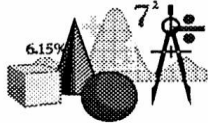




SPARKS

Daytona Section Newsletter
October 2015



OCTOBER SECTION MEETING

Thursday October 22nd at the Halifax River Yacht Club, 6:00 PM
331 South Beach Street, Daytona Beach, Florida 32114

PRESENTATION TOPIC

Science and Science Fiction: Interdisciplinary Research Methods in the Humanities

CHAIR'S REPORT

Another month, another letter that I'm sure everybody was waiting for with as much anticipation as our patient editor, who I think will single-handedly promote a vote of no-confidence to remove me from the Chairship if I don't start getting the letters out in a more timely manner. In all seriousness though, the Section runs on the backs of its amazing volunteers, who ensure that a newsletter gets out every month, that the website stays updated with the most recent news and upcoming activities, and that new and unique programming is brought to the members every month. Our volunteers add a tremendous value to our Section, and are greatly appreciated by all of our members and leaders. We volunteer for the IEEE not only because we love y'all and the Section, but because volunteering for IEEE has many tangible, and intangible benefits—if you're interested in joining our ranks of volunteers, let us know!



October is an incredibly busy month for the students and faculty at Embry-Riddle, with the eXtreme Programming Competition requiring 24 hours of volunteer member time to supervise the 12 students participating in the ultimate challenge of their fast algorithm development and deployment skills. The IEEE-WIE Student Affinity Group at ERAU has officially been approved by IEEE headquarters, and is planning their initial officer selection under the leadership of founder and chair, Rebecca DeMarco. The section's Vice-Chair, Keith Garfield, is currently planning our annual Senior Member Round-Up - stay tuned for details!

This month's meeting is one I am personally excited for, as it brings the current Speaker of the Faculty at ERAU to present on her research and teaching in Science Fiction, as it relates to modern technology development. As some of you know, my deepest darkest not-really secret is my initial background in English Literature, in the light days before I entered the basement and discovered Dr. Pepper and 18 hour coding sessions, so I'm really looking forward to the event and I hope you will too.

As usual, if you want to volunteer, or have suggestions, or complaints, my inbox is always open.

Jeanette

OCTOBER PROGRAM

SCIENCE AND SCIENCE FICTION: INTERDISCIPLINARY METHODS AND THE HUMANITIES

For several years, Dr. Lear has been engaging students in science fiction through research in various technical fields. This talk will explore some of her students' most innovative discoveries as they delve into what is possible from the realm of science fiction.

OUR SPEAKER



Ashley Lear is an Associate Professor of the Humanities at Embry-Riddle Aeronautical University. She earned a B.A. in English from the College of William and Mary, an M.A. in English from Wake Forest University, and a Ph.D. in English from the University of Houston. Following her Ph.D., she spent a year at Georgia Tech as a Marion L. Brittain Postdoctoral Fellow, earning Postdoctoral Certifications in Digital Pedagogy and Technical Communication. She has published articles on her creative digital assignments in *Writing and the Digital Generation* and the *College English Association Forum*. Her most recent book project, a comparative literary biography of Marjorie Kinnan Rawlings and Ellen Glasgow, is under review at the University Press of Florida. Her science fiction course includes guest lecturers from various university disciplines and direct instruction in developing HTML projects.

ERAU NEWS

I'm pleased to share that IEEE Headquarters has approved our petition to form a Women in Engineering Affinity Group at ERAU, which will operate in association with our IEEE activities. Rebecca DeMarco is the student leader of this group and I am the advisor.

Rebecca really spearheaded this and deserves a ton of credit for rallying the initial members. At a local level, our IEEE Daytona Section Chair (Jeanette Barott) not only coordinated efforts with IEEE leadership, but also enabled an IEEE rules change that we hope will persist for all students in the future (allowing affinity group memberships to be added mid-year – not just renewal time). The IEEE regional and national leadership were great in helping us get this affinity group set up with a minimum of delay.

