Inside This Signal…

* Editors Column
* LightningMaster
* Nolan Power Group
* Siliconexion
* Nominations for FWCS Officers
* IEEE-USA in Action
* Engineer of the Year
* SmartGridComm 2010
* WIE Seminar
* Teacher in Service
* Smart Grid Double Header
* Upcoming Orange Book Seminar
* Student Design Competition
* Calendar

This Month’s Meetings

Tuesday, July 6th: EXCOM Meeting
Meeting starts at 5:30PM At TECO Plaza
Register online at http://time2meet.com/fwcs-excom/index.html
Meeting is open to all FWCS Members

Robotics and Automation Society Meeting
Tuesday, July 20, 2010
Meeting Starts at 6:30PM, Social Time Starts at 6PM
Location is Crabby Bill’s
7700 W. Courtney Campbell Causeway, Tampa

Criteria for Patentability in the US
WIE Seminar
Wednesday July 28, 2010
TECO Plaza
Details on page 5!

Smart Grid Double Header
Friday July 30, 2010
Seminole Electric, 16313 North Dale Mabry Hwy,
Details on Page 6!

Upcoming Events!
Orange Book Seminar
Friday, August 27, 2010 at Seminole Electric
Details on Page 7!
I recently attended an annual event put on by the Tampa Bay Technology Forum that was held at MOSI called CoolTech 2010. It is an event that features technology companies that are based in Florida or have offices here. The exhibitors ran the gamut from electric scooters to futuristic aircraft and everything in between. There were vendors offering green products, software applications and even crime forensics. As I walked around I ran into a group of robotics enthusiast, Team Duct Tape! They had the robot they demonstrated at the RAS meetings at Whiskey Joes and another one that used Skype as the communication medium between the control console and the robot. It used a laptop as the processor/memory/communications device and a set of wheels for mobility. The keynote speaker at CoolTech was Frank Farro from Disney in Orlando who is in New Technology R&D for Walt Disney Parks and Resorts. He gave an interesting presentation on several projects that have been implemented at Disney and also the ones that didn’t work out. He emphasized the need for accepting failures as a part of the process and that many more ideas don’t work than ones that are brought to production. CoolTech is an annual event and is worth a look for some of the latest technologies.
Nominations for FWCS Officers

It is that time of year again when we are looking for volunteers to fill the many positions we have here at the FWCS for our Executive Committee.

Your Nominating Committee consists of Jim Beall, Richard Beatie, and Jim Howard, and they are always on the look-out for volunteers to help with the operations of the FWCS.

At this time of year, by our By-Laws, we will be electing our key officers. This will occur at the December Section meeting. Once we have these officers elected, the Executive Committee will pass a motion, presented by the Chair and the Nominating Committee, to fill the many Committee positions with Chairs and Vice-Chairs.

We are very pleased to have several volunteers who have already come forward and offered to fill some of these very important positions, but we are always on the look-out for more. If you are interested in helping YOUR Section by giving of your time and knowledge, to work with on one of these Committees, please contact Jim Howard (j.howard@ieee.org), Jim Beall (j.beall@ieee.org), or Richard Beatie (r.beatie@ieee.org), and let them know of your interest and availability.

The positions that will be filled include, but are not limited to the following:
Chair, Vice-Chair, Treasurer, Secretary, Education Committee, Student Branch Mentor, Bylaws Committee, Awards Committee, Publicity Committee, PACE Committee, GOLD Committee, Web Master, Teacher-In-Service Committee, Life Member Committee, Signal Editor, and Membership Committee.

As you can imagine, not only do we need leaders for these committees, but we need additional volunteers to serve on the committees in various positions, so please let us know if you are available to assist.

Get Interactive: Check Out IEEE-USA in Action

IEEE-USA has launched a new, interactive online publication, IEEE-USA in ACTION. Made possible by the U.S. dues assessment, this new publication is free to all U.S. IEEE members. IEEE-USA in ACTION is your new source for learning about the programs, products, services and activities that IEEE-USA has to offer, and to find out what IEEE-USA is doing on behalf of U.S. IEEE members. To access the site go to http://www.nxtbook.com/nxtbooks/ieeeusa/ieeeusa_0410/#/1/OnePage

Siliconexion offers robust, on-time electronic design consulting services by experienced senior level professionals.

