



THE POCKET SCOPE



The Institute of Electrical and Electronics Engineers, Inc.

Volume 54, Number 4

December 2003

SCOPE NOTES

December Houston Section News

Where: HESS (Houston Engineering and Scientific Society)
5430 Westheimer@Yorktown

When: Tuesday, December 2, 2003
6:00 - 6:30 p.m. Social
6:30 - 7:30 p.m. Dinner
7:30 - 8:30 p.m. Speaker

Cost:
\$10.00 - IEEE Members with 48-hour advance reservations.
\$20.00 - non-members
\$5.00 - students
Call (713) 207-IEEE to make your reservations.

See Page 2 for the Continuing Education Schedule!

IEEEWEB ADDRESS

[http://
\(www.ieee-houston.org\)](http://www.ieee-houston.org)

IEEE Houston Section
P.O. Box 460014
Houston, Texas
770668014

The Chairman's Message

Dwayne Lowry



This will be my last "Message from our Chairman" as I step aside and into the "Past Chair" role to make way for Gil Dolor who assumes the reigns in January. This has been an exciting year to be associated with the Houston Section. I hope I have been successful in giving back a small piece of what I have received over my few short years of service to IEEE members.

I am grateful for all who have served in various capacities over the past years, some of you having served for many many years. New blood, however, is one of the strengths of any organization and we added some very strong members to the Executive Committee this year including **John Lionberger**, Power Engineering, **Polo Gutierrez**, PACE; **Anil Garg**, Student Activities; and **Shannon Quadros**, Engineering Council of Houston. They have all demonstrated a willingness to serve by learning their responsibilities quickly and aggressively getting involved. In addition, **Donald Dunn**, our esteemed Past Chair, will replace Bill Whipkey as our Region 5 South Area Representative so the good news for us is that we can expect to see a lot of Donald over the next several years.

After a great start in 2002 when we awarded 3 scholarships to deserving engineering students of IEEE Houston Section Members, the scholarship committee, under the direction of Scott Balew, raised the ante and we will be awarding 5 scholarships as a result of our golf benefit tournament this year. We anticipate this event growing even bigger each year to the point where we can provide

CONTINUED ON PAGE 2

Chair Message-CONT

even more scholarships and/or larger dollar amounts.

A major highlight of the year was an awards banquet in September celebrating the Houston Section's 75th anniversary. This event was attended by over 60 members, many of which were past Section Chairs. Jean Eason, Region 5 Section Chair gave a history of IEEE and linked it to the founding of the Houston Chapter some 75 years ago. The event gave us a great opportunity to recognize and formally present a plethora of awards which the Section received in 2002 ([see Pres Message September](#)).

We had 4 outstanding Section Meetings during the year, thanks to the dedicated efforts of Justo Benitez, program chair. He not only had to find the presenters but then had to do some last minute schedule juggling when the Hess folks pulled the rug out from under us a couple of times. But he and P.J. Donner worked out the dates and rescheduled the presenter and the events went off without a hitch.

Our Continuing Education Program continues to set the standard for the whole of IEEE. They have completed their 8th year of outstanding educational programs and I commend all those associated with this program for their dedication and longevity of the program. And, because of the success of this program, the Communications Society has started a CED program of their own, mirrored after the CED program. We anticipate that this will grow into a very successful program in its own right.

It has been a wonderful experience serving as your Section Chair this year. I appreciate and acknowledge all the help I received from the ExCom; they helped guide me in performing my duties and responded to my requests — and sometimes pleas. Many thanks to you all.

So now I pass the baton to Gil Dolor who, I'm sure, will do an outstanding job in leading us through the year ahead. I

December 2 Section Meeting

The next meeting of the IEEE Houston Section will be held Tuesday, December 2nd, 2003.

Please RSVP via calling (713) 207-IEEE to make your reservations by Friday November 28th, 2003. Please include your name and company name in the voice message. You can also send an e-mail to P.J. Donner at pjdonner@ieee.org to confirm your reservation.

Time and date: 6:00 PM to 6:30 PM Social, 6:30 PM to 7:30 PM Dinner and 7:30 PM to 8:30 PM Presentation.

