



The Florida West Coast Section of the IEEE Serving over 2,300 members in Charlotte, Citrus, DeSoto, Hardee, Hernando, Hillsborough, Lee, Manatee, Pasco, Pinellas, Polk, and Sarasota Counties



IEEE

# THE SUNCOAST SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

Volume 64—No. 2 February 2018

## IN THIS SIGNAL:

Page 2

- ◆ [What Qualifies for Continuing Education Hours \(Part 1\)](#)

Page 3

- ◆ [E-Week Banquet](#)
- ◆ [GE Instrument Transformer Tour](#)

Page 4

- ◆ [IEEE 1547 Seminar](#)

Page 5

- ◆ [ABCs of Generator Excitation Systems and Relaying](#)

Page 6-9

- ◆ [Advertising Section](#)

Page 10

- ◆ [Calendar](#)

## Celebrate Engineering!

What better way to celebrate Engineers Week than to attend the annual E-Week banquet? This event brings together local leaders and engineering professionals to recognize the outstanding achievements of engineers, science teachers, math teachers, and students in our community. Additionally, awards will be presented to outstanding engineers in each discipline, as well as to local engineering students excelling in their studies. And this year, we will be treated to an interesting talk by Frank DiBello, President and CEO of Space Florida, an organization committed to attracting and expanding the next generation of space industry businesses.

The banquet also features the Lignell Awards, named after a former IEEE chair, which are awarded to local high school educators involved in the STEM (science, technology, engineering, and math) fields. The event is a combined effort of numerous local engineering organizations.

The E-Week banquet will be held on Thursday February 22, 2018 at TPepin's Hospitality Centre, 4121 North 50th St., Tampa, FL 33610. Vendor expo and cocktails are from 4:30pm—6:30pm, and the dinner, speaker, and awards begin at 6:30. To learn more about the 2018 E-Week banquet and to make your reservations to attend, please visit the event's website at <http://www.tbewb.com>.



**Frank DiBello**

President and CEO at Space Florida  
Keynote Speaker at 2018 E-Week Banquet



February 18-24, 2018



### Upcoming Meetings

#### EXCOM Meeting

Tuesday, February 6, 2018 5:30PM at TECO Plaza  
Register online at <http://time2meet.com/fwcs-excom/index.html>  
Open to all FWCS Members

#### IEEE 1547 Seminar

Friday February 16, 2018 8:30AM  
Register online at <http://www.ewh.ieee.org/r1/floridawc/> (> Reservations)  
Details—Page 3

