.e., filtering, noise reduction, feedback cancellation, etc. Most digital aids have the ability to limit noise amplification. Premium digital aids may also have blue-tooth connectability, providing for direct telephone input, and/or allowing people wearing two aids to have the aids interact with each other. Premium aids today cost \$3000 to \$4000 each.

On Jan. 29<sup>th</sup>, Tracy Wichman and I represented the section at the Annual Tomoka Region Science Fair at Atlantic High School. This year, our section gave two awards, one for the junior division and another for the senior division. The winners are: Kaitlyn Thompson (7th grader), who generates electricity via changing the temperature of wires made from different materials; and Mitchell Artin, who studied the affect of increased Vcore on the performance of a CPU.

As a final reminder, if you have not renewed your IEEE membership, I urge you to do so. Otherwise, you may not receive our next Sparks, and lose many benefits that come with being part of the world's most prestigious professional association.

Thomas Yang, Ph.D.

## **JANUARY PROGRAM**

### **THE daVinci SURGICAL ROBOTIC SYSTEM**

The presentation will describe the da Vinci<sup>®</sup> surgical technique, a Robotic Surgery System for many surgical procedures including gynecologic oncology procedures, general gynecologic procedures and prostate procedures. The surgeon sits at a console about 15 feet from the anesthetized patient who is positioned on the surgical table. The console is comprised of a video screen, hand controls and foot pedals. The da Vinci<sup>®</sup> system employs two cameras to provide a 3-D color image of the operating field, plus five to 10 times magnification for a very precise view. Next to the surgical table is the bedside cart with four arms, three for instruments and one for a camera. The arms can be equipped with various instruments and rotate like a hand and wrist. The da Vinci<sup>®</sup> system translates the surgeon's motions into tiny movements and corrects for any hand tremors or extra hand motion. This allows for complex surgeries with small incisions, thus revolutionizing minimally invasive surgery and expanding the types of surgeries that can be performed.

### **OUR SPEAKER**

Micah (Mike) Blackmon, MD is with the Halifax Health Center for Urology. He is a native Floridian having been born and raised here and he received his MD from the University of Miami. He performed his residency at the Medical College of Georgia in Augusta, GA. He is board certified.

### **BRAIN TEASER CHALLENGE FROM THE PAST - BUTCH SHADWELL**

With Sections Congress just around the corner, there will be a lot of our fellow IEEE members traveling from far and near. All of this globe trotting can lead to jetlag. I find it harder to adapt when I fly east than when I go west. So now when I go to Europe, I go by way of Norita, Japan. Not all travel problems are so easily solved. I am sure you have all heard of deep vein thrombosis. A number of air travelers have died from this phenomenon. In an effort to help our guests arrive safely to the Tampa, Florida fete, I have been thinking of new ways to reduce the chances of someone succumbing to this fate. I've come up with the idea of a vibrating seat cushion. Not just an ordinary vibrating cushion, but a 5A, 120Vac, vibrating seat cushion. My prototype gives one the sensation of being at

ground zero of a magnitude 6 earthquake. The auxiliary power unit that runs it only weighs 30 pounds and holds 8 hours worth of alcohol fuel. And, it fits neatly into the overhead compartment. What is the smallest recommended wire gauge for rubber insulated twin lead to connect these two pieces?

The solution will be posted in the next edition of SPARKS

### **CALENDER OF EVENTS**

**February 21 to 25** – Eweek, ERAU campus

**March 3-6** – PACE Meeting in Austin, TX

**March 18-20** - Southeast Con in Nashville

**March 18** - Florida Council Meeting, in Nashville

**March 18** - Region 3 Meeting, in Nashville

**March 18-20** - Student Robotics Competition, in Nashville

**August 18-22** – Sections Congress in San Francisco

**Southeast Con**- Orlando 2012, Jacksonville 2013

### **EDITORS NOTES**

The **SPARKS** newsletter is also available on our website. The website address is shown in the Section information box to the right.