Program: **MEMS and Nanotechnology and the Future Impact on Space Transportation**

MEMS (Micro-Electromechanical Systems) and Nanotechnology are the new revolution in electronics, optics, sensors, polymers, and materials. MEMS take electrical systems combined with mechanical systems, fabricated using micro-electronic process technology, on a micro-level to produce Microsystems or what is commonly known as a "Micro machines." The main categories of MEMS are micro sensors, micro actuators, microstructures, and microelectronics. Nanotechnology is the development and use of devices on the nanometer scale. Nano-structures are the building blocks for stronger materials, self-replicating machines, self-repairing structures, and smart sensors. MEMS and Nanotechnology are vitally important to the application of Space Transportation because they give way to the ability of a lighter, smaller, more cost effective vehicle for space transportation.

Speaker: Shalika D. Young supports the NASA Johnson Space Center's MEMS (Micro-Electromechanical Systems) and Nanotechnology Office. She received her B.S. in Electrical Engineering from the University of New Orleans and also her B.S. in Physics from Xavier University of New Orleans in 1999. She is enrolled in the University of Houston Clear Lake MBA Program. Shalika currently holds an Engineer In Training (EIT) license from Louisiana and is pursuing her Professional Engineering (PE) licensure. She is a member of the National Management Association (NMA) Houston chapter. Shalika is apart of the Shuttle Remote Manipulator Systems (SRMS) group at Lockheed Martin. Currently she supports the MEMS and Nanotechnology Office performing research and assessments of the current status of MEMS and Nanotechnology across the NASA field centers as well as other government agencies, universities, and commercial sectors involved with MEMS and Nanotechnology development efforts. The MEMS and Nanotechnology Office is responsible for acquiring, documenting, and disseminating MEMS information that could be used to improve product quality, safety and reliability for engineering directorate projects. Shalika is also the publisher of the newsletter "Small Things Considered" which is distributed throughout the JSC community providing current applications of MEMS and Nanotechnology to further infuse this technology into the workforce for design and development activity.

Location: HESS (Houston engineering and Scientific Society)
5430 Westheimer @ Yorktown Houston, TX

Dinner: Dinner will be \$15.00 for members and \$5.00 for students. Dinner will be \$20.00 for non-members and for those without advance registration.

IEEE CONTINUING EDUCATION ON DEMAND

2003-2004 REGISTRATION FORM

Name:
 Company:
 Mailing Address: (where certificate will be delivered)
 City/State:
 Zip:
 Email:
 Telephone Voice:
 Telephone Fax:
 IEEE Membership Number:

Seminar Title	Code	Date	Amount
Acceptance and Power Factor Testing	902	Oct. 7/8	\$
Lightning and Surge Protection	320	Oct. 21/22	\$
Medium Voltage VFD's	505	Nov. 4/5	\$
Residual Bus Auto Transfer System	111	Nov. 18/19	\$
Synchronous Motors	610	Feb. 3/4	\$
Synchronous Generators	609	Feb. 17/18	\$
Isolated Generator Systems	611	Mar. 2/3	\$
System Protection	304	Mar. 16/17	\$
Low and Medium Voltage Cable	113	Mar. 30/31	\$
Communication System Integration	112	Apr. 13/14	\$
Low and Medium Voltage Switchgear	207	Apr. 27/28	\$
Total Paid:			\$



IEEE

IEEE Houston Section

2003-2004

Continuing Education On Demand



Mail a copy of your completed registration form along with your check payable to **IEEE CED SEMINARS** at the following address:
 IEEE CED SEMINARS
 PAT ROGERS
 SOUTHWEST POWER
 425 BLUEBERRY STREET
 HOUSTON, TX 77018
 progers@swpower.com

Registration receipts will be available upon request at the seminars.

For a cancellation refund, telephone Pat Rogers by the Friday before the seminar at: Phone: 713.696.9922
 Fax: 713.696.9983
 Email: progers@swpower.com

IEEE Continuing Education on Demand Completion Certificate with Continuing Education Units (CEUs) is provided after receipt of both nightly questionnaires and seminar evaluation sheets.

Please direct seminar questions to Paul Barrett at 713.598.0790

Please check the IEEE Houston Section website for the latest schedule and course information.

<http://www.ieee-houston.org>

IEEE CONTINUING EDUCATION ON DEMAND

The purpose of IEEE Houston Section Continuing Education On Demand is to provide a two-year repeating program sequence of practical industrial power application topics that supplement the daily work activities of the practicing graduate electrical engineer.