Applications Include:
Telecommunications / Data Communications
Aerospace and Military
Embedded Computer Systems

Services Include:
FPGA / CPLD Design and Verification
ASIC to FPGA Conversions
Training for FPGA Design, VHDL, Test Benches
Digital and Analog Board-level Hardware Design
Embedded Systems Software Development
High Speed Signal Integrity Analysis

Cost Effective sub-system or turnkey product development

Phone: 727 596-1990
E-mail: info@siliconexion.com
www.siliconexion.com

PE/IA Chapter Seeking Volunteers

The Power Engineering Society/Industry Applications Society joint Chapter of the FWCS is looking for volunteers willing to give of their time, knowledge and energy to serve as an Officer of the Chapter. We are also looking for volunteers to assist in setting up meetings and seminars and to provide general guidance to the Chapter. If you are interested in helping as an Officer, or other volunteer, please contact either Jim Howard (j.howard@ieee.org) or Jim Beall (j.beall@ieee.org) and let them know of your availability.
Engineer of the Year: Richard Beatie, P.E.

Mr. Richard Beatie is Vice President of Engineering for Lightning Master Corporation in Clearwater Florida. He is an accomplished engineer in the design and implementation of lightning protection systems for complex industrial, commercial, chemical production, oil drilling rigs, and broadcast towers.

Mr. Beatie graduated from the University of South Florida in 1970 with a Bachelor of Science degree in Electrical Engineering. He is a registered Professional Engineer in the State of Florida.

Richard's past careers include: senior engineer at Scientel America where he was responsible for designing state of the art cellular telephone / PCS sites, and 24 years senior engineer and manager with Tampa Electric Company, contributing to the areas of distribution, generation, revenue metering, SCADA systems, system dispatching, information technology and telecommunications systems.

Mr. Beatie has devoted many years of his professional career to the volunteer support of the IEEE and what it stands for. He was elevated to the rank of Senior Member in 1980 but his involvement started while a student member at USF in 1970. Over the years he has held all local Section offices, serving as Chair two different terms. He served on the IEEE Florida Council at many levels including Chair, and was their representative on the SOUTHCION Trade Show Board of Directors for four years. He represented the local Section as Chair and held a term as Secretary at the IEEE Region 3 level.

Local significant activities include many years in the roles of Registration Chair, Treasurer, and Steering Committee Volunteer for many of the technical conferences that have been held in the Tampa Bay area since 1972. He has been an active member of the Florida West Coast Section EXCOM during his entire professional career.

For his dedication to the IEEE he was a recipient of the IEEE Third Millennium Medal in 2000 “for Outstanding Achievements and Contributions.” and was presented the IEEE FWCS 2009 Engineer of the Year Award at the recent Tampa Bay Engineers Week Banquet “In Recognition and Appreciation for outstanding contributions and professional services to IEEE and the engineering profession.”

In their spare time, Richard and Sharon enjoy their collection of antique radios, and attending all the air shows they can get to!

Editors note : In the photo above, Richard Beatie (right) receives the Engineer of the Year Award from Serge Beauzile, Vice Chair of the FWCS.

SMARTGRIDCOMM 2010
http://www.ieee-smartgridcomm.org

October 4 – 6, 2010
Developing the Smart Grid has become an urgent global priority as its economic, environmental, and societal benefit will be enjoyed by generations to come. Information and communications technologies are at the core of the Smart Grid vision as they will empower today’s power grid with the capability of supporting two-way energy and information flow, isolating and restoring power outages more quickly, facilitating the integration of renewable energy sources into the grid and empowering the consumer with tools for optimizing their energy consumption.

The 1st IEEE International Conference on Smart Grid Communications (SmartGridComm) is centered on all communications aspects that are relevant to the Smart Grid and aims at bringing together researchers from Academia, Industry, and National Labs to exchange novel ideas, explore enabling technologies, analyze theoretical issues, discuss innovative designs, address open problems, and share field trial experiences and lessons learnt.
WIE Seminar Announcement

Topic: The Criteria for Patentability in the U.S.
Title: “An umbrella for a beer can? Can that really be patentable?”
Presenter: Kim Jacklin, JD, BSEE, Registered U.S. Patent Attorney
Date: July 28, 2010.
Time: 5:30 – 7:30 PM.
Cover Charge: Members – $10.00, Non-members – $15.00, Students – $5.00.
Place: TECO Hall. 702 N. Franklin Street, Tampa, FL.

