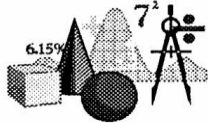




SPARKS

Daytona Section Newsletter
January 2017



JANUARY SECTION MEETING

Thursday January 26th at the Halifax River Yacht Club, 6:00 PM
331 South Beach Street, Daytona Beach, Florida 32114

PRESENTATION TOPIC

THE FOOD AND DRUG ADMINISTRATION AS IT RELATES TO THE MEDICAL DEVICE INDUSTRY

CHAIR'S REPORT



Happy New Year to the entire IEEE Daytona Section! May this year bring you personal and professional success.

Every Spring we focus on promoting the engineering profession with events around the community. We normally provide judges for the Tomoka Science Fair, held on January 28 this year. The fair showcases the work of budding young scientists in our local middle and high schools. Engineer's Week is February 19 - 25 this year. This national event celebrates all things engineering and raises awareness among K-12 students and communities about what the engineering profession is all about. Section members attending the IEEE SoutheastCon 2017 will be heading up to Charleston, SC for the event, to be held March 30 - April 2. Volunteering is a key to Section success, and our volunteers always report having rewarding, enjoyable times. If you would like to volunteer for any of these events, or come across other events the Section can be involved in, please contact myself or our PACE Chair, Dr. William Barott (barottw@erau.edu).

In addition to outreach and community service, we will continue our member advancement efforts. Details about Senior Member and Resume Development sessions will be provided later in the Spring. While I remind you all to renew your memberships as soon as you can, I also remind you that, unfortunately, we can't count that as member advancement activity.

Lastly, thank you for entrusting me with the Chair position. I hope, with the benefit of the valuable experience of the Section members, to have a successful tenure. I end these notes by acknowledging once more the good work of our outgoing Chair, Jeanette Barott, and welcoming our incoming Vice Chair, Richard Kent. See you at the meetings!

Keith

JANUARY'S PRESENTATION

THE FOOD AND DRUG ADMINISTRATION AS IT RELATES TO THE MEDICAL DEVICE INDUSTRY

It is generally understood that the Food and Drug Administration's responsibilities are to approve and regulate foods and drugs available to the public. However, among its responsibilities is also to regulate and control medical devices.

January's presentation will discuss the role of the FDA including; What the FDA is responsible for, what the FDA is NOT responsible for, device classification, the medical device approval and inspection process, lobbying the FDA, and the speakers personnel experiences with the FDA.

OUR SPEAKER

James H. Brown is President of Caird Technology, Inc., which is a developer of medical devices for the physician office market. The company has developed and markets ECG Systems, Spirometry Systems, Ambulatory ECG Systems, and Autonomic Nervous System testing devices.

Mr. Brown holds a Master's degree in Electrical Engineering from Polytechnic Institute of New York. During his 35 year career, he has held a number of engineering and executive positions with medical device manufacturers as well as the developer of diagnostics for a ship stimulator for the Merchant Marine Academy with the Sperry Corp.

NOVEMBERS PRESENTATION

Have you ever found yourself in verbal confrontation with SARI or the lady in your car's GPS system? If not, you're missing one of technologies "undocumented features". As more devices in our world become "smart" our need to interact with them grows, and the way in which we interact is likely to change. Dr. Keith Garfield addressed this interaction in his November presentation about speech interfaces. Unfortunately, the use of speech interfaces can provide a user with a false sense of system capability, which leads to frustration when those capabilities are not present. Dr. Garfield discussed the challenges implicit in natural language processing and natural language understanding that limit vocal interfaces. He also discussed techniques used to overcome or reduce the impact of those challenges.