A link to the WIE organization at IEEE is here:

https://www.ieee.org/membership_services/membership/women/women_in_engineering.html

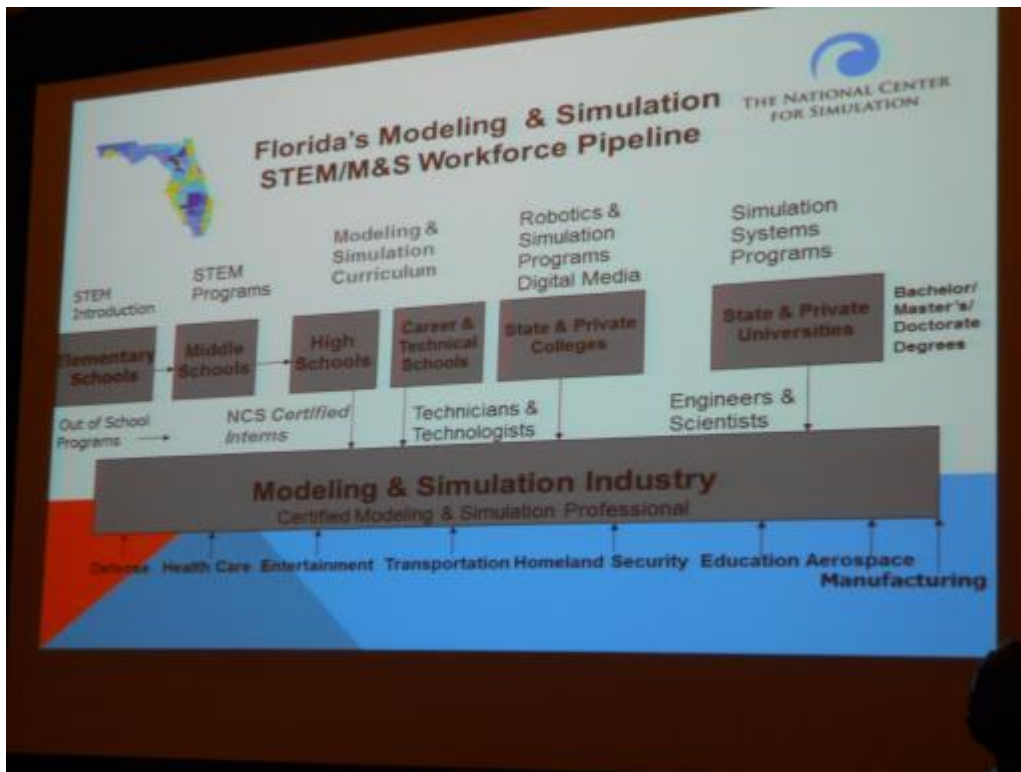
More WIE information will be posted to the LB370 screens as we ramp up our efforts and move toward our first official meeting.

Best Regards,
Dr. Billy Barott

SEPTEMBER PRESENTATION



Henry (Hank) Okraski, National Center for Simulation, gave a wonderful presentation which visited some early designs of simulators—from crude attempts in World War I to the Link Trainer.



He also discussed Florida's Modeling and Simulation STEM/M&S Workforce Pipeline



An Early Simulator, WW I vintage

SECTION NOTES

The IEEE is offering loyalty pins to reflect landmark years of membership for members. If you would be interested in receiving one of these pins, please contact the Section Chair, Jeanette Barott (barotti@erau.edu)

ANOTHER TALE FROM THE OLD PROFESSOR

An Engineering Trilogy: Engineers You Never Heard Of; (maybe for good reasons), Part One

In a previous tome it was revealed that the Old Professor once made a living by repairing television sets. A TV repairman is one step above the used car salesman which leads me to my discussion of Earl "Madman" Muntz. Not really keen on schooling Muntz dropped out of high school after his freshman year and in 1934 at the age of 20 Muntz opened his first used car lot.

His advertising was, to put it mildly, zany or crazy; but it worked. Not satisfied with selling used cars, in 1951 Muntz started to produce his own car. He purchased the design and tooling for a failed two-seat sports car and added two more seats. He upgraded the engine from a Ford to a Cadillac V8 and sold the vehicle as the "Muntz Jet". The "Jet" badge suggested the car's styling was more akin to an aircraft than a car.



