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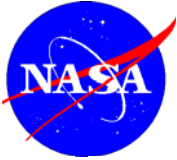
SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

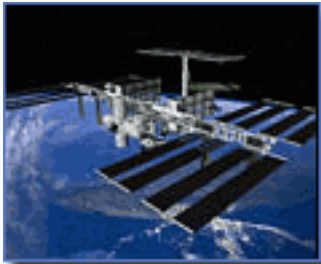
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July 2003



July Section Meeting International Space Station



Date/Time: Thursday, July 24, 2003, 11:30AM – 2:00PM
Lunch will be provided.

Location: Tampa Electric Company – TECO Hall, 702 N. Franklin Street, Tampa

Speaker: Mr. Jeffrey Mitchell, NASA

Reservations: Quang Tang at (813) 739-1222 or q.tang@ieee.org

Cost: Members \$10, Non-members \$20, Student Members \$5

The International Space Station is a permanent, orbiting laboratory in earth orbit capable of performing long-duration research in a unique environment. The International Space Station is orbiting our planet at an altitude of 240 miles. The ISS is forging new partnerships with other nations for the benefit of mankind and is set to become the most technically complex undertaking in human history. The partners in this international project include the United States, Canada, Brazil, Japan, Russia, as well as eleven members of the European Space Agency.

Mr. Jeff Mitchell graduated from the Massachusetts Institute of Technology (MIT) where he majored in Physics and Electrical Engineering. He spent 6 years in the U. S. Navy and was captain of a research ship. He works for the Boeing Company at the Kennedy Space Center (KSC) testing the payloads that fly in the Orbiter. During the construction of the first Space Station element, Node 1, he was in charge of the acceptance testing of the node before delivery to NASA. He has a slide presentation to show the public what the Space Station is and what it is like to work on the Space Station. He has written articles for McGraw Hill's Encyclopedia of Science and Technology. He is also a professor at the Florida Institute of Technology where he has taught such subjects as Orbital Mechanics, Space Power Systems, and Rocket Propulsion. So he is really is a Rocket Scientist from MIT.

Note on parking: Reasonably priced parking (\$2-\$3) is available at the Ashley Street Municipal Garage which is on Ashley Street just south of the Tampa Public Library and about one block from TECO Plaza. Meter parking on the street is also available as well. Other parking lots nearby are the most expensive (typically \$5.00).

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Message from the Chair

By John Conrad

We are doing pretty well as a Section. I say that not because of any research or benchmarking but just a gut feeling as I look at our schedule each month. We seem to be providing something for all our members; young and old; technical and non-technical; students, workers and retirees. We are doing OK. Do you agree?

We do not want to become complacent, however, so we need to evaluate our performance and make improvements. One area in particular that I think could benefit from a little more organized attention is our involvement with our local schools. According to the IEEE mission "The IEEE promotes the engineering process of creating, developing, integrating, sharing, and applying knowledge about electro and information technologies and sciences for the benefit of humanity and the profession."

What better way to promote the engineering process than sparking an interest in our school kids and cultivating that interest so that they become motivated enough to take an engineering career path. In recent years there have been sporadic attempts within the section to get involved in this area with both volunteer and financial help: FIRST Robotics, Future City and the Yes We Care program come to mind. We are already regularly involved in a couple of county science fairs, the Lignell Teacher Awards and our Teacher-in-Service program gets our volunteers involved with schoolteachers. Do we want to do more?

Personally I am not in favor of using section money to sponsor these types of programs financially but I am in favor of sponsoring them with our volunteer time: mentoring and encouraging school kids in science and engineering. If you are interested in giving up a little of your valuable free time to help school kids with one of these programs let me know. If I receive enough responses we will select a program that is the most appropriate for the Florida West Coast Section and start what I hope will be a long-term commitment. Give it some thought and then give me a call (813) 926-4004 or send an e-mail: john.conrad@ieee.org

Come to the next EXCOM on Tuesday, July 1st. We provide free food and lively conversation. It may not be as good as your July 4th picnic but it will be a close second!

EE Unemployment Rate Reaches Seven Percent

The unemployment rate for electrical engineers (EEs) rose to an unprecedented seven percent in the first quarter of 2003, according to the U.S. Department of Labor. For details, go to <http://www.ieeeusa.org/releases/2003/042803pr.html>.

*"You get what you inspect, not what you expect."
Admiral Hyman Rickover*

Theory, Application, Troubleshooting, and Repair of SCR Power Controllers and Variable Frequency Drives

- Date: Friday, July 25, 2003
- Time: Registration and Continental Breakfast – 8:00 AM
Seminar - 8:30 AM - 2:00 PM
- Speaker: Thomas H. Blair, PE, Senior member, IEEE
Consulting Engineer, Tampa Electric Company
- Location: Tampa Electric Company, Production Services Center (PSC)
6944 U.S. Hwy 41 North, Apollo Beach, FL 33572-1500
- Cost: Members, \$50; Non-members, \$100; Students, \$25 (See note below)
Lunch will be provided. Please make your check payable to: IEEE, FWCS.
- RSVP: Online at <http://www.ewh.ieee.org/r3/floridawc/>
Space is limited to 40 attendees. To ensure your reservation, please send your check in advance to: Art Nordlinger, 1480 Gulf Blvd. #906, Clearwater, FL 33767. Any questions please contact Tom Blair at 813-228-1111, ext 46171 or Email thblair@tecoenergy.com



Tom Blair is an Electrical Engineer at Tampa Electric Company and will present a training seminar on the theory, application, troubleshooting, and repair of solid state power control devices. Devices that will be covered will be SCR power controllers, motor soft starts, and variable frequency drives used to control 3 phase AC induction motors. Prior to his term at Tampa Electric, Tom was a design engineer at Motortronics, Inc, a manufacturer of various solid state power control devices. Tom has been involved in the design, application, and troubleshooting of solid state devices for both motor and non-motor loads for over 10 years.