Dr. Keith Garfield being presented the Daytona Section coffee cup by Richard Kent, our 2017 Section Vice Chair

2017 DAYTONA SECTION OFFICERS

Introducing our 2017 Section Officers elected at our November meeting



Dr. Jianhua Liu, Treasurer; Ron Gedney, Secretary; Dr. Kieth Garfield, Chair; Richard Kent, Vice Chair

ANOTHER TALE FROM THE OLD PROFESSOR

KISS

Keep It Simple Stupid, or KISS, has been a mainstay of engineering design for time immemorial. But in more recent years the concept seems to have been abandoned. This became very evident to me when I purchased a pocket-sized audio recorder and the instruction book was larger and heavier than recorder itself. As many of my readers are aware, the Old Professor had worked in broadcasting for a number of years. Broadcasters' brand of choice for audio recorders was Ampex. Our studio-quality tape decks had 4 push buttons and two knobs. The buttons were, play, stop, fast forward, and rewind. The fourth was a red, recessed to prevent accidental activation, button; record. The knobs were input level and output level. I don't know if any of the stations I worked for had the Ampex user's manual or not because I didn't need any instructions to use the tape machine.

My little hand-held recorder is too small for even one knob but there are a couple of buttons and a display that is best read with a magnifying glass. The old Ampex did one thing and did it well; recorded and played back tapes. The little recorder has all types of sound processing that is accessed through a series of menus using tiny push switches. Since the display is minimal, much of what it displays is abbreviated which requires the user's manual for translation.

My newest automobile, a Volvo, like my hand-held recorder has menus too, which are accessed from the same stalk that is used for turn signals. The turn signal stalk has the usual push up, push down for turn signaling. It also has push forward, pull back, a rocker switch on the end, a reset button close to the steering column and even a knob. You can do everything from the turn signal in addition to signaling turns. Even the turn signal has a momentary position and a stable position.

Recently, after a sudden need to change lanes, in addition to the turn signal I managed to push a button or turn the knob or; who knows what? After the lane change I noticed that my electronic dashboard was completely reconfigured. The instruments I was used to seeing were in different locations or not present.

Shortly after purchasing the vehicle in September, Eastern Time changed from daylight savings to standard time and I wanted to set the clock. I consulted the 417-page owner's manual. Yes; over four hundred pages, and only one language, to see how to do that. I checked the index looking for "clock", or "resetting clock" and "display" and other possible titles to no avail. I later found out it is listed under "infotainment". Of course; infotainment! Everyone knows that! Grrrrr. Minus the printed instructions, I spent 15 minutes pushing buttons, turning knobs dropping down menus until I decided to wait until spring when daylight savings time comes back. But, my regular service occurred in spring and the mechanics at the dealer set my clock to standard time. A few weeks later daylight savings time came in and the clock was off again. I intend someday when I have a few extra hours to set the clock to UTC.

I seldom listen to the radio while driving. The radio is the "tainment" part of "infotainment". Deciphering the radio would take me back to the 417-page manual and not worth the effort for the few times I like to listen to the radio. I feel like I need a co-pilot to manage all of the features of my Volvo.



My Corvette, on the other hand, has two buttons below the clock. One is labeled "H" and the other "M". I never consulted the owner's manual to set the 'Vette's clock. The radio has two knobs; one changes the volume and the other selects the station.

What sets cars like Corvettes apart from many other cars is the Corvette is a car made to drive. Most other cars are becoming motorized living rooms. When many of the features of a car have nothing to do with driving it; the simplicity of driving a car is lost resulting in a reduction of safety.

With that, I will wish you all adieu and motor on down the road in my infotainment-free car, manually changing the gears with the clutch and gear shift lever that I never had to look up in the owner's manual.

Al Helfrick

DAYTONA SECTION SHIRTS



We are pleased to offer Daytona Section polo shirts for our Section members. The shirts are embroidered with the IEEE Logo and DAYTONA SECTION on the left and your name and grade, if desired, on the right. The shirt is a high quality 5 oz, 65/35 poly/cotton pique in Royal Blue with white embroidery. Available in S - 2XL in men's as well as ladies sizes. Price is \$29, including tax, for S-XL size's, 2XL size is \$3 additional.

For more information or to order shirts contact: Allan Jusko 386-671-3706 or a.jusko@ieee.org. Indicate shirt size and name and grade if desired. Shirts must be paid for before ordering, typical turn-around time is 2 weeks. Arrangements can be

made to pick up shirts or have them shipped to you.

DAYTONA SECTION COFFEE MUGS



The Daytona Section has available coffee mugs with the IEEE Daytona Section Logo and are available for \$7.00. Purchase one or more to show your support and pride in our Section.