**2017 IEEE EXECUTIVE COMMITTEE - FLORIDA WEST COAST SECTION****CHAIR:** Claude Pitts - [claudie.pitts@ieee.org](mailto:claudie.pitts@ieee.org)**VICE CHAIR:** Paul Belussi - [paul\\_belussi@selinc.com](mailto:paul_belussi@selinc.com)**SECRETARY:** Sean Denny - [venner20@ieee.org](mailto:venner20@ieee.org), (727) 678-0183**TREASURER:** Jim Howard - [jhoward@ieee.org](mailto:jhoward@ieee.org), (863) 834-6585**SIGNAL EDITORS:** Ralph Fehr - [r.fehr@ieee.org](mailto:r.fehr@ieee.org),  
Donna Howard - [amberdon3133@gmail.com](mailto:amberdon3133@gmail.com), (813) 924-2024**AWARDS & BYLAWS:** Richard Beatie, PE - [r.beatie@ieee.org](mailto:r.beatie@ieee.org)**MEMBERSHIP:** Jim Howard - [jhoward@ieee.org](mailto:jhoward@ieee.org), (863) 834-6585**TEACHER IN-SERVICE:** Sean Denny - [venner20@ieee.org](mailto:venner20@ieee.org), (727) 678-0183Computer / Aerospace & Electronic Systems (**COMP/AESS**) Joint Chapter:  
Ayaz Hemani - [ayaz.hemani@ieee.org](mailto:ayaz.hemani@ieee.org)Engineering in Medicine & Biology (**EMBS**) Chapter: John West - [john.west@ieee.org](mailto:john.west@ieee.org),  
(727)-743-2267Microwave Theory & Techniques/Antennas & Propagation/Electron Devices  
(**MTT/AP/ED**) Joint Chapter: Jing Wang - [jingw@usf.edu](mailto:jingw@usf.edu)Power & Energy / Industry Applications (**PES/IAS**) Joint Chapter:  
Serge Beauzile - [serge.beauzile@ieee.org](mailto:serge.beauzile@ieee.org), (863) 834-6511Robotics & Automation (**RAS**) Chapter: Sean Denny - [venner20@ieee.org](mailto:venner20@ieee.org),  
(727) 678-0183Signal Processing / Communications (**SP/COMM**) Joint Chapter: Paul Belussi -  
[paul.belussi.us@ieee.org](mailto:paul.belussi.us@ieee.org)**WOMEN IN ENGINEERING** Affinity Group: Valerie Tur, (813) 334-2317,  
[VLT4@cornell.edu](mailto:VLT4@cornell.edu)**LIFE MEMBER** Affinity Group: Glen Cock - [gcock@tampabay.rr.com](mailto:gcock@tampabay.rr.com), 813-689-4765**YOUNG PROFESSIONALS:** T.J. Ross - [anthonyross@mail.usf.edu](mailto:anthonyross@mail.usf.edu), (505) 620-7734**PACE:** Jim Anderson - [jim.anderson@ieee.org](mailto:jim.anderson@ieee.org), (813) 425-2467**CONSULTANTS NETWORK:** Herman Amaya - [hamaya@tampabay.rr.com](mailto:hamaya@tampabay.rr.com)**STUDENT BRANCH MENTOR:** Jim Howard - [jhoward@ieee.org](mailto:jhoward@ieee.org), (863) 834-6585**USF STUDENT BRANCH ADVISORS:**Dr. Paul Schnitzler - Student Branch Co-Advisor - [pauls@usf.edu](mailto:pauls@usf.edu), (813) 974-5584Dr. Andrew Hoff - Student Branch Co-Advisor - [hoff@usf.edu](mailto:hoff@usf.edu)Dr. Ralph Fehr - PES/IAS Chapter Advisor - [r.fehr@ieee.org](mailto:r.fehr@ieee.org)**STUDENT BRANCH / CHAPTERS:**USF Student Branch - Ivan Chekerov - [ichekere@mail.usf.edu](mailto:ichekere@mail.usf.edu)USF Computer Society Chapter - Felipe Souza - [fillipe@mail.usf.edu](mailto:fillipe@mail.usf.edu)USF Microwave Theory & Techniques Chapter - Eduardo Rojas - [eduardor@mail.usf.edu](mailto:eduardor@mail.usf.edu)USF Power & Energy/Industry Applications Chapter - Oscar Ayala-Gonzalez -  
[oscar@mail.usf.edu](mailto:oscar@mail.usf.edu)**CONFERENCES:** Richard Beatie, PE - [r.beatie@ieee.org](mailto:r.beatie@ieee.org)**WEB PAGE:** <http://sites.ieee.org/fwcs>**WEB MASTER:** Herman Amaya [hamaya@tampabay.rr.com](mailto:hamaya@tampabay.rr.com)

THE SUNCOAST SIGNAL is published monthly by the Florida West Coast Section (FWCS) of the Institute of Electrical and Electronics Engineers, Inc. (IEEE). THE SUNCOAST SIGNAL is sent each month to members of the IEEE on Florida's West Coast. Annual subscription is included in the IEEE membership dues.

The opinions expressed, as well as the technical accuracy of authors, advertisers or speakers published in this newsletter are those of the individual authors, advertisers, and speakers. Therefore, no endorsement by the IEEE, its officers, or its members is made or implied.

All material for THE SUNCOAST SIGNAL is due in electronic form by 1st Sunday after the 1st Tuesday of the month preceding the issue month.

Address all correspondence to:

Donna Howard

3133 W Paris Street Tampa, FL 33614-5964

Home Phone: (813) 876-1748 E-mail: [amberdon3133@gmail.com](mailto:amberdon3133@gmail.com)**The Signal, Copyright © 2017****Useful links:**<http://www.ieee.org/benefits> Global Benefits Finder<http://www.ieee.org/discounts> Discounts Page

## PE Corner

Art Nordlinger, PE, Senior Member

It's a new year and you're thinking, "It's time I got serious about getting some Continuing Education Hours (CEHs)." This seems like an appropriate time to talk about what you can do to earn your CEHs. Maybe you are dreading the thought of having to sit through 16 hours of technical education (section 2, below). Well, there are other things that qualify for CEHs of which you may be able to take advantage. Sections 61G15-22.003 and .004 of the Florida Board of Professional Engineer's rules address this. The first section addresses Qualifying Activities for Area of Practice Requirement and the second Conversion of Education Units to Continuing Education Hours. I'll combine the sections here and provide some editorial commentary.