Our neighboring Sections in Melbourne and Orlando also sponsor activities and meetings that also may be of interest to our members. We encourage you to visit their websites.

Region 3 website

<http://www.ewh.ieee.org/reg/3/>

Melbourne Section website

[www.ieeemelbourne.org](http://www.ieeemelbourne.org)

Orlando Section website

[www.ieee.org/orlando](http://www.ieee.org/orlando)

### **FUTURE MEETING DATES**

The remaining meeting dates for the spring session are: March 24 and April 28<sup>th</sup>

### **IMPORTANT FEBRUARY MEETING NOTE**

This months meeting is on **WEDNESDAY** due to conflicts with the clubs schedule. Also, in response to requests from some members, we are trying something new. One of our meals is a premium selection at an additional cost. This will add some variety to our menu selections, we hope you'll like it. The meal selections are shown on the back page. Feedback on this idea is welcome.

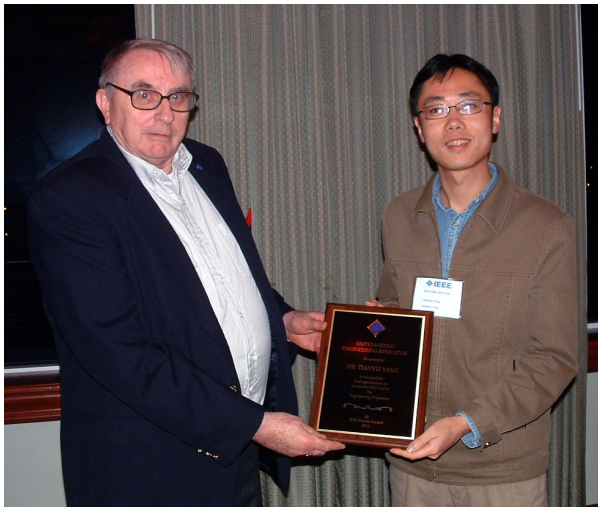
## AWARDS PRESENTATIONS

At the January meeting, Daytona Section Secretary Roger Grubic presented Charlie Husbands and Dr. Thomas Yang with awards from the Florida Council IEEE for Outstanding Service and Outstanding Educator respectively.

Our congratulations to both for well deserved awards.



Roger Grubic presenting Charlie Husbands with the Florida Council IEEE Outstanding Service Award



Roger Grubic presenting Dr. Thomas Yang with the Florida Council IEEE Outstanding Educator Award

## 2011 SECTION OFFICERS

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The website address for the Daytona Section is:  
<http://www.ieee.org/go/daytona>

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# FEBRUARY 2011 MEETING

**Wednesday February 23rd** at the Halifax River Yacht Club  
331 South Beach Street, Daytona Beach, Florida 32114  
Just south of the Fire Station at the corner of Beach and Orange

## AGENDA

6:30 PM Cocktails  
7:00 PM Dinner  
8:00 PM Program

**OUR SPEAKER** – Micah (Mike) Blackmon, MD  
**TOPIC**– The daVinci Surgical Robotic System

## February Dinner Menu Selections

10 oz. Prime Rib @ \$22.50  
Stuffed Chicken (Spinach and Feta) w/ lemon Beurre  
Tortilla Crusted Tilapia

All entrees served with Scalloped potatoes, vegetable medley, roll and butter, garden salad, coffee/tea

**Unless noted, dinner entrées are \$18.00 each. Students \$10.00 each**  
**A Veggie plate is available on request for \$10**

**Please contact Allan Jusko with your dinner selections or for program information.**  
**Dinner selections must be in by Tuesday noon so the club has time to order and prepare**

Allan Jusko                      SPARKS Editor                      386-671-3706    a.jusko@ieee.org

**IMPORTANT: If you make dinner reservations and are unable to attend, call at least 12 hours prior to the meeting to cancel. The Daytona Section is charged for all dinners ordered.**

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