Seminar Description:
Please join us for a presentation that will answer the question posed in the title and step attendees through the criteria for patentability in the United States. We’ll also include some fun facts and, in some cases, little known information about the history of the U.S. Patenting System. Lastly, we’ll touch on some pending legislation that could affect the U.S. patent system and discuss the pros and cons of these pending laws.

Brief Bio for Kim Jacklin:
Kim Jacklin recently opened Jacklin Patent Services, PLC., a patent law practice in Wesley Chapel, Florida that currently serves clients all over the U.S.
Before forming JPS, Ms. Jacklin managed the patent department of a billion dollar company having a worldwide presence. In that role, she lead the development of a large international patent portfolio, oversaw all corporate patent litigation, drafted and negotiated patent and technology licenses and evaluated patent assets for merger and acquisition activities. Kim has also worked at some of the most prestigious law firms in the United States, and before entering law, practiced for six years as an electrical engineer in the Nuclear Power Industry.

Questions? Please contact Kim Jacklin at (813) 489-5450 or e-mail her at kjacklin@jacklinpatents.com.

Teacher in Service Report

Summer is here! 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 the following URL: http://www.ieee.org/web/education/preuniversity/home.html. Pinellas County has informed us their Professional Study Day is August 20, 2010. I ask all other Science or Math Advisors to please let me know what your dates are for the Professional Study days this summer. We want to assign an engineer to a project that is appropriate for your science educators. We encourage every school to take a look at the lesson plans. I need you to pick a lesson plan most appropriate for the event. Please contact me at venner20@ieee.org to ask an engineer to do a presentation for your school going forward.

I attended the Fifth Robotics Society RAS Meeting on June 15th at Crabby Bills Restaurant in Tampa on the Courtney Campbell Causeway. Members of the IEEE were present to plan with the community with robotics & the FIRST program. We invite more teachers and engineers to get involved with this program. Please contact George Schott, george@imbedded.com, for attending future meetings. Ken Fiallos introduced an activity of Electrathon Racing for us to volunteer. I have scanned and attached their brochure for more information. Please also visit their website of www.electrathonoftampabay.org. Currently only Hillsborough County Schools are participating. They would like to expand to other counties with our help. They ask for corporate sponsors to help these children out. The second presentation was about prosthetics and robotics given by Kathryn De Laurentis. Both presentations were fascinating. The next RAS meeting is planned for July 20th. A final note; Hillsborough County has announced their Professional Study Day on August 18. Contact me for further information.

Thank you.

Sean Denny
IEEE FWCS Teacher In Service Chairman
Venner20@ieee.org
Date: Friday, July 30, 2010
Time: Seminar: Registration 8:30am-9:00am, Speaker 9:00am-3:00pm
Location: Seminole Electric, 16313 North Dale Mabry Hwy, Tampa, FL 33618
Cost: $50 Members, $100 Non-Members, $10 Students. (Includes Breakfast & Lunch)
RSVP: Online at: http://time2meet.com/fwcs-pes1/index.html
Make checks payable to: IEEE FWCS
Send checks to: John Stankowich, IEEE PES/IAS Treasurer
2593 Forest Run Court
Clearwater, FL 33761-3716
Space limited to the first 45 registrants!!!
Cancellation must be submitted online 24 Hrs prior to the seminar at:
http://time2meet.com/fwcs-pes1/index.html
No shows will be invoiced for the total cost of the seminar.
Questions: Serge Beauzile at 863-834-6511 or serge.beauzile@lakelandelectric.com

Unlike previous events, FWCS will have representatives from the local utility industry present to discuss the Smart Grid Vision of their respective utilities. This will be an interactive presentation affording you the opportunity to participate and ask questions while they provide their respective plan objective and timeline for implementation.
As a bonus we will have a 2 hour presentation on Grounding and Bounding where we will explore the confluence of legacy and new technologies and find meaningful and practical ways of accommodating the latest Smart Grid communications requirements, building for reliability, in our substations.
Smart Grid requires the deployment of advanced communications systems that may require some combination of RF/wireless, fiber, and leased copper services in order to route data from field locations to data processing centers.

