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THE

SUNCOAST

SIGNAL

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

PES/IAS August Meeting How Does Florida Deal With Power Shortage?

Date: Friday, August 28, 1998
Time: 11:45am - 1:00pm

Location: FRCC Office
405 Reo Street, Suite 100, Tampa

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

Speaker: Linda D. Brousseau, PE
Director of Reliability, FRCC

SUMMARY:

Ms. Linda Brousseau of Florida Reliability Coordinating Council (FRCC) will join us at our August meeting to discuss the Florida Electrical Emergency Contingency Plan, Generating Capacity Shortage Element and the daily process in the state associated with this plan.

SPEAKER:

Ms. Linda D. Brousseau graduated from University of South Florida in 1985 with a BSChE and is a registered professional engineer in Florida. She started at FRCC in July, 1998 as Director of Reliability. Prior to this position, Linda held various positions at Florida Power Corporation in the areas of generation, system operations and power marketing.

RESERVATIONS:

Please call Mark McKeage at Florida Power Corporation (727)826-4393, Mary Ellen Thacker at Tampa Electric (813)228-4647 or Quang Tang at Seminole Electric Cooperative, Inc. (813)963-0994 with any questions or need directions to FRCC office.

1998 Engineering Workforce Statistics

The U.S. Bureau of Labor Statistics reports that the number of employed engineers in the first quarter of 1998 was 2,043,000.

The National Action Council for Minorities in Engineering (NACME) reports that in 1996-1997, the number of minority freshman in engineering decreased by 3.5%, from 14,101 in 1995-1996 to 13,605, lowering the minority share of the freshman class from 16.5% to 16.2%.

African-American freshman enrollment decreased by 5.2% and Latino freshman enrollment declined by 2.5%. The only upswing was among American Indian freshmen. Their enrollment increased by 9.2%, from 601 to 656. Enrollments for non-minority men and women also dropped, 1.0 and 0.8% respectively.

Information taken from *NACME NEWS*, Spring 1998 issue.

Chair's Comment

I would like to bring two new items to your attention. First, IEEE-USA has begun an on-line weekly newsletter, the IEEE-USA THIS WEEK. You can find it on the web at <http://www.ieeeusathisweek.org>.

Also, one of the primary goals of the IEEE-USA Precollege Education Committee is to increase the participation of IEEE members in K-12 education and related activities at the local level. To recognize the most outstanding of these activities, it will select three projects and invite an IEEE member from each to participate in the Technological Literacy Counts (TLC) Workshop, October 9-10, 1998, in Baltimore. It is co-sponsoring the workshop with the IEEE Educational Activities Board's Committee for Precollege Education Coordination.

The event will bring together approximately 50 engineers and 50 educators to discuss ways in which the two professional communities can collaborate to improve the technological literacy of K-12 students. The goal is to lay the foundation for an ongoing partnership of engineers and educators to design appropriate methods to enhance the quality of technological literacy in K-12 school systems around the country.

If you work with a precollege educational system to enhance students' technological literacy, you have the opportunity to submit a completed or ongoing project for consideration and a chance at one of the three slots reserved at the TLC Workshop. Just send a one-page description of your project to the Precollege Education Committee. The deadline for receipt of project descriptions is July 31. The projects selected will be announced by August 15. The committee will reimburse the travel expenses of an IEEE member associated with each of the selected projects.

Mail your project description to the committee in care of Ann Hartfiel, IEEE-USA, 1828 L Street N.W., Suite 1202, Washington, D.C., 20036 (fax 202-785-0835), or submit it electronically to a.hartfiel@ieee.org.

Job Market Good for New Grads

The National Association of Colleges and Employers (NACE) says that a recent poll shows that many graduating students are receiving multiple job offers, higher-than-ever before salary offers, and signing bonuses, and many students have had a post-graduation job lined up for several months.

Mechanical engineers, looking at careers in automotive and mechanical manufacturing, are receiving offers averaging \$40,750, says NACE. The association reports that chemical engineers are receiving offers of \$45,591 to start and electrical engineers \$42,629.

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All material for THE SUNCOAST SIGNAL is due by the Friday following the 1st Thursday of the month preceding the issue month. Address all correspondence to: **Quang Tang**
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Outstanding Engineer Award Nominations

The Florida West Coast Chapter of the Power Engineering Society seeks nominations for the "Outstanding Engineer Award". This program allows each PES chapter, on an annual basis, to recognize the outstanding contributions of a local engineer to the power engineering profession. Each chapter may present one award for each calendar year.

Suggested criteria for the award include:

- ▶ Outstanding technical contributions to the power engineering profession
- ▶ Outstanding professional and leadership contributions to the power engineering profession
- ▶ Significant contributions to the local community representing the power engineering profession
- ▶ Outstanding contributions in the area of power engineering education
- ▶ Service to the PES and/or IEEE
- ▶ PES and/or IEEE membership

A committee, made up of current and past PES officers, will evaluate the nominations, and make a presentation to the award recipient at the annual Awards Banquet.

Please forward your nominations to:

Mark D. McKeage, PE
Florida Power Corporation
P.O. Box 14042 - MAC BB3M
St. Petersburg, Florida 33733-4042



1998 IEEE Awards

The Florida Council of IEEE and Region 3 sponsor several awards that give us the opportunity to recognize worthy members of our Florida West Coast Section.