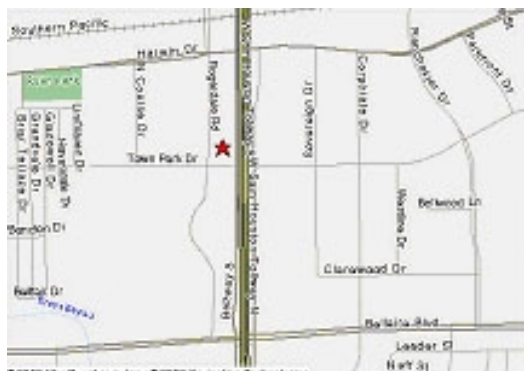
The seminars are intended to stimulate further study and discussion for learning continuance throughout the working career. Topics apply to heavy industries: oil and gas, petro-chem, cogen, pulp and paper, etc.

Instructors are application engineers, manufacturing specialists and expert consultants who provide a blend of diverse engineering perspectives.

The cost of each seminar is \$120.00 for IEEE members. "Early Signup" is \$60.00 and the check must be received the Friday before the seminar start date. The cost for non-IEEE members is \$200.00. Signup the week of the seminar does not guarantee seminar presentation documents or meals. For IEEE membership application information, contact Ray Schmidt at (281) 468-2978.

The following 2003-2004 seminar schedule defines the topics, dates and times. A course syllabus is available on request. Minimum class size is twenty for each seminar. Seating is limited and filled on an as received basis. Presentation documents are provided. A buffet is served from 5:00PM-6:00PM.

Seminar location:
 Jacobs Engineering
 5995 Rogerdale Road
 Houston, TX. 77072



Enter amount for each seminar:

IEEE member registration: \$120.00
 IEEE member early signup: \$ 60.00
 Non-member registration: \$200.00

Fall of 2003 IEEE Seminar Schedule

Acceptance and Power Factor Testing (902)
Randall Baker, Dashiell Corporation and Keith Hill, Doble Engineering Company

Oct. 7/8, 2003 6:00-8:50PM
Phasors, instrument transformer testing and load testing of relays/meters are performed. Additional testing topics include Sweep Frequency Response Analysis and power factor testing. [0.5 CEU]

Lightning and Surge Protection (320)
William Nichols, Siemens Westinghouse Technical Services

Oct. 21/22, 2003 6:00-8:50PM
Reviews theory and application of surge protection. Capacitor selection and application is examined. [0.5 CEU]

Medium Voltage Variable Frequency Drives (505)
Richard Osman, Robicon Corporation

Nov. 4/5, 2003 6:00-8:50PM
Theory and application of medium voltage variable frequency drives is reviewed. [0.5 CEU]

Residual Bus Auto Transfer System (111)
James Bowen, Powell Elect. Mfg. Co. and Roy Cossé, PowITech, a part of Powell Elect. Mfg. Co.

Nov. 18/19, 2003 6:00-8:50PM
Reviews fundamentals of a traditional transfer scheme. A modern transfer approach provides guidance for enhanced residual transfer scheme applications. [0.5 CEU]

Spring of 2004 IEEE Seminar Schedule

Synchronous Motors (610)
Chris Schartner, GE Canada and Michael Costello, Chevron Texaco Corporation
 Feb. 3/4, 2004 6:00-8:50PM
Practical applications are examined. [0.5 CEU]

Synchronous Generators (609)
Derek King, Brush Electrical Machines Ltd.
 Feb. 17/18, 2004 6:00-8:50PM
Generator theory, physical construction, and application are reviewed and discussed. [0.5 CEU]

Isolated Generator Systems (611)
Peter Evjen, Mustang Engineering, L.P.
 Mar. 2/3, 2004 6:00-8:50PM
Isolated generator system applications are investigated. [0.5 CEU]

System Protection (304)
Roy Cossé, PowITech, a part of Powell Elect. Mfg. Co.
 Mar. 16/17, 2004 6:00-8:50PM
Relaying overview of a complete power system including a brief discussion of primary and backup protection. [0.5 CEU]

Low and Medium Voltage Cable (113)
Donald Voltz, Mustang Engineering, L.P.
 Mar. 30/31, 2004 6:00-8:50PM
Theory, applications, field and factory testing are discussed. [0.5 CEU]

Communication System Integration (112)
Alan Pilcher / Harrison Combs, PowITech, a part of Powell Elect. Mfg. Co.
 Apr. 13/14, 2004 6:00-8:50PM
Reviews modern concepts for integrating meters and relays into one communicating system. [0.5 CEU]

Low and Medium Voltage Switchgear (207)
James Bowen, Powell Elect. Mfg. Co.
 Apr. 27/28, 2004 6:00-8:50PM
Reviews theory and application design basics. [0.5 CEU]

New Senior Members

Congratulations to the recently elected Senior Members from the Houston Section. For a complete list of the new Senior Members see the attached link. www.ieee.org/organizations/rab/md/smupdates.html

Travis K. Foster
Vassily Rodionov

Looking for Senior Member Nominations

READ THIS SECTION TO BECOME A SENIOR MEMBER IN THE IEEE.