(1) *Successful completion of college courses.*

One (1) college semester hour credit is equal to 45 continuing education hours

One (1) college quarter hour credit is equal to 30 continuing education hours.

Yes, you can complete the entire requirement by taking one college level course in your area of practice. And no, you can't "carry over" CEHs from one renewal period to another. I would note that there are states (other than Florida) that do allow some amount of carry-over. This has been discussed by both the Continuing Education Committee and the full Board and, at least for now, no action is contemplated.

(2) *Successful completion of short courses, tutorials, webinars, and distance education courses offered through delivery methods such as live, correspondence, recorded, Internet-based; or attending seminars (including in-house engineering seminars), workshops, or professional and technical presentations at meetings, conventions, or conferences presented/sponsored by a provider or vendor with specific knowledge related to the licensee's area of practice approved under Rule 61G15-22.011, F.A.C.*

One (1) contact hour of professional development in course work, seminars (including in-house seminars at an engineering firm), or professional or technical presentations made at meetings, conventions, or conferences is equal to 1 continuing education hour.

Note that Rule 61G15-22.011 requires that providers and content be approved by the Board. So if you are planning to go this route, make sure that the provider and content have been approved. IEEE and other professional societies are "exempt providers" and don't have to have individual courses approved.

(3) *Teaching or instructing in subsection (1) or (2) above. However, teaching credit is valid for teaching a course or seminar for the first time only. Teaching credit does not apply to full-time faculty. For teaching of subsections (1) through (3) above, apply a multiple of 2, if the requirements of subsection 61G15-22.003(3), F.A.C., are met.*

Here is a way for many of us to get double credit by teaching a course with appropriate technical content in our area of expertise. Talk to an IEEE officer about this opportunity.

Whether you are a PE looking to attain required CEHs, or an engineer looking to learn something new or keep current with the latest trends in the profession, IEEE has seminars that will meet your needs. With renewal only 12 months away demand for our seminars is high. Sign up now!

		
<b>IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems</b>		

- Date:** Friday, February 16, 2018
- Time:** Registration & Breakfast: 8:30AM-9:00AM  
Seminar: 9:00AM – 2:00PM
- Speaker:** **Babak Enayati PhD, PE** - Lead Research Development and Demonstration Engineer at National Grid, Waltham, MA
- Location:** FRCC 3000 Bayport Dr. #600, Tampa, FL 33607  
Parking: Use parking lot for Hyatt (North side only).
- Cost:** \$100 Members, \$200 Non-Members, \$20 Students. Includes Breakfast, Lunch.
- CEH Credits:** 4 Professional development hours will be awarded. Be sure to enter your name and PE number on the signup website as it appears on your license.
- RSVP:** Online at: <http://www.ewh.ieee.org/r1/floridawc/> (Select Reservations)  
Make checks payable to: IEEE FWCS  
Send checks to: Jim Howard, IEEE FWCS Treasurer  
3133 W. Paris Street  
Tampa, FL 33614-5964
- Questions:** **Serge Beauzile** at 813-207-7982, or [serge.beauzile@ieee.com](mailto:serge.beauzile@ieee.com)

Due to the increasing amount of DER interconnections with the Electric Power System, the IEEE 1547™ standard is going through a major revision to address some of the technical issues associated with high penetration of DERs- i.e., grid support functionalities, etc.

The participants will learn about the major changes to the IEEE 1547™, i.e., voltage regulation, response to abnormal system conditions (including voltage and frequency ride through), power quality, islanding, interoperability, etc. They will also learn about utility concerns/solutions to adopt the revised IEEE 1547™ standard. In addition, participants will learn the impact and considerations for those having jurisdiction. Attendees will also gain a better understanding of the difference between a type test and a commissioning test as defined in the IEEE 1547.1™ standard.