One key for reliable installations of equipment in the substation control house is an understanding of grounding and bonding techniques for communications equipment and circuits that may not be "Substation Hardened".

Adrian Zvarich - Principal Engineer, TRC
Kent Hedrick – Manager, DSM Smart Grid, Progress Energy
Jason Flynt - Smart Grid Engineer, Progress Energy
Lee Collins - Business Process Consultant, Tampa Electric Company
Randy Dotson - Manager of Substation Engineering, Lakeland Electric

 unlike previous events, FWCS will have representatives from the local utility industry present to discuss the Smart Grid Vision of their respective utilities. This will be an interactive presentation affording you the opportunity to participate and ask questions while they provide their respective plan objective and timeline for implementation.
As a bonus we will have a 2 hour presentation on Grounding and Bounding where we will explore the confluence of legacy and new technologies and find meaningful and practical ways of accommodating the latest Smart Grid communications requirements, building for reliability, in our substations.
Smart Grid requires the deployment of advanced communications systems that may require some combination of RF/wireless, fiber, and leased copper services in order to route data from field locations to data processing centers.

One key for reliable installations of equipment in the substation control house is an understanding of grounding and bonding techniques for communications equipment and circuits that may not be "Substation Hardened".

Adrian Zvarich - Principal Engineer, TRC
Kent Hedrick – Manager, DSM Smart Grid, Progress Energy
Jason Flynt - Smart Grid Engineer, Progress Energy
Lee Collins - Business Process Consultant, Tampa Electric Company
Randy Dotson - Manager of Substation Engineering, Lakeland Electric
Upcoming Orange Book Seminar!
IEEE Standard 446 - Recommended Practice for Emergency and Standby Power Systems (The Orange Book)

FWCS IEEE Color Book Seminar Series

Date: Friday, August 27, 2010
Time: 9AM-4PM
Speaker: Andrew Hernandez, P.E.
Location: Executive Conference Room
Seminole Electric Company
16313 North Dale Mabry Highway
Tampa, Florida

Cost: $125 IEEE Member / $175 Non member, (Includes lunch.)
RSVP: http://time2meet.com/fwcs-pes1/index.html
Make checks payable to: IEEE FWCS
Pay at the door or send checks to:
John Stankowich, IEEE PES/IAS Treasurer
2593 Forest Run Ct.
Clearwater, FL  33761-3716

Space is limited to first 45 registrants.
6 PDH’s will be awarded for the successful participation of attendees.
Questions: Jim Beall, 727 376 2790,  j.beall@ieee.org

Your local IEEE PES/IAS chapter is offering this seminar on IEEE Std- 446 Recommended Practice for Emergency and Standby Power Systems, The Orange Book, as a part of a series of seminars based on the IEEE Color Books.
Please come and benefit yourself and the industry with this excellent class – sellout attendance is critical to continue bringing the color book guest speakers here to Tampa Bay.

Finalists Selected in Student Design Competition

LOS ALAMITOS, Calif., 25 May, 2010 – The IEEE Computer Society has selected 12 teams that will be invited to continue onto the final stage of the 2010 Computer Society Student Design Competition.

The 12 teams will compete against each other for four top slots and prizes of $1,000. A prize of $7,000 will go to the overall top-winning team.

The finalists are:
- Advanced Institute of Science and Technology (KAIST) Team – S. Korea
- Al-Azhar University Team – Egypt
- Chulalongkorn University Synchronization Team – Thailand
- Florida Gulf Coast University Team – USA
- Los Andes University at Bogota Team - Colombia
- Russian State Technological University (MATI) – Russia
- San Pablo Catholic University Peru Team – Peru
- UCI Team 9 – Cuba
- Universidad Pontificia Bolivariana Team - Colombia
- University of California, San Diego Team – USA
- University of Jordan Team – Jordan
- University of Massachusetts, Amherst Red Team - USA

The competition, intended to promote excellence in system design, requires students to solve a real-world problem. The teams are being judged on the design’s originality; the simulator’s functionality, quality, and versatility; and the use of software engineering.

Student teams were limited to five members, all of whom must be working on undergraduate degrees.
For more information, go to http://www.computer.org.
## July 2010 Calendar of Events (For more information see P. 1)

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28 WIE Seminar see page 5</td>
<td>29</td>
<td>30 Smart-Grid Double Header see page 6</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>