A goal of our Region is to sponsor as many Senior Members as possible and I am asking your help. The IEEE criteria for Senior Member status is ten years of professional practice including five years of significant performance, and references. (See the nominator letter and application form for clarification on the IEEE website.) If you know an IEEE member who qualifies for Senior Membership, I would like you to nominate him or her by forwarding their nomination to one of the Houston Section Excom members. If you qualify and are not a senior member please reply to one of the Section Excom members. If your are retired and have met the criteria at one time lets get you nominated. Section meetings are the best networking tool to achieve Senior membership.

As an alternative process, you can direct the prospective Senior Member to one of the Houston Section Excom Members. We have a list of several Fellows and Senior Members which we can use for references. The Section will nominate all those qualified who provide a resume and significant performance vita.

Senior Membership in IEEE promotes the value of membership and enhances the status of the member. The is an achievement award lets honor our deserving members.

The 23rd IEEE International Real-Time Systems Symposium

RTSS-2002

The 23rd IEEE International Real-Time Systems Symposium

December 3-5

Austin, TX. (USA)

Sponsored by the IEEE-TC on Real-Time Systems

<http://www.cs.unc.edu/~baruah/Meetings/2002-RTSS/>

EMBS Meeting

Engineering in Medicine & Biology Society Meetings on “Limits of Neural Population Coding” on December 5.

The next meetings of the IEEE Engineering in Medicine & Biology Society, Houston Chapter will be held Friday, December 5th, 2003.

Please RSVP via e-mail to Peri Ktonas

<<mailto:ktonas@uh.edu>> or (713) 743 4429. (Please include your company name.)

Time and date: 3:00 PM on Friday, December 5, 2003. Program: “Limits of Neural Population Coding”

Speaker: Don H. Johnson, PhD

Professor and Chair

Department of Electrical and Computer Engineering, Rice University

Abstract: That groups of neurons somehow interact to encode stimuli has become a pervasive working hypothesis in neuroscience. Using information processing theory, I analyze simple population architectures to determine, regardless of the population code actually employed, the fundamental limits of population coding. Non-cooperative populations, wherein neurons do not interact serve as the baseline case. Asymptotically in the number of neurons, the fidelity of the neural code increases either hyperbolically or exponentially, the exact rate determined by how the population's input encodes the stimulus. Simple cooperative models must have the same asymptotic behavior, but significantly out-perform non-cooperative structures only for modest sized populations. Specific results for population rate codes show that cooperation is necessary to achieve the greatest coding fidelity.

Location: University of Houston, Engineering Building, Room 102D

4800 Calhoun Rd. Houston, TX

Please send e-mail to Peri Ktonas <<mailto:ktonas@uh.edu>> for more information or (713) 743 4429. (Including driving and parking directions), or to reserve a seat at the meeting.

NEW CED Program ComSoc/Computer Sponsored

NEW!!! Communications and Computer Society CED Class

January 20 & 21.

IEEE Communications and Computer Society CED Course on "PIC Microcontroller", Tuesday & Wednesday - January 20 & 21, 2004

Purpose: The purpose of IEEE Houston Section Continuing Education is to provide modern practical application topic that supplements the daily work activities of the practicing graduate electrical engineer and expands his or her knowledge of an electronic device that is at the heart of many devices we use daily. The seminars are intended to stimulate further study and discussion for learning continuance throughout one's working career. This topic should appeal to communications, computer, instrumentation, and electronic engineers working in a variety of endeavors.

Course Content: Historically, adding a microprocessor to a design required specialized equipment and a significant design cycle. However, modern micro-controllers, like the Microchip PIC, use flash memory and are highly integrated and they are very easy to add to nearly any design.

This course will help you get over the steepest part of the learning curve for applying Microchip PIC processors. You'll learn how to select a PIC, where to obtain free development tools, and the basics of PIC assembly language programming. Topics will include the instruction set, the PIC memory map, bank switching, and more.