**Babak Enayati, PhD, PE** received his PhD in Electrical Engineering from Clarkson University, Potsdam, NY in 2009. He is currently a Lead Research Development and Demonstration Engineer at National Grid, Waltham, MA. He joined IEEE in 2006 and currently is Senior Member, IEEE and the IEEE PES Governing Board Member-At-Large. Babak is the Vice Chair of the IEEE Standards Coordinating Committee 21 (SCC21) and IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems. Babak is also the Chair of IEEE PES Distributed Resources Integration working group. Babak is a registered Professional Engineer (PE) in the state of Massachusetts.



 IASA IEEE INDUSTRY APPLICATIONS SOCIETY	 <b>IEEE</b>	 IEEE <b>PES</b> Power & Energy Society <sup>®</sup>
<b>Increasing Motor Life and Process Continuity</b>		

**Date:** Friday, March 23, 2018

**Time:** Registration & Breakfast: 8:30AM-9:00AM  
Seminar: 9:00AM – 2:00PM

**Speaker:** **Wayne Hartmann** - Senior Vice President, Smart Grid and Protection, Beckwith Electric, Largo, FL

**Location:** FRCC 3000 Bayport Dr. #600, Tampa, FL 33607  
Parking: Use parking lot for Hyatt (North side only).

**Cost:** \$100 Members, \$200 Non-Members, \$20 Students. Includes Breakfast, Lunch.

**CEH Credits:** 4 Professional development hours will be awarded. Be sure to enter your name and PE number on the signup website as it appears on your license.

**RSVP:** Online at: <http://www.time2meet/fwcs-pes1/index.html>  
Make checks payable to: IEEE FWCS  
Send checks to: Jim Howard, IEEE FWCS Treasurer  
3133 W. Paris Street  
Tampa, FL 33614-5964

**Questions:** **Serge Beauzile** at 813-207-7982, or [serge.beauzile@ieee.com](mailto:serge.beauzile@ieee.com)

Motors in power generation and critical process industrial plants are subject to electrical power source disruptions. These motors provide the mechanical energy for fans, pumps, compressors and other driven equipment that support plant operation. Origin of a power interruption may be from the utility supplying the plant or from the in-plant electrical distribution infrastructure.

When challenged with power interruption, the ability to rapidly and safely transfer motors to another power source is paramount to maintain operational continuity. This transfer of motors is known as motor bus transfer (MBT). This seminar will explore challenges of MBT and illustrate methods for optimization.

**Wayne Hartmann, IEEE Senior Member**, is Senior Vice President of Smart Grid and Protection for Beckwith Electric. Before joining Beckwith Electric, he performed in Application, Sales and Marketing Management capacities at PowerSecure, General Electric, Siemens Power T&D and Alstom T&D. With over 30 years of Industry participation, his focus has been on the application of protection and control systems for electrical generation, transmission, distribution, distributed resources and power utilization. He serves on the IEEE Power System Relaying and Control Committee as a Main Committee Member, is Chair Emeritus of the Rotating Machinery Subcommittee ('07-'10), and presently Chairs the "Investigation of the Criteria for the Transfer of Motor Buses" Working Group.



		
<b><i>ABCs of Generator Excitation Systems and Relaying</i></b>		

**Date:** Friday, April 13, 2018

**Time:** Registration & Breakfast: 8:00AM-8:30AM

**Seminar:** 8:30AM – 3:30PM

**Speaker:** Gene Asberry, Senior Application Specialist, Basler Electric Company

Ben Kazimier, Principal Application Engineer, Basler Electric Company

**Location:** FRCC 3000 Bayport Dr. #600, Tampa, FL 33607

**Parking:** Use parking lot for Hyatt (North side only).

**Cost:** \$100 Members, \$200 Non-Members, \$20 Students. Includes Lunch.

**CEH Credits:** 4 continuing education hours will be awarded. Be sure to enter your name and PE number on the signup website as it appears on your license. Florida exempt provider #00015.

**RSVP:** Online at: <http://time2meet.com/fwcs-pes4/index.html>

Make checks payable to: IEEE FWCS

Send checks to: Treasurer—IEEE PE/IA Chapter

2593 Forest Run Court

Clearwater, FL 33761-3716

Questions: Steve Antman at (863) 701-4170

---

In the excitation portion of the presentation, you will learn synchronous generator basics along with the features and functionality of a AVR/ Static exciter system. We will examine the limiters, protection associated with the exciter and Power System Stabilizers. We will also talk about PID control and the Auto Tuning features.