Earl, "Madman" Muntz making a pitch in a TV ad for his used cars in 1950



A 1950 Muntz Jet before the addition of two more seats

It was a rather "high tech" automobile for its time with an aluminum body and a removable hardtop made of fiberglass. In spite of the fact the car was an impressive performer Muntz lost money on the deal and only produced 400 cars in the three years the company existed. But Muntz learned a valuable lesson; it is difficult to make money on a high cost, low volume item. Later ventures would center on low cost high volume products.

Shortly after WWII Muntz recognized the advent of television would be a powerful outlet for advertising his used cars. Again, not being satisfied just advertising on television, Muntz made plans to produce and sell televisions. Muntz wanted his televisions to be low cost so that the masses could afford one of his sets, see his mad TV ads and buy more of his used cars. He would make money on volume not quality. (An interesting factoid: Muntz has been credited with coining the abbreviation TV for television.)

As a TV repairman, taking the back off a dead Muntz TV could not believe what I saw. Where are the rest of the tubes? I had never seen a television with so few parts. Although it is true Muntz quality was not of the highest order, cleverness abounded. Muntz's designs got the most from the fewest parts. The power transformer was probably the most expensive component of a television receiver of the day. But Muntz used the technique used by inexpensive radios; a "hot chassis". This implied one side of the AC line was connected to the chassis and the DC power was rectified directly from the power line. Depending on which way the plug was inserted, the chassis could be 115 volts above ground or "hot". Another example; Muntz made use of the "reflex" circuit. The reflex circuit was used in some low cost radios. The IF amplifier tube would not only amplify the IF signal but after detection the resulting audio signal was routed through the same tube. Therefore, one tube did double duty. The downfall was the two signals would interact with each other in a process called "intermodulation" which degraded the sound quality. (The preceding provided for the benefit of "techie readers".)

There are stories describing how Muntz would roam his engineering lab with a pair of cutting pliers. If he thought a television was overdesigned he would start cutting parts out of the chassis until the picture disappeared. Then he would tell the engineer, "I guess you need to put that part back." The minimalist design was even referred to as "Muntzing".

The competition in television sales was fierce in the early days and the Muntz television went the way of the Muntz Jet; bankruptcy. But Muntz's interest in electronics and automobiles led to his invention of the four track tape player. But, alas, the poor Madman lost again to another notable American inventor, Bill Lear who created the eight track tape cartridge. Being able to hold twice as many tunes as the four track tape cartridge, the eight track tape player became the standard of the period. This would not be the last of the Madman's losses as he was married seven times. That's one more than Henry 8th.

In spite of his failures the madman made his mark on American technology and deserves recognition.

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 \$27, including tax, for S-XL size's, 2XL size is \$3 additional.

For more information or to order shirts contact:

Allan Jusko

3706 Longford Circle, Ormond Beach, FL 32174

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 you support and pride in our Section.

Contact Roger Grubic at 386-441-8958 or roger_grubic@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/>

Melbourne Section website

www.ieeemelbourne.org

Orlando Section website

www.ieee.org/orlando

FUTURE MEETING DATES:

The remaining meeting date for the 2015 fall session is: December 3rd

2015 SECTION OFFICERS

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Thursday October 22nd 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

TOPIC – Science and Science Fiction:
Interdisciplinary Research Methods in the
Humanities

SPEAKER- Dr. Ashley Lear, ERAU

AGENDA

5:30 PM Greetings & Cocktails

6:00 PM Dinner

7:00 PM Presentation

Octoberfest Dinner Menu

Grilled Bratwurst with sweet sauerkraut and roasted potatoes

Braised Brisket with creamed spinach and roasted potatoes

Beer Battered Haddock with German style potato salad

All entrees served with rolls and butter, house salad, coffee and tea

Unless noted, dinner entrées are \$20.00 each. Students \$10.00 each

A Veggie plate is available on request for \$10

**Please contact Allan Jusko by Wednesday the 21st at noon
to give us a count for dinner or for further information**

If you make reservations and are unable to attend, call at least 12 hrs 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

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