Required Laptop: Course participants will be required to provide their own laptop with Windows operating system. The laptop must have a CDROM drive and a free DB9 serial port which can be connected to the PIC micro-controller programming interface. The laptop needs a terminal program (like Hyperterminal or TeraTerm, both available free).

Instructor: The Instructor for this course is Al Williams. Al Williams is a long-time hardware and software designer. He's authored articles in Embedded Systems, Dr. Dobb's Journal, and many other magazines, as well as over a dozen books including "Embedded Internet Development" from McGraw Hill and "Microcontroller Projects with Basic Stamps" from CMP Books. You can find Al on the Web at <http://www.al-williams.com>.

Course Cost: The cost of the seminar is \$120.00 for IEEE members. The cost for non-IEEE members is \$200.00. Because hardware and instruction materials are needed for this course, you must register for this course by 5:00 p.m. Monday, January 12, 2004. Each participant will receive an APP-II PIC microcontroller, CDROM course materials, and a meal each evening. An additional fee of \$10 will be charged for those participants desiring a 0.5 CEU certificate to be issued.

Registration: Please complete the registration form that is on the Houston Section Website: http://www.ieee-houston.org/Meetings/IEEE%20COMSOC-PICClass-CEDinfov1_2.doc

Date & Locations: The course will be hosted at the Shell facility located at 1500 Old Spanish Trail, Houston, TX 77054. The course dates are two consecutive evenings January 20/21, 2004 from 6:00 pm - 9:00 pm. [0.5 CEU]

[http://maps.yahoo.com/
maps_result?ed=PPb_6.p_0Trd_t3.F2C_7D_aVoqkmcCbaYS0CBEoA--
&csz=Houston%2C+TX+77054&country=us](http://maps.yahoo.com/maps_result?ed=PPb_6.p_0Trd_t3.F2C_7D_aVoqkmcCbaYS0CBEoA--&csz=Houston%2C+TX+77054&country=us)

IEEE Houston Section Scholarships 2003



IEEE - Houston Section

2003 Scholarship Selection Criteria

In order to promote the interests of the Institute of Electrical & Electronics Engineers (IEEE) - Houston Section, and in support of its dedication to Engineering and Science, scholarship(s) will be awarded annually to selected applicant(s). For 2003, due to the success of the 2002 IEE - Houston Section Annual Scholarship Golf Tournament, up to three (3) \$1,000 scholarships each, will be awarded to both incoming freshman and full time college students who meet the following criteria:

ELIGIBILITY: Limited to a full time student enrolled in an accredited college or university who:

- Is a IEEE - Houston Section member's child or grandchild
- ****OR****
- Is a member of IEEE (Student Branch or other)

DISCUSSION: By restricting eligibility as above, scholarships are made available to those full time students who have an association with IEEE. This places applicants on a "level playing field" before selection criteria are applied to determine the scholarship recipients. All scholarships will be awarded on merit.

SELECTION CRITERIA:

Merit

- Candidate is enrolled / planning to enroll in an Engineering or Science Curriculum
- His/her cumulative GPA (High School GPA for entering college freshman), SAT or ACT scores
- Discussion paper

DISCUSSION PAPER:

This document will be a key element in the scholarship selection criteria. Topics should include, but not be limited to the following:

- Employment experience
- Activities/elected positions
- Career goals
- Honors/Awards
- Personal information
- Why are you seeking this scholarship

To apply, please complete the attached form and mail to:

IEEE - Houston Section
 Attention: Scholarship Committee
 P.O. Box 460014
 Houston, Texas 77056-8014

Deadline for submitting application form and all supporting data is July 3, 2003. Scholarships will be presented by July 31, 2003 and winner(s) will be honored at one of the IEEE - Houston Section Annual Meetings.

IEEE Houston Section Scholarships 2003



IEEE - HOUSTON SECTION

SCHOLARSHIP APPLICATION

Applicant's Full Name: _____ Phone No.: _____

Home Address: _____ City: _____ Zip: _____

IEEE - Houston Section Member (Sponsor's Name): _____ Member No: _____

Student Status for _____ High School Sr. _____ Jr. _____ Soph. _____ Fr. _____
_____ College or University

Cumulative Collegiate GPA (Based on 4.0 max.) substantiated by copy of transcript(s): _____

High School GPA - for applicant entering college as freshman: _____
- If High School Student - please provide SAT / ACT Score: _____

College or University: _____ Location: _____

Major or anticipated major: _____

IEEE Student Chapter Member: _____ Yes _____ No

Attach one (1) page essay by student covering:

1. Employment Experience
2. Activities/Elected Positions
3. Personal Information
4. Honors/Awards
5. Career Goals
6. Reasons for seeking this scholarship

Attach up to three (3) letters of endorsement from former teachers, employers, family and friends.