For Florida Professional Engineers: Four (4) professional development hours (PDH's) will be awarded applicable to the State of Florida's continuing education requirements for PE renewal upon completion of the seminar. Be sure to include your license number and your name as it appears on your license with your reservation. Florida provider number EXP 00015.

Note: A \$25 discount for the seminar fee will be offered to those IEEE members who submit a senior membership application and for non IEEE members who submit an IEEE membership application on the day of the training.

2003 Review Seminars for PE Electrical & Computer and EIT / FE October 24 and 25 Examinations

Review seminars for the PE (Electrical and Computer) and Engineer In Training / Fundamentals of Engineering (EIT/FE) exams will be held:

Mondays, July 28 thru October 6 for the EIT/FE Exam & Thursdays, July 24 thru October 16 for the EE Exam. Seminars are conducted from 7-10 P.M. (Monday or Thursday) for ten weeks. The registration fee is \$350 and includes text. The seminars will be held on the main USF campus in Tampa and **will also be available via Internet.**

To register, contact: Alan M. Keith, P.E., PO Box 14042, (EC37), St Petersburg, FL 33733.

Alan.Keith@pgnmail.com

Phone (727) 384-7937, FAX (727) 384-7865
Pinellas Chapter, Florida Engineering Society

Tour of Tampa Bay Water's Desalinization Plant

- Date/Time: Tuesday, July 22, 2003, 11:30 A.M. Lunch and Speaker; tour will follow
- Location: Meet at TECO Energy's Production Services Center
6944 U.S. Hwy. 41 North, Apollo Beach
- Cost: Members \$10, Non-members \$20, Student Members \$5
- Reservations: http://www.ewh.ieee.org/r3/floridawc/pes_titles.html
For security reasons, all reservations must be made by July 15 and include your name and company affiliation. Space is limited so reserve early.

For additional information, contact Art Nordlinger at 813-630-6203 or a.nordlinger@ieee.org



Section Member Receives Prize Paper Award

By Jim Beall

Charles (Chuck) Mozina received the Ralph H. Lee Prize Paper Award for his manuscript entitled, "Advances in Generator Field Ground Protection Using Digital Technology," at the 2003 I&CPS Conference in St. Louis. The Ralph H. Lee Prize Paper Award is presented annually by the Industry Applications Society, Industrial and Commercial Powers Systems Department, for the best paper in the previous year. The next I&CPS Conference will be in Clearwater Beach FL, May 1-6, 2004.



Chuck Mozina is a Consulting Engineer and resides in Palm Harbor, West of Tampa. His practice involves projects relating to protective relay applications, protection system design and coordination. He has over 25 years of experience as a protection engineer at Centerior Energy, a major investor-owned utility in Cleveland, Ohio where he was Manager of the System Protection Section. For the past ten years he was employed by Beckwith Electric, a manufacturer of protective relays, as Applications Manager for Protection Products.

Chuck is an active 20-year member of the IEEE PES Power System Relay Committee (PSRC) and is the past chairman of the Rotating Machinery Subcommittee. He is active in the IEEE IAS I&CPS Department which addresses industrial system protection. He is a former U.S. representative to the CIGRE Study Committee 34 on System Protection and has chaired a CIGRE working group on generator protection. He also chaired the IEEE task force that produced the tutorial, "The Protection of Synchronous Generators," which won the PRSC's 1995 Outstanding Working Group Award. Chuck is the 1993 recipient of the Power System Relay Committee's Career Service Award.

Chuck has a Bachelor of Science in Electrical Engineering from Purdue University and has authored a number of papers and magazine articles on protective relaying. He is also a former instructor in the Graduate School of Electrical Engineering at Cleveland State University and is a registered Professional Engineer in the State of Ohio.

Photo above – Chuck Mozina (l) receiving a Prize Paper award from I&CPS Department Chair William Moylan.

Photos from the Tour of Lakeland's Winston Peaking Power Plant

On April 17th the PE/IA Chapter had a tour the Lakeland Electric's Winston Peaking Power Plant. The group thought Murphy's Law had struck - the units were running when they arrived and that would keep them from being able to get on to the generator floor. But, as they meet outside the building getting ready to go into the control room, the operators got the message the units were coming down, so the group not only got to hear and see the units running, but had the opportunity to see the controls and actually see the units once they completed their cool down cycle. The tour guides from Lakeland Electric shared a great deal of information on the units, as well as the entire plant facilities, and everyone came away with an appreciation of technology that went into making this state-of-the-art facility. For those of you who missed this outstanding meeting and tour, we have to be able to repeat it in the future, so keep an eye out for the announcement in a future edition of the Signal.



July 2003 Calendar of Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 <i>IEEE FWCS EXCOM Meeting at 5:30pm TECO Plaza</i>	2	3	4 <i>Independence Day</i>	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22 <i>PES/IAS Tour of Desalinization Plant at 11:30am TECO Energy Prod. Svc Center</i>	23	24 <i>Section July Meeting - NASA International Space Station 11:30am-1:30pm</i>	25 <i>PES/IAS Seminar on SCR Pwr Controllers and Variable Frequency Drives</i>	26
27	28	29	30	31		

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Sections Congress 2005 is coming to Tampa!

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