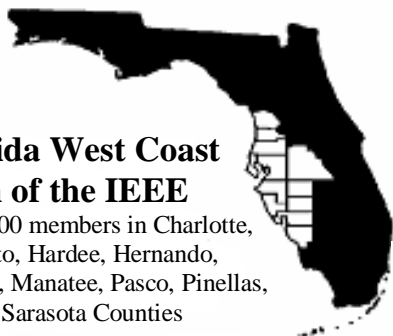


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THE

SUNCOAST

SIGNAL

Volume 56— No6

<http://www.ieee.org/fwcs>

June 2013



Inside This Signal...

Page 2

** TISP Update*

** IEEE 3000 Standards
Collection*

Page 3

** LabCorp Tour, May*

** Engineers and Social
Networking*

Page 4

** USF Online Master of Science
Electrical Engineering For
Professionals*

Page 5

** Power Systems and Harmonics
Tour*

** LabCorp Tour Cont.*

Page 6

** TISP Update Cont.*

Page 7

** Upcoming IEEE Events*

** Advertising Section*

Page 8

** Calendar*

This Month's Meetings

Tuesday, June 4: 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



What Engineers Need to Know About Social Networking

Wednesday, June 19, 2013

TECO Hall, 702 N Franklin St,

Tampa, FL

Register Online at: <http://goo.gl/LOGZ5>

Details on page 3



Power System Harmonics Seminar

Tuesday, June 11, 2013

Sand Pearl Resort, 500 Mandalay Ave

Clearwater, FL

Contact Ray Trusik at FECA 850-877-6166 Ext. 5 feca@embarqmail.com

Details on page 5



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Teacher-in-Service Program (TISP) Update

Happy June to all Teachers & Engineers! The following are important announcements for education and engineering around the Tampa Bay Area.

Please continue to browse the Teacher In Service Lesson Plans at these URLs for topics:

<http://www.ieee.org/web/education/preuniversity/home.html>

or

www.tryengineering.org

We want to assign an engineer to a project that is appropriate for your Science or Math Educators and their students. We encourage that every school examine these lesson plans. After this has been forwarded to the schools in your district, please pick a lesson plan ideal for your class and reply to me at venner20@ieee.org. I can ask and arrange with the schools for Engineers to come and demonstrate a presentation for your school.

We ask all IEEE Members and Certified Engineers to volunteer with your local schools. Please let me know if you are volunteering, so that I can provide you with the attached surveys. Please have the teachers fill them out, collect them, scan & email, or mail them back to me. The IEEE is dedicated to helping all the districts get Engineering into Pre-College Curricula. We can arrange to do these anytime at the convenience of the schools and the engineers.

We offer effective and economical alternatives to promote engineering. We hope to inspire the educator to perform these activities themselves while enriching their Students. If the teachers and the volunteers work together, students have a better chance at successful careers. In the long run, it helps the technological literacy of tomorrow's leaders. Please contact me anytime during the year to arrange availability of our Engineer Volunteers.

Continued on page 6



THE IEEE 3000 STANDARDS COLLECTION™

IEEE 3000 Standards Collection™ is the trademarked name of the family of industrial and commercial power systems standards formerly known as IEEE Color Books. The full name of the collection is "IEEE 3000 Standards Collection™ for Industrial & Commercial Power Systems". More information can be found at <http://standards.ieee.org/findstds/3000stds/about.html>

The IEEE 3000 Standards Collection™, overall, includes the same content as the Color Books but is now organized into approximately 70 IEEE "dot" standards that cover specific technical topics.

Both experts and young engineers are needed for participation in the eight working groups creating the IEEE 3000 Standards Collection. If you would like to get involved please contact the IEEE-SA Staff Liaison for more information. (l.perry@ieee.org)

Advertisement



What Engineers Need To Know About Social Media

Facebook, LinkedIn, Twitter – who needs 'em? Well, actually you do. It's easy for us to dismiss the latest crop of "social media" tools as just playthings for teens; however, the numbers don't lie. Facebook alone has over 800 million active users. Clearly something bigger than teens is going on here.

Dr. Jim Anderson has been using a wide variety of social media tools in both his personal and professional lives for the past 5 years. No matter if he's looking for his next job, promoting his business, or just looking for new customers, it turns out that the wide variety of social media tools that are now available make all of these tasks easier than they have ever been. If you know how to use them!

In this informative presentation Dr Anderson is going to take you on a journey through all of the popular social media tools that are currently available. He's going to show you how to use them, identify what they are good for, and he just might point out a few things that you'll want to be careful of when you are using them.