The information provided herewith is correct to the best of my knowledge.

Student's Signature

Date

IEEE Houston Section 2003 Awards Banquet

IEEE Houston Section Celebrates its 75th Year with a recent Awards Banquet! In addition, other news and awards in the Houston Section are covered.

More than 60 members were present at the 75th Anniversary dinner September 3rd at the Hess building. The evening began with a social hour and a wonderful meal. Hess went out of their make to make this a special evening with such amenities as a piano player. We appreciate their attention to all the little details that make for a special evening.

After welcoming remarks by Yours truly Region 5 Director Jean Eason kicked off the awards by giving a brief and highly interesting history of IEEE and showing where Houston fit into the scheme of things, forming the Houston Section 75 years ago. A banner celebrating our 75th Anniversary will be prominently displayed at our future functions. We appreciate Jean taking the time to come from Dallas to join with us.

Past Chair Donald Dunn introduced and honored the numerous Past Chairs in attendance. A plaque with the names of all Past Chairs dating back to 1963 was on display to acknowledge the service of these dedicated individuals. It will be on display in the Hess building. Jack Shoup provided a collection of great old photos as well as an old AIEE banner, the predecessor organization to the IEEE Houston Section from 1928 to 1963. And Baldy Bridger, our one Fellow in attendance was then honored.

The rest of the evening was taken up with presentation and/or acknowledgement of the many awards that the section has received over the past year. They are worthy of noting here.

Regional Activities Board Sustained Membership Growth Award

This award was given by the Regional Activities Board for Outstanding Leadership and Results in IEEE Membership Development Activities. This is a special award in recognition of our overall membership growth in 2002 of almost 10%, which placed us first in the world, when many Sections are suffering membership declines.

The U of H College of Engineering Student Branch received several awards

- 2002 IEEE RAB Student Branch Membership Growth Award For outstanding Leadership and results in IEEE Membership Development Activities for IEEE Region 5
 - 2002 IEEE Region 5 Outstanding Large Student Branch Award In Recognition of Outstanding Achievements in 2002
 - 2002 IEEE R5 Outstanding Educator Award Dr. Stuart Long at U of H
 - 3 Robotics cash awards in the amounts of \$1,000, \$500, and \$300 given for R5
- Competition at the R5 Tech Conference in New Orleans April 2002

Outstanding Small Company Award by R5

Presented to Gus Zeller - President of Powell Electric

This award was presented to Powell Electric In Grateful Recognition of Their Dedicated and Outstanding Service. Nominated for the award by the

IEEE Houston Section 2003 Awards Banquet - Cont.

Section for Powell's commitment to Continuing Education program by providing both facilities and people to help with this award winning program.

Recognition of Contributions to CED Program by Section

This special award was given to Mitch Pliner and Andrea Nutley of Turtle and Hughes for their dedicated efforts in getting the CED Program off the ground and running. Roy Cosse, who made the presentation, gratefully stated that without their help the program could not have been the world class success that it has become.

ComSoc Chapter Achievement Award

The ComSoc Society Chapter has been recognized as one of only 6 Chapters in North America and 14 worldwide to receive the "Chapter Achievement Award". This award is given by the Membership Development Council to ComSoc Chapters that continuously provide their members with high-level programs and activities. Congratulations to the Chapter and special recognition to its past-chair, Ransom Siler, for his outstanding leadership over the past years

GOLD (Graduate of the Last Decade) Chapter Award

IEEE RAB GOLD Committee presented a certificate to the IEEE Houston Section in recognition and appreciation of leadership and continued support to the IEEE Houston Section GOLD Affinity Group. The support enabled the Gold group's enthusiasm and activities are formalized and accepted into the IEEE community.

ECH (Engineering Council of Houston) summer internship

To receive the Award: Lily Banerjee

This award was given at the 2003 Houston Science and Engineering Fair sponsored by ECH. It was for a Summer Internship to the Museum of Science and is presented to High School student, Lily Banerjee, in recognition of the quality of her project as well as the communication skills exhibited at the Science Fair. Her winning submission in the Engineering Category was entitled: Compound Eye: For Motion Detection & Discrimination.