Gene Asbury (IEEE member), has been a Senior Application Specialist for Basler Electric Company, in Highland IL, since 2006. He has performed in various capacities since he started with Basler Electric in 1987: Quality Control Supervisor, Technical Sales Specialist, Project Coordinator, Proposal Engineer, and Application Specialist for Excitation Systems. Gene attended Southwestern Illinois College and received degrees in Industrial Technology and Communication Electronics.

R. Benjamin Kazimier is a Principal Application Engineer with Basler Electric Company. He holds a Bachelor's Degree in Electrical Engineering Technology from Purdue University. His work experience includes design, installation, testing, and commissioning of protective relaying equipment and a diverse range of power system apparatus. He is a member of the Georgia Tech Protective Relay Conference planning committee, the IEEE, the IEEE 1547 working group, the IEEE SCC21 working group, regularly attends IEEE-PSRC functions, and is the chairperson of the PSRC K10 working group.

*Advertising Section*

## Training In Your Neighborhood

Check out the classes IRISS has available

IRISS provides NETA Certified training through the following courses.

- Level I Infrared Electrical Certification Course
- Level II Infrared Electrical Certification Course
- Level I Ultrasound Certification Course
- Level II Ultrasound Certification Course

Additionally IRISS provides Certified Installer Training, running through the installation and use of Infrared windows and other electrical maintenance safety devices and procedures.

For more information call IRISS at

**941-907-9128**

Or email us at [training@iriss.com](mailto:training@iriss.com)



IRISS, Inc.  
10306 Technology Terrace  
Bradenton, FL 34211  
[www.iriss.com](http://www.iriss.com)



## Have you Forgotten to Renew your IEEE Membership for 2018?

We all get busy and sometimes overlook important things—like renewing our IEEE membership! But it's not too late. Go to the IEEE membership link today:



[https://www.ieee.org/membership\\_services/membership/renew/index\\_renew.html](https://www.ieee.org/membership_services/membership/renew/index_renew.html)

If you don't, this will be the last issue of the Signal you receive, and your IEEE member benefits will end! Don't let this happen—renew now to keep your membership active.

## Long-Term Electric Utility Sales Opportunity

Substation/Mobile Transformers and Switchgear Background Desired

BSEE or BSME Desired

Customers: TECO, DUKE, RUS, and Municipals

**Powers and Company, Inc.**

Manufacturers' Representatives

Founded 1991

**Contact Dick Powers: 813.760.2556**

## Advertising Section



## SOLUTION PROFILE

### Motor Starting MV Circuit Breaker Retrofit

Metal-Clad switchgear with air-magnetic medium voltage circuit breakers was typically used in the past for motor starting applications for station service equipment. Frequent operation of these circuit breakers led to excessive wear of the breaker contacts and operating mechanism, and premature failure of the air-magnetic circuit breakers. Over the years these breakers required extensive reconditioning and overhaul, using OEM and after-market parts and components. Increasing cost of maintenance and obsolescence by OEM's requires a new approach.

CE Power has developed a solution to extend the life of existing metal-clad switchgear. By performing a MV fused vacuum contactor retrofit, the most vulnerable components are replaced while the integrity of the switchgear is maintained. This significantly reduces maintenance costs and increases reliability of the system.

#### Overview

- Vacuum contactors designed and tested for switchgear applications, up to 2,500,000 operation cycles
- Primary contacts sealed inside a vacuum bottle
- Operating mechanism consists of few moving parts and components
- Primary fuses sized to protect the motor and cable from short circuit condition
- Non-load break isolation switch provides a visible disconnect of the primary circuit
- Proper interlocking and controls design
- New microprocessor motor control relay provides improved protection, remote monitoring and communication



FOR MORE INFORMATION CALL

**800.434.0415**



## Advertising Section



Unparalleled Protection

EC&M CATEGORY WINNER  
**PRODUCT OF THE YEAR 17**

### DSP-ADM

The new DSP-ADM provides total system protection from ground faults and arc flash. As a base model it is designed to detect the event of a single ground fault, signal an alarm, and provide pulsing capability so that maintenance personnel can locate the faulted circuit without interrupting the process. Maintenance can be immediately alerted to the problem and an operator dispatched to located the fault to isolate it promptly.