Facebook and the rest are not going away – they are "too big to fail!" We are now living in a new world where people both connect and communicate using social media tools. Attend this seminar and discover everything that you need to know in order to make these important tools work for you!

Sign up online at: <http://goo.gl/L0GZ5>



Meetings, Tours, Seminars?

The volunteers of the FWCS work hard to come up with and arrange meetings, seminars, tours, and other events. If you have an idea for one that you think would be of interest to IEEE members, let the volunteers know so they can set it up. You can contact anyone on the FWCS Executive Committee with your idea and that person will make sure that idea gets to the appropriate individual. This is your organization and any feedback or contribution is appreciated.



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LabCorp Tour with EMBS

Did you miss the tour?

On Wednesday, July 22, 2013, the local EMBS Chapter sponsored a tour of the Tampa LabCorp Facility. There were a total of 15 attendees.

The tour was led by Dr. Thomas Herman, the facility's Technical Director. The tour covered the process from accessioning, through some of the various tests that your doctor may have ordered. (CBC-Complete Blood Count, Blood Glucose, and Blood Enzyme tests, to name a few).

The tour continued through the microbiology and molecular testing labs. Unlike the first part of the tour that utilizes mostly automated equipment, these labs use a mixture of both skilled manual and automated analysis to complete the testing. These labs help to identify various organisms, like strep, staph, and E. Coli bacteria, as well as test their susceptibility or resistance to possible drug therapies; all with a 24 hour turnaround time.

Continued on page 5



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Power System Harmonics Seminar

Date: Tuesday, June 11, 2013

Time: Registration: 8:00 A.M. Seminar: 8:30 A.M. - 12:30 P.M.

Speaker: Dr. Ralph E. Fehr III, P.E., Electrical Engineering Department, University of South Florida

Location: Sand Pearl Resort, 500 Mandalay Ave. Clearwater

In conjunction with the Florida Electric Cooperatives Association (FECA)

Cost: \$100 Members, \$150 Non-Members, \$25 IEEE Student Members

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Reservations: Contact Ray Trusik at FECA 850-877-6166 Ext. 5 feca@embarqmail.com

This seminar examines the causes of harmonics in a power system, the effects of harmonics on power system components, and means of mitigating those effects. Both the utility and the customer perspectives will be addressed. Graphical methods will be used to illustrate concepts to keep the mathematical complexity of this somewhat complicated topic to a minimum.

Speaker Bio: Dr. Ralph Fehr earned his B.S.E.E. degree from the Pennsylvania State University, his M.E.E.E. concentrated in Power from the University of Colorado at Boulder, and his Ph.D. from the University of South Florida. He has been employed in the electric power industry for over 20 years, has done consulting work on power systems, and has conducted a wide variety of power-related training courses worldwide. Dr. Fehr has contributed numerous articles to various trade magazines, and has authored Industrial Power Distribution, published by Pearson Prentice Hall. He is currently a member of the Electrical Engineering faculty at the University of South Florida and is a registered professional engineer.



LabCorp Tour with EMBS (Continued from page 3)

When your doctor prescribes a blood test, or takes a sample for culture, there is a chance that your samples were delivered here, or to one of the 150 LabCorp sites throughout the state, for testing. This facility processes samples from Florida, Mexico, and the Caribbean, and mostly within a 24 hour period.

The Tampa LabCorp facility is the headquarters for the Florida region and processes approximately 40,000 samples every day, on a 24/7 schedule, using very sophisticated, sensitive, and highly automated equipment from companies like Siemens, Beckman-Coulter, Sysmex, and others, each with specialized infrastructure and utility requirements. The LabCorp facilities are standardized, so samples can be easily diverted to another LabCorp facility in the event of inclement weather or natural disasters.

Dr. Herman said that the trend towards automation has been driven, in part, by the anticipated retirement of 50% of the Medical Technologists in the next 5 years. In addition to the obvious process improvements that automation provides, it is interesting to know that automation has also resulted in the 1000x reduction in the required sample size for some tests; from 5 milliliters, down to 5 microliters.

Special thanks to Dr. Herman for opening the facility to our group and for taking the time to share his knowledge and enthusiasm.

Teacher-in-Service Program (TISP) Update (continued from page 3)

IEEE FWCS Robotics And Automation Society (RAS) Chapter-TISP Workshop April 13, 2013



I drove to Hillsborough Community College Brandon Campus for the third IEEE RAS Arduino Workshop. I met Chairman Ken Fiallos the moment I arrived at 8am and we had one student and six Hillsborough County Schools Teachers participate. Ken started the Introductions and talked about the goals of the Robotics Chapter for 2013.