Professional Development Award presented by 2003 IEEE Educational Activities Board (EAB)

The Award was given "for sustained outstanding contributions in the development, implementation and delivery of a large number and variety of industrially oriented continuing education programs". This very prestigious award given by the RAB BOD which is comprised of the 3 RAB presidents, (current, future and past), IEEE-USA Pres, IEEE Standards Pres, VP RAB, VP TAB (technical), VP EAB, VP Publications, 10 divisional directors, 10 regional directors. The award is being presented to the Section in November in Seattle. Attached is the Program write-up from the awards presentation. The brass and walnut plaque will be hung at the HESS club.

IEEE Houston Section 2003 Awards Banquet - Cont.

2003 IEEE EAB

SECTION PROFESSIONAL DEVELOPMENT AWARD

“for sustained outstanding contributions in the development, implementation and delivery of a large number and variety of industrially oriented continuing education programs

The IEEE Houston Section, founded in 1928, is celebrating its 75th anniversary this year. It is the fourth largest of the 24 Sections that comprise Region 5. It supports 9 Chapters, a GOLD (Graduates of the Last Decade) Affinity Group and 9 Student Branches. The Section is made up of a number of dedicated individuals committed to the promotion and development of a variety of continuing education programs, which enhance the electrical engineering profession and add real value to IEEE membership at the local/area level.

These programs are presented through the “Houston Section Continuing Education on Demand (CED)” program. The program was developed in conjunction with local IEEE Power Engineering Society (PES) and IEEE Industry Applications Society (IAS) Chapters. It began in the fall of 1995 and at the end of April 2003, it completed the fourth two-year session - having held in excess of 80 courses and educated and awarded IEEE CEU's (Continuing Education Units) to over 2000 participants.

The purpose of the CED program is to provide a two-year repeating program sequence of practical industrial power application topics that supplement the daily work activities of the practicing electrical engineer. Instructors are application engineers, manufacturing specialists and expert consultants who provide a blend of diverse engineering perspectives. The CED program consists of 11 seminars per academic year and has an attendance that ranges from 30 -60 participants over the course of two evenings. As a result of the success of the CED program, the Houston Section has been invited by various groups within the IEEE to speak on the topic of continuing education. The Section is currently working with the IEEE Communication and Computer Societies Chapters to develop a new CED program, which will be focused on the communication and computer industries. The Section membership in 2002 led all of IEEE sections with 423 new members, which was a 10% increase. The Section was awarded the IEEE Regional Activities Board for “*Outstanding Leadership and Results in IEEE Membership Development Activities*”. For many years, the Houston Section has instilled in its volunteers the philosophy of “*adding value to the IEEE membership*”. The membership increases that the Houston Section has enjoyed can well be attributed to the quality of the Section's continuing education programs.

Presentation of Scholarship Awards

In order to promote the interests of IEEE-Houston Section and in support of its dedication to Engineering and Science, one more scholarships will be awarded annually to selected applicants. Eligibility is limited to a full time student enrolled in an accredited college or university who is an IEEE-Houston section member's child, grandchildren, or is a member of IEEE (Student Branch or other). Candidates must submit a discussion paper detailing, among other things “why are you seeking this scholarship?”. This year's \$1,000 scholarship winners were:

Haley Overton Wilson - Sr. Computer Science Major, Texas A&M

Allen Wan - Sr. EE Major, Rice University

Li Qi - PhD Student EE, Texas A&M

IEEE-EAB NEWS

NEWS FROM IEEE EDUCATIONAL ACTIVITIES

IEEE EAB ANNOUNCES RECIPIENTS OF 2003 SECTION PROFESSIONAL DEVELOPMENT AWARD

The IEEE EAB Section Professional Development Award recognizes IEEE Sections for major contributions to IEEE members in the areas of life long learning, continuing education, and professional development. The award consists of a brass and walnut plaque. This year's recipients are:

Argentina Section *"For remarkable contributions in continuous education activities, with sustained growth in number, variety and geographical coverage, for the benefit of the technical community"*

Houston Section *"For sustained outstanding contributions in the development, implementation and delivery of a large number and variety of industrially oriented continuing education programs"*

2004 Call for Nominations for this Award will be available in December 2003. For more information, please visit <http://www.ieee.org/organizations/eab/arc/awards/callnominations.htm>.