The DSP SYSTEM can assist in locating the fault with a pulsing fault location circuit. In the event of a second ground fault, the DSP acts quickly to prevent loss of two feeders by selectively tripping the lower priority feeder only.



- Ground faults cause havoc on plant production processes, shutting down power and equipment and critical loads.
- Ground faults disrupt the flow of products through manufacturing processes and cause data loss in computer centers leading to hours or even days of lost productivity.
- Ground faults pose health and safety risks to personnel, creating hazards such as equipment malfunctions, fire and electric shock.

### TECHNICAL SPECIFICATIONS

Power Requirements	100-240V, 50/60 Hz or DC, 25 VA
Dielectric	Relay contacts to chassis 1500 V rms for 1 minute alarm level Control terminals to chassis 1500 V rms for 1 minute alarm level IEC-60255-5
Trip Level Inhibit	25% of systems ground current
Contact Ratings	DSP-DFM: Trip Contacts- Form "C" SPDT 10 Amp., 240 V AC resistive DSP-DPS: Alarm Contacts- Form "C" SPDT 8 Amp., 240 V AC resistive IEC-60950
	DSP-DFM: Pickup Accuracy: $\pm 10\%$ of system let-through current
Temperature Range	0°C to 50°C



### Advertising Section



863-425-2698

[www.eesllcfl.com](http://www.eesllcfl.com)

**ELECTRICAL ENGINEERING SERVICE**  
**DESIGN/BUILD**  
**INDUSTRIAL & COMMERCIAL**  
**MAINTENANCE & CONSTRUCTION**  
**INSTRUMENTATION & CONTROLS**  
**ARC FLASH ASSESSMENTS & TRAINING**  
**INFRARED TESTING**  
**ELECTRICAL TESTING SERVICES**



formerly **Leedy Electric East, LLC**



## IEEE SoutheastCon

**April 19-22, 2018**

**Hilton Bayfront—St. Petersburg**  
**Make your plans to attend now!**

<http://ewh.ieee.org/reg/3/southeastcon2018/index.html>

### Suncoast Signal Advertising Rates

Size	One Month		6 Months		12 Months	
	Member	Non-Member	Member	Non-Member	Member	Non-Member
Business Card	\$25	\$33	\$120	\$150	\$210	\$252
¼ Page	\$40	\$52	\$190	\$238	\$335	\$402
½ Page	\$75	\$98	\$360	\$450	\$630	\$756
¾ Page	\$110	\$143	\$530	\$663	\$925	\$1,110
Full Page	\$140	\$182	\$670	\$838	\$1,175	\$1,410
Insert / Sheet	\$200	\$260	\$800	\$1,000	\$2,000	\$2,400

## Powers and Company, Inc.

Power Transformer and  
 High Voltage Switchgear Experts  
 Delta Star Power Transformers  
 Powell Distribution Switchgear  
 Unifin Transformer Coolers  
 Cardinal Transformer Oil Pumps

**Dick Powers**  
**(813) 282-3011**  
**(813) 760-2556 Mobile**  
**[powerscomp@aol.com](mailto:powerscomp@aol.com)**

Offices in Tampa and St. Petersburg



*Florida West Coast Section, Tampa*

NON PROFIT ORG  
U.S. POSTAGE PAID  
TAMPA, FL. PERMIT  
No. 1197

**DATE SENSITIVE MATERIAL. DO NOT DELAY**

Change of address? IEEE Web Contact Update <http://www.ieee.org/membership/coa.html>  
Or send address changes including your name, IEEE Member number and all pertinent information to:  
IEEE, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331 or call (800) 678-4333  
Or fax your address changes to (732) 562-5445

**February 2018 Calendar of Events (For more information see P. 1) in this Signal...**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6 <i>EXCOM Meeting 5:30 TECO Plaza</i>	7	8	9	10
11	12	13	14	15	16 <i>IEEE 1547 seminar Details—P. 3</i>	17
18	19	20	21	22 <i>E-Week Banquet Details—P. 1</i>	23	24
25	26	27	28			