Contact Ron Gedney at 386-478-1204 or r.gedney@ieee.org for more information.

EDITORS NOTES

The **SPARKS** newsletter is also available on our website <http://www.ieee.org/go/daytona>

Region 3 website

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

Other web sites of note

Melbourne Section website

www.ieeemelbourne.org

Orlando Section website

www.ieee.org/orlando

FUTURE MEETING DATES:

The dates for the 2017 spring session are: Feb 23, Mar 23 and Apr 27

IEEE MEMBERSHIP PINS

Membership pins are available for all member grades. Check out this website for more information http://www.ieee.org/membership_services/membership/products/pins.html

2017 SECTION OFFICERS

Chair – Dr. Keith Garfield

386-226-7081 garfielk@erau.edu

Vice Chair – Richard Kent

206-369-1965 rtkentjr@msn.com

Treasurer - Dr. Jianhua Liu

386-226-7713 liu620@erau.edu

Secretary – Ron Gedney

386-478-1204 r.gedney@ieee.org

Membership Development –

Publicity/Media – Ron Gedney

386-478-1204 r.gedney@ieee.org

Social Media – Rebecca DeMarco

rebecca.l.demarco@ieee.org

PACE Representative –

Dr. William Barott

386-226-8973 barottw@erau.edu

Life Member Chair – Ron Gedney

386-478-1204 r.gedney@ieee.org

Computer Society Chair – Dr. Keith Garfield

386-226-7081 garfielk@erau.edu

Student Activities, (Co-Chairs)

ERAU - Dr. William Barott

386-226-8973 barottw@erau.edu

B-CU - Dr. Mubarak Banisakher

386-334-6555 banisakm@cookman.edu

ERAU Student Chapter Chair- Dean Laga

lagad@my.erau.edu

ERAU WIE Student Chair – Rebecca DeMarco

rebecca.l.demarco@ieee.org

Webmaster – Charlie Husbands

386-760-7163 chusbands@ieee.org

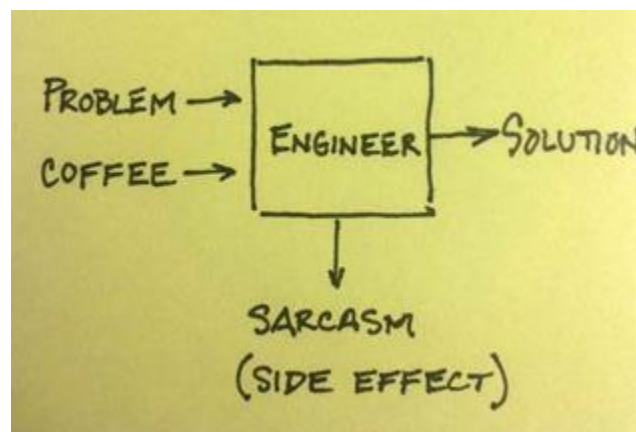
SRT Project Coordinator - Charlie Husbands

386-760-7163 chusbands@ieee.org

SPARKS Editor - Allan Jusko

386-671-3706 a.jusko@ieee.org

ENGINEERING HUMOR



JANUARY 2017 MEETING

Thursday January 26th 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 Streets

TOPIC– The Food And Drug Administration
As It Relates To The Medical Device
Industry

SPEAKER – James H. Brown, President of
Caird Technology, Inc.

AGENDA

5:30 PM Greetings & Cocktails
6:00 PM Dinner
7:00 PM Presentation

Dinner Menu

Pork Loin with sweet mashed potatoes, green beans and gravy

Chicken Francese served over bowtie pasta, sautéed pepper and onions with butter sauce

Shrimp Scampi served over gnocchi and sautéed spinach with a white wine butter sauce

The dinner price includes roll and butter, salad, dinner, coffee or tea, gratuity and tax

Members and guests \$20.00 each. Students \$10.00 each

**Please contact Allan Jusko by Wednesday January 25th at noon
to give us a count for dinner or for further information**

If you make reservations and are unable to attend, call prior to the event to cancel.

The Section is charged for all dinners ordered, please let us know if your plans change

Allan Jusko

Editor

386-671-3706

a.jusko@ieee.org