IEEE EAB SEEKS INDUSTRY PROFESSIONALS TO SERVE AS PROGRAM EVALUATORS FOR ACCREDITATION ACTIVITIES

The IEEE Educational Activities Board (EAB) seeks professionals in industry, government and academic sectors to serve as program evaluators for the following Accreditation Board for Engineering and Technology Inc.-accredited programs at U.S. colleges:

- Biomedical Engineering and Biomedical Engineering Technology
- Computer Engineering and Computer Engineering Technology
- Electrical Engineering and Electrical and Electronic Engineering Technology
- Software Engineering and Software Engineering Technology
- Electromechanical Engineering Technology
- Information Engineering Technology
- Laser-Optics Engineering Technology
- Telecommunications Engineering Technology

Applications for the 2004-2005 academic year are due by 15 Nov. They will be reviewed during the January/February IEEE meetings. Notification will be sent to applicants by 1 March.

Service as a program evaluator gives members of the profession an opportunity to contribute to the achievement of high quality educational standards of engineering and engineering technology programs. Nomination and application forms for people interested in engineering are available at: <http://www.ieee.org/organizations/eab/apc/ceaa/eacinfo.htm>; forms for those interested in engineering technology are at <http://www.ieee.org/organizations/eab/apc/ctaa/tacinfo.htm>.

For more information, contact Carolyn Solimine at +1 732 562-5484 or c.solimine@ieee.org or Mailto:eab-accred@ieee.org.

IEEE EAB INTERNATIONAL ACCREDITATION NEWS

To continue the advancement of international accreditation activities, the IEEE Educational Activities Board is sponsoring a workshop on Engineering Educational Program Accreditation. The workshop is entitled, *Engineering Accreditation Around the World*, and is scheduled for 28-29 September 2003, in Espoo, Finland. The EAB Committee on Global Accreditation Activities (CGAA) will conduct the workshop. An update about this workshop will be posted to the EAB Accreditation web pages at <http://www.ieee.org/organizations/eab/apc/overview.htm>.

STUDENT TEAM MENTORS NEEDED FOR VINNY AWARD COMPETITION

We need your help to act as a mentor for a team of students. Teams will combine skills in research, writing and creativity. Share the wealth of your experience with young learners. Named after Leonardo da Vinci, the VINNY is an award for the best one-minute videos (segmented by age levels) explaining how science, technology, engineering, and mathematics can help solve common global problems. Help shape the future. Sign up to be a mentor by October 31, 2003 at <http://vinny.pcs.cnu.edu>. The VINNY award is sponsored by the NASA Center for Distance Learning,

IEEE-EAB NEWS - CONT.

Christopher Newport University, and IEEE. Funding is provided by the IEEE Foundation.

IEEE WORKSHOP: CONNECTING WITH THE PRE-UNIVERSITY COMMUNITY

Sponsored by The IEEE Foundation, IEEE Life Members Committee, IEEE Region 8, this workshop will take place on 26-28th September 2003 in Nice, France. Workshop goals include:

- 1) Empower Region 8 Section "champions" to develop collaborations with their local pre-university community to promote applied inquiry-based learning.
- 2) Enhance the level of technological literacy of pre-university educators.
- 3) Encourage pre-university students to pursue technical careers, including engineering.
- 4) Increase the general level of technological literacy of students for many years.

Who should attend: IEEE volunteers who are interested in engineering education and who want to share experience and practice from their region and who want to learn from others in the same situation.

What will it cost: The workshop is limited to around 35 people. Sections that send an attendee are asked to make a contribution of \$100 from their Section funds to support the workshop. All other costs (travel, meals and accommodation will be covered for by sponsor funding).

Contacts for more information: Doug Gorham, IEEE Pre-college Education manager (D.G.Gorham@ieee.org) or Simon Jones, R8 Educational Activities (s.r.jones@bath.ac.uk).

More Information can be found on the IEEE Houston Section Website!!!

IEEE Election Results for 2004

IEEE Election Results!

The IEEE recently completed the tabulation of the ballots for the 2004 Elections. See the attached website for additional information.

http://www.ieee.org/portal/index.jsp?pageID=corp_level1&path=corporate/elections&file=candidates.xml&xsl=generic.xsl

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IEEE members make change of address notices via the IEEE website: www.ieee.org.

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