For the next hour, Ken gave a lesson on Arduino Microcontrollers aided by a YouTube video and posed challenging questions.



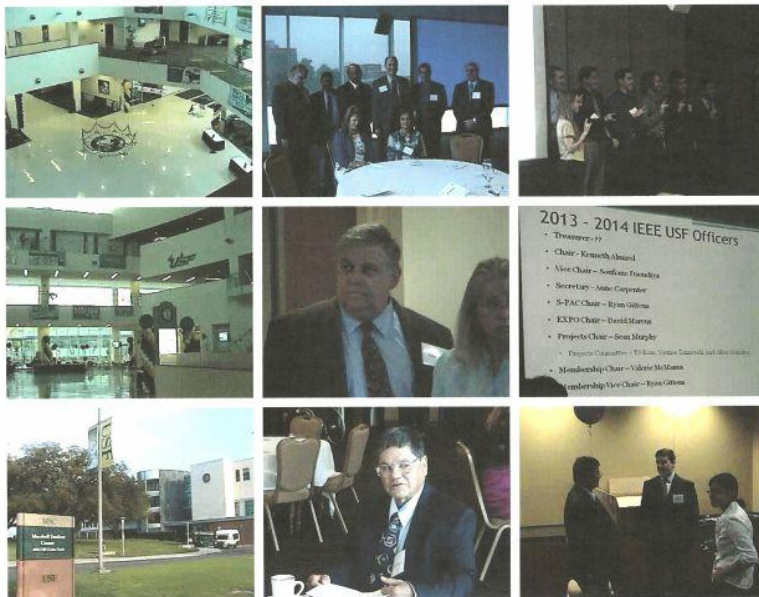
Ken reviewed the C code to generate the values from motors to a computer via the Arduino. Everyone built simple motors from the kits. Tom Hayden, Ken Fiallos, and I were on hand to verify the correct assembly and un-assembly of the motors. After the workshop, Dr Alessandro Anzalone gave a tour of the FLATE Engineering Technology Work Lab. The STEM (Science Technology Engineering and Mathematics) laboratory was equipped with a 3-D Laser Printer, Programmable Controller System, Metrology, Robot Arm, and an Electrathon Racer Car.

University of South Florida-IEEE Banquet-April 13, 2013

I arrived at the Marshall Student Center on the North Side of the Campus at 6:30pm and the caterers were just setting up the room. However, I filmed a nice panorama out the windows, then went back to the main rotunda to wait. Ken Fiallos and Serge Beazile arrived and we chatted until 7pm. We checked in and socialized with the Engineering Students and Professors.

More from the IEEE joined us at a table including Drew and Debbie Hoff, Dr Paul and Sandy Schnitzler, and Jim and Donna Howard.

We stepped into a buffet line to acquire our dinner. The dinner consisted of chicken, wild rice, cheese-ravioli with vegetables, Caesar Salad, and Chocolate Cake.



After dinner, David Touvell introduced Dr Thomas Weller who gave the Introductory Speech. Our IEEE FWCS Chairman Serge Beazile gave the second speech. He challenged the students to apply themselves and become experts and mentors in their field. He said, "IEEE gives you a chance to get involve and lead." Dr Paul Schnitzler, Jim Howard, and Drew Hoff received an appreciation award for Best Advisers.

More in Next month's update.

Thank you,

Sean Denny

IEEE FWCS Recording Secretary/Teacher In Service Chairman

Upcoming IEEE Events



October 6-11, Hilton Orlando Lake Buena Vista,
Buena Vista, Orlando, FL

www.ewh.ieee.org/soc/ias/2013/



<http://www.2013apsursi.org/>



<http://www.ieee-pvsc.org/PVSC39/>



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June 2013 Calendar of Events (For more information see P. 1) *inside this Signal...*

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2	3	4 <i>IEEE EXCOM TECO Plaza 5:30pm</i>	5	6	7	8
9	10	11 <i>Power System Harmonics Seminar 8:30am</i>	12	13	14	15
16	17	18	19 <i>Engineers and Social Networking 6:00pm</i>	20	21	22
23	24	25	26 <i>PES/IAS EXCOM Village Inn 6am</i>	27	28	29
30	1	2 <i>IEEE EXCOM TECO Plaza 5:30pm</i>	3	4	5	6