Outstanding Service - recognizes a member who has contributed to the electro-technology profession through service to IEEE at different levels.

Outstanding Engineering Educator - recognizes a member who has shared his or her technical and professional abilities through teaching (not necessarily at a university).

Outstanding Engineer - recognizes a member who has made an outstanding contribution to the electro-technology profession.

Please think about the activities of your co-workers and fellow FWCS members, and if you have any suggestions for candidates for these awards, call any one of the Section officers, or John Twitchell, Awards Chair at (813)963-0994, and we will follow through and prepare a nomination package. Don't miss this chance to give a firm pat on the back to a deserving IEEE Member!

1998 Engineers' Salaries

According to the National Society of Professional Engineers' Income and Salary Survey 1998, as of January 1, 1998, the median total income of all engineers surveyed was \$70,000.

By length of experience, engineers with less than a year of experience earned a median of \$40,940; those with five through nine years \$51,780; and those with 30 or more years \$83,922. Engineers with a B.S. degree in engineering earn a median of \$66,755 and those with an M.S. in engineering \$71,355.

The highest paying employers are in petrol and natural gas products. These engineers earn of median of \$92,805. The lowest median salary was reported in state government at \$55,950.

The most lucrative metropolitan areas are in San Jose (CA) and vicinity where the reported median is \$92,600 and Los Angeles/Long Beach (CA) at \$87,500. The lowest median was found in the Louisville (KY) area at \$60,400.

Job Opportunities

The HRM Group, Inc. is currently seeking software engineers, electronic warfare specialist, programmer analysts, software analysts, and programmers. The job description, qualifications, and compensation follows:

Software Engineer - Conducts evaluations and analysis on software programs, develops recommendations for procurement, improvements, and/or modifications to operational and training software, and contribute to development of associated specifications. B.S. in Electrical Engineering / Computer Science preferred. Experience will be substituted for education. A minimum of ten years of software engineering experience required.

Electronic Warfare Specialist - Advises the Chief of the Air Defense Operations Staff and his officers, on all facets of Electronic Warfare including the capabilities of friendly and hostile forces, recommended changes to equipment and procedures, and training. Perform on-going analysis required to support operation of RSDAF systems in an evolving EW threat environment. B.S. Degree in a technical major. No former military background. Must know EW past, present, and future. Must have operational and design experience in EW.

Compensation for S/W Engineer and EW Specialist: Location: Saudi Arabia-United States Base Salary Range: \$40K-\$70K-tax free, 25% signing bonus of annual pay vacation; 30 days per year plus \$2000 Housing, Food, and Transportation provided Contract for two years Benefits provided Family is able to go.

The following positions are located in Alabama:

Programmer Analysts - Oracle and COBOL TOOLS experience.

Software Analysts - COBOL, CICS, Microfocus; COBOL TOOLS experience.

Programmers - Minimum of two years of IBM experience, MVS, COBOL, Microfocus Workbench tools, and CICS experience.

Salary, location, and benefits will be disclosed upon call. For more detailed information please call Angie Pate, Executive Recruiter at (205)978-2829 or fax resume to (205)978-7616. Please indicate which position(s) you are interested in.

Brain Teaser Challenge

by Butch Shadwell

I am listening to my desk radio while am working early this morning. Since it is before sunrise, the local station must operate at a dramatically reduced power level and the noise with my reception is very bad. Something that people are often not aware of is that when an AM signal is modulated at 100%, the radiated power actually drops to zero during a portion of the modulation envelope. It is easy to understand that when the signal power goes to zero, that there may be an opportunity for noise to contribute more. In practice most AM transmitters rarely go above 80% modulation to help avoid this and other problems.

This month I am looking for readers to tell me some different modulation schemes that avoid this low power output phase so that the signal to noise ratio is more constant. For added credit, please describe the type of detector circuitry needed for your choice of modulation.

Reply with the Suncoast Signal reference to Butch Shadwell by August 20th at (904)223-4465 (voice), 904-223-4510 (fax), b.shadwell@ieee.org (email), 3308 Queen Palm Dr., Jacksonville, FL 32250-2328. (<http://www.ccse.net/~butchs/>) Only the names of correct respondents are mentioned in the solution column on the next Signal.

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For further information please call the Signal

Editor, Quang Tang at (813)963-0994

E-mail: q.tang@ieee.org

1998 Review Seminars **For** **PE Electrical and EIT/FE** **October Examinations**

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

**Tuesday, August 4 for the EIT/FE Exam &
Thursday, August 6 for the EE Exam**

Seminars are conducted from 7-10 P.M. (Tuesday or Thursday) for ten weeks. The registration fee is \$200 and includes text. The seminars will be held at the Bayboro Campus of the University of South Florida.

To register, please contact: Alan M. Keith, P.E., P.O. Box 14042, (EC-51), St. Pete, FL 33733 or email:

Alan.M.Keith@fpc.com

Phone (813) 384-7937 FAX (813) 384-7994
Pinellas Chapter, Florida Engineering Society

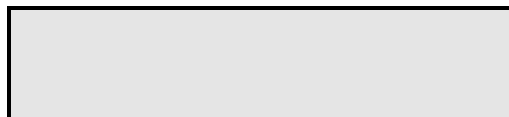
August 1998 Calendar of Events

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3	4 EXCOM Meeting Ybor City, 6 